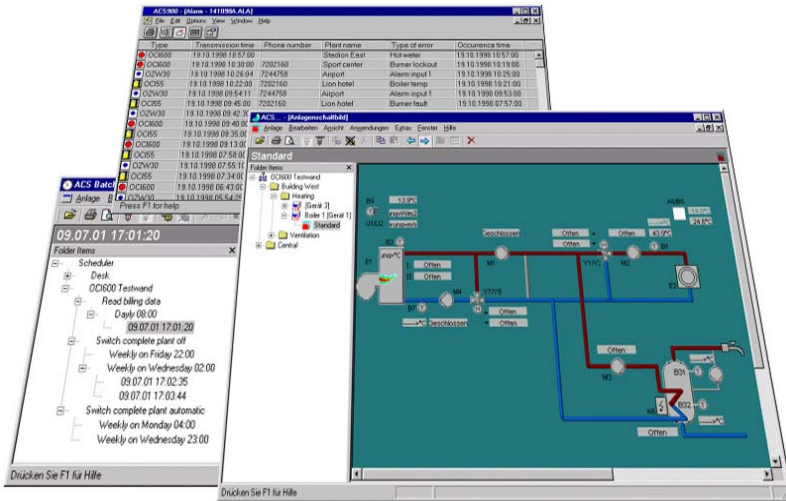


SIEMENS



ACS Plant Operating Software ACS Operating ACS Service Operating Instructions

ACS Operating, ACS Service
Version 7.0
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Building Technologies
HVAC Products

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1 Introduction

1.1 Overview

ACS7... is a PC software package for remote operation, monitoring and commissioning of heating, ventilation and district heating plant, and remote readout of consumption data.

Application

Use:

- Remote management with OZW775 and OZW771 central communication units:
 - Remote operation and monitoring of Synco plant whose devices (primary controllers, individual room controllers, room units) are connected via KNX (Konnex bus)
- Remote management with 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 OZW10 and OZW111 M-bus central units:
 - 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 of radio-based consumption meters from the Siemeca™ AMR system transmitted to the OZW10 M-bus central unit via the M-bus interface of the WTT16 network node
- Diagnostics and commissioning of LPB controllers with OCI69 and OCI700 service interfaces
- Diagnostics and commissioning of KNX controllers with OCI700 service interface
- Reception of alarms from plant using the OZW30 and OCI55

Among other items, the ACS7... software package contains the 2 following programs a description of which is given in the present Operating Instructions:

- ACS Operating: Operating software
- ACS Service: Service software

Programs also included in the ACS7.. software package:

- ACS Batchjob: Batchjob software
- ACS Alarm: Alarm software

Functions

Depending on the selected type of ACS7... software package, the Operating software and Service software contain the following applications:

- **Plant diagram:** Visualization and remote operation of data points with graphic display of plant
- **Popcard:** Visualization and remote operation of all transmitted data points of the connected devices
- **Online trend:** Acquisition and presentation of the dynamic behavior of selected data points with connection to the plant
- **Offline trend:** Acquisition and presentation of the dynamic behavior of selected data points without connection to the plant
- **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
- **Commissioning report:** Logging the setting values of individual devices, device groups or the entire plant

If this is the first time you work with the ACS Operating or ACS Service software, we recommend you to proceed with chapter The first steps.

1.2 System requirements

System requirements

<i>PC component</i>	<i>Minimum requirements</i>
Processor	Pentium-compatible 300 MHz, recommended 600 MHz
RAM	128 MB Recommended 128 MB
Hard disk	1.9 GB available memory (Windows XP) 2 GB with 1 GB available memory (Windows 2000) Recommended: Additional 20 MB available memory per plant
Screen	VGA standard driver 800 x 600, 256 colors Recommended: SVGA standard driver 1028 x 768
Ports	USB 1.1 and higher or Serial COM, up to 19,200 Baud (either directly or via modem) Parallel port for copy protection
Operating system	Windows XP, service pack 1 Windows 2000, service pack 3
Diskette drive	3½", 1.44 MB, for diskette with license file
CD-ROM or DVD drive	

1.3 Languages

Language

When starting the ACS..., you can select the **language** you wish to use. You can also decide whether or not you want to see the dialog for selecting the language each time the program is started up.

If the **Language / Sprache** window does not appear when starting up the ACS..., select the "Tools" menu – **Language selection on startup**. In that case, when closing the ACS... and starting up again, the dialog for selecting the language will appear again.

1.4 Installing the software

Installation

The procedure for installing the ACS7... software package is described in the ACS7... Installation Instructions, which are included in the package with the CD.
For information about commissioning the software, refer to chapter The first steps.

1.5 Licensing

1.5.1 Overview of licensing

Delivery

The ACS Operating software is a scalable program. Pursuant to the license, certain functions are available, other functions are permanently disabled, and the maximum plant size is limited. The functions currently available can be viewed on the "Tools" menu – **Licensing**. The dialog on the screen enables you to remove or extend a license.

The license for the dongle is stored on the license diskette. Dongle and license diskette constitute part of the scope of delivery of the ACS7... software package. The ACS700 contains neither the dongle nor the license diskette.

For information about extending and removing licenses, refer to the following chapters:

- Extending a license
- Removing a license

The ACS Service software provides predefined functionality. In contrast to the ACS Operating software, the ACS Service software cannot be used for making modem connections.

With both programs, the number of plants are unlimited.

Service software

Functions provided by the ACS Service software:

The ACS Service software has fixed functionality and is contained in all software packages.

Application	Description
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 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) USB cable (connector type A to B)

Operating software

Functions provided by the ACS Operating software:

The ACS Operating software provides a number of applications, depending on the selected type of software package.

Application	Software package ACS...						Description
	700	712	713	715	741	785	
Plant diagram							Visualization and remote operation of data points with plant graphic
- Standard	-	-	●	●	-	●	Predefined graph and data points of each device
- User-defined	●	●	●	●	●	●	Graph, data points and interconnections as 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
Trend							Acquisition and presentation of dynamic behavior of selected data points
- Online	-	-	-	●	-	●	With connection to the plant
- Offline	-	●	●	●	-	●	With no connection to the plant
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
Commissioning report	-	-	●	●	-	●	Logging the setting values of individual devices, device groups or of the entire plant
Plant navigation							Plant view in the form of a tree structure
- Device view	-	-	●	●	-	●	The view corresponds to the addressing of the devices
- Plant view	-	-	●	●	-	●	The view is determined by the user
Connections							Type of connections
- Directly	●	●	●	●	●	●	With standard null modem cable or standard USB cable (connector type A to B)
- Modem	●	●	●	●	●	●	Via telephone modems

Central units

Functions with central units

The functions depend on the type of central unit and the type of service interface

Function	OZW775	OZW771	OCI600	OCI611	OZW10³	OZW111	OCI69	OCI700
Plant diagram	●	●	●	●	●	●	●	●
Popcard	●	●	●	●	●	●	●	●
Trend								
- Online	●	●	●	●	●	●	●	●
- Offline	●		●					
File transfer	●		●		●			
Parameter settings	●	●	●	●	●	●	●	●
Plant navigation	●	●	●	●	●	●	●	●

Function	OZW775	OZW771	OCI600	OCI611	OZW10³⁾	OZW111	OCI69	OCI700
Connections								
- Directly	● ²⁾	● ¹⁾	● ¹⁾	● ¹⁾	● ¹⁾	● ¹⁾	● ¹⁾	● ²⁾
- Modem	●	●	●	●	●	●		

- 1) With standard null modem
2) With standard USB cable (connector type A to B)
3) V3.0 or higher

Number of devices

Number of devices per plant

With the ACS Operating software and the Batchjob software, the number of devices per plant are limited. By contrast, the number of devices are unlimited with the Alarm software and the Service software.

To limit the number of devices, a credit is available with each standard package supplied. 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.

Additional credits can be ordered separately.

Software	Credit per type of software package					
	ACS700	ACS712	ACS713	ACS715	ACS741	ACS785
Batchjob software	-	-	-	200	-	3900

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
SONOGYR®, SONOHEAT®	3
Siemeca™ WF.21..., WF.26...	2
Siemeca™ WHE21, WHE36	1
Siemeca™ AEW21.2 and AEW36.2 per input	1
PadpulsM1	1
Third-party devices with own device description	8
Unknown devices without own device description	8

* Only RXB... with KNX logo

1.5.2 Extending a license

Extending a license

To install some other license or to extend an existing license, select the "Tools" menu – **Licensing**. From the **Licensing** dialog, click the **Update** button. For the license to be installed, there must be a dongle fitted to the parallel port and the relevant license diskette must be inserted in drive a:\.

1.5.3 Removing a license

Removing a license

If you wish to remove a license, select the "Tools" menu – **Licensing**. From the **Licensing** dialog, click the **Remove license** button. In that case, the installed software can only be operated with the basic functionality provided by the ACS700.

1.5.4 License diskette

Serial number

The license diskette contains your individual license file with file extension *.key. The serial number of the license diskette must accord with the serial number of the dongle connected to the parallel port.

2 Processes

2.1 Overview of process

This chapter describes the general process when working with the software:

Starting the software:	Describes the way the ACS... is started up.
The first steps:	Describes the process from creating a plant to working with the applications.
Working with connections:	Describes the way connections to plants are prepared, made and closed.
Working with a plant:	Describes working with the plant to which a connection can be established.
Navigating through a plant:	Describes how you can find devices or data points in the various applications.

2.2 Starting the ACS...

2.2.1 Starting the ACS...

Start

Starting up under Windows XP / 2000:

1. Click the **Start** button and then point to **Programs**.
Point to the **ACS** folder which contains the **ACS Operating** program and the **ACS Service** program. Then, select the program you require.
Depending on the type of installation, you can also start the programs directly from your Desktop or via Windows Explorer.
2. After starting the ACS..., the **Language / Sprache** dialog appears, where you can select the language you wish to work with.
3. If this is the first time you start the program, the passwords to be used must be defined next. For more information, refer to chapter Entering the password.
4. Enter the password: Please key in a valid password.
5. If this is the first time you start the program, you need to make a few configurations before you can work with a plant. For more information, refer to chapter The first steps.
If you have already made these configurations and you would like to work with a plant, refer to chapter Processes for working with a plant.

For more information, refer to the following chapters:

Changing the language
Entering the password

2.2.2 Changing the language

Changing the language

The language cannot be changed while the ACS... is running. If you want to change the language, you need to close the ACS... and make a new start.

Procedure:

From the "Tools" menu, select **Language selection on startup** so that the **Language / Sprache** dialog will appear next time the ACS... is started up.

2.2.3 Entering the password

User level

Depending on the password you enter, the system decides on which user level you are allowed to work. The following differentiation is made:

- Administrator: With the administrator password, you can assign passwords to the various user levels – "Tools menu" – **Password....** You can access all data points on the service and enduser levels of the various devices.
- Enduser: The enduser password enables you to access all data points on the enduser levels of the various devices.
- Service: The service password enables you to access all data points on the service and enduser levels of the various devices.
- OEM: The OEM (OEM = Original Equipment Manufacturer, e.g. boiler manufacturer) password enables you to access all data points on the OEM, service and endusers levels of the various devices. The respective OEM password of a device is readily defined.

Password

If such passwords have been preassigned, the **Log on** dialog appears when starting the ACS... , where you need to enter a valid password.

If the program has already been started up, you can also change from one user level to another at a later stage by selecting the "Tools" menu – **Log on....**

2.3 The first steps

2.3.1 The first steps

The first steps

This chapter describes the process from creating a plant to working with the applications.

After starting the ACS..., you see the window with the main menu.

Before a connection to a plant can be opened, you need to perform some preparatory work:

1. Prepare the connection to the plant
2. Create the plant and refresh the device list

Now, you can:

3. Upload and change the data of the devices.
4. Close the connection to the plant again after work with the plant has been completed.

For more information, refer to the following chapters:

- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

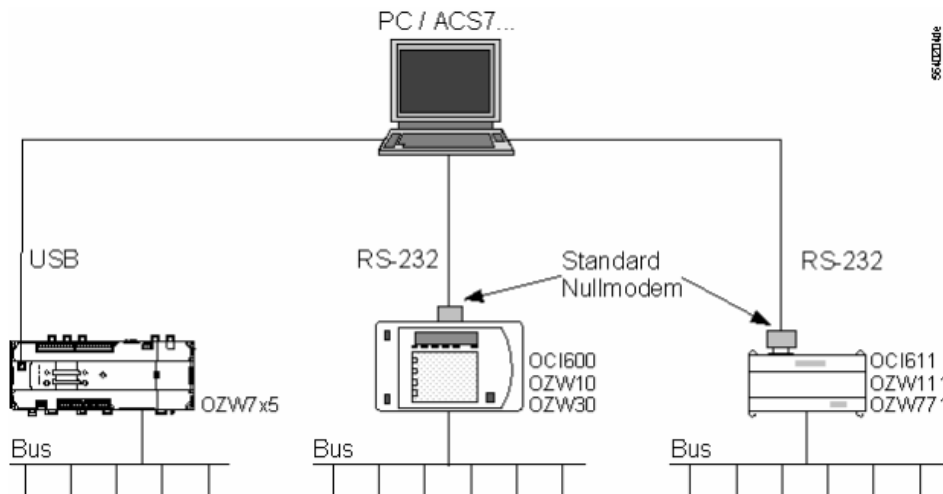
2.3.2 Prepare the connection to the plant

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

Direct connection

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

Direct connection for plant supervision:



Install ACS prior to connecting the OZW775 central communication unit to the PC. When, via USB, the central communication unit is connected to the PC for the first time, Windows detects the new hardware and shows message **Found New Hardware**.

Windows XP:

Then, the **Found New Hardware Wizard** is automatically started. Select **Install the software automatically (recommended)** and confirm your choice by clicking the **Next >** button. Installation of USB driver **Siemens OZW USB Connection** is started. Confirm the warning in the **Hardware Installation** dialog by clicking the **Continue Anyway** button.

Windows 2000:

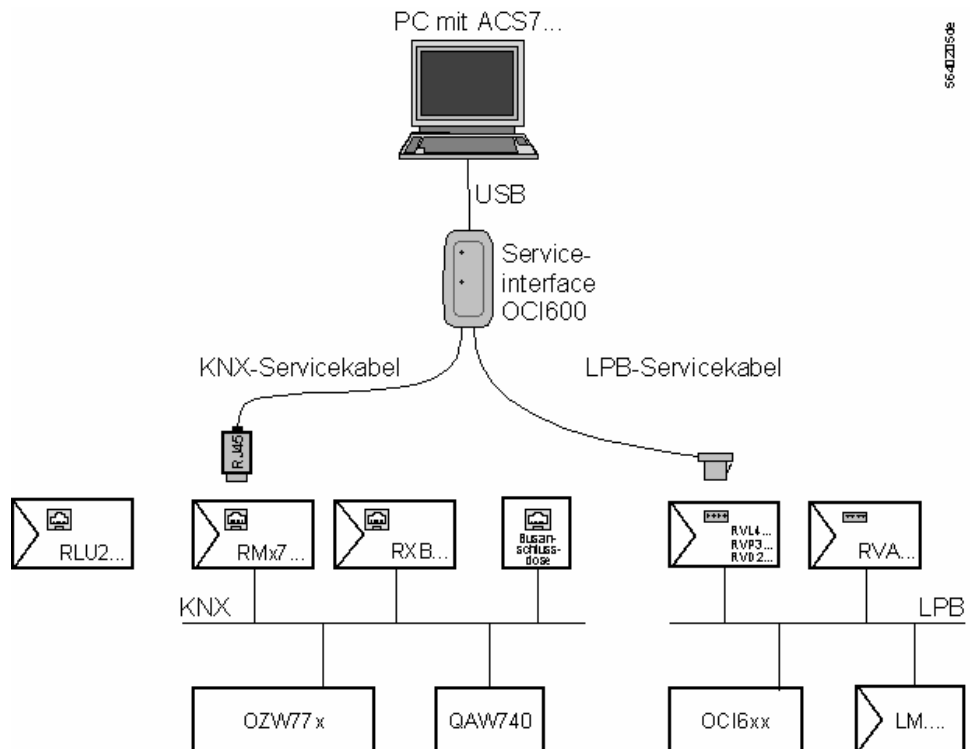
Confirm the question **Do you want to continue the installation?** in dialog **Digital Signature Not Found** by clicking the **Yes** button. Installation of USB driver **Siemens OZW USB Connection** is started.

Installation of the USB driver for the central unit is completed by confirming with the **Finish** button.

If automatic installation is not successfully completed, you can also install the driver manually by using the hardware assistant. During the installation of ACS, the driver was copied to the harddisk under

C:\ACS\CommServer\ACSNet\RNDIS\Siemens_OZW.inf.

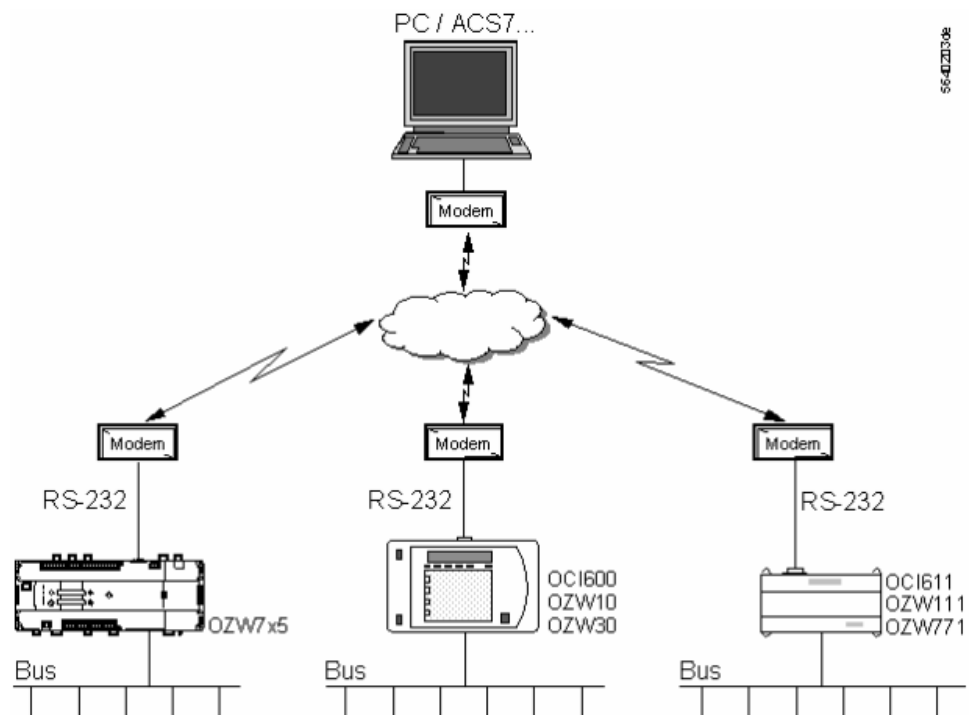
Direct connection for service purposes:



Modem connection

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

Before a modem connection can be established, the central communication unit for modem communication must be parameterized. For detailed information on the subject, refer to the relevant User Manual.



After the central unit and the PC have been connected to the modems, the modem must be configured in Windows under **Start - Settings - Control Panel – Phone and Modem Options**, if this has not yet been done.

From the **Phone and Modem Options** dialog, select **Modems** and follow the instructions for installing the modem driver.

Then, create the plant.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.3.3 Uploading and changing the data of the devices

Uploading and changing

After the creating a plant and refreshing the device list, you can upload, change and log the data of these devices.

For that purpose, from the "Applications" menu, choose **Plant diagram...**, **Popcard...**, **Online trend...**, **Offline trend...**, **File transfer...**, **Parameter settings...** or **Commissioning report...**

After work with the plant has been concluded, the connection to the plant can be aborted again.

