Manual

Universal Weather Display Software UWDS11

for Reinhardt Weatherstations and Sensors

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Universal Weather Display Software UWDS11

09:25 Ti	me 06.03.2012	— 12006.00 — 1500.00 — 1500.00 — 1500.00 — 1500.00 — 1500.00 — 1500.00
Temperature	0.3 °C	Max: 4.7°C Ø 0.7°C Min: -2.2°C
Äir pressure	1025.6hPa	Max: 1026.3hPa Ø 1024.4hPa Min: 1021.8hPa Min: 1021.8hPa
Humidity	87.0%RH	Max: 94 8%FH Ø 83.0%FH Min: 59.1%FH
Windspeed	0.0km/h	Max: 19.9km/h Ø 3.3km/h Min: 0.0km/h Min: 0.0km/h
Wind peak	2.7km/h	Max: 94.7km/h Ø 7.9km/h Min: 0.0km/h Min: 0.0km/h
Wind from	WNW	o www http://www.invidence.
Precipitation	0.0l/m ²	Max: 4.01/m² Ø 2.51/m² Min: 0.01/m²
Gloabl radiation	112.4W/m ²	Max: 680.0W/m ² Ø 115.8W/m ² Min: 0.0W/m ²
Windchill	0.3 °C	Max: 4.6°C Ø 0.2°C Min: -8.0°C

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1 Universal Weather Display Software 11

1.1 Usage

The software UWDS11 is used for displaying stored weather data or data via a COM port or a network using a monitor or a TV set (ideally with HDMI input due to best resolution). The UWDS11 can be used with a PC and local data or with a mini PC (nettop) mounted at the back of a flatscreen and getting data via LAN or WLAN from a server.

The UWDS11 allows to display data in free configurable way alternating with the display of advertising or other information (like a slide show).

The UWDS11 software is running under Windows7, Windows8, Windows10 and Windows11.

1.2 Installation

The installation is performed with a password protected installfile. When inserting the weather CD, the following screen will be displayed.

	,		
HTML-Meniu der WETTER-CD starten / Start HTML menu of WEATHER-CD			
Handbücher/Ma	anuals		
	Montage der MWS9-5		
Aktuelle Wettersoftware deutsch installieren	Montage MWS5(MV) / Sensoren		
	Montage MWS5(MV) / Sensoren 2		
	Mounting the MWS9-5		
Install latest Weather Software english	Mounting MWS5(MV) / Sensors		
	Mounting MWS5(MV) / Sensors 2		
Starte Demo Software (nicht für WIN7)/ St	art Demo software (not for WIN7)		
Starte Demo Software (nicht fur WIN7)/ St Optionale Software / Sof	art Demo software (not for WIN7)		
Starte Demo Software (nicht für WIN7)/ St Optionale Software / Sof Windweg Software deutsch (Passwort benötigt)	art Demo software (not for WIN7) tware as an option: Universelle Wetter Display Software 11		
Starte Demo Software (nicht für WIN7)/ St Optionale Software / Sof Windweg Software deutsch (Passwort benötigt) Windplot Software english (Password required)	art Demo software (not for WIN7) tware as an option: Universelle Wetter Display Software 11 deutsch (Passwort benötigt)		
Starte Demo Software (nicht für WIN7)/ St Optionale Software / Sof Windweg Software deutsch (Passwort benötigt) Windplot Software english (Passwort benötigt) MultiCOM Software deutsch (Passwort benötigt)	art Demo software (not for WIN7) tware as an option: Universelle Wetter Display Software 11 deutsch (Passwort benötigt) Universal Weather Display Software 11		

If not, please start the file **Starter.exe** in the root directory of your CD manually. The UWDS11 software is installed by clicking onto the UWDS11 button. During the intsall procedure you can choose a program directory and a link for starting the UWDS11 software.

