



CrossMet 4.2 Web Interface



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CrossMet 4.2 Web Interface

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Introduction

The web interface of CrossMet is used to configure and monitor the device and runs directly on the device. The web interface at version 4.2 is served at default HTTPS port 443 on the HOSTNAME server.

```
https://HOSTNAME/
```

To access the website you need to enter login details. No functions are available without authentication. By default, the factory setting includes a single user with the user name “admin” and the password “admin”.

Three roles are supported:

- User - can access all pages in read-only mode
- Operator - can access all pages in read-write mode, except user administration
- Admin - full rights including user administration

The web interface is completely built on top of the CrossMet API. Web interface of CrossMet 4.2 is tied with the [CrossMet API v3](#). This also means that all functions that are accessible from the web interface can also be called remotely directly using the CrossMet API.

Web modules

The current web version provides these modules:

- Dashboard
- Settings
- Tools
- Logbook
- Users

Dashboard

The Dashboard is a homepage of the web interface and it shows the basic information about the device and the currently measured data if any. The page is automatically refreshed to show the updated data.

Settings

The Settings page is further divided into three sections:

- Station
- Sensor
- System

Station settings

The station settings section is further divided into three blocks:

- Station settings
- Date & time settings
- Network settings

In the station setting, you can set the device name, coordinates, time zone and other metadata. Especially the time zone is important since all timestamps are presented in the selected time zone.

Date and time can be set manually. Then the internal timer takes care of the time flow. However, downtimes can cause the time being shifted and thus not correct. It is always better to provide an NTP server that is used for automatic synchronization of the current date and time. The correct time on the device is important for data reporting as well as log storage.

Network setting is used to set the connectivity of the device (IP address etc.).

Sensor settings

The sensor settings section is used to configure the sensors which are (or should be) connected to the device. The operator can add, modify and delete the sensors.

The list of sensors shows the overview of the current device configuration. Note that the operator can drag and drop the rows to set the order of sensors on the dashboard. The Connected flag is shown to present the current status of the appropriate sensor. Four values are supported:

- Connected
- Connecting
- Disconnecting
- Disconnected

When adding a new sensor, the device provides a select box with the list of possible sensors which are integrated into the current version of the firmware. When configuring the sensor, the connection protocol is the most important since it defines where the sensor is plugged from the hardware point of view.

The State parameter defines whether the selected sensor is Enabled or Disabled. The operator can disable the sensor for example in case of disconnecting the sensor for calibration or repair. Disabled sensors are internally ignored, not shown on the dashboard and their data is not communicated out of the station.

The parameters recorded for the sensors (e.g. sampling rate, averaging period) are not used for the direct configuration of individual sensors. The configuration usually takes place in the workshop when assembling the station, or remotely using the service software of the sensor manufacturer. Here it is used only for registration and communication out of the station. The operator is responsible for matching the values set inside the sensors and in this configuration.

Each sensor provides a different set of measured values shown in the sensor detail. The operator can invalidate a selected measured quantity in case of erroneous data coming from the sensor. The data are still communicated out of the station, but the Status flag of the value is switched to Invalid.

It is also possible to set the “Display on dashboard” flag for each measured quantity which results in displaying or hiding the value from the dashboard.

System settings

Currently, the only setting in this section is related to setting the log store duration. It means how long system logs are stored in the device storage. After this time, older logs are automatically deleted.

Tools

The Tools section is available only for users with Operator or Admin roles.



The section provides three blocks:

- Configuration
- Reboot
- Firmware

The configuration of the device can be exported as well as imported. Currently, the only configuration which can be affected by this export/import function is the configuration of sensors.

The Reboot section offers two action buttons: Reboot and Shutdown. Reboot is a lightweight software restart of the whole device. This function is used after changing critical settings. The shutdown command will surprisingly cause the device to shut down. This function can be used, for example, when disassembling the device.

If a newer firmware version is available, it can be uploaded to the device to upgrade it. After the upload of the new firmware version, a reboot is required. After the first reboot, the system performs the upgrade and forces the second reboot. After the second reboot, when the web interface is available again, the device is ready for further use.