For more information about the various applications, refer to the following chapters:

- **Plant diagram:**
Visualization and remote operation of data points with graphic display of plant.
- **Popcard:**
Visualization and remote operation of all transmitted data points of the connected devices.
- **Online trend:**
Acquisition and presentation of the dynamic behavior of selected data points with connection to the plant.
- **Offline trend:**
Acquisition and presentation of the dynamic behavior of selected data points with no connection to the plant.
- **File transfer:**
Transmission and storage of the files of the central units and memory cards.
- **Parameter settings:**
Uploading and editing the setting parameters of a device in tabular form.
- **Commissioning report:**
Logging the setting values of individual devices, device groups or the entire plant.

For more information, refer to the following chapters:

- The first steps
- Working with connections

- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.3.4 Aborting the connection to a plant

Aborting the connection

From the "Plant" menu, select **Connection off** to abort a connection to a plant.

You can also abort a connection to the plant by using the following button:



For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.4 Working with connections

2.4.1 Working with connections

Preparing a connection
Establishing a connection
Aborting a connection

For more information, refer to the following chapters:

- The first steps
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

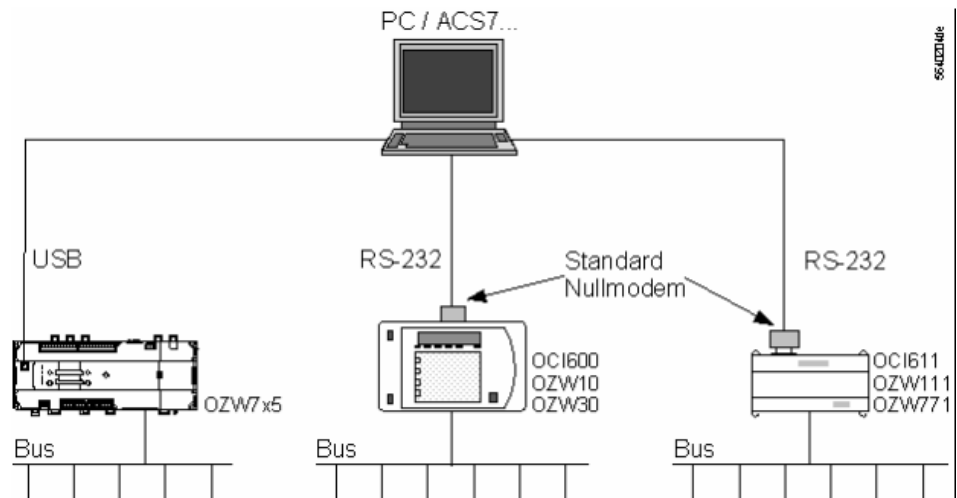
2.4.2 Preparing a connection

The communication to the central units can take place either directly or via modem.

Direct connection

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

Direct connection for plant supervision:



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Windows XP:

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Windows 2000:

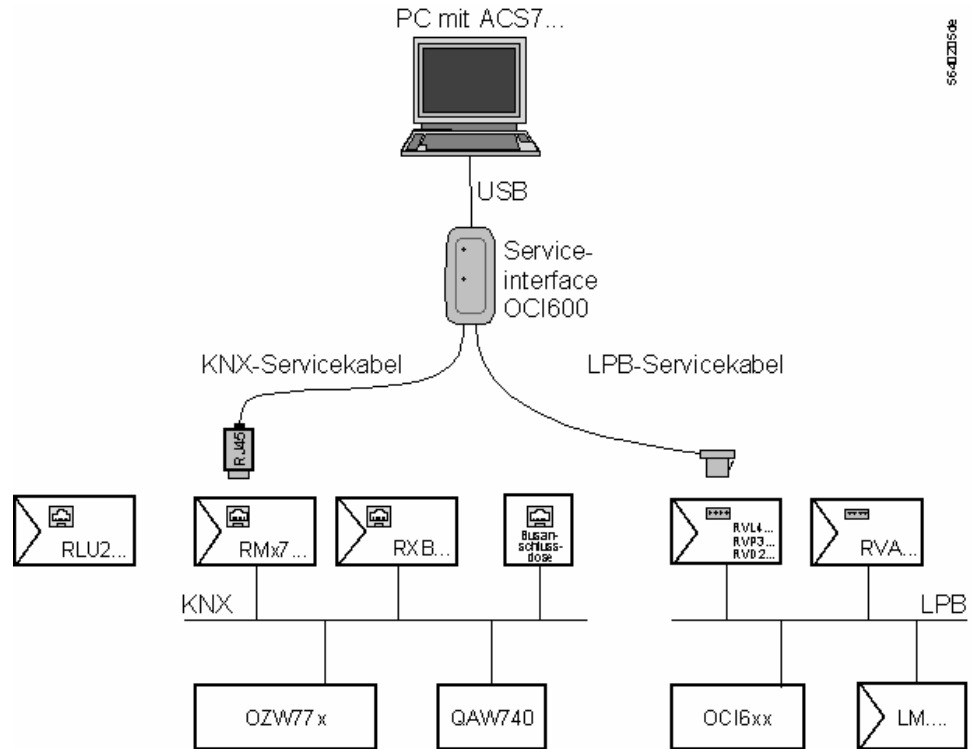
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Installation of the USB driver for the central unit is completed by confirming with the **Finish** button.

If automatic installation is not successfully completed, you can also install the driver manually by using the hardware assistant. During the installation of ACS, the driver was copied to the harddisk under

C:\ACS\CommServer\ACSNet\RNDIS\Siemens_OZW.inf.

Direct connection for service purposes:

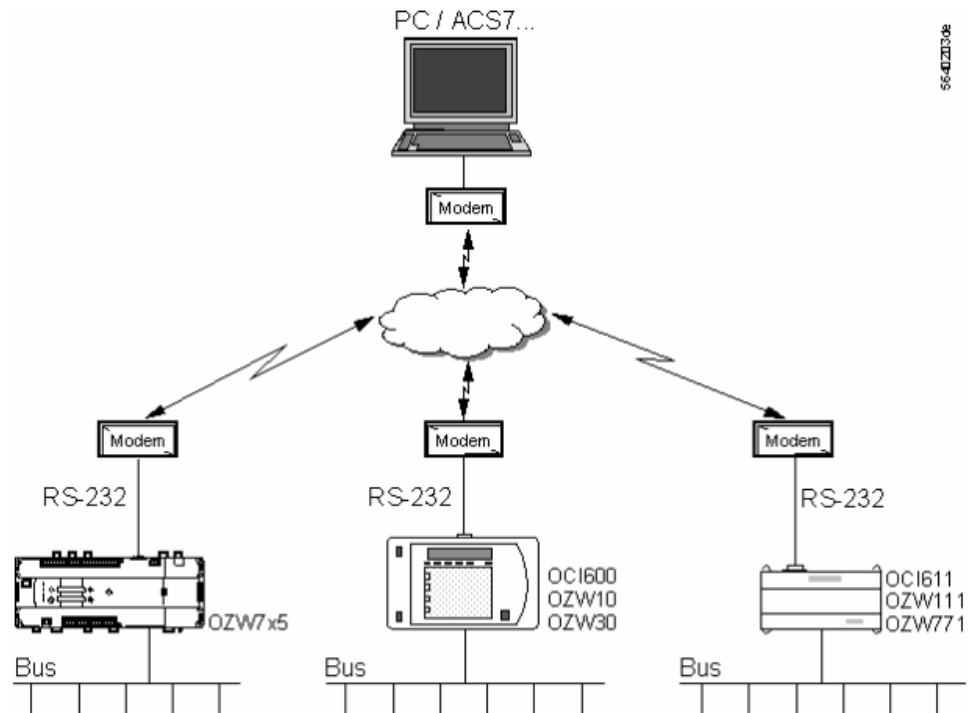


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Modem connection

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

Before a modem connection can be established, the central communication unit for modem communication must be parameterized. For detailed information on the subject, refer to the relevant User Manual.



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After the central unit and the PC have been connected to the modems, the modem must be configured in Windows under **Start - Settings - Control Panel - Phone and Modem Options**, if this has not yet been done. From the **Phone and Modem Options** dialog, select **Modems** and follow the instructions for installing the modem driver.

Then, the plant can be created.

For more information, refer to the following chapters:


- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.4.3 Establishing a connection

Plant file

Before a connection to a plant can be established, a plant file must have been created on the PC. That file must contain all data relating to the connection: For detailed information, refer to chapter Creating a plant.

To establish a connection to a plant, select the "Plant" menu – **Connection on**. The connection will be established. If the connection cannot be opened, check the settings according to chapters Preparing a connection and Creating a plant.

You can also establish a connection to the plant by using the following button: 


For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.4.4 Aborting a connection

Aborting a connection

From the "Plant" menu, select **Connection off** to abort a connection to a plant.

You can also abort a connection to the plant by using the following button: 

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5 Working with a plant

2.5.1 Working with a plant

Plant file	<p>For every plant, the program generates a plant file. The properties of that plant can be changed, or the plant file can be deleted again. For more information, refer to the following chapters:</p> <ul style="list-style-type: none">• Creating a plant• Opening a plant• Deleting a plant• Plant properties
Updating the device list	<p>After the plant has been created and the connection to the plant has been established, the information about the devices contained in the plant must be transferred to the PC:</p> <ul style="list-style-type: none">• Updating the device list
Views	<p>The generated device list can be used for navigating through the plant by means of the device view. For more convenient navigation, it is also possible to generate a user-defined plant view:</p> <ul style="list-style-type: none">• Editing the plant view <p>For more information, refer to the following chapters:</p> <ul style="list-style-type: none">• The first steps• Working with connections• Navigating through a plant• Working with the devices• Applications

2.5.2 Creating a plant

Creating a plant	<p>If this is the first time you work with the program, you can select where the plant file shall be saved. Select the "Tools" menu – Options... and change the Default plant path. In the future, new plants will then always be saved in that directory and existing plants opened from there. We recommend to leave that path unchanged.</p> <ol style="list-style-type: none">1. Select the "Plant" menu – New – Plant... to create a new plant.2. The Save As dialog is opened: Enter the required File name of the plant file and continue with Save.3. The Plant properties dialog is opened where you can enter the description of the plant and the communication parameters.4. Since the plant file does not yet contain any devices, dialog Refresh device list? appears now. Click the YES button. Then, a connection to the plant is opened and the device list updated. The plant file is now completed. In the future, all information about the plant will be saved in the plant file. When an application is open, the name of the plant file appears beneath the toolbar. <p>Now, you can upload and change the data of the devices.</p> <p>For more information, refer to the following chapters:</p> <ul style="list-style-type: none">• The first steps• Working with connections• Working with a plant• Navigating through a plant• Working with the devices
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- Applications

2.5.3 Opening a plant

Opening a plant

All information about the plants is stored in the plant files.

- A. Select the "Plant" menu – **Open...** to open existing files. A dialog appears showing all existing plants saved on the plant path. Select the "Tools" menu – **Options...** to define the plant path and change the **Default plant path**.
- B. The "Plant" menu shows the 4 plant files opened last. These plant files can be opened directly via the respective menu items.

When starting the ACS..., the plant opened last is automatically opened.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5.4 Deleting a plant

Deleting a plant

All information about the plant is stored in the plant file. Select the "Plant" menu – **Delete** to delete that file.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5.5 Plant properties

Plant properties

All information about the plant is stored in the plant file, including a description of the plant and of the communication parameters.

Select the "Plant" menu – **Plant properties...** to change these settings.

The **Plant properties** dialog is opened: The plant name that corresponds to the file name for the plant file appears under **General**. You can enter a **Description** of the plant.

Accept the input with the **Continue >** button and, under **Communication**, select the **type of central unit** to which you want to establish a connection. The type of central unit can only be selected when creating a new plant.

Central unit

Depending on the type of central unit, additional entry boxes appear which you can change now:

- **Code number** (OZW775, OZW771, OCI600, OCI611, OZW10, OZW111): Access to a central unit can be protected by a code number. The code number is stored in the central unit: For detailed information, refer to the central unit's Operating Manual. To establish a connection to the central unit, the code number in the central unit and that in the PC must accord. In that box, enter the code number of

the PC. When supplied, central units carry standard code number 01.

Note: The code number must always start with a zero, e.g. 01.

- **Connection** (OZW771, OCI600, OCI611, OZW10, OZW111, OCI69): All possible connections will be listed. For a direct connection, select the COM or USB port to which the central unit was connected. For a modem connection, select the installed modem via which the connection shall be established. The relevant preparatory steps are described in chapter Prepare the connection to the plant.
 - **USB** (OZW775): For a direct connection to the PC
 - **Modem** (OZW775): For a modem connection to the PC
- **Phone no. plant** (OZW775, OZW771, OCI600, OCI611, OZW10, OZW111): This is the phone no. under which the central unit can be reached via modem. For direct connections not made via modem, there is no need to enter a phone no.. Please ensure that you do not forget the exchange code, the area code or other parts of the phone no.
- **Return call** (OZW10): When you select the return call, first the connection to the central unit is opened. Then, the connection is cut and the central unit makes a return call. The largest part of the telephone charges are billed in this way. For direct connections, the return call should be disabled
- **Switch box type** (in preparation for OZW771, OCI600, OCI611, OZW10, and OZW111): When you select a switch box type, several central units of the same type can be addressed via one connection
- **Switch box port** (in preparation for OZW771, OCI600, OCI611, OZW10, and OZW111): After having selected a switch box type, you can define the port to which the central unit was connected
- **Search area** (OCI700 - KNX): The device list can be updated more quickly if the search area is confined. The following settings are available:
Konnex bus system:
 - **Device at OCI700:** Only the device connected directly to the OCI700 will be included in the device list. If the OCI700 is connected via a bus conduit box, none of the devices can be identified
 - **Line at OCI700:** The devices acquired are all those that belong to the same line as the device to which the OCI700 is connected. KNX line couplers will not be included in the device list
 - **All lines:** All devices of the system will be included in the device list. Note: If access to other lines is restricted by KNX line couplers, devices from such lines cannot be acquired

After the entries have been made, you can close the dialog by clicking the **OK** button.

The settings made in the dialog can be changed at any time via the "Plant" menu –

Plant properties...


For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5.6 Updating a device list

Updating a device list

After the plant has been created and the connection to the plant has been established, the information about the devices contained in the plant must be transferred to the PC. If this has not yet been done after creating a plant or if, in the meantime, the plant has been changed, proceed as follows:

1. Select the "Plant" menu – **Refresh device list**:. The program uploads to the PC all plant data available in the central unit.
2. Check to ensure that all devices are contained on the device list:
 - A. Check to ensure that the device view is currently in use: "View" menu – **Device view**.
 - B. Start the "Popcard" application via the "Applications" menu – **Popcard...**
 - C. In the **Popcard** window, the **Device view** to the left shows you the devices available in the plant:
Check now if you can find all devices and if the device type has been correctly identified (identifiable by the symbol). Depending on the type of central unit, the device view is structured in the form of a tree: The nodes (branches) can be opened or closed by clicking + / -. Only then will be devices become visible.
 - D. Devices that have been replaced since the device list was last updated are identified by the  symbol. You can remove such devices by clicking on them with the right mouse button and selecting **Delete**.

Note: The data uploaded contain information about the type of device and the selected plant diagram. Based on this information, the applications will automatically show pictures and data points. If you change the plant diagram of a device, you must transfer the new information to the PC: This takes place via the "Plant" menu – **Refresh reference data points**.

When all devices are listed, you can upload and change data of devices and work with other applications of a plant.

If you wish to make use of more convenient navigation through the plant, refer to chapter Editing a plant view , where you will find more detailed information.

If not all the devices appear, the missing devices have not been identified by the central unit, which means that they have not been entered in the central unit's user directory. Entry of the devices in the user directory depends on the type of central unit:

OCI700-LPB, OCI69

- OCI700 - LPB, OCI69: These service interfaces have no device list. For this reason, the ACS... software searches for the existing devices on the bus

OCI700-KNX

- OCI700 - KNX: The service interface has no device list. The ACS... software searches for these devices, depending on the selected search area

OCI600

- OCI600: In the device view, open node **Device type central unit, 0 – Segment 0 – Device: x – Standard – Device directory** and enter the name, device number and segment number in the right half of the window. Note: It may take up to 10 minutes for the OCI600 to identify the parameterized device

OCI611

- OCI611: To create the device directory, there are 3 choices:
 - A. Press the LPB button on the OCI611 for 6 seconds to start the device search run. Note: The search run is completed only when the relevant LED on the OCI611 stops flashing.
 - B. In the device view, open node **Device type central unit, 0 – Segment 0 – Device: x – Standard – Device directory** and enter the name, the device number and the segment number in the right half of the window. Then, set data point **Update device data** to **On**. Note: The OCI611 has identified all devices only when data point **Update device data** switches automatically back to **Off**.
 - C. On the page mentioned under B, you can also start the device search run by setting data point **Create device list** to **On**. Note: The search run is completed only when the relevant LED on the OCI611 stops flashing.

OZW10

- OZW10: In the device view, open node **Device 000 – Standard – Setup M-bus**. Select the **Addressing mode on the M-bus** and **Baud rate on the M-bus** you want to use to search for devices on the M-bus. Set data point **Delete device list** to

Yes. Select the **Number of M-bus devices** that shall be found on the M-bus (excluding the central unit). The OZW10 now starts the device search run. Note: The search run is completed only when the **Number of M-bus devices (actual)** is identical to the **Number of M-bus devices** (expected number). In the case of larger M-bus systems, this process may take any time from several minutes to one hour. The device list can be manually edited with the help of ACS . New devices can be entered on the device list and downloaded to the device directory of the central unit. Existing devices can be deleted.

OZW111

- OZW111: To create the device directory, there are 2 choices:
 - A. Press the M-bus button on the OZW111 for 6 seconds to start the device search run. Note: The search run is completed only when the relevant LED on the OZW111 stops flashing.
 - B. In the device view, open node **Device 000 – Standard – Setup M-bus** with ACS Operating or ACS Service and start the **device search run** by setting it to **On**. Note: The search run is completed only when the relevant LED on the OZW111 stops flashing.

OZW771

- OZW771: For the generation of the device list, 3 variants are available:
 - A. Press the Konnex bus button on the OZW771 for 6 seconds to start the device search run. The green LED is off until the search run is completed. Then, it flashes 3 times.
 - B. In the device view, open node **(Area x –) Line y – Device z – Standard – Commissioning - Device list** and set data point **Device n** to **Active**. Then, select from the device view the newly created node **Device n** and enter the **Network address** in the right half of the window. Then, set data point **Update device information** to **Yes**. Note: OZW771 has identified all devices only after data point **Update device information** switches automatically to the **No** status.
 - C. On the page mentioned under point B, you can alternatively start the device search run by setting data point **Create device list** to **Yes**. The green LED is off until the search run is completed. Then, it flashes 3 times.

Note: Creation of the device list with the help of the search run is recommended only if the number of Synco devices does not exceed the maximum number of devices that can be connected to the central communication unit (4, 10 or 64, depending on the type of central unit).

OZW775

- OZW775: Close all applications and select “Plant” menu – **Edit device list....** In the tree view on the left, open the node of the plant and select the central unit. The list with the devices of the central unit appears on the right. Now, click on the central unit with the right mouse button and select **Edit device list**. The central unit will then automatically search for devices contained on the same KNX line to list them in the window on the right. Then, the data of the devices will automatically be transferred to the PC.

Note: Use of the **Edit device list** function is recommended only if all the devices to be connected are on the same KNX line and if the number of Synco devices on the same line as the central communication unit do not exceed the maximum permissible number of devices of the central unit (150).

The device list can be edited manually with the help of ACS. New devices can be entered on the device list and downloaded to the central unit’s user directory. Existing devices can be deleted.

If, at a later point in time, you change the address of a device, or you add a new device to the plant, you need to revise the central unit’s user directory.

For more detailed information about the structure of the user directory in the central units, refer to the documentation of the central unit or the Basic Documentation of the respective system.

If a central unit cannot find a device, it may well be that no bus address has been set on the device, that the set address is already used by some other device, or that the communication from the central unit to the device is interrupted.

For information about setting the device's bus address, refer to the installation instructions of the respective device.

For information about fault tracing in the bus system, refer to the Basic Documentation of the respective system or to the documentation of the central unit.

If the user directory in the central unit has been revised, you must again transfer the data of the devices in the plant to the PC: Select the "Plant" menu – **Refresh device list**.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5.7 Editing a device list

The device lists of Synco plants with the OZW775 central unit, the OCI700 service interface and of plants with OZW10 M-bus central units can be edited with ACS.

