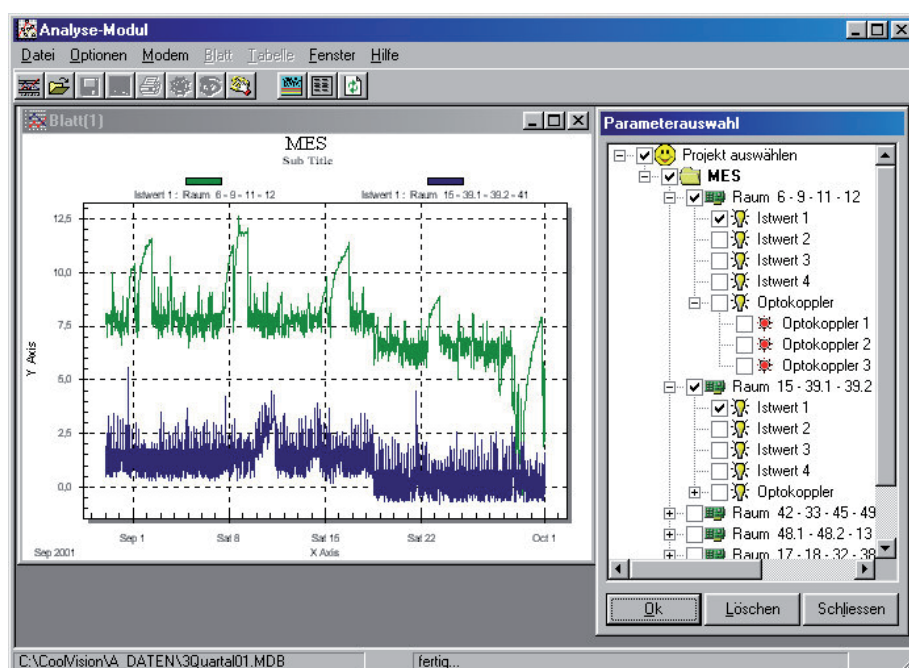


Data Management-Software

**ELREHA**

**CV-Scheduler**

for MS-WIN XP/7®



## Data Management for SMZ x140, VPR x140 and MiniMEP Data Logger Systems

Version 1.3.45  
Doc.No.5330011-00/10E

## CV-Scheduler-Benutzerhandbuch

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### Icons used in this document



- Common Safety Note



- Attention! Danger for Life!



- Important Information

## Introduction

Dear Customer !

The software "CV-Scheduler" is the tool which collects logged data from one or multiple refrigeration plants or data loggers, to ensure that always current values are available, e.g. for your HACCP-Quality Assurance System.

The single features:

- Time controlled data collection for SMZ x140, VPR x140 and MiniMEP Datenloggers, e.g. to operate a „Central Logging System“
- The PC is able to connect one or multiple plants which are equipped with SMZ or VPR-Frontends.
- The software downloads logged data time-controlled by modem from the frontend of the plant and stores it on the harddisk.
- Any data can be combined on 'Worksheets' at any time, can be read as diagrams and/or printed out.
- All occurred error messages are listed and can be send as emails.
- Additional information like plant address and address of the service proprietor can be read at any time.
- Data whole transmission by modem is logged.
- Remote control and configuration of the plant is possible.
- All controller devices and error message systems connected to the frontends can be remote controlled.

Your ELREHA Team

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## System Requirements & Operation Environment

### Operation Environment

The CV-Scheduler is designed for operation on Stand-Alone PC's, which are planned for long time data recording exclusively. We cannot recommend a continuous operation on a PC together with software of foreign manufacturers, because unforeseen interactions may occur while CV-Scheduler operates together with foreign software which also uses the interfaces.

*CV-Scheduler from version 1.3.25 is suitable for:*

- PC's with MS-Windows XP (SP2) and Windows 7.

*Potential problems:*

- CV-Scheduler has been tested under the german version of the listed operating systems. Because the functions on versions with other languages differ, problems are not foreseeable.

*The product is not suitable for:*

- other operating systems than the listed ones.
- running on a network as a distributed Client/Server-System.



**Important for use with MiniMEP-Data Logger Systems:**

**Can only be used with MiniMEP Loggers from Software-Version 2.4x or higher.**

### Hardware / Software (minimum)

- Pentium class from 1300 Mhz, 512 MB RAM
- Harddisk: The size of storable data depends on harddisk size only, 20 GB or more recommended.
- CD-ROM Drive
- 1\* serial interface RS-232 (COM), alternative: USB interface with a converter to RS-232 or RS-485
- 1\* printer interface Centronics or USB
- Optional
- Telephone modem
- Internal RS-485 interface card (Wiesemann & Theis) for connecting controllers without using an external SSC-converter.

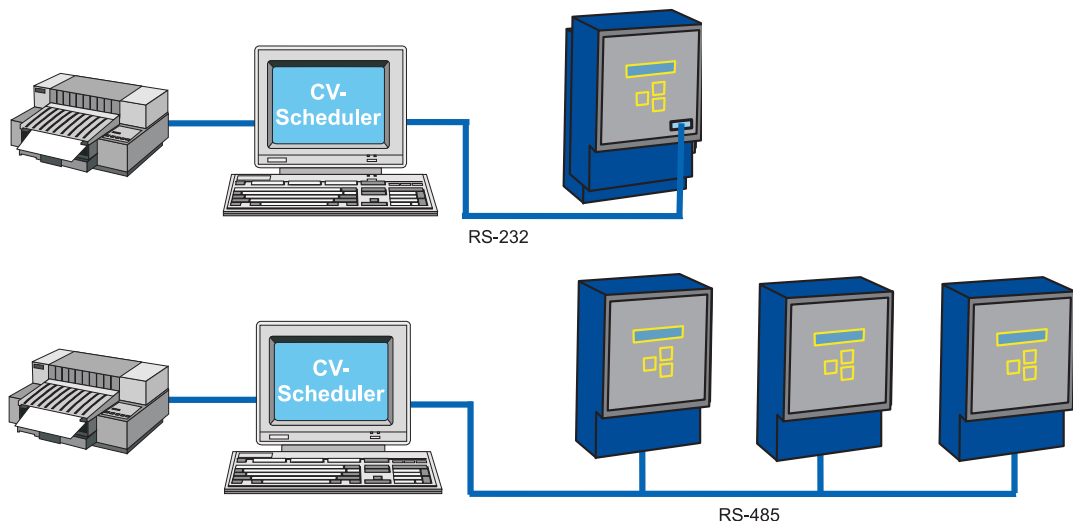
### Contents of the CD

content.txt:  
cvscheduler.exe  
folder "Msjet40"  
cvschedxxxxx.pdf

Info file  
CV-Scheduler installation file  
Only if necessary, update for Windows 98/ME (german)  
This manual in an Adobe Acrobat Format..  
To read or print the file you need the "Adobe Acrobat Reader", which can be downloaded free of charge from "[www.adobe.com](http://www.adobe.com)".

## CV-Scheduler - Application Examples

**CV-Scheduler as operating and data exchange for 1 (via RS-232) or multiple MiniMEP Data Loggers (via RS-485 only)**



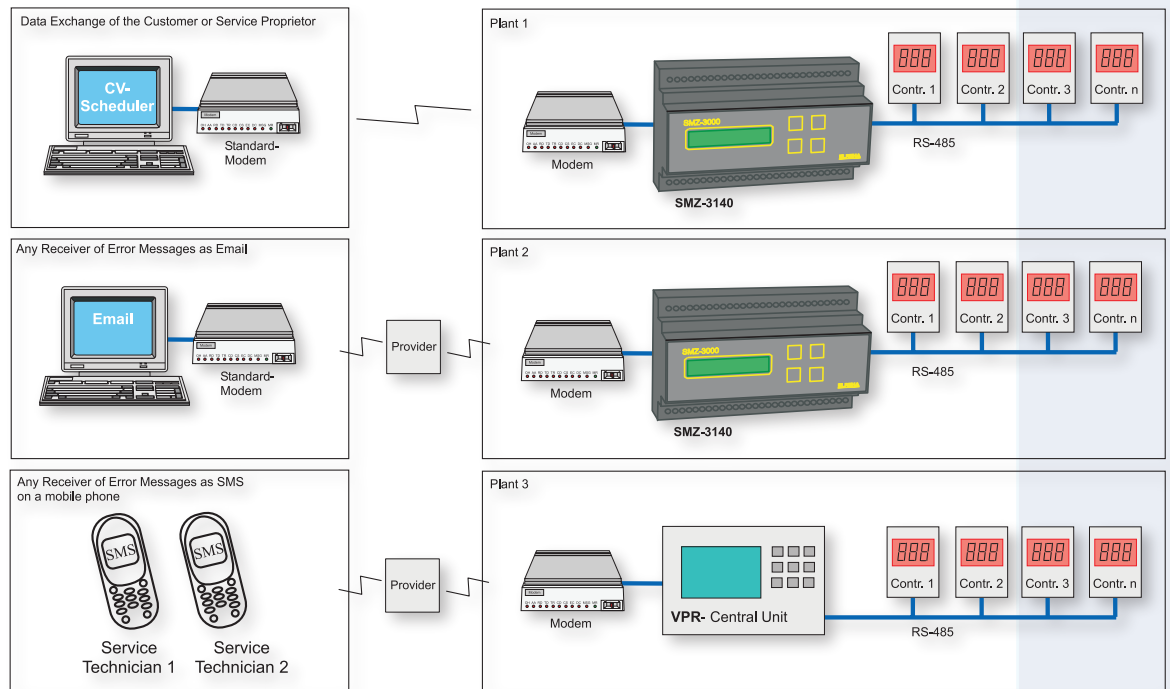


## CV-Scheduler - Application Examples

### Example for a data logger exchange and additional error message receivers

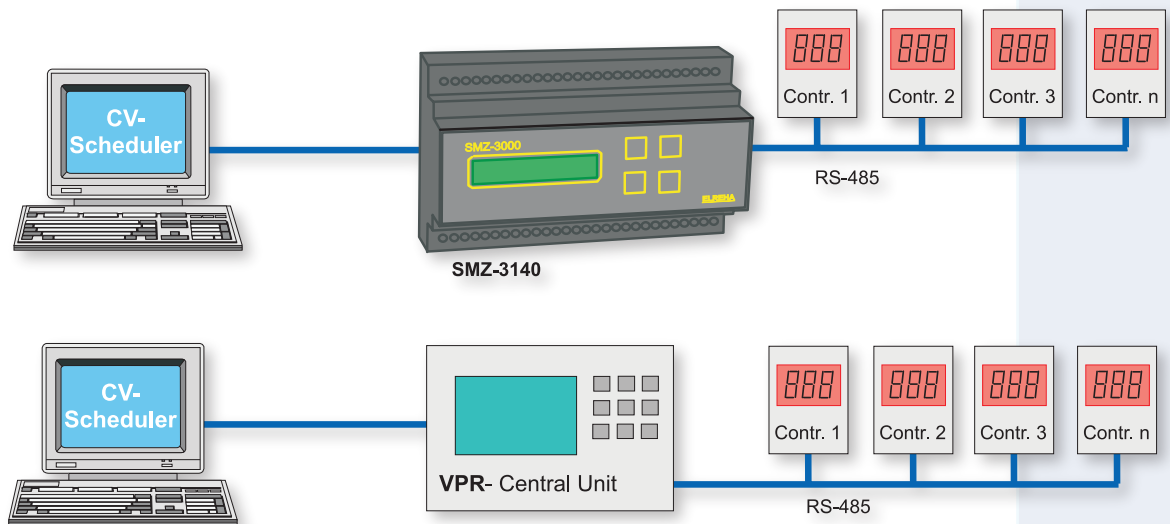


Tested with the german provider DTAG (Telekom). We have no experience with foreign providers.



The software CV-Scheduler runs on a PC and has the duty to collect data from any number of plant frontends or MiniMEP's in intervals and to store them on the hddisk. The measured values of the single plants can then be read as a diagram or listing, error messages are also listed. Data can be printed out on your standard printer. This example shows additionally, how SMZ and VPR systems are able to send error messages to mobile phones or as emails.

### Example for a local data exchange

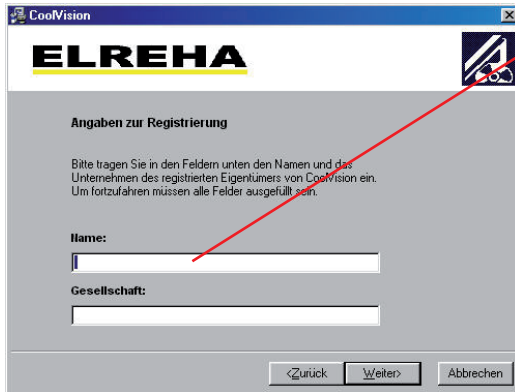


The software CV-Scheduler runs on a local PC and has the duty to collect logged data from SMZ or VPR systems and to store them on the hddisk. The measured values can then be read as a diagram or listing, error messages are also listed. Data can be printed out on your standard printer. While no data transfer is necessary, the PC can be used for other tasks.

## Software - Installation under Windows XP and Windows 7

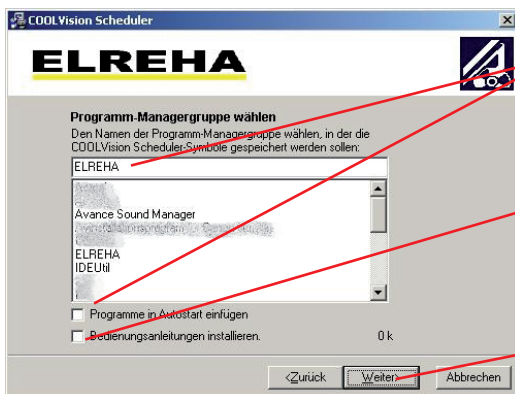
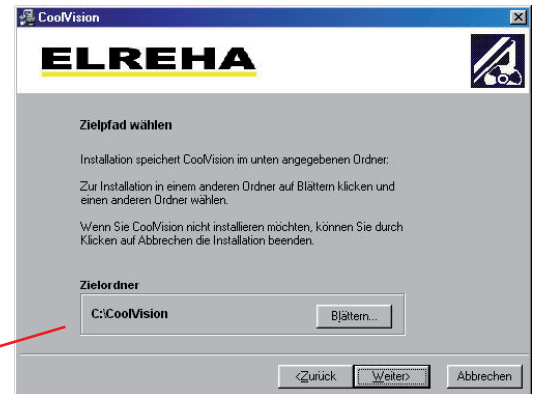
**Introduction** The current Windows-Version 7 (W7) is optically different, but the installation works in the same way. Older Scheduler versions with a number lower than 1.3.24 run on W7 in a compatibility mode only.