Logbook

The Logbook section provides access to all logs stored in the system. Note that the logs are available in the list with a 1-minute delay and are deleted from the system after a certain time (see System settings).

Several filters are available to inspect the logs in detail:

- From, To timestamps
- Log level
- Process, Context - their combination describes the specific monitor

The selected set of logs can be exported to a CSV file using the Export button.

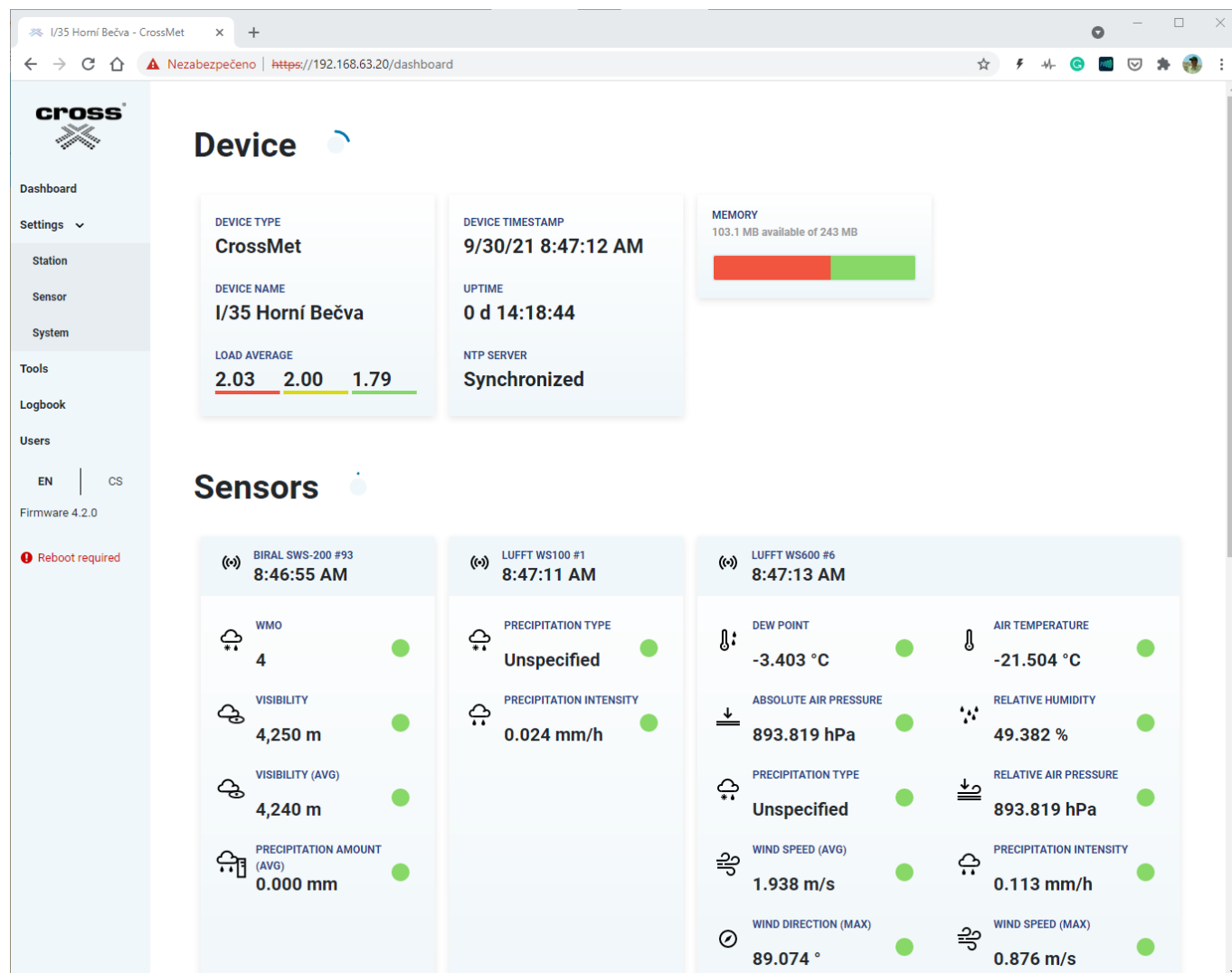
Users

The Users section allows users with the Admin role to manage user accounts registered in the device.

