

# **SIEMENS**

## **Operating Software ACS110**

### **Operating Instruction**

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# Introduction

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## Overview

ACS110 is a software program designed which is used for making parameter settings and for uploading datapoints from the OZW10 central unit and from the devices connected to the OZW10.

The ACS110 is connected to the central unit via the RS-232 port, either locally or via modem. The ACS110 can establish a connection to several plants using various communication ports (COM ports), but not simultaneously.

The following applications are supported by the ACS110:

- **Popcards**  
You can view and edit the datapoints of a device – similar to using the Operating Instructions.
- **Parameter Settings**  
You can handle the datapoints of a device defined in the device description as a standard parameter data record.
- **Trend**  
You can cyclically prompt the datapoints of a device and show them in a graphical window.
- **Setup Protocol**  
You can prompt the setup datapoints of a device, enabling you to generate a setup protocol.
- **Memory Card**  
You can upload data from and download data to the memory card and upload event data.

If this is the first time you work with the ACS110, we would advice you to turn to section "The first steps".

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## System requirements

- **Processor:** 486 / 66 MHz for Windows 95 / 98  
Pentium for Windows NT 4.0
- **RAM:** min. 24 MB for Windows 95 / 98  
min. 32 MB for Windows NT 4.0
- **Hard disk:** min. 4 MB (the amount of free space required is very much dependent on how many plants have been defined and on the amount of data read from the plant)
- **Screen:** VGA standard driver (VGA 3.0),  
640 x 480, 16 colours
- **Port:** serial COM1...COM4, up to 9'600 Baud for M-bus central unit (direct or modem), parallel port for security key
- **Operating system:** Windows 95, Windows 98 or Windows NT 4.0

- **Diskette drive:** 3.5 in, 1.4 Mbyte
- **CD drive:** 1 speed

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## Languages

You can select the language you require when starting up the ACS110. Then, you can also decide whether or not the dialog for language selection shall be shown every time the ACS110 is started up.

It is not possible to change the language while the ACS110 is running.

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## Installation

The ACS110 is installed with the installation program.

### Installing the software

For the steps to be followed, refer to the ACS110 Operating Manual.

### Supplied files

The following files will be installed on the installation path of the ACS110 (...\\ACS110\\):

- **ACS110.EXE:** the current program
- **ACS110xx.HLP:** online help in different languages
- **README.TXT:** the latest information about the ACS110
- **LPBTXTxx.VMC:** text catalogs in different languages
- **LPBUNT01.BUD:** catalog of SI units
- **Mxxxxxxx.APP:** device description of a device
- **Mxxxxxxx.MAR:** additional file to the device description (optional)
- **Mxxxxxxx.MAW:** additional file to the device description (optional)
- **Mxxxxxxx.PAR:** parameter set of a device (optional)

The following files will be installed in the Windows system directory:

- **FPGRID10.VBX:** grid control for the ACS110
- **GRAPH.VBX:** grid control for the ACS110
- **SFTTREE.DLL:** tree control for the ACS110
- **SFTTB.DLL:** tab control for the ACS110
- **GSW.EXE:** program for the ACS110 trend graphs
- **GSWDLL.DLL:** part of GSW.EXE

The following files will be installed in the Windows directory:

- **UNICOM.INI:** INI file for UNICOM.EXE
- **ACS110.INI:** INI file for the ACS110



These two files should not be edited manually. They are used to provide settings and internal data that are plant-independent, which should be stored permanently beyond the running time of the ACS110.

The following files will be installed in the Windows / Unicom directory:

- **UNICOM.EXE**: communication program
- **\*.mdm**: various modem drivers

The installation program will not affect the AUTOEXEC.BAT and CONFIG.SYS files.

# The Plant

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## Introduction

A plant consists of a OZW10 central unit and several devices that are connected to the central unit.

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## Menus

The ACS110 supplies various menus which can change depending on the menu you have selected.

### Main menu

The ACS110 allows you to handle one plant at a time. After a new installation, no plants are in existence yet and, hence, not all menu items are visible and accessible.

As soon as you have selected a new plant, the available menu items and the tool bar will change.

The **main menu** offers you the following menu choices:

- **Plant** menu
- **Application** menu
- **Edit** menu
- **View** menu
- **Extras** menu
- **Windows** menu
- **Help** menu

### Plant menu

The **plant** menu offers you the following menu choices:

- **New**: the "Plant – Information" window appears. In this window, you can enter the settings for the new plant
- **Open...**: the "Plant – Open" window appears. From this window, you can select one of the plants that already exist (plant files)
- **Close**: the plant currently selected will be closed. If the selected plant has been changed, you will always be asked if you would like to save the changes
- **Save**: the plant currently selected will be saved in a plant file. If you have not already saved the plant, the response will be identical to menu item **Plant – Save As...**
- **Save as...**: the "Save File As..." window appears. From this window, you can choose where you want to have your plant saved (plant file)



*Plant New tool*



*Plant Open... tool*



*Plant Save tool*



*Plant Connect tool*



*Plant Disconnect tool*

- **Login...:** the "Login" window appears. You will be prompted to enter your name and your password
- **Plant Information...:** the "Plant – Information" window appears. In this window, you can change the settings of an existing plant
- **Connect:** the connection to the plant is made. The window "Opening the Connection – Information" appears. In this window, you can watch how the connection is opened. The command is made available only if a connection does not yet exist
- **Disconnect:** the connection to the plant will be cut. The window "Closing the Connection – Information" appears. In this window, you can watch how the connection is closed. The command is made available only if a connection does not exist
- **Update Device List...:** the list of users will be created. The "Plant Directory – Information" window appears. This window shows you how many devices in the plant have already been detected. If a connection does not yet exist, it will automatically be opened
- **Group Device...:** the window "Device Selection" appears. In this window, you can group the existing devices according to street and name. For more detailed information, refer to section "Grouping devices"
- **Print...:** the content of the window currently active is printed out. The standard "Print" window appears. This command is a standard command in Windows applications, but is not yet implemented here
- **Print Preview:** a window appears, showing you how the content of the window currently active would be printed out. This command is a standard command in Windows applications, but is not yet implemented here
- **Print Setup tool...:** the standard "Print Setup" window appears. From this window, you can select a printer
- **List of plants previously selected:** from a list of a maximum of four previous plants, you can select one directly. If the plant currently selected has been changed, you will always be asked if you would like to save the changes
- **Exit:** the ACS110 will be closed. If the plant currently selected has been changed, you will always be asked if you would like to save the changes. If a connection to the plant still exists, it will automatically be cut

## Application menu

The **Application** menu offers you the following menu choices:

- **Popcards...:** starts the "Popcards" application
- **Parameter Settings...:** starts the "Parameter Settings" application
- **Trend...:** starts the "Trend" application
- **Memory Card:** starts the "Memory Card" application

- **Setup Protocol...:** starts the "Setup Protocol" application

## Edit menu

The **Edit** menu offers you the following menu choices:

- **Undo:** cancels the previous action
- **Cut:** places the selected objects on the clipboard
- **Copy:** copies the selected objects to the clipboard, which you can then insert where required using the "Paste" command
- **Paste:** inserts the copied or cut objects at the selected location

These menu choices are not yet offered by any of the applications, however.

## View menu

The **View** menu offers you the following menu choices:

- **Tool Bar:** shows or hides the ACS110 tool bar
- **Status Bar:** shows or hides the ACS110 status bar

## Extras menu

The **Extras** menu offers you the following menu choices:

- **Language Selection:** you can choose whether you want the "Language" window displayed the next time the ACS110 is started up
- **Cover Picture:** you can choose whether you want the cover picture with the copyright information displayed the next time the ACS110 is started up
- **Connections...:** a window appears, in which you can configure new connections to plants (not yet implemented)
- **Password...:** the "Change Password" window appears. This menu choice can be activated only if the current level "Administrator"

## Windows menu

The **Windows** menu offers you the following menu choices:

- **New Window:** the "Status" window of the current plant is opened
- **Cascade:** arranges opened windows in a cascaded pattern so that the top of each individual window is visible
- **Tile:** arranges opened windows side by side so that all windows are visible
- **Arrange Icons:** arranges all icons (minimized windows) side by side. The icons are arranged in rows
- **List of opened windows:** activates an icon (minimized window)

## Help menu

The **Help** menu offers you the following menu choices:

- **Contents:** shows the help choices available with the ACS110
- **How to Use Help:** shows the summary of topics for using help. Selecting this command is the same as pressing the F1 key
- **Info...:** shows information about the program, gives the ACS110 version number and copyright information



*Help Info... tool*

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## Process

When you work with the ACS110, certain processes must be observed.

### First steps

#### *Introduction*

If this is the first time you work with the ACS110, this section introduces you to the operation of the software program.

After starting up the ACS110, the cover picture appears, followed by a window for selecting the required language. After selecting the language, you will see the main window with the main menu.

For more information, refer to section "Starting up the ACS110".

#### *Preparing a connection*

To establish a connection to a plant, you need to connect the ACS110 to an OZW10 central unit.

For more information about the preparation of a connection to a plant, refer to section "Preparing a connection".

#### *Selecting a plant*

From the **Plant** menu, choose **New**. You can create a new plant in the "Plant Information" window.

For more information about the creation of a new plant, refer to section "Creating a new plant" or "Selecting a plant".

