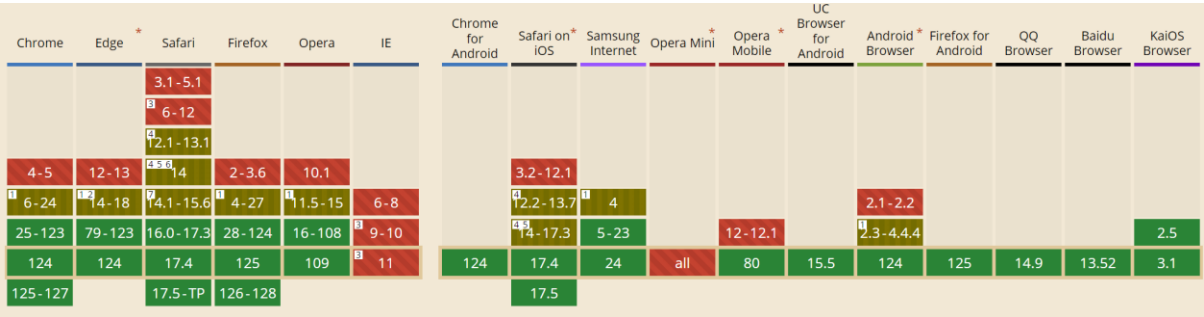
Welcome to the Dunia-Streamer – Your low bandwidth access to selected DUNIA datasets.

Dunia-Streamer allows you to scan satellite mission-archives with a fingertip in a browser.

The Application is optimized for Chrome Browsers on Android and Windows).

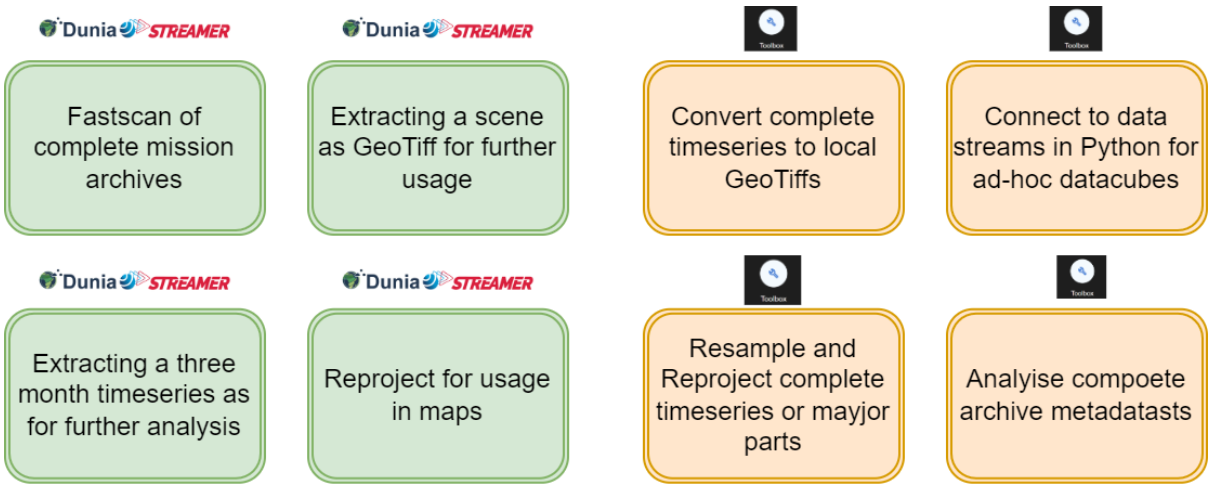
General information

Below you will find a list of compatible browsers (taken from https://caniuse.com/?search=webm – May 2024)



With the EarthStreamer technology (https://earthstreamer.com/), users can seamlessly play georeferenced streams, akin to watching movies, on a base map. Additionally, users can efficiently download compressed EO data through low bandwidth networks.

