

EARTH OBSERVATION DATA HUB

Data Catalogue



EODH is an EO data catalogue and processing platform. It provides a single-point of access to quality-assured commercial and open EO datasets. It has a non-technical interface and simplifies collective purchasing and licensing of EO data for all users across industry, public sector, and research.

Onboarding

Sign in

Click *Sign In* on the top right. Choose GitHub, Google or Microsoft to sign in to EODH. You will be redirected to the provider.

GitHub

GitHub users must **Authorize EO-DataHub** so the account can be used to log in.

Microsoft

Ask your Microsoft Entra Administrator to approve a one-time access request to *eodh-prod*, which enables Microsoft sign in for your organisation.

Google

You will be asked to sign in to *eodatahub.org.uk*

Create or edit your EODH username and click *Submit* to complete sign in.

Account setup

Click the  icon in the top right and click on your username. Under *Profile > Accounts*, click **Request New Account** and fill out the required fields.

You will receive an email when your account has been approved. Check your junk mail folder. The account approval status can be viewed in *Profile > Accounts*.

Workspace

Create a workspace

Click on your username under  *Go to Profile > Workspaces* and click **Create Workspace**. Name the workspace and select your account name.

Join a workspace

The workspace creator has an *Owner* role and can assign *Admins*. Any workspace *Admin* can add other team members or collaborators, via their username. To do this, click **Add Member** and enter username, under  *Workspace Settings > Members*.

Data storage

Go to the  icon *> My Data > Files*. Select your workspace name and a store type.

Object store is recommended as default for most data types. Upload via drag and drop. Files can also be uploaded to workspace storage via the Jupyter notebooks interface or using S3 credentials.

Data Catalogue

Search

Collections

Go to *Catalogue > Browse* to discover collections. Filter on data categories and providers. Open a collection.

Filter

Click  to open advanced filters. Select a date range or a max cloud cover for the search.

Area of Interest (AOI)

Navigate and zoom on the map to search scene footprints spatially. Draw a polygon using the  tool to select a search AOI.

A scene list of STAC items will appear on the left. Image footprints are overlaid on the map.

Visualise

Pin  items to visualise. Change layer opacity .

Download

Click  and go to the Assets tab. There will be a list of assets within that item. Click one to reveal a  button or URL.

Share

To share a single scene, look for the  icon button on an item card. To share multiple scenes, look for  *Share view* in your *Pinned Items* list.

Data Catalogue

Purchase

Link your workspace with an API key or Organisation ID

If you wish to fetch a quote for, or purchase, commercial data from EODH, you first need to set up an account with the data provider. Copy your API key or Organisation ID. Go to *Workspace Settings > Provider Accounts* to add and validate the key or ID.

Thumbnails

Pinning commercial data to the map visualises a low-resolution preview of the image. Quicklook previews can be downloaded from the Assets list.

Product bundle

Select the level of pre-processing required from your imagery order.

Visual. Suitable for visual mapping applications.

General Use. Suitable for general image analysis.

Analytic. Suitable for spectroscopy, modelling, and image classification.

Basic. Suitable for photogrammetry and calibration.

Purchase programmatically

See example notebook for placing orders. Go to docs.eodatahub.org.uk/

Find purchased data

Go to *My Data > Purchased Data* to view scene orders.

Quality Assurance

Click  on an opened collection card to show collection metadata, including Quality Assurance (QA) metrics, and available QA assets (data layers).

Interpret QA metrics

The *Document QA* tab shows the Quality Processes Review (QPR) rating for the collection, reviewing the methods used to create the data product.

Ideal. Highest standard of quality with respect to community best practice.

Excellent. Most of the documentation is in alignment with community best practice.

Basic. Documentation covers an acceptable level of information.

Not Accessible. Insufficient information available to make an assessment.

Not Assessed. Out of scope of the assessment.

The *Product Validation* tab gives the results of independent radiometric uncertainty validation for the collection.