#### *Making a connection*

From the **Plant** menu, select **Connect**, thus establishing a connection to the plant.

For more information about establishing a connection, refer to section "Making a connection".

#### *Steps to be taken after the first time a connection is opened*

To make certain the devices present are indeed detected by the ACS110, you should update the list of devices. This is the only way to show the devices installed in the plant. From the **Plant** menu, select **Update Device List...**

For more information about the detection of devices in a plant, refer to section "Detecting devices".

### ***Uploading data from devices and changing them***

After having detected devices in a plant, you can upload data from them, or change and record them. From the **Application** menu, select **Pop-cards...** , **Parameter Settings...** , **Trend...**, **Offline Trend** or **Setup Protocol...**

For more information about the various applications, refer to section "Selecting a plant".

### ***Aborting a connection***

To cut a connection to a plant, select **Disconnect** from the **Plant** menu. For more information about cutting a connection to a plant, refer to section "Aborting a connection".

### ***Accessing data read***

In some applications, plant data that have been uploaded can be exported as a file. Normally, these data are saved on the installation path of the ACS110 (... \ACS110 \<Application> \<File name> .<File type> . These data can be accessed at any time using a standard spreadsheet program or editor.

## **Starting up the ACS110**

The ACS110 is a Windows 3.1 application which can also be run on Windows 95/98 and Windows NT.

Starting up on **Windows 3.1 /3.11**:

1. To start the ACS110, double-click on the ACS110 icon in Program Manager.
2. The ACS110 can also be started directly from the File Manager.

Starting up on **Windows 95/98** and **Windows NT**:

1. Choose the **Start** button and point at **Programs**.
2. Point at the **ACS110 folder** which contains the program and choose the ACS110 program.
3. The ACS110 can also be started directly from Explorer.

After starting up the ACS110, the "Language" window appears. From this window, select the required language and choose the "Continue" button. If you do not want this window to appear the next time you start up the ACS110, choose "Do not show this dialog anymore".

After selecting the language, the title picture with information about the software appears.

If this is the first time you start the software program, the "Edit passwords" window appears. This window prompts you to define a password for the different access levels of the ACS110. For more detailed information, refer to section "Editing passwords".

If this is not the first time you start the software program and you have assigned the passwords to end-users and service staff, the "Login" window appears. Enter your personal password and choose the "OK" button.

For more detailed information, refer to section "Logging in at the ACS110".

After successfully logging in, the main window appears and, at bottom left, the plant's "Status" icon.

## Handling a plant

To be able to establish a connection with a plant, you need to define the connection in the ACS110 first.

### *Creating a new plant*

#### Introduction

Each plant to which you want to establish a connection must first be created by you (COM port, etc.).

#### Procedure

To create a plant, select **New** from the **Plant** menu. The "Plant – Information" window appears. In this window, you can create a new plant or change the settings of an existing plant.

If, later on, you want to change the settings made for the new plant, section "Changing a plant" will offer you help.

After having created a plant and after having prepared the connection to it (refer to section "Preparing a connection"), you can open the connection (refer to section "Making a connection").

### *Changing a plant*

#### Introduction

Each plant that you have created and to which you would like to establish a connection can also be changed by you.

#### Procedure

To change an existing plant, select **Plant Information...** from the **Plant** menu.

The "Plant – Information" window appears. In this window, you can change the settings of an existing plant.

### *Selecting a plant*

#### Introduction

Each plant that you have created can be selected by you.

#### Procedure

To open a plant, select **Open...** from the **Plant** menu. The "Plant – Open" window appears. From this window, you can select one of the plants that already exist.

If you select a plant from the list, information relating to that plant will be displayed, e.g. description of the plant and of the COM port that is used for communicating with the plant.

If, later on, you want to change the settings made for the plant, section "Changing a plant" will offer you help.



*Plant New tool*



*Plant Open... tool*

After having selected a plant and after having prepared the connection to it (refer to section "Preparing a connection"), you can open the connection (refer to section "Making a connection").

## ***Grouping devices***

### **Introduction**

When the ACS110 detects a device, it cannot decide on its own to which user the device belongs. If you wish to assign the individual devices of your consumers, you have to do it manually.

### **Procedure**

Make certain that none of the applications is open. If one or several of the applications are open, close them before you proceed.

Select **Grouping Devices...** from the **Plant** menu to open the "Device Selection" window. Now, select the device(s) that you want to combine in one group and then choose the "Group Devices..." button. The "Change Device Address" window will appear.

Now, if you wish, you can enter the street and the name of the consumer to whom the device(s) belong(s). Choose the "OK" button to make the grouping.

Repeat the procedure until all devices are grouped.

If you do not find some of the devices in the "Device List:", you have to update the list. In that case, choose the "Update Device List" button and the ACS110 will automatically establish a connection to the plant to re-read the current plant. If the required devices are still not available, the OZW10 central unit is either incorrectly configured or has not yet acquired all devices.

## **Connections within a plant**

This section provides information about how to prepare, open and abort a connection.

### ***Preparing a connection***

#### **Introduction**

To be able to establish a connection to a plant, it must be set up first.

#### **Procedure**

In the case of a direct connection, connect your PC via a free COM port together with a NULL modem to the OZW10 central unit.

In the case of a connection via the telephone line, you need to connect one modem to a free COM port of your PC and a second one to the OZW10 central unit. Then, you have to configure the serial port of your PC. For details, refer to section "Configuring a connection".

For more information, refer to the ACS110 Operating Manual.

### ***Configuring a connection***

#### **Introduction**

Before you can establish a connection via the telephone line, you have to configure it first.



## Procedure

Select **Connections...** from the **Extras** menu. The "Connections" window appears. It is subdivided into two parts. In the upper half, the type of connection for each serial port of your PC can be defined. In the lower half, the connection selected above can be configured.

### Setting the type of connection

From the "Ports" list, choose the button of the setting (down arrow) that you would like to change. A list of different drivers that you can select appears. A differentiation must be made between Modem (driver for connections via modem) and Direct (driver for a direct connection). The required driver is selected by clicking on it.

If you do not find the driver you need, you must load it from a selection of drivers provided with the ACS110 or create it as new.

### Loading the driver

When choosing the "Load" button, the "Load driver" window appears. In the lower half of the window, you can search for the driver file you require. After clicking on the required driver file, the "Driver:" list appears (one or several drivers).

Now, select the required driver and then choose the "Load" button. The message "The driver(s) has (have) been successfully loaded" will appear. If you need additional drivers, repeat the above procedure until you have loaded all the drivers required. The "Load driver" window will be closed by choosing the "OK" button.

In the "Connections" window, you can now assign one of the loaded drivers to the required serial port.

### Creating a new driver

If the type of driver required for your modem is not included in the scope of delivery of the ACS110, you can create it yourself.

For that purpose, choose the "New" button and the "New Modem Driver" window appears. In that window, you can configure the serial port under "Connection" and make the necessary modem settings under "Standard" and "Extended".

### Connection

To make changes to the serial port, choose the button of the required setting (down arrow). A list with a choice of setting values appears from which you can select one.

### Standard and Extended

To make changes to the modem setting, double-click on the required setting. The pointer appears in the entry field and you can change the existing setting.

We draw your attention to the fact that wrong settings may lead to problems when opening a connection. Also refer to the manual provided by the supplier of your modem.

In the entry field "Driver Names:", you can assign your modem's model no. to the settings made, if you wish.

By choosing the "Save" button, the settings made will be stored and the "New Modem Driver" window closed.

The created driver can now be selected under the name entered.

## Editing drivers

Drivers that already exist can be edited. For that purpose, select the required driver from the "Ports:" list and choose the "Edit" button. The "Edit driver" window appears. The procedure is the same as that described above in section "**Creating a new driver**".

## Cancelling a driver

Loaded or newly created drivers can be removed from the list of selectable drivers. For that purpose, choose the "Cancel" button and the "Cancel Driver" window appears. Select the driver(s) you want to cancel and choose the "Cancel" button. The selected drivers will then be removed from the list. You can close the "Cancel Driver" window by choosing the "OK" button.

## Making a connection

### Introduction

After having prepared a connection (refer to section "Preparing a connection") and after having created a new plant (refer to section "Creating a new plant"), or opened a plant (refer to section "Selecting a plant"), you can establish a connection to the plant.

The command is available only when no connection exists.

### Procedure

Select **Connect** from the **Plant** menu to connect a plant. The "Opening the Connection – Information" window appears, where you can watch how the connection is opened. After the connection has been established, the window disappears. If an error occurred while the connection was opened, an error message with the possible causes and actions will be displayed.

After having established a connection to a plant, you can read data from the devices, or change and record them (refer to sections "Popcards", "Parameter Settings", "Trend", "Memory Card" and "Setup Protocol").

## Aborting a connection

### Introduction

Naturally, any connection that you have established (refer to section "Making a connection") can also be cut by you.

The command is available only when no connection exists.

### Procedure

To cut a connection to the plant, select **Disconnect** from the **Plant** menu. The "Closing the Connection – Information" window appears, where you can watch how the connection is closed.

## Plant access rights

The ACS110 uses different access rights that can be protected with passwords. These access rights or passwords are the same for all plants that you are going to define or that you have already defined.

