OneOcean Underway API

Underway data from the OneOcean Expedition can be extracted from the API using the methods described below. Note that it is currently not possible to select a time interval.

By URL:

Data returned by URL is in xml format.

https://underway-api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/<YEAR>/<CRUISEID>/9998/<SENSORID>?type=List

EXAMPLE:
https://underway-api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/2021/2021051/9998/f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_CDOMFluorescence?type=List

By CURL:

Curl can return both xml and json

curl -X GET "https://underway-api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/<YEAR>/<CRUISEID>/9998/<SENSORID>?type=List" -H "accept: application/json;charset=UTF-8"

curl -X GET "https://underway-api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/<YEAR>/<CRUISEID>/9998/<SENSORID>?type=List" -H "accept: application/xml;charset=UTF-8"

EXAMPLE:

curl -X GET "https://underway-api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/2021/2021051/9998/f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_CDOMFluorescence?type=List" -H "accept: application/json;charset=UTF-8"

SWAGGER:

https://underway-api.hi.no/apis/nmdapi/underway/v1/swagger-ui.html

PYTHON:

```
# Libraries needed (pandas is not standard and must be installed in Python)
import requests
```

```
import pandas as pd
import json

url =
'https://underway-
api.hi.no/apis/nmdapi/underway/v1/timeseriesdata/2021/2021051/9998/f4bdcf35-b2bb-46c3-
aa86-cac900008f0f_BlueInsight_NMEA.Humidity?type=List'

resp = requests.get(url=url, headers={"Accept":"application/json"})
data = resp.json()['row']
df = pd.DataFrame(data)
print(df)
```

List of CruiseID, startyear, and platform for all cruises:

LEG	Period	Start/Stop	CruiseID	Startyear	Platform
1	2021-08-20 – 2021-09-30	Arendal/Las Palmas	2021051	2021	9998
2	2021-10-04 – 2021-11-24	Las Palmas/Havanna	2021052	2021	9998
3	2021-11-28 – 2021-12-19	Havanna/New York	2021053	2021	9998
4	2022-01-02 – 2022-02-23	New York/Rio	2022054	2022	9998
5	2022-02-26 – 2022-04-29	Rio/Valparaiso	2022055	2022	9998
6	2022-05-01 – 2022-08-25	Valparaiso/Palau	2022056	2022	9998
7	2022-08-27 – 2022-10-29	Palau/Singapore	2022057	2022	9998
8	2022-11-01 – 2022-12-17	Singapore/Maputo	2022058	2022	9998
9	2023-01-03 – 2023-03-01	Maputo/Puerto Rico	2023059	2023	9998
10	2023-03-16 – 2023-04-15	Puerto Rico/Bergen	2023060	2023	9998

SensorID

Below is a list of sensorID's for the different instruments. Note that some sensors might not deliver data on all the cruises.

API call to get list of sensorID's per cruise:

curl -X GET "https://underway-
api.hi.no/apis/nmdapi/underway/v1/sensor/<YEAR>/<CruiseID>/9998?type=List" -H "accept:
application/json;charset=UTF-8"

https://underway-api.hi.no/apis/nmdapi/underway/v1/sensor/<2021>/<2021051>/9998?type=List

Ferrybox:

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_CDOMFluorescence

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_CHLAFluorescence

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_Temperature

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.C3_Turbidity

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.Optode_Temperature

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.Optode_Saturation

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.Optode_Concentration

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.INLET_Temperature

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.FLOW_Temperature

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.FLOW_Flow

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.SBE45_Conductivity

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_FerryBox.SBE45_Salinity

WeatherStation:

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Humidity

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Temperatur

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Trykk

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Wind_Angle

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Wind_Speed

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_NMEA.Wave_Height

PCO2:

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.atm_cond

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.cond_temp

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.equ_cond

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.drip_1

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.equ_press

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.licor_flow

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.equ_temp

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.CO2_umm

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.H2O_mmm

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.dry_box_temp

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.std_val

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.equ_pump

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.H2O_flow

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.vent_flow

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.licor_temp

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.licor_press

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.WB_Pressure

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.Type

f4bdcf35-b2bb-46c3-aa86-cac900008f0f_BlueInsight_PCO2.error