Data Access Services

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Earth Observation Data Engineers

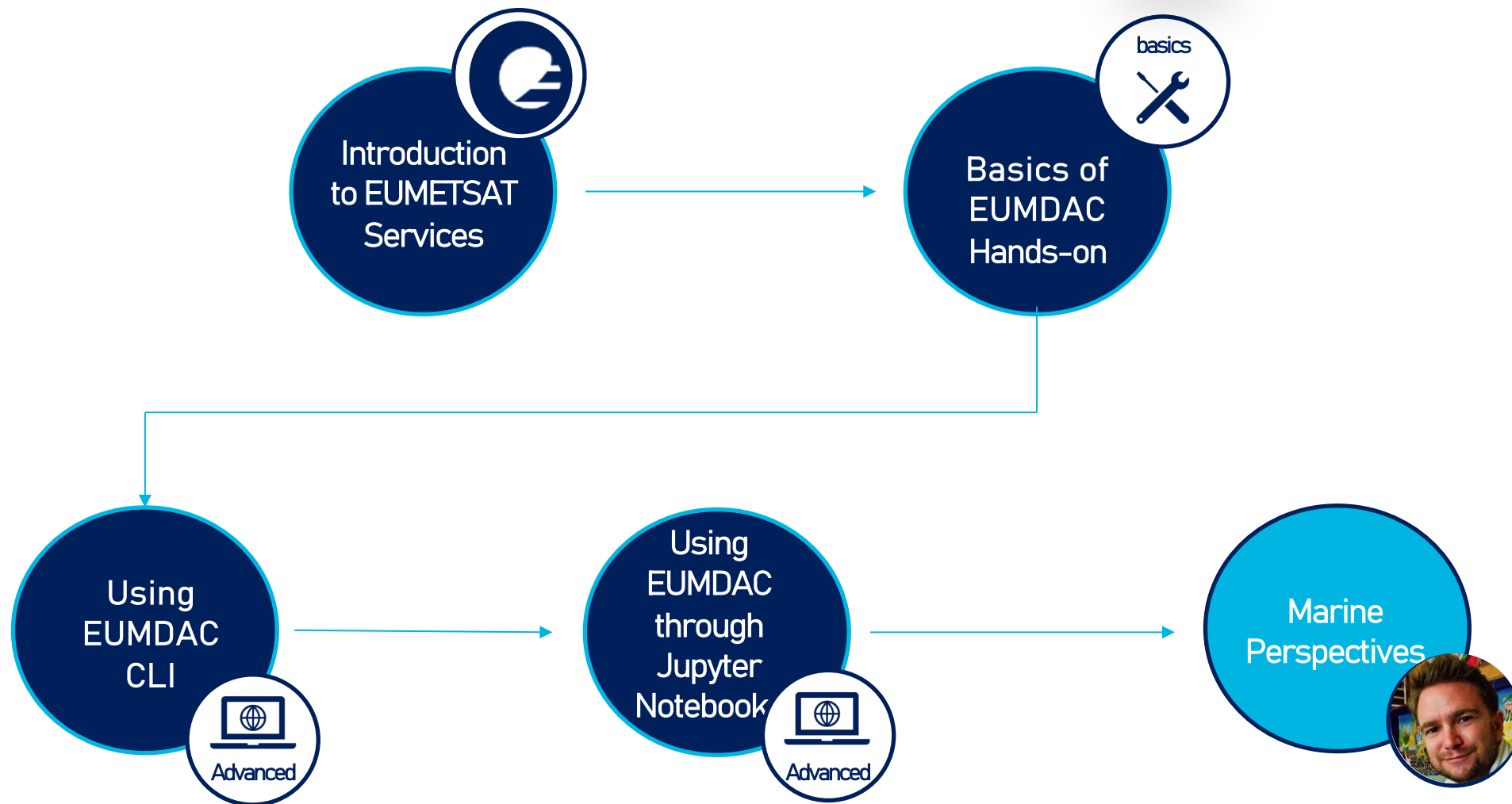*9th April 2024*

Agenda

EUMETSAT Pull Data Access Services

- This course

- EUMDAC summary

- Demonstration

- Hands-on session

Your trainers

Introduction to EUMETSAT Services

basics

Basics of EUMDAC Hands-on

Using EUMDAC CLI

Advanced

Using EUMDAC through Jupyter Notebook

Advanced

Marine Perspectives

EUMETSAT Pull Data Access Services

EUMETView

https://view.eumetsat.int/

Data Store

https://data.eumetsat.int/

Data Tailor

https://tailor.eumetsat.int/

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EUMETSAT Data Access Client (EUMDAC)
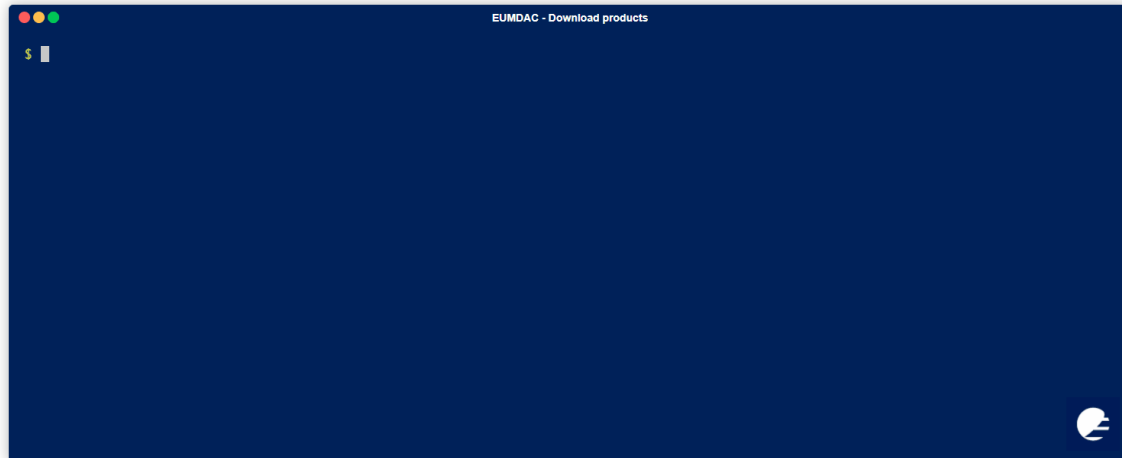
Data Store

Data Tailor

EUMDAC is the **EUMETSAT D**ata **A**ccess **C**lient. It provides simple access to the EUMETSAT data from a variety of satellite missions. As a Python library, it comes with many methods and helpers to use EUMETSATs APIs and services, like Data Store and Data Tailor. It also provides a variety of useful command-line utilities for data search, download and processing.

Catalogue of the Data Store

Catalogue of EUMETView

Customisation through Data Tailor

EUMDAC Interfaces

Client Command Line (CLI)

CLI Binary

Python Library

EUMETSAT Data Access Client (EUMDAC)

EUMETView

Data Store

Data Tailor

EUMDAC - Discover collections

EUMDAC - Search products

EUMDAC - Download products

EUMDAC - Customise products

EUMETSAT Data Access Client (EUMDAC)

