



GAEL SYSTEMS

SesamEO

ACCESS ANYTHING



Destination Earth

Funded by
the European Union



 ECMWF

 esa

 EUMETSAT

Introduction

SesamEO[®] makes heterogeneous data easily accessible.
It acts as a bridge to access data served by different Providers.

Data is represented by products, which are accessible by Collections.

These Products can be metadata associated with one or more images, datasets in the form of json or xml, or even csv type datasets...

The screenshot displays the SesamEO web interface, which is part of the Destination Earth project. The header includes the Destination Earth logo, the SesamEO logo, and navigation links for Home, Collections, Providers, and About. The main content area is a grid of 18 data product cards. Each card features a thumbnail image representing the data, a title, a brief description, and two buttons: 'More info' and 'Browse'. The products shown include:

- EO.CLMS.DAT.GLO.FAPAR300_V1**: FAPAR quantifies the fraction of solar radiation absorbed by plants for photosynthesis.
- EO.ECMWF.DAT.GLACIERS_ELEVATION_AND MASS CHANGE DATA 1950 PRESENT**: Provides in situ and remote sensing derived glacier changes globally.
- EO.MO.DAT.MULTIOBS_GLO_PHY_TSUV_3D_MVNRT_015_019**: Multi Observation Global Ocean ARMOR3D L4 analysis and multi-year reprocessing.
- EO.MO.DAT.OCEANCOLOUR_GLO_BOC_L4_MV_009_104**: Ocean Satellite Observations** product based on the Copernicus-GloColour** processor.
- EO.ECMWF.DAT.GLACIERS_DISTRIBUTION_DATA FROM BANDCHI PH GLACIER INVEN**: A glacier is defined as a perennial mass of ice, and possibly firn and snow.
- EO.MO.DAT.WAVE_GLO_PHY_SWH_L4_NRT_014_003**: Near-Real-Time gridded multi-mission merged satellite significant wave height.
- STAT.EU.STAT.DAT.POP_CHANGE_DEMO_BI ANCE CRUDE DATFS NUTS3**: Each year Eurostat collects demographic data at regional level from 37 countries.
- EO.ECMWF.DAT.CAMS_GLOBAL_GREENHO USIF GAS REANALYSIS MONTHLY AV FIF**: ECMWF Atmospheric Composition Reanalysis focusing on long-lived greenhouse gases: carbon dioxide (CO2) and methane (CH4).
- EO.ECMWF.DAT.SEA_LEVEL_DAILY_GRIDD ED DATA FOR MF01TFRRANFAN SFA 19**: Sea level anomaly is the height of water over the mean sea surface in a given time and region.
- EO.MO.DAT.OCEANCOLOUR_GLO_BOC_L4_MV_009_103**: Ocean Satellite Observations** product based on the Copernicus-GloColour** processor.
- EO.MO.DAT.WAVE_GLO_WAV_L3_SPC_NRT_OBSERVATIONS_014_002**: Near-Real-Time mono-mission satellite-based integral parameters derived from the directional wave spectra.
- EO.ECMWF.DAT.CAMS_EUROPE_AIR_QUALITY FORECASTS**: This dataset provides daily air quality analyses and forecasts for Europe.
- ERA5-Land assembly mean soil moisture - May 2018**: ERA5-Land assembly mean soil moisture.
- ERA5 Global Monthly Mean Temperature Anomalies on Pressure Levels relative to 1951-2010**: ERA5 Global Monthly Mean Temperature Anomalies on Pressure Levels relative to 1951-2010.

Browse collections

From your Home screen, search your Collections by keywords

The Collections are defined by the data providers, or are created by SesamEO® configuration has classified them in the form of a collection based on a filter on certain data



Providers

Three Providers are managed



CDSE

Copernicus Data Space Ecosystem

Access a wide range of Earth observation data from the Copernicus Sentinel missions and more.

Configuration



DEDL

Destination Earth Data Lake

The DestinE Data Portfolio evolves according to user needs. It federates with existing data holdings as well as with complementary data from diverse sources like in-situ, socio-economic, or data-space data.

Configuration



EUROPEAN
STATISTICAL
SYSTEM

EUROSTAT

Eurostat

High-quality European statistics.

Configuration

Adding Providers will be even simpler if they support Odata, STAC or SDMX

Connection to Providers

Depending on the Providers, the users are requested or not to provide their authentication information.



Copernicus Data Space Ecosystem

Access a wide range of Earth observation data from the Copernicus Sentinel missions and more.

Provider link: <https://dataspace.copernicus.eu/>

Operations requiring credentials: download assets

Registration: [Register on Provider](#)

You can save your provider credentials below:

Username:

Password:



Destination Earth Data Lake

The DestinE Data Portfolio evolves according to user needs. It federates with existing data holdings as well as with complementary data from diverse sources like in-situ, socio-economic, or data-space data.

