

How to use the Weather Station Data – Quick Guide

Introduction

The weather station dashboard has two views of the data.

The first one is the summary page as shown below:-

WOODBRIDGE TIDE MILL MUSEUM

Weather station

Temperature	7.6 deg. C
Humidity	83 %
Air Pressure	1012
Precipitation	0.00 mm
Solar Radiation	186 lumens

Wind speed
5.5 m/s

River Deben
Tide Height 0.35 m

Location	temperature
River	10.3
Mill Pond	10

Indoor Air Quality

PM (2.5)	9 ppm
PM (10)	12 ppm
CO2	462 ppm
HCHO	0.01 ppm
Total VOC	157 ppm

Indoor Environment

Temperature	11.0 deg. C
Humidity	60 %
light_level	2 lumens
Movement	idle

Cabinet

	Temperature	Humidity
Pit floor	9.9 deg. C	76 %
Crown floor	10.0 deg. C	82 %

People counter

Entering	0
Leaving	0

[View Charts](#)

Diagram Labels: LUCAM, SACK HOKST CHAIN, SACK HOKST BELT, DRESSER, SACK HOKST SHAFT, LAYS HAFT, TUN STONES, STONE NUT, CROWN WHEEL, GREAT SPUR WHEEL, WALLOWER, PIT WHEEL, WATERWHEEL, MILL POND, RIVER DEBEN, 5 RPM.

To access the detailed information you need to click on the “View Charts” button highlighted above. You will then see detailed information for each LoRaWAN sensors, together with the “Back to Dashboard” button which will take you back to the summary page.

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[Back to Dashboard](#)

Temperatures
Realtime - last day

Temperature vs Time (12:00 to 08:00). Legend: Weather Station (blue), Indoors (green), Crown Floor (orange), Pit Floor (red), River Deben (purple).

Weather station air pressure
Realtime - last day

Air Pressure vs Time (12:00 to 08:00). Legend: Weather Station (blue).

Humidity
Realtime - last day

Humidity vs Time (12:00 to 08:00). Legend: Weather Station (blue), Indoors (green), Crown Floor (orange), Pit Floor (red).

Weather station precipitation
Realtime - last 7 days

Precipitation vs Time (Apr 05 to Apr 11). Legend: Weather Station (blue).

How to use the individual charts

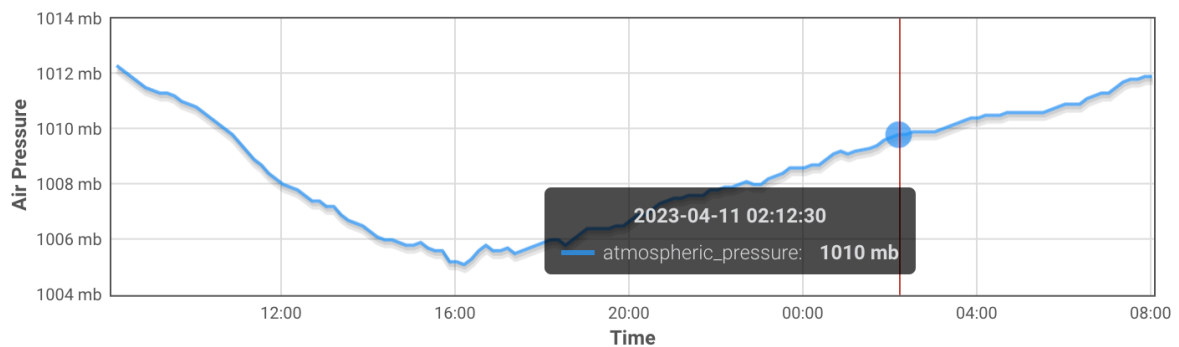
To explain how the charts work we will use the air pressure chart

The charts are either graph based or tables. Labels will describe the data being viewed e.g. Air Pressure and Time

1. If you move your pointer over a graph then you will see the values which are underneath the cursor
2. To make the chart full screen then click on the icon highlighted in red. Click on this icon in the expanded view to return to the normal sized view

Weather station air pressure

🕒 Realtime - last day



3. To open the chart configuration page click on the icon shown in red below and the pop up panel will appear. The panel has two views “Realtime” and “History”. You can switch between these by clicking on the word. The next few screen shots show the options available in the “Realtime” tab

Weather station air pressure

🕒 Realtime - last day

Realtime History

Last
Last
1 day Advanced

Interval

Data aggregation function
Average

Grouping interval Advanced
5 minutes

Timezone
Browser Time (UTC+01:00)

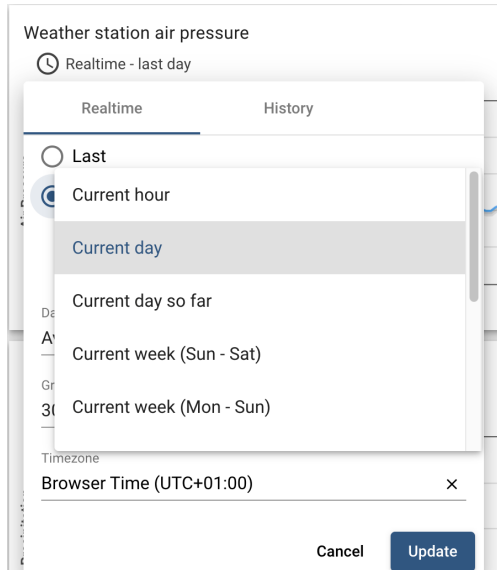
Cancel Update

4. The pop up panel allows you to change various display settings for the data.
- A. With the “Last” radio button selected you can click the down arrow highlighted in green above to change the time interval. Clicking away from the list will close it.