**Installation** When you insert your CV-Scheduler-CD to the drive and the 'Autostart' option is active (standard), then the file "cvscheduler.exe" starts automatically and a welcome window opens (in german language). Please follow the installation procedure, changing of the language can be done after installation first. If necessary, the installation procedure can be started manually by a double click on "cvscheduler.exe"



Here the system user name appears, which can be changed if necessary.

The next window asks for the folder which should be used for the the program. We recommend to use the preset one.



The next step is the question for the program group name and if the software should be copied to the 'Autostart' folder also, This means that the software starts automatically after power-up of the PC.

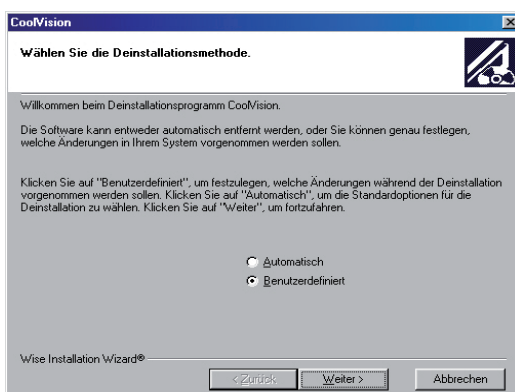
Here you can decide about an additional installation of technical manuals. While the standard operation this manuals can be opened without an existing internet connection.

After that, the installation procedure starts.

## Error Message

The CV-Scheduler expects a specific version of your windows version. If the installation routine detects missing but necessary parts of your MS-Windows, a matching error message appears. In such a case, please cancel the installation and update your MS-Windows. On the CD you can find the german versions of the most important service packs. Then restart "cvscheduler.exe".

## Uninstall CV-Scheduler



Open 'System control/software'. and highlight the entry "Coolvision-Scheduler". The uninstallation can be done either automatically or manually, please follow the instructions.

## Software-Installation • Automatic Startup

### Note about the DEMO-Version



There's no DEMO-Version of the CV-Scheduler available. With the installation of the software a little, virtual DEMO-Project is installed to give you the possibility to 'play' with the graphical display and the error messages. Full access to the VPR/SMZ/MiniMEP-Frontend Devices is only possible after the device has been unlocked by an ordered License Code. The CV-Scheduler is available as a single CD, also available on each free-of-charge Info-CD or can be downloaded at any time from our website [www.elreha.de](http://www.elreha.de).

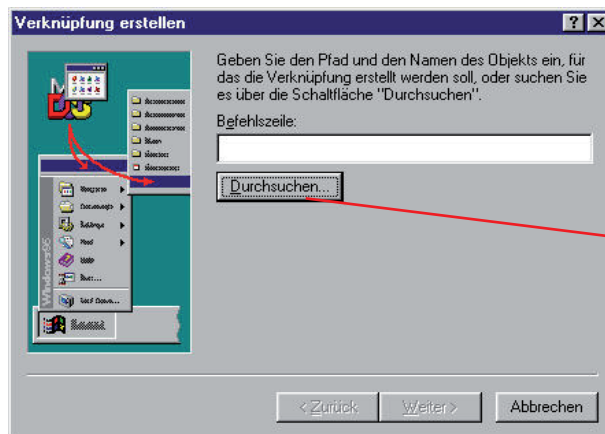
### Automatic Startup of the Software

To start software automatically while power-on of the PC (this is very important for unmonitored PC's), a link to each software module must be created in the **Autostart**-folder.

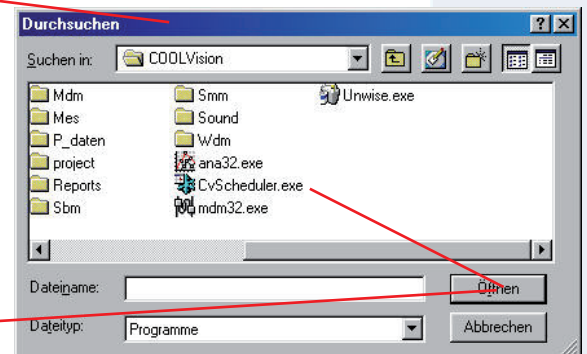
The shown screen dumps can differ a little bit depending on the used MS-Windows version.

Create a link

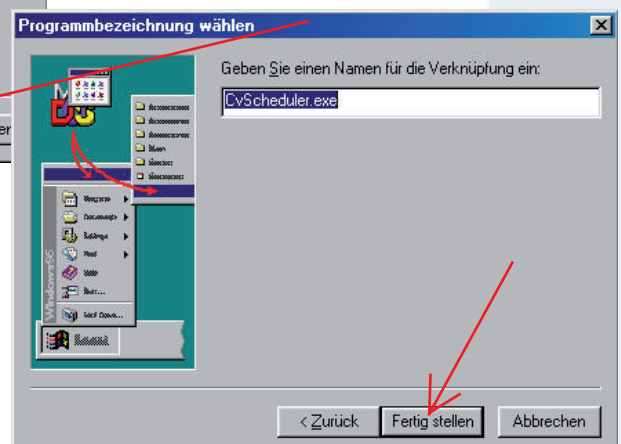
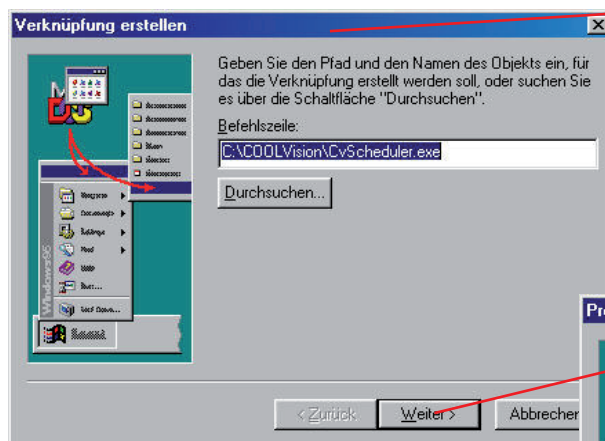
- Open your "Windows-Explorer"
- Shift to directory "c:\Windows\Startmenu\Programme\Autostart"
- Click with right mouse button into the free area of the right Explorer window and choose "New/link"



- Choose "Search.." and search for directory "ELREHA/CvScheduler" .



- Choose "CvScheduler.exe" and confirm by "open"



At the end you can fix any name for this link. While Windows starts the next time, CVScheduler will be started automatically.

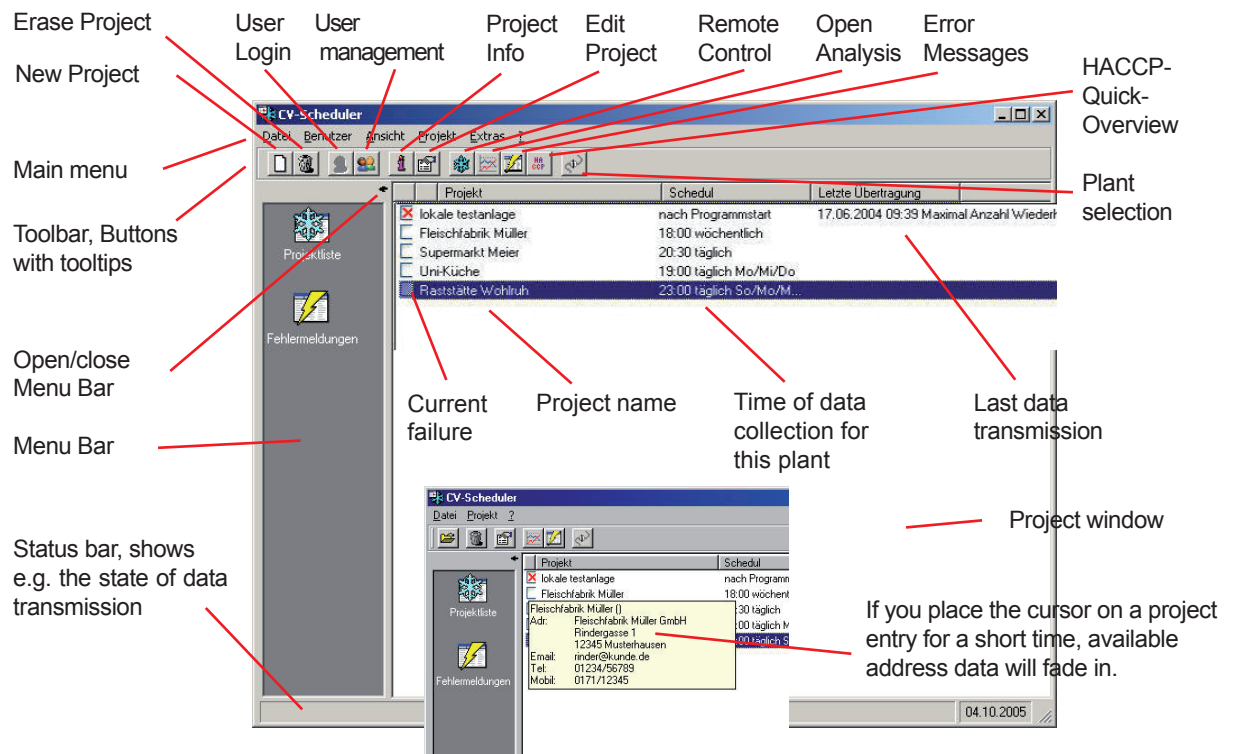
## CV-Scheduler • Configuration, phase 1

Here we describe the first steps with the CV-Scheduler and its basic configuration. We assume that the controller devices are installed correctly and the data connection works.

### Startup CV-Scheduler

For the first steps it will do to start the CV-Scheduler manually. For a time-controlled continuous operation the program must be started automatically with power-up of the PC. This can be achieved by entering a link of the program to the 'Autostart'-folder (see chapter: software installation / automatic start). After the installation you will find the entry "CVScheduler" under **"Start / ELREHA"**.

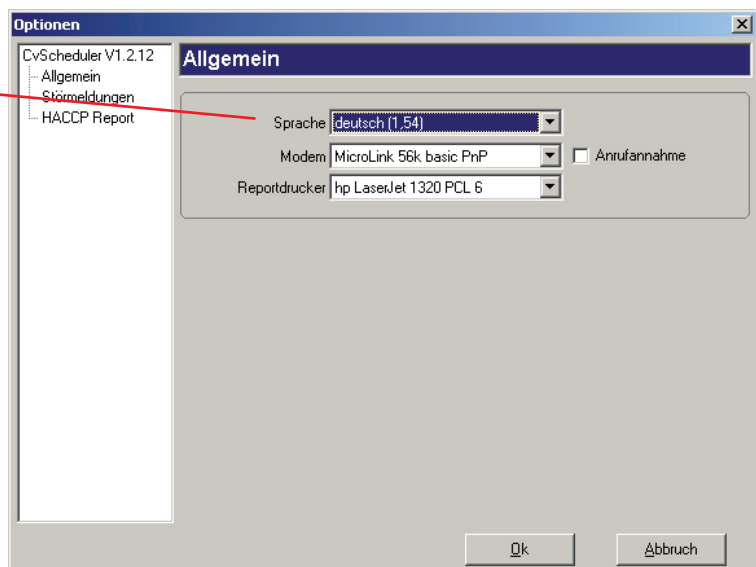
After starting the software you get this window:



In the project window all configured projects (= plants) are listed. With this you get the overview, when the software collects data from the plants and when it has been done this the last time.

### Change Language

Open 'Extras/Optionen' (main menu) and select 'Allgemein'.  
Change 'Sprache' to 'english'.



## CV-Scheduler • Configuration, phase 1

### Create a new project

Open "Project/New" in the main menu or click on the  button. A configuration window for a new project opens.



If you use this description several times, you get an error message. The description string must have 5 characters minimum.



The available categories for this project

Name of the project

Identification. This string is used to identify the project. The same identifier must be entered in the connected data logging system.

If you use MiniMEP-Data Logger Systems, the Serial Number of the device must be entered here!

If the remote control and configuration module (MES) is started for this project, it appears in the graphical plant overview if marked here.

### Contact Information

Click on "Contact" and enter contact details like names, addresses and phone numbers of the project (= plant) and the service proprietor. This notes are always available.

Plant address

Address of Service Proprietor



## CV-Scheduler • Configuration, phase 1

### Set Schedule for Data Collection

The schedule for data download can be set without restrictions.

