

Methane Monitor Pipeline: User Manual

How to run the pipeline

To run the pipeline, we advise using Microsoft Planetary Computer Hub as the main platform as this pipeline was developed in it therefore providing the best compatibility.

However, running on a local machine is allowed as well but may be unstable. The dependencies can be installed on any device capable of running Python – since the pipeline is a Jupyter notebook – it is advisable to use a device optimized for data processing for best results.

The accepted start and end date formats are dd mm YYYY, YYYY mm dd, dd/mm/YYYY, YYYY/mm/dd, dd-mm-YYYY, YYYY-mm-dd.

1. Open the pipeline
2. Enter the following details
 - a. **Start & end date:** The date period you are interested in observing
 - b. **Region:** The region you are interested in. This can be in the form of a country name or bounding box ([x_min, y_min, x_max, y_max])
 - c. **Lower & upper limit:** The range of concentration values you are interested in. By default, it is set to 1500-1800.

Please provide your inputs as followed:

- **start_date:** The start date of your period of interest in the format **dd mm YYYY**
- **end_date:** The end date of your period of interest in the format **dd mm YYYY**
- **region:** The region of interest. Please provide this in a **bounding box format** (e.g. [10, -5, 25, 20]) or a **country name**
- **lower_limit & upper_limit:** These limits are used if you would like to filter the data to a certain range of concentration values

```
In[ ]: start_date = "2023 08 20"
end_date = "2023 08 25"
region = "Australia"

lower_limit = input("Enter the lower concentration limit (in ppm) or press enter for default: ")
if lower_limit == "":
    lower_limit = 1500
else:
    lower_limit = float(lower_limit)

upper_limit = input("Enter the upper concentration limit (in ppm) or press enter for default: ")
if upper_limit == "":
    upper_limit = 2000
else:
    upper_limit = float(upper_limit)
```

3. Click on the play button to run the pipeline