OZW775

OZW775:

In the case of Synco plant connected to the OZW775 central communication unit, the device list can be edited either manually or automatically. Close all applications, establish a connection to the plant and update the device list. Then, select the "Plant" menu – **Edit device list....** The **Edit device list** application appears. In the tree view on the left, open the node of the plant and select the central unit. The list with the available devices of the central unit appears on the right.

Manual entry of devices:

1. Click in the right half of the window with the right mouse button and select **Add devices**. Dialog **Insert devices** appears.
2. Click the **Add device** button. In dialog **Add / change device**, enter the **Area**, the **Line** and the **Device address** of a new device and confirm by clicking the **Add** button.
3. Repeat these steps with the other new devices.
4. After having entered all required devices, click the **Cancel** button. All acquired devices then appear in the **Insert device** dialog.
5. Download the device list to the central unit by clicking the **Write device list** button. Then, the data of the devices will automatically be transferred to the PC.

Automatic acquisition of devices:

- In the tree view on the left, click with the right mouse button on the central unit and select **Create device list**. Now, click on the central unit with the right mouse button and select **Edit device list**. The central unit will then automatically search for devices contained on the same KNX line to list them in the window on the right. Then, the data of the devices will automatically be transferred to the PC.

Note: Use of the **Create device list** function is recommended only if all the devices to be connected are on the same KNX line and if the number of Synco

devices on the same line as the central communication unit do not exceed the maximum permissible number of devices of the central unit (150).

Deleting devices:

- To delete devices, click with the left mouse button in the right half of the window on all devices to be deleted and use the right mouse button to select **Delete devices**. After that, the devices on the central unit will be deleted first, then those on the PC

Updating the device data:

- If you have changed device data (e.g. the plant diagram) locally (e.g. via the OCI700), you need to update the data on the PC. For the entire plant, click in the left tree view on the central unit with the right mouse button and select **Refresh reference data points**. For individual devices, use the right mouse button to select in the right half of the window the device and then **Refresh reference data points**. The device data will then automatically be transferred to the PC.

OCI700-KNX

OCI700 - KNX:

In the case of Synco plants connected via the OCI700 service interface, the device list can be edited in a number of ways. For that, first establish a connection to the plant and refresh the device list. Then, select the "Plant" menu – **Edit device list....** Dialog **Edit device list** appears with all devices presently on the device list.

The devices on the device list appear in several columns. The individual columns have the following meaning:

Column	Description
Device name	The device name can be assigned together with the network address. Display if no device name has been entered: Device n
Network address	KNX bus address: Area.Line.Device address
ID	Unambiguous KNX serial number from production
Type	Device type, e.g. RMU710
Status	OK: restricted communication Address not defined: Factory setting, restricted communication only Address conflict: Some other device communicates with the same network address Not found: Device has been removed

Devices with status **Address not defined**, **Address conflict** or **Not found** are highlighted in red.

Note: Only Synco devices, RXB and KNX line couplers will be included on the device list, depending on the selected search area. The functions described here are not possible with other KNX devices.

Manual addressing

Manual addressing:

Each of the devices on the device list can be assigned an address and a device name:

1. Click with the left mouse button on the required device. The device will be highlighted in blue.
2. Select *Address assignment* - button **Manually....** Dialog **Address assignment** appears.

Note: Button **Manually...** is available only if exactly one Synco device has been highlighted in blue. No address can be manually assigned to KNX line couplers.

3. Enter a free **Device address**. Both **Area** and **Line** cannot be changed. They will automatically be adopted from the KNX line coupler if such a coupler exists.
4. The device can be assigned a **Device name**.
5. Confirm the entry by clicking the **Write** button.

Automatic addressing

Automatic addressing:

Automatic address assignment can be made for those devices on the device list that have an address problem. An address problem exists when a device has no address yet (device address 255), or when there is an address conflict with some other device:

1. Highlight the devices with address problem by clicking the **address problem** button. Devices with an address problem are highlighted in blue.
2. Select *Address assignment* - button **Automatically**. A valid device address will automatically be assigned to all highlighted devices.
Note: Button **Automatically** will only be available if at least one device has been highlighted.
3. When successfully completed, the device list will be updated in the Edit device list dialog. Check with the help of columns **Network address** and **Status** if all devices have a valid address and the **OK** status.

Programming mode

Addressing with programming mode:

For Synco devices and KNX line couplers, addresses can be assigned on an individual basis via addressing mode.

1. Set the required device to addressing mode.
2. Select *Address assignment* - button **Programming mode...**. Dialog **Address assignment** appears.
3. Different entries are required for Synco devices and KNX line couplers. Button **Programming mode...** is available only when exactly one device is in addressing mode.
Synco devices: Enter a free **Device Address**. Both **Area** and **Line** cannot be changed.
KNX line couplers: Enter **Area** and **Line**. The **Device address** cannot be changed.
4. Confirm the entry by clicking the **Write** button.

OZW10

OZW10:

On plant with OZW10 M-bus central units, the device list can be edited manually. In the case of larger plant, the commissioning time can thus be considerably shortened in comparison with the automatic search run, if only individual devices shall be added or deleted. In certain cases, radio-based consumption meters from the Siemeca™ AMR system that shall be connected to the OZW10 M-bus central unit via the M-bus interface of the WTT16 network node can only be added by using this function.

To edit the device list, you must first establish a connection to the plant and then select refresh device list. Then, select the "Plant" menu – **Edit device list**. The **Edit device list** window will appear.

Entering devices

Entering devices:

To add devices to the OZW10 M-bus central unit or the WTT16 network node, proceed as follows:

1. If you want to add devices to the WTT16 network node, first log on at the network node. Only devices connected to the M-bus can be added to the WTT16 network node.

2. Add the devices: Enter the devices you want to manually add to the device list of the OZW10 M-bus central unit or the WTT16 network node on a temporary list.
3. Download the device list: Transfer the devices entered on the list to the device list of the OZW10 M-bus central unit or the WTT16 network node.
4. If you have logged on at the WTT16 network node, you can now log out again.

Deleting devices

Deleting devices:

To delete devices of the OZW10 M-bus central unit or the WTT16 network node, proceed as follows:

1. If you want to delete devices in the WTT16 network node, you need to log on at the network node. The only devices you can delete in the network node are those connected to the M-bus.
2. Delete the devices that do not exist any more.
3. If you have logged on at the WTT16 network node, you can now log out again.

Logging on

Logging on at the WTT16 network node:

In the **Edit device list** window, use the left mouse button to click in the left half of the window on the WTT16 network node where you want to add devices. Use the right mouse button to click in the left half of the window and select **Radio network - Log in**. Window **Log in radio network** appears. To be able to add devices, you need to log in as the administrator. For more information about user administration of the WTT16 network node, refer to the documentation covering the Siemeca™ AMR system. After having made the entry, confirm by clicking the **OK** button.

Adding devices

Adding devices:

In the **Edit device list** window, use the left mouse button to click in the left half of the window on the device where you want to add devices. The devices available for selection are the OZW10 M-bus central unit and the WTT16 network node. Use the right mouse button to click in the right half of the window and select **New – Devices...**. Window **Insert devices** appears. Click the **Add device** button. Now, you can make entries in the fields **M-bus address**, **Device type**, **Customer number**, **Manufacturer code**, **Medium**, **SW version** and **Baud rate**. If the M-bus address or the type of device has been correctly preselected, it is only the required entry field that appear. The **Add** button allows you to transfer the devices to a temporary list which you can then download to the OZW10 M-bus central unit or the WTT16 network node. If you do not want to add additional devices, click the **Cancel** button.

Writing the device list

Writing the device list:

You can download the list with the devices you want to add to the OZW10 M-bus central unit or the WTT16 network node by clicking the **Write device list** button. It is only now that the devices are entered on the device list. The OZW10 checks whether the addresses of the manually entered devices are correct. If there are address conflicts, the devices will not be accepted. All devices transferred to the OZW10 M-bus central unit or the WTT16 network node will be removed from the temporary list.

Deleting devices

Deleting devices:

In the **Edit device list** window, use the left mouse button in the left half of the window to select the device you want to delete. Use the right mouse button to click in the left half of the window and select **Delete device**. The device will be deleted. After having selected a WTT16 network node, all devices connected to the network node will be deleted. The network nodes not connected to the M-bus cannot be

deleted. Remove these network nodes using the documentation covering the Siemeca™ AMR system and upload the Device list.

Logging out

Logging out from the WTT16 network node:

When you have logged in at the WTT16 network node, you can log out again to prevent unauthorized access. In the **Edit device list** window, use the left mouse button to click in the left half of the window on the WTT16 network node from which you want to log out. Then, click with the right mouse button in the right half of the window and select **Log out**.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.5.8 Editing a plant view

This function is not contained in all ACS7.. software packages. For more information, refer to chapter Licensing.

After the data of the devices contained in the plant have been transferred to the PC and the devices have been identified, you can navigate through the plant in the various applications using the device view ("View" menu – Device view).

Editing a plant view

If you wish to make use of more convenient navigation through the plant, you can create your own navigation tree which will enable you to access devices and data points faster and more straightforwardly. Select the "Plant" menu – **Edit plant...**

Then, the **Edit plant** window is opened:

- In the left half of the window, you find the **Plant view** created by you: It consists of nodes (branches) where you have added nodes or devices of the plant
- In the right half of the window, you find all devices that were found when updating the device list and that have not yet been entered in the plant view: **List of non assigned devices**.


To change the **Plant view**, proceed as follows:

1. To add nodes (branches), use the left mouse button to click on the node where you want to insert a subnode. A menu appears, where you select **Insert node...**
2. To assign a device to a node, press the left mouse button to click on the respective device on the **List of non assigned devices**. Hold the left mouse button down and drag the device to the node in the **Plant view** where you want to add the device. The device will be assigned to the node by releasing the left mouse button. You can sort the devices on the **List of non assigned devices** by clicking on one of the column heads.
3. To move a device to some other node, use the left mouse button to click on the respective device in **Plant view**. Hold the left mouse button down and drag the device to the node in **Plant view** to which you want to assign the device. The device is assigned to the node by releasing the left mouse button.
4. To delete a device or node, select the element you want to delete. Use the right mouse button and select **Delete** or press the **DEL** key. If the selected object is not a device, it will be removed.



- For this command, you can also use the following button:
5. To assign some other name to a node or device, select the element you want to rename. Use the right mouse button and choose **Properties...** In the dialog that

appears, the name of the node or the description of the device can be changed.

For this command, you can also use the following button: 

After the plant view has been created, it can be used for navigating through the applications: "View" menu – **Plant view**.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

2.6 Navigating through a plant

2.6.1 Navigating through a plant

Plant view




Device view

Select devices or data points from the various applications. To find the devices of a plant, you have 2 choices:

- You work with the plant view, if you would like to use navigation matched to your individual needs
- You work with the device view, if you would like to use bus addressing as a guide, or if the creation of a plant view is not worth the effort

You can print the device view and the plant view.

For navigating through a plant, you can also use the following buttons:

	Back: The node selected last appears
	Forward: Reversal of action Back
	One level higher: The node at the next higher level will be selected

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Working with the devices
- Applications

2.6.2 Navigating with a plant view

This function is not contained in all ACS7.. software packages. For more information, refer to chapter Licensing.

Plant view

The plant view is a self-created navigation tool designed to find devices and data points in a plant. For information about the creation of a plant view, refer to chapter Editing a plant view.

To navigate with the plant view, select the "View" menu – **Plant view**:

The plant view has a tree structure: Nodes (branches) of the tree can be opened or closed by clicking + / - . Devices are displayed with special self-explanatory symbols.

For more information, refer to the following chapters:

- Navigating with a device view
- Printing a device and plant view
- The first steps
- Working with connections
- Working with a plant
- Working with the devices
- Applications

2.6.3 Navigating with a device view

The device view is a navigation tool designed to find devices and data points in a plant. It is automatically provided after updating the device list.

Device view

To navigate with the device view, select the "View" menu – **Device view**:

The device view is a predefined tree structure: Nodes (branches) of the tree can be opened or closed by clicking + / - . Devices are displayed with special self-explanatory symbols.

For more information, refer to the following chapters:

- Navigating with a plant view
- Printing a device and plant view
- The first steps
- Working with connections
- Working with a plant
- Working with the devices
- Applications

2.6.4 Printing a device view and a plant view

Depending on whether you currently navigate with the plant view or navigate with the device view, you can print the respective tree structure:

Procedure:

Print plant report






- A. Select the "Plant" menu – **Print plant report....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the printer or click the following button:



Preview plant report

- B. Select the "Plant" menu – **Preview plant report....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

<i>Button</i>	<i>Function</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view

	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can choose the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

For more information, refer to the following chapters:

- Navigating with a plant view
- Navigating with a device view
- The first steps
- Working with connections
- Working with a plant
- Working with the devices
- Applications

2.7 Working with the devices

2.7.1 Working with the devices

For every plant, a plant file must be created:

- Working with a plant

Update a device list

After the plant has been created and the connection to the plant has been established, the information about the devices contained in the plant must be transferred to the PC:

- Update a device list

Device description

Now, the devices contained in the plant are stored in the plant file. The program knows all devices installed in the plant. There is automatic identification as to which device types are installed and which plant diagram has been selected on the device. The program supplied also contains a device description of each device. Based on the information given in the device description, the program automatically knows:

- The data points contained in a device
- Whether a data point can be read or written
- The possible setting values for a data point and the data point's default value when the device was supplied
- How operating pages must be presented in the "Popards" application
- The diagram and data point that shall be presented in the "Plant diagram" application
- Which data points of the "Parameter set" application are connected with the Wizard
- The data points for editing that can be selected in the various applications

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Applications

3 Applications

3.1 Applications

The ACS... provides the following applications:

Applications

- **Plant diagram:**
Visualization and remote operation of data points with a graphic display of the plant.
- **Popcard:**
Visualization and remote operation of all transmitted data points of the connected devices.
- **Online trend:**
Acquisition and presentation of the dynamic behavior of selected data points with connection to the plant.
- **Offline trend:**
Acquisition and presentation of the dynamic behavior of selected data points with no connection to the plant.
- **File transfer:**
Transmission and storage of the files of the central unit and of the memory cards.
- **Parameter settings:**
Uploading and editing the setting parameters of a device in tabular form.
- **Commissioning report:**
Logging the setting values of individual devices, device groups or the entire plant.

From the "Tools" menu – **Options...**, section **Startup application**, select which of the above applications shall be opened right after starting the ACS...

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices

3.2 Plant diagram

3.2.1 Introduction to the "Plant diagram" application

This application is not contained in all ACS7.. software packages. For more information, refer to chapter Licensing.

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

- Data point values are automatically updated in the diagram
- Setpoints can be changed in the diagram
- With user-defined diagrams, links to other diagrams can be established

Standard plant diagram

A library with standard plant diagrams is assigned to each device type. For all supported plant diagrams, that library contains:

- The graphic display
- The data points to be displayed
- The text to be displayed

The application identifies the selected plant type, automatically assigns the standard plant diagram and displays the current values.

User-defined plant diagram

A user-defined plant diagram can be created for each device:

- By adopting and adjusting the standard plant diagram
- By creating a new plant diagram

A user-defined plant diagram is created as follows:

- For the graphic display, take a picture from the library. That picture can be adapted with the help of external graphics software, such as Micrografx Picture Publisher™. Also, pictures produced with external graphics software can be adopted in 256-color Bitmap format
- For adding data points and links, the application has an Editor integrated

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

Switching from standard to user-defined plant diagram, and vice versa, can take place at any time.

The plant diagrams can be printed.

For more information, refer to the following chapter:

- Processes of the "Plant diagram" application.

3.2.2 Processes in the "Plant diagram" application

This chapter describes the following processes:

- Selecting a plant diagram
- Displaying data points in a plant diagram
- Changing the value of a data point in a plant diagram
- Printing a plant diagram
- Creating a new plant diagram
- Editing a plant diagram
- Changing the properties of a plant diagram

3.2.3 Selecting a plant diagram

Selecting a plant diagram

If you want to view the data of a plant diagram, or if you want to change values, you need to select the plant diagram first.

Procedure:

Select the "Applications" menu – **Plant diagram...** The **Plant diagram** window is opened. On the left side of the window, you find a directory on navigating through the plant, where you can look for the required plant diagram. Using the "View" menu – **Device view / Plant view**, you can switch from Device view, to Plant view, and vice versa. Open the tree by clicking on **+**. Additional nodes or a standard diagram (red) appears and, if present, your personally created plant diagram (blue). Devices may have their standard plant diagrams. Select one of them. The respective plant diagram appears in the right half of the window.

For more information, refer to the following chapters:

- Displaying data points in a plant diagram
- Changing the value of a data point in a plant diagram
- Printing a plant diagram
- Creating a new plant diagram
- Working with a plant

3.2.4 Displaying data points in a plant diagram

Displaying data points

After opening a plant diagram, the values of the data points appear in parentheses. If the data point has been read or written, it appears without parentheses:

(OCI600)	Value in parentheses: The data point has been written
OCI600	Value without parentheses: The data point has been read
---	3 dashes: Data point has not yet been read or it can neither be read nor written because there is no communication with the device or the value is not available

For more information, refer to the following chapters:

- Changing the value of a data point in a plant diagram
- Printing a plant diagram
- Selecting a plant diagram
- Adding a data point to the plant diagram

3.2.5 Changing the value of a data point in a plant diagram

Changing the value

You can change the value of a data point in a plant diagram. Note that not all data points can be changed.

Select a data point. Press the right mouse button. The menu is opened. Select **Properties...** Window **Data point – data point properties** appears. In that window, you can change the relevant settings.

For this command, you can also double-click on the value or click the following button:



After changing the value, the value in the diagram appears in parentheses. The parentheses are maintained until the value has actually been written to the device.

For more information, refer to the following chapters:

- Displaying data points in a plant diagram
- Printing a plant diagram
- Selecting a plant diagram
- Adding a data point to the plant diagram

3.2.6 Printing a plant diagram

Print









Use the right mouse button to click on the plant diagram you want to print:

- A. Select **Print....** The **Print** dialog will be opened. Select the **Printer** you would like to use and the **Pages** you would like to print. Select **Start** to start printing or click the following button:



Print preview

- B. Select **Print preview....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

<i>Drucken</i>	<i>Drucken</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

For more information, refer to the following chapters:

- Displaying data points in a plant diagram
- Changing the value of a data point in a plant diagram
- Selecting a plant diagram

3.2.7 Creating a new plant diagram

In addition to using the standard plant diagrams, you can create plant diagrams that suit your specific needs. These can be created at different levels using the directory. Data points from various devices can be added to the same plant diagram.

Procedure:

- To create a new plant diagram, select in the left window of the "Plant diagram" application the directory (node, device) where you want to have the new plant diagram. Move the cursor to the right window of the application and press the right mouse button. The menu is opened. Select **New** and then **Plant diagram....** Window "Plant diagram properties" is opened. In the first box, enter the name of your plant diagram. In the **Picture file** box, you can select a background picture for your plant diagram. Confirm your selection by clicking the **OK** button.
- To copy and paste an existing plant diagram, select in the left window the plant diagram you want to copy and change (e.g. a standard plant diagram). Press the left mouse button, hold it down and drag the diagram to the directory where you want to insert the new diagram. Then, release the left mouse button. The program attempts to assign the data points of the copied plant diagram for devices contained in the target directory. Depending on the situation, the program

Creating a new plant diagram

Copy

asks for additional information or indicates when data points cannot be assigned to any of the devices. Data points that cannot be assigned do not appear in the plant diagram.

Import C. To adopt a plant diagram from some other plant or some other PC, select in the left window the directory into which you want to import the plant diagram. Click on it with the right mouse button and select **Import from....** The **Open export file** dialog appears. Select the required export file based on the name of the original plant diagram or the file name of the export file.

The program attempts to assign the data points of the copied plant diagram for devices contained in the target directory. Depending on the situation, the program asks for additional information or indicates when data points cannot be assigned to any of the devices. Data points that cannot be assigned do not appear in the plant diagram.