Provider link: <https://hda.data.destination-earth.eu/ui>

Operations requiring credentials: search products,download assets

Last synchronization: 2024-10-08T02:03:35.144364Z

Registration: [Register on Provider](#)

Access to DEDL can be effective via the DESP session, Please follow all steps of instruction available in DEDL documentation: <https://destine-data-lake-docs.data.destination-earth.eu/en/latest/deal-big-data-processing-services/Access-BDP-services/Access-BDP-services.html>

Dynamic list of collections

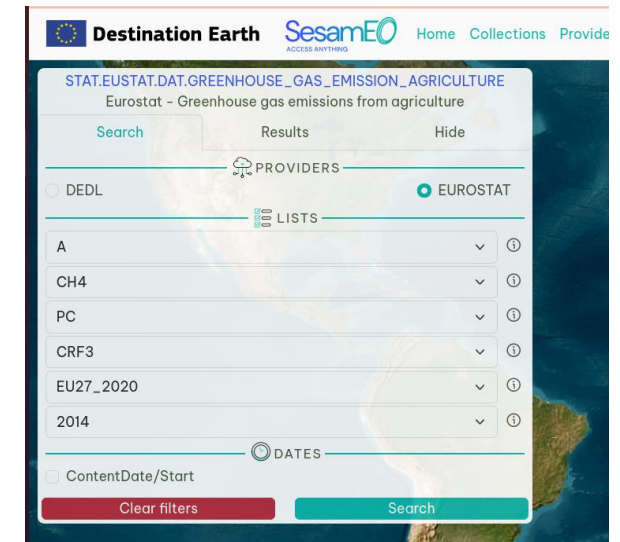
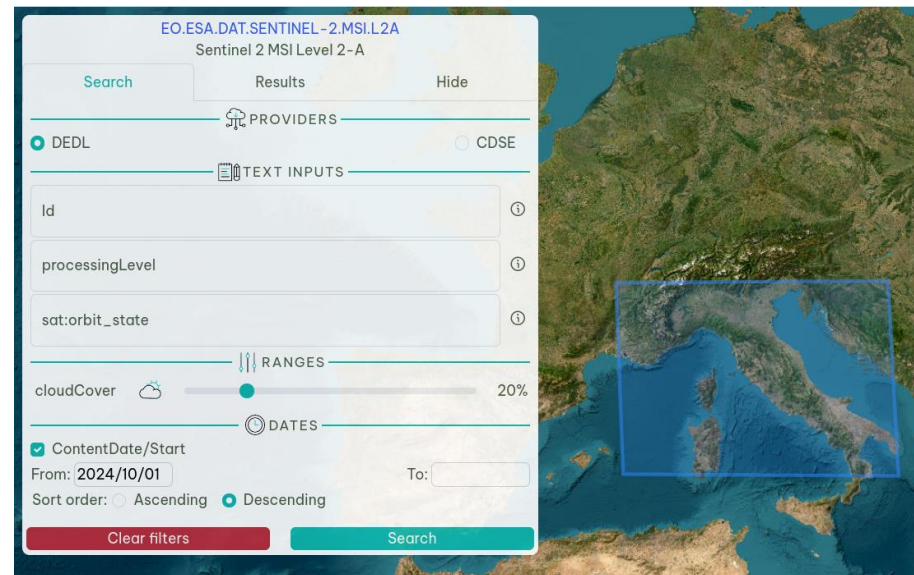
The list of Collections and associated providers is enriched in several ways:

- This can be discovered dynamically and at regular time intervals, which is currently the case for the DEDL Provider
- In case SesamEO[®] finds a Eurostat Collection in DEDL, SesamEO[®] adds the Eurostat provider so that the user can access the dataset directly
- This can be created by SesamEO[®] according to filters or datasets, which is currently the case for CDSE

Filter Collections

Automatic discovery of filtering capabilities on a Collection/Provider

In order to unify some filter criteria across all criteria providers (for example cloud coverage) SesamEO® converts some fields or filters.



Switch to another Provider and keep your filter

Some collections or some filter criteria can be hidden.

Products

The products from the selected Catalog are displayed

You can download or localize them on the map if geography information is present

Search Results Hide

Products found: 83 Showing 50 products

Product ID	Acquisition Time	Download Icon
S2A_MSIL2A_20241008T095031_N0511_R079_T33TWE_20241008...	2024-10-08T09:50:31.024Z	Download
	2024-10-08T14:22:34.084580Z	Download
	8.662605 %	
S2A_MSIL2A_20241007T101921_N0511_R065_T32TNL_20241007T...	2024-10-07T10:19:21.024Z	Download
	2024-10-07T16:08:38.976622Z	Download
	12.963891 %	
S2B_MSIL2A_20241007T093029_N0511_R136_T33SYD_20241007T...	2024-10-07T09:30:29.024Z	Download
	2024-10-07T13:04:24.943602Z	Download

Destination Earth SesamEO ACCESS ANYWHERE

EO.ESA.DAT.SENTINEL-2.MSI.L2 Sentinel 2 MSI Level 2-A

Search Results

Products found: 83

S2A_MSIL2A_20241008T095031_N0511_R079_T33TWE_20241008T124449

QUICKLOOK

FOOTPRINT

METADATA

DOWNLOAD LINKS

Main informations

Name: S2A_MSIL2A_20241008T095031_N0511_R079_T33TWE_20241008T124449
Id: DEDL:S2A_MSIL2A_20241008T095031_N0511_R079_T33TWE_20241008T124449
Provider: DEDL
Acquisition: 2024-10-08T09:50:31.024Z
Publication: 2024-10-08T14:22:34.084580Z

Click on the files below to download them

- AUX_CAMSFO
- AUX_ECMWFT
- DownloadLink
- FORMAT_CORRECTNESS.xml
- GENERAL_QUALITY.xml
- GEOMETRIC_QUALITY.xml
- INSPIRE.xml
- L2A_QUALITY.xml

Products metadata are displayed and each asset (if any) can be downloaded

Licensing information related to the Collections is indicated as given by the Provider.

SesamEO[®] today

- There are about 130 Collections discovered on DEDL.
- EUROSTAT Collections are accessible in SesamEO[®] over DEDL or EUROSTAT directly.
- Several Sentinel Collections are accessible in SesamEO[®] over DEDL or CDSE.

What's next ?

- Possibility to create custom Collections, based on filters and Providers
- Possibility to order and download offline products
- API documentation
- Connection to DeltaTwin



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Thank you