

HW4 Software Version 3.9.0

HW4 version 3.9.0 includes all the functions and features of HW4 version 3.8.0 with the following modifications and additions:

New in HW4:

o HW4 Lite - Minimum license

- No license key for necessary anymore
- All devices can be configured, but max. 3 devices at the same time

New products:

o PF4/PF5

- Device information
- Device settings
- Adjustment/ calibration
- Output configuration
- · Relay settings
- Calculations
- Digital communication
- Flow settings

o **HP32**

- Device information
- Device settings
- Log settings
- Read out log data
- Firmware update possibility

o **BL-1D**

- Device information
- Device settings
- Log settings
- Adjustment/ calibration
- Read out log data

o AwTherm measuring head w/o device

- AWE and AWQ measurement incl. report
- Device information
- Device settings
- Adjustment/ Calibration

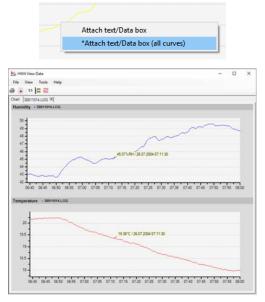




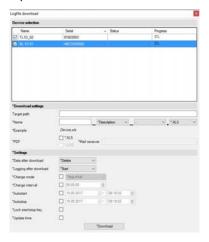
- HG2 reference integration
 - Read out internal and external reference values
 - Read out setpoints for humidity and temperature
 - Remote access to HG2 from an external PC with HW4 via Ethernet

New/enhanced features

Labels to all curves



- HL-RC logger
 Battery lifetime calculation in the configuration wizard
- o CRP1
 - Possibility to switch between RoAscii and Modbus RTU over the device manager
- Bulk download/configuration (HL20, HL-1D, TL-1D, BL-1D, HL-RC)



HG2 possibility to install without .NET framework



Bugs (V3.8.0) fixed:

- o AWTherm, Time of AW-Quick function fixed
- Week numbers after ISO8601
- o HL-NT PDF report is now possible to differ between different probes
- o PDF report shows now higher and lower alarm limits
- CRP5: Added Trendindication in HW4
- o CRP5. Probe alarm will be now detected
- HP32: Log interval expanded with 1,2 and 5sec
- o HP32: Data download error with more than 7 values fixed
- o HW4 General; Write to button will be only active if the user has the right to do
- o HW4 Fonts: Added "Arial Unicode MS" and "Noto Sans CJK"
- Minor bug fixes

Known bugs:

o none

Windows compliance (always 32 & 64 bit):

o Windows Vista, Windows 7, Windows 8.1, Windows 10

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.8.0

Change control

HW4 version 3.8.0 includes all the functions and features of HW4 version 3.7.0 with the following modifications and additions:

Enhancements:

AwTherm

- Change of temperature set point
- Temperature control on / off
- Change of display contrast
- Change of date & time
- Pad sensitivity

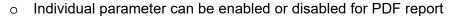


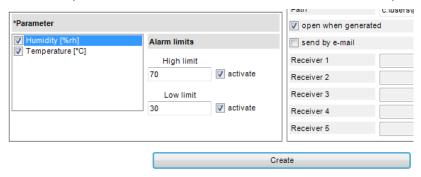




New features

HL-1D: improved device manager overview for better user convenience





Additional information in PDF report footer: SW version, user, unique report ID



HW4, Version V3.8.0 Beta (Build 16112), (Admin), (ID: 20160422-152601)

o Multiple templates for PDF report

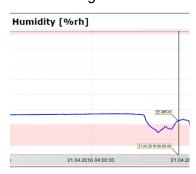


o Reset to factory settings for HL-1D, TL-1D





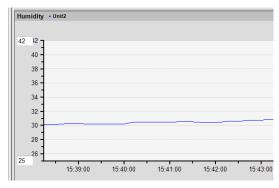
o Ruler is integrated in PDF report



Numbers in PDF report are equipped with units

Statistics		
Count	2471	
Interval	00:00:30	
Begin	20.04.2016	
	15:21:40	
End	21.04.2016	
	11:56:40	
Min	14.50%rh	
	21.04.2016	
	07:54:10	
Max	27.94%rh	
	20.04.2016	
	17:08:40	
Average	24.865%rh	
STDEV	2.799%rh	