To export a plant diagram, select from the left window the plant diagram to be exported. All user-defined plant diagrams (blue) can be exported. Use the right mouse button to click on the selected plant diagram and select **Export to....** The **Save As** dialog appears. Select the place where you want to export the plant diagram.

The new plant diagram is now placed in the selected directory. In the left window, select the newly created plant diagram to check whether the required diagram is shown.

The new plant diagram can now be further edited.

Delete To delete a plant diagram, select in the left window the plant diagram you want to delete. Using the right mouse button, click on the selected plant diagram and select **Delete**.

For more information, refer to the following chapters:

- Editing a plant diagram
- Changing the properties of a plant diagram
- Selecting a plant diagram

3.2.8 Editing a plant diagram

User-defined plant diagrams (blue) can be changed at any time:

This is accomplished by changing the properties of the plant diagram or by directly editing the plant diagram.

Edit mode To directly edit a plant diagram, select the user-defined diagram and position the cursor in the right window. Now, press the right mouse button. A menu is opened. In that window, select **Edit mode**. The plant diagram is now in edit mode. In edit mode, you can insert new data points, text or links to other plant diagrams.

Standard plant diagrams (red) cannot be changed.

The following functions are available for editing user-defined plant diagrams:

- Adding a data point to a plant diagram
- Adding text to a plant diagram
- Adding a link to a plant diagram
- Using grid lines
- Editing a plant diagram

After editing a plant diagram, the edit mode must be deactivated again. To do this, position the cursor in the right window and press the right mouse button. A menu is opened. In that window, select **Edit mode**.

For more information, refer to the following chapters:

- Creating a new plant diagram
- Changing the properties of a plant diagram

3.2.9 Adding a data point to a plant diagram

Data points can be added to all user-defined plant diagrams (blue).

Select the user-defined plant diagram where you wish to add a data point and change to edit mode.

New data point

Position the onscreen pointer on the plant diagram. Press the right mouse button and select **New – Data point....** Then, dialog **Plant diagram – data point properties** is opened. The dialog is subdivided into 2 parts. The first part, **Data point**, contains the specification of the data point and the second part, **Data point text**, the specification of the data point text.

Data point text

In the **Data point** part, select the data point you want to display and define **Font set**, **Color**, **Margin**, **Alignment**, **Background color**, or whether **Size automatic** shall be adapted, fix **Width** or **Height**, and decide whether you want **Show data point text**. In the **Data point text** part, the default text on the data point automatically appears. You can change this **Text**, the **Font set**, the **Color**, the **Alignment** where the text of the data point value shall appear, and the **Blank [Pixel]** between the text and the data point value. You also select whether **Size automatic** shall be adapted or a fixed **Width** or **Height** shall be used.

After entry, close the dialog by clicking the **OK** button. The data point now appears in the plant diagram.

Move data point

- To move the data point to some other location, use the left mouse button and click on the data point value. Hold the left mouse button down and drag the data point. The data point will be positioned at the location where the left mouse button is released again

Data point format

- To subsequently change the display format of the data point, use the right mouse button to click on the data point value and select **Properties....** Dialog **Plant diagram – data point properties** is opened

Delete data point

- To remove the data point from the plant diagram, press the right mouse button and select **Delete**

Copy format

To copy the format, choose the data point, text or link whose format you want to adopt. Press the right mouse button and select **Copy**. Now point with the onscreen pointer to the data point where you want to transfer the format. Press the right mouse button again and select **Paste format**.

For more information, refer to the following chapter:

- Editing a plant diagram

3.2.10 Adding text to the plant diagram

Text can be added to all user-defined plant diagrams (blue).

Select the user-defined plant diagram where you wish to add text and change to edit mode.

New text

Position the onscreen pointer on the plant diagram. Press the right mouse button and select **New – Text....** Then, dialog **Plant diagram – text field properties** is opened. Enter the required text and define **Font set**, **Color**, **Margin**, **Alignment**, **Background color**, whether **Size automatic** shall be adapted, fix **Width** or **Height**, decide whether you want **Word wrap**.

Move text	<p>After entry, close the dialog by clicking the OK button. The text now appears in the plant diagram.</p> <ul style="list-style-type: none"> • To move the text to some other location, use the left mouse button to click on the text. The text will be positioned at the location where the left mouse button is released again
Text format	<ul style="list-style-type: none"> • To subsequently change the display format of the text, use the right mouse button to click on the text and select Properties.... Dialog Plant diagram – text field properties is opened
Delete text	<ul style="list-style-type: none"> • To remove the text from the plant diagram, press the right mouse button and select Delete
Copy format	<p>To copy the format, choose the data point, text or link whose format you want to adopt. Press the right mouse button and select Copy. Now point with the onscreen pointer to the data point where you want to transfer the format. Press the right mouse button again and select Paste format.</p> <p>For more information, refer to the following chapter:</p> <ul style="list-style-type: none"> • Editing a plant diagram

3.2.11 Adding a link to a plant diagram

New link	<p>Links to other plant diagrams can be added to all user-defined plant diagrams (blue). When clicking on a link, the associated plant diagram will automatically be opened. Select the user-defined plant diagram where you wish to add the link and change to edit mode.</p> <p>Position the onscreen pointer on the plant diagram. Press the right mouse button and select New – Link.... Then, dialog Plant diagram – link field properties is opened. Enter the required text for the link, select the Address of the plant diagram to which the change shall be made and define Color, Margin, Alignment, Background color, whether Size automatic shall be adapted, fix Width or Height and decide whether you automatically want Word wrap.</p> <p>After entry, close the dialog by clicking the OK button. The text now appears in the plant diagram.</p>
Move link	<ul style="list-style-type: none"> • To move the link to some other location, use the left mouse button to click on the link. Hold the left mouse button down and drag the link. The link will be positioned at the location where the left mouse button is released again
Link format	<ul style="list-style-type: none"> • To subsequently change the link, use the right mouse button to click on the link and select Properties.... Dialog Plant diagram – link field properties is opened
Delete link	<ul style="list-style-type: none"> • To remove the link from the plant diagram, press the right mouse button and select Delete
Copy link	<p>To copy the format, select the data point, text or link whose format you want to adopt. Press the right mouse button and select Copy. Now point with the onscreen pointer to the data point where you want to transfer the format. Press the right mouse button again and select Paste format.</p> <p>If the plant view is subsequently changed, certain links may not work anymore since the address of the link is no longer the same, due to the changed plant view. In that case, assign the new address to the relevant link.</p> <p>For more information, refer to the following chapter:</p> <ul style="list-style-type: none"> • Editing a plant diagram

3.2.12 Using grid lines

Grid lines

To position data points, text or links in a plant diagram more easily, grid lines can be used.

Select the user-defined plant diagram in which you want to show grid lines and change to edit mode.

Position the onscreen pointer on the plant diagram. Press the right mouse button and select **Grid lines**. The plant diagram now appears with grid lines.

For more information, refer to the following chapters:

- Editing a plant diagram
- Adding a data point to a plant diagram
- Adding text to a plant diagram
- Adding a link to a plant diagram

3.2.13 Editing a picture

Edit picture

The displayed background picture can be changed in all user-defined plant diagrams (blue).

Select the user-defined plant diagram the background picture of which you want to edit and change to edit mode.

Position the onscreen pointer on the plant diagram. Press the right mouse button and select **Edit picture...** Then, the Editor will be started which, as a standard Editor for editing Bitmap pictures in your Windows environment, has the extension .BMP.

Normally, this is the Windows program called **Paint**. Here, you can change the plant diagram arbitrarily and add new drawings, symbols, text, etc.

Save the picture before leaving Editor. The changed background picture appears in the plant diagram.

For more information, refer to the following chapter:

- Editing a plant diagram

3.2.14 Changing the properties of a plant diagram

Properties

The properties of user-defined plant diagrams (blue) can be changed at any time. You can:

- Change the name of the plant diagram
- Define some other Bitmap file as a background picture
- Adopt data points and / or the background picture from some other plant diagram

In the left window, select the plant diagram whose properties you want to change. Press the right mouse button to click on the plant diagram in the left window and select **Properties...** Window **Plant diagram properties** appears:

Name of the diagram

- In the first entry box, you can change the name of the plant diagram
- **Picture file:** Click on the folder if you wish to display some other background picture. The dialog for **opening** Bitmap files appears. When clicking on a file, the preview shows the relevant picture. Select the required background picture. Any Bitmap files with a resolution of 256 colors can be included in the plant diagram. When assigning a new background picture, all data points, text and links that previously appeared in the plant diagram will be maintained

Definition file

- **Definition file:** Click on the folder if you want to adopt the displayed data points, text and links with or without background picture from some other plant diagram. The dialog for **opening** definition files appears. When clicking on a file, the preview shows the relevant picture. Select the required picture. Also select whether you

want **Use picture of data point file**. If yes, the background picture will be taken from the selected definition file to be included in the current plant diagram. When assigning a new definition file, the plant diagram will lose all previously displayed data points, text and links and, depending on the selection made, the previous background picture also.

After closing the dialog, the changes will be activated. If some other definition file has been assigned, the program attempts to assign the data points of devices existing in the directory of the plant diagram. Depending on the situation, the program asks for more information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned will not appear in the plant diagram.

For more information, refer to the following chapters:

- Creating a new plant diagram
- Editing a plant diagram

3.3 Popcard

3.3.1 Introduction to the "Popcard" application

This application provides for the visualization of all data points transmitted by each device, and of their values.

Standard popcard

Each device type has a standard Popcard; structure and contents of the operating pages are predefined

User-defined popcard

User-defined Popcards can be created for each device and each node. Data points from all subordinate devices can be added to a Popcard that is assigned to a node. Standard and user-defined Popcards can be copied to devices of the same type or to higher level nodes.

Pages

A user-defined Popcard has the following properties:

Sections

- It can consist of several user-defined pages
- Each page can be subdivided into several user-defined sections

Separators

- The Popcard, the pages and sections can be assigned freely selectable data points and separators

It is always possible to switch from the standard to the user-defined Popcard, and vice versa.

- Every selected page is automatically updated. Updating is visualized.

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

For more information, refer to the following chapter:

- Processes in the "Popcard" application.

3.3.2 Processes in the "Popcard" application

The following processes are described in this chapter:

- Selecting a device from Popcard
- Displaying data points in Popcard
- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Checking the status of a data point in Popcard
- Printing in Popcard

- External editing of Popcard
- Creating a new Popcard
- Editing Popcard

3.3.3 Selecting a device from Popcard

Selecting a device

If you want to view device data in Popcard format, or if you want to change values, you need to select Popcard first.

Procedure:

Select the "Applications" menu – **Popcard....** The **Popcard** window is opened. On the left side of the window, you find the directory on navigating through the plant in which you find the required Popcard. Using the "View" menu – **Device view / Plant view**, you can change between Device view and Plant view. Open the tree by clicking on **+**. Additional nodes or a standard Popcard (red) appears and, if present, the personally created **Popcard** (blue). Standard Popcards only exist for devices. Open one of the Popcards by clicking on **+**. The individual pages and sections of the Popcard appear. These pages contain the data points. When making the selection, these data points appear in the right half of the window.

For more information, refer to the following chapters:

- Displaying data points in Popcard
- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Checking the status of a data point in Popcard
- Printing in Popcard
- External editing of Popcard
- Creating a new Popcard
- Working with the plant

3.3.4 Displaying data points in Popcard

Displaying data points



After opening a Popcard, page or section, the data points appear on the right side of the window.


The data points displayed depend on the standard Popcard pertaining to the relevant device, or on the definition of the self-created Popcard. The same data point can occur on several Popcards, pages or in several sections. The same data point is shown in several columns. The columns have the following meaning:

Column	Description
No.	Consecutive numbering of the data points on a page
Line no.	Referring to the installation instructions of the relevant device
Address	Address of the device to which the data point belongs
Value	Value of the data point
Unit	Unit of the data point





Sorting can take place by column.

After opening a Popcard, page or section, the values of the data points appear in red. If the data point has been read or written, it appears in black:

	Red: The data point not yet read
	Black: The data point has been read

	Blue: The data point has been changed, but has not yet been written to the device
---	--

Whether the data point is a data point that can be written, read only, or is a reference data point, can be identified as follows:

	Data point: The value can be changed
	Data point: The value cannot be changed
	Reference data point: The value can be changed
	Reference data point: The value cannot be changed



For more information, refer to the following chapters:

- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Checking the status of a data point in Popcard
- Printing in Popcard
- External editing of Popcard
- Selecting a device from Popcard

3.3.5 Displaying reference data points in Popcard

Reference data point

Pages of Popcard or other data points are shown or hidden and data point properties of other data points are changed, depending on reference data points. Reference data points can be identified by a link symbol at the bottom of the circle.

	Reference data point: The value can be changed
	Reference data point: The value cannot be changed

If, on the "View" menu – **Consider dependencies** has not been selected, all pages and all data points will be displayed, independent of the value of the reference data points.

For the display and the changing of values of reference data points, the same rules apply as for normal data points.





For more information, refer to the following chapters:

- Displaying data points in Popcard
- Changing the value of a data point in Popcard
- Checking the status of a data point in Popcard
- Printing in Popcard
- External editing of Popcard
- Selecting a device from Popcard

3.3.6 Changing the value of a data point in Popcard

Changing the value

You can change the value of a data point in Popcard. Note that certain data points cannot be changed.

	Data point: The value can be changed
	Data point: The value cannot be changed
	Reference data point: The value can be changed
	Reference data point: The value cannot be changed



You can change the value of a data point only if you have the required write access, which depends on your user access. The user level can be changed via the "Tools" menu – **Log on...** Depending on the password the program decides which user level you are authorized to work on. The user levels correspond to those of the respective devices: If, in the program, you work on the enduser level, for instance, you can change the same values as if you were on the enduser level of the respective device.

- A. Select a data point. Press the right mouse button. A menu is opened. From that menu, select **Properties...** Window **Data point command** of that data point appears. You can make the required settings there.
For that command, you can also double-click on the value or use the following

button: 

- B. To copy the value of a data point to some other data point, use the right mouse button to click on the data point from which you want to copy the value. Select **Copy**. Then, use the right mouse button to click on the data point you want to assign the copied value to. Select **Paste format**.
Values can be copied and pasted only if both data points are of the same type (e.g. both analog values or both switching times). It is also possible to copy the values of 2 successive data points (multiple selection possible). The values will then be transferred to the data points that follow the data point on which **Paste value** was carried out. This function is very useful in connection with time switch programs, for example.

After changing the value, the value appears in blue. The blue color is maintained until the value is actually written to the device, whereupon it appears in black again:

	Blue: Data point has been changed, but the value has not yet been written to the device
	Black: Data point has been read back

For more information, refer to the following chapters:

- Displaying data points in Popcard
- Displaying reference data points in Popcard
- Checking the status of a data point in Popcard
- Printing in Popcard
- External editing of Popcard
- Selecting a device from Popcard
- Entering the password

3.3.7 Checking the status of a data point in Popcard

You can check the status of a data point.

To do this, select a data point. Press the right mouse button. A menu is opened. In that window, select **Status...** Window **Data point - Status** of that data point appears:

- Override
- Out of service
- Event enable
- Device error
- Periphery error
- Disturbed
- Unacknowledged

For more information, refer to the following chapters:

- Displaying data points in Popcard

- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Printing in Popcard
- External editing of Popcard
- Selecting a device from Popcard

3.3.8 Printing in Popcard

When selecting a Popcard, page or section, data points appear in the right half of the window. That half of the window can be printed out:

Use the right mouse button to click on the Popcard, page or section you want to print:

Print

A. Select **Print....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or choose the following button:



Print preview

B. Select **Print preview....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

Button	Function
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

For more information, refer to the following chapters:

- Displaying data points in Popcard
- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Checking the status of a data point in Popcard
- External editing of Popcard
- Selecting a device from Popcard

3.3.9 External editing of Popcard

The entire contents of Popcard can be exported, enabling the data to be further handled with an external program, such as Microsoft Excel.

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options....** Under **Export**, you find the template that has been defined for the **Popcard** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under Windows will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened.

Edit externally

Use the right mouse button to click on the required Popcard and select **Edit externally....** The **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened in the respective program. Formats from the template will be adopted and the defined macro started.

For more information, refer to the following chapters:

- Displaying data points in Popcard
- Displaying reference data points in Popcard
- Changing the value of a data point in Popcard
- Printing in Popcard
- Selecting a device from Popcard

3.3.10 Creating a new Popcard

New popcard

In addition to the existing standard Popcard, you can create your own user-defined Popcards:

- Standard Popcard: Popcard that constitutes part of the program and whose contents is predefined, enabling you to make immediate settings and to check values, with no engineering effort
- User-defined Popcard: Popcard created by yourself that enables you to quickly access data points that are frequently used

The user-defined Popcard can be created on different levels in the directory. Data points of different devices can be added to the same Popcard.

Procedure:

Create new

A. To create a new Popcard, select in the left window of the "Popcard" application the directory (nodes, device) where you want to have the Popcard. Position the onscreen pointer in the right window of the application and press the right mouse button. Then, a menu is opened. Select **New** and then **Popcard....** Window **Popcard properties** is opened. In that window, enter the name of the Popcard. Confirm the entry by clicking the **OK** button.

Copy

B. To copy and paste an existing Popcard, select in the left window the Popcard you want to copy and change (e.g. standard Popcard). Press the left mouse button, hold it down and drag the Popcard to the directory where you want to add the new Popcard. Then, release the left mouse button again.

The program attempts to assign data points to the copied Popcard for devices contained in the target directory. The program may ask for additional information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned do not appear on the Popcard.

Import

C. To adopt a Popcard from some other plant or PC, select in the left window the directory into which you want to import the Popcard. Use the right mouse button to click on the selected directory and select **Import from...** The **Open export file** dialog appears. Select the required export file based on the name of the original Popcard or the name of the export file.

The program attempts to assign data points to the copied Popcard for devices contained in the target directory. The program may ask for additional information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned do not appear on the Popcard.

To export a Popcard, select in the left window the Popcard to be exported. All user-defined Popcards (blue) can be exported. Use the right mouse button to click on the selected Popcard and select **Export to...** The **Save As** dialog appears. Select the location where you want to export the Popcard.

The new Popcard is now filed in the selected directory. In the left window, select the newly created Popcard in order to check if the required information appears. The new Popcard can now be further edited.

Delete

To delete a Popcard, select in the left window the Popcard you want to delete. Use the right mouse button to click on the relevant Popcard and select **Delete**.

For more information, refer to the following chapters:

- Editing Popcard
- Selecting a device from Popcard

3.3.11 Editing Popcard

Edit

User-defined Popcards (blue) can be changed at any time:

To edit a Popcard, select the user-defined Popcard and position the onscreen pointer in the right window. Press the right mouse button. A menu is opened. From that menu, select **New**. Now, you can add a new **Page / Group...**, **separator...** or **Data point...** to the Popcard.

Standard Popcards (red) cannot be changed.

The following functions are available for editing user-defined Popcards:

- Adding a new page / group to Popcard
- Adding a new section to Popcard pages
- Adding a new data point to Popcard, a page or section
- Adding a new separator to Popcard, a page or section
- Sorting data points, sections and pages

Delete

To delete a Popcard, select the relevant Popcard with the left mouse button. Use the right mouse button to click on the Popcard and select **Delete**.

For more information, refer to the following chapter:

- Creating a new Popcard

3.3.12 Adding a new page / group to Popcard

Page / Group

Pages can be added to all user-defined Popcards (blue).

A. Select the user-defined Popcard where you want to add a page. Position the onscreen pointer in the right window. Press the right mouse button and select **New – Page / Group...** Then, the **Page properties** dialog is opened. Enter the name of the new page.

After entry, close the dialog by clicking the **OK** button. The page now appears on the Popcard.

Copy B. To copy and paste an existing page, select in the left window the page you want to copy and change (e.g. a page of the standard Popcard). Press the left mouse button, hold it down and drag the page to the Popcard where you want to add the new page. Then, release the left mouse button.