To learn more about access rights and passwords, refer to sections "Editing passwords" and "Logging in with the ACS110"



*Plant Connect tool*



*Plant Disconnect tool*

## Plant applications

As soon as a plant in the ACS110 is opened, the latter makes available a number of applications in menu item "Application".

### *Selecting an application*

The ACS110 offers you the following applications:

- **Popcards**
- **Parameter Settings**
- **Trend**
- **Memory Card**
- **Setup Protocol**

### *Procedure*

From the **Application** menu, select **Popcards...**, **Parameter Settings...**, **Trend...** or **Setup Protocol...**. The "Popcards", "Parameter Settings", "Trend", "Memory Card" or "Setup Protocol" window appears.

You can start several applications at the same time.

## Plant devices

To be able to read or write data off devices with the ACS110, the devices must be detected first.

### *Detecting devices*

#### **Introduction**

In the case of a new plant or when making changes to a plant, the devices contained in the plant are not yet known. This means that you have no devices to choose from, or the available devices are not the right ones.

#### **Procedure**

To include all devices of the plant in the list, select **Update Device List...** from the **Plant** menu. The "Plant Directory – Information" window appears, showing you the devices in the plant that have already been detected.

If not yet made, a connection will automatically be opened. If that is the case, the "Opening a Connection – Information" window will appear first, followed by the "Plant Directory – Information" window.

### *Selecting a device*

#### **Introduction**

If you want to upload data from or download data to the device in an application (e.g. "Popcards" or "Parameter Settings"), you need to select such a device first.

### **Procedure**

To select a device for handling, choose **Device...** from the menu of these applications. The "Device Selection" window appears. This window shows you all devices detected in the plant.

## **Datapoints of a plant**

Datapoints are the communication objects of a plant.

### ***Selecting datapoints***

#### **Introduction**

In some applications (such as "Trend"), you need to select one or several datapoints.

#### **Procedure**

To select one or several datapoints, select **Datapoints...** from the menu of this application. The "Datapoint Selection" window appears. This window shows you all devices detected in the plant and all selectable datapoints of a device.

### ***Commands and changes of a datapoint***

#### **Introduction**

In some applications (such as "Popcards" or "Parameter Settings"), you can change the value of a datapoint. Please note that it is not possible to change all datapoints.

To change a datapoint, you require the necessary write access which is dependent on the user level.

#### **Procedure**

In one of these applications, a button connected to the handling of a datapoint is shown on the line of a datapoint. If you choose that button, the "Datapoint – Commands" window appears.

---

## **Windows**

### **Plant devices**

Eine Anlage besteht aus mindestens einer OZW10 M-Bus Zentrale und mehreren M-Bus Geräten.

### ***Device Selection***

#### **Introduction**

In some applications (such as "Popcards" or "Trend"), you need to select a device first, from which you would like to read data, for instance.

This window shows all devices detected in the plant. If you select a device from the list, the lower part of the window will display additional information about the device. Also, in column "Device Information", you can

enter additional information about the device families, segments and devices.

In terms of operation, "Device Selection" is similar to Windows' File Manager or Windows' Explorer.

Depending on the location from which you have made the device selection, you can select only one device or several devices.

### Buttons

- **OK:** the device(s) selected from the list is used
- **Cancel:** no device will be selected
- **Update Device List:** the list of devices will be built up. The "Plant Directory – Information" window appears, showing the number of plant devices that have already been detected. If not yet made, a connection will automatically be opened (same as menu item **Plant – Update Device List...**)
- **Select All:** selects all devices. Depending the application, this button becomes available

### ***Changing the device address***

When making changes to the internal address list of the OZW10, the device address of a device may change. Such a change is detected when updating the device list and the device will be regrouped.

Also, it is possible that – by accident – the same addresses have been assigned to the devices and, in addition, the serial numbers of the devices are identical also. This kind of situation must never occur, since the serial number and the ID clearly identify a device! Naturally, the "Device Selection" window will show such devices as being identical and, therefore, as one single device!

### ***Devices that are no longer present***

It may happen that a device previously detected in a plant is no longer identifiable because it is no longer present or faulty. Such a device would be displayed in *red* italics. When you click on this *red* device, another button will appear:

#### Button

- **Remove Device:** the device detected on the list will be removed

If the device was not deleted and it suddenly reappeared (e.g. after a power failure), it would become black again (Windows standard setting).

### ***Plant Directory – Information***

#### Introduction

This window shows you the running process of plant directory reading. As soon as a device is included in the plant directory, the counter with the number of detected devices advances.

### **Datapoints of a plant**

Datapoints are the communication objects of a plant. To perform certain functions, they can be selected or changed.

## Datapoint Selection

### Introduction

In certain applications, such as "Trend", you need to select one or several datapoints to start trending, for example.

Depending on the location from which you have selected the datapoints, you are given the choice of selecting datapoints of different devices simultaneously or you can select only the datapoints of the device predefined by the application.

### Selecting the device

From the "Device List", select the device whose datapoints you would like to select.

**CAUTION:** make certain the required device is highlighted in **blue**. Only then can the datapoints be selected.

### Selecting a datapoint

From the "Datapoints" list, select the datapoint(s) you are interested in. By choosing "Add>>", you can add the selected datapoint(s) to the table on the right.

**CAUTION:** make certain the required datapoint is highlighted in **blue**.

The table on the right shows the datapoints that have already been selected.

### Buttons

- **Update Device List:** the plant directory will be built up. The "Plant Directory – Information" window appears, showing the number of plant devices that have already been detected. If not yet made, a connection will automatically be opened (same as menu item **Plant – Update Device List...**)
- **Add >>:** the selected datapoints are added to the right side of the table. The table contains all the datapoints selected thus far. The **Add >>** button can be clicked repeatedly. The selected datapoints will be added to the table if not yet present
- **Delete:** a datapoint selected from the table will be deleted
- **↑:** the datapoint selected from the table will be moved upward by one line
- **↓:** the datapoint selected from the table will be moved downward by one line
- **OK:** the datapoints contained in the table will be accepted
- **Cancel:** the previous selection will not be changed

### List

- **Mask:** the datapoints given on the list are only those that use the masks selected by you

## ***Datapoint – Commands***

### **Introduction**

In some applications (such as "Popcards" or "Parameter Settings"), you can change the value of a datapoint.

The appearance of this window depends on the type of datapoint. The following buttons are used, depending on the datapoint:

### **Buttons**

- **Download:** normal write access.  
A datapoint never supports both access rights simultaneously: downloading and overwriting
- **Set Default:** the datapoint is set to the default value
- **Set Unit:** setting the counter unit

## **General information about a plant**

The ACS110 can administer several plants, but it can open only one plant at a time and establish a connection.

### ***Plant – Open***

#### **Introduction**

In this window, you can open a plant. The window is comparable to the usual "Open" window of a Windows program. As soon as a valid plant is selected, additional information about the file and the plant will be displayed.

#### **Text boxes (relating to file and plant information)**

- **Plant Name:** specific name of the plant.
- **Description and notes** that you have given about a plant (e.g. location of plant). Refer to the "Plant – Information" window
- **Server Type:** with the ACS110, the OZW10 is always the server to the plant
- **COM port** that you have selected for the communication between your PC and the OZW10. Refer to the "Plant – Information" window

### ***Plant – Information***

#### **Introduction**

This window displays specific information about the plant.

#### **Entry box**

- **Plant Name:** here, you can give the plant a specific name

#### **Text boxes**

- **Name of creator of plant and date of creation**
- **Name of user who has made changes to the plant and date of change**

### Entry box

- **Description:** here, you can give a description of the plant and make notes (e.g. location of plant)

### List

- **Server Type:** with ACS110 the OZW10 is always the server to the plant
- **COM port:** select your PC's COM port for communicating with the OZW10

### Entry box

- **Plant phone no.:** phone number that is dialled via the telephone line during the time the connection is opened, to establish the connection to the central unit OZW10.
- **Callback:** if you want the OZW10 to call you back, you can indicate the phone number of the telephone line here to which your modem is connected
- **Code no.:** An OZW10 central unit always has a code. To establish a connection to the OZW10, the code has to be entered.

### Buttons

- **OK:** the changes made will be accepted
- **Cancel:** the changes made will not be accepted

## Status

### Introduction

This window supplies you with information about the plant, communication, and the current user.

### *Plant section*

#### Text boxes

- Name of plant
- Description of plant (also refer to the "Plant – Information" window)
- Name of creator of plant and date of creation
- Name of modifier of plant and date of modification

### *Communication section*

#### Text boxes

- Plant of COM port plant (also refer to the "Plant – Information" window)
- Status of communication (disconnected, connected, etc.)
- Number of devices detected in the plant



## ***Actual User level section***

### **Text boxes**

- User's user level

## ***Opening / Closing the Connection – Information***

### **Introduction**

This window supplies you with information about the running process of opening or closing a connection.

### **Opening the connection**

1. The ACS110 opens a connection to the OZW10 central unit.

### **Closing the connection**

1. The ACS110 closes a connection to the OZW10 central unit.

---

## **Generated files**

The ACS110 generates a variety of files in order to store its data.

### **Plant file**

#### ***Introduction***

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

- Information about the user (name and user level)
- Information about the plant (creation, date of creation, description, etc.)
- The device list with your information about the devices
- Version of plant

The following file name and file name extension are proposed:

- **File name:** selectable
- **Extension:** plt (for "plant")

#### ***Format***

The file cannot be read as clear text since the data are saved in binary format.