o Scaling of y-axis manually

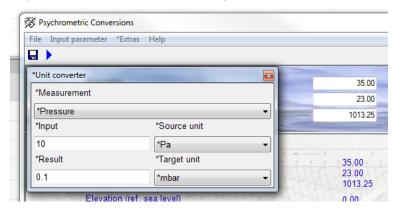




New device search for RS-485 networks (menu add device is removed)



Psychrometric calculator is enlarged with unit conversion



- o More stable data download for wireless logger.
- Combined chart view available
- o USB drivers are automatically installed during HW4 installation
- Additional software alarm condition for ended alarms

Bugs (V3.7.0) fixed:

- Deactivated users can immediately be reactivated.
- o PDF report: text in report footer includes "serial number" as text instead of HW4 version.
- Data download from wireless data loggers brakes down, if administrator right on PC are missing
- When US time format (AM/PM) is set on the PC, HW4 caused software exceptions.

Known bugs:

o None



Windows compliance (always 32 & 64 bit):

o Windows Vista, Windows 7, Windows 8, Windows 10, Windows Server 2012

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

o Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN
 with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.7.0

Change control

HW4 version 3.7.0 includes all the functions and features of HW4 version 3.6.0 with the following modifications and additions:

Enhancements:

- o CRP1: clean room panel
 - Device information
 - Device settings
 - Display settings
 - Units
 - Analog outputs
 - Relays
- O HS5: thermo- / hygrostat
 - Device information
 - Device settings
 - Display settings
 - Units
 - Analog outputs
 - Relays
 - HC2 settings

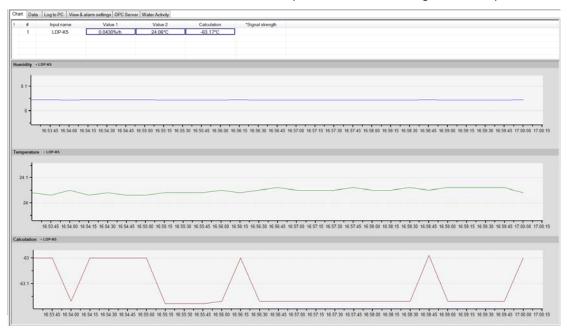




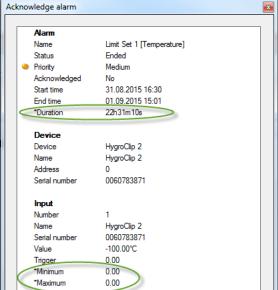


New features

o Standardization of live chart and data chart (zoom functions, diagrams, etc.).



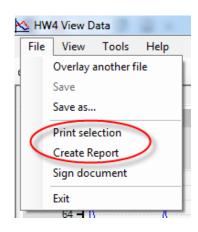
- o MP102H / MP402H can be manually added Acknowledge alarm
- Entries in event table can be signed
- New entries in alarm table
 - Min / max values
 - Alarm duration



o Following functions are removed and its functions are provided by the PDF report:

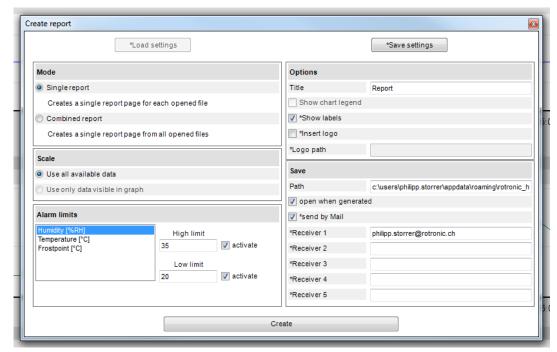


- Print selection
- Create statistical data





- o PDF report enhancements
 - Direct download of data files from data loggers and creation of PDF report
 - Alarm statistics available (min, max, duration, etc.)
 - · Creation of PDF via button in main menu header
 - · Report settings can be saved and used as master file for further reports
 - Customized PDF report by using individual logo in report header
 - Notes from chart view are included in PDF report
 - PDF report can be sent as e-mail directly via HW4



