

Manual: QA Weather Forecast YR

Current weather and a 24-hour forecast from the YR service as a source of meteorological data for the applications of the SHE system.

Introduction

QA Weather Forecast YR loads from the YR service (yr.no, operated by the Norwegian Meteorological Institute) the current weather state and the forecast for the next 24 hours for the location of the controller: temperature, weather state (clear, partly cloudy, overcast...), relative air humidity, precipitation and wind speed, as well as the time of sunrise and sunset. It displays the data in a clear card and makes them available to the other applications of the SHE system as the system weather provider.

The application serves as a reference meteorological layer for visualisation and simple operating logic — for example for **QA Global Climate Mode** (average outdoor temperature) or **QA Window Control** (heat gain, wind, rain). It is not intended for energy prediction or spot control and does not replace services for calculating photovoltaic production (QA PV Forecast, Solcast). If the installation includes QA PV Forecast or Solcast, the outdoor temperature forecast can also be taken from them.

The YR service is currently free of charge; the application requires a registered YR user profile, whose e-mail is entered into an application variable.

For clear visualisation and access to measurement history and graphs, we recommend connecting to Mervis SCADA.

IMPORTANT WARNING: The application reads data from a third-party service — YR (yr.no, Norwegian Meteorological Institute).

The transfer of values, their scope and update frequency depend on the YR service and its terms.

The functionality of the application and the support options of Smart Home and Energy depend on the availability, capabilities and terms of this service. If it is changed, restricted or discontinued, the application may stop working completely or partially.

Smart Home and Energy does not guarantee the availability, completeness or correctness of data provided by a third party. The customer sets up and manages the registration and the account with the YR service themselves.

Upstream and downstream applications

Upstream applications

- **Account with the YR service** — profile registration at <https://www.yr.no/en>; you enter the account e-mail into an application variable.
- **Controller location** — the application takes over the position (latitude and longitude) from the unit settings (**Settings** → **General** → **Location**).

Downstream applications

Optional:

- **QA Global Climate Mode** — average outdoor temperature for selecting the season (winter / transitional / summer).
- **QA Window Control** — forecast for calculating the heat gain, wind and rain.
- Other climate control applications (blinds, heating, air conditioning) that use the outdoor temperature, humidity or wind from the system weather provider.

Installation and initial setup of the QA

Installation

Purchase the application in the Smart Home and Energy e-shop (<https://eshop.smarthomeenergy.cz>). After the purchase you receive an e-mail with a link to the activation form, in which you choose one of the two installation methods:

- **Installation via the SHE Installation Application (recommended)** — the application is installed into the unit automatically and enables future automatic updates. Requires the “superuser” credentials for the unit. See the separate “Installation Application” manual for details.
- **Standalone installation file (*.fqax)** — install the file manually into the unit according to the unit manufacturer's instructions (logged in as “superuser”). This option does not allow automatic updates.

You can try out the application functions before purchase in the trial version — the TRIAL unlocks the full functionality for 2 days.

After a successful installation, the **Weather Forecast YR** (main card) and **Installation** tiles appear on the unit desktop.

Operating prerequisites

- **Controller:** Fibaro HC3 or HC3L (or Yubii Home / Home Pro) with internet access.
- The **home location** (address and geographic coordinates) is filled in in the unit settings — the application downloads the forecast for this place.
- **A registered profile with the YR service** (free of charge); the profile e-mail is entered in the **UserLogin** variable.

Registration with the YR service

1. Open <https://www.yr.no/en> and choose to log in / register a profile. You will be redirected to the NRK page (Norwegian public broadcaster, co-operator of YR), which manages the user profiles.
2. Fill in **First name**, **Year of birth**, **Email** and **Password (at least 12 characters)** and continue with the **Continue** button. Also complete the second registration step according to the instructions on the page — filling in the first form alone is not enough.
3. Note down the e-mail used for the registration — you will enter it into the application variable in the unit. The password is not entered into the unit.

Opening the application control card

To open the application card in a web browser, move the cursor over the **Weather Forecast YR** or **Installation** tile and click the eye icon in its top-right corner. The application card opens. With the gear icon in the top-left corner of the tile, you open the device settings with the variables.

