SOFTWARE

WIN-Control SW5500WC0/1/2/3

Software Description:

► The software AMR WinControl is particularly designed for data acquisition and data processing with instruments of the series THERM, ALMEMO© and ALMEMO© **V5**.

► It allows a convenient programming and operating of the devices of both series.

► The acquired measured values can be displayed, arithmetically processed, stored, printed and for further data processing (also ONLINE) can be exported to other software packages.

► It is possible to derive alarm conditions from the acquired or calculated variables and perform control measures.

► The 32-bit version allows for optimal usage of the advantages of Windows 95/98/NT and Windows 2000.

► The Windows desktop and the context-sensitive online help ensure a quick familiarisation and a safe handling of the software.

► The latest information on the latest software version and possible updates are available at www.akrobit.de. Furthermore, the current demo version can be downloaded.

Software Versions:

For 8 measuring points and one instrument, limited function range	Order No. **SW5500WC0**
For 20 measuring points and one instrument	Order No. **SW5500WC1**
For any number of measuring points and instruments	Order No. **SW5500WC2**
For any number of measuring points and instruments, all optional functions (O) are included	Order No. **SW5500WC3**
Update of the latest software version	Order No. **SW5500WCU**

Options:

Network capability (addressing of several ALMEMO® devices)	Order No. SW5500WCO1
Data files to be automatically generated (daily files/weekly files)	Order No. SW5500WCO2
Modem support	Order No. SW5500WCO3
Radio communication modem support	Order No. SW5500WCO4
Alarm function (alarm value record, output to ALMEMO® relays, starting other applications)	Order No. SW5500WCO5
Addressing of measuring instruments via TCP/IP address	Order No. SW5500WCO6
K value assistant	Order No. SW5500WCO7
Free demo version including demo manual	Order No. SW5500DEMO

System Requirements:

Component	Recommended Equipment
Computer:	IBM compatible PC 80486 or Pentium
Operating System:	Windows 3.x/98/NT or Windows 2000
RAM:	16 to 32MB
Available space on hard disk:	min. 4MB
Serial interface	minimum one free, buffered RS232

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Function Overview	WC0	WC1	WC2	WC3
Data Scanning				
Number of measuring points supported	8	20	unlimited	unlimited
Support of an ALMEMO® network			✗	✗
Data Output				
Display of meas. values (numerical, bar diagram, wind rose, round instruments)	✗	✗	✗	✗
Line diagram (YT), XY diagram	✗	✗	✗	✗
Save/load presentation characteristics as format type		✗	✗	✗
Table, overview	✗	✗	✗	✗
Zoom functions (ONLINE and OFFLINE)	✗	✗	✗	✗
Project illustrations		✗	✗	✗
Data Storage				
Manual storage on hard disk	✗	✗	✗	✗
Automatic storage on hard disk		✗	✗	✗
Automatic generation of daily and weekly files				✗
Data Analysis				
Two measuring cursors (ONLINE and OFFLINE available), statistics function		✗	✗	✗
k value assistant				✗
Data Processing				
ONLINE and OFFLINE calculations (arithmetic channels)		✗	✗	✗
Processing of external table values (ONLINE and OFFLINE)		✗	✗	✗
Linking /splitting of files		✗	✗	✗
Exporting the Measured Values				
Clipboard	✗	✗	✗	✗
File (spreadsheet software, FAMOS, QS-STAT, DIAdem, ESCORT, ASCII, binary)	✗	✗	✗	✗
Dynamic data exchange (DDE, OLE)	✗	✗	✗	✗
ONLINE data transmission to MS-Excel		✗	✗	✗
Data Import				
ASCII (AMR format)	✗	✗	✗	✗
Programming of Measuring Point and Device				
Programming of the characteristics of the measuring point and device	✗	✗	✗	✗
Automatic scaling of 3rd party sensors	✗	✗	✗	✗
Local mode alarm management (relay allocation)	✗	✗	✗	✗
Save/load programming of the measuring points to/from file		✗	✗	✗
Editing the programmed file (similar to Excel table)		✗	✗	✗
Data Reduction				
Averaging function (ONLINE and OFFLINE)	✗	✗	✗	✗
Smoothing (over time/over number of values, ONLINE and OFFLINE)		✗	✗	✗
Data Logger Functions				
Programming of the data logger (incl. averaging functions)		✗	✗	✗
Read-out of data memory (all measured values/selective)		✗	✗	✗
Display of memory occupancy status		✗	✗	✗
Alarm Functions				
Alarm value display in list of meas. points and in all presentations of meas. values	✗	✗	✗	✗
Alarm value list (list + file of measured values incl. history)				✗
Starting an application in case of a disturbance (e.g. to transmit SMS messages)				✗
Switching ALMEMO® output relays (measuring point specific)				✗
Configuration Management				
Save/load program configuration		✗	✗	✗
Printout				
Diagrams, tables of meas. values, list of meas. points, file overview incl. comments	✗	✗	✗	✗
Alternate Connection to Measuring Instruments				
Modem, GSM and radiocommunication support				✗
Addressing of measuring instruments via TCP/IP address			✗	