GUI for generation of PDF report, including e-mail functionality





- o Bulk data download for HL-1D / TL-1D / HL-20 / wireless loggers
 - Bulk data download for all connected data loggers
 - · Direct creation of PDF report
 - PDF report can be sent as e-mail



Buttons for bulk download of files and direct generation of PDF report or direct creation of PDF report based on existing log files on the PC .

- Configuration WIZARD
 - Accessible via device tree
 - All settings in one pop-up window



Logger settings can be saved as master file and loaded for further programming



- o Calibration / AW reports
 - New header and footer for both reports
- o New alarm for ended AW measurement
- User management
 - Change of password can be forced by the administrator
 - User can be duplicated
 - Active directory can be used
- HW4 LITE version is limited to functions for offline data loggers (HL-1D / TL-1D / HL-20)
 - User management is removed
 - Configuration of software alarms is removed
 - Log to PC is removed
- Auto download for HF8 and HP23 with optional direct PDF report generation



HW4 global settings form

Dwell Time [min]

AwE Mode Humidity stability [Aw/min]

Temperature stability [°C/min]

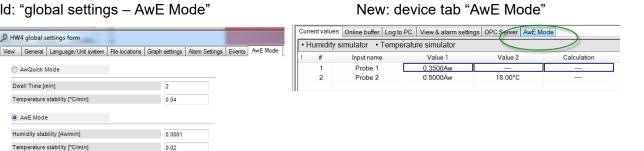


AW settings: Tab in general settings "AwE Mode" is removed. General AW settings can be accessed via "AwE Mode" tab in live view:

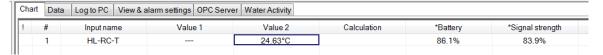
Old: "global settings - AwE Mode"

2

0.0001



- Online buffer can be set in days, hours and minutes instead of measurement points
- LOG to XLS file converter (or vice versa)
- Battery level and signal strength of HL-RC loggers is displayed in live chart



Expected battery live time can be calculated and displayed in device manager

Device protection	Off	<u>Change</u>
Time	01.10.2015 18:08:58	Set date/Time
Signal strength	84%	
Battery	86.1%	Battery replaced
*Battery empty at	20.04.2019	

Start / stop function for HL-1D / TL-1D loggers

Bugs (V3.6.0) fixed:

- Multiple log files can be combined and saved as new log file (function was not available in v3.6.0)
- Log file of HL-1D / TL-1D is available in °F (in v3.6.0 always °C was displayed)

Known bugs:



o none



Notes:

o none

Windows compliance (always 32 & 64 bit):

o Windows Vista, Windows 7, Windows 8, Windows 10, Windows Server 2012

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.6.0

Change control

HW4 version 3.6.0 includes all the functions and features of HW4 version 3.5.0 with the following modifications and additions:

Enhancements:

- o Clean room panel
 - o Device Manager
 - o Calibration / Adjustment
 - I/O Settings
 - Data logging
- o HL-RC-B / HL-RC-T wireless logger
 - o Wireless logger with battery monitoring (energy counter) included
- AwTherm (Water Activity Station)
 - o Device Manager
 - o Calibration / Adjustment

New features

- Log files are now displayed with separated graph for each parameter (same as in the live chart)
- Wizard for fast device configuration for standalone loggers (HL-1 / TL-1 / HL-20 / wireless loggers)

Bugs (V3.5.0) fixed:

- o Multi session warning: is also displayed when "auto run" option is active
- o HL-1 / TL-1: Calculation of °F was incorrect.
- HC2-AW-USB / HC2-AW-UART: was not added automatically



o USB auto detection: device was found twice.