# Popcards

---

## Introduction

In the "Popcards" application, you can view and edit datapoints of a device – similar to the Operating Instructions. The datapoints are assigned to a number of pages. The same datapoints may be found on various pages. The standard Popcards will be created based on the formation of groups in the device description.

You are also given the choice of creating your own user-defined Popcards, but only **one** set of user-defined Popcards per device description is allowed.

Depending on the selected view, not all datapoints will be shown to you.

---

## Menus

After having selected **Popcards** from the **Application** menu, the **Popcards menu** appears. Also, the menu items on the **View menu** have changed.

The following menus and menu items have not been changed by your choice: **Plant**, **Application**, **Edit**, **Extras**, **Windows** and **Help**.

### Popcards menu

The **Popcards** menu offers you the following menu choices:

- **Select Device...:** the "Device Selection" window appears. From this window, you can select a device whose data you would like to have displayed
- **Book:**
  - **Standard:** checks whether the user-defined book has been changed. In the affirmative case, you can save the book or cancel the command. Then, the standard book from the device description is loaded
  - **User-defined:** opens the user-defined book. If there is no book, a new book with an empty page will be created. **Save:** saves the user-defined book in a user Popcard file
- **Page:**
  - **New...:** adds a new page to the book. You are prompted to give the name of the page
  - **Delete:** deletes the current page, but before really deleting, your confirmation is required.  
Note: the book must always contain at least one page. For this reason, you cannot delete the last page
  - **Rename...:** you can rename the current page

- **Change Order...:** the "Change Order" window appears. In this window, you can move the current page to some other location (order)
- **Datapoints...:** the "Datapoint Selection" window appears. In this window, you can handle the datapoints of the current page

## View menu

In the "Popcards" application, the **View** menu offers you the following choices. Depending on the activation of the various masks, the following datapoints will be displayed:

- **All Data:** shows all datapoints
- **No Data:** shows no datapoints
- **Overview:** refer to the masks
- **Configuration:** refer to the masks
- **Setpoints:** refer to the masks
- **Control Parameters:** refer to the masks
- **Diagnostics:** refer to the masks
- **I/Os:** refer to the masks
- **Normal User:** refer to the masks
- **Commissioning Report:** refer to the masks
- **Tool Bar:** the tool bar is shown or hidden
- **Status Bar:** the status bar is shown or hidden

---

## Processes

The datapoints of a device are assigned to a number Popcard pages.

### Selecting a device

#### *Introduction*

If you would like to upload or download the data of a device for remote operation, you need to select such a device first.

If you have already used such a device in another application, it will be selected automatically. If the application is the first to be started in the plant, the device last handled in the plant will be selected.

#### *Procedure*

To select a device for handling, choose **Select Device...** from the **Popcards** menu. The "Device Selection" window appears. The selection can also be made by choosing the **Device...** button from the "Popcards" window.

## Displaying datapoints on a Popcard page

### *Introduction*

After opening a Popcard page, the datapoint values will be shown in red. As soon as datapoints have been uploaded, they appear in black.

### *Procedure*

The individual pages can be viewed by choosing "Enduser", "Switching program Mo-Fr", "Switching program Sa-Su", etc.

## Commands and changes of a datapoint

### *Introduction*

You can change the value of a datapoint. Please note that not all datapoints can be changed.

To change a datapoint, you need to have the respective write access which depends on your user level.

### *Procedure*

Choose the button in the **E** column and the "Datapoint – Commands" window will appear.

## Creating user-defined Popcards

### *Introduction*

If you wish, you can create your own Popcards for each device description.

### *Procedure*

1. Choose **Select Device...** from the **Popcards** menu.
2. Choose **Book – User-defined** from the **Popcards** menu, or directly the check box **User-defined**.
3. To create a new page, select **Page – New** from the **Popcards** menu.
4. To insert datapoints into this page, select **Page – Datapoints...** from the **Popcards** menu. The "Datapoint Selection" window appears.
5. If required, repeat the procedure starting with item 3.
6. To save your own Popcards in a user Popcard file, select **Book – Save** from the **Popcards** menu.

---

## Windows

The datapoints of a device are assigned to a number of Popcard pages.

# Popcards

## Introduction

This is the main window in the "Popcards" application.

## The book

The book is comprised of several pages whereby each page contains a certain number of datapoints. The subdivision of pages and the assignment of datapoints to the various pages are defined by the respective device description. The same datapoint may exist on several pages. A datapoint is displayed in several columns. The columns have the following meaning:

Column	Description
No.	Consecutive numbering of datapoints on a page
Datapoints	Name of the datapoint
Value	Value of the datapoint
Unit	Unit of the datapoint
S	The S-columns contain a button. When choosing this button, the "Datapoint – Status" window with the respective status of the datapoint is displayed
E	The E-columns contain a button. When choosing this button, the "Datapoint – Commands" window for handling the respective datapoint is displayed

## Buttons

- **Device...:** the "Device Selection" window appears. In this window, you can select a device whose data you would like to have displayed

## Check boxes

- **Standard:** you can load the standard book from the device description. Prior to that, it is checked whether you have changed the user-defined book. In the affirmative case, you can store the book or cancel the command
- **User-defined:** you can load the user-defined book. If no book is present, a new one with an empty page will be created. The book is saved in a user Popcard file

## User-defined Popcards

Once user-specific Popcards have been produced, they can be matched to your needs at any time.

## Change Order

### Introduction

Select **Page | Change Order...** from the **Popcards** menu. The "Change Order" window appears. In this window, you can move the current page to some other location (order).

### **Buttons**

- **↑**: the page selected from the table will be moved upward by one line
- **↓**: the page selected from the table will be moved downward by one line
- **OK**: the order will be accepted
- **Cancel**: the current order will not be changed

## ***Renaming a Page***

### **Introduction**

Select **Page | Rename...** from the **Popcards** menu. The "Rename" window appears. In this window, you can change the name of the current page.

### **Entry box**

- **New Name**: new page name

### **Buttons**

- **OK**: the new name will be accepted
- **Cancel**: the name will not be changed

---

## **Generated files**

The ACS110 generates a number of files in order to store its data.

## **User Popcard file**

### ***Introduction***

The information about your own Popcards will be saved in a user Popcard file. Both the file name and file name extension are automatically determined as follows:

- **File name**: name of the device description (maximum eight characters)
- **Extension**: .apc or .opc (if the selected device has an OEM device description loaded)

### ***Format***

The file cannot be read as clear text since the data are saved in binary format.

# Parameter Settings

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## Introduction

In the "Parameter Settings" application, you can handle all datapoints of a device that, in the device description, are defined as a standard parameter data record. For all devices of the same parameter description, the standard parameter data record is identical.

You also have the choice of editing and saving the parameter sets without requiring a physical connection to a device.

You can save all parameter sets in one file. For further handling, e.g. with a spreadsheet program, you can also export the parameter sets.

Depending on the selected view, not all datapoints are shown to the user.

---

## Menus

After having selected **Parameter Settings** from the **Application** menu, the **Parameter Settings** menu appears. Also, the menu items on the **View** menu have changed.

The following menus and menu items have not been changed by your choice: **Plant**, **Application**, **Edit**, **Extras**, **Windows** and **Help**.

### Parameter Settings menu

The **Parameter Settings** menu offers you the following menu choices:

- **Select Device...:** the "Device Selection" window appears. From this window, you can select a device whose data you would like to have displayed
- **Select Device Type...:** the "Select Device Type" window appears. By selecting a type of device, you do not select a physical device but only the type. The device type is unambiguously assigned to a device description
- **Select All:** selects all datapoints
- **Deselect All:** deselects all datapoints
- **Download Default...:** sets value and status of the selected datapoints of the current device to its default values
- **Set 1** and **Set 2:**
  - **New:** checks whether the current data record has been changed. In the affirmative case, you can save the data record or cancel the action. **New** initializes the data record with the default values from the device description
  - **Open...:** the "Open Parameter Set" window appears. From this window, you can choose a data record that you would like to open

- **Open any parameter set...:** a window appears for opening a parameter setting file. After having selected a file, you can open a parameter set
- **Save:** saves the data record.  
If you have not yet saved the data record, the response is the same as with menu choice **Save As...**
- **Save As...:** the "Save Parameter Set" window appears. In this window, you can save the data set under a name in a preselected parameter setting file
- **Upload...:** uploads the value and the status of the selected data record datapoints from the current device. This menu item is activated only if a connection to the plant exists
- **Download...:** downloads the value / status of the selected data record datapoints to the current device. This menu item is activated only if a connection to the plant exists
- **Delete Set...:** the "Delete Parameter Set" window appears. In this window, you can delete saved data records
- **Export table...:** you can save the data records (standard, set 1 and set 2) in a parameter setting text file, whereby the individual columns are separated by tabs. For this purpose, the "Save Data As..." window appears. From this window, you can choose where and under what name you would like to save the table

## View menu

In the "Parameter Settings" application, the **View** menu offers you the following menu choices. Depending on the activation of the various masks, the following datapoints will be displayed:

- **All Data:** shows all datapoints
- **No Data:** does not show any datapoints
- **Overview:** refer to the masks
- **Configuration:** refer to the masks
- **Setpoints:** refer to the masks
- **Control Parameters:** refer to the masks
- **Diagnostics:** refer to the masks
- **I/Os:** refer to the masks
- **Normal User:** refer to the masks
- **Setup Protocol:** refer to the masks
- **Tool Bar:** the tool bar is shown or hidden
- **Status Bar:** the status bar is shown or hidden



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# Processes

To be able to make parameter settings, you need to select the device whose datapoint you would like to edit.

