

Basis	Opties	Sum	Reduced set of fields from example file generated by 'real' Cumulus	Contents	HWA Application	Domoticz	Meteotemplate	Script-operation	Remarks		
#	#	#	The HWA-server looks at strings as defined below. Besides BOF and EOF, comprising lines with \$ followed by text, closed by "<data>" Only format as listed will be considered for processing; other format neglected.	Short description	B = Basic/Basis O = Option/ Optie D = Don't care	svalue API/ JSON	Plugin wuUpload [uploadWU.php] when red, needs rework	Script StationFeed [index.php] when red, needs rework	Generation of data-contents		
1		1	BOF	File-Header	B					Fixed contents/ character-string	
2		2	\$stationDate = "07-01-2021";	Local Date (CET)	B	x	dateutc, tobesplit& CET-mod	date_time, CET-mod	x	Extract in script	
3		3	\$stationTime = "18:30";	Local time (CET)	B	x	dateutc, tobesplit& CET-mod	local_time	x	Extract in script For this uploadfile for HWA all time-values are 'local', not UTC	
	1	4	\$tempUnit = "°C";	Unit	O		F	temperature_units		Fixed contents/ character-string Also allowed °C or C	
	2	5	\$humUnit = "%";	Unit	O		%	?		Fixed contents/ character-string	
	3	6	\$barUnit = "hPa";	Unit	O		in	pressure_units		Fixed contents/ character-string	
	4	7	\$rainUnit = "mm";	Unit	O		in	precipitation_units		Fixed contents/ character-string	
	5	8	\$rateUnit = "mm/hr";	Unit	O			?		Fixed contents/ character-string Also allowed mm/u	
	6	9	\$windUnit = "km/h";	Unit	O		mph	wind_speed_units		Fixed contents/ character-string Also allowed km/u	
4		10	\$sunriseTime = "08:45";	Sunrise (CET)	B	x			x	Extract in script	
5		11	\$sunsetTime = "16:32";	Sunset (CET)	B	x			x	Extract in script	
6		12	\$outsideTemp = "1,2";	Current Temperature	B	x	x	tempf	temperature	x	Extract in script
7		13	\$hiOutsideTemp = "3,3";	Highest Temp. Today	B				temperature_max	x	Calculate in script/ from Database?
8		14	\$lowOutsideTemp = "0,6";	Lowest Temp. Today	B				temperature_min	x	Calculate in script/ from Database?
9		15	\$lowOutsideTempTime = "00:00";	Time of Lowest Temp.	B					x	Calculate in script/ from Database?
10		16	\$hiOutsideTempTime = "13:54";	Time of Highest Temp.	B					x	Calculate in script/ from Database?
11		17	\$soutsidHumidity = "97";	Current Humidity	B	x	x	humidity	relative_humidity	x	Extract in script
		18	\$lowHumidity = "----";	Highest Hum. Today	D				humidity_max	x	Calculate in script/ from Database?
		19	\$hiHumidity = "----";	Lowest Hum. Today	D				humidity_min	x	Calculate in script/ from Database?
		20	\$lowHumTime = "----";	Time of Lowest Hum.	D					x	Calculate in script/ from Database?
		21	\$hiHumTime = "----";	Time of Highest Hum.	D					x	Calculate in script/ from Database?
12		22	\$soutsidDewPt = "0,8";	Current Dewpoint	B	x	x	dewptf	dewpoint	x	Extract in script
	7	23	\$windSpeed = "0,0";	Current Windspeed	O	x	x	windspeedmph	wind_speed	x	Extract in script
13		24	\$wind10Avg = "0,0";	Average Windspeed	B				wind_speed_average	x	Calculate in script/ from Database? If not available, contact HWA for resolution
14		25	\$hiWindSpeed = "3,0";	Highest Windgust	B			windgustmph	wind_gust	x	Calculate in script/ from Database? Latest Gust-info is in svalue/JSON. If no gust info, then placeholder = Current Windspeed.
15		26	\$hiWindSpeedTime = "13:14";	Time of Highest Windgust	B					x	Calculate in script/ from Database? To be aligned with selection for Highest Windgust.
16		27	\$windDir = "313";	Current Winddirection (number)	O	x	x	winddir	bearing_degrees	x	Extract in script
	8	28	\$windDirection = "----";	Current Winddirection (text)	B	x	x		wind_direction	x	Extract in script max. 3 letters [allowed catalogue is NEWS (English) or NOWZ (Nederlands)]
17		29	\$windChill = "1,2";	Current Windchill	B				apparent Temp?	x	Calculate in script/ from Database? [fill-in is more important than preference for formula] Formula: see https://en.wikipedia.org/wiki/Wind_chill or https://sciencing.com/calculate-wind-chill-factor-5981683.html or https://www.wikihow.com/Calculate-Wind-Chill#Calculating-Wind-Chill-Yourself
	9	30	\$outsideHeatIndex = "1,2";	Current HeatIndex	O				apparent Temp?	x	Calculate in script/ from Database? Formula: see https://en.wikipedia.org/wiki/Heat_index or https://sciencing.com/calculate-heat-index-formula-6200182.html
18		31	\$barometer = "1010,3";	Actual pressure at MSL	B	x	x	baromin	pressure	x	Extract in script MSL is mandatory! If stationpressure available, then correction required. Requires calculation of deltaP/1hour and deltaP/3hours, in hPa Interpretation of values into text => 5* or 7* text (English or Dutch)
10		32	\$barTrend = "Rising slowly";	Pressure Trend	O					x	Calculate in script/ from Database?
11		33	\$lowBarometer = "1009,6";	Lowest Pressure Today	O				pressure_min	x	Calculate in script/ from Database?
12		34	\$hiBarometer = "1013,0";	Highest Pressure Today	O				pressure_max	x	Calculate in script/ from Database?
13		35	\$lowBarometerTime = "14:46";	Time Lowest	O					x	Calculate in script/ from Database?
14		36	\$hiBarometerTime = "00:00";	Time Highest Rain Rate	O					x	Calculate in script/ from Database?
19		37	\$dailyRain = "1,6";	Rain Today	B	x	x	dailyrainin	precipitation	x	Extract in script Reset to 0 at 00:00 CET
21		38	\$monthlyRain = "4,8";	Rain This Month	B					x	Calculate in script/ from Database?
15		39	\$rainRate = "0,0";	Rain This Hour	O	x	x	rainin	rain_rate	x	Extract in script Not used in HWA if staleness > 5 minutes
16		40	\$solarRad = "0";	SolarRadiation	O	x	x	solarradiation	solar_radiation	x	Extract in script Value to be expressed in W/m² : convert Lux-values to W/m²
17		41	\$hiSolarRad = "----";		O				solar_radiation_max	x	Calculate in script/ from Database? Value to be expressed in W/m² : convert Lux-values to W/m²
18		42	\$hiSolarRadTime = "----";		O					x	Calculate in script/ from Database? Reset to 0 at 00:00 CET
19		43	\$uv = "0,0";	UVI	O	x	x	UV ?	UV	x	Extract in script UVI-value may be either integer or real
20		44	\$hiUV = "----";		O					x	Calculate in script/ from Database? UVI-value may be either integer or real
21		45	\$hiUVTime = "----";		O					x	Calculate in script/ from Database? Reset to 0 at 00:00 CET
22		46	\$cumulusversion = "Versie 3.9.4, build 3099"	Software for generation	O			softwaretyp	software	x	"Cumulus-application by xxxx" Free format to be filled by user as identification
		47	EOF	File-closure	B						Fixed contents/ character string

