

Example file generated by 'real' Cumulus		Contents	HWA Application	Domoticz	Script-operation	Remarks
#		Short description		svalue API/ JSON	Generation of data-contents	
	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.					Fields marked <b>B</b> are mandatory for the minimal uploadfile for HWA. Fields marked <b>O</b> are optional, with data to be used if presented. For commonality with Cumulus-layout all other fields must be present, but their contents will not be used at the HWA-server: minimal placeholder-content per field is --- If the file is uniquely generated for HWA-application, then all light & dark blue-marked fields may be deleted.
0	BOF	File-Header	<b>B</b>			Fixed contents/ character-string
1						
2	\$stationDate = "07-01-2021";	Local Date (CET)	<b>B</b>	x	x	Extract in script
3	\$stationTime = "18:30";	Local time (CET)	<b>B</b>	x	x	Extract in script For this uploadfile for HWA all time-values are 'local', <b>not UTC</b>
4						
5	\$tempUnit = "&#176;C";	Unit	<b>O</b>			Fixed contents/ character-string Also allowed °C or C
6	\$humUnit = "%";	Unit	<b>O</b>			Fixed contents/ character-string
7	\$barUnit = "hPa";	Unit	<b>O</b>			Fixed contents/ character-string
8	\$rainUnit = "mm";	Unit	<b>O</b>			Fixed contents/ character-string
9	\$rateUnit = "mm/hr";	Unit	<b>O</b>			Fixed contents/ character-string Also allowed mm/u
10	\$windUnit = "km/h";	Unit	<b>O</b>			Fixed contents/ character-string Also allowed km/u
11						
12	\$sunriseTime = "08:45";	Sunrise (CET)	<b>B</b>	x	x	Extract in script
13	\$sunsetTime = "16:32";	Sunset (CET)	<b>B</b>	x	x	Extract in script
14						
15	\$outsideTemp = "1,2";	Current Temperature	<b>B</b>	x	x	Extract in script
16	\$hiOutsideTemp = "3,3";	Highest Temp. Today	<b>B</b>		x	Calculate in script/ from Database?
17	\$lowOutsideTemp = "0,6";	Lowest Temp. Today	<b>B</b>		x	Calculate in script/ from Database?
18						
19	\$lowOutsideTempTime = "00:00";	Time of Lowest Temp.	<b>B</b>		x	Calculate in script/ from Database?
20	\$hiOutsideTempTime = "13:54";	Time of Highest Temp.	<b>B</b>		x	Calculate in script/ from Database?
21						
22	\$lowMonthlyOutsideTemp = "---";		D			
23	\$hiMonthlyOutsideTemp = "---";		D			
24	\$hiYearlyOutsideTemp = "---";		D			
25	\$lowYearlyOutsideTemp = "---";		D			
26						
27	\$outsideHumidity = "97";	Current Humidity	<b>B</b>	x	x	Extract in script
28	\$lowHumidity = "---";		D			
29	\$hiHumidity = "---";		D			
30	\$lowHumTime = "---";		D			
31	\$hiHumTime = "---";		D			
32	\$hiMonthlyHumidity = "---";		D			
33	\$lowMonthlyHumidity = "---";		D			
34	\$hiYearlyHumidity = "---";		D			
35	\$lowYearlyHumidity = "---";		D			
36						
37	\$outsideDewPt = "0,8";	Current Dewpoint	<b>B</b>	x	x	Extract in script
38	\$hiDewpoint = "---";		D			
39	\$lowDewpoint = "---";		D			
40	\$hiDewpointTime = "---";		D			
41	\$lowDewpointTime = "---";		D			
42	\$hiMonthlyDewpoint = "---";		D			
43	\$lowMonthlyDewpoint = "---";		D			
44	\$hiYearlyDewpoint = "---";		D			
45	\$lowYearlyDewpoint = "---";		D			