As described earlier in the Introduction, three user roles are available: User, Operator, and Admin. The factory setting comes with “admin - admin” user account. Only the admins can add and delete users as well as change the roles and passwords of all registered users.

The system checks that there is always at least one user with admin rights. In other words, it is not possible to delete the last admin account.

Screens



Dashboard

I/35 Horní Bečva - CrossMet

Nezabezpečeno | https://192.168.63.20/settings/station

☆ 🔊 🔄 📶 🛡️ 👤 ⋮

Dashboard

Settings ▾

Station

Sensor

System

Tools

Logbook

Users

EN | CS

Firmware 4.2.0

🔴 Reboot required

Station settings

Station settings ^

DEVICE NAME (Optional)

I/35 Horní Bečva

EXTERNAL ID (Optional)

Z002

ROAD NAME (Optional)

I/35

DIRECTION (Optional)

Slovakia

STATIONING (Optional)

326.9

FORMAT OF COORDINATES

Decimal degrees ▾

LATITUDE

49,417917

North ▾

LONGITUDE

18,343686

East ▾

ALTITUDE [M] (Optional)

636


TIME ZONE

Europe/Prague ▾

💾 Save

Date & time settings ▾

Network settings ▾



Dashboard

Settings ▾

Station

Sensor

System

Tools

Logbook

Users

EN | CS

Firmware 4.2.0

Reboot required

Station settings

Station settings ▾

Date & time settings ^

SET BY NTP☒

DATE TIME

9/30/2021, 08:48:00

Europe/Prague ▾

ACTIVE NTP SERVICE ⓘ☒

NTP SERVERS

192.168.1.1

+

NTP STATUS

Status	Remote	Refid	Stratum	When	Delay	Offset	Jitter
Declared	192.168.1.1	195.113.144.201	2	285	0.502	0.066	3.210


Save

Network settings ▾

Station settings - Date & time

I/35 Horní Bečva - CrossMet

Nezabezpečeno | https://192.168.63.20/settings/station



Dashboard

Settings ▾

Station

Sensor

System

Tools

Logbook

Users

EN | CS

Firmware 4.2.0

Reboot required

Station settings

Station settings ▾

Date & time settings ▾

Network settings ▲

NET

ADDRESS

GATEWAY

NETMASK

DNS

SERVICES

+

DOMAIN (Optional)

SEARCH (Optional)

Save

Station settings - Network

The screenshot displays the 'Sensor settings' page of the CrossMet application. The left sidebar contains navigation links: Dashboard, Settings (selected), Station, Sensor, System, Tools, Logbook, and Users. Below these are language toggles for EN and CS, and the firmware version 4.2.0. A red notification at the bottom left states 'Reboot required'. The main area features a title 'Sensor settings' and three buttons: 'Add new sensor', 'Expand', and 'Collapse'. A table lists nine sensors with columns for sensor name, status, connection, enablement, and actions.

Sensor Name	Status	Connection	Enablement	Action
Biral SWS-200 #93	Connected	Enabled	[Dropdown]	[X]
Lufft WS100 #1	Connected	Enabled	[Dropdown]	[X]
Lufft WS600 #6	Connected	Enabled	[Dropdown]	[X]
Lufft WS200 #2	Connected	Enabled	[Dropdown]	[X]
Lufft IRS31 #5	---	Disabled	[Dropdown]	[X]
Lufft WS400 #4	Connected	Enabled	[Dropdown]	[X]
Lufft IRS31 + 1x ext. temp. #11	Connected	Enabled	[Dropdown]	[X]
Lufft IRS31 + 2x ext. temp. #21	Connected	Enabled	[Dropdown]	[X]

I/35 Horní Bečva - CrossMet
x +

← → ↻ 🏠
⚠️ Nezabezpečeno | https://192.168.63.20/settings/sensor
☆ ⚡ 🔌 🔄 📶 🛡️ 👤 ⋮