Data Store

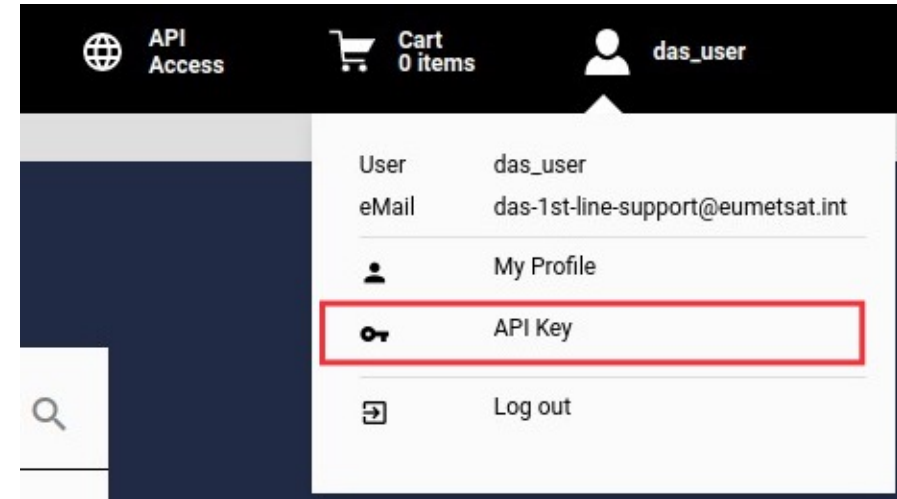Data Tailor
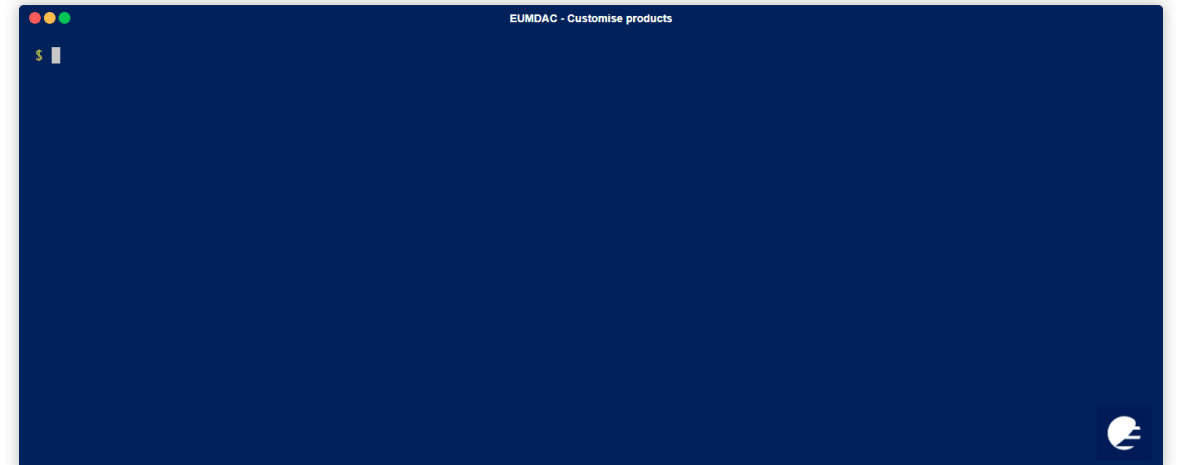