Known bugs:

o Log file view: columns naming is in German



Notes:

o none

Windows compliance (always 32 & 64 bit):

o Windows Vista, Windows 7, Windows 8, Windows Server 2012

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

Processor: 1 GHzRAM: 512 MB

o Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.5.0

Change control

HW4 version 3.5.0 includes all the functions and features of HW4 version 3.4.2 with the following modifications and additions:

Enhancements:

o New language file included Japanese.

New features

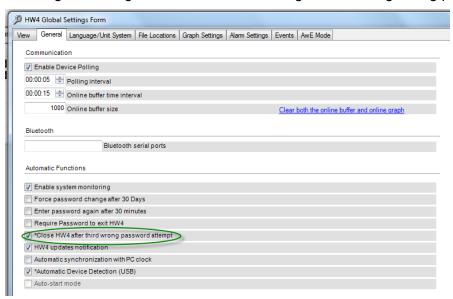
- o Calibration of HL-1 / TL-1 / PF4 devices.
- o Automatic water activity report as PDF file.
- HW4 detects automatically new USB devices.



HW4 works with USB 3.0 interfaces.

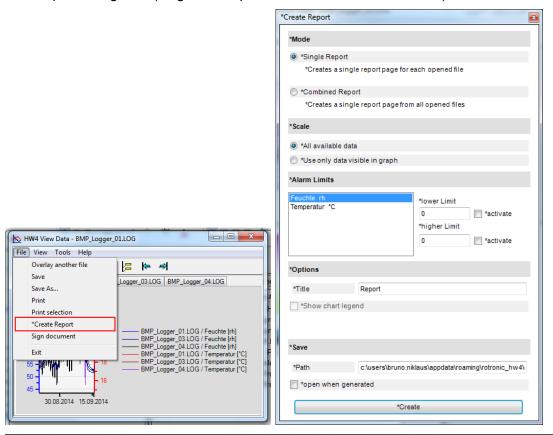


Enabling / disabling of automatic HW4 closing after entering wrong password.





PDF-report of log-files (single / multiple files, alarm zones, statistics)





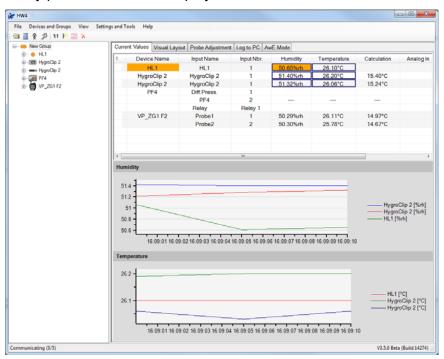
Note:



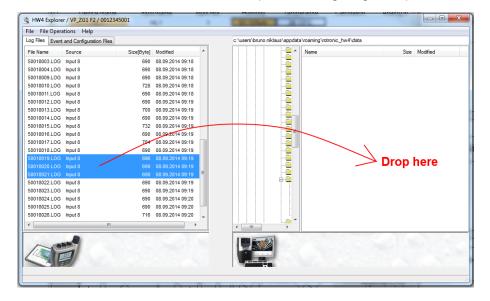
PDF is automatically saved as protected PDF file (read only).



Every parameter can be displayed in individual chart.



HL-NT data download: download of multiple files using drag & drop.





Bugs fixed:

- Water activity: decimal point is wrong when HW4 online logging is active. Bug affects only .log-files. (e.g.: 40%RH was saved as 0.004aw, instead of 0.4aw)
- o Protocol generation of HF520 is not working.
- Wrong updated FDA information by temperature group adjustment.
- o HL-20: writing of new log-settings changes start / stop time.
- Correct dialogs for low dew point probes connected to HF transmitters, HP indicators, etc.
- o Firmware updates with .ROF files can be done when .ROF file or folder is write protected

Known bugs:

o None

Notes:

o none

Windows Compliance:

Windows XP (32 & 64-bit), Windows Vista (32 & 64-bit), Windows 7 (32 & 64-bit), Windows 8 (32 & 64-bit), Windows Server

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)





Release notes

HW4 Software Version 3.4.2

Change control

HW4 version 3.4.2 includes all the functions and features of HW4 version 3.4.1 with the following modifications and additions:

Enhancements:

o HL-1 / TL-1 devices work with USB3 on Windows 7.