*Off:* .....Automatic Data Collection is switched off

*Daily:* .....The day or days of collection can be set

*Weekly:* .....The software collects data every week at the set day

*After Startup:* .....Data download starts immediately after power up of the software

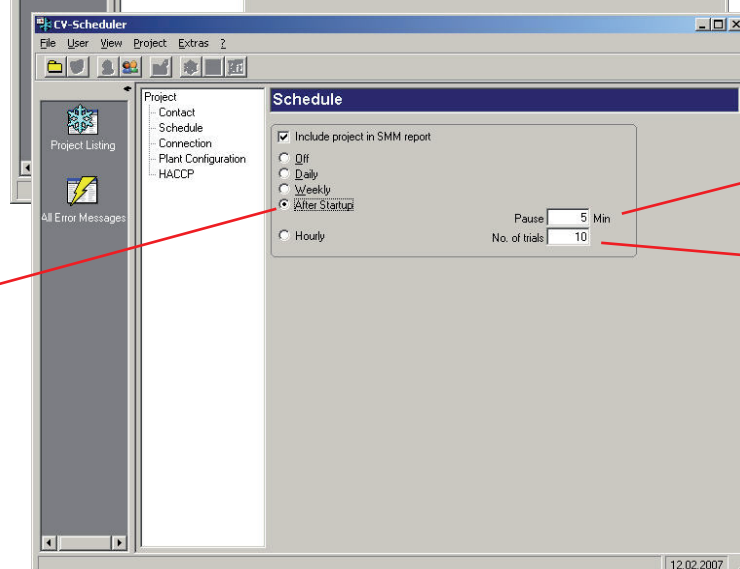
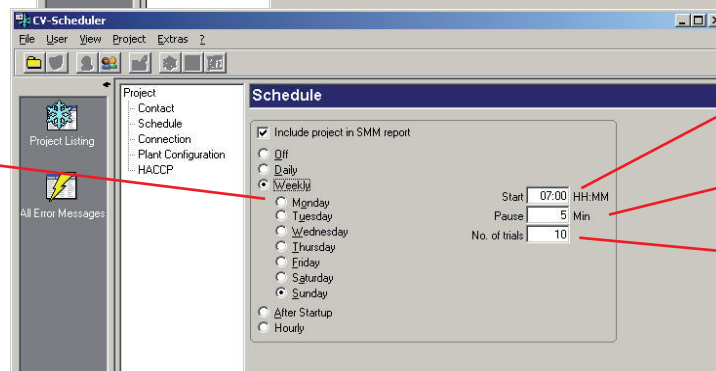
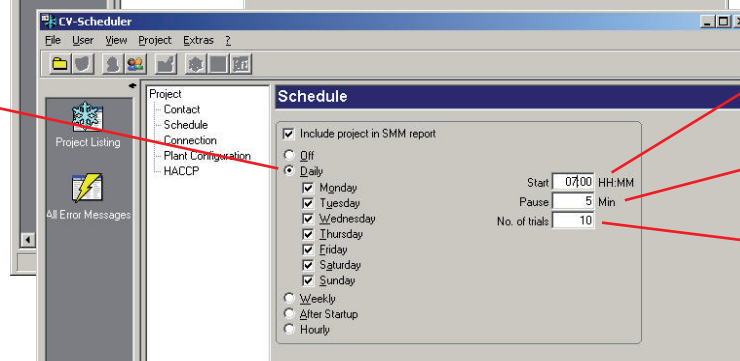
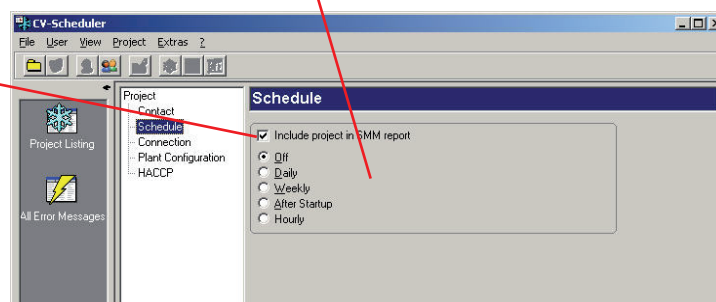
*Hourly:* .....Data download starts every hour

If marked here, unresetted error messages of the project appear on the printout of the SMM report.

Daily download of the data of this project. No data collection at unmarked days.

Weekly download of data, each at the marked day.

Data of this project are downloaded immediately after power-up of the software.



Time of data download

Break up to the next trial

No. of trials to get a connection

Time of data download

Break up to the next trial

No. of trials to get a connection

Break up to the next trial

No. of trials to get a connection

## CV-Scheduler • Configuration, phase 1

### Set Connection Data

The plant with the data logger or frontend system can be connected either locally, via a modem connection or via a gateway within a PC network.

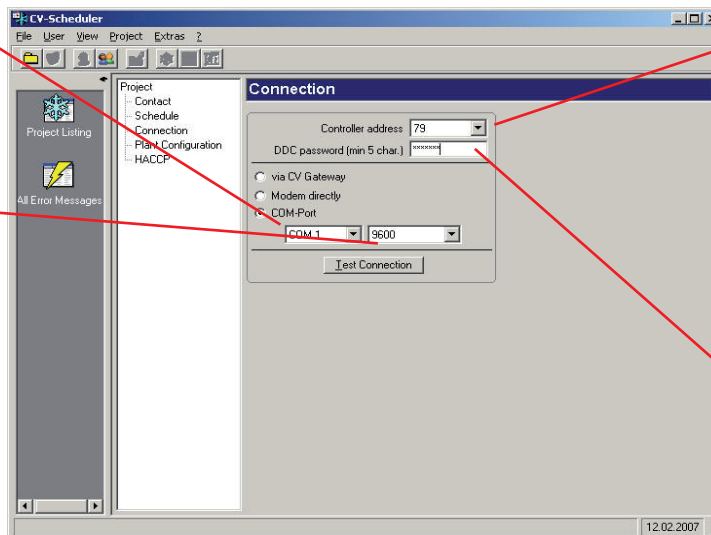
Open window "Connection" and set the matching connection data.

**COM-Port:** Select this option, if the plant is connected directly to the PC.

The no. of serial port of your PC, where the plant is connected to.

Set data transmission speed, e.g. to "57600".

Note:  
The data transmission speed at the frontend system must be set to an identical value.

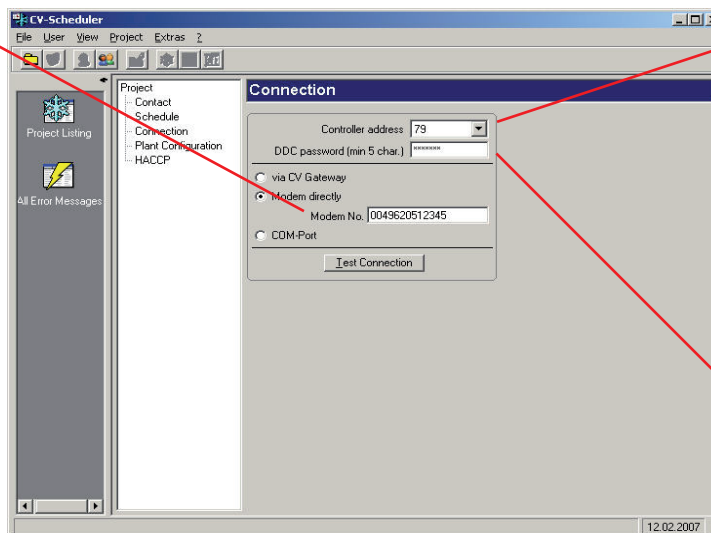


"Controller Address" is the address which must be set in your SMZ or VPR-System to enable a data connection. Using SMZ frontends always "79", using VPR and MiniMEP as required.

The plant access password, preset in SMZ und VPR frontend systems.

**Modem-directly:** Select this option if the plant is connected via modem.  
(This kind of connection cannot be used with MiniMEP data loggers)

Telephone number of the plant sided modem



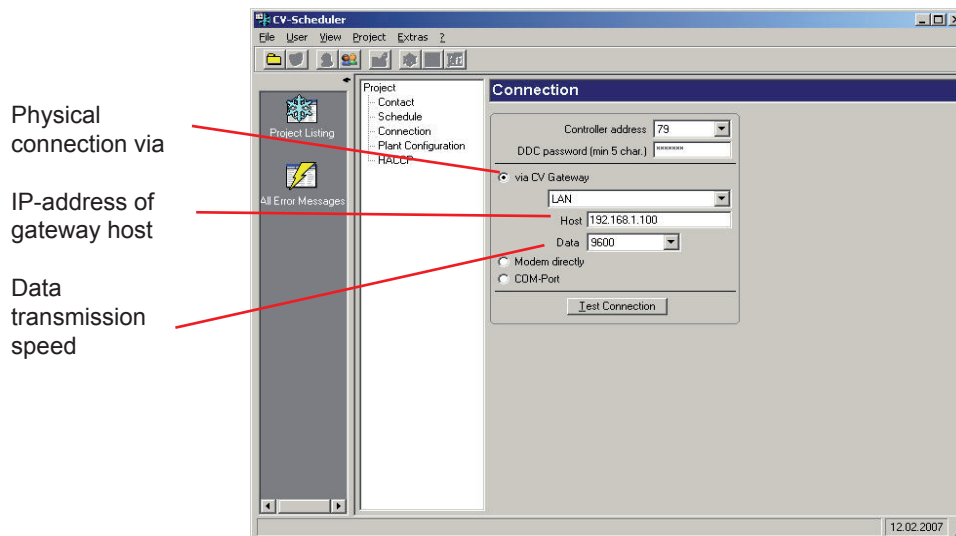
"Controller Address" is the address which must be set in your SMZ or VPR-System to enable a data connection. Using SMZ frontends always "79", using VPR as required.

The plant access password, preset in SMZ und VPR frontend systems.

## CV-Scheduler • Configuration, phase 1

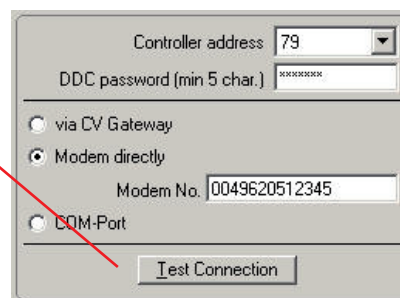
"via CV-Gateway":

Network connection to a PC with a running CV-Gateway Software, done with a TCP/IP protocol.



### Connection Test

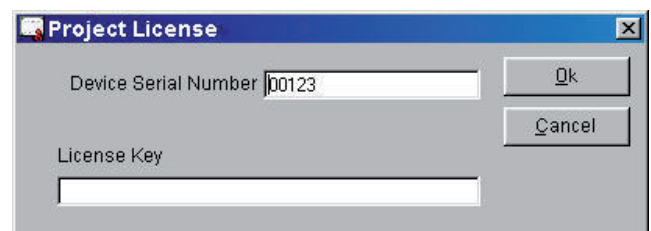
After entering the connection data, click on button "Test Connection". Now the software checks the correct function of the selected data connections.



### Unlock Data Logger System



The CV-Scheduler is only able to download logged data from connected logger systems when they were **unlocked** for this purpose before. If the CV-Scheduler detects a locked device while a test connection, then this window opens and expects an unlock code (License Key). This License Key you get as a form on paper which must be kept carefully.

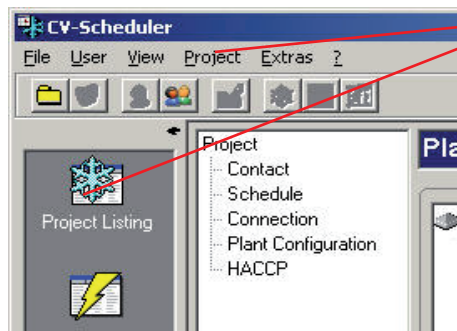



**Without an entered License Key only error messages can be downloaded and read and devices can be configured by the MES module. Downloading and processing of logged values is impossible.**

- If you have entered an invalid License Key, the connection fails.
- If you have entered an valid License Key, you got the message "Connection OK"
- At the devices itself you can check if they are already unlocked:
  - Read parameter with the software version
  - The version number is supplemented by "pro"

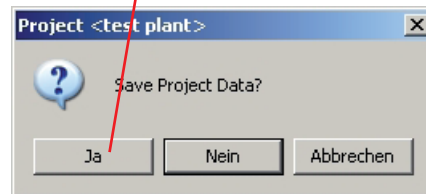
## CV-Scheduler • Configuration, phase 1

### Complete and Close Basic Configuration / Storing of Project Data

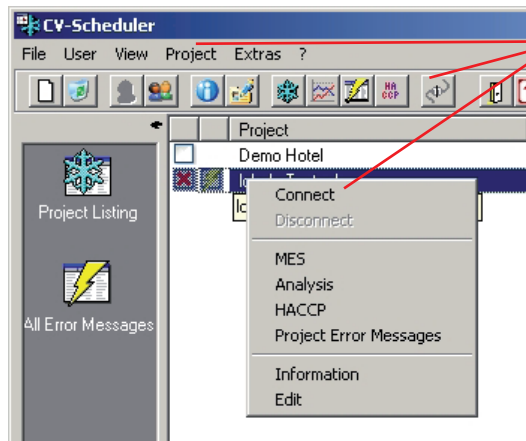


- Double click on "Project Listing" or
- "Project/Close" in the main menu or
- Button 

Then confirm the storage of the data



### Renewed Connection

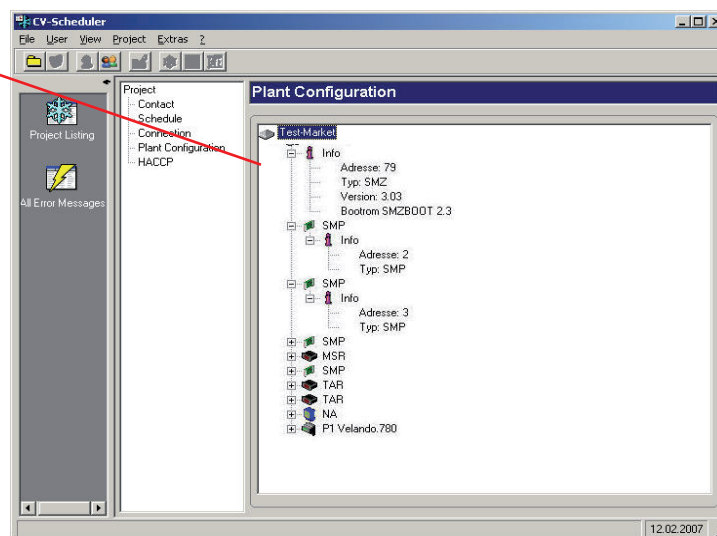


Open a connection to the plant by the right mouse button at the project, with this button or under "Project/Connect". The CV-Scheduler then builds a connection and picks up information, which are needed for the further settings.

### Read Plant Configuration

-> Project -> right mouse button -> "Edit". After the first connection to the plant you will find here an overview of the connected hardware and information about the single devices like addresses, sensor names, etc.

By the +/- buttons ahead the device names the listing can be expanded.



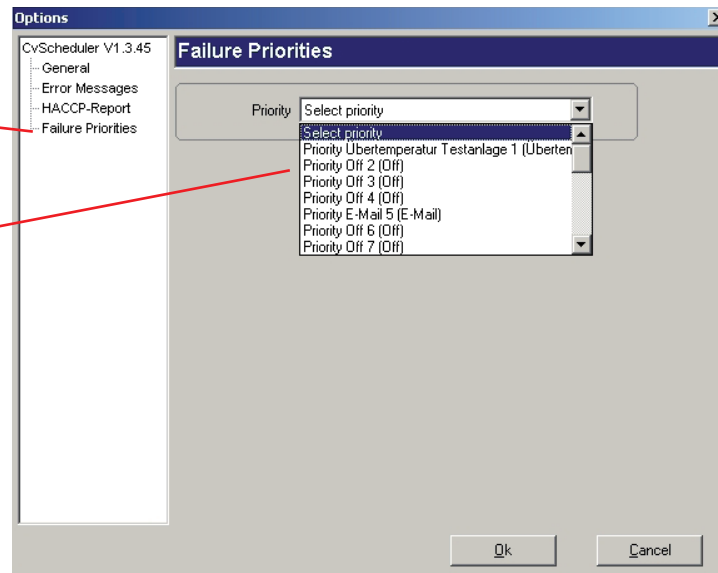
## CV-Scheduler • Configuration, phase 2

### Configuration of Failure Message Channels / Priorities / Email Delivery

The CV-Scheduler allows to send each error message as an email. Up to 24 email addresses can be set as targets. So each possible failure at the plant can be distributed to one or several mail addresses. This allows e.g. to distribute simple failures as an information only and serious errors can be send directly to a service contractor.