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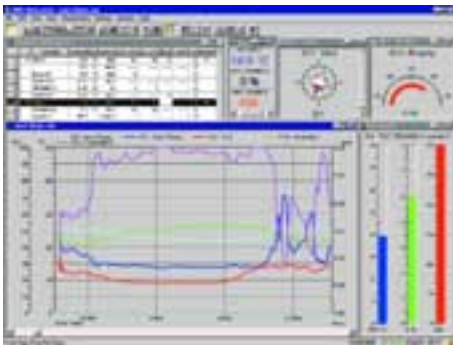
Main Window/General View:

▶ The main window is the platform for all operations with AMR WinControl. All actions run within this window and can be minimised to a symbol, within the window or together with the window, and run in the background.

▶ The measuring data can be presented as follows: Numeric presentation of measured values, bar diagram, wind rose, round instruments, line diagram, XY diagram, table, file overview.

▶ The program can be operated by means of menu commands. Only those commands, which can be executed in the corresponding situation, will be available. For a faster operation context-sensitive menus, keyboard commands and symbols in the tool bar are available.

▶ Comprehensive help information is available via the function descriptions in the status line, notes in the tool bar and a context-sensitive help system.

List of Measuring Points and Devices:

▶ All sensors that are programmed and connected to one or more measuring instruments will be automatically recognised and displayed in the list of measuring points as soon as the program is started and the serial interface is assigned.

▶ Apart from sensor specific data regarding the measuring range, comment, limit values, correction values the list also contains symbols for limit value exceeding, sensor breakage and online storage.

▶ The register card "Measuring Instruments" displays device specific information, e.g. device type, memory occupancy and settings for the data logger operation.

▶ The window "Measuring Points and Devices" is active during the entire time the program is running and is automatically updated in case of changes regarding the measuring points and/or device configuration.

ONLINE and OFFLINE Arithmetical Operations:

▶ The arithmetical functions of the program allow to calculate physical variables from the measured data.

▶ The required variables can be defined via a formula editor and can be set as an arithmetic channel (virtual measuring point).

▶ Data acquired through these arithmetic channels can be, ONLINE and OFFLINE, further processed and presented.

▶ Depending on its definition an arithmetic channel can be globally available in the whole program or only locally within a data record (line or XY diagram, table).

▶ Even data records that have already been stored can be extended by arithmetic channels, as required.
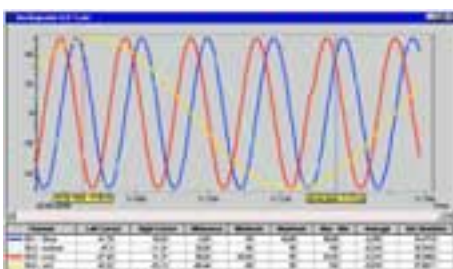
Measuring Cursors/Statistic Function:

▶ In the "Line Diagram" view, the acquired data can be analysed using two measuring cursors (ONLINE and OFFLINE).

▶ The movement of the cursors can be performed in any area within the line diagram.

▶ Corresponding to the position of the measuring cursors, the measured values of all displayed lines located below the cursors will be displayed in a table.

▶ Through the integrated statistic function the difference of the values under the cursors, the minimum and maximum value and the average value of the area defined by the cursor positions will be calculated and also provided within the table.

▶ It is possible to perform a printout of the diagram and of the table displayed in the window, together or individually, or to copy them to the clipboard.

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Data Logger Functions:

▶ The settings required for data logger operation can be programmed within a dialogue.

▶ In the dialogue "Program Data Logger" the current settings of the device, e.g. memory occupancy, start and end time, measuring cycle and print cycle will be displayed.

▶ The read-out of the device memory can be, individually or together, performed for all data loggers within the measuring network.

▶ An optional setting allows to define that not all measured values but only a selection of the stored data should be read out of the device memories. The selection criteria available include "Average Values Only", "Alarm Values Only", "Meas. Values with Number Only" and "Only Values Within A Time Frame".