New features

o None

Bugs (V3.4.1) fixed:

- HL-1 / TL1: Downloaded data from data logger is not displayed correctly.
 Data below -17.7 °C (0 °F) is not displayed in the graph.
- HL-1 / TL1: Alarm configuration did not work properly in Windows region and language settings with "," as separator.
- General: IP addresses starting 1...9 (e.g.: 5.xxx.xxx.xxx) have been declared as invalid.

 Therefore devices could not be found manually.

Known bugs:

o None

Notes:

o none





Windows Compliance:

Windows XP (32 & 64-bit), Windows Vista (32 & 64-bit), Windows 7 (32 & 64-bit), Windows 8 (32 & 64-bit)

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

o Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.4.1

Change control

HW4 version 3.4.1 includes all the functions and features of HW4 version 3.4.0 with the following

modifications and additions: **Enhancements:** o None **New features** o None **Bugs (V3.4.0) fixed:**

o Downloaded data from HL-1 / TL-1 logger is not displayed correctly. Data below 22°C is not displayed in the graph. The bug is fixed in Version v3.4.1.

Known bugs:

o None

Notes:

o none

Windows Compliance:



Windows XP (32 & 64-bit), Windows Vista (32 & 64-bit), Windows 7 (32 & 64-bit), Windows 8 (32 & 64-bit)

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.4.0

Change control

HW4 version 3.4.0 includes all the functions and features of HW4 version 3.3.0 with the following modifications and additions:

Enhancements:

Devices

o PF4 with HC2 probe

The PF4 provides an optional E2 connector. This allows to measure differential pressure, humidity and temperature.

PF4 supports the same probe functions as HF8:

- HC2 calibration, same function as HF5
- HC2 adjustment, same function as HF5
- Analog input can be selected instead of the HC2 digital probe, equal function as HF8.
- Psychrometric calculations, all psychrometric parameters can be calculated.

o Data logger: HL-1 / TL1

With the release of the HW4 v3.4.0 ROTRONIC will launch a new data logger, HL-1 / TL-1.

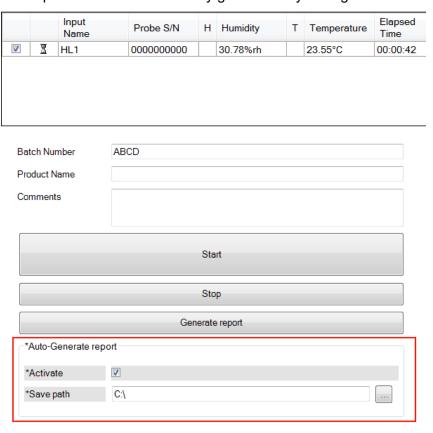
- Simple standalone data logger
- Can be used with HW4-LITE (free version)
- Humidity adjustment
- No group adjustment



New features

o Automatic AW-report generation

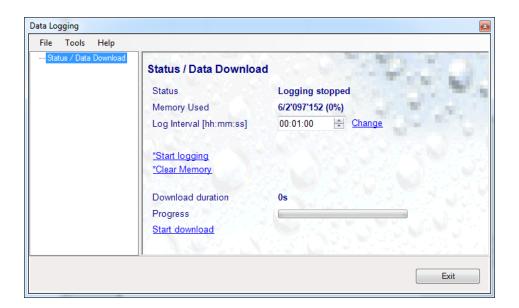
AW-reports can be automatically generated by ticking the box.



Start/ Stop of wireless loggers via HW4

Data logging can be started and stopped by the HW4 software.