The program attempts to assign the data points of the copied page for devices contained in the target directory. The program may ask for additional information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned do not appear on the page.

The following functions are available for editing Popcard pages:

- Adding a new section to Popcard pages
- Adding a new data point to Popcard, a page or section
- Adding a new separator to Popcard, a page or section
- Sorting data points, sections and pages

Rename To rename pages, click on the page with the right mouse button and select **Properties....** The **Popcard properties...** dialog appears where you can change the name.

Delete To delete a page, select the relevant page with the left mouse button. Use the right mouse button to click on the page and select **Delete**.

For more information, refer to the following chapter:

- Editing a Popcard

3.3.13 Adding a new section to Popcard pages

New section On all user-defined Popcards (blue), pages can be subdivided into sections:

A. Select the page where you want to add a section. Position the onscreen pointer in the right window. Press the right mouse button and select **New – Section....** Then, the **Section properties** dialog is opened. Enter the name of the new section. After entry, close the dialog by clicking the **OK** button. The new section now appears on the Popcard page.

Copy B. To copy and paste an existing section, select in the left window the section you want to copy and change (e.g. a section of a standard Popcard page). Press the left mouse button, hold it down and drag the page to the Popcard page where you want to add the new section. Then, release the left mouse button.

The program attempts to assign the data points of the copied section for the devices contained in the target directory. The program may ask for additional information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned to a device do not appear in the section.

The following functions are available for editing Popcard pages:

- Adding a new data point to Popcard, a page or section
- Adding a new separator to Popcard, a page or section
- Sorting data points, sections and pages

Rename To rename sections, click on the section with the right mouse button and select **Properties....** The **Section properties...** dialog appears where you can change the name.

Delete To delete a section, select the relevant section with the left mouse button. Use the right mouse button to click on the section and select **Delete**.

For more information, refer to the following chapters:

- Adding a new page / group to Popcard
- Editing a Popcard

3.3.14 Adding a new data point to Popcard, a page or section

Data points can be added to all user-defined Popcards (blue) or their pages or sections.

New data point

A. Select the Popcard / page / section where you want to add data points. Position the onscreen pointer in the right window. Press the right mouse button and select **New – Data point....** Dialog **Data point selection** is opened. Navigate through the plant in the left half of the dialog to find the required data points. In the right half of the dialog, select the data points you want to add (multiple selection possible). Click the **Add** button each time you want to add a data point and all selected data points will be added to the Popcard / page / section. After all required data points have been added, close the dialog by clicking the **Close** button.

Copy

B. To copy and paste data points, select in the right window the data points you want to copy (multiple selection possible). Press the left mouse button, hold it down and drag the data points to the Popcard / page / section where you want to add the data points. Then, release the left mouse button. The program attempts to assign the data points for the devices contained in the target directory. The program may ask for additional information or notifies if data points cannot be assigned to any of the devices. Data points that cannot be assigned will not be displayed.

The following functions are available for editing Popcards, pages and sections:

- Adding a new separator to Popcard, a page or section
- Sorting data points, sections and pages

Delete

To delete a data point, select the relevant data points (multiple selection possible). Use the right mouse button to click on the data point and select **Delete**.

For more information, refer to the following chapters:

- Adding a new section to Popcard pages
- Adding a new page / group to Popcard
- Editing a Popcard

3.3.15 Adding a new separator to Popcard, a page or section

Separators can be added to all user-defined Popcards (blue), their pages or sections. They are used for visually separating data points to make the structure easier to understand.

New separator

A. Select the Popcard / page / section where you want to add a separator. Position the onscreen pointer in the right window. Press the right mouse button and select **New – Separator....** Then, the **Separator properties...** dialog is opened. Enter the name of the separator. After entry, close the dialog by clicking the **OK** button. The separator is now added to the Popcard / page / section.

Copy

B. To copy and paste a separator, select in the right window the separator you want to copy. Press the left mouse button, hold it down and drag the separator to the Popcard / page / section where you want to add the separator. Then, release the left mouse button.

The following additional functions are available for editing Popcards, pages and sections:

- Adding a new data point to Popcard, a page or section
- Sorting data points, sections and pages

Rename

To rename separators, click on the separator with the right mouse button and select **Properties....** Dialog **Separator properties** appears where you can change the name.

Delete

To delete a separator, select the relevant separator (multiple selection possible). Use the right mouse button to click on the separator and select **Delete**.

For more information, refer to the following chapters:

- Adding a new section to Popcard pages
- Adding a new page / group to Popcard
- Editing a Popcard

3.3.16 Sorting data points, sections and pages

Position the onscreen pointer on the Popcard, page or section and press the right mouse button. A menu is opened:

Sort manually

A. Select **Sort manually**. You can:

- a. Sort the pages, sections or data points of Popcards
- b. Sort the sections or data points of operating pages
- c. Sort data points in sections

The **Sort dialog** window is opened. In that window, you are given the choice to sort manually. You can move pages, sections or data points using the two arrows (top right hand corner in the window). Separators can be sorted like data points and appear in the dialog for sorting data points.

The following additional functions are available for editing Popcards, pages and sections:

- Adding a new data point to Popcard, a page or section
- Adding a new separator to Popcards, a page or section

For more information, refer to the following chapters:

- Adding a new section to Popcard pages
- Adding a new page / group to Popcard
- Editing a Popcard

3.4 Online trend

3.4.1 Introduction to the "Online trend" application

This application is not contained in all ACS7... software packages. For more information, refer to chapter Licensing.

This application enables any data points of the plant to be logged.

Trend definition

The trend definition defines the description, the selected data points of all devices contained in the plant and the sampling interval.

Trend logging

The cyclically queried data are stored and graphically presented in the trend loggings. Previous trend loggings can be retrieved at any time for some other graphical representation.

With online trend, there is a connection between plant and PC. All acquired data will directly be stored in the PC. The graph of trend logging is made online. Trend logging can be printed out and exported as an ASCII file.

For more information, refer to the following chapter:

- Processes in the "Online trend" application.

3.4.2 Processes in the "Online trend" application

The following processes are described in this chapter:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Starting online trend logging
- Evaluating online trend logging
- Printing in online trend
- External editing of online trend logging

3.4.3 Creating / changing an online trend definition

A trend definition defines the data points that shall be logged. For one trend definition, several logging processes can be started. During logging, the data points selected in the trend definition are logged and stored. The stored data can also be accessed after logging has been stopped. At a later time, logging of the same trend definition and with the same data points can again be started.

Procedure:

Trend definition

A. To create a new trend definition, select in the left window of the "Online trend" application the uppermost directory (plant name). Position the onscreen pointer in the right window of the application and press the right mouse button. A menu is opened. Select **New – Online trend definition....** Window **Trend properties** is opened. The window is subdivided into several sections:

General: Enter the name of the trend definition. Additional information fields for optional data are available. You can state the **Location** of the plant, the **Installer** who has created the trend definition, or give an additional **Description** of the trend definition.

Interval: Define the interval in seconds at which the data points to be logged shall be stored – **Interval [s]**.

Info: When creating the trend definition, you have not yet selected the data points to be logged. For this reason, the relevant information is not yet available at this point in time. After selecting the data points, you can check here how long the **Remaining logging time [h]** will be until the PC's storage space capacity is exhausted. The information displayed will be updated by selecting **Refresh**. If you want to log for a longer period of time, you can either extend the interval or log a smaller number of data points.

Now, confirm your entry by clicking the **OK** button.

Copy

B. To copy and paste an existing trend definition, select in the left window the trend definition you want to copy and change. Press the left mouse button, hold it down and drag the trend definition to the uppermost directory (plant name). Then, release the left mouse button.

Change To change the trend definition, select in the left window the trend definition you want to change. Use the right mouse button to click on the selected trend definition and select **Properties...** Window **Trend properties** is opened. The trend definition can now be revised.

Now, you can start with the selection of data points for online trend logging.

Delete To delete a trend definition, select in the left window the relevant trend definition. Use the right mouse button to click on the selected trend definition and select **Delete**.
Caution: Any logging associated with the trend definition will also be deleted.

For more information, refer to the following chapters:

- Selecting data points for online trend logging
- Starting online trend logging
- Evaluating online trend logging
- Printing in online trend
- "Commissioning report" application
- External editing of online trend logging

3.4.4 Selecting data points for online trend logging

Add data points

In the left half of the window, select the trend function for which you want to select data points for trend logging. Position the onscreen pointer in the right half of the window and select **New – Data point...** Then, window **Data point selection** is opened. Here, you can choose the data points you want to log.

The navigation with the Device view or the navigation with the Plant view appears as a tree view, depending on which view you selected on the "View" menu. Click the **Change view** button to obtain a device type view showing you all the device types that belong to the devices selected with a tick in the boxes of the plant view. This enables you to simultaneously add data points for several devices of the same type with only one command. To return to the device or plant view, click again the **Change view** button.

To simultaneously select several data points in the right half of the window, proceed as follows:

- Use the left mouse button to click on the first of several successive data points. Press the Shift key and hold it down. Now, use the left mouse button to click on the last data point you want to select. The required data points are thus defined
- Keep the Ctrl key depressed and select all required data points with the help of the left mouse button. Each of the data points clicked will be highlighted

Select **Add** to add the highlighted data points to the trend definition. After this selection, select **Close** to return to the **Online trend** window. In the right half of the **Online trend** window, you now find all added data points.

The same data point may exist in several trend definitions. The same data point is shown in several columns. The columns have the following meaning:

Column	Description
Channel	Channel for logging the data point
Line no.	Referring to the installation instructions of the respective device
Name	Name of the data point
Device	Device to which the data point belongs
Address	Address of the device to which the data point belongs
Offset	Offset with which the data point is shown in the graph

Number	When on, the value will be exported as a digit
Text	When on, the value will be exported as text (e.g. in the case of enumerations)

Sorting can be made by column.

For each data point you can define whether an offset for the presentation shall be added (particularly useful when logging digital values 0/1, since they would often be on top of one another, preventing them from being simultaneously visible) and how the value shall be exported:

Use the right mouse button to click on the data point and select **Properties...** You can now change the **Offset** and the export properties.

Removing data point

To remove a data point from the trend definition, select in the right half of the **Online trend** window the relevant data point (multiple selections as described above are possible). Use the right mouse button to click on the selected data point and select **Delete**.

For more information, refer to the following chapters:

- Creating / changing an online trend definition
- Starting online trend logging
- Evaluating online trend logging
- Printing in online trend
- External editing of online trend logging

3.4.5 Starting online trend logging

Start logging

When creating the online trend definition, the data points to be logged were defined. Select in the left half of the window the trend definition for which you want to start logging. The right half of the window shows the selected data points. Note: Only one logging process per trend definition can be started.

Position the onscreen pointer in the right half of the window. Press the right mouse button and select **New – Trend logging...** Now, Window **Trend logging properties** is opened. The window is subdivided into several sections:

General: Enter the name of trend logging (e.g. YMMDD – 20011117 Test). The information fields **Start of logging** and **End of logging** also appear. After completing logging, these 2 fields show you the time when logging was started and stopped.

Interval: These settings will automatically be adopted by the trend definition. If you wish, you can change the settings for this logging process.

Graphics: Here, scale the graph for the logging process.

You can define the total length of the **Time axis [min]**, or whether the length shall **Automatically** be determined by the program. When selecting **Automatically**, the program will show the entire trend logging process.

You can also define which shall be highest displayed value (**Y-Max**) and the smallest displayed value (**Y-Min**), or whether these values shall **Automatically** be determined by the program. When selecting **Automatically**, the scale is adjusted such that all values will lie within the displayed time axis. During logging and scrolling, the scale is continuously adjusted.

Info: Check here how long the **Remaining logging time [h]** will be until the PC's storage space capacity is exhausted. The information displayed will be updated by selecting **Refresh**. If you want to log for a longer

period of time, you can either extend the interval or log a smaller number of data points.

Confirm the entries by clicking the **OK** button. Underneath the trend definition, another directory with the new logging is shown now (*yellow*, to identify the current logging process). This logging process will be selected automatically and the right half of the **Online trend** window is now split in two:

- The upper half shows you the selected data points, as before
- The lower half shows the logging process as a graph

During the logging process, you can start to evaluate the last values of the current online trend logging, or you can do it when logging is completed.

Stop logging

To stop logging, use the right mouse button to click on the logging and select **Stop trend logging**. Trend logging is now highlighted in white, which means that logging is terminated.

When logging is completed, you can access the data at any time and evaluate the logging process.

For more information, refer to the following chapters:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Evaluating online trend logging
- Printing in online trend
- External editing of online trend logging

3.4.6 Evaluating online trend logging

Evaluating trend logging

To make an evaluation, select the logging in the left half of the window. The right half of the window of the online trend is now divided in two:


- The upper half shows you all the data points selected for logging
- The lower half shows the logging process as a graph

To **identify a data point in the graph** or to **display a value at a certain time**, position the top of the onscreen pointer on the point of intersection of the value and the vertical time mark: A window with date, time of day, description of the data point and value of the data point appears. This function is not enabled when logging is in progress.

To **show data points in the graph or to hide them**, click on the little box in the **Channel** column of the relevant data point. When the little box contains a tick, the relevant data point is added to the graph.

To **show a data point in the graph with an offset**, use the right mouse button to click on the data point and select **Properties...** In Window **Trend data point properties**, you can now determine the **Offset**.

To change the **scaling of the graph**, use the right mouse button to click on the logging and select **Properties...** You can also select logging with the left mouse

button and use the following button: 

Window **Trend logging properties** is opened. The window is subdivided into several sections:

- General:** You can change the name of trend logging at a later time. The information fields **Start of logging** and **End of logging** appear. These 2 fields show you the time when logging was started and stopped.
- Interval:** When logging is completed, this setting shows you the interval for data point readout. After logging, the setting cannot be changed anymore.
- Graphics:** Here, scale the graph for the logging process.
 You can define the total length of the **Time axis [min]**, or whether the length shall **Automatically** be determined by the program. When selecting **Automatically**, the program will show the entire trend logging process.
 You can also define which shall be highest displayed value (**Y-Max**) and the smallest displayed value (**Y-Min**), or whether these values shall **Automatically** be determined by the program. When selecting **Automatically**, the scale is adjusted such that all values will lie within the displayed time axis. During logging and scrolling, the scale is continuously adjusted.
- Info:** Here, you can see the size of the logging file.

To **scroll on the time axis**, a scroll bar appears below the graph. This scroll bar enables you to scroll forward and backward.

For more information, refer to the following chapters:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Starting online trend logging
- Printing in online trend
- External editing of online trend logging

3.4.7 Printing in online trend

When selecting a trend definition, the selected data points appear in the right half of the window:

Use the right mouse button to click on the trend definition you want to print:

Print





- A. Select **Print....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or use the following button:



Print preview

- B. Select **Print preview....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. Window **Preview** appears:

<i>Button</i>	<i>Function</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In

	that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

The data points can be printed out in graphic form with the help of an external program, such as Microsoft Excel. For more information, refer to chapter External editing of online trend logging.

For more information, refer to the following chapters:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Starting online trend logging
- Evaluating online trend logging
- External editing of online trend logging

3.4.8 External editing of online trend logging

Edit externally

The values of the data points stored in trend logging can be exported to be further edited with an external program, such as. Microsoft Excel.

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options....** Under **Export**, you find the template that has been defined for the **Online trend** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under Windows will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened. The enclosed TREND.XLS template contains Macro1, for example, which automatically contains an Excel graph with the logged values, enabling you to print them out in Excel format.

Logging

Use the right mouse button to click on the logging and select **Edit externally....** Then, the **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened by the respective program. Formatings of the template will be adopted and the defined macro started.

For more information, refer to the following chapters:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Starting online trend logging
- Evaluating online trend logging
- Printing in online trend

3.5 Offline trend

3.5.1 Introduction to the "Offline trend" application

	<p>This application is not contained in all ACS7... software packages. For more information, refer to chapter Licensing.</p> <p>This application enables any data points of the plant to be logged.</p>
Trend definition	<p>The trend definition defines the description, the selected data points of all devices contained in the plant and the sampling interval. It is also possible to define the beginning and end of logging.</p>
Trend logging	<p>With offline trend, there is no connection between plant and PC. All acquired data will be downloaded to the memory card in the central unit. For this reason, the "Offline trend" application is only provided in the case of plant using a central unit that supports this function (central units type OZW775 and OCI600).</p> <p>The graphic display of trend logging takes place after reading the logging from the central unit. Previous trend logging can be graphically presented again at any time.</p> <p>Trend logging can be printed out and exported as an ASCII file.</p>

For more information, refer to the following chapter:

- Processes in the "Offline trend" application.

3.5.2 Processes in the "Offline trend" application

The following processes are described in this chapter:

- Creating / changing an online trend definition
- Selecting data points for online trend logging
- Starting online trend logging
- Evaluating online trend logging
- Printing in online trend
- External editing of online trend logging

3.5.3 Creating / changing an offline trend definition

A trend definition defines the data points that shall be logged. For one trend definition, one logging processes can be started: During logging, the data points selected in the trend definition will be logged and stored in the central unit. The data stored in the central unit can be transferred to the PC for evaluation. At a later time, logging of the same trend definition and with the same data points can again be started.

Procedure with OZW775:

Creating a trend definition	<p>A. To create a new trend definition, select in the left window of the "Offline trend" application the uppermost directory (plant name). Position the onscreen pointer in the right window of the application and press the right mouse button. A menu is opened. Select New – Offline trend definition.... Window Offline trend properties is opened. It is subdivided into several sections:</p> <p>General: Enter the name of the trend definition. Additional information fields for optional data are available. You can state the Location of the plant, the Installer who has created the trend definition, or give an additional Description of the trend definition.</p> <p>Click the >> button when your entry is completed.</p> <p>Interval: Set the interval to indicate when and how often the logged data points shall be saved.</p>
-----------------------------	--

- **Simple:** You can set one of the following intervals at which data points shall be logged:
 - 30 **Seconds**
 - 1, 2, 5, 10, 15, 30 **Minutes**
 - 1, 2, 6 , 12 **Hours**
- **Weekly:** Select one or several weekdays (**Monday ... Sunday**) and the **Time of day** when the logged data points shall be saved
- **Monthly:** Select the **Day**, one or several months (**January ... December**) and the **Time of day** when the logged data shall be saved

Click the >> button when your entry is completed.

Start und Stop time: You can select whether logging shall be started directly after downloading the trend definition to the central unit (**Start – Directly after download**). Alternatively, you can select the **Time** and **Date** for starting logging.

For the end, select **Endless** if you want to have logging with a **Review window**. You can indicate the number of **Weeks** for the review window, for which the data shall be retained. Alternatively, you can determine via **Ends at:** up to what **Date** and **Time of day** logging shall take place..

Copy

- B. To copy and paste an existing trend definition, select in the left window the trend definition you want to copy and change. Press the left mouse button, hold it down and drag the trend definition to the uppermost directory (plant name). Then, release the left mouse button..

Change

- C. If, at an earlier stage, a trend definition was downloaded to the central unit and it is now only available on the central unit, it can be uploaded again to the PC. In that case, use the right mouse button to select the uppermost directory (plant name) and select **Upload trend definition**. Note: This function is only available when a connection to the plant exists.

Procedure with OCI600:

Creating a trend definition

- A. To create a new trend definition, select in the left window of the "Offline trend" application the uppermost directory (plant name). Position the onscreen pointer in the right window of the application and press the right mouse button. A menu is opened. Select **New – Offline trend definition....** Window **Offline trend properties** is opened. It is subdivided into several sections:

General: Enter the name of the trend definition. Additional information fields for optional data are available. You can state the **Location** of the plant, the **Installer** who has created the trend definition, or give an additional **Description** of the trend definition.

Status provides information about the following possible statuses:

- Pending (light-blue): The trend definition has been transferred to the central unit. The time of execution has not yet been reached however. Logging will later be started automatically
- Active (yellow): In the central unit, logging of this trend definition is currently in progress
- Executed (green): Logging of this trend definition has been completed in the central unit
- Not available (white): This trend definition is not currently stored in the central unit. In this central unit, there is no logging for this trend definition in progress

In addition, the status is identified by a color-coded trend definition.