## Selecting a device

### *Introduction*

If you want to download or upload the data of a device for making parameter settings, you need to select the device first.

If you have already used such a device in some other application, it will be selected automatically. If the application is the first to be started in the plant, the device last handled in the plant will be selected.

### *Procedure*

To select a device for handling, choose **Select Device...** from the **Parameter Settings** menu. The "Device Selection" window appears. The selection can also be made by choosing the **Device...** button from the "Parameter Settings" window.

If this is the first time the application is selected, the window "Parameter Settings – Information" appears. The window also appears if, during the parameter setting process, you choose some other type of device.

## Creating a new parameter set

### *Introduction*

After having selected a device, the parameter table will be created. Set 1 and set 2 contain the default values. In this case, it is not necessary to establish a connection to the device! The procedure for set 1 and set 2 is identical.

### *Procedure*

1. In set 1, you would like to assign a datapoint some other value.
2. Choose button **E** on the respective datapoint line. The window "Data Points – Commands" appears.
3. In the window "Data Points – Commands", assign the datapoint a new value and exit the window by using the "Download" command. In the "Parameter Settings" window, you see that the value of the datapoint in set 1 has changed. The new value is not equal (!) (column **D**) to the default value.
4. If required, repeat steps 1-3.
5. To save set 1, choose menu item **Set 1 – Save** from the **Parameter Settings** menu. The "Save Parameter Set" window appears.
6. Enter a device description and the name of the parameter set. All parameter sets of a device type are saved in **one** file. You need not enter the name of the parameter setting file. This file name will be determined automatically based on the selected device and thus its device description.

Please note that at this point no values in the device have been changed yet.

## Downloading a parameter set to a device

### *Introduction*

After having selected a device, the parameter table will be created. Set 1 and set 2 contain the default values. In this case, a connection to the device must exist! The procedure for set 1 and set 2 is identical.

### *Procedure*

1. To load set 1 with a parameter set, choose menu item **Set 1 – Open...** from the **Parameter Settings** menu. The "Open Parameter Set" window appears. Choose a parameter set from that window.
2. After opening the parameter set, select the datapoints (column **Se**) whose values you would like to download to the device.
3. You can now transfer the values of the selected datapoints to the selected device by choosing **Download Set 1...**, or via the menu **Parameter Settings – Download Set 1**.

OK in the column "**Result of transmission**" indicates that the transmission to the device has been successful.

Please note that, during the downloading process, it is not only the value but also the datapoint status that is set. Value and status are handled in the "Data Points – Commands" window.

## Working with parameter sets

### *Introduction*

You need not enter the name of a parameter setting file. The file name will be defined automatically, based on the selected device and thus its device description.

Due to the further development of a device, it is now possible that the device description must be modified also. As a result, the names of the parameter setting files are not fully identical, the difference being the last character of the parameter setting file. To avoid extra work (setting the parameter sets for the "new" device), you can load the parameter sets of the "old" device.

### *Procedure*

1. Select the "new" device.
2. From the menu **Parameter Settings Set 1** or **Set 2** select the menu item **Open any parameter set....**
3. Select the parameter setting file of an "old" device from which you would like to open a parameter set.
4. Select a parameter set from the "Open Parameter Set" window.
5. A check is made to see whether the parameters of the selected parameter set are compatible with those of the "new"

device.

The "Information" window displays the following information:

**Number of parameters not loaded:**

These parameters no longer exist in the device description of the "new" device, which means they could not be loaded.

**Parameters with data type change:**

In the device description of the "new" device, these parameters use another data type, which means they could not be loaded.

By choosing **OK**, the parameter table with all "compatible" parameters will be generated.

Please consider that the parameter set just loaded will not automatically be saved in the parameter setting file of the "new" device. If you want to save it, proceed with section "Creating a new parameter set".

## Working with the device type

### *Introduction*

A device parameter set can also be handled without having knowledge of the device's address and without ever having used this device in a plant. This means that no connection to the device is required.

### *Procedure*

1. Create a new plant (**Plant – New** menu).
2. Choose menu item **Parameter Settings** from the **Application** menu.
3. Choose menu item **Select Device Type...** from the **Parameter Settings** menu. This can also be accomplished by choosing the **Type...** button from the "Parameter Settings" window. The "Select Device Type" window appears.
4. Select a device type from the "Select Device Type" window. This device type is now used for the parameter settings. However, downloading and uploading the parameter sets make no longer sense and, for this reason, the respective buttons are deactivated.

The further steps are described in sections "Creating a new parameter set" and "Downloading a parameter set to a device".

## Working with set 1 and set 2

### *Introduction*

The parameter settings contain two data records (set 1 and set 2). These can be uploaded and changed completely autonomously. It should be considered, however, that both data records always refer only to the selected device or the selected device type.

Thanks to the two data records, it is possible to compare them in a straightforward manner (columns **D** and **S1**).

### *Procedure*

Also refer to section "Creating a new parameter set".

---

# Windows

With the parameter settings, the datapoints of a device are shown in a main window.

## Parameter Settings

### Introduction

This is the main window of the "Parameter Settings" application.

### The parameter table

The parameter table uses one line for each datapoint.

The default values of the datapoints, as well as parameter set 1 and parameter set 2 can be viewed in various columns. The values of the columns "Default", "Parameter set 1" and "Parameter set 2" are automatically compared with one another and the various comparisons shown in additional columns.

A datapoint is displayed in several columns, which have the following meaning:

Column	Description
Select	Indicates whether the datapoint has been selected
Name and unit	Description of datapoint
Default	Default value from the device description
Set 1 + 2	User-defined data records
S	The S-columns contain a button. When choosing it, the "Datapoint – Status" window with the respective datapoint status appears
E	The E-columns contain a button. When choosing it, the "Datapoint – Commands" window for handling the respective datapoint appears
-D, -S1	Columns "-D" and "-S1" indicate whether the value in the set is equal to "=" or not equal to "!" the compared set (default "-D" or set 1 "-S1")
Result of transmission	The transmission result indicates whether, during the datapoint uploading or downloading process, the datapoint has indeed been handled

### Buttons

- **Device...:** the "Device Selection" window appears. From this window, you can select a device whose data you would like to have displayed
- **Type...:** the "Select Device Type" window appears. By selecting a device type, it is not a physical device that is selected but only its type. The device type is unambiguously assigned to a device description
- **Upload Set 1...:** uploads the value and status of the selected datapoints of data record 1 from the current device
- **Download Set 1...:** downloads the value / status of the selected datapoints of data record 1 to the current device
- **Upload Set 2...:** uploads the value and status of the selected datapoints of data record 2 from the current device

- **Download Set 2...:** downloads the value / status of the selected datapoints of data record 2 to the current device

## Open Parameter Set / Save Parameter Set

### *Open Parameter Set*

In this window, you can open the parameter sets created by you for handling.

#### **Text box**

- **Device Type Description:** type of selected device

#### **Entry field**

- **Parameter Set:** name of parameter set you would like to open

#### **List of parameter sets**

- By clicking on a parameter set contained in this list, the set is copied to the entry box

#### **Check box**

- **Read Selection:** when this check box is activated, the selections made in the parameter set will be read

#### **Buttons**

- **OK:** the selected parameter set will be opened
- **Cancel:** any selection made will be disregarded

### *Save Parameter Set*

The parameter sets created by you can be saved in this window.

#### **Entry fields**

- **Device Type Description:** the selected device type can be described in more detail (e.g. RVL470, from version 1.4)
- **Parameter Set:** name under which the parameter set shall be saved (e.g. plant configuration set 1)

#### **Check box**

- **Write Selection:** when this check box is activated, the selections made in the parameter table will be saved in the parameter set

#### **Buttons**

- **OK:** the parameter set is selected
- **Cancel:** any change made by you will be disregarded

## Delete Parameter Sets

### *Introduction*

In this window, you can delete the parameter sets created by you.

### *Text box*

- **Device Type Description:** type of selected device

### *List of parameter sets*

- By clicking on a parameter set contained in this list, the set is selected

### *Buttons*

- **Delete:** the selected parameter set will be deleted
- **OK:** the selected parameter set will be opened
- **Cancel:** any selection made by you will be disregarded

## Select Device Type

### *Introduction*

In this window, you do not select a physical device but its type. The device type is unambiguously assigned to a device description.

This device type is now used for the parameter settings. However, uploading and downloading the parameter sets no longer make sense and are therefore deactivated, but you can still handle the parameter sets.

### *Table*

Column	Description
File name	Name of file that contains the device's description
Description	A more detailed description of the file. This description is identical to the entry box "Device Type Description" in the "Open Parameter Set" window

### *Buttons*

- **OK:** the selected parameter set will be saved or opened
- **Cancel:** any selection or change made by you will be disregarded

---

## Generated files

The ACS110 generates a number of files in order to store its data.