DASHBOARD

SETTINGS ▾

Station

Sensor

System

TOOLS

LOGBOOK

USERS

EN
CS

Firmware 4.2.0

🔴 Reboot required

+ Biral SWS-200 #93

Connected Enabled

⌵ x

ID

NAME

STATE

CONNECTION PROTOCOL

IP

PORT

MEASUREMENT PERIOD [S] (Optional)

DESCRIPTION (Optional)

NOTE (Optional)

PLACEMENT (Optional)

RELATIVE MOUNT HEIGHT [M] (Optional)

FORMAT OF COORDINATES

COORDINATES

Name	Id	Type	Decimals	Unit	Invalidate	Display on dashboard
WMO	Wmo	Number	-	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Visibility	Visibility	Number	-	m	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Visibility (avg)	VisibilityAvg	Number	-	m	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Precipitation amount (avg)	PrecipitationAmountAvg	Number	3	mm	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sensor settings - Detail

Browser window showing the CrossMet system settings page. The address bar indicates the URL is <https://192.168.63.20/settings/system>. The page title is "System settings".

The left sidebar contains the following navigation items:

- Dashboard
- Settings (expanded)
 - Station
 - Sensor
 - System
- Tools
- Logbook
- Users

The main content area displays the "Log settings" configuration:

Log settings

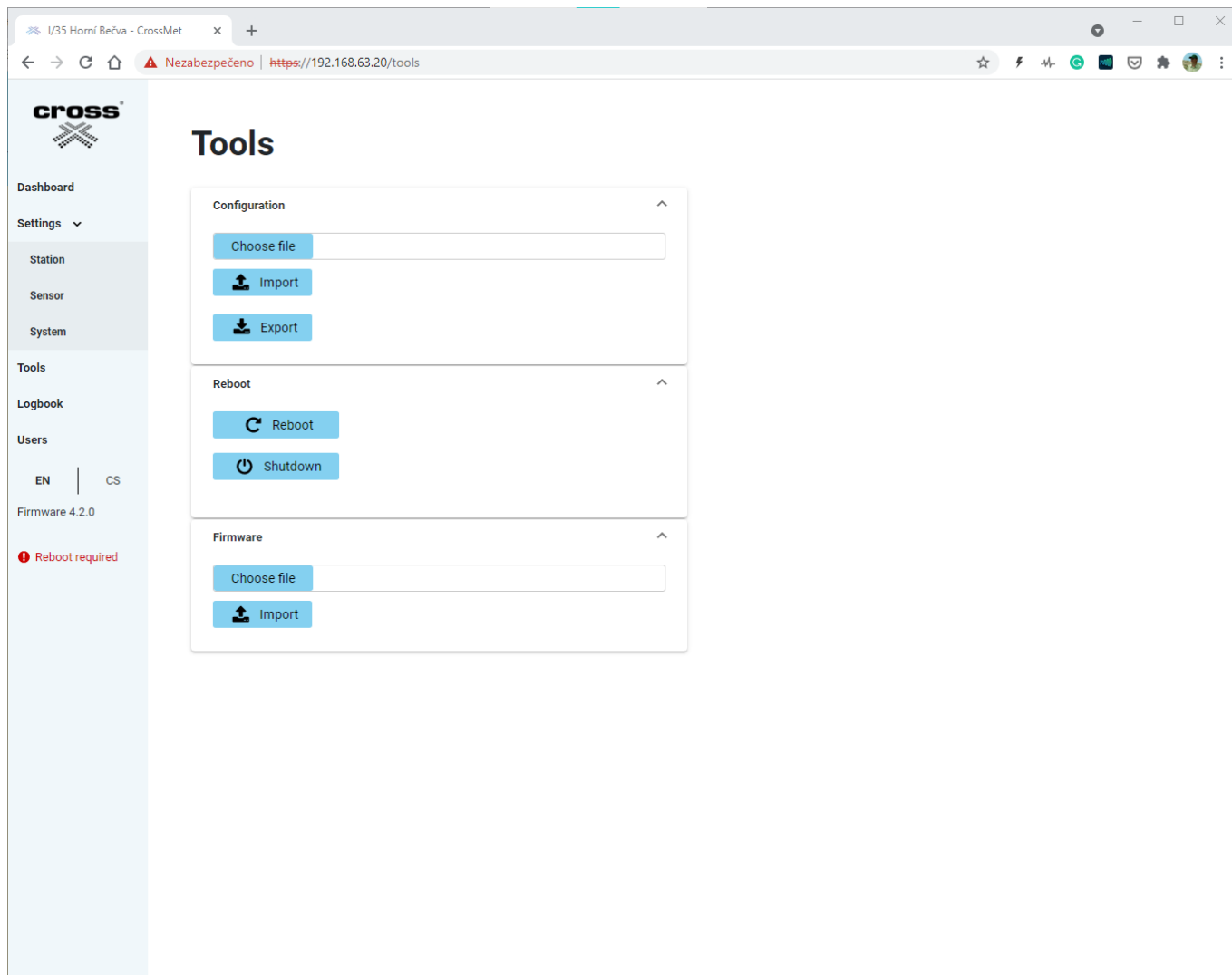
LOG STORE DURATION [D]