Interval: Define the interval in seconds at which the data points to be logged shall be saved – **Interval [s]**.

You can select whether logging shall be started directly after downloading the trend definition to the central unit (**Start directly after loading**). Alternatively, you can select **Start Date/Time** and **Stop**

Date/Time of logging. In that case, logging will automatically be started and stopped at a defined point in time.

Now, confirm your entry by clicking the **OK** button.

Copy

B. To copy and paste an existing trend definition, select in the left window the trend definition you want to copy and change. Press the left mouse button, hold it down and drag the trend definition to the uppermost directory (plant name). Then, release the left mouse button.

Change

C. If, at an earlier point in time, a trend definition has already been downloaded to the central unit, and that trend definition is now only available in the central unit, it can be uploaded again to the PC. In that case, use the right mouse button to click on the uppermost directory (plant name) and select **Upload trend definition**. Note: This function is only available when a connection to the plant exists.

To change the trend definition, select in the left window the trend definition you want to change. Use the right mouse button to click on the selected trend definition and select **Properties....** Window **Offline trend properties** is opened, which enables you to access the settings described in A. The properties of pending or active trend definitions cannot be changed.

Now, you can start with the selection of data points for offline trend logging.

Delete

To delete a trend definition, select in the left window the relevant trend definition. Use the right mouse button to click on the selected trend definition and select **Delete**. Caution: Any logging associated with the trend definition will also be deleted.

For more information, refer to the following chapters:

- Selecting data points for offline trend logging
- Starting offline trend logging
- Evaluating offline trend logging
- Printing in offline trend
- External editing of offline trend logging

3.5.4 Selecting data points for offline trend logging

New data point

In the left half of the window, select the trend function for which you want to select data points for trend logging. Position the onscreen pointer in the right half of the window and select **New – Data point....** Then, window **Data point selection** window is opened. Here, you can select the data points you want to log.

The navigation with the Device view or the navigation with the Plant view appears as a tree view, depending on which view you selected on the "View" menu. Click the **Change view** button to obtain a device type view showing you all the device types that belong to the devices selected with a tick in the boxes of the plant view. This enables you to simultaneously add data points for several devices of the same type with only one command. To return to the device or plant view, click again the **Change view** button.

To simultaneously select several data points in the right half of the window, proceed as follows:

- Use the left mouse button to click on the first of several successive data points. Press the Shift key and hold it down. Now, use the left mouse button to click on the last data point you want to select. The required data points are thus defined
- Keep the Ctrl key depressed and select all required data points with the help of the left mouse button. Each of the data points clicked will be highlighted

Select **Add** to add the highlighted data points to the trend definition. After this selection, select **Close** to return to the **Offline trend** window. In the right half of the **Offline trend** window, you now find all added data points.

The same data point may exist in several trend definitions. The same data point is shown in several columns. The columns have the following meaning:

Column	Description
Channel	Channel for logging the data point
Line no.	Referring to the installation instructions of the respective device
Name	Name of the data point
Device	Device to which the data point belongs
Address	Address of the device to which the data point belongs
Offset	Offset with which the data point is shown in the graph
Number	When on, the value will be exported as a digit
Text	When on, the value will be exported as text (e.g. in the case of enumerations)

Sorting can be made by column.

For each data point, you can define whether an offset for the presentation shall be added (particularly useful when logging digital values 0/1, since they would often be on top of one another, preventing them from being simultaneously visible) and how the value shall be exported:

Use the right mouse button to click on the data point and select **Properties....** You can now change the **Offset** and the export properties.

Delete

To remove a data point from the trend definition, select in the right half of the **Offline trend** window the relevant data point (multiple selections as described above are possible). Use the right mouse button to click on the selected data point and select **Delete**.

For more information, refer to the following chapters:

- Creating / changing an offline trend definition
- Starting offline trend logging
- Evaluating offline trend logging
- Printing in offline trend
- External editing of offline trend logging

3.5.5 Starting offline trend logging

When creating the offline trend definition, the data points to be logged were defined. Select in the left half of the window the trend definition for which you want to start logging. The right half of the window shows the selected data points.

You may have to check the settings of the trend definition again: Press the right mouse button and click on the selected trend definition, then select **Properties....** Window **Offline trend properties** is opened in which you can access the settings described in Creating / changing an offline trend definition.

Start logging

To start logging, use the right mouse button to click on the trend definition and select **Download trend definition**. The trend definition with the information about the data points to be logged and the start and end of logging are now transferred to the memory card inserted in the central unit.

Note:

- The central unit OCI600 must have a memory card inserted. The logged data will be transferred to the memory card. The inserted memory card must be formatted
- For each trend definition and central unit, only one logging process can be started. With the OZW775, a maximum of 5 trend definitions can be stored, with the OCI600, a maximum of 1

After the trend definition has been transferred to the central unit, the status of the trend definition will change from *not available* (trend definition highlighted in white) to *pending* (trend definition highlighted in light-blue).

The central unit starts logging automatically, depending on the trend definition settings:

- Directly after receiving the trend definition (**Start directly after loading**)
- After the start time (**Start Date/Time**) of logging has been reached

As soon as the central unit has started logging, the status of the trend definition changes to *active* (trend definition highlighted in yellow).

After the trend definition has been transferred to the central unit, the connection to the plant can be cut. After cutting the communication, the status of the offline trend is no longer available on the central unit. Hence, all trend definitions will be highlighted in white:

- The central unit starts and stops logging automatically, depending on the setting of the loaded trend definition
- The central unit performs logging and storage of the values automatically, depending on the selected data points in the loaded trend definition

When a connection to the central unit is reestablished, the status of the offline trend in the central unit will also be available again and the trend definition that is active in the central unit will be appropriately highlighted:

- Pending (light-blue): The trend definition has been transferred to the central unit. The time of execution has not yet been reached however. Logging will automatically be started later
- Active (yellow): For this trend definition, logging in the central unit is currently in progress
- Executed (green): For this trend definition, logging in the central unit has been completed
- Not available (white): This trend definition is not currently stored in the central unit. In this central unit, there is no logging for this trend definition in progress
- Error (red): The trend definition is erroneous and cannot be evaluated.

Stop logging

During logging, you can already start with the evaluation of the values of the current offline trend logging logged thus far, or you can do this after logging is completed.

To manually stop active logging (yellow), use the right mouse button to click on the trend definition and select **Stop trend logging**. Trend logging is now highlighted in green, which means that logging has been completed.

For more information, refer to the following chapters:

- Creating / changing an offline trend definition
- Selecting data points for offline trend logging
- Evaluating offline trend logging
- Printing in offline trend
- External editing of offline trend logging
- Formatting memory cards

3.5.6 Evaluating offline trend logging

Evaluating

To evaluate the data logged and stored in the central unit, they must first be transferred to the PC. Logged data can be uploaded to the PC either from an active trend definition (yellow) or from an executed trend definition (green):
In the left half of the window, select the trend definition for which you want to transfer to the PC the data logged in the central unit. The selected data points appear in the right half of the window. Position the onscreen pointer in the right half of the window. Press the right mouse button and select **New – Trend logging...** The program now uploads the information about logging from the central unit. The process is shown in window **Upload trend logging**. Then, dialog **Trend logging properties** is opened. The window is subdivided into several sections:

General: Enter the name of trend logging (e.g. YYYYMMDD – 20011117 Test). In addition, the information fields **Start of logging** and **End of logging** appear. In these two fields, you can see when logging was started and when active logging (yellow) was uploaded or when executed logging (green) was stopped. The **Status** of logging can also be seen:

- Pending (light-blue): The trend definition has been transferred to the central unit. The time of execution has not yet been reached however. Logging will automatically be started later
- Active (yellow): For this trend definition, logging in the central unit is currently in progress
- Executed (green): For this trend definition, logging in the central unit has been completed
- Not available (white): This trend definition is not currently stored in the central unit. In this central unit, there is no logging for this trend definition in progress
- Error (red): The trend definition is erroneous and cannot be evaluated

In addition, the status is identified by an appropriate color code of the trend definition.

Graphics Here, scale the graph for the logging process.

You can define the total length of the **Time axis [min]**, or whether the length shall **Automatically** be determined by the program. When selecting **Automatically**, the program will show the entire trend logging process.

You can also define which shall be highest displayed value (**Y-Max**) and the smallest displayed value (**Y-Min**), or whether these values shall **Automatically** be determined by the program. When selecting **Automatically**, the scale is adjusted such that all values will lie within the displayed time axis. When scrolling through the logging, the scale is continuously adjusted.

Close the dialog by clicking the **Close** button.

For evaluation, select logging in the left half of the window. The right half of the window of the offline trend is now split in two:

- In the upper half of the window, you see all data points selected for logging
- In the lower half of the window, the logging process is shown in the form of a graph

To **identify a data point in the graph** or to **display a value at a certain time**, position the top of the onscreen pointer on the point of intersection of the value and the vertical time mark: A window with date, time of day, description of the data point and value of the data point appears. This function is not enabled when logging is in progress.

To **show data points in the graph or to hide them**, click on the little box in the **Channel** column of the relevant data point. When the little box contains a tick, the relevant data point is added to the graph.

To **show a data point in the graph with an offset**, use the right mouse button to click on the data point and select **Properties....** In dialog **Trend data point properties**, you can now determine the **Offset**.

To change the **scaling of the graph**, use the right mouse button to click on the logging and select **Properties....** You can also select logging with the left mouse button and use the following buttons:



Now, window **Trend logging properties** is opened. The possible settings are described at the beginning of the chapter. The window is subdivided into several sections:

To **scroll on the time axis**, a scroll bar appears below the graph. This scroll bar enables you to scroll forward and backward.

For more information, refer to the following chapters:

- Creating / changing an offline trend definition
- Selecting data points for offline trend logging
- Starting offline trend logging
- Printing in offline trend
- External editing of offline trend logging

3.5.7 Printing in offline trend

When choosing a trend definition, the selected data points appear in the right half of the window:

Use the right mouse button to click on the trend definition you want to print:

Print





A. Select **Print....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or use the following button:



Print preview

B. Select **Print preview....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

<i>Button</i>	<i>Function</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.

	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

The data points can be printed out in graphic form with the help of an external program, such as Microsoft Excel.

For more information, refer to chapter External editing of online trend logging.

For more information, refer to the following chapters:

- Creating / changing an offline trend definition
- Selecting data points for offline trend logging
- Starting offline trend logging
- Evaluating offline trend logging
- External editing of offline trend logging

3.5.8 External editing of offline trend logging

Edit externally

The values of the data points stored in trend logging can be exported to be further edited by an external program, such as Microsoft Excel.

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options....** Under **Export**, you find the template that has been defined for the **Offline trend** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under Windows will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened. The enclosed TREND.XLS template contains Macro1, for example, which automatically contains an Excel graph with the logged values, enabling you to print them out in Excel format.

Use the right mouse button to click on Popcard and select **Export to....** The **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened in the respective program. Formatings of the template will be adopted and the defined macro started.

For more information, refer to the following chapters:

- Creating / changing an offline trend definition
- Selecting data points for offline trend logging
- Starting offline trend logging
- Evaluating offline trend logging
- Printing in offline trend

3.6 File transfer

3.6.1 Introduction to the "File transfer" application

This application is not contained in all ACS7... software packages. For more information, refer to chapter Licensing.

This application provides for 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 memory card inserted in the central unit
- the memory card to be formatted

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

Automatic file transfer can be accomplished with the help of the Batchjob software.

Files can only be uploaded or downloaded by central units type OZW775, OCI600 and OZW10. The other types of central units do not support this function.

For more information, refer to the following chapter:

- Processes in the "File transfer" application

3.6.2 Processes in the "File transfer" application

The following processes are described in this chapter:

- Files directly from the central unit
- Files on the memory card
- Formatting memory cards
- Copying and opening files
- Copying files
- Deleting files

3.6.3 Files directly from the central unit

The central units provide certain information in a file. These files are not stored on the memory card but directly in the central unit.

OZW775:

After starting the **File transfer** application, the left half of the window shows you the following directory:

- **History data**

Make certain you have established a connection to the plant. Use the left mouse button to select the **History data** directory. The right half of the window shows all files that exist in the central unit:

- The directory is automatically uploaded when starting the application, provided there is a connection to the plant at this point in time
- The directory is automatically uploaded if the plant has already been started and a connection to the plant is then established
- You can again upload the directory at any time by selecting **History data** with the right mouse button and then **Upload directory**

The following files are provided:

messages.his: This file contains the last 500 events the OZW775 central unit has registered:

- Faults (appearing and disappearing) of the connected devices, of the central unit, and at the fault inputs of the central unit
- Delivery and attempted delivery of faults and system reports to the message receivers
- Switching on / off of message suppression
- Switching on / off of setting up mode

Now that the files are listed in the right half of the window, you can copy, or copy and open files with an editor.

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

Directly from central unit

Make certain you have established a connection to the plant. Use the left mouse button to click on the directory **Files directly from central unit**. The right half of the window shows all files contained in the central unit:

- The directory is automatically uploaded when starting the application if, at that time, a connection to the central unit exists
- The directory is automatically uploaded if the application has already been started, in which case a connection to the central unit is established
- You can again upload the directory at any time by using the right mouse button and clicking on **Files directly from central unit** and then selecting **Upload directory**

After the files are listed in the right half of the window, you can copy files, copy files with the help of an Editor or delete files.

The OCI600 provides the following files:

- **REGx.600:** In these files, you find the current settings and the last 20 events of all controllers $x = 1 \dots 16$ that have been defined in the device directory of the OCI600 central unit
- **OCI_LOGx.600:** In these files, you find the current settings and the last 20 events of the logic inputs $x = 1 \dots 6$ of the OCI600 central unit
- **OCI_DIGx.600:** In these files, you find the current settings and the last 20 events of the digital inputs $x = 1 \dots 6$ of the OCI600 central unit

If no event has as yet occurred on one of the components, the relevant file does not yet exist. When the first event occurs, the OCI600 will automatically create a file.

The OZW10 provides the following files:

- **OZW_SS1.BIL:** This file stores all data that can be displayed on the OZW10. In particular, the file contains all billing data. Depending on the parameter settings for the **Readout cycle**, the OZW10 cyclically uploads these data and makes them available in that file. The data in that file are not current since they represent the data of the last readout cycle.

For more information, refer to the following chapters:

- Files on the memory card
- Formatting memory cards
- Copying and opening files

- Copying files
- Deleting files

3.6.4 Files from the memory card

The central units store certain data on the memory card in the central unit. This works only with formatted memory cards.

OZW775:

File transfer from the memory card is not supported by this type of central unit.

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

From memory card

Make certain you have established a connection to the plant. Use the left mouse button to click on the directory **Files directly from central unit**. The right half of the window shows all files contained in the central unit:

- The directory is automatically uploaded when starting the application if, at that time, a connection to the central unit exists
- The directory is automatically uploaded if the application has already been started, in which case a connection to the central unit is established
- You can again upload the directory at any time by using the right mouse button and clicking on **Files directly from central unit** and then selecting **Upload directory**

After the files are listed in the right half of the window, you can copy copy files with the help of an Editor or delete files.

The OCI600 stores the following files on the memory card:

- ***.TRN:** All files having the extension .TRN may neither be deleted nor overwritten! In these files, the OCI600 stores information that you can access with the "Offline trend" application. For this reason, it makes no sense to copy these files to the PC by means of file transfer.
- ***.SMO:** All files having the extension .SMO may neither be deleted nor overwritten! In these files, the OCI600 stores information that you can access with the "Offline trend" application. For this reason, it makes no sense to copy these files to the PC by means of file transfer.

The OZW10 stores the following files on the memory card:

- **OZW_xyz.BIL:** The OZW10 stores all billing-related data on the memory card when pressing the **FILE** button. First, the OZW... 001.BIL file will be created. Each time the **FILE** button is pressed, a new file is created whereby consecutive file name numbers (002, 003, 004, etc.) will be assigned. This readout mode is normally used when the central unit has not been equipped for remote readout. On the memory card, the billing data of several central units can be collected in order to read them on a local central unit.

For more information, refer to the following chapters:

- Files directly from the central unit
- Formating memory cards
- Copying and opening files
- Copying files
- Deleting files
- The "Offline trend" application

3.6.5 Formating memory cards

Formating memory card

To enable central units to download data to the memory card, the memory card must be formated. This concerns files the central units load down to the memory card and information and logged values relating to the offline trend.

OZW775:

Formating memory cards is not supported by this type of central unit.

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

Make certain you have established a connection to the plant. Use the left mouse button to click on directory **Files directly from central unit**. The right half of the window shows all files contained in the central unit:

- The directory is automatically uploaded when starting the application if, at that time, a connection to the central unit exists
- The directory is automatically uploaded if the application has already been started, in which case a connection to the central unit is established
- You can again upload the directory at any time by using the right mouse button and clicking on **Files directly from central unit** and then selecting **Upload directory**.

The right half of the window shows all files contained in the central unit. Use the right mouse button to click on **Files on memory card** and select **Format**. You will be asked if you really want to format the memory card. During formating, all files on the memory card will be deleted. Prior to formating, check to see if an offline trend is active and stop the offline trend before formating.

For more information, refer to the following chapters:

- Files directly from the central unit
- Files on the memory card
- Copying and opening files
- Copying files
- Deleting files
- The "Offline trend" application

3.6.6 Copying and opening files

You can transfer the files of the central unit or memory card to the PC and open the files with a configurable program. You configure the program to be started after transfer on the "Tools" menu – **Options...:** The **Options** dialog appears. Under **File transfer** in the **File editor** field, select the program you want to start (e.g. Microsoft Excel).

OZW775:

After starting the **File transfer** application, the left half of the window shows you the following directory:

- **History data**

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

Copy and open

Make certain you have established a connection to the plant. Use the left mouse button to click on the required directory. The right half of the window shows all files contained on the memory card.

Use the right mouse button to click on the file you want to transfer from the central unit or memory card to the PC and select **Copy and open files...** The **Save As** dialog appears. Select the directory and the file name under which the file shall be stored in the PC and continue with **Save**. The file is now transferred from the central unit or memory card to the PC where it will be stored.

After the file has been stored on the PC, a dialog appears where you will be asked if you wish to start the configured Editor. Continue with **Yes** if you want to start the configured Editor. The configured program is started and the program will open the file stored on the PC.

You can always access the file stored on the PC at a later time. Use Windows Explorer to find the file again or to delete it, or open it with an external program, such as Microsoft Excel.

For more information, refer to the following chapters:

- Files directly from the central unit
- Files on the memory card
- Formatting memory cards
- Copying files
- Deleting files

3.6.7 Copying files

You can transfer one or several files from the central unit or the memory card to the PC for further handling at a later point in time.

OZW775:

After starting the **File transfer** application, the left half of the window shows you the following directory:

- **History data**

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

Copy

Make certain you have established a connection to the plant. Use the left mouse button to click on the required directory. The right half of the window shows all files contained in the directory. The right half of the window contains all available files.

Here, you can select the files you want to transfer and store. To select several files simultaneously:

- Use the left mouse button to click on the first of several successive files. Then, press the Shift key and hold it down. Use the left mouse button to click on the last of the files that you would like to select. The required files are thus highlighted
- Keep the Ctrl key depressed and select all required files with the left mouse button. Each file that is clicked will be highlighted

Use the right mouse button to click on one of the selected files and select **Copy files...** Dialog **Select a folder** appears. Select the directory in which the file shall be stored on the PC and continue with **OK**. The files are now transferred from the central unit or memory card to the PC where they are stored under the same name as in the central unit or on the memory card. Note: If the selected directory already contains a file with the same name, it will be overwritten.

You can always access the files stored on the PC at a later point in time. Use Windows Explorer to find the files again or to delete them, or open them with an external program, such as Microsoft Excel.

For more information, refer to the following chapters:

- Files directly from the central unit
- Files on the memory card
- Formatting memory cards
- Copying and opening files
- Deleting files

3.6.8 Deleting files

Files on the memory card can be deleted. They cannot be deleted directly from the central unit. Files that have been transferred to and stored on the PC can be deleted with Microsoft Explorer.