## Parameter setting file

### *Introduction*

All parameter sets of a device are saved in a parameter setting file. File name and file name extension are automatically determined as follows:

- **File name:** name of device description (eight characters)
- **Extension:** par (for **parameter setting**)

### *Format*

The file cannot be read as clear text since the data are saved in binary format.

## Parameter setting text file

### *Introduction*

The data records (standard, set 1 and set 2) can be exported to a parameter setting text file, enabling the data to be further handled in a spreadsheet program. For this purpose, select menu item **Export Table...** from the **Parameter Settings** menu.

The following file name and file name extension are proposed:

- **File name:** selectable
- **Extension:** pat (for **parameter setting text file**)

### *Format*

The file can be read as clear text and the individual columns are separated by tabs.

# Trend

---

## Introduction

In the "Trend" application, the datapoints of any devices can be selected and cyclically prompted. The data received are saved and recorded in the graphical window.

Data that have been received and saved can always be uploaded again and viewed at a later time.

It is also possible to generate a setup protocol at the start of trending and after trending is terminated. The setup protocols that can be generated in this application can be opened for viewing in the "Setup Protocol" application.

The sample files can also be exported to a spreadsheet program for further handling.

---

## Menus

After having selected **Trend** from the **Application** menu, the **Trend** menu appears. Also, the menu items on the **View** menu have changed.

The following menus and menu items have not been changed by your choice: **Plant, Application, Edit, Extras, Windows** and **Help**.

### Trend menu

The **Trend** menu offers you the following menu choices:

- **Select Datapoints...:** the "Data Point Selection" window appears. From this window, you can select datapoints that shall be recorded
- **New Trend File:** the "Open" window appears. Before that, a check is made to find out whether the current trend file has been changed. In the affirmative case, you can save the trend file or cancel the action. **New Trend File** removes all datapoints from the trend table as well as all data that have already been uploaded
- **Open Trend File...:** the "Open" window appears. Before that, a check is made to find out whether the current trend file has been changed. In the affirmative case, you can save the trend file or cancel the action.  
**Open a Trend File...** opens a trend file that has previously been saved. In that case, a check is made to see if the datapoints in the trend file that you would like to open are available on the current plant. If one or several datapoints are no longer available, the file will not be loaded and the error message will be displayed
- **Save Trend File:** saves the datapoints of the trend table in a file. If you have not yet saved the file, the response is identical to menu item **Save Trend File As...**



- **Save Trend File As...:** the "Save As..." window appears. You can save the selected datapoints in a new trend file
- **Open Sample File...:** the "Open" window appears. You can use this window to open a sample file that has previously been created. These files contain all information about the datapoints on the lists as well as all data that have been recorded.  
The file is also uploaded if one or several datapoints on the current plant are no longer available. In that case, an error message would be displayed only if you attempted to start the trend process
- **Save Sample File As...:** the "Save As..." window appears. You can save the current recording in a new sample file
- **Export Sample File...:** the "Save As..." window appears. You can save the current recording in a sample text file

## View menu

In the "Trend" application, the **View** menu offers you the following menu choices. Depending on the activation of the various masks, the following datapoints will be displayed:

- **All Data:** shows all datapoints
- **No Data:** does not show any datapoints
- **Overview:** refer to the masks
- **Configuration:** refer to the masks
- **Setpoints:** refer to the masks
- **Control Parameters:** refer to the masks
- **Diagnostics:** refer to the masks
- **I/Os:** refer to the masks
- **Normal User:** refer to the masks
- **Setup Protokol:** refer to the masks
- **Tool Bar:** the tool bar is shown or hidden
- **Status Bar:** the status bar is shown or hidden

---

## Processes

To be able to work with Trend, you first need to select the datapoints which you would like to log.

### Selecting datapoints

#### *Introduction*

If you want to upload datapoints of a device for recording purposes, you need to select the device and the datapoints first. The selected datapoints will then be listed in the trend table, whereby the information about each datapoint and the properties appears in various columns.

## **Procedure**

To select a device and datapoints for handling, choose **Select Data Points....** from the **Trend** menu. The "Datapoint Selection" window appears.

This can also be accomplished by choosing the **Datapoints...** button from the "Trend" window.

## **Recording datapoints**

### **Introduction**

This application is used to record datapoints.

### **Procedure**

1. Select the datapoints that you would like to have recorded (refer to section "Selecting datapoints").
2. Set the sample interval and make certain your recording will not be stopped prematurely due to storage space problems. For this purpose, choose the **File** button. The "Sample File – Information" window appears.
3. Decide whether you would like to obtain a setup protocol at the start and / or at the end of the recording process.
4. Choose the **Start** button to start recording. The "Trend – Information" window appears.

During the recording process, you can remove the datapoints from or add them to the graphical window by choosing the button in column **O** of the trend table, but it is always all data that are acquired, independent of whether or not the datapoint is displayed in the graphical window.

The captured data are cyclically saved in a sample file.

You can terminate the recording by choosing the **Stop** button.

## **Scaling the graphics**

### **Introduction**

The scaling of the graphic can be done by the ACS110 or you can do it yourself.

### **Procedure**

1. Select the graphics' **Time Axis**. Please note that this variable is dependent upon the sample rate.
2. Select automatic or manual scaling.
3. With manual scaling, select the scale of the axis (**Y-min** and **Y-max**). To include these scales in the graphic, choose the **Accept** button.

Please note that, during the recording process, you can only view the last time window of the recorded data.

If you stop recording, you can move the time window in any manner desired by using the scrollbar. By clicking the left or the right arrow of the scrollbar, the graphic is moved by one sample rate.

---

# Windows

The datapoints to be logged and the graph itself are shown in the main window of the application.

## Trend

### *Introduction*

This is the main window of the "Trend" application.

### *Datapoint Selection section*

#### Buttons

- **Datapoints:** the "Datapoint Selection" window appears. From this window, you can select datapoints that shall be recorded
- **Remove:** a datapoint selected from the trend table will be removed
- **Remove All:** all datapoints contained in the trend table will be removed

#### Trend table

The selected datapoints will be listed as shown below. The information about each datapoint and the properties are displayed in various columns:

Column	Description
O (online)	Datapoint is shown in the graphical window. This setting is possible only if the datapoint allows setting V (value) to be made
V (value)	The data of the datapoint are available as values
T (text)	The data of the datapoint are available as text. When double-clicking on the text box, the "Trend Datapoint – Information" window appears
C (channel)	The individual graphics are referenced based on this number
D (device family)	Family the device belongs to (controller, central unit, etc.)
S (segment)	Segment of device of the datapoint
D (device)	Device number of device of the datapoint
Datapoint	Name of the datapoint
Off (offset)	Adjustable offset. This offset is used for moving the datapoint on the Y-axis in the graphical window. When double-clicking on the offset box, the "Trend Datapoint – Information" window appears, where you can adjust the offset

### *Recording section*

#### Entry fields

- **Sample Rate [s]:** sample interval of datapoints. The rate cannot be changed during the recording process. If a sample rate of 1 or 2 s is selected, the data will be saved in a new sample file as early as 8 or 12 hours later. The numbering of the file will automatically be adjusted

### Buttons

- **File:** the "Sample File – Information" window appears, which delivers information about the current recording
- **Start:** the "Trend – Information" window appears where information about the current reading can be entered. Then the recording will be started
- **Stop:** the recording will be stopped

### Check boxes

- **Setup Protocol on Start:** a setup protocol file can be generated at the start of the recording
- **Setup Protocol on Stop:** a setup protocol file can be generated at the end of the recording

## Scaling section

### Entry fields

- **Time Axis [min]:** you can set the maximum visible range of the graphical window. The size is dependent on the sample rate. For instance, with a sample rate of 15 seconds, the maximum time axis that can be set is 100 minutes
- **Y-Min:** manual scaling of y-axis. Check box **Automatic** may not be set
- **Y-Max:** manual scaling of x-axis. Check box **Automatic** may not be set

### Buttons

- **Large Graph:** you can change from the small graph to the large graph
- **Accept:** you can accept the changes made to the scaling. These can be viewed directly in the graph

### Check box

- **Automatic:** the ACS110 determines the most suitable scaling. This will be set such that all data in the graphical window are visible. If the scaling shall be set manually, however, this check box may not be set

## Small Graph section

The right side of the window shows the small graph.

## Trend Datapoint – Information

### Introduction

In this window, you can handle the properties of the selected datapoints in the trend table.

### Text box

Name of datapoint selected by you.

### **Check boxes**

- **Record Datapoint Online:** on or off
- **Save Value of Datapoint as a Number:** on or off
- **Save Value of Datapoint as Text:** on or off

### **Entry field**

- **Offset in Online:** adjustable offset. This offset is used for moving the datapoint on the Y-axis in the graphical window

## **Trend – Information**

### **Introduction**

In this window, you can add special information to each recording.

### **Entry boxes**

- **Plant Name:** this name may or may not be the same as the description given in the **Description** box in the "Plant – Information" window (menu **Plant – Plant Information...**)
- **Location:** location of plant
- **Installer:** this name may or may not be the same as the name of the current user
- **Remarks:**

## **Sample File – Information**

### **Introduction**

This window supplies you with information about the current recording.