In the main menu you will find under "Extras/Options" the settings for the failure priorities.

Here you can call up all 24 possible targets for configuring.



Selected priority channel

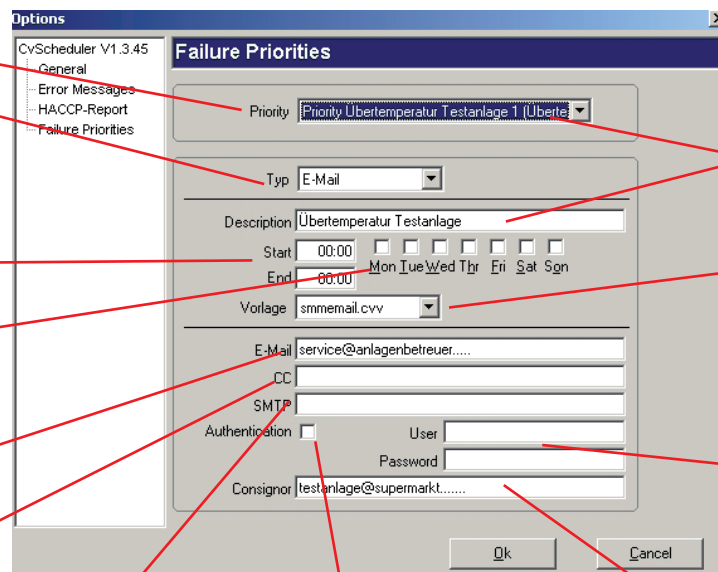
Switched off or type of transmission

Time frame of transmission

Days of the week, where data must be transmitted

Email address of the target

A copy of the mail can be send to this address at the same time



Name of this Priority Channel (Appears then also above)

File, which is the optical model for the emails

User name and password of the used mail account

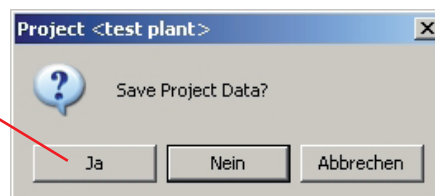
Mail address of the sender (the plant)

SMTP server name to send the emails, mostly of the providers.  
Example:  
smtp.strato.de

Depending on the provider an authentication is expected



With closing the settings don't forget to save them!

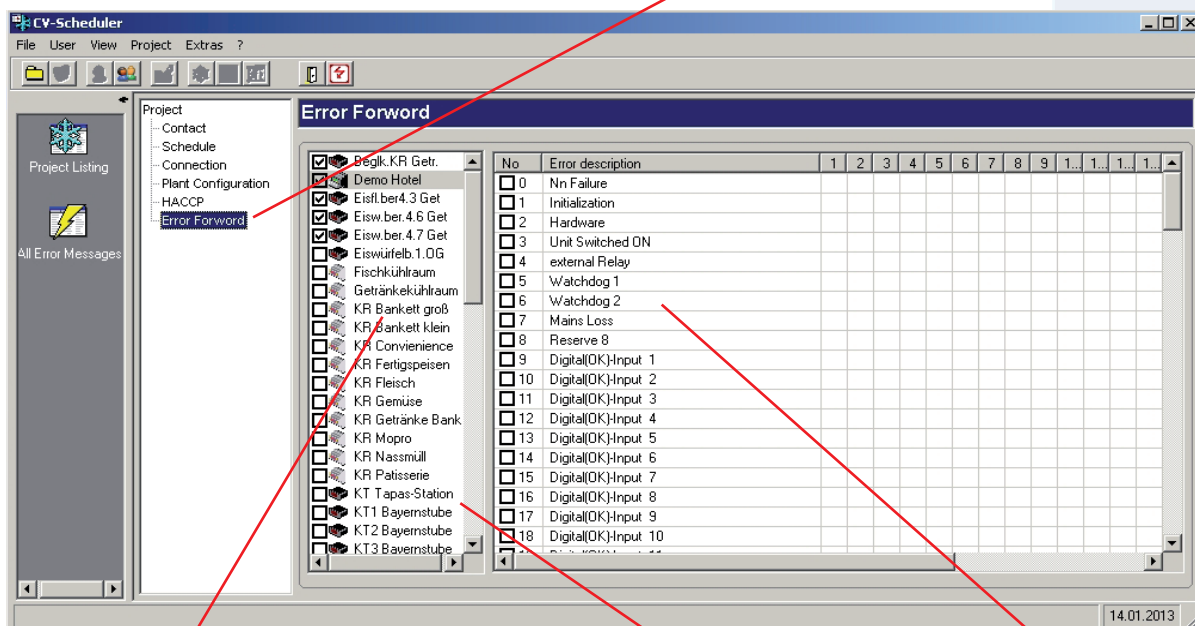




## CV-Scheduler • Configuration, phase 2

### Assignment of Alarm Messages to Alarm Channels / Priorities

- Call up:
- Mark the project in the overview listing
  - Right mouse button "Edit / Error Forward" or
  - In the main menu "Project / Edit / Error Forward"



Device/controller in this project which delivers the messages. With a double click on the device position a listing with all possible failures for this position opens. In this example only one device (MiniMEP) is connected.

The possible failure messages of the device/controller position, always dependent on the kind of device.

By marking here, the failure messages can be assigned to one or several of the 24 failure priorities.

- ☒ Hook set: Failure Messages of this position will be sent.
- ☐ Hook not set: Failure Messages will not be sent

- ☒ Hook set: Failure Message will be sent
- ☐ Hook not set: Failure Message will not be sent

## CV-Scheduler • Data Backup

To ensure, that after a PC damage the recorded data are not lost, it is useful to backup them in regular intervals. This can be done with automatic tools (e.g. Windows-Backup, but differently in each company) or manually. The following data must be backedup:

- File c:\elreha\cvscheduler\cvscheduler.mdb
- Directory c:\elreha\cvscheduler\project

On a new PC or after a new installation, this data (format "MS-Access") must be copied to the old position.

- Passwords will not be backedup!
- With a new PC, the passwords must be re-entered.
- If the CvScheduler has been removed and then reinstalled on the same PC, the old passwords are still available.



- The user has to decide himself about the backup intervals. If e.g. only once a week data is transmitted from connected devices, it makes no sense to backup data from the PC daily.
- The duration of data storage and the inspection of the data logging systems must be done according to the current states of the EN 12830, EN 13485 and EN 13486 standards.

## Call up Project Information

- With a double click on an entry in the project listing or
- Via "Project/Information" in the main menu

- Contact information like addresses, phone numbers, etc,
- A transmission protocol listing which shows data, time and success of data connections.
- Any notes about this project. This notes (4096 characters max.) can be entered at any time.

CV-Scheduler

File User View Project Extras ?

Project Listing

All Error Messages

Test-Market (12345678)

- Transmission protocol
- Note

Test-Market (12345678)

Plant

Test Market

Sunnystreet 10

1234 Hometown

sales@testmarket.com

Service Technician

Tom Tool

0172/987654321

The screenshot displays the CV-Scheduler application. The main window has a menu bar (File, User, View, Project, Extras, ?) and a toolbar. On the left is a sidebar with 'Project Listing' and 'All Error Messages' buttons. The main area shows a tree view with 'Test-Market (12345678)' and 'Transmission protocol' selected. The 'Transmission protocol' table is shown with the following data:

created	State	Duration	Date
12.02.2007 15:15:37	Connection Error	00:00:01	---
12.02.2007 15:15:21	Connection Error	00:00:16	---
12.02.2007 15:15:20	Connection Error	00:00:01	---
12.02.2007 15:15:00	Connection Error	00:00:20	---
12.02.2007 15:10:00	Connection Error	00:00:20	---

A red arrow points from the 'All Error Messages' button in the sidebar to the first row of the table. The bottom of the image shows a second instance of the CV-Scheduler application window, which is partially visible and shows the same menu and toolbar.

The screenshot shows the CV-Scheduler application. The main window has a menu bar with 'File', 'User', 'View', 'Project', 'Extras', and '?'. Below the menu is a toolbar with icons for file operations and project management. The left sidebar contains 'Project Listing' and 'All Error Messages'. The main area displays a tree view with 'Test-Market (12345678)' expanded, showing 'Transmission protocol' and 'Note'. The 'Note' pane shows a list of error messages, with the first one highlighted in red: 'The text may have not more than 4096 characters.'

## Working with the CV-Scheduler

### Start a Connection to the Plant



The CV-Scheduler starts its connections to the plants by using the set criteria and downloads logged data and error messages.

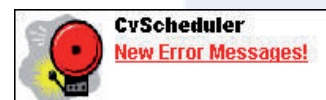
Independent from the set criteria a connection can be started manually at any time.

- By this button  or
- A right mouse button click on the name in the project listing / "Connect" or "Project / Connect" in the main menu

### Error Messages

If error messages are transmitted, they will be shown immediately.

- This flashing info bar appears on your screen. By clicking on it the bar disappears and comes back after the set time by "Extras/Options/Error Messages".

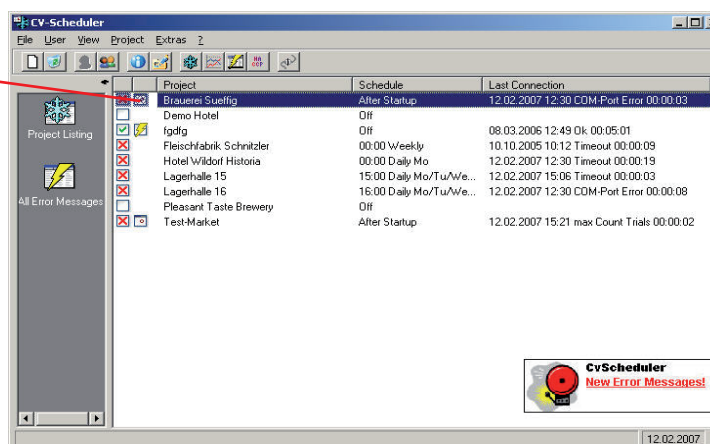


Under "Extras/Options" an additional audible alarm can be preset.

The info bar comes to foreground even though the CV-Scheduler works in background and you work with another software.


- Flashing symbol ahead the project name

The alarm messages keep present up to a reset.



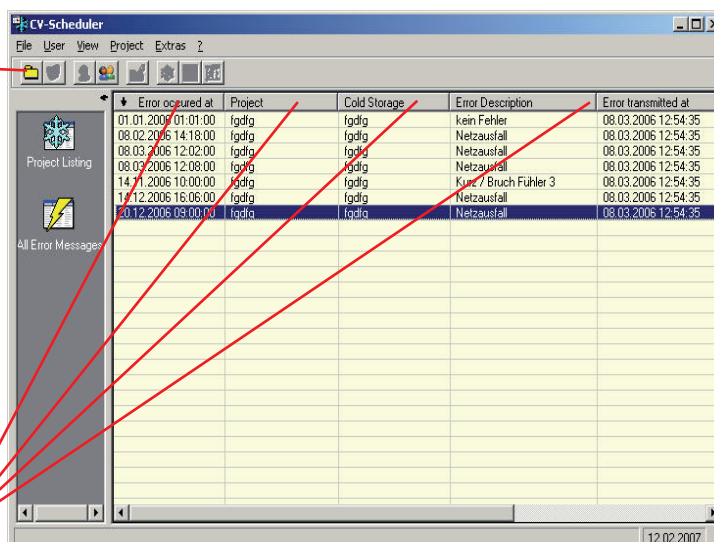
### Read and Print Error Messages

The error messages can be displayed in different ways.


A click on  in the menu bar or "View/Error Messages" (in the main menu) opens a listing with all available error messages of all connected plants. The listing can be sorted by clicking on the matching column heads.

Close error message listing

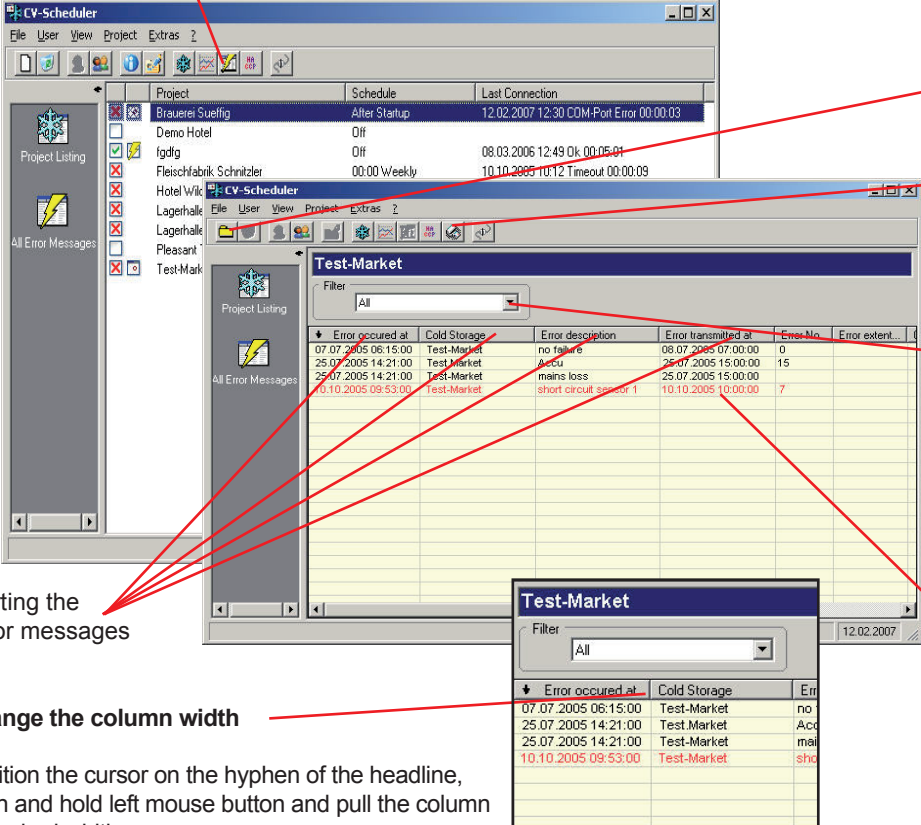
Sort listing by



## Working with the CV-Scheduler

A click on  in the toolbar or "Project/Project Error Messages" (main menu) or A right mouse button click on the name in the project listing (Project Error Messages) opens a table with the error messages of the selected project (=plant).