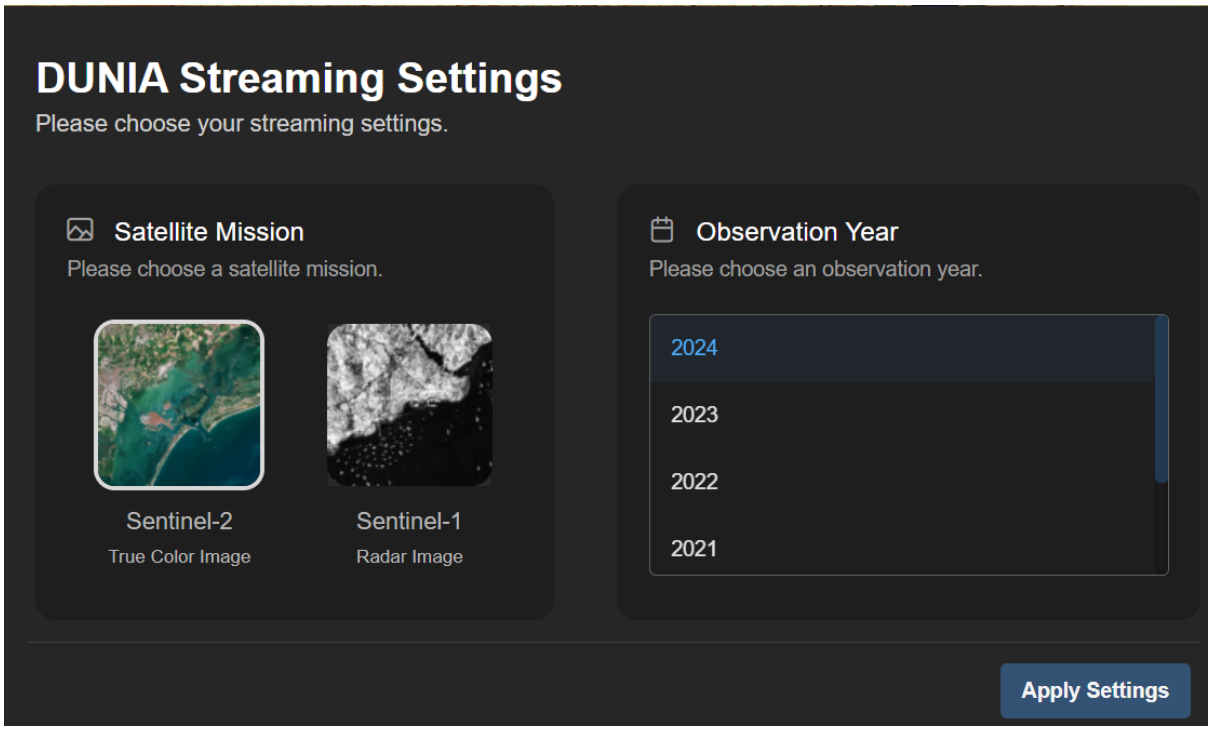
Here you find some operations scenarios for the Dunia-Streamer (green). The orange boxes indicate you some operations-scenarios, where the streaming python toolboxes are foreseen.



Workflow

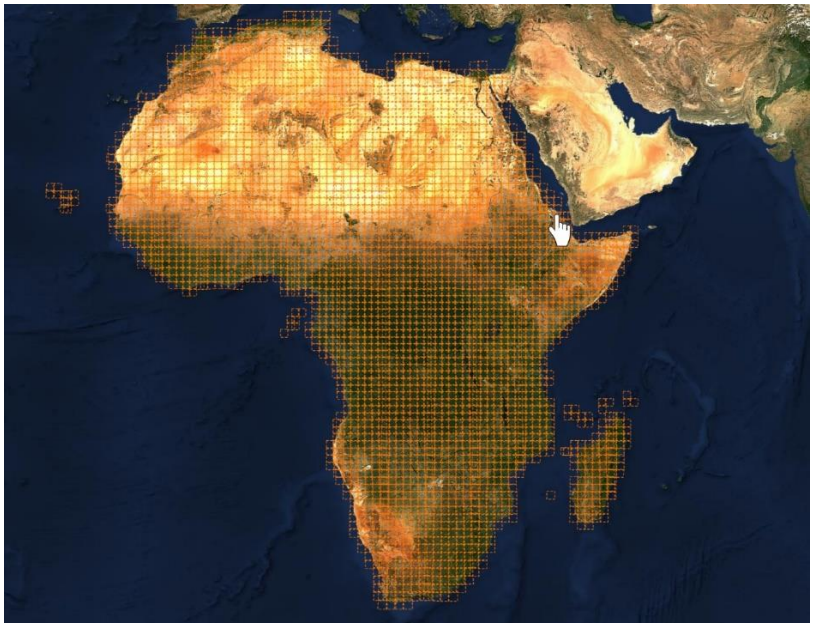
The standard workflow commences with selecting a satellite mission and specifying the observation year.

Select satellite mission and year of observation.

