

# wBox – weather monitor

## temperature



## wind

## location / update



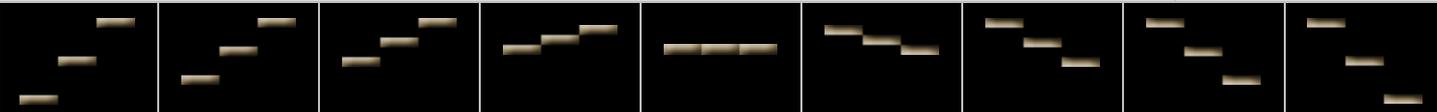
## forecast

pressure

miscellaneous

	<h3>temperature</h3> <p>red - temp. &gt;0°C blue - temp. &lt;=0°C</p>	<p>WEB TAG</p>
	<p>average rate of change in temperature  <b>rising</b>  <b>steady</b>  <b>falling</b></p>	<p>&lt;#temptrend&gt;</p>
<h1>30</h1>	<p>outside temperature</p>	<p>&lt;#temp&gt;</p>
<h1>31.2</h1>	<p>today's highest temperature</p>	<p>&lt;#tempTH&gt;</p>
<h1>14.2</h1>	<p>today's lowest temperature</p>	<p>&lt;#tempTL&gt;</p>
<h1><sup>32</sup> 30</h1>	<p>sensed temperature: heat index i.e. <b>[32] red blur</b>                      or analogously wind chill in winter i.e. <b>[-21] blue blur</b></p>	<p>&lt;#heatindex&gt;                      or &lt;#wchill&gt;</p>

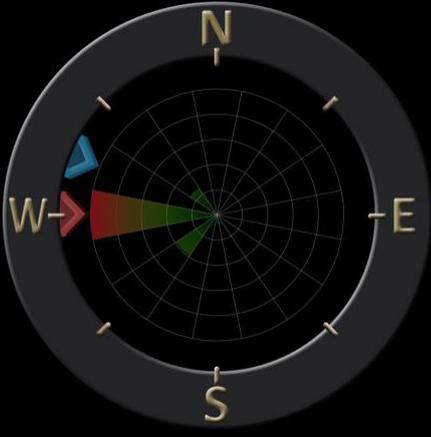
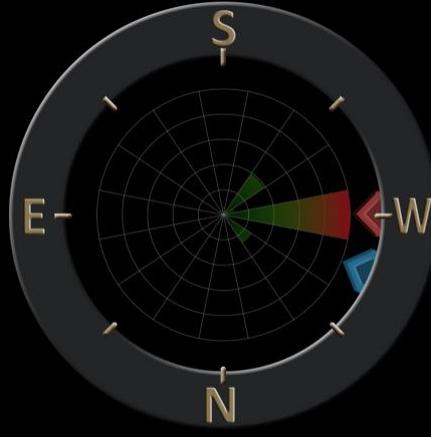
Andreovia.pl	<b>location / update</b>	WEB TAG
18:39:16	current time (in realtime.txt file is update time)	<#timehhmmss>
	update icon – rounded during update data every <#realtimeinterval> click or tap icon force refresh www page	

<b>HL</b>	<b>pressure</b>	WEB TAG
1014	value of pressure	<#press>
1016 1014	today's highest and lowest pressure	<#pressTH> <#pressTL>
below: icons average rate of pressure change over the last three hours (rising, stable or falling)		<#presstrendval>
		

below: icons rapidly pressure changes within two days		
15 	HHH - pressure rising rapidly	analyzing all data & times from web tags (realmore.txt): <#pressYL> <#TpressYL> <#pressYH> <#TpressYH> <#pressTL> <#TpressTL> <#pressTH> <#TpressTH>
	LLL - pressure falling rapidly	
14 	HLH - pressure falling and rising rapidly	
13 16 	LHL - pressure rising and falling rapidly	
	STB - pressure is stable	

<b>forecast</b>	based on Leuven script for a YR.NO weather-forecast, interval of icons 6 hours					
						
<p>20      18      25      25      19      18      24</p>						
 morning	 noon	 afternoon	 night			

 <b>wind</b>		WEB TAG
	current wind speed	<#wlatest>
	today's maximum wind gust	<#wgustTM>
	10-minute average wind speed	<#wspeed>
	total wind run	<#windrun>