The listing can be sorted by clicking on the column heads.



Close error message listing

Printout error message listing

This is a filter which decides if all messages of the plant will be displayed or the messages of certain devices only.

Sorting the error messages

Change the column width

Unresetted error messages are displayed in **RED**.

Error occurred at	Cold Storage	Error description	Error transmitted at	Error-No.	Error extent
07.07.2005 06:15:00	Test-Market	no failure	08.07.2005 07:00:00	0	
25.07.2005 14:21:00	Test-Market	Accu	25.07.2005 15:00:00	15	
25.07.2005 14:21:00	Test-Market	mains loss	25.07.2005 15:00:00		
10.10.2005 09:53:00	Test-Market	short circuit sensor 1	10.10.2005 10:00:00	7	

## Reset Error Messages

Unresetted error messages are displayed in red color. Up to a reset, this messages are reminded in intervals.

*Reset a single error message:*

- Right mouse button click on the desired message and then select "Reset" or "Project / Reset" in the main menu

*Reset all error messages at the same time:*

- Right mouse button click on any message and then select "Reset all" or "Project / Reset all" in the main menu

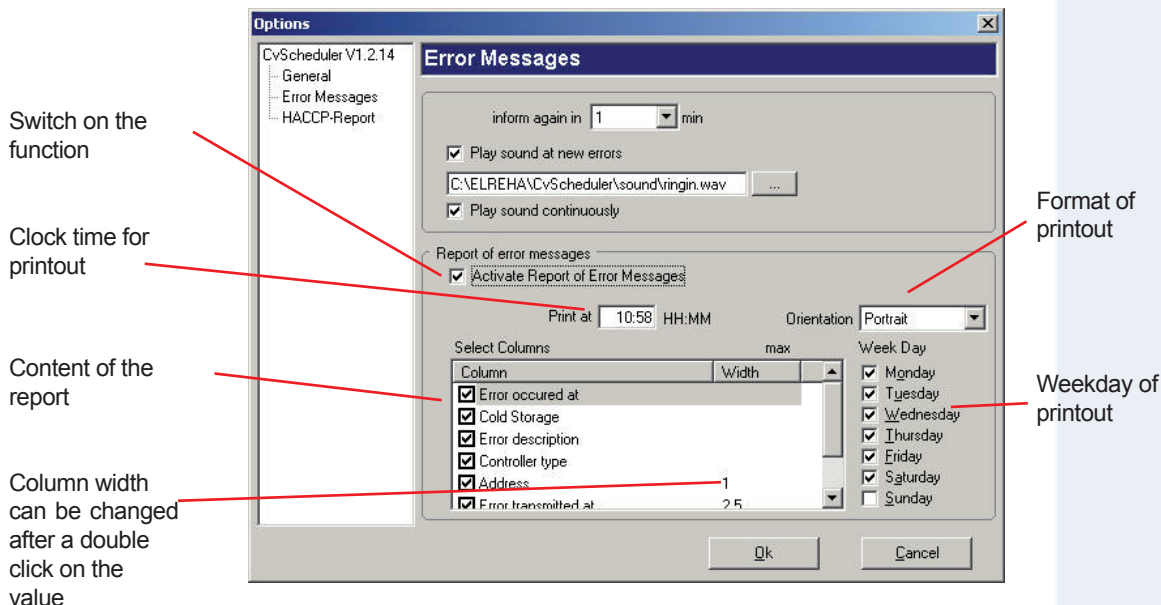
## Working with the CV-Scheduler • The SMM-Report

# The Error Message Report (SMM-Report)

The SMM-Report is a function for printout unresetted error messages at certain times or manually. So you get current malfunction information without using a PC monitor.

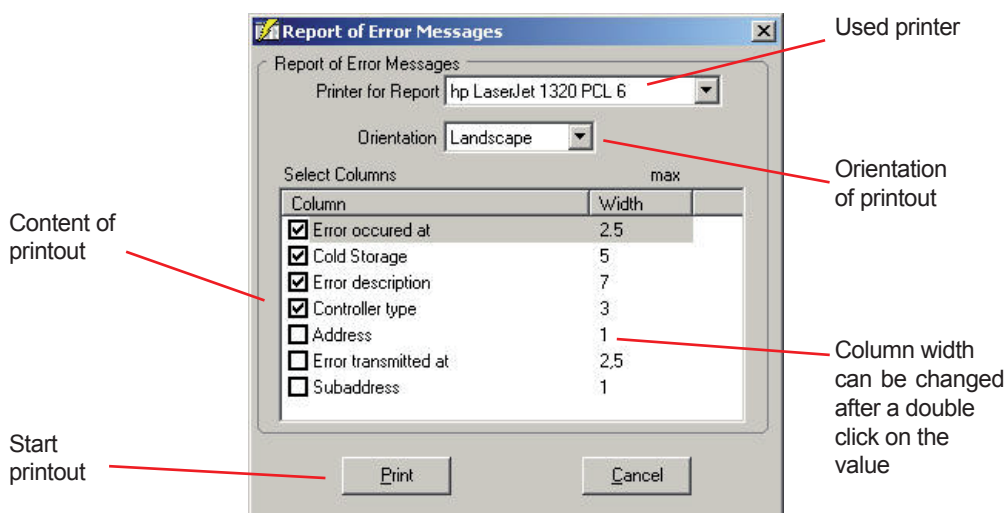
## Automatic Report

Open "Extras/Options" and select "Error Messages". Here you preset the options for the automatic printout of error messages. Automatic reports can be done only once a day. After changing the clock time, the next printout is done the next day first.



## Manual Report

Open "Extras/SMM-Report" in the main menu, the following dialog prepares the printout.



## Format of Printout

Both for the automatic as well as for the manual report the column width of the single values can be changed to adapt the hardcopy to different printers. For this purpose, click double on the desired value in column "Width", then the value can be changed.



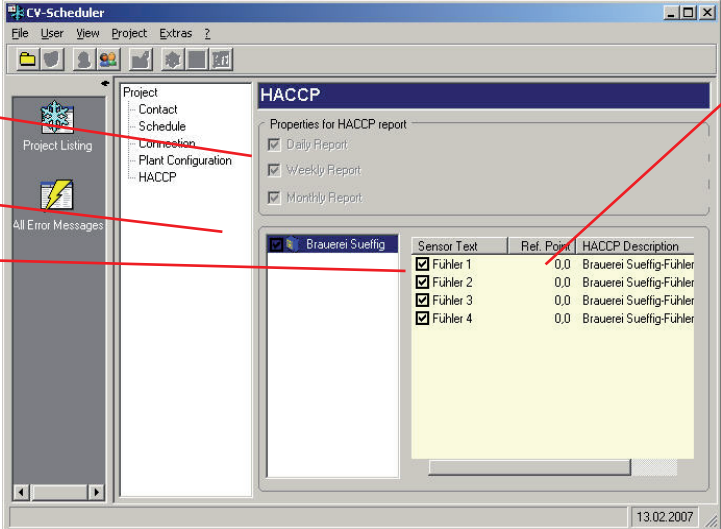
# The HACCP-Report (Quality Report)

This report allows an overview about the average temperatures at certain positions either automatically at certain times or manually. By presetting a basing point (e.g. the setpoint) a deviation can be recognized immediately. 3 report types are available:

- Daily Report: Shows the average temperatures at the measuring points in the hours 1-24
- Weekly Report: Shows the average temperatures at the measuring points at the week days 1-7 from the set date
- Monthly Report: Shows the average temperatures at the measuring points at the days 1-31 of the selected month

## Criteria for the Report

- Select a project from the project listing
  - "Project/Edit" (main menu) or right mouse button click on the project (Edit)
  - Select "HACCP"
- Here you are able to select the desired positions and measuring points for the report.



Kind of reports

The desired position

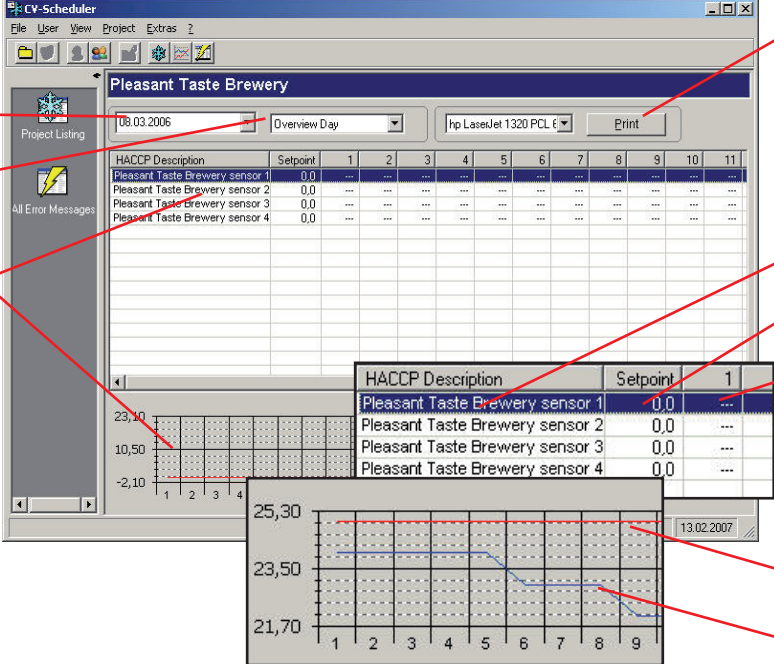
Sensor/input of the position which must appear in the report

A double click on a value in the "Ref. Point" column allows to set a basing point (e.g. the setpoint) for information purposes. This reference point appears on the report later.

## Report on Screen

- Select project from the project listing
- "Project/HACCP" (main menu) or right mouse button click on the project (HACCP) or button





Date of Report

Kind of Report

If you select a measuring point here, an additional data diagram appears

Print Report

Example of a Daily Report

Position

Basing Point

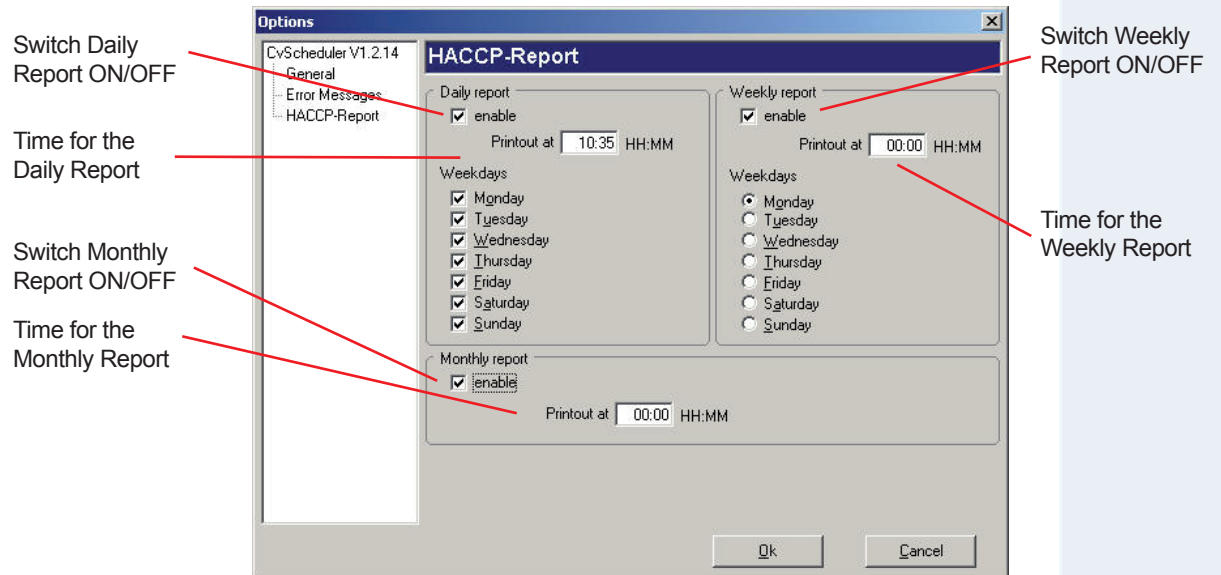
Average temperature while the first hour

Course of the average temperature

## Working with the CV-Scheduler • The HACCP-Report

### Automatic Report

Open "Extras/Options" and select "Error Messages". Here you preset the options for the automatic printout.

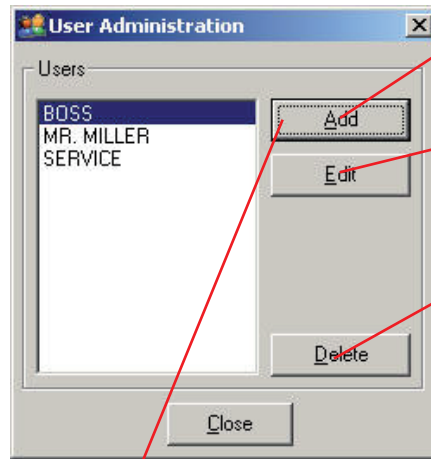
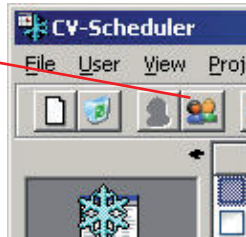


# User Access Authorization Management

Complex systems that offer a lot of features and functionalities and by this some failure sources, must be usually operated from qualified personnel. Persons who are not able to estimate the effect of their system settings, must not be allowed to access the system nor to change values. To do this, the CV-Scheduler offers the "user access authorization" function, which predefines the access rights of each user. As long as no rights are assigned, all users of the system have all rights.

That means, each user is e.g. able to see and to change all values of a controller. To prevent this, i.e. to allow only specific persons or groups to work with the system, they must login with a password. Users which have no password have less possibilities to move through the system. To specify rights more exact, they can differ from project to project. Each project file has its own access rights.