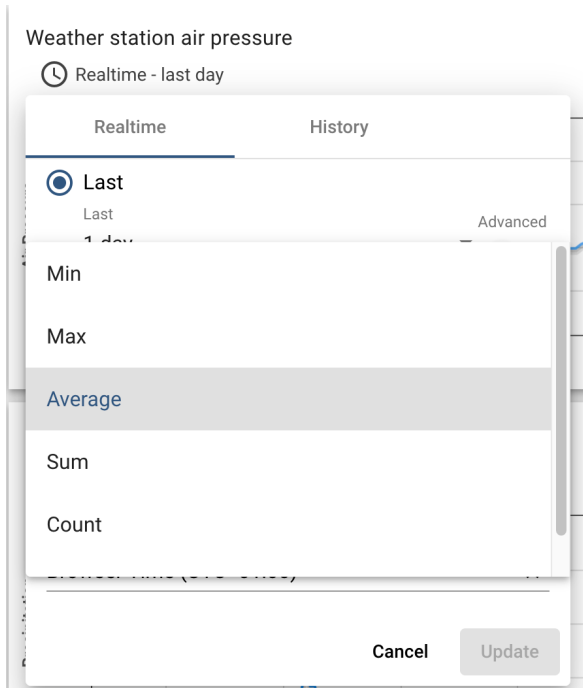


Once you have selected the time interval required you can click the dark blue “Update” button to update the view of the data.

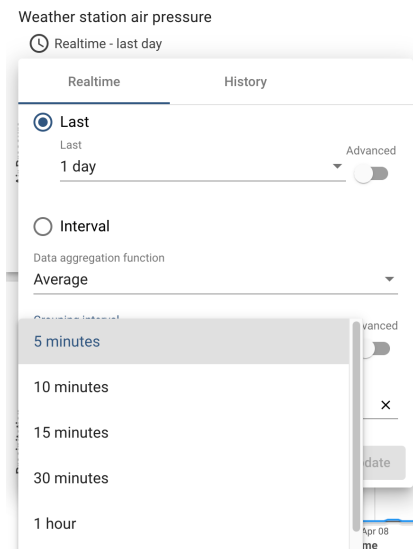
- B. The “Interval” Radio Button allows the interval to be changed by clicking the down arrow next to it. When clicked the options below will be shown.



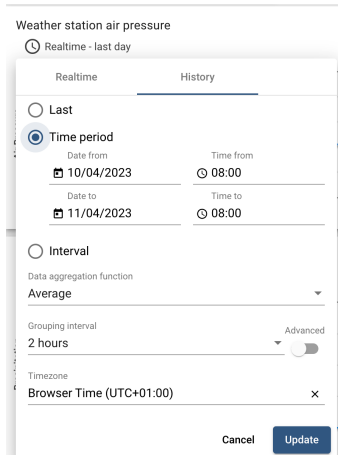
- C. The Data Aggregation function shows how the data is grouped together and when the down arrow is clicked the following options are available for selection. The selected option can be displayed by clicking the dark blue “Update” button



- D. The Grouping Interval function shows how the data can be grouped by time period and when the down arrow is clicked the following options are available for selection.



The “History” tab works in the same way but has an additional option – “Time Period” which allows data to be displayed between a range of dates.



How to download data

There may be occasions when you would like to download some of the captured data for further analysis or to perhaps use as a resource in a lesson plan. The steps below show you how to do this using the “Weather Station” table below the graphs as an example.

Weather Station ⏰ 🔍 🗄️

⌚ Realtime - last day

Timestamp ↓	Air Temperature	Air Pressure	Precipitation	Humidity	Solar Radiation	Wind Direction	Wind Speed	Battery
2023-04-11 09:11:34	9.0 deg. C	1013 mb	0.00 mm	76 %	383 W/m2	245 degrees	5 m/s	2.761
2023-04-11 09:01:38	8.8 deg. C	1013 mb	0.00 mm	78 %	359 W/m2	248 degrees	5 m/s	2.758
2023-04-11 08:51:34	8.6 deg. C	1013 mb	0.00 mm	81 %	334 W/m2	238 degrees	5 m/s	2.761
2023-04-11 08:41:38	8.4 deg. C	1012 mb	0.00 mm	81 %	309 W/m2	235 degrees	5 m/s	2.758
2023-04-11 08:31:38	8.3 deg. C	1012 mb	0.00 mm	82 %	285 W/m2	238 degrees	5 m/s	2.761
2023-04-11 08:21:36	8.2 deg. C	1012 mb	0.00 mm	82 %	260 W/m2	231 degrees	6 m/s	2.758
2023-04-11 08:11:39	8.0 deg. C	1012 mb	0.00 mm	83 %	235 W/m2	223 degrees	6 m/s	2.758
2023-04-11								

Items per page: 10 1 - 10 of 143 ⏪ ⏩

You can control the amount of data displayed by using the “Items per page” drop down and page navigation controls at the bottom of the table.

The view of the data and how it is aggregated can be controlled by clicking on the “clock icon as described in the steps above.

To download the data first use the tools described above to get the data you require e.g. data for a selected range of dates.

Once ready the data can be downloaded (by clicking on the icon highlighted in red above) in the universal CSV format which can be opened by spreadsheets such as Microsoft® Excel and where further filtering and analysis can be made.