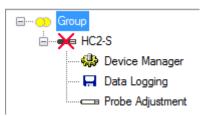


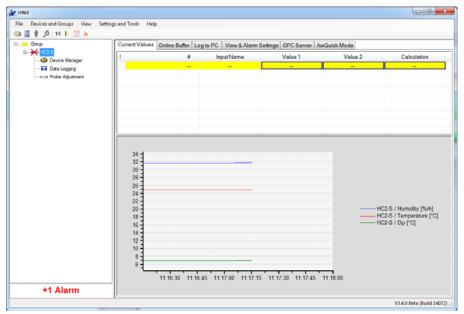




o Communication alarm visualization

Communication alarms are visualized like all other alarms in the group logo and by changed background color.

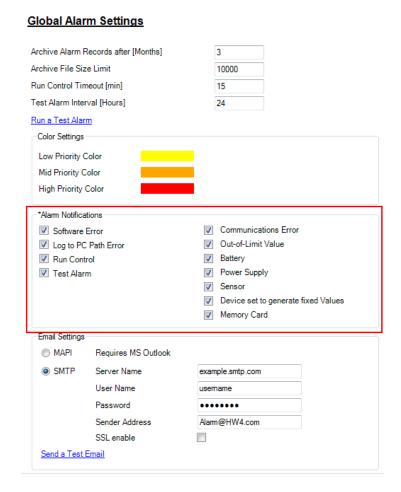






Alarm notification on desktop can be enabled / disabled

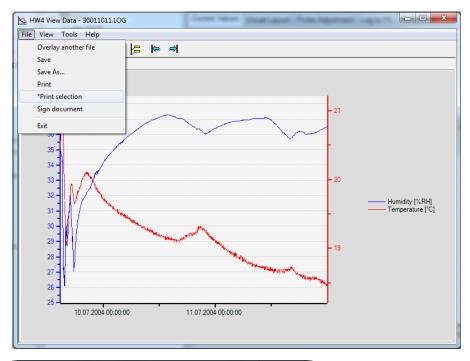
The alarms shown in the desktop can be enabled or disabled by type. The feature affects only the desktop visualization. All alarms are tracked in the alarm table.

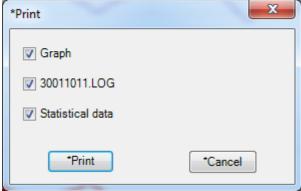


 Layout view: device label position and background image are independent for every group and sub-group



Graph view: graph, log-file, statistical data can be printed at the same time
 To simplify printing of log-files the HW4 software provides a new function "Print selection".
 This allows to print graph, log-file data and statistical data at the same time.





SW21: V1.1.1 is integrated



o New ROTRONIC logo "Measurement solutions" is used.





Bugs (V3.3.0) fixed:

- CO2-display: LOG-file is displayed correctly
 HW4 v3.3.0 generated wrong time line, starting with 1900 as first date.
- Wireless data logger: device protection didn't work correctly
 Devices with access code >7FFF couldn't be locked or unlocked.
- Wireless data logger temperature low limit
 In HW4 v3.3.0 the temperature low limit could not be set. This bug is fixed with the v3.4.0.
- Temperature adjustment group adjustment
 If the temperature adjustment is started in a different temperature than the captured value,
 the calibration will be wrong.

Known bugs:

o None

Notes:

o none

Windows Compliance:

Windows XP (32 & 64-bit), Windows Vista (32 & 64-bit),
 Windows 7 (32 & 64-bit), Windows 8 (32 & 64-bit)

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.



Processor: 1 GHzRAM: 512 MB

o Available hard disk space: 250 MB

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 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)



Release notes

HW4 Software Version 3.3.0

Change control

HW4 version 3.3.0 (validated & not validated version) includes all the functions and features of HW4 version 3.2.0 with the following modifications and additions:

Enhancements:

Devices

Software version is ready for use with the new ROTRONIC low dew point probe.