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 1.3 Function The UWDS11 software is designed for running exclusewily on the screen but can be run as a window as well. In that case the UWDS11 will not be scaled automatically!! You may hide the UWDS11 software by pressing the ESC key. The following window will be displayed: Image: The display of weatherdata is refreshed automatically when the weather data on the harddisk have been renewed. For refreshing the display manually press the F5 key. In the UWDS11 is started up the first time, it has to be configured for the desired operation. The screen will look like this when you started up the first time: Image: The display of weatherdata is realready preconfigured. Image: The display of the automatic ally the display manually case to be available to a both of the desired operation. The screen will look like this when you started up the first time: 	Manual UWDS11			
The UWDS11 software is designed for running exclusevily on the screen but can be run as a window as well. In that case the UWDS11 will not be scaled automatically!! You may able the UWDS11 software! Software is sent to the taskbar and can be reactivated by clicking onto the symbol in the taskbar. If you want to close the UWDS11 software you click onto <i>Close</i> . The display of weatherdata is refreshed automatically when the weather data on the harddisk have been renewed. For refreshing the display manually press the F5 key. I.4 The first start When the UWDS11 is started up the first time, it has to be configured for the desired operation. The screen will look like this when you started up the first time: Many sensors and units are already preconfigured. Many sensors and units are already preconfigured. Many sensors and units are already preconfigured.	1.3 Function			
Many sensors and units are already preconfigured. Many sensors and units are already preconfigured.	The UWDS11 software is designed for running exclusevily on the screen but can be run as window as well. In that case the UWDS11 will not be scaled automatically!! You may hide the UWDS11 software by pressing the ESC key. The following window will be displayed:			
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Many sensors and units are already preconfigured.	When the UWDS11 is started up the first time, it has The screen will look like this when you started up th	as to be configured for the desired operation. ne first time:		
Many sensors and units are already preconfigured.				
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Many sensors and units are already preconfigured.				
Many sensors and units are already preconfigured.				
Many sensors and units are already preconfigured.				
Many sensors and units are already preconfigured.				
Many sensors and units are already preconfigured.				
Reinhardt weather station, which is storing permanently data into this path, can be used. You also may read data from a weather station, connected directly to a COM port or a weather station with an IP address via a network.				
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1.5 Generally configuration

With a right click into the empty start windows you'll get the following menu:

Configuration X Version 1.6	Select Selection of fonts and colours of the display. For
General Sensors Single Values Graphics Settings Font Sensor Calibri select Font Value Arial select Weather stations MWS10_DachHDD D:Wetter_Freigabe\MWS9 MBBMIP-Addr. = 192.168.240.207 Port = 10002 Edit Remove	 Sensor name and the measured value you can select different fonts and colours. Add / Remove Here you select / delete data sources. This can be a path to already stored and current data, a weather station at a COM port or an IP-address.
Graph display period: 6	 Here you select the time period of the displayed data and the kind of how the data are being displayed. Here you select a path for a screenshot file.
Path Batch file:	 Here you select a path for a batch file or script. Here you select an intervall for running a batch file or a script.
<u> </u>	Here you select the path for the AktWert file, which is updated every time the weather station writes to the logger, so that this file always con- tains the latest data string.

By clicking onto *Add* you can select a data source. By clicking *Remove* you remove the data path from the list. These settings are stored in the file *station.setts*.

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onnection options			
Select: © Weather data only read © Weather data from COM port © Weather data via network			
Hard disk: Data path K:\MWS9_DAT\			
Station's Identifier:			
Accept Cancel			
Ordner suchen Ditte das Datenverzeichnis auswählen Bitte das Datenverzeichnis auswählen Image: State			

Here you'll find the following settings:

Weather data only read:

This is the recommended usage of the UWDS11 software. The data are read from an existing file stored somewhere in your system, in which a Reinhardt weather station is storing data permanently. Showing the first values is performed, when the UWDS11 software detects, that the data source has been renewed. The displayed data will be refreshed each time new weather data are written into weather data file. Short storage intervals will lead to a more frequent refresh of weather display. With a click onto the button on the right side of the data path line an Explorer window will open, in which you can select the desired data path, from where the weather data should be read.

If the data are read via a network the UWDS11 must be restarted after network failure.

Also when the weather 32 software writing the data has been closed the UWDS11 software needs to be restarted after restart of the weather 32 software.