### **Text fields**

- **Sample Time [s]:** sample time set
- **Max. File Size after 24 h [Byte]:** the maximum size of the recording file (smp file) after a recording time of 24 hours is calculated
- **Max. Recording Time [h]:** based on the free storage space, the maximum active recording time is calculated
- **Available Storage Space [KB]:** amount of storage space currently available

---

## **Generated files**

The ACS110 generates a number of files in order to store its data.

## Trend file

### *Introduction*

This file contains a list of datapoints that have been compiled for recording. There are **no recorded values** in this file.

The following file name and file name extension are proposed:

- **File name:** selectable
- **Extension:** trn. (for **trend**)

### *Format*

The file cannot be read as clear text since the data are saved in binary format.

## Sample file

### *Introduction*

In this file, the recorded values are stored. The data captured during trend recording are cyclically saved in one of the sample files. File name and file name extension are automatically determined as follows:

- **File name:** <year><month><day><00..99>
- **Extension:** .smp(for **sample**)

The numbers 00...99 are used for sequential numbering of the smp files. The number is increased by 1 each time recording is restarted. If recording runs for several days, the data after midnight will be saved in a new file whose file name corresponds to the current date, and the numbering of the smp files will be reset to 00.

### *Format*

The file cannot be read as clear text since the data are saved in binary format.

## Sample text file

### *Introduction*

The current recorded values can be exported to a sample text file, enabling the data to be further handled in a spreadsheet program. To do this, choose menu item **Export Sample File...** from the **Trend** menu.

The following file name and file name extension are proposed:

- **File name:** selectable
- **Extension:** grf (for german **Grafik**)

### *Format*

The file can be read as clear text and the individual columns are separated by tabs.

# Setup protocol file

## *Introduction*

A setup protocol file can be generated at the beginning and at the end of each trend recording. In that case, the setup data saved in this file are the data of the devices whose datapoints are prompted by trend recording.

The following file name and file name extension are proposed:

- **File name** at the start: <year><month><day><S><0..9>
- **File name** at the end: <year><month><day><E><0..9>
- **Extension**: spr (for **Setup Protocol**)

## *Format*

The file cannot be read as clear text since the data are saved in binary format.

# Memory Card

---

## Introduction

The "Memory Card" application is subdivided into two parts:

1) Left section: from a memory card, files can be:

- uploaded
- or cleared

A memory card can also be formatted.

2) Right section: in the ACS110, this list box only shows the entry MBUS.BIL. This file can only be read. It provides a choice of information about the connected devices.

---

## Menus

After having selected menu item **Memory Card** from the **Application** menu, the **Memory Card** menu appears. Also, the menu items on the **View** menu have changed.

The following menus and menu items have not been affected by your selection: **Plant, Application, Edit, Extras, Window** and **Help**.

### Memory Card menu

The **Memory Card** menu offers you the following menu choices:

- **Read Directory:** the contents of the memory card in the OZW10 central unit will be uploaded and displayed
- **Format:** the memory card used will be formatted
- **Upload File:** the "Save As..." window appears where you can save the selected file in any directory. If, at the same time, an editor is defined, it will be started and the selected file will be shown
- **Delete File:** this menu item is not available for the ACS110
- **Copy File:** this menu item is not available for the ACS110
- **Down File:** this menu item is not available for the ACS110

### View menu

In the "Memory Card" application, the **View** menu offers you the following menu choices. Depending on the activation of the various masks, the following datapoints will be displayed:

- **All Data:** shows all datapoints
- **No Data:** does not show any datapoints
- **Overview:** refer to the masks



- **Configuration:** refer to the masks
- **Setpoints:** refer to the masks
- **Control Parameters:** refer to the masks
- **Diagnostics:** refer to the masks
- **I/Os:** refer to the masks
- **Normal User:** refer to the masks
- **Setup Protocol:** refer to the masks
  
- **Tool Bar:** the tool bar is shown or hidden
- **Status Bar:** the status bar is shown or hidden

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## Processes

Using the "Memory Card" application, you can read files off the plug-in memory card of the OZW10 or the billing file.

### Reading a file off the memory card

#### *Introduction*

If you want to read a file off the memory card of the OZW10, proceed as follows:

#### *Procedure*

Select the required file from the list box "File on memory card:". Choose the "Read File" button, whereupon the "Save as..." dialog appears. Here, you can indicate where you would like to have the file saved. After having selected the path and the file name, choose the "OK" button to start the reading process. The "Read Data" dialog now appears. Here, you can watch the reading process.

If you have defined an editor in the "Editor" entry field, the question "Do you want to start the configured editor?" appears after the reading process. In the affirmative case, choose the "Yes" button.

### Reading the billing file off the OZW10 central unit

#### *Introduction*

The OZW10 central unit delivers a billing file which you can read with the help of the ACS110.

#### *Procedure*

Reading the billing file is identical to reading a file off the memory card. Select OZW\_SS1.BIL from the list box "Data from central unit:". Then, the procedure is the same as described in "Reading a file off the memory card".

---

# Windows

The available files of the OZW10 central unit will be shown in the main window.

## Memory Card

### *Introduction*

This is the main window of the "Memory card" application.

### *Buttons*

- **Read Directory:** refer to "Memory Card" menu
- **Formatting:** refer to "Memory Card" menu
- **Upload File:** refer to "Memory Card" menu
- **Delete File:** refer to "Memory Card" menu
- **Copy File(s):** refer to "Memory Card" menu
- **Down File:** refer to "Memory Card" menu

### *Text field*

- **Editor:** if a file is read from the memory card via "Read File", it will be shown with the editor parameterized here

### *Lists*

- **File on memory card:** here, all files contained on the memory card will be shown
- **File from central unit:** here, the history directory will be shown
- **File Format:** filter for the relevant list

## Select path

### *Buttons*

- **Copy Files:** copies the selected files to the selected folder
- **Cancel:** cancels the entire action
- **Create Directory:** creates a directory
- **Network:** connects a network drive

# Setup Protocol

---

## Introduction

The "Setup Protocol" application can be used to generate a setup protocol of all devices contained in the current plant. The service data of each device can be viewed.

The uploaded setup data can be saved in a file. These can be read in again. Even the setup data generated by device data in the "Trend" application can be read in again here.

For further handling, e.g. in a spreadsheet program, the data can also be exported.

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## Menus

After having selected menu item **Setup Protocol** from the **Application** menu, the **Setup Protocol** menu appears. Also, the menu items on the **View** menu have changed.

The following menus and menu items have not been affected by your selection: **Plant, Application, Edit, Extras, Window** and **Help**.

### Setup Protocol menu

The **Setup Protocol** menu offers you the following menu choices:

- **Device...:** the "Device Selection" window appears. From this window, you can select devices whose data you would like to have displayed. The **Device List** will be filled up with these selected devices
- **Open...:** the "Open" window appears. You can use it to open a setup protocol file that has already been generated. This setup protocol file may also have been generated by the "Trend" application
- **Save As...:** the "Save As..." window appears. You can save the currently uploaded setup protocol in a new setup protocol file
- **Export...:** the "Save As..." window appears. You can save the current service data in a setup protocol text file

### View menu

In the "Setup Protocol" application, the **View** menu offers you the following menu choices. Depending on the activation of the various masks, the following datapoints will be displayed:

- **All Data:** shows all datapoints
- **No Data:** does not show any datapoints
- **Overview:** refer to the masks

- **Configuration:** refer to the masks
- **Setpoints:** refer to the masks
- **Control Parameters:** refer to the masks
- **Diagnostics:** refer to the masks
- **I/Os:** refer to the masks
- **Normal User:** refer to the masks
- **Setup Protokol:** refer to the masks
- **Tool Bar:** the tool bar is shown or hidden
- **Status Bar:** the status bar is shown or hidden

---

## Processes

Before a setup protocol can be produced, you need to select the required devices.

### Generating a Setup Protocol

#### *Introduction*

This application is used to generate a setup protocol of one or several devices.

#### *Procedure*

1. To select one or more devices, choose the **Device...** button from the "Setup Protocol" window. The "Device Selection" window appears.
2. If a connection does not yet exist, open one.
3. Choose the **Start** button to start generating the setup protocol. A window appears, showing you the actual generation of the protocol. In this window, you can stop the action prematurely (**Cancel** button).
4. Save the data uploaded.

When generation of the protocol is terminated, the setup data uploaded become visible in the **Setup Protocol Table**. By making use of the **Device List**, the data of the devices can be viewed, one device after the other.

---

## Windows

The result of a setup protocol is shown in the main window of the "Setup Protocol" application.

# Setup Protocol

## *Introduction*

This is the main window of the "Setup Protocol" application. The setup data are listed in a table.

## *Buttons*

- **Device...:** the "Device Selection" window appears. From this window, you can select devices whose data you would like to have displayed. The **Device List** will be filled up with the selected devices
- **Start:** generation of the setup protocol is started. A window appears, showing you the actual generation of the protocol. This button becomes available only when a connection to a plant actually exists and the **Device List** is not empty

## *List*

- **Device List:** the setup data of each device can be viewed

## *Setup protocol table*

Column	Description
Datapoints	Name of the datapoint
Value	Value of the datapoint
Unit	Unit of the datapoint
Status	Status of the datapoint

---

## Generated files

The ACS110 generates a number of files in order to store its data.

## Setup protocol file

### *Introduction*

This file contains the setup data of devices.  
The following file name and file name extension are proposed:

- **File name:** file name of plant
- **Extension:** spr (for **Setup Protocol**)

### *Format*

The file cannot be read as clear text since the data are saved in binary format.