New features

o HW4-Lite

HW4-Lite supports up to three connected HC2-WIN-USB devices or three HL-20 data loggers. Measurements are observed simultaneously on a PC.

Alarm visualization (for all versions of HW4)

Alarms are indicated visually with different colors depending on their priority.

Default settings:

- Priority 1 red
- Priority 2 orange
- Priority 3 yellow

The user can change the default colors.

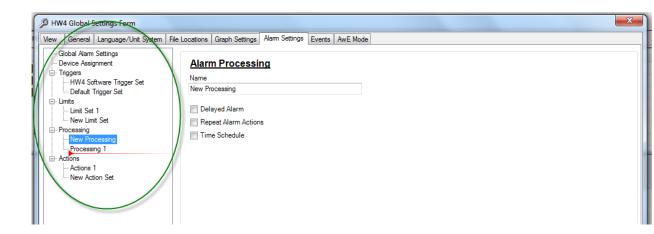
- Search function for alarm table (for all versions of HW4)
 - Enables alarm search by text.
 - Enables alarm search by date.





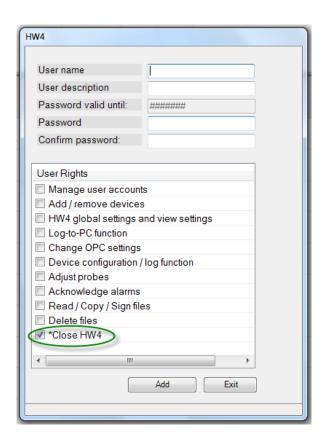
Alarm overview in Global Settings (for all versions of HW4)

Alarms can be organized by "drag & drop" in global alarm settings.



Shutdown protection (for all versions of HW4)

User rights for HW4 shutdown can be set within User Management. If enabled, a password is required to close HW4 software.

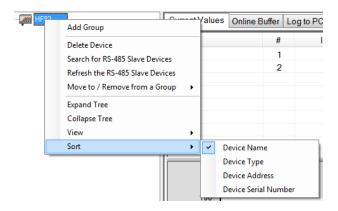






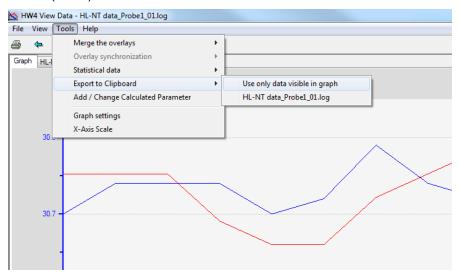
Sorting of devices in groups and subgroups (for all versions of HW4)

Devices in subgroups can be created and organized by device name, address, type or description.



Export of PC screen visible data for .LOG files (for all versions of HW4)

HW4 allows the direct export of currently visible data to the clipboard; the data can then be pasted into an .xls (Excel) file.



Temperature adjustment of wireless loggers (for all versions of HW4)
 (LOG-PT1000-RC / LOG-PT1000-RC-US / LOG-PT1000-ET030-RC / LOG-PT1000-30-RC-US)
 The Pt100 temperature sensor can be adjusted using HW4 software.



Bugs fixed:

o SMS alarm

Device name is included in the text message.

o E-mail alarm

SSL server can be used for e-mail alarming.

o When Group Adjustment is used, the protocol will be saved in the correct directory.

Known bugs:

Wireless data loggers: The device "low alarm" limit for temperature cannot be changed.
 Enabling / disabling is possible.

Affected devices: all types of LOG-HC2-xx-RC and LOG-PT1000-xx-RC **Workarounds:**

- Use HW4 v3.2.1 or v3.2.0 in the application.
- Use HW4 v3.2.1 or v3.2.0 to change the "low alarm" limit and use v3.3.0 for monitoring.
- Instead of the device alarm use software alarms for monitoring (Online Monitoring is not recommended due to battery lifetime). Software alarm limits in local logger files will not be displayed.