Some stations add fields with geographical & status information in the section following BOF

Application since
january 2021

This information should first be provided in the list of values for application of the station.

\$stationAlt = "5";	D					To be determined how to process if the station becomes mobile
\$stationLon = "3.742904";	D			longitude		To be determined how to process if the station becomes mobile
\$stationLat = "51.160928";	D			latitude		To be determined how to process if the station becomes mobile
\$altUnit = "m";	D					To be determined how to process if the station becomes mobile
\$stationStatus = "ONLINE";	D					Any other report than 'ONLINE' indicates that stationdata is invalid
\$stationWithRainModule = "YES";	D					Configuration info indicating whether Rain-module is part of configuration
\$stationWithWindModule = "NO";	D					Configuration info indicating whether Anemo-module is part of configuration

Formula/ Classification for barotrend as found in Davis-documentation and at weather-forums.

Barotrend [text/tekst]	Formula
Snel stijgend / Rising rapidly	barorate >= +2 hPa/3hr
Stijgend / Rising	+1 hPa/3hr <= barorate < +2 hPa/3hr
Langzaam stijgend / Rising slowly	+0,7 hPa/3hr < barorate < +1 hPa/3hr
Stabiel / Steady	-0,7 hPa/3hr <= barorate <= +0,7 hPa/3hr
Langzaam dalend / Falling slowly	-1 hPa/3hr < barorate < -0,7 hPa/3hr
Dalend / Falling	-2 hPa/3hr < barorate <= -1 hPa/3hr
Snel dalend / Falling rapidly	barorate <= -2 hPa/3hr

Decoding/classification as used by AWEKAS

N	Formula for numeric 5 levels
2	barorate >= +2 hPa/3hr
1	+1 hPa/3hr <= barorate < +2 hPa/3hr
0	-1 hPa/3hr < barorate < +1 hPa/3hr
-1	-2 hPa/3hr < barorate <= -1 hPa/3hr
-2	barorate <= -2 hPa/3hr