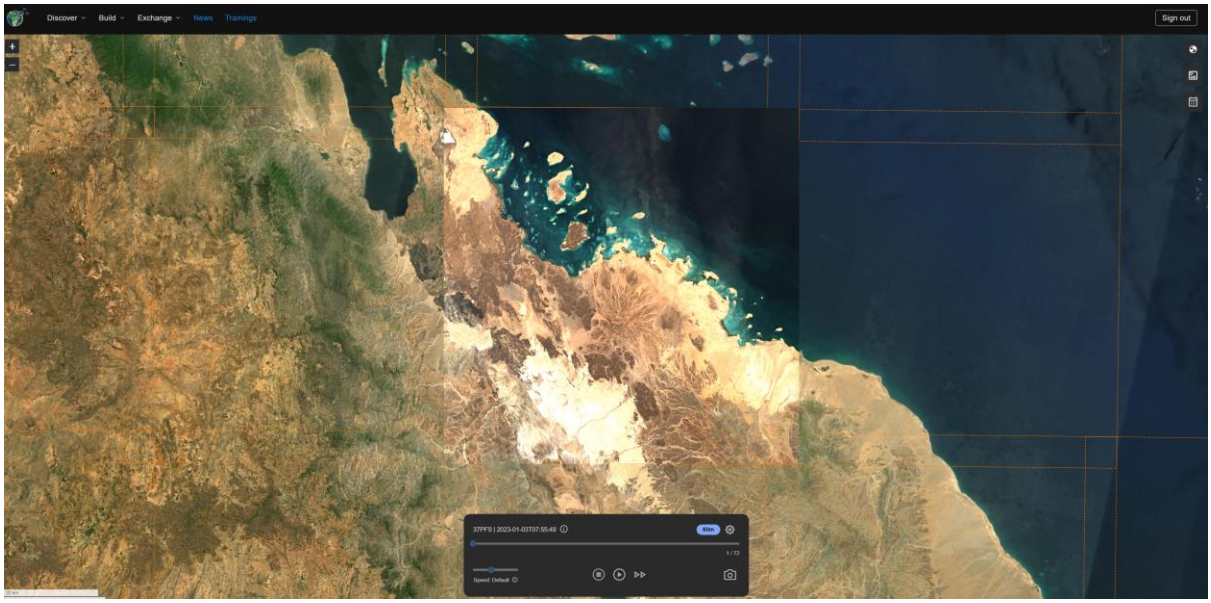


Basic usage:

Once the satellite mission and observation year are chosen, users can proceed by selecting their region of interest. This can be done by clicking on a grid element within the map viewer.

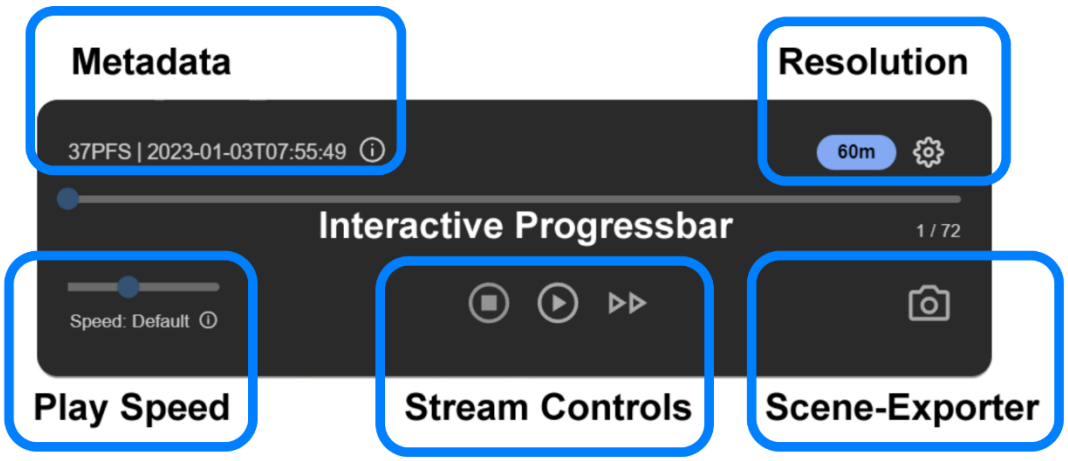


Once the stream is successfully connected to the application, the initial observation of the selected year will be loaded. Users can then utilize default zoom and pan gestures, or the mouse wheel (depending on device configuration), to navigate and explore the area of interest.