Pass. All spectral bands pass the radiometric validation.

Fail. All spectral bands fail the radiometric validation.

Partial Pass. At least one spectral band fails the radiometric validation.

Key
Not Assessed
Not Assessable
Basic
Good
Excellent
Ideal
Not Public

Bands	Metric	Status
B1	5%	Pass
B2	5%	Pass
B3	5%	Pass
B4	5%	Pass
B5	5%	Pass
B6	5%	Pass
B7	5%	Pass

EARTH OBSERVATION DATA HUB

Processing + Integrations



EODH supports all users across industry, public sector, and research to access datasets and processing via interfaces and integrations suitable for GIS analysts, data scientists and EO developers.

Jupyter notebooks

For flexible scientific analysis.

Setup

Go to Notebooks. Select **Start My Server** and a workspace to host the notebook in. Choose a Python version and click Start. Go to *File > New > Notebook*.

Import scripts

Upload your script files using the  button in Jupyter or drag and drop. Clone a Git repository using the  tab.

Examples

Find example notebooks for using EO to analyse urban heat, polar climates, wind farms and more at docs.eodatahub.org.uk/

Launcher

Launch compatible notebooks from a dataset in the Catalogue. Look for the *Integrations* menu on an item in the search panel to see if a dataset is supported.

Dask

Contact the EODH team if you would like to request configuration of Dask for your workspace, stating your technical resource requirements.

Workflows

For scalable Earth Observation processing.

A workflow is a packaged EO processing job running on defined dataset inputs.

Catalogue

Go to *Catalogue > Processes* and filter on *Workflow* to browse pre-packaged workflows for common remote sensing operations. All workflows run on the EODH, on EODH-hosted datasets.

Launch

Launch compatible workflows from datasets in the Catalogue. Look for the *Integrations* menu on an item in the search panel to check a dataset is supported.

Run

To deploy and run a job, refer to documentation for full guidance and code examples.

Build

Explore the *EOPro* app to build EO workflows in a no-code environment. eopro.eodatahub.org.uk/

Outputs

Find job results in your workspace. See  *My Data > Workflow Outputs*

QGIS plugin

Access EODH within open-source GIS software.

Install

Search 'EODH' in the Plugin Manager.

 **EODH Workflows**

Login

Retrieve your EODH workspace name and an active Hub API key to sign in to the plugin. To do this, go to  *Workspace Settings > Credentials*, and **Create Token**.

ArcGIS Pro plugin

Interface to EODH within ArcGIS Pro.

Install

Download the latest `eodh.esriAddinX` file from github.com/EO-DataHub/eodh-arcgis/releases. Double-click the downloaded file. Click *Install Add-In* when prompted. Restart ArcGIS Pro if it was already open.

Login

Retrieve your EODH workspace name and an active Hub API key to sign in to the plugin. To do this, go to  *Workspace Settings > Credentials*, and **Create Token**.

pyeodh

A Python library for accessing EODH programmatically.

Connect

Authenticate using your EODH workspace credentials to access data and services.

Discover data

Use built-in functions to browse the EODH STAC catalog structure and view the data collections within a catalog. Use the client search capability to return items matching a specified catalog, collection, date range and geometry. Access scene IDs, properties, acquisition datetimes, quicklook previews and downloadable asset links.

ReadTheDocs

Full documentation, installation guides, and API reference are available at pyeodh.readthedocs.io/en/latest/index.html

Code examples

Find example notebooks using *pyeodh* for data search and analysis at docs.eodatahub.org.uk/

Support

GitHub community forum

Get help from other platform users and start discussions at github.com/EO-DataHub/eodh-userdocs/discussions

Documentation site

Find learning pathways, example notebooks, video tutorials and FAQs at docs.eodatahub.org.uk/ or go to *Getting Started > Documentation*

Contact helpdesk

More help needed? Email us at enquiries@eodatahub.org.uk