Integrate third-party weather sensor data into Raindancer

The integration of weather sensor data into Raindancer takes place in the following steps:

1. The API access to the third-party provider must be stored in Raindancer so that Raindancer can obtain data from there.
2. Raindancer synchronises the weather stations, sensors and measurement data from the last week in the background.
3. A measurement point must be created in Raindancer to summarise sensor data in diagrams and link sensor data to fields.

Creating an API access

It is currently possible to integrate sensor data from Weenat and Pessl. For more information, see the relevant articles:

- Linking the Weenat API
- Linking the Pessl API

For Weenat, you can use the user data for the Weenat portal. For Pessl, you have to create API keys separately in the Pessl portal: Create Pessl key.

Synchronisation of sensor data

After setting up an API account, Raindancer starts synchronising data in the background. Weather stations, sensors and sensor data from the last week are transferred.

An overview of the synchronised weather stations can be found under **Measurements > Weather stations**.

Synchronisation currently takes place every 65 minutes. This means that it can take up to 65 minutes for the weather stations to appear in Raindancer. Changes and new sensor data are then transferred every 65 minutes.

Creating measurement points

Measurement points in Raindancer are used to group sensors and assign them to fields.

To create a new measurement point, go to **Measurements > Measurement** points in Raindancer and **select New measurement** point.

Here you enter the measurement Spot:

- A designation
- A position for display on the map
- An assigned field
- A list of sensors, which can come from different weather stations

After saving a measurement point, the following diagrams can be found on the measurement Spot details page, depending on the assigned sensors:

- A precipitation diagram
- A soil temperature diagram
- An air temperature diagram
- A soil water potential diagram
- A soil moisture diagram

If soil moisture sensors are available, the following are also displayed:

- A diagram of the current water content
- A diagram of the irrigation recommendation
- A current irrigation recommendation

The irrigation recommendation and the current water content are also displayed on the map.

The following diagrams, which are combined from the sensors of all measuring Spot, are displayed on the overview page for measuring Spots:

- A precipitation diagram
- A soil temperature diagram
- An air temperature diagram

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