OZW775:

Deleting files on the memory card is not supported by this type of central unit.

OCI600, OZW10:

After starting the "File transfer" application, the left half of the window provides the following directories:

- Files on the memory card
- Files directly from the central unit

Make certain you have established a connection to the plant. Use the left mouse button to click on the required directory. The right half of the window shows all files contained **Files on memory card**. The right half of the window shows all files contained on the memory card.

Use the right mouse button to click on the file you want to delete on the memory card and select **Delete**. Caution: Do not delete any files having the extension TRN or SMO. These files belong to offline trends on the central unit.

Before deleting the file on the memory card, you will be asked if you really want to delete the file.

For more information, refer to the following chapters:

- Files directly from the central unit
- Files on the memory card
- Formatting memory cards
- Copying and opening files

Delete

- Copying files

3.7 Parameter settings

3.7.1 Introduction to the "Parameter settings" application

This application enables the settings of the connected devices to be downloaded, uploaded or compared.

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 data points of the parameter set can be selected individually. The transmission result of uploading, downloading or comparing is displayed online.

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

For more information, refer to the following chapters:

- Processes in the "Parameter settings" application.

3.7.2 Processes in the "Parameter settings" application

The following processes are described in this chapter:

- Creating a new parameter set
- Adapting the parameter set
- Uploading the parameter set
- Downloading a parameter set
- Comparing parameter sets
- Printing in the parameter settings
- External editing of the parameter set

3.7.3 Creating a new parameter set

In addition to the existing standard parameter sets, you can create your own user-defined parameter sets:

- Standard parameter set: Parameter set in which all parameters are set to the default values as supplied
- User-defined parameter set: Parameter set created by yourself:
 - To repeatedly load frequently used parameter settings to devices without having to change each parameter over and over again
 - To store a status of a device on the PC so that the particular status can be reestablished at a later point in time

Procedure:

New parameter set

- A. To create a new parameter set, select from the "Parameter settings" application in the left window the device for which you want to have the new parameter set filed. Position the onscreen pointer in the right window of the application and press the right mouse button. A menu is opened. Select **New** and then **Parameter set....**

- Window **Parameter set properties** is opened. In that window, enter the name of the parameter set. Confirm your entry by clicking the **OK** button.
- Copy B. To copy and paste an existing parameter set, select in the left window the parameter set you want to copy and change (e.g. a standard parameter set or a parameter set of some other device of the same type). Press the left mouse button, hold it down and drag the parameter set to the device to which you want to transfer the new parameter set. Then, release the left mouse button. If the parameter set does not match the device (different types of devices), you cannot transfer the parameter set to that particular device.
- Adopt C. To adopt a parameter set from some other plant or PC, select in the left window the device whose parameter set you want to import. Use the right mouse button to click on the selected device and select **Import from....** Dialog **Open export file** appears. Select the required export file based on the name of the original parameter set or the file name of the export file. The program checks if the parameter set to be imported matches the type of selected device. If the parameter set cannot be imported to that device, an appropriate message will appear.
- To export a parameter set, select in the left window the parameter set to be exported. All user-defined parameter sets (blue) can be exported. Use the right mouse button to click on the selected parameter set and select **Export to....** The **Save As** dialog appears. Select where the parameter set shall be exported to.

The new parameter set is now filed in the directory of the selected device. In the left window, select the newly generated parameter set in order to check it.

You can now further edit the new parameter set:

- Adapting a parameter set
- Uploading a parameter set
- Downloading a parameter set
- Comparing parameter sets

- Delete To delete a parameter set, select in the left window the relevant parameter set. Use the right mouse button to click on the selected parameter set and select **Delete**.

For more information, refer to the following chapters:

- Adapting a parameter set
- Uploading a parameter set
- Downloading a parameter set
- Comparing parameter sets
- Printing in the parameter settings
- External editing of the parameter set

3.7.4 Adapting a parameter set

When adapting a parameter set, select:

- The data points that constitute part of the parameter set. Only the selected data points are actually downloaded to or uploaded by the device
- The values to be assigned to the selected data points

Parameter sets can be adapted offline (with no connection to a device). It is thus possible to produce parameter sets in the office, for example, to be downloaded to the device in the plant at a later point in time.

In the left half of the window, select the parameter set you want to adapt. Click on **+ / -** to the left of the parameter set to open or close it. When the parameter set is opened, a number of pages appear showing the data points of the parameter set. When

selecting a page with the left mouse button, the data points appear in the right half of the window. The same data point is shown in several columns. The individual columns have the following meaning:

Column	Description
No.	Consecutive numbering of the data points on a page
Line no.	Referring to the installation instructions of the relevant device
Address	Address of the device to which the data point belongs
Data pointt	Name of the data point
Value	Value of the data point in the parameter set
Unit	Unit of the data point in the parameter set
Transmission result	Result of transmission: - OK: Value has successfully been uploaded / downloaded

Selection of data point that shall constitute part of the parameter set

- To the left of the data point, there is an entry box. When clicking on such a box, a tick is added, and when clicking a second time, the tick is removed again. When a data point is marked, it is selected for downloading or uploading. It constitutes part of the parameter set
- To the left of the pages, there is also an entry box. When clicking on such a box, a tick is added, and when clicking a second time, the tick is removed again. When a page is marked, all data points on that page will automatically be marked, or the marking will be removed again
- To the left of the parameter set, there is also an entry box. When clicking on such a box, a tick is added, and when clicking a second time, the tick is removed again. When a parameter is marked, all pages and data points of that parameter set will automatically be marked, or the marking will be removed again

Change the value

Changing the value of the data point in the parameter set

You can change the value of the data point only if you have the required write access, which depends on your user access. The user level can be changed via the "Tools" menu – **Log on....** Depending on the password the program decides which user level you are authorized to work on. The user levels correspond to those of the respective devices: If, in the program, you work on the enduser level, for instance, you can change the same values as if you were on the enduser level of the respective device. Only values of user-defined parameter sets can be changed. The data points of standard parameter sets always retain their default values as supplied.

Change offline

A. You can change the value of a data point in the parameter set offline (with no connection to a device).

Select a data point. Press the right mouse button. A menu is opened. From that menu, select **Properties....** Then, window **Data point command** for that data point appears. In that window, you can make the appropriate settings.

For this command, you can also double-click on the value or use the following

button: 

The change only produces a change of the value in the parameter set. The value has not yet been downloaded to the device. This takes place only when downloading the parameter set.

Copy

B. To copy the value offline from one data point to another, first use the right mouse button to click on the data point from which you want to copy the value. Select **Copy**. Then, use the right mouse button to click on the data point to which you want to assign the copied value. Select **Paste value**.

The values can be copied and added only if the two data points are of the same type (e.g. both analog values or switching times). The values will then be transferred to the data points that follow the data point on which **Paste value** was executed.

Upload

This function is very useful in connection with time switch programs, for example. The change only produces a change of the value in the parameter set. The value is not yet downloaded to the device. This takes place only when downloading the parameter set.

- C. To adopt the value from the device in the plant, you can use uploading the parameter set.
 - D. Certain data points can only be changed together with other data points. The existence or setting ranges of such data points can be dependent on other data points. If you want to change such a value in the parameter set, the ACS uses a Wizard to guide you through all parameters that need to be entered.
- Ensure that the data point is part of the parameter set (must be selected) if it shall be included when downloading or uploading the parameter set.

For more information, refer to the following chapters:

- Creating a new parameter set
- Uploading a parameter set
- Downloading a parameter set
- Comparing parameter sets
- Printing in the parameter settings
- External editing of the parameter set

3.7.5 Uploading a parameter set

If you wish, you can upload the values of a device to a user-defined parameter set. Only values of user-defined parameter sets can be changed. The data points of standard parameter sets always have the default values as supplied. Uploaded are the values of all data points that constitute part of the parameter set. For information about the selection of data points that constitute part of the parameter set, refer to chapter Adapting a parameter set.

Upload parameter set

Use the right mouse button to click on the parameter set you want to upload from the device and select **Upload parameter set...** The **Transmission** window appears, which shows the progress when uploading data points. In the left half of the window, the program automatically jumps from one page to the next and, in the right half of the window, from one data point, which constitutes part of the parameter set, to the next. For each data point uploaded, the **Transmission result** column shows whether transmission of the value was successful.

For more information, refer to the following chapters:

- Creating a new parameter set
- Adapting a parameter set
- Downloading a parameter set
- Comparing parameter sets
- Printing in the parameter settings
- External editing of the parameter set

3.7.6 Downloading a parameter set

If you wish, you can download the values of a parameter set to a device. The data points of standard parameter sets always have the default values as supplied. Downloaded are the values of all data points that constitute part of the parameter set. For information about the selection of data points that constitute part of the parameter set, refer to chapter Adapting a parameter set.

Download parameter set

Use the right mouse button to click on the parameter set you want to download to the device and select **Download parameter set...** The **Transmission** window appears, which shows the progress when downloading the data points. In the left half of the window, the program automatically jumps from one page to the next and, in the right half of the window, from one data point, which constitutes part of the parameter set, to the next. For each data point uploaded, the **Transmission result** column shows whether transmission of the value was successful.

For more information, refer to the following chapters:

- Creating a new parameter set
- Adapting a parameter set
- Uploading a parameter set
- Comparing parameter sets
- Printing in the parameter settings
- External editing of the parameter set

3.7.7 Comparing parameter sets

Compare parameter sets

To see if there are differences between parameter sets, you are given the choice of comparing two parameter sets with one another.

Use the right mouse button to click on the parameter set you want to compare and select **Compare parameter set...** Dialog **Parameter set selection** is opened, which contains all parameter sets that exist for the device. Select the parameter set you want to compare and close the dialog by selecting **Select**. Then, window **Differences between "1" and "2"...** is opened.

You can now browse through the individual pages. When selecting a page, the left half of the window shows the data points. The same data point appears in several columns. The individual columns have the following meaning:

Column	Description
No.	Different values or statuses of data points in the two parameter sets are identified by a red exclamation mark. If they are identical, a blue equal sign appears. Consecutive numbering of the data points on a page
Line no.	Referring to the installation instructions of the relevant device
Data point	Name of the data point
Value "1"	Value of the data point in parameter set 1
Value "2"	Value of the data point in parameter set 2
Unit:	Unit of the data point in the parameter sets
State "1"	Status of the data point in parameter set 1
State "2"	Status of the data point in parameter set 2

Exporting the comparison, external editing of the comparison

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options...** Under **Export**, you find the template that has been defined for the **Parameter settings** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under Windows will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened.

Select **Export**. The **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened in the respective program. Formatings of the template will be adopted and the defined macro started.

Printing comparisons

Print

A. Select **Print....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or use the following button:



Print preview

B. Select **Print preview....** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

<i>Button</i>	<i>Function</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. –
	Closing the preview. The window for the preview of the report will be closed.

For more information, refer to the following chapters:

- Creating a new parameter set
- Adapting a parameter set
- Uploading a parameter set
- Downloading a parameter set
- Printing in the parameter settings
- External editing of the parameter set

3.7.8 Printing in the parameter settings

All parameter sets within the directory in the left half of the "Parameter settings" application can be printed out:

Use the right mouse button to click on the directory whose parameter sets you want to print.:

Print

A. Select **Print...** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or choose the following button:



Print preview

B. Select **Print preview...** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

Button	Function
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

For information about printing parameter set comparisons, refer to chapter Comparing parameter sets.

For more information, refer to the following chapters:

- Creating a new parameter set
- Adapting a parameter set
- Uploading a parameter set
- Downloading a parameter set
- Comparing parameter sets
- External editing of the parameter set

3.7.9 External editing of the parameter set

All parameter sets in a directory in the left half of the window of the "Parameter settings" application can be exported to further edit the data with an external program, such as Microsoft Excel.

Edit externally

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options...** Under **Export**, you find the template that has been defined for the **Parameter settings** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under Windows will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened. Use the right mouse button to click on the directory from which you want to export the parameter sets and select **Edit externally...** The **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened in the respective program. Formatings of the template will be adopted and the defined macro started.

For information about the export of comparisons of two parameter sets, refer to chapter "Comparing parameter sets".

For more information, refer to the following chapters:

- Creating a new parameter set
- Adapting a parameter set
- Uploading a parameter set
- Downloading a parameter set
- Comparing parameter sets
- Printing in the parameter settings

3.8 Commissioning report

3.8.1 Introduction to the "Commissioning report" application

This application is not included in all ACS7... software packages. For more information, refer to chapter Licensing.

This application provides for the logging of setting values of individual devices, groups of selected devices or entire plants.

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

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

For more information, refer to the following chapter:

- Processes in the "Commissioning report" application.

3.8.2 Processes in the "Commissioning report" application

The following processes are described in this chapter:

- Creating / changing a commissioning definition
- Selecting devices for the commissioning report
- Creating a commissioning report, uploading values
- Evaluating commissioning reports
- Printing commissioning reports
- External editing of commissioning reports

3.8.3 Creating / changing a commissioning definition

Commissioning definition A commissioning definition defines the devices in the plant that shall constitute part of the commissioning report. Several commissioning reports can be created for a commissioning definition, typically at different points in time after changes have been made to the plant or to plant sections. During the creation of the commissioning report, the values of all devices selected in the commissioning definition will be uploaded and stored. The stored data can be accessed at any time. At a later point in time, a commissioning report for the same commissioning definition with the same devices can be started again.

Procedure:

New commissioning definition A. To create a new commissioning definition, select from the "Commissioning report" application in the left window the uppermost directory (plant name). Position the onscreen pointer in the right window of the application and press the right mouse button. A menu is opened. Select **New – Commissioning definition....** Window **Commissioning definition properties** is opened. Under **General**, enter a name for the commissioning definition that describes the plant section as accurately as possible. Confirm the entries by clicking the **OK** button.

Copy B. To copy and paste an existing commissioning definition, select in the left window the commissioning definition you want to copy and change. Press the left mouse button, hold it down and drag the commissioning definition to the uppermost directory (plant name). Then, release the left mouse button.

Change To change the name of the commissioning definition, select in the left window the commissioning definition you want to change. Use the right mouse button to click on the selected commissioning definition and select **Properties....** Window **Commissioning definition properties**, where you can change the name, is opened.

Now, you can start selecting devices for the commissioning report.

Delete To delete a commissioning definition, select in the left window the relevant commissioning definition. Use the right mouse button to click on the selected commissioning definition and select **Delete**. Caution: All commissioning reports uploaded for the commissioning report will also be deleted.

For more information, refer to the following chapters:

- Selecting devices for the commissioning report
- Creating the commissioning report, uploading values
- Evaluating commissioning reports
- Printing commissioning reports
- External editing of commissioning reports

3.8.4 Selecting devices for the commissioning report

Selecting devices In the left half of the window, select the commissioning definition for which you want to select devices and for which a commissioning report shall be generated. Position the onscreen pointer in the right half of the window and select **New – Device....** Window **Device selection** is opened. Here, you can select the devices for which a commissioning report shall be generated. To select several devices simultaneously:

- Use the left mouse button to click on the first of several successive devices. Press the Shift key and hold it down. Now, use the left mouse button to click on the last device you want to select. The required devices are thus highlighted

- Keep the Ctrl key depressed and select all required devices with the help of the left mouse button. Each device that is clicked will be highlighted

To add the highlighted devices to the commissioning definition, select **Add**. After selection, select **Close** to return to the **Commissioning report** window. In the right half of that window, you will find all devices that have been added.

The same device may be present in several commissioning definitions. And the same device is shown in several columns that provide information about the type of device, bus address, identification of the device and manufacturer number. It is possible to sort by the individual columns.

Remove

To remove a device from the commissioning definition, select in the right half of the **Commissioning report window** the relevant device (multiple selections as described above are possible). Use the right mouse button to click on the selected device and select **Delete**.

Now, you can create commissioning reports for the selected devices.

For more information, refer to the following chapters:

- Creating / changing a commissioning definition
- Creating a commissioning report, uploading values
- Evaluating commissioning reports
- Printing commissioning reports
- External editing of commissioning reports

3.8.5 Creating a commissioning report, uploading values

Creating a commissioning report

When creating the commissioning definition, it was defined which devices shall constitute part of the commissioning report.

During the creation of the commissioning report, the values of all devices selected in the commissioning definition are uploaded and stored.

In the left half of the window, select the commissioning definition for which you want to create a commissioning report. In the right half of the window, the selected devices are shown.

Position the onscreen pointer in the right half of the window. Press the right mouse button and select **New – Commissioning report...** Now, the **Transmission** window appears, which shows the progress while uploading the data points. In the left half of the window, the program automatically jumps from one device that constitutes part of the commissioning definition to the next and from page to page and, in the right half of the window, from one data point to the next. The column **No.** is color-coded showing the data points that have already been uploaded:

- **Black:** The value of the data point has already been uploaded
- **Red:** The value of the data point has not yet been uploaded

After the commissioning values are uploaded, you can start evaluating the commissioning report.

For more information, refer to the following chapters:

- Creating / changing a commissioning definition
- Selecting devices for the commissioning report
- Evaluating commissioning reports
- Printing commissioning reports
- External editing of commissioning reports

3.8.6 Evaluating commissioning reports

Evaluate

After the commissioning values are uploaded, you can start evaluating the commissioning report. Navigate through the commissioning report and open or close the devices by clicking on + / -. Select the individual pages. The right half of the window shows the data points. The same data point is shown in several columns. The individual columns have the following meaning:

Column	Description
No.	Consecutive numbering of the data points on a page. The data points that have already been uploaded are color-coded: <ul style="list-style-type: none"> • Black: The value of the data point has been uploaded • Red: The value of the data point has not been uploaded
Line no.	Referring to the installation instructions of the respective device
Address	Address of the device to which the data point belongs
Data point	Name of the data point
Value	Value of the data point
Unit	Unit of the data point

Sorting can be made by individual columns.

You can print the commissioning report or further edit it externally.

For more information, refer to the following chapters:

- Creating / changing a commissioning definition
- Selecting devices for the commissioning report
- Creating a commissioning report, uploading values
- Printing commissioning reports
- External editing of commissioning reports

3.8.7 Printing commissioning reports

Print






Use the right mouse button to click on the commissioning report you want to print:
 A. Select **Print...** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start printing or use the following button:



Print preview

B. Select **Print preview...** The **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to start the preview. The **Preview** window appears:

Button	Function
	Enlargement by a factor of 2
	50 % reduction
	1:1 view

	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

For more information, refer to the following chapters:

- Creating / changing a commissioning definition
- Selecting devices for the commissioning report
- Creating a commissioning report, uploading values
- Evaluating commissioning reports
- External editing of commissioning reports

3.8.8 External editing of commissioning reports

Commissioning reports can be exported in order to further edit the data with an external program, such as Microsoft Excel.

Export

This function is dependent on the configuration of the program. Select the "Tools" menu – **Options....** Under **Export**, you find the template that has been defined for the **Commissioning report** application. On the one hand, this template determines the program to be started for external editing (depending on the type of file, the respective program assigned under *Windows* will be started, e.g. .XLS -> Microsoft Excel). On the other hand, the template determines the format when the file is opened in the program (you can adapt the template, if you wish). If the template contains macros, it is also possible to define the macro to be started when the exported file is opened. Use the right mouse button to click on Popcard and select **Edit externally....** The **Save As** dialog appears. Select the directory and a file name under which you want to save the file. After selecting **Save**, the file will be saved and automatically opened in the respective program. Formatings of the template will be adopted and the defined macro started.

For more information, refer to the following chapters:

- Creating / changing a commissioning definition
- Selecting devices for the commissioning report
- Creating a commissioning report, uploading values
- Evaluating commissioning reports
- Printing commissioning reports

4 Menus

4.1 Presentation of menus

Presentation

Menus contain functions that, possibly, cannot be executed at certain times because other functions must be called up first, or because communication has not yet been opened. Also, certain functions require a license. For more information, refer to chapter Licensing.

Menu items that cannot be executed yet are highlighted in grey.

For more information, refer to the following chapter:

- Main menu

4.2 Main menu

Main menu

With the ACS..., you can edit one plant at a time. After a new installation has been created, plants do not exist yet and certain menu items are not yet visible and accessible.