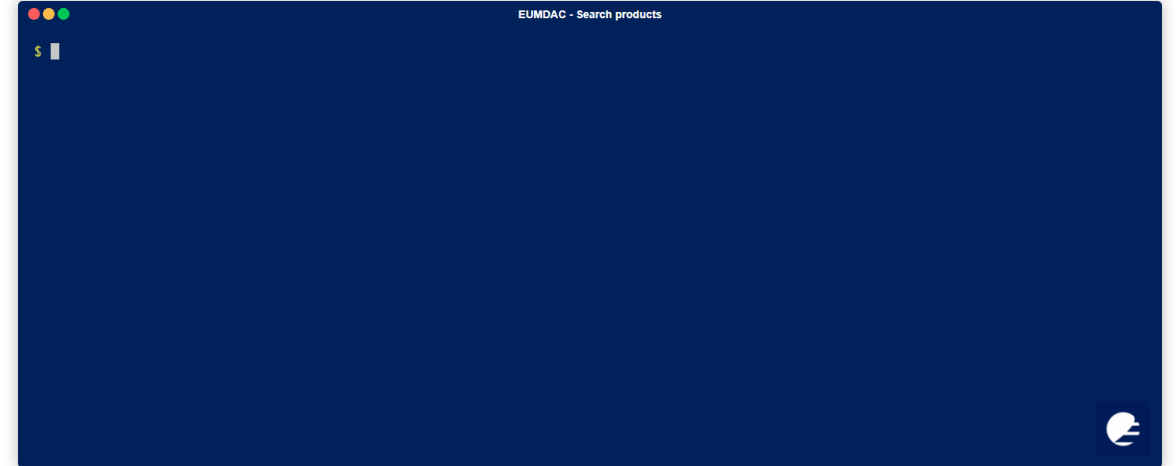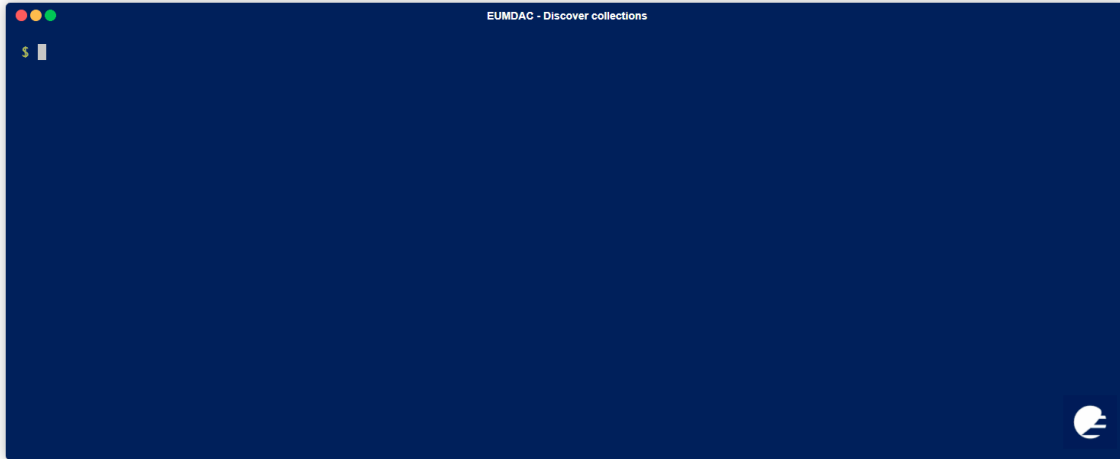
STEP 1: Open the guide on a new window