90

Save

At the bottom of the sidebar, there is a language selector (EN | CS) and a firmware version indicator (Firmware 4.2.0). A red warning message "Reboot required" is displayed at the bottom of the sidebar.

System settings



Tools

cross

Dashboard

Settings

Station

Sensor

System

Tools

Logbook

Users

EN | CS

Firmware 4.2.0

Reboot required

Logbook

From

9/29/2021, 08:52:05

To

9/30/2021, 08:52:05

Choose level

Process

//


api/v3

Apply

Export

Date	Process//Context	Level	Username	Message
9/30/2021 8:46:45 AM	metlog/http/api/v3/log/config/PUT	Verbose	admin	access
9/30/2021 8:46:34 AM	metlog/http/api/v3/system/info/PUT	Verbose	admin	access
9/30/2021 8:46:34 AM	metlog/http/api/v3/system/timezone/current/PUT	Verbose	admin	access
9/30/2021 8:37:16 AM	metlog/http/api/v3/config/order/device/PUT	Verbose	admin	access
9/30/2021 8:36:32 AM	metlog/http/api/v3/config/order/device/PUT	Verbose	admin	access
9/30/2021 8:36:15 AM	metlog/http/api/v3/config/order/device/PUT	Verbose	admin	access
9/30/2021 8:35:29 AM	metlog/http/api/v3/config/order/device/PUT	Verbose	admin	access
9/30/2021 8:33:15 AM	metlog/http/api/v3/log/config/PUT	Verbose	admin	access
9/30/2021 8:28:19 AM	metlog/http/api/v3/auth/user/u/DELETE	Verbose	admin	access
9/30/2021 8:28:15 AM	metlog/http/api/v3/auth/user/o/DELETE	Verbose	admin	access
9/30/2021 8:28:06 AM	metlog/http/api/v3/auth/user/a/DELETE	Verbose	admin	access
9/30/2021 8:18:20 AM	metlog/http/api/v3/system/info/PUT	Verbose	admin	access
9/30/2021 8:18:20 AM	metlog/http/api/v3/system/timezone/current/PUT	Verbose	admin	access
9/29/2021 6:50:06 PM	metlog/http/api/v3/status/sensor-value-group/Meteo/GET	Info	a	Loading data device -> sensor into cache.
9/29/2021 6:28:16 PM	metlog/http/api/v3/system/power/PUT	Verbose	a	access
9/29/2021 6:28:16 PM	metlog/http/api/v3/system/power/PUT	Verbose	a	access
9/29/2021 6:23:20 PM	metlog/http/api/v3/status/sensor-value-group/Meteo/GET	Info	a	Loading data device -> sensor into cache.

Logbook



Dashboard

Settings ▾

Station

Sensor

System


Tools

Logbook

Users

EN | CS

Firmware 4.2.0

 Reboot required

Users

Add new user

Username	Role	Action
admin	Admin	Edit Delete
operator	Operator	Edit Delete
user	User	Edit Delete

Users