As soon as you have created a new plant or selected an existing plant, the available menu items and the tool bar change.

The main menu contains the following menu items:

- The "Plant" menu
- The "Edit" menu
- The "View" menu
- The "Applications" menu
- The "Tools" menu
- The "Window" menu
- The "Help" menu

For more information, refer to the following chapter:

- Presentation of menus

4.3 The "Plant" menu

Plant menu

The "**Plant**" menu contains the following menu items:

- **New:**
 - **Plant...:** For creating a new plant – Creating a plant
 - **Node...:** To add nodes (branches) to the plant view – Editing a plant view
 - **Page / Group...:** To add pages and groups to a user-defined Popcard - Adding a new page / group to the Popcard
 - **Section...:** To add sections to a user-defined Popcard - Adding a new section to Popcard
 - **Separator...:** To add separators to a user-defined Popcard - Adding a new separator to the Popcard, a page or section
 - **Data point...:**
 - To add data points to user-defined plant diagrams – Adding a data point to a plant diagram
 - To add data points to user-defined Popcards - Adding a new data point to the

Popcards, a page or section

To add data points for online trend logging - Selecting data points for online trend logging

To add data points for offline trend logging - Selecting data points for offline trend logging

- **Device...:** To select devices for which a commissioning report shall be generated - Selecting devices for the commissioning report
- **Popcard...:** To create a new Popcard – Creating a new Popcard
- **Parameter set...:** To create a new parameter set - Creating a new parameter set
- **Online trend definition...:** To make a new definition of data points to be logged in online trend - Creating / changing an online trend definition
- **Trend logging...:** To start a new trend definition - Starting online trend logging
- **Offline trend definition...:** To make a new definition of data points to be logged in offline trend - Creating / changing an offline trend definition
- **Commissioning definition...:** To make a definition which defines the devices of which a commissioning report shall be created - Creating / changing a commissioning definition
- **Commissioning report...:** To create a new commissioning report – Creating a commissioning report, upload values
- **Plant diagram...:** To create a new plant diagram – Creating a new plant diagram
- **Open...:** To open an existing plant – Open plant

You can also open the plant with the following button:



- **Close:** To close the plant that is currently open
- **Delete:** To delete the plant that is currently open – Delete plant
- **Print...:** To print in the active application window.

Printing can also be started with the following button:



- Printing a plant diagram
- Printing in Popcard
- Printing in online trend
- Printing in offline trend
- Printing in the parameter settings
- Printing commissioning reports
- **Print preview...:** This function provides a preview of the printout in the active application window. For more information, refer to **Print**.

The print preview can also be started with the following button:



- **Print plant report...:** To print the plant structure of the plant view or device view – Printing a device and plant view
- **Preview plant report...:** This function provides a preview of the printout of the plant structure of the plant view or device view. For more information, refer to **Print plant report**
- **Print from file...:** To print and open a preview that was stored in a file:
 - Printing a plant diagram
 - Printing in Popcard
 - Printing in online trend
 - Printing in offline trend
 - Printing in the parameter settings
 - Printing commissioning reports
- **Printer settings...:** The Windows **Print Setup** standard window appears. In this window, you can select a printer and make printer settings.
- **Edit externally...:** On certain applications, parts can be exported in a text format that is understood by other programs, whereby it is possible to directly start a

program that is capable of editing the exported data:

- External editing of Popcard
 - External editing of online trend logging
 - External editing of offline trend logging
 - External editing of the parameter set
 - External editing of commissioning reports
- **Export to...:** In certain applications, it is possible to export parts to some other plant or PC:
 - Creating a new plant diagram
 - Creating a new Popcard
 - Generating a new parameter set
 - **Import from...:** To import the exported data: Refer to **Export to...**
 - **Plant properties...:** To change the plant properties (settings for the plant that is open) – Plant properties
 - **Refresh device list:** To upload all information of the devices installed in the plant – Updating a device list
 - **Refresh reference data points:** To upload the reference data points that have an impact on the structure of the presented Popcards and the standard plant diagrams shown
 - **Edit device list...:** To manually enter devices on plants using OCI700 and OZW10 – Edit device list
 - **Edit plant...:** To create and change the user-defined plant view – Editing a plant view
 - **Connection on:** To establish a connection to the plant – Establishing a connection to the plant

You can also establish a connection to the plant with the following button:



- **Connection off:** To abort a connection to the plant – Aborting a connection to the plant

You can also abort the connection to the plant with the following button:



- **Exit:** The ACS... application is closed
- **At the end of the menu,** the program shows you the last 4 plants that have been opened. You can open the required plant – Open plant

4.4 The "Edit" menu

Edit menu

The **Edit** menu contains the following menu items:

- **Cut:** Adds the selected objects to the clipboard.

For this command, you can also use the following button:



- **Copy:** Copies the selected objects to the clipboard that you can insert at the required location using the **Paste** command.

For this command, you can also use the following button:



- **Paste:** Inserts the copied or cut objects into the selected location.

For this command, you can also use the following button:



4.5 The "View" menu

View menu

The **View** menu contains the following menu items:

- **Device view:** For changing from the plant view to the device view. It is always only one of the two views that is active at a time. The selection is made for all applications and dialogs of the ACS...
Navigating with a device view
- **Plant view:** For changing from the device view to the plant view. It is always only one of the two views that is active at a time. The selection is made for all applications and dialogs of the ACS...
Navigating with a plant view

- **Filter:** Here, you can select the data points that shall be displayed. By clicking the individual filters, the data points will be selected / deselected. The data points displayed are only those that correspond to the selected filters. The filters are only valid for the active window
 - **All:** When clicking, the entire filter will be selected / deselected
 - **Overview:** Only data points that give an overview
 - **Configuration:** Only data points that appear in the parameter settings
 - **Setpoints:** Only data points that define the control
 - **Control parameter:** Only data points that have an impact on the control behavior
 - **Diagnosis:** Only data points that are required for diagnosing the control behavior
 - **I/O modules:** Only data points that represent the value of inputs or outputs of the devices
 - **End user:** Only data points that the enduser can access on the controller
 - **Commissioning report:** Only data points that appear in the commissioning report

- **Consider dependencies:** Selected in the default setting. If this menu item is not selected, the pages, sections and data points that are dependent on the reference data points will also be displayed. This application is only available when the window is active

- **Tool bar:** Shows and hides the ACS... tool bar
- **Status bar:** Shows and hides the ACS... status bar

4.6 The "Applications" menu

Applications menu

The **Applications** menu contains the following menu items:

- **Plant diagram:**
Visualization and remote operation of data points with plant graphic.
- **Popcard:**
Visualization and remote operation of all transmitted data points of the connected devices.
- **Online trend:**
Acquisition and presentation of the dynamic behavior of selected data points with connection to the plant.
- **Offline trend:**
Acquisition and presentation of the dynamic behavior of selected data points with no connection to the plant.

- **File transfer:**
Transmission and storage of the files of the central units and memory cards.
- **Parameter settings:**
Uploading and editing the setting parameters of a device in tabular form.
- **Commissioning report:**
Logging the setting values of individual devices, device groups or the entire plant.

4.7 The "Tools" menu

Tools menu

The **Tools** menu contains the following menu items:

- **Language selection on startup:** To select whether, on starting the ACS..., you want to have the choice of changing the language – Changing the language
- **Title picture on startup:** To select whether, on starting the ACS..., the title picture with the copyright information shall appear
- **Communication monitor...:** The communication monitor is used to analyze, log and store the communication between ACS and one or several central units
- **Log on...:** For changing the user level by entering the relevant password - Password entry
- **Password...:** Opens a dialog for changing the passwords required for the different user levels. Only the person who logs on as administrator is granted access - Password entry
- **Licensing...:** For adding or removing licenses (functionality) – Overview of licensing
- **Options...:** Here, you can:
 - Define the company name that shall appear on labels
 - Define the storage location of plant files – Creating a plant, Opening a plant
 - Define the templates to be used for external editing of data in the different applications:
 - External editing of the Popcard
 - External editing of online trend logging
 - External editing of offline trend logging
 - External editing of a parameter set
 - External editing of commissioning reports
 - Select the program that shall be started after uploading a file from the central unit - Copying and opening files
 - Select the application that shall be opened after starting the ACS... - Applications

4.8 The "Window" menu

Window menu

The **Window** menu contains the following menu items:

- **New window:** Opens a new window for the active application
- **Cascade:** Arranges all opened windows in a tiled pattern so that the title bars of the individual windows can be seen
- **Arrange all:** Arranges all windows one below the other side by side
- **Arrange symbols:** Arranges all symbols (iconized windows) side by side

- **At the end of the menu**, all opened windows appear. You can move one of the windows in the foreground

4.9 The "Help" menu

Help menu

The **Help** menu contains the following menu items:

- **Help**: Starts the help function of the ACS.... The same result is obtained when pressing the F1 key in the ACS...
- **Use help**: Shows the contents of the topics required in connection with the help function. The same result is obtained when pressing the F1 key, e.g. with the help function of the ACS...
- **About the ACS...**: Shows in a window the program information about the ACS... In the case of support requests, it is especially the information about the **Version** and **Build** and about the operating system that is important

To start the Help, you can also use the following button:



5 Tips and tricks

5.1 Status window

Status window

The status window shows you all important information about the plant. To open the status window, select the "Window" menu – **State** -....

5.2 Plant

Plant

A plant consists of a central unit and several devices that are connected to the central unit via a field bus (M-bus or LPB).

The program maps a plant in the plant file.

For more information, refer to the following chapter:

- Working with a plant

5.3 Plant file

Plant file

The information about the individual plants is stored in a plant file which contains:

- Information about the plant (creation, date of creation, description, etc.)
- Information about the central unit or service interface that shall be used for communicating with the plant, including all required settings
- The device list which contains the devices installed in the plant, including additional information about the devices
- The plant view as defined by the user, provided it has been defined
- All parameter sets created in the "Parameter settings" application
- All trend definitions and loggings created in the "Online trend" and "Offline trend" applications
- All commissioning report definitions and loggings created in the "Commissioning report" application

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

5.4 Device description

Device description

A device has dynamic information that is provided in the form of a data point.


To enable the program to identify the data points contained in a device, the ACS... is supplied complete with a static device description of each device.

In the device description, the following information is stored:


- The data points contained in the device

- Whether or not a data point can be uploaded or downloaded
- The possible setting values for a data point and the default value of the data point when the device was supplied
- The way operating pages must be represented in the "Popcard" application
- The picture and data points that shall appear in the "Plant diagram" application
- The data points of the "Parameter set" application connected to the Wizard
- The data points that can be selected for editing in the different applications

The device descriptions cannot be changed.

If, subsequently, new devices are added to the plant, it can occur that the program does not have the device description required for the specific device. In that case, the device is identified by a grey rectangle with a cross inside . You may be able to access certain data points of the particular device, but not all, and it is also possible that you see certain data points in the ACS... program that do not really exist on the device. In that case, invalid values will be displayed. To get a device description of the latest devices, please contact your Siemens sales office.

Some systems use devices not supplied by Siemens. There are no device descriptions for such devices available. Devices of that kind are identified by a grey rectangle with a cross inside. You may be able to access certain data points of the particular device, but not all, and it is also possible that you see certain data points in the ACS... program that do not really exist on the device. In that case, invalid values will be displayed. Siemens may not be able to provide device descriptions for such devices.

Devices that have been replaced since the device list was last updated are identified by the  symbol.

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

5.5 Data point

Data point





Data points deliver dynamic information about the devices.

After all information about the devices contained in the plant has been transferred to the PC, the relevant devices are stored in the plant file. The program knows all devices installed in the plant. The device types present are automatically identified and also the type of plant diagram selected on the device.




The program delivered also includes a device description of each device. Based on information given in the device description, the program knows automatically:

- The data points contained in a device: These can be selected from the various applications for editing
- Whether the data point can be uploaded or downloaded:
 - Data points that can be downloaded are identified by a **solid circle**
 - Data points that can only be uploaded are identified by an **empty circle**

- Reference data points are in addition marked by an arrow. These are data points on which the display and properties of other data points depend

	Data point: The value can be changed
	Data point: The value cannot be changed
	Reference data point: The value can be changed
	Reference data point: The value cannot be changed

- A **red circle** or **value - - -** means that the value has not yet been uploaded from the device
- A **black circle** means that the value has already been uploaded from the device
- A **blue circle** or a **value in parentheses** means that the user has changed the value on the PC, but it has not yet been transferred to the device

	Red: The data point has not yet been read
	Black: The data point has been read
	Blue: The data point has been changed, but the value has not yet been written to the device

- The possible setting values for a data point and the default value of the data point when the device was supplied. The program automatically provides a dialog for changing data points:
 - In that dialog, the settings that can be made are only those in the permitted setting range
 - When clicking the **OK** button, the adjusted value is transferred to the device
 - The dialog provides the **Default** button: When clicking the button, the value is written to the device with which the device was delivered
 - In the dialog, you can switch to the **Command** page. Depending on the data point, the following commands are provided there:
 - **Write:** Corresponds to the **OK** button on the **Value** page. The adjusted value is transferred to the device
 - **Override:** The value is overwritten for a time predefined in the device. Then, the device will automatically switch back to the initial value
 - **Out of service:** Here, you can activate or deactivate certain data points, such as a holiday period or certain limitations

For more information, refer to the following chapters:

- The first steps
- Working with connections
- Working with a plant
- Navigating through a plant
- Working with the devices
- Applications

5.6 Time switch program

Time switch program

To program time switches, the **Time switch program** window is opened if an element of the time switch is opened for writing. A maximum of 6 switching points per weekday can be defined. Depending on the type of time switch, 2 or 3 operating levels can be selected:

- **Comf** (Comfort) / **Prcom** (Precomfort) / **Eco**
- **Norm** (Normal) / **Reduc** (Reduced)
- **On** / **Off**

The last operating level of the previous day automatically becomes the first level of the next day.

The switching points are to be entered graphically. First, select the weekday whose program you want to change.

Add switch point:

- You can add a switching point by double-clicking on the required level and the required time

Move switch point:

- To move a switching point, select the relevant switching point with the left mouse button and place it at the required location

Delete switch point:

- You can delete an individual switching point by selecting it with the right mouse button and then selecting it from the **Delete switch point** menu
- You can delete all switching points of a weekday by clicking on **Delete all switch points** with the right mouse button or by selecting **Cut daily program**
- You can also delete an individual switching point by selecting it with the left mouse button and then moving it to a neighboring switching point

Editing the time switch program:

For editing time switches, it is also possible to use the following commands. For that purpose, use the right mouse button to click in the window and use the following menus:

- **Cut daily program**
- **Copy daily program**
- **Paste daily program**

5.7 Holidays / special days

Holidays / special days

To program holidays or special days, the **Calendar** window is opened if an entry is opened for writing.

Making entries:

To enter holidays or special days, select the **Reason** first:

- **Holidays** are highlighted in green: Holidays are 7-day programs
 - **Special days** are highlighted in red: Special days are 24-hour programs
- Start and end can be entered either graphically or manually. The start of an entry is marked by a dot
- **Graphic entry:** Use the left mouse button to click on the first day of the entry. Keep the left mouse button depressed and select the last day of the entry. Now, release the mouse button. Only entire days can be graphically entered
 - **Manual entry:** Select date and time of day of **Start** and **End** of the entry

You can select whether the entry shall be repeated on a yearly basis.

After having completed the definition of an entry, adopt it by clicking the **Add** button.

To transfer the entire changed program to the controller, click the **OK** button.

Removing entries:

Select the holidays or special days you want to remove. Click the **Remove** button to remove the selected entries. To transfer the entire changed program to the controller, click the **OK** button.

If several entries are defined for the same day, they can be individually selected with the arrow buttons.

5.8 Wizard

Wizard

Certain data points can only be changed together with other data points. The existence or setting ranges of such data points can be dependent on other data points. If you want to change such a value in the parameter set, the ACS uses an entry tool to guide you through all parameters that need to be changed.

1. The entry tool opens the **Wizard** window with the first parameter of the row. This value can now be changed by entering the value or by clicking the **Default** button.
2. You can change the next parameter by clicking the **Next >** button.
3. You can return to one of the previous parameters by clicking the **< Back** button.
4. After having reached the last parameter and made the setting, you can end the whole process by clicking the **Finish** button. It is only now that the new parameters are adopted by the parameter set.

The process can be aborted at any time by clicking the **Cancel** button. In that case, all settings made with the help of the entry tool will be lost.

5.9 Delete

Delete



Select the element you want to delete. Press the right mouse button and select **Delete**, or press the **DEL** key.

If you wish, you can also use the following button for this command:



5.10 Copy / Paste

Copy / Paste

	Copy	Paste
Button		
Combination keystrokes	Ctrl+C	Ctrl+V
Context menu	Position the onscreen pointer on the Popcard, trend, data point, text or link you want to copy. Press the right mouse button and select Copy . Position the onscreen pointer on the location where you want to insert the object. Then, press again the right mouse button and select Paste . The copy of the object is now inserted at the required location.	

5.11 Properties

Properties

Select the element whose properties you want to change. Press the right mouse button. A window is opened. In the window, select **Properties...** Then, the **Properties** window is opened and you can change the properties of the element.


If you wish, you can also use the following button for this command:



5.12 Print

Print

Select the element you want to print. Press the right mouse button. A window is opened. In that window, select **Print...** Then, the **Print** window is opened. Under **Options**, select the print range and the number of copies. Select **Start** for printing.









If you wish, you can also use the following button to select printing: 

5.13 Print preview

Print preview

Select the element of which you want to see a page preview. Press the right mouse button. Select **Print preview...** Then, the **Print** dialog is opened. Select the **Printer** you want to use and the **Pages** you want to print. Select **Start** to show the preview.

The **Preview** window appears:

<i>Button</i>	<i>Function</i>
	Enlargement by a factor of 2
	50 % reduction
	1:1 view
	Printing the current page. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Printing all pages. When you position the onscreen pointer on the button and you press the right mouse button, another window is opened. In that window, you can select the required printer.
	Sending the pages as a "List & Label" file (.LL) to a recipient.
	Saving the pages as a "List & Label" file (.LL) in a certain directory. Using the "Plant" menu – Print from file... , the file can be reopened and printed in the preview window at any time.
	Closing the preview. The window for the preview of the report will be closed.

5.14 Modem problems

Modem problems

Should you encounter any problems when installing your modem, refer to Windows Help. You start Windows Help by clicking on Desktop with the left mouse button and then pressing the **F1** key. Enter the keyword "Modem" under **Index** and you will find "Modem troubleshooting" and additional useful instructions on modems.

5.15 Communication monitor

Monitor

The communication monitor supports fault tracing should there be communication problems with central units type OZW771, OZW600, OCI611, OZW10 or OZW111 or with the OCI700 and OCI69 interfaces. Select "Tools" menu – **Communication monitor**.... The **Communication monitor** dialog is opened and shows a list of events with the following columns:

Column	Description
Date/Time	Date and time of day of entry
Client/Channel	Client: NetBIOS name: ACS program Channel: Connection (COM or modem)
Kind of activity	Client/server Application Data stream IN Data stream OUT Datalink IN Datalink OUT Escape IN Escape OUT
Data stream	Information about data exchange, e.g. opening the connection (Connect) or data stream in ACSII and Hex presentation

The communication monitor provides the following functions. Use the right mouse button to click on the event list. The following menus will appear:

- **Start logging:** Starts logging. Logging that has already been started continues
- **Stop logging:** Stops logging.
- **Pause auto scrolling:** Logging continues in the background
- **Clear screen:** Screen is deleted, but logging file is retained
- **Export...:** **Save as** dialog appears. The display can be exported as an ASCII file
- **Import...:** **Open** dialog appears. An exported display or the logging file can be imported for display. Any existing display will be overwritten
- **Properties...:** **Dialog** with the following setting choices appears:
 - **Logging Items:** Selection of activities that shall be logged
 - **Selection for Logging:** Selection of connections that shall be logged
 - **File Path ...:** Selection of a logging file to which all events shall automatically be exported

Minimal visible lines: Minimum number of last events that the display shall retain before they are overwritten by new events

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