Monitoring Functions:

▶ The triggering of an alarm can be performed as a result of measured and/or calculated variables.

▶ The alarm messages will be provided visually and/or acoustically.

▶ Events triggering an alarm can be recorded with their origin and duration in a protocol (list) record.

▶ A line diagram with variable history can be generated for the triggering variable.

▶ In case of an alarm ALMEMO® output relays can be switched.

▶ Alarm messages can be forwarded via network.

▶ For specific alarm conditions it is possible to provide signals (special solutions on request).

Data Export:

▶ The data files can be, ONLINE and/or at any later point in time, stored in the following formats WK1, FAMOS, QS-STAT, DIAdem, ASCII, binary.

▶ The line and XY diagrams and the tables can be copied to the clipboard and, for example, be inserted into a protocol text.

▶ Via dynamic data exchange (DDE) it is possible to transfer measured values ONLINE to other applications, for example MS-EXCEL.

▶ Furthermore, line diagrams can be embedded into text documents (e.g. a MS Word document) via the OLE function.
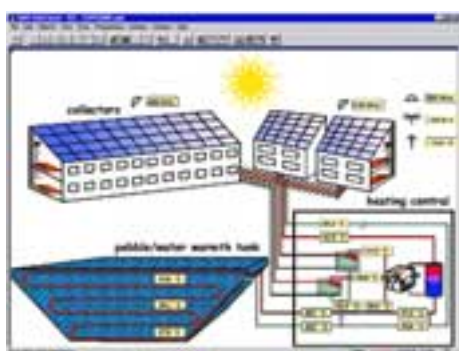
Project Illustrations:

▶ Project illustrations allow for visualising the setups of measurements and processes by using individually designed graphics and/or photographs (bitmaps).

▶ The presentation of the acquired data is provided in data fields that can be freely positioned; size and colours can be freely selected.

▶ Text fields can be filled with legend information and descriptions and can be freely positioned.

▶ Any number of project illustrations can be opened at the same time, allowing, for example, to have a presentation of the total view and detailed views of a project.

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k Value Assistant:

► The k value assistant is available for ONLINE and OFFLINE calculations and guides the user through all required steps.

► A selection provides the calculation methods for the experimental k value, for the k value according to DIN4108 and for the official calculated value.

► Determination of the currently calculated value and the sliding average value.

► The calculation methods will be described and the allocation of the corresponding measuring variables will be provided.

► After completing all steps a line diagram will be created, which will then be filled with the measuring data and the calculated variables.

► The cursor function can be used to open the statistic table, which provides further evaluation options (see above).

GSM Cellular Mobile Radio
Phone Modem
Telemetry
RS232 / 485
TCP/IP Network
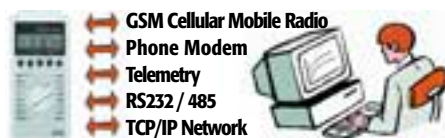
Connecting Options:

► AMR WinControl can handle measuring instruments of the THERM series, as well as single measuring instruments or a network of measuring instruments of the ALMEMO® series.

► The connection to the measuring instrument or the measuring instruments can be established via serial interface, via modem or via radiocommunication modem.

► In a similar way, the measuring instruments can be addressed via a computer network (TCP/IP address).

AMR Measuring System

PLC

3rd Party Meas. Instruments

System Integration:

► The simultaneous addressing of measuring instruments from other manufacturers using one or several further serial interfaces is available as a special solution.

► The communication with a PLC can also be established via a further serial interface.

► This means that an open design for the implementation of automated test processes is available.

Long Term Monitoring/Monitoring:

For a proof of storage and production conditions the measuring data is visualised, archived, monitored with regard to exceeding of limit values and a suitable alarm signaling is realised.

Optional Functions:

► Forwarding of alarms via internal computer network, e.g. to a PC in the control center.

► Output of control words to a digital I/O board in case of an alarm.

► Remote access to the acquisition computer from a remote computer (standby service).

Special Functions:

► Password protection with two user levels.

► Trend monitoring - pre-alarm for signaling trend developments.

► Acoustic and visual signaling of alarms on the acquisition computer and special alarm equipment (measuring point specific).

► Automatic generation and storage of an event list including origin and duration of the alarm condition, as well as special system information.

► Starting other applications in case of alarms and transferring the text of the alarm message - e.g. calling a dispatcher or a standby service (e.g. transmitting SMS messages).

► Automated printout of daily/weekly files for convenient archiving (also to different computers within the network).