<b>windCompass normal (North-Up)</b>	<b>windCompass reverse (North-Down)</b>	description & WEB TAG
		<p>reversing compass by the variable reComp on the website script</p> <p>arrows move around compass, and hide when calm</p> <p> <b>red</b> arrow – current wind bearing &lt;#bearing&gt;</p> <p> <b>blue</b> arrow – average bearing &lt;#avgbearing&gt;</p>
<p><b>RoseWind</b> – 16 values, based on JavaScript <a href="http://zinoui.com">http://zinoui.com</a></p>		<#WindRoseData> (realmore.txt)

<b>miscellaneous</b>		WEB TAG
	current moon phase based on <a href="https://github.com/tingletech/moon-phase">https://github.com/tingletech/moon-phase</a>	
	outside humidity – graph and value	<#hum>
	no rain	
 	rainfall	<#rfall>
 	cloud base	<#cloudbase>

## description and practical examples in different variants

Some time ago my weather server had definitively death. To replace my wBox, I decided to buy the cheapest 8" tablet running on Windows 10 to be able to project current weather conditions continuously.

I use WH 2080 personal weather station, had no problems to install **Cumulus MX**, connect the station and transfer the data and hang my tablet on the wall using simple holders. I decided to turn off the options of screen. In browser I turned off the updates option because they evoke restart after the installation and I update both manually from time to time.

As I considered that it's easier to interpret numbers than gauges concerning current weather conditions and this is why I decided to build a brand new website that would answer my needs, apart from HTML I used JavaScript. Thanks to that the data are being read and actualized every `<#realtimeinterval>` interval (eg. 20 sec.) causing no need to refresh the whole website!

**Web's size corresponds to the tablet or monitor screen resolution** (eg. 800 x 1280 px). I've hidden the scroll bars purposefully! Web browser must be support with JavaScript and work **in full screen mode** – from Android system I'm using Dolphin Express web browser, and Firefox from Windows. As displays I used to good effect different tablets, large monitors 22" and even my old HTC HD2 :)

The solution which I present is designed for holders weather stations - not for all users, because the screen does not have labels! I gave up with any descriptions with few exceptions only, web's structure is simplified at the most although it may not be simple :) The implementation requires a little of knowledge but a careful analysis of my website to customize it to your needs.

The data is read by the library's **wBox.js** (and other) from the two files: **realtime.txt** and **realmore.txt**

**realmoreT.txt** (does not require an update in realtime, just every few minutes)

```
<#pressYL> <#TpressYL> <#pressYH> <#TpressYH> <#pressTL> <#TpressTL> <#pressTH>
<#TpressTH> <#WindRoseData> <#realtimeinterval>
```

address	position	resolution [px]	WindCompass
<a href="http://andreovia.pl/weather/wBoxH.html">http://andreovia.pl/weather/wBoxH.html</a>	horizontal	800 x 1280	normal
<a href="http://andreovia.pl/weather/wBoxHr.html">http://andreovia.pl/weather/wBoxHr.html</a>	horizontal	800 x 1280	reverse
<a href="http://andreovia.pl/weather/wBoxHD2.html">http://andreovia.pl/weather/wBoxHD2.html</a>	horizontal	980 x 1560	normal
<a href="http://andreovia.pl/weather/wBoxHD2r.html">http://andreovia.pl/weather/wBoxHD2r.html</a>	horizontal	980 x 1560	reverse
<a href="http://andreovia.pl/weather/wBoxV.html">http://andreovia.pl/weather/wBoxV.html</a>	vertical	1680 x 1050	normal
<a href="http://andreovia.pl/weather/wBoxVr.html">http://andreovia.pl/weather/wBoxVr.html</a>	vertical	1680 x 1050	reverse
<a href="http://andreovia.pl/weather/wBoxVD2.html">http://andreovia.pl/weather/wBoxVD2.html</a>	vertical	1560 x 980	normal
<a href="http://andreovia.pl/weather/wBoxVD2r.html">http://andreovia.pl/weather/wBoxVD2r.html</a>	vertical	1560 x 980	reverse

The scripts wBoxHr.html and wBoxHr.html can be enabled to show the temperature and humidity inside:

variable **viHome = 1**

JavaScript library wBox.js and web page scripts are accurately described... the Polish of course :)

Special thanks for authors:

Cumulus Sandaysoft  
jQuery, jQuery Rotate  
Leuven script  
Zino UI zino.chart  
Tingletech moon-phase  
Stack Overflow