Open user management

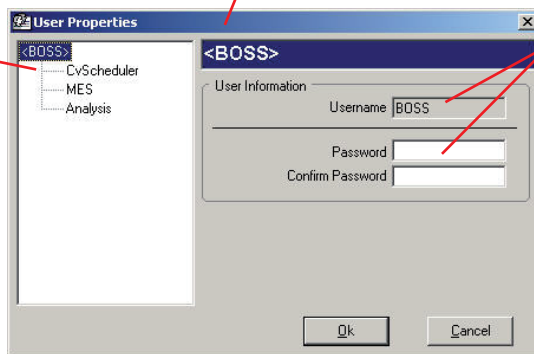


Add new user

Select rights of the new user

Erase user

Rights for the single software modules

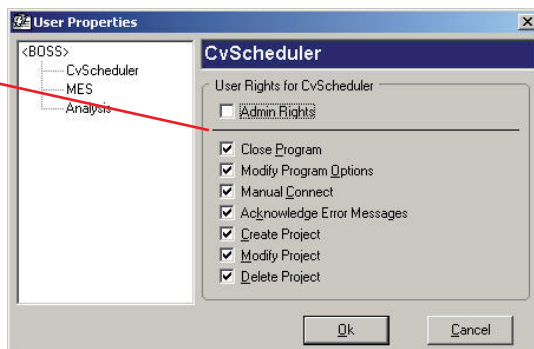


User name and password

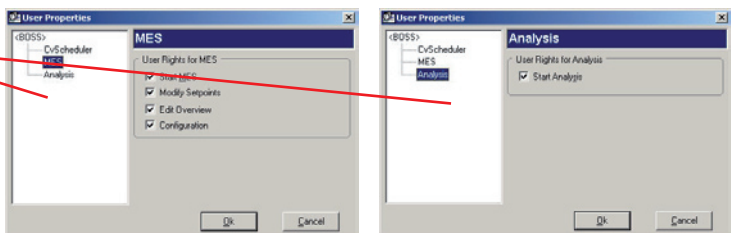
The rights for the CV-Scheduler:

**Admin Rights:**  
The user may do anything, also create new users.

**1 user minimum must have Admin Rights!**



The rights for "MES" (access to the controller devices and remote control) and Analysis (diagram of values)

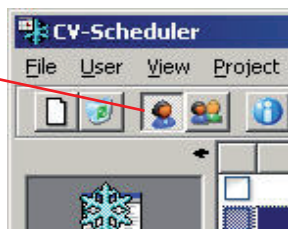


## Working with the CV-Scheduler • User Access Authorization Management

### Login as User

If a user account is created by the administrator, the user is only able to get his rights by entering his user name and password.

Login as user



### Automatic Logout

After 15 minutes of inactivity, the user is logged out automatically and the access is locked.

To continue work, another login is necessary.

Working with the CV-Scheduler • Graphical Display

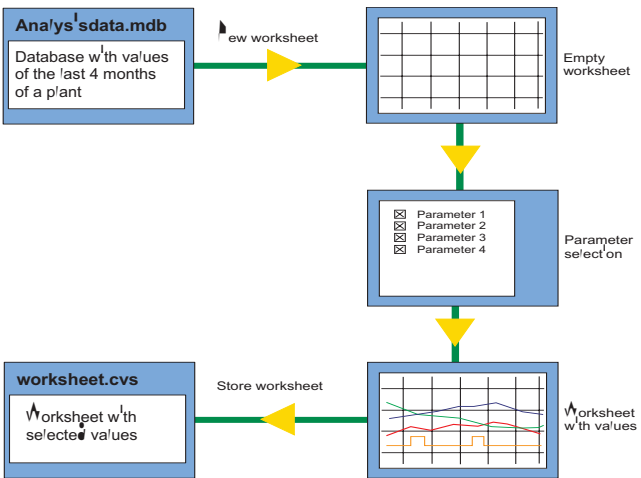
Data Display

The software module "Analyse (Analysis)" has the job to display data as tables or diagrams on worksheets and to print them. The worksheets can be created by the user.

Function

The system stores downloaded data from SMZ, VPR or MiniMEP in a database. The Analysis Module has access to this database.

- Open a new, empty worksheet
- Select the parameter you want to see later on that sheet.
- Store this worksheet by using any name, so it can be opened at any time.

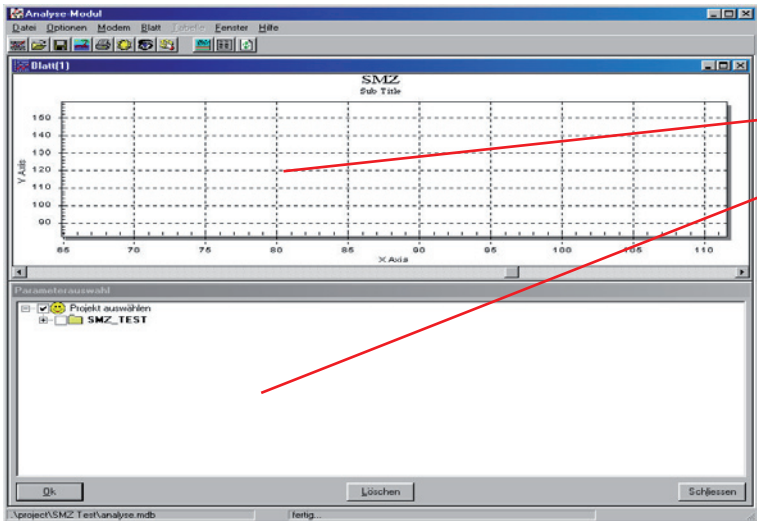


The User Interface after Start-up

The Analysis Module can be opened by the



button. An empty worksheet and a parameter overview



Display window

Parameter selection

Both can be placed on the screen just as you like.

The Main Menu

- File**
- New sheet .....Open database and new, empty worksheet
  - Open sheet .....Open available worksheet
  - Close sheet .....Close current worksheet
  - Open table .....Open data table
  - Close table .....Close data table
  - Exit .....Close analysis module
- Options**
- Program Options .....Common settings like language and folders
  - Toolbox .....Switch icon bar on/off
- Sheet**
- Parameter selection .....Select values for the worksheet
  - Show table .....Display data tables
  - Add new sheet .....Add new worksheet
  - Period selection .....Select data out of a specific time period
  - Sheet Settings .....Worksheet settings (color, designations, etc.)
  - Maximize .....Fullscreen display of worksheet
  - Save .....Save worksheet
  - Save as .....Save worksheet with new name
  - Save sheet as Bitmap .....Export worksheet as a bitmap
  - Print .....Print worksheet
  - Close .....Close worksheet

- Table**
- Options .....Compile values for the table
  - Period selection .....Select data out of a specific time period
  - Save .....Save table
  - Print .....Print table
  - Close .....Close table
- Window**
- Sheet .....Only the worksheet is displayed
  - Table .....Only the table are displayed
  - Sheet + Table .....Worksheet and table are displayed at the same time
- Help**



## Working with the CV-Scheduler • Graphical Display

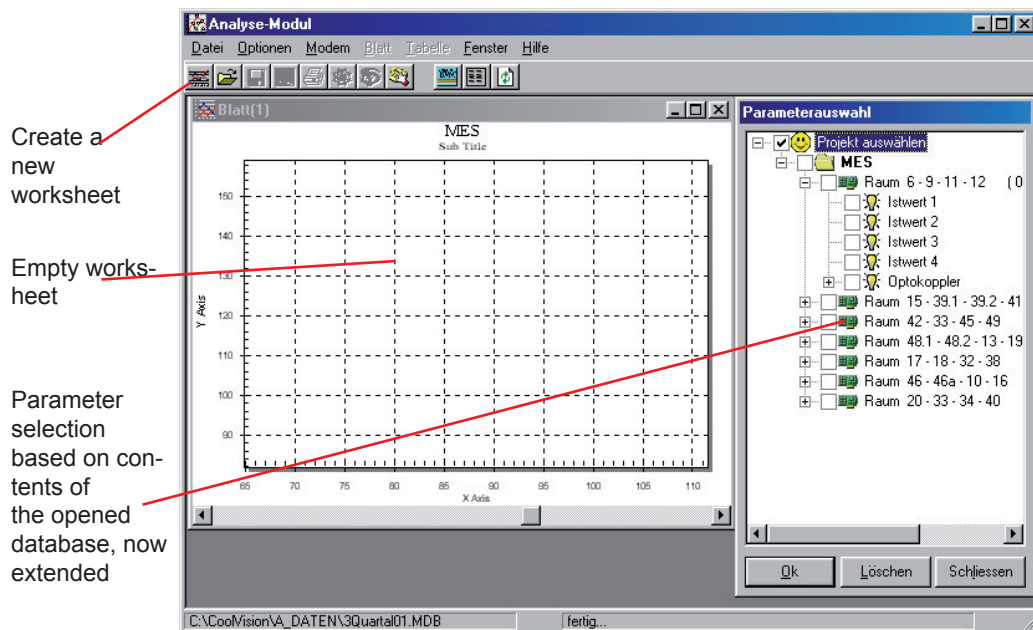
### Create a new Worksheet



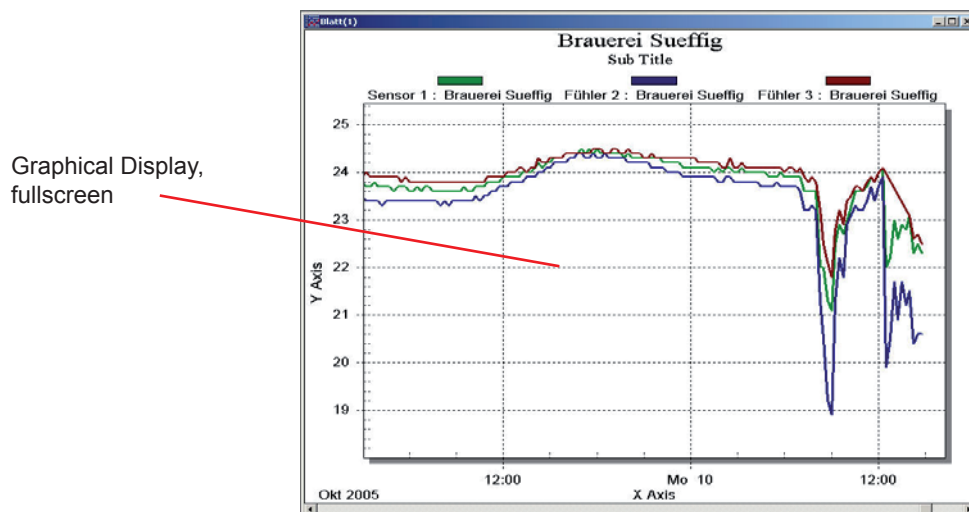
The window "Parameter selection" contains a listing of all controller units whose data has been recorded. A click on the '+' next to the position name opens the available parameters.

Depending on controller type, the quantity of parameters may be enormous. To improve survey, the amount of displayed parameters can be reduced. After a click on the parameter selection window with the right mouse button you get the following selections:

- All = All parameters are displayed
- Actual = Actual values and digital input states
- Default = Actual values only



Select parameters to display and confirm by "OK". The new worksheet appears fullscreen. To change settings, re-open form by "Sheet/Parameter Selection" or by a right mouse button click on the worksheet (Parameter Selection).



### Save Worksheet

Click on the sheet and choose "Sheet/Save" or "Sheet/Save as". The same menu appears with a right mouse button click on the worksheet.

Save the new worksheet with any name, the file extension is fixed by ".cvs". So you are able to create many different worksheets, which can be used again at any time.

## Working with the CV-Scheduler • Graphical Display

### Open a Worksheet



- A click on the 'folder' icon on the toolbar or "File / Open Sheet" in the main menu opens the worksheet listing.

Multiple worksheets can be displayed the same time.

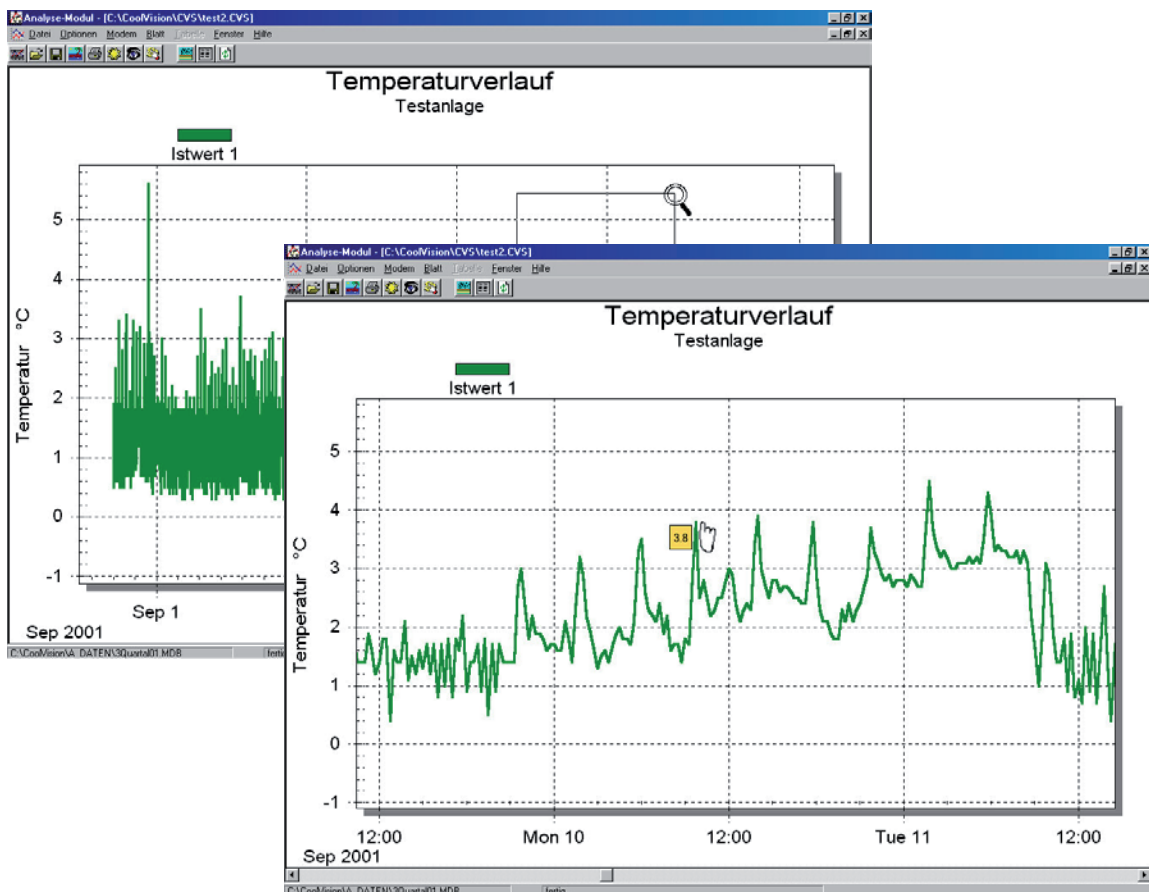
### Maximize Worksheet

- Click on the square icon at the upper right side of the worksheet window
- Double click on the upper blue margin of the worksheet window
- Menu "Sheet/Maximize"

### Zoom diagram

Hold left mouse button and draw a square around the area to zoom. With releasing the button, the isolated area will be zoomed. This is the way to zoom more and more.