## Setup protocol text file

### *Introduction*

The current setup data can be exported to a setup protocol text file, enabling the data to be further handled in a spreadsheet program.

To do this, select menu item **Export...** from the **Setup Protocol** menu.

The following file name and file name extension are proposed:

- **File name:** file name of plant
- **Extension:** spt (for **Setup Protocol Text**)

### *Format*

The file can be read as clear text and the individual columns are separated by tabs.

# General

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## Passwords

In the ACS110, certain access rights can be protected with passwords.

### Editing passwords

#### *Introduction*

This window is opened when the ACS110 is started for the first time. It can also be opened via the "Extras – Passwords..." menu, but this is possible only if you are logged in as administrator.

#### *Procedure*

The passwords for the administrator, end-user, service staff and OEM can be entered separately.

#### **Administrator**

This is the only password you have to create. It is used for changing the passwords at a later stage.

The assumption is made that the user who installs and starts the ACS110 for the first time is regarded as the administrator of the ACS110.

#### **End-user and service staff**

These passwords are optional and need not necessarily be defined. The ACS110 always assigns the highest access right where no password is allocated.

For example: if the passwords for the end-user and service staff have not been defined, the ACS110 automatically assigns the access right for service staff on startup.

If only the password for service staff has been defined, the access right for the end-user will be assigned.

If the passwords for the end-user and service staff have been defined, the "Login" window appears. You need to enter the valid password for the required access right and then choose the "OK" button.

#### **OEM passwords**

There are devices that have a password included in their Device Description. Such devices enable certain functions when entering that password.

Any number of OEM passwords can be entered. By entering a password in the text field "Password" and then choosing the "Add" button, the password will be included in the list of OEM passwords.

These passwords can be changed by choosing the "Change" button, and cancelled by choosing the "Cancel" button.

## Logging in at the ACS110

Once the passwords are assigned, you need to log in at the ACS110 to obtain certain access rights. When the ACS110 is started up and the passwords for the end-user and service staff have been registered, the "Log in" window appears and you need to enter the password for the required access rights.

Depending on whether the passwords for the end-user and service staff have been registered, the ACS110 behaves differently on startup.

End-user	Service	Behaviour on startup
Not registered	Not registered	The ACS110 automatically assigns the access rights for <b>Service</b>
Not registered	Registered	The ACS110 automatically assigns the access rights for the <b>end-user</b>
Registered	Registered	The user needs to log in when starting up the ACS110

The passwords can be edited or cancelled at any time, as often as you want, but this is possible only if you are logged in with the administrator password.

Select **Password...** from the **Extras** menu and the "Edit Passwords" window appears. Now, you can edit the passwords. By choosing the "OK" button, you can accept the changes, or reject them by choosing the "Cancel" button.

---

## Language

The ACS110 can be operated in a number of languages.

### Selecting the required language

#### *Introduction*

From this window, you can select the language you require.

#### *List*

- **Select a language:** the language you require

#### *Check box*

- **Do not show this dialog any longer:** select this option if you want to use the same language most of the time so that this window will not appear each time the ACS110 is started up

#### *Buttons*

- **Continue:** the language has been selected and the window will be closed



# Changing the language

## ***Introduction***

It is not possible to change the language while the ACS110 is running. If you want to use a new language, you need to close the ACS110 and make a new start. However, before closing the ACS110, make certain that the "Language" window appears on startup.

## ***Procedure***

Select the **Extras** menu. The list of submenus appears. Make certain that on the left side of the **Language Selection** submenu a little tick is set. If that is not the case, select the **Language Selection** submenu to set the tick.

---

## Info

### ***Introduction***

This window provides information about the ACS110.

### ***Text boxes***

- Product names
- Product version
- Production number and data of production
- Copyright information

# Tips and Tricks

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## Desktop

The presentation of menus and the operation of the ACS110 are similar to other Windows applications.

### Presentation of menus

Menus contain functions that cannot be performed at certain times because other functions may have to be called up first or because no connection has as yet been opened.

Menu choices that cannot be performed yet are grey.

### Operation

All menu items can also be activated **without the mouse**, by making use of the keyboard. For this reason, menu items have one letter underlined.

So you can also select a menu item by pressing <ALT> <Letter>. For more detailed information, refer to the ACS110 Operating Manual.

Also, so-called short-cuts (accelerator keys) have been introduced. By pressing <ALT> + <Number>, it is possible to choose a menu item directly.

In addition, the menu items most frequently used are made available on the tool bar for direct access.

For more detailed information, refer to the ACS110 Operating Manual.

### Selecting colours

In most cases, the ACS110 makes use of Window's system colours. This means that almost everything that is displayed uses a colour not predefined by the ACS110. Hence, you can choose your own colours by using the Windows colour configuration.

The only exception here are the data uploaded by the system via the serial port which are then displayed. Such data are always displayed in text boxes, independent of whether or not they can be edited. Such data may also assume different statuses for which different colours are used.

*The data uploaded by the serial port can have the following statuses:*

- **Not current:** the data have already been uploaded. However, since the data were uploaded some time ago and, in the meantime, the system data may have changed, it is not certain if the displayed value represents the real system value. These data are shown in **red**
- **Current:** it can be considered certain that the displayed data represent the system data. They are shown in the Windows standard colour for text (black)
- **Edited, but not sent:** the data have been edited on the PC, but have not yet been sent from the PC to the system. The

values displayed are those entered by the user, which are probably not the same as the data existing in the system. These data are shown in *blue*

In addition, the presentation of data changes to other general conditions, for example in the case of:

- **Problems:** the data displayed do not exist in the system, or the value received by the system was wrong. With this kind of data, it is not a value that is displayed, but an <Error message>. The colour of the displayed data is that of current data ( *black* or *red* )
- **See status:** the status (alarm, out of service, etc.) of a datapoint does not allow the datapoint value to be displayed. With this kind of data, it is not a value that is displayed, but <a clear text message>, or ----→, which means that you should view the datapoint status. The colour of the displayed data is that of current data ( *black* or *red* )

## Presentation of values

With the data presented, a differentiation must be made between data delivered by the system and data produced internally on the PC.

- **Data produced internally on the PC:**  
Certain data can be changed (edited), others can only be displayed. Data that can be changed are shown in an edit box. Data that cannot be changed, are displayed in a text box.
- **Data produced by the system:**  
Such data are always shown in text boxes, independent of whether or not they can be edited. If they can be edited, you can double-click on the data to open the "Data Point – Commands" dialog, where you can change the value. The data delivered by the system are also shown in different colours (refer to section "Selecting the colours").

---

## Uploaded data

In some applications, data uploaded from a plant can be exported as a file. Normally, such data are saved on the installation path of the ACS110 (... \ACS110 \<File name> .<File type> ).

Most of these data can be accessed by a standard spreadsheet program or editor.

---

## Communication

For information about the hardware connection of the OZW10 central unit to the PC, refer to the ACS110 Operating Manual.

# Glossary of Terms

## **Modem**

Device used for data transmission via telephone lines.

## **OZW10**

M-bus central unit that stores the data of the connected devices.

## **Datapoint**

Datapoints represent dynamic information. A differentiation is made between process data and operational data.

**Process data** are variables that, for application-specific reasons (usually spontaneously "per event") are exchanged between process units (e.g. sensor values, outside temperature, heat demand, etc.).

**Operational data** are used in connection with tools and user interfaces for process visualization, commissioning or supervision of plant (setting parameters, physical inputs and outputs, status information, general process values, etc.).

The following information can be accessed in a device as an LPB datapoint, for instance:

- All variables that are accessible via local operation (setting parameters or diagnostic data)
- Fault messages and alarms
- All process variables (via locally connected field devices or communication)
- Time of day and time switch program
- Data used for device identification or device status
- .....

## **Device description**

A device has dynamic information (process and operational data) made available by the datapoints. In addition to the dynamic data, there is also static descriptive information, the so-called device description, which enables the devices to be described in a uniform and consistent manner.

This descriptive information is distributed offline and is not saved in the device.

## **HMI**

Human Machine Interface, e.g. the ACS110.

## **ID**

Identification (e.g. the name of the device description).

## **Masks**

Masks are used to assign certain "filter properties" to each datapoint in the device description. They can be used to mask out datapoints that are of no interest, for instance.

The following masks are supported:

- **Overview:** data used for the device overview: key information about the device's status
- **Configuration:** general setting values, such as plant diagram, bus address, controller operating mode, and time switch programs
- **Setpoints:** setpoints, such as the normal room temperature setpoint, reduced room temperature setpoint, maintained boiler return temperature, or maximum limitation of boiler temperature
- **Control Parameters:** control parameters, such as the building time constant, P-band, neutral zone of mixing valve, or slope of heating curve
- **Diagnostics:** for diagnostic purposes when doing service work, e.g. device fault message, outside temperature source, various actual values, hours run, status of digital inputs and outputs
- **I/O data:** data that are dependent on sensors, actuators, digital inputs and outputs, room units and other field devices, e.g. the actual values of various sensors, or the status of digital inputs and outputs
- **Normal User:** data intended for the end-user only
- **Setup Protocol:** data that should be contained in a setup protocol, such as type reference, serial number, all setting parameters, and various actual values