Use this link! ➡️ **https://user.eumetsat.int/resources/user-guides/introductory-data-store-user-guide**

EUMETSAT Data Access Client (EUMDAC)

Data Store   Data Tailor

STEP 2: Get your Consumer key and Secret key

Use this link!

https://data.eumetsat.int

or

https://api.eumetsat.int/api-key/

Api Key Management

User credentials

Consumer key

Consumer secret

It is possible to generate an API access token by calling the token API service using the credentials provided above. Below the cURL command:

```
curl -k -d "grant_type=client_credentials" \
-H "Authorization: Basic Base64(consumer-key:consumer-secret)" \
https://api.eumetsat.int/token
```

API Token

The following token can be used to access the APIs. It has a validity of one hour

API token

It should be added in the http header of each API call as shown in the following sample cURL command:

```
curl -k \
-H "Authorization: Bearer <api-token>" \
<api-endpoint>
```

Refresh token ↻   Show hidden fields 👁

Data Store

Data Tailor

STEP 3: Open your terminal and add your credentials as shown

```
eumdac --set-credentials <ConsumerKey>
<ConsumerSecret>
```
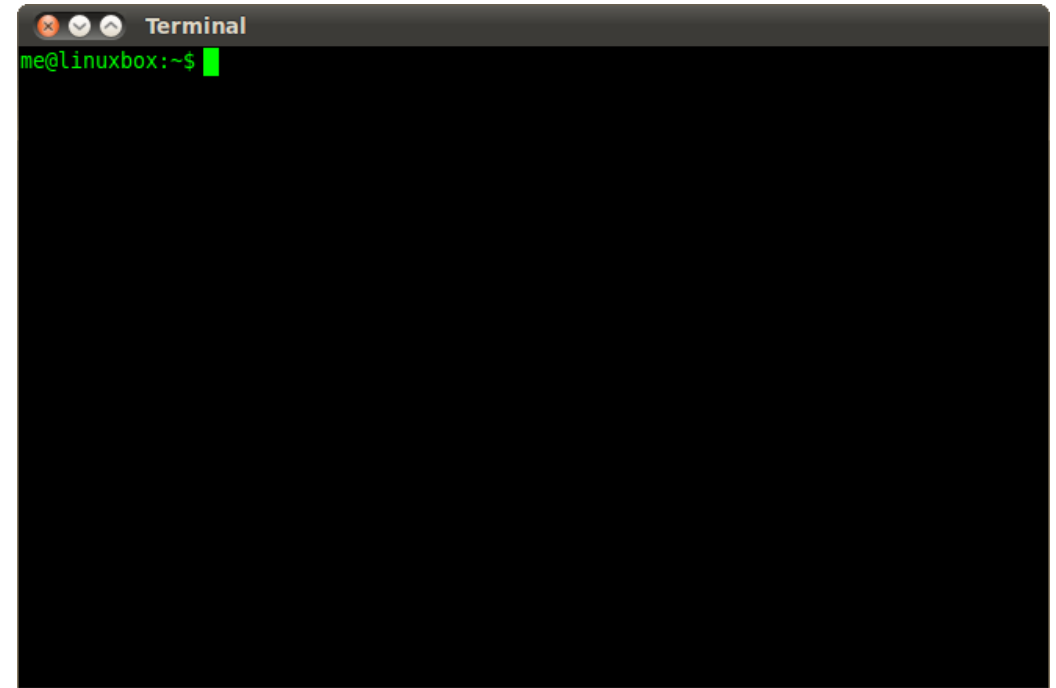
Terminal
me@linuxbox:~$

1.In Windows Search, search for anaconda prompt and select Windows Terminal from the search results.

2.In Mac OS press Command + space and search for terminal

3.On Linux, search for Terminal.

Data Store

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STEP 4: Use EUMDAC to describe the collections to find your collection ID

Remember, save your IDs on a notepad, so you don't risk to lose them!

This is how a collection ID looks like

Collection: `EO:EUM:DAT:METOP:OSI-104`

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STEP 5: Within the collection search for your product by adding starting time, ending time and area of interest

This is how a command will look like:

Command:
```
eumdac search -c EO:EUM:DAT:METOP:OSI-104 -s 2012-12-21 -e 2012-12-22 --bbox 51.28 51.69 0.51 0.33
```

NOTE: this will give you a list of products that match your search. Choose the product you want and, if you are worried to lose it, save it on a notepad

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STEP 6: You are now ready to start your download!

All you need to do is using this command:

```
eumdac download –c <your collection ID> -p <Your product ID>
```

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STEP 7: Now we are going to use the Data Tailor

Let's first think about a chain of customisation we want to do. The below command will tailor and download the specified product.
For example, I want Geotiff format and reprojection:

```
eumdac download -c EO:EUM:DAT:MSG:HRSEVIRI -p MSG4-SEVI-MSG15-0100-NA-20220304101243.253000000Z-NA --tailor "product: HRSEVIRI, format: geotiff, projection: geographic"
```

www.eumetsat.int

Data Store   Data Tailor

You are all set!

Well Done!!

Important links

User Portal ➝ **https://user.eumetsat.int/dashboard**

Data Store ➝ **https://data.eumetsat.int/**

Data Store/Tailor User Guide (beginners) ➝ **https://user.eumetsat.int/resources/user-guides/introductory-data-store-user-guide**

Data Store/Tailor detailed User Guide ➝ **https://user.eumetsat.int/resources/user-guides/data-store-detailed-guide**

Data Tailor ➝ **https://tailor.eumetsat.int/launchpad**

Data Tailor Standalone User Guide ➝ **https://user.eumetsat.int/resources/user-guides/data-tailor-standalone-guide**

EUMETView ➝ **https://view.eumetsat.int/productviewer?v=default**

Jupyter Notebooks ➝ **https://gitlab.eumetsat.int/eumetlab/data-services/eumdac_data_tailor/-/blob/master/1_Using_the_Data_Tailor_with_EUMDAC.ipynb**

➝ **https://gitlab.eumetsat.int/eumetlab/data-services/eumdac_data_store/-/blob/master/2_Searching_and_filtering_products.ipynb**

Thank you!!