With "Undo zooming" (Menu 'Sheet' or right mouse button) all data will be displayed again.



### How to get exact values

If you move cursor over a value junction, the cursor changes itself to a 'hand' symbol. After a left mouse button click the exact parameter value occurs.

## Working with the CV-Scheduler • Graphical Display

### Sheet settings...

...you can find under "*Sheet / Sheet Settings*" or by a right mouse button click on the worksheet. By this, you are able to set scaling, designations and color of your worksheet. The new attributes will be used after confirmation by button 'Apply'.

Main title and subtitle of the worksheet

Curves are displayed in color

Curves are displayed black and white

Curves are displayed black and white with junctions

The 'Sheet Settings' dialog box, General tab, shows fields for 'Main Title' (Test plant) and 'Sub Title' (for documentation purposes). It has three radio buttons for 'Viewing Style': 'Colored' (selected), 'Monochrom', and 'Monochrom + symbols'. There are three radio buttons for 'Grid Lines': 'Both' (selected), 'Y', and 'X'. A checkbox 'Grid in front of data' is unchecked. A 'Line Thick.' dropdown is set to '466'. Buttons at the bottom are 'Ok', 'Apply', and 'Cancel'.

Kind of grid lines

Set line thickness

Background color

Color of lettering

Background color of the system of coordinates

Color of grid lines

Color selection

The 'Sheet Settings' dialog box, Color tab, shows 'Graph Attributes' with four radio buttons: 'Desk BackGround', 'Desk ForeGround', 'Graph BackGround' (selected), and 'Graph ForeGround'. Below is a 4x6 grid of 24 color swatches for selection. Buttons at the bottom are 'Ok', 'Apply', and 'Cancel'.

Fonts, font size and attributes of let-

The 'Sheet Settings' dialog box, Fonts tab, shows settings for 'Main title', 'Sub title', and 'Subset/Point/Axis Labels'. Each has a font family dropdown (Times New Roman, Arial), and checkboxes for 'Bold', 'Italic', and 'Under line'. There is a 'Font Size' section with radio buttons for 'Large', 'Medium' (selected), and 'Small'. A 'Sample' field shows 'Aa Bb Cc Dd Ee Ff'. Buttons at the bottom are 'Ok', 'Apply', and 'Cancel'.

## Working with the CV-Scheduler • Graphical Display

Scaling of the axis is done depending on the available values

Set manual scaling, enter any values

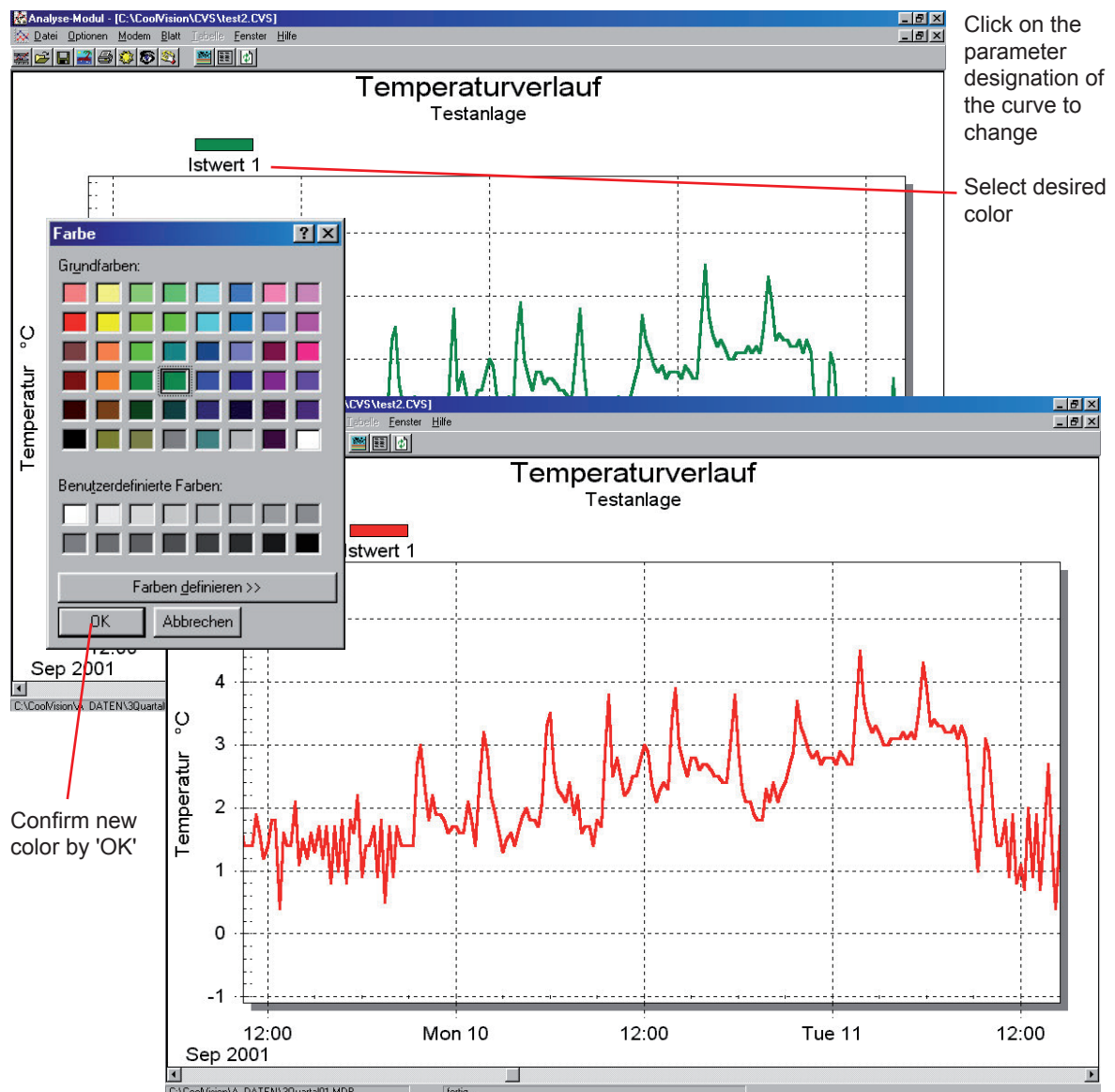
If you have zoomed before, a manual scaling will not be displayed immediately. For this, you must switch back to 'Undo Zooming' for a moment.



The 'Sheet Settings' dialog box has four tabs: General, Color, Fonts, and Axis. The 'Axis' tab is active. It contains two main sections: 'Y-Axis Scaling' and 'Axis Text'. In the 'Y-Axis Scaling' section, the 'Automatic' radio button is selected, and the 'Manual' radio button is unselected. Below the 'Manual' button are input fields for 'Min' and 'Max'. In the 'Axis Text' section, there are input fields for 'X-Label' (containing 'X Axis'), 'X-Unit', 'Y-Label' (containing 'Y Axis'), and 'Y-Unit'. At the bottom of the dialog are 'Ok', 'Apply', and 'Cancel' buttons.

Designation of x-axis and y-axis of the diagram

## Color of the curves

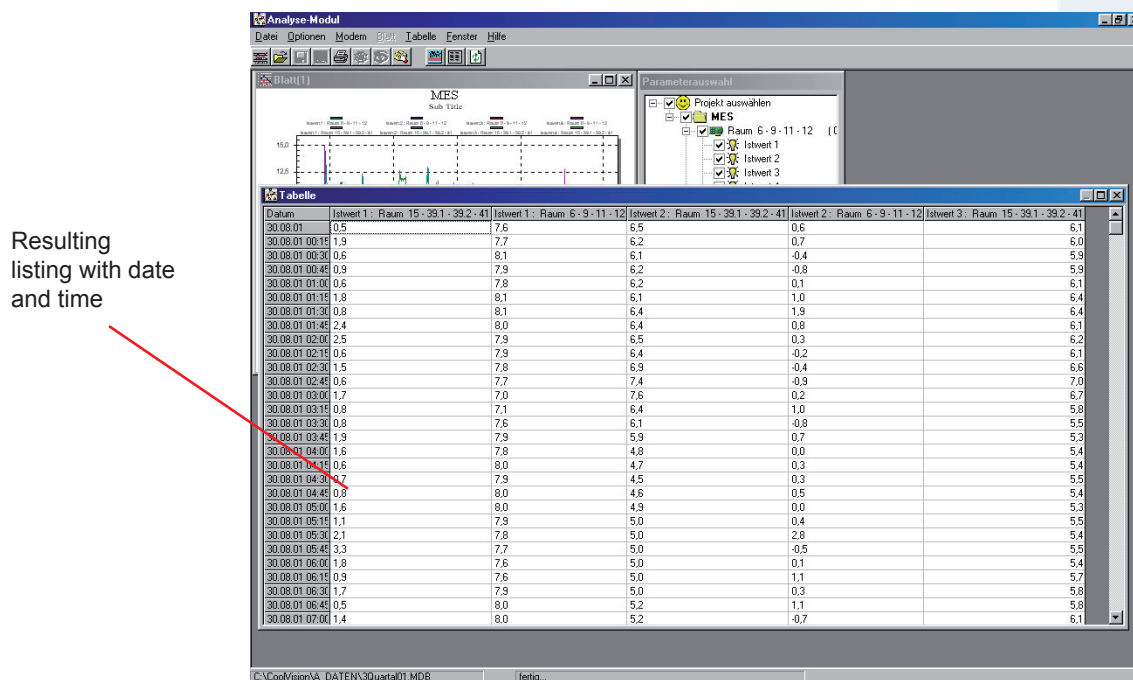
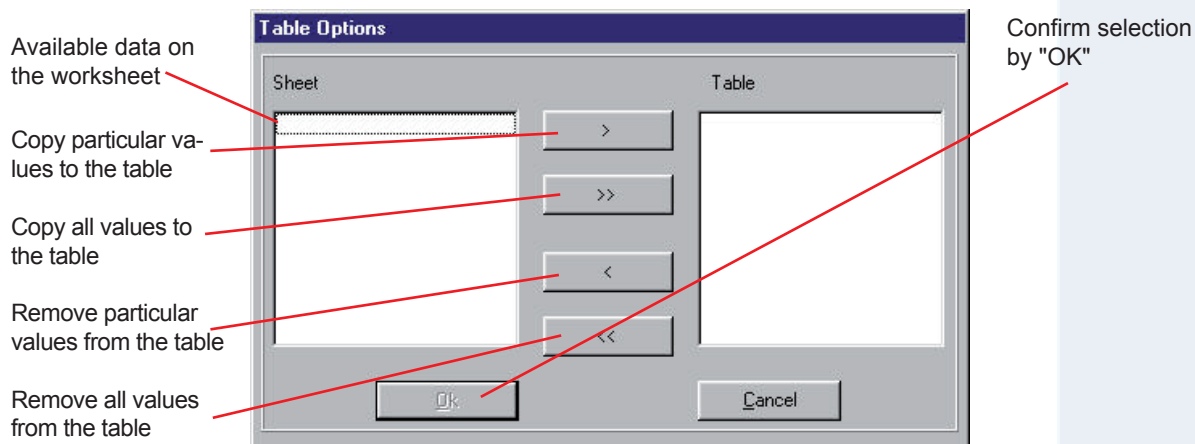


## Working with the CV-Scheduler • Table Display

### Create a Data Table

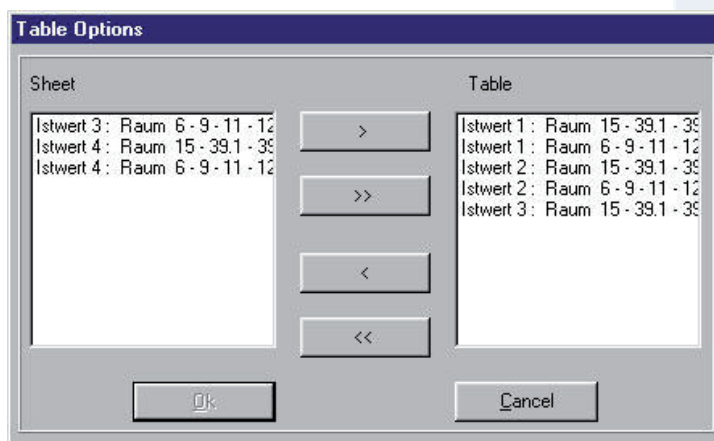
Click on a worksheet and choose "Sheet / Show Table" in the main menu. In the dialog box "Table Settings" you select the parameter which should appear on the table.

You get the same dialog box by a right mouse button click on the worksheet.



### Data Table Functions

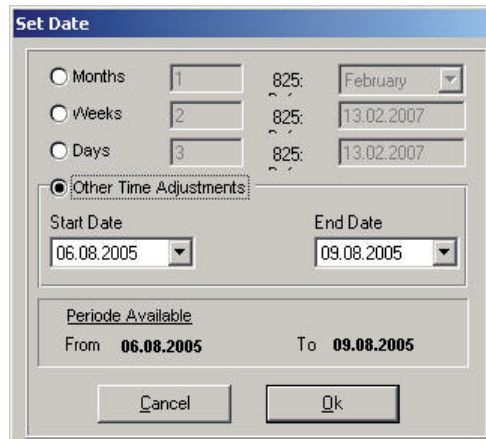
Click on the table by the right mouse button. A context menu opens which allows changing the table.



## Working with the CV-Scheduler • Table Display

### Choose time period:

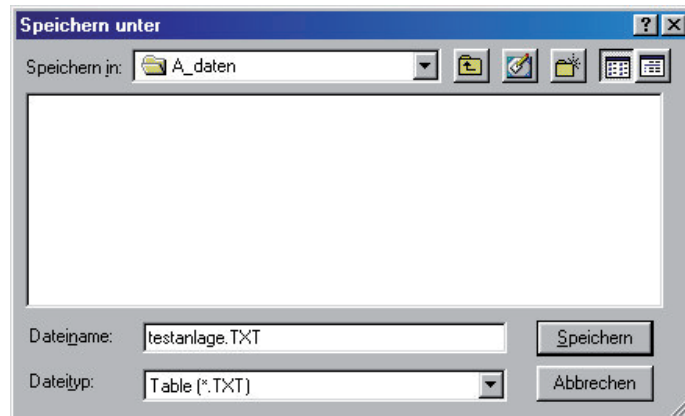
Limit the period of time of table data



The 'Set Date' dialog box allows users to select a time period for table data. It features three radio buttons: 'Months', 'Weeks', and 'Days'. The 'Other Time Adjustments' option is selected. Below these, there are fields for 'Start Date' (06.08.2005) and 'End Date' (09.08.2005). A 'Periode Available' section shows the range from 06.08.2005 to 09.08.2005. At the bottom are 'Cancel' and 'Ok' buttons.