Warning: Not all cards and tiles are displayed to all users. Each user selects which cards and tiles are displayed on the **Display Settings** card (sheViewControl application) – levels **SHORT**, **ADVANCED** and **ADMIN**. If you cannot see a described card, check the settings on this card.

User settings

Initial setup procedure

1. In the unit settings (**Settings** → **General** → **Location**):

- Check that the address and the latitude and longitude of the installation site are filled in in the **Home location** part and that the point on the map matches.
- If you change the location, click **Save**.

2. Register a profile with the YR service (see above).

3. On the **Weather Forecast YR** tile, click the gear icon and go to the **Variables** tab.

- At the end of the **UserLogin** row, click the pencil icon, enter the e-mail of the registered YR profile and save the change.
- Do not enter the profile password into the variable. Leave the other variables unchanged.
- The saved value is masked with asterisks in the overview — you can verify the correctness of the e-mail only by reopening the edit.

4. Open the **Weather Forecast YR** card.

- Use the **Download new data** button to load the forecast.
- Check that the current weather row and the forecast table have been displayed, that the **Update** time has changed and that the card does not report **Login error**.

5. “**Installation**” card

- If you want to use the weather from YR, leave **Internal weather forecast** for all four sources; select another device only if it really measures the outdoor value.
- Use the **Set up a weather provider system** button to set this application as the weather provider for the other SHE applications.
- Check that This device is shown for the **Weather System Provider** item.

Variables

The application uses these variables (gear icon on the tile → **Variables** tab):

- **UserLogin** — e-mail of the registered YR profile (secret variable, the value is not displayed),
- **Reading_Period** — period for loading the forecast from the service (60 in the example; leave unchanged),
- **Last_Days_Save** — number of days of stored values (7 in the example; leave unchanged),
- **_savedValues** — internal stored values (sources selected for the system); do not edit this variable.

“Weather Forecast YR” card

The main card displays the weather for the unit location:

- Row of current values — temperature (°C), weather state (e.g. Partly cloudy), relative humidity (%), precipitation (mm) and wind speed (km/h).
- Hourly forecast table — **H** (hour), temperature (°C), humidity (%), precipitation (mm), wind (km/h) and **Weather** (verbal state).
 - The current hour is marked with an arrow; the table covers the next 24 hours.
 - The meaning of the symbols in the table header is displayed by moving the mouse cursor over the symbol.
- **Sunrise** and **Sunset** — time of sunrise and sunset.
- **Update** — date and time of the last forecast load.

- If you want to load the forecast from the service immediately outside the regular period, click the **Download new data** button.
- When checking the weather, also watch the **Update** time; if the data are old, load new data and verify that the time has changed.
- In the trial version, the end date of the trial period is shown at the top of the card.

The **Login error** message on the card together with the Disconnected state (in the card header and below the tile name) means that the application failed to log in to the service:

- Check the e-mail in the **UserLogin** variable, the completed YR profile registration and the internet connection of the unit.
- Then press **Download new data** again.
- If the error persists, pass the exact message and the application version from the **Installation** card to support.

“Installation” card

The card is used to set the application as the weather provider for the entire SHE system.

- **System weather provider settings** — for each quantity, choose where the other applications are to take it from:
 - **SYSTEM FORECAST SOURCE, SYSTEM OUTDOOR TEMPERATURE SOURCE, SOURCE OF OUTDOOR HUMIDITY SYSTEM** and **SYSTEM WIND SPEED SOURCE**.
 - The **Internal weather forecast** option uses the data from the YR service.
 - Where the unit offers a suitable device (e.g. an outdoor temperature sensor for the temperature), you can choose this device instead. Do not select a room sensor — it would pass the indoor temperature to the system.
- **Weather System Provider** — shows which device is currently the weather provider (This device). With the **Set up a weather provider system** button you set this application as the provider for the other SHE applications.
- **Update device** — reloads the list of devices in the unit from which the sources can be selected.

The application version is shown at the bottom of the card (e.g. sheWeatherYR 1.06.06).

Notes

- The data are provided by the Norwegian Meteorological Institute (MET Norway) via the YR service under the CC BY 4.0 licence; when the data are republished, the source must be credited. Leave the loading period at the default value.
- The forecast is downloaded for the home location set in the unit; when the unit is moved to another place, adjust the location in the unit settings.
- For clear visualisation and access to measurement history and graphs, we recommend connecting to Mervis SCADA.