Connection options	X		
- Select:	_		
Weather data only read			
Weather data from COM port			
C Weather data via network			
COM port:			
Bits per second: 9600 💌			
Station's Identifier:			
MWS 9-5			
Accept Cancel			

Weather data from COM port:

Reads data directly from a weather station connected to a COM port. Refresh of data is also dependent on the storage interval, what means that each time the weather station stores into it's logger (sending an ASCII 31), the displayed data of UWDS11 software are refreshed.

A disadvantage of reading data directly from a COM port is, that the graphs only grow slowly until the software runs some hours for displaying a proper graph due to missing previously stored data.

There is also no storing of data, so if the software is cancelled and restarted again, the previously displayed data are lost.

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Connection options	x
Select:	
O Weather data only read	
O Weather data from COM port	
Weather data via network	
IP- or WEB-address	
192.168.1.1	
TCP/IP Port:	
10001	
Station's Identifier:	
MWS 9-5 network	

Accept

Cancel

Weatherdata via a network:

This is the same as *weather data from COM port* but the data are received via an IP address and a port number.

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The choices shown above you can combine where you must consider that when selected **Weatherdata only read** the measurement curves are fitting with the time scale immediately, but the curves of **Weatherdata from COM port** and **Weatherdata via a network** only grow slowly and fitting with the time axis not before the software is running as long as the selected period of time!

For selecting the desired sensors you move across the screen with left mouse click line by line and choose the desired sensor for each line out of the pre selected data sources.

09:40 Time 06.03.2012

In this example two data sources (*Only read* and *Network*) have been pre selected.

If there are stored sufficient data in the data path the UWDS11 reads these data for the desired period of time, shows the values as a graph and displays the current values as a digital value.

09:25 Time	06.03.2012	
Temperature	0.3 °C	Max: 4.7°C Ø 0.7°C Min: -2.2°C
Äir pressure	1025.6hPa	Max: 1026.3hPa Ø 1024.4hPa Min: 1021.8hPa Min: 1021.8hPa
Humidity	87.0%RH	Max: 04.8%RH Ø 83.0%RH Min: 59.1%RH
Windspeed	0.0km/h	Мах: 19.9km/n Ø 3.3km/n Min: 0.0km/n Min: 0.0km/n
Wind peak	2.7km/h	Max: 34.7km/h Ø 7.9km/h Min: 0.0km/h Min: 0.0km/h
Wind from	WNW	© MUM HALINA HALINA
Precipitation	0.0l/m ²	Max: 4.0/m² Ø 2.5/m² Min: 0.0/m²
Gloabl radiation	112.4W/m ²	Max: 680.0W/m² Ø 115.8W/m² Min: 0.0W/m²
Windchill	0.3 °C	Max: 4.8°C Ø 0.2°C Min: -8.0°C

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You may combine data of different sources by choosing several data sources (if available) and then displaying on the screen.

When using several data sources you should give the respective name to each line in the display by clicking the mouse wheel to avoid mixing up the sources.

After clicking with the mouse wheel this window appears which allows giving a name to each selected line.

Here you also insert the desired test for the user defined text line.

	×
MWS 9-5	Übernehmen
P	

When all lines are set to a data source with sufficient current data, a screen like this will be displayed:

In this sample some colours have been changed.

09:21 Time	06.03.2012	—
Temperature	-0.1 °C	Max: 4.7 °C Ø 0.7 °C Mir: -2.2 °C
Air pressure	1025.7hPa	Max: 1026.3hPa Ø 1024.4hPa Min: 1021.8hPa Min: 1021.8hPa
Humidity	87.8%RH	Max: 94.894674 Ø 83.09604 Min: 59.19684
Windspeed	2.7km/h	Мах: 19.9km/л Ø.3.3km/л Min: 0.0km/h Min: 0.0km/h
Wind peak	3.8km/h	Max: 34.7km/n Ø 7.9km/n Min: 0.0km/h
Wind from	WNW	@www.
Precipitation	0.0l/m ²	Max: 4.0//m² Ø 2.5//m² Min: 0.0//m²
Gloabl radiation	116.4W/m ²	Max: 680.0W/m ² Ø 115.8W/m ² Min: 0.0W/m ²
Windchill	-0.1 °C	Max: 4.6 °C Ø 0.2 °C Min: -8.0 °C

These settings are stored in the file *dmmg.setts*.