### Save table:

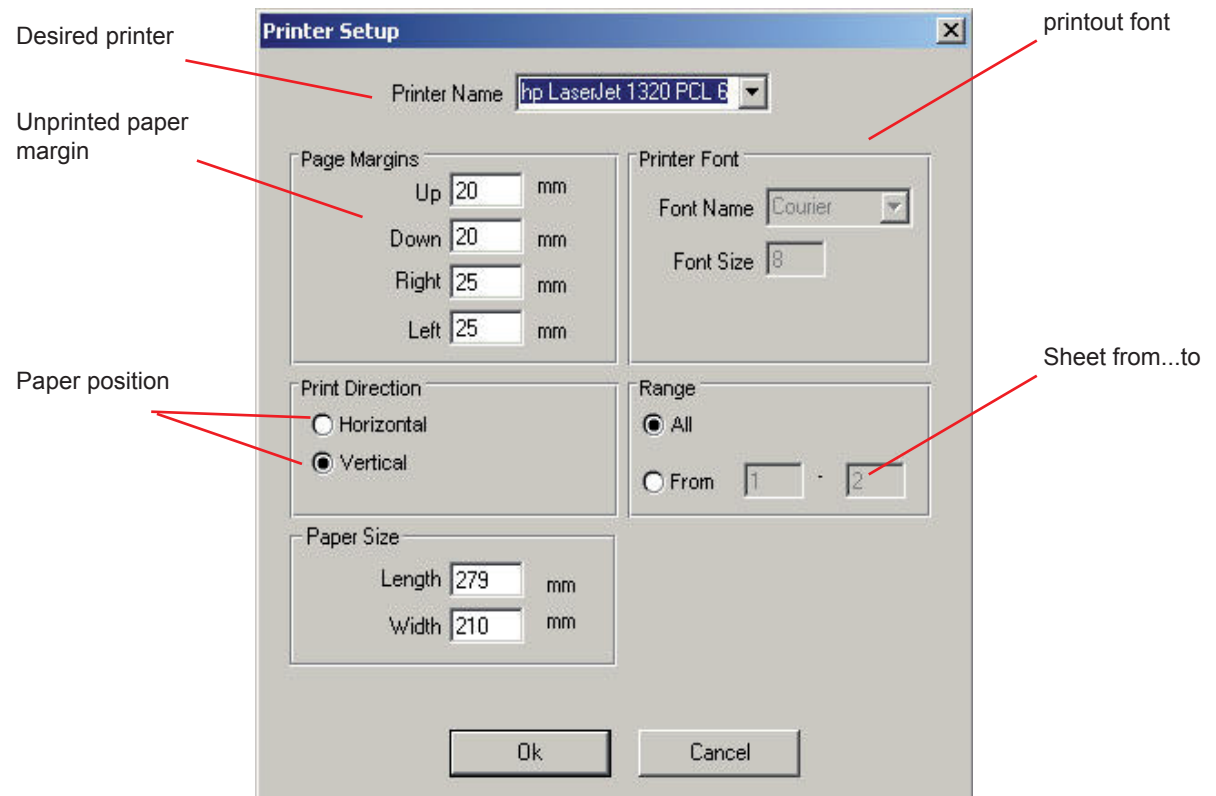
Select any name for the table. The table will be stored with this name as a textfile (.txt) in folder 'A\_daten'. This textfile can be printed or can be read by any text editor or spreadsheet software.



The 'Speichern unter' (Save As) dialog box shows the file name 'testanlage.TXT' and the file type 'Table (\*.TXT)'. The save location is set to 'A\_daten'. At the bottom are 'Speichern' and 'Abbrechen' buttons.

### Printing:

By using this printer dialog box, the table can be prepared for printing.



The 'Printer Setup' dialog box is annotated with red lines and labels:

- Desired printer:** Points to the 'Printer Name' dropdown menu, which is set to 'hp LaserJet 1320 PCL 6'.
- Unprinted paper margin:** Points to the 'Page Margins' section, which includes fields for 'Up' (20 mm), 'Down' (20 mm), 'Right' (25 mm), and 'Left' (25 mm).
- Paper position:** Points to the 'Print Direction' section, where 'Vertical' is selected.
- printout font:** Points to the 'Printer Font' section, which includes 'Font Name' (Courier) and 'Font Size' (8).
- Sheet from...to:** Points to the 'Range' section, where 'All' is selected, and the 'From' field is set to 1 and the 'to' field is set to 2.

At the bottom are 'Ok' and 'Cancel' buttons.




## CV-Scheduler • Controller Device Configuration

# Check and Configure Controller Devices - The Module "MES"

### The tasks of this module

- Adjusting and monitoring of networked controllers via data bus.
- Configuration of controllers, i.e. setting or changing of any parameters

"MES" opens after a click on "Procekt / MES" in the main menu or after a right mouse button click on a project name in the project listing (MES) or by the button 



While MES is open, the CV-Scheduler user interface is scaled down automatically.

## Plant Overview

The overview window displays the connected controller devices of this project. By a double click on the **marked position** you are able to open the individual form of each device.

Controller State	Controller Name	Actual Values	Current Failure	Controller address in network	Sub-address, e.g. if device is controlled by VPR or SMZ and is located behind them	Controller type
no failure						
controller is offline						
controller reports an error						
controller is switched off						
communication failure						



Notes about the meaning of the parameters you will find in the manuals of the single controller devices.

Notation	Fühler 1	Fühler 2	Actual value 3	Error	Address	Subaddress	Unit type
✓ NK-Verbund	----	----	----	----	01		MSR
✓ TK-Verbund	----	----	----	----	02		MSR
✓ KR Bankett groß	----	----	----	----	03		EVP
✓ Fischkühlraum	----	----	----	----	04		EVP
✓ KR Convenience	----	----	----	----	05		EVP
✓ KR Fertigspeisen	----	----	----	----	06		EVP
✓ KR Getränke Bank	----	----	----	----	07		EVP
✓ KR Patisserie	----	----	----	----	08		EVP
✓ KR Bankett klein	----	----	----	----	09		EVP
✓ KR Mopro	----	----	----	----	10		EVP
✓ KR Gemüse	----	----	----	----	11		EVP
✓ KR Fleisch	----	----	----	----	12		EVP
✓ Weinkühlraum	----	----	----	----	13		EVP
✓ Getränkekühlraum	----	----	----	----	14		EVP
✓ KR Nassmüll	----	----	----	----	15		EVP
✓ TKR Fisch	----	----	----	----	16		EVP
✓ TKR Patisserie	----	----	----	----	17		EVP
✓ TKR Allgemein	----	----	----	----			EVP
✓ Beglk. KR Getr.	----	----	----	----			TAR

## Example of a Controller Device Window

Each registered controller device owns a corresponding controller dialog form, which enables editing and changing of all parameters of this device.

MSR - compound 1 - Address: 1

MSR - State

1

2

3

4

5

Control sensor

Limit sensor

Setpoint

Warning

Sensor

Stages

Voltage Output

Others

Setpoints

Setpoint 1

Setpoint 2

Setpoint 3

Setpoint 4

Hysteresis

Hysteresis

Hysteresis limitation

Hardware version

Serial number:

Operating mode

Current Error

Night operation

Night Setpoint

Night Operation ON

Night Operation OFF

Limitations

Upper setpoint limit

Lower setpoint limit

Limitation value

Status window, shows the current logical state of controller outputs (on / off), alarm output and state of data transmission.










In every controller window you will find a field which shows the current error message.



**Attention:** If you have changed a parameter value, you must confirm it by the "enter" key.

## CV-Scheduler • Controller Device Configuration

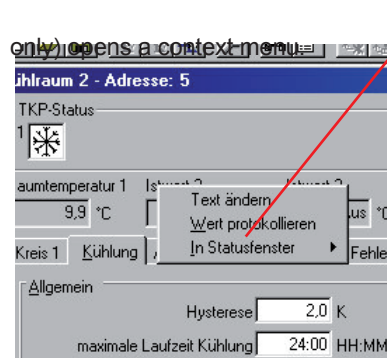
### The status icons of the controller dialog window

	Data transmission		Compressor		Frame Heater
	Refrigeration, Solenoid Valve or Cooling Circuit		Evaporator Fan, Condenser Fan		Night Operation
	Alarm, Alarm Relay		Defrost, Defrost Heater		Setpoint Layer No..

background color of icons: white = Stage is OFF  
 red = Stage failed  
 yellow = Stage not yet ON, but delay timer just running  
 green = Stage is ON  
 grey = without function resp. not selected

## Change Parameter Names

The controller device window allows to read actual values and to change parameters, but offers also functions to improve the survey.



A right mouse button click on a parameter name (several parameters

This menu offers...

- ...to change the parameter name
- ...to select this parameter for logging
- ...to insert this parameter to the overview window for permanent display.

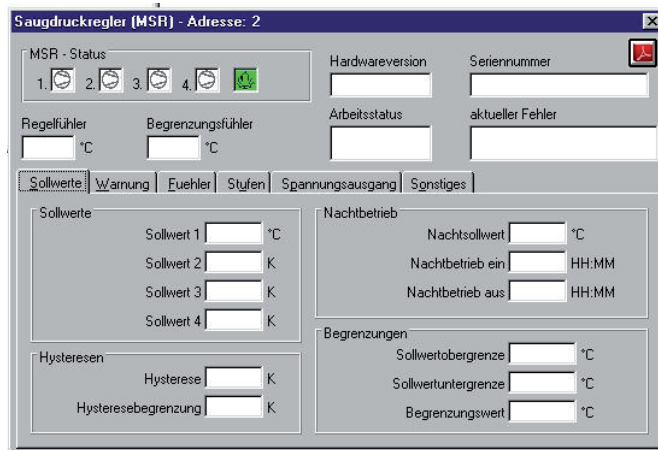
The defined names are displayed when "Parameter / show user text" is selected. By "Parameter / show original text" you can switch back to the factory set names.

## View Technical Manuals

With the current CV-Scheduler version it is possible to open the matching manual at each controller window.

For this, on your PC an Adobe Acrobat Reader or a similar product must be installed.

At the beginning of the installation of the CV-Scheduler you can decide, if the manuals should be stored on the PC additionally. Your advantage is, that you don't need a mass of paper or an internet connection.



Click here to open the matching Technical Manual for this window/product.

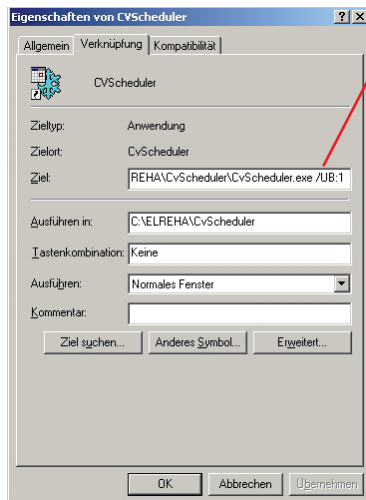
The additional installation of the manuals is only possible while an installation from CD.



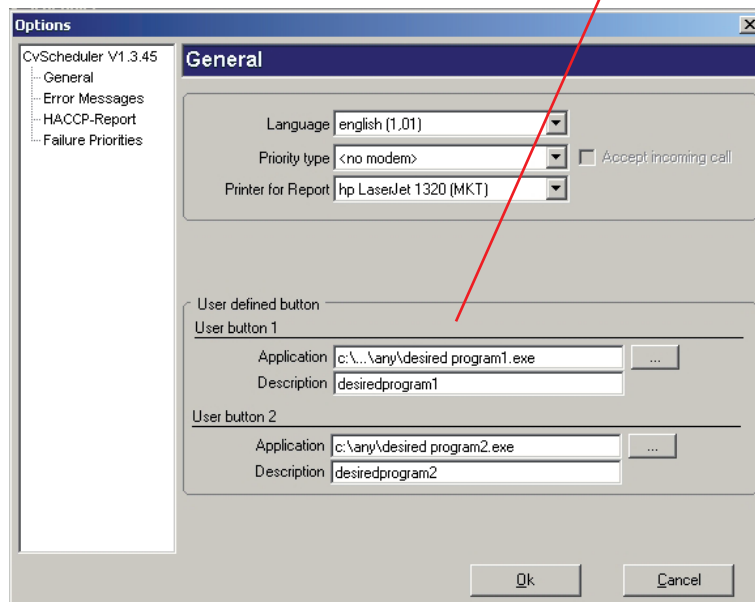
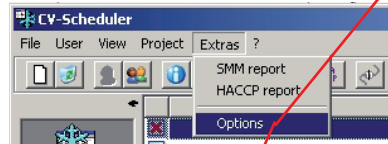
## CV-Scheduler • Additional Functions

### Internal Buttons for starting External Software

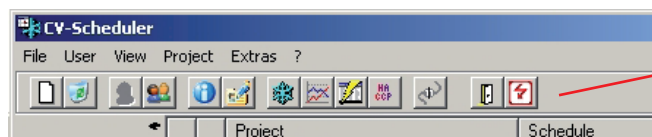
Sometimes, a customer wishes to start external software with an internal button in the CV-Scheduler, in order not have to open the Windows Start Menue.



To use this function, "/UB:1" must be added to the start link of the CV-Scheduler. After a start via this extended link, two entry options can be found under "Extras/Optionen/General".



Under "Program" the software must be selected which should be started. The Text, which can be entered under "Description", appears if the cursor touches the start button.



After a software has been selected, the start buttons appear at this position


## "Overview" - The Graphical Plant Overview

"Overview" is the graphical alternative to the classic "Table"-Overview. By the help of this function, plants can be displayed as graphics by integrating any pictures (e.g. photos of the equipment or the floor plan) and equipping them with operation buttons and info frames.



"Overview" is an option and must be unlocked by an individual license file.

### Setup Overview

- Open Modul "MES"
- Select "Overview / Show overview" or click on button 
- You have entered "Overview" in runtime-mode, where the graphical overview is located later.
- Select "Overview / Design view" in the main menu to enter the development environment of "Overview".

Full description follows.