

Sencrop

Overview

The Sencrop import function (`<importType>Sencrop</importType>`) imports data from the Sencrop API. (since 2021.01).

See also: <https://developer.sencrop.com/guide>

The raw data can be retrieved per device. A device id can be mapped to a FEWS location id.

A typical query to get the raw data from a device is: <https://api.sencrop.com/v1/users/1664/devices/33/data/raw> and will give a response as

Example JSON file

```
[
  {
    "date": "2017-10-09T23:54:07.000Z",
    "type": "RELATIVE_HUMIDITY",
    "value": 65.2,
    "discarded": false
  }
]
```

Mapped json fields

From the json fields, the following parts will be mapped to FEWS:

- date: timestep
- type: parameter id
- value: value

Parameters

The following parameters can be imported:

- RAIN_FALL: pluviometry measured in millimeters (mm)
- TEMPERATURE: temperature measured in degree Celsius (°C)
- RELATIVE_HUMIDITY: relative humidity measured in percentage (%)
- WIND_DIRECTION: wind direction angle with the North in angular degrees (°) within a 0 to 360 range (360 excluded), for instance, a value of 0 means a wind directed to the North and coming from the South,
- WET_TEMPERATURE: wet bulb temperature in degree Celsius (°C),
- LEAF_SENSOR_CONDUCTIVITY: conductivity of the leaf sensor in millivolts (mV).
- WIND_SPEED: wind measured in kilometers per hour (km-h1)
- WIND_GUST: wind measured in kilometers per hour (km-h1)

Configuring the Import

De import type has to be configured in the Import Configuration. A basic example where one location and parameter are imported can be seen in the following XML configuration. The Sencrop API only allows retrieving 1000 measurements for each request. This means the relative view period should never contain more time steps than 1000, otherwise measurements might be missed.

To configure locations, the device id's are required. If they are not known, they can be retrieved by running Delft-FEWS in debug mode. The ids will be written to the log.

Import Configuration

```
<?xml version="1.0" encoding="UTF-8"?>
<timeSeriesImportRun xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0/timeSeriesImportRun.
xsd">
    <import>
        <general>
            <importType>Sencrop</importType>
            <serverUrl>https://api.sencrop.com/v1/</serverUrl>
            <user>dummy_username</user>
            <password>dummy_password</password>
            <relativeViewPeriod unit="hour" start="-120" end="0" startOverrulable="true"/>
            <idMapId>IdImportSencrop</idMapId>
            <dataFeedId>Sencrop</dataFeedId>
        </general>
        <timeSeriesSet>
            <moduleInstanceId>Import_Sencrop</moduleInstanceId>
            <valueType>scalar</valueType>
            <parameterId>RELATIVE_HUMIDITY</parameterId>
            <locationId>33</locationId>
            <timeSeriesType>external historical</timeSeriesType>
            <timeStep unit="nonequidistant" />
            <readWriteMode>add originals</readWriteMode>
        </timeSeriesSet>
    </import>
</timeSeriesImportRun>
```