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1.6 Configuration Sensors

The next tab in the configuration menu includes the settings for the *sensors*:

Configuration	× Version 1.1
General Sensors Single values Grap DR Air pressure hPa FE Humidity %RH LX Light intensity lum RD Rain intensity lum VE Work Work VE Memperature *C TK UH WC Windspeed km/h WC Wind speed km/h WW WG Wind from * * ZA Additional 1 ZB ZB Additional 2	hics Settings
OK	

Here you set each sensor (identifier) individually. You can give a name in plain text to each sensor, select a unit and select a colour for the measurement curve.

Furthermore you can activate minimum, maximum and average values, display a line for zero level and show standard deviation.

These settings are stored in the file *sensor.setts*.

1.7 Configuration single values

In the menu *Single values* the division of the screen is set.

Configuration	×
	Version 1.63
General Sensors Single values Graphs Settings	
Rows: 10	
	_
Show 🔲 Time and 🔲 Date of single values	
warnif data are older than 20 minutes	
Set time of all stations to current system time	
Screen division:	
Proportion of name and value: 0.56 Height value:	1
Proportion min / max: 0.14 Height date/time:	1
Proportion diagram: 0.3	
The sum of these 3 values must be 1.00!!	
ОК	

Under rows you set the number of rows of your screen. By default 10 rows (lines)are set.

Under *Time and date of measured values* you can add the time and date of the displayed values additional to the sensor's names. In addition you can set a warning when the time of the displayed values differs more than the selected time from the computer's clock. In case of too much deviation of time a message *Obsolete data* will appear!

To set the clock of all connected stations please click on *Click to set all connected stations to computer's time*.

In the 3 first of the lower 5 variables (*screen division*) the percentage of the division of the respective display element is selected. The sum of the 3 values must be 1 (100%). So you can perform the best settings for your monitor or TV set. (Presets are optimum for 16:9 screens)

(Fresets are optimum for 10.9 scree

In the lowest 3 variables you can set the height of the labeling.

These settings are stored in the file *dmmg.setts*.

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1.8 Configuration Graphics

In the menu *Graphics* you can select pictures (bmp and jpg) running as a slide show alternating between the measurement screen.

ionfigu	iration					X
					Versio	on 1.1
Gen	eral Sensors 9	Single value	s Graph	iics Settings		
	Name			Pfad	add	
	Weather_statio	n_PSU_01		G:\Do	delete	
	Display diashow		2	Display duration Pics in sec.	n	
			OK			

Select the desired pictures by clicking on *Add*.

For deleting pictures you don't want to be displayed in the slide show any longer you select them and press **Delete**.

By setting the checkbox *Display Diashow* the slide show starts alternating between the weather data measurement screen.

The display duration for the pictures you set in the box *Display duration Pics in sec*.

1.9 Configuration Settings

The colour settings for the measurement screen is set under the tab **Settings**.

Configuration			×
			Version 1.1
General Sensors S	ingle values Graphi	cs Settings	
	Background [
	Font		
	Value		
	Frame		
	Min.		
	Max.		
	Min/Max Ø:		
12 h	ours division graph		
Addit	ional division graph		
h	ourly division graph		
	Zero level		
	OK		

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2.0 Setts-files

The whole configuration of the UWDS11 software is stored in the files with extension .setts.

You should save these files after you performed all settings and the system is running in the way you like it.

So you are able to restore the settings if you delete or change the settings accidentially.

You also may save different settings to be able quickly change your system to different settings by copying the setts-files into the program directory.

2.1 Parameters

It can be useful to write a LOG file for troubleshooting purposes.

This can be achieved by starting the UWDS11 software via a link with the **-DEBUG** parameter. This causes the UWDS11 software to generate a text file called **debug.log**, in which the complete communication of the software is recorded.

I&OE / Specifications subject to change without prior notice ! 06/23

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