46  
47 \$windSpeed = "0,0";  
48 \$wind10Avg = "0,0";  
49 \$hiWindSpeed = "3,0";  
50 \$hiWindSpeedTime = "13:14";  
51 \$hiMonthlyWindSpeed = "----";  
52 \$hiYearlyWindSpeed = "----";  
53  
54 \$windDir = "313";  
55 \$windDirection = "-";  
56  
57 \$windChill = "1,2";  
58 \$lowWindchill = "----";  
59 \$lowWindchillTime = "----";  
60 \$lowMonthlyWindchill = "----";  
61 \$lowYearlyWindchill = "----";  
62  
63 \$outsideHeatIndex = "1,2";  
64 \$hiHeatindex = "----";  
65 \$hiHeatindexTime = "----";  
66 \$hiMonthlyHeatindex = "----";  
67 \$hiYearlyHeatindex = "----";  
68  
69 \$thw = "----";  
70  
71 \$hiTHSWindex = "----";  
72 \$hiTHSWindexTime = "----";  
73 \$hiMonthlyTHSWindex = "----";  
74 \$hiYearlyTHSWindex = "----";  
75  
76 \$barometer = "1010,3";  
77 \$barTrend = "Rising slowly";  
78 \$lowBarometer = "1009,6";  
79 \$hiBarometer = "1013,0";  
80 \$lowMonthlyBarometer = "----";  
81 \$hiMonthlyBarometer = "----";  
82 \$lowYearlyBarometer = "----";  
83 \$hiYearlyBarometer = "----";  
84 \$lowBarometerTime = "14:46";  
85 \$hiBarometerTime = "00:00";  
86  
87 \$dailyRain = "1,6";  
88 \$stormRain = "----";  
89 \$monthlyRain = "4,8";  
90 \$totalRain = "4,8";  
91  
92 \$rainRate = "0,0";  
93 \$hiRainRate = "0,0";  
94 \$hiRainRateTime = "00:00";

Current Windspeed	O	x	x	x	Extract in script	
Average Windspeed	B			x	Calculate in script/ from Database?	If not available, contact HWA for resolution
Highest Windgust	B			x	Calculate in script/ from Database?	Latest Gust-info is in svalue/JSON. If no gust info, then placeholder = Current Windspeed.
Time of Highest Windgust	B			x	Calculate in script/ from Database?	To be aligned with selection for Highest Windgust.
	D					
	D					
Current Winddirection (number)	O	x	x	x	Extract in script	
Current Winddirection (text)	B	x	x	x	Extract in script	max. 3 letters [allowed catalogue is NEWS (English) or NOWZ(Nederlands)]
Current Windchill	B			x	Calculate in script/ from Database? [fill-in is more important than preference for formula]	Formula: see <a href="https://en.wikipedia.org/wiki/Wind_chill">https://en.wikipedia.org/wiki/Wind_chill</a> or <a href="https://sciencing.com/calculate-wind-chill-factor-5981683.html">https://sciencing.com/calculate-wind-chill-factor-5981683.html</a> or <a href="https://www.wikihow.com/Calculate-Wind-Chill#Calculating-Wind-Chill-Yourself">https://www.wikihow.com/Calculate-Wind-Chill#Calculating-Wind-Chill-Yourself</a>
	D					
	D					
	D					
	D					
Current HeatIndex	O			x	Calculate in script/ from Database?	Formula: see <a href="https://en.wikipedia.org/wiki/Heat_index">https://en.wikipedia.org/wiki/Heat_index</a> or <a href="https://sciencing.com/calculate-heat-index-formula-6200182.html">https://sciencing.com/calculate-heat-index-formula-6200182.html</a>
	D					
	D					
	D					
	D					
	D					
	D					
Actual pressure at MSL	B	x	x	x	Extract in script	MSL is mandatory! If stationpressure available, then correction required.
Pressure Trend	O			x	Calculate in script/ from Database?	Requires calculation of deltaP/1hour and deltaP/3hours, in hPa
Lowest Pressure Today	O			x	Calculate in script/ from Database?	Interpretation of values into text => 5* or 7* text [English or Dutch]
Highest Preessure Today	O			x	Calculate in script/ from Database?	
	D					
	D					
	D					
	D					
Time Lowest	O			x	Calculate in script/ from Database?	
Time Highest Rain Rate	O			x	Calculate in script/ from Database?	
Rain Today	B	x	x	x	Extract in script	Reset to 0 at 00:00 CET
	D					
Rain This Month	B			x	Calculate in script/ from Database?	
Rain This Year	D	x	x	x	Calculate in script/ from Database?	Not used in HWA
Rain This Hour	O	x	x	x	Extract in script	Not used in HWA if interval > 5 minutes
Highest RainRate Today	D			x	Calculate in script/ from Database?	
Time Highest Rain Rate	D			x	Calculate in script/ from Database?	



\$stationAlt = "5";  
 \$stationLon = "3.742904";  
 \$stationLat = "51.160928";  
  
 \$altUnit = "m";  
  
 \$stationStatus = "ONLINE";  
 \$stationWithRainModule = "YES";  
 \$stationWithWindModule = "NO";

	D					To be determined how to process if the station becomes mobile
	D					To be determined how to process if the station becomes mobile
	D					To be determined how to process if the station becomes mobile
	D					To be determined how to process if the station becomes mobile
	D					Any other report than 'ONLINE' indicates that stationdata is invalid
	D					Configuration info indicating whether Rain-module is part of configuration
	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