Notes:

o none

Windows Compliance:

Windows XP (32 & 64-bit), Windows Vista (32 & 64-bit),
 Windows 7 (32 & 64-bit), Windows 8 (32 & 64-bit)



Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

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o RAM: 512 MB

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Release notes

HW4 Software Version 3.2.0

Change control

HW4 version 3.2.0 includes all the functions and features of HW4 version 3.1.0 with the following modifications and additions:

Windows 8

HW4 works with WIN8 but the driver signature enforcement must be disabled.

Enhancements:

Devices

- o HF1
- o CP11

New features

o Device Configuration Tool for devices not based on the HygroClip technology

In the main menu bar of HW4, the menu item Settings and Tools gives access to a new item named Device Configuration Tool.

The Device Configuration Tool is used to configure a number of devices that are not based on the HygroClip technology and do not appear in the HW4 Device Tree. Such devices include but are not limited to the HF1 transmitter, the CP11 indicator, etc. Depending on the device, the tool also gives access to functions such as adjustment, data recording, etc.

o Custom calculations with the HF8 transmitter

Device Manager for the HF8 transmitter now allows the user to define up to two custom calculations based on measured values such as relative humidity or on calculated parameters such as the dew point. Custom calculations



are constantly updated by the HF8 and can be shown on the local display and / or displayed on the monitor of a PC running the HW4 software.

A custom calculation can be associated with any of the HF8 inputs. When associated with an input, the custom calculation can be associated with any of the HF8 analog outputs. The user can also define low and high limits for a custom calculation and use these limits to generate an alarm and to energize a relay.



o Water activity measurement

Water activity probes such as the HC2-AW-USB can now be put within a group to the purpose of making simultaneous measurements with several probes without having to switch from one probe to the other.

The AwQuick Mode / AwE Mode tab located in the right pane of the HW4 main screen has been entirely reworked. The form displayed by this tab allows the user to enter a batch number, a product name and comments. This information will appear in the measurement report.

The water activity measurement report can now be signed by the user. A signed report cannot be modified.

o Acknowledgement of Alarms

When acknowledging an alarm, the user has the option of entering an "acknowledgement text" or comment. As a means of facilitating the entry of repetitious comments, the different texts entered by the user are retained by HW4 and are presented as a list from which the user can choose.

o Time Change Event

HW4 now makes an entry in the User Events file whenever the PC time clock is changed by more than 5 minutes while HW4 is running.

Adding or Removing a Device from a Group:

As with previous versions of HW4 professional devices can be dragged with the mouse into a group or dragged out of a group (assuming that at least one group has been created prior to this). HW4 v. 3.2.0 offers the additional option of using the device menu to do the same. To open this menu, select the device with the mouse and right click.

o Automatic download to the HW4 PC of logger data files

The automatic download to the HW4 PC of logger data files was previously only available with the HL-NT data logger series. This function is now also available with the LOG RC wireless data logger series.

HW4 View Data

Can be used to open a file consisting of recorded data and can also be used to print a graph. Additional information such as Process Name, Device Name, etc. can now be printed on the same page as the graph. This information can be selected in HW4 Global Settings > Graph Settings Tab.

OPC Tags (HW4 Professional with OPC Server)

The OPC Tags are now compatible with 64-bit systems



Bugs fixed:

- o Correct indication of the HTS3 transmitter in the product tree
- o HL20: "Display always on" button exists now in the device manager
- o HL20 log files are no longer editable
- o Context windows under win7 are sometimes cut, this will no longer happen
- o Alarm email: Sender now changeable

Known bugs:

o none

Notes:

o none

Windows Compliance:

o Windows XP, Windows Vista, Windows 7 64 bit, Windows 8

Computer/Operating System Requirements

The following are the minimum values required to install and run HW4 on a computer. It is highly recommended to exceed these values.

o Processor: 1 GHz

o RAM: 512 MB

o Available hard disk space: 250 MB

o Monitor: SVGA, 1280 x 960, 65535 colors

 Ports: one free serial (COM) port or one free USB port or Network Interface Card / Ethernet LAN with one free port (RJ45 connector)