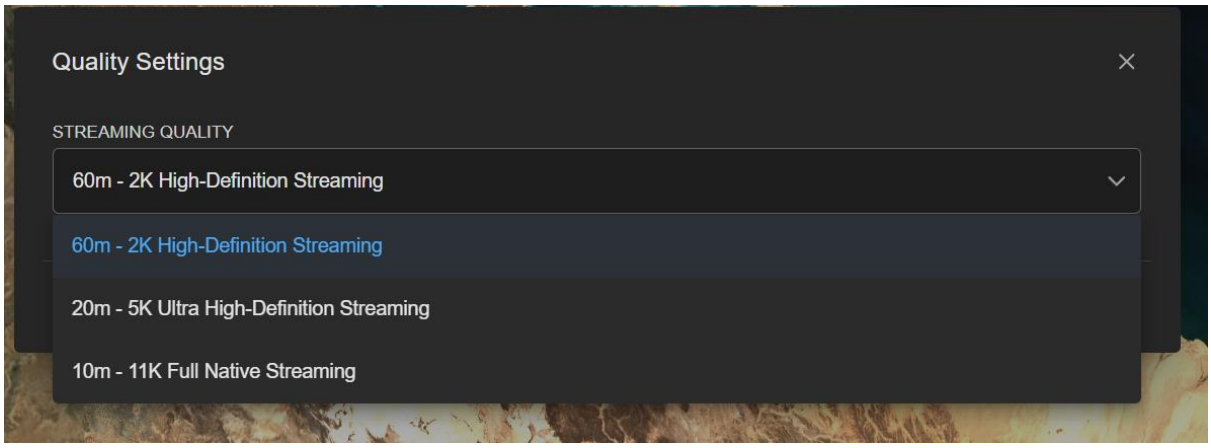


The Stream Control panel

The stream control panel, located in the lower part of the application, provides users with essential information such as the date and time of observation, as well as access to metadata (by hovering over the information icon). Through the stream controls, users can initiate the loading of additional observations, pause streams, stop stream playback, or reset the time to the initial observation. Additionally, the Resolution and Scene Exporter feature allows users to switch between 5K and full native product resolution, export single GeoTiffs or complete time series, and reproject products to other reference systems.



Resolution – Quality Settings

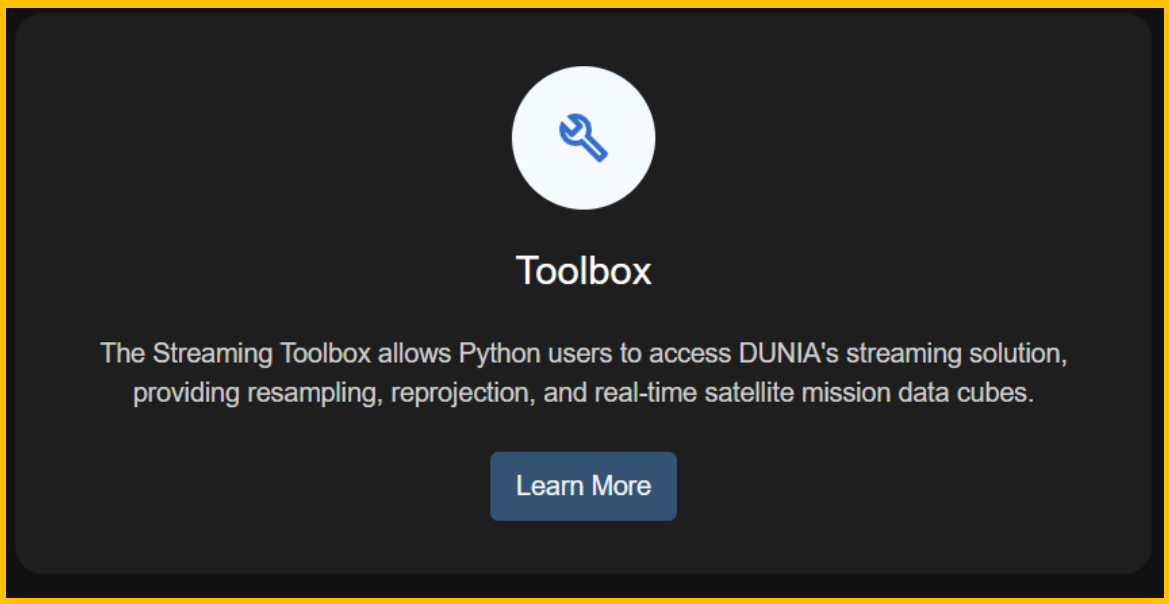


Upon clicking the configuration wheel in the control panel, users can access the Resolution Dialog. Here, they can choose from the available resolutions (Quality Settings) for the selected mission data. It's important to note that the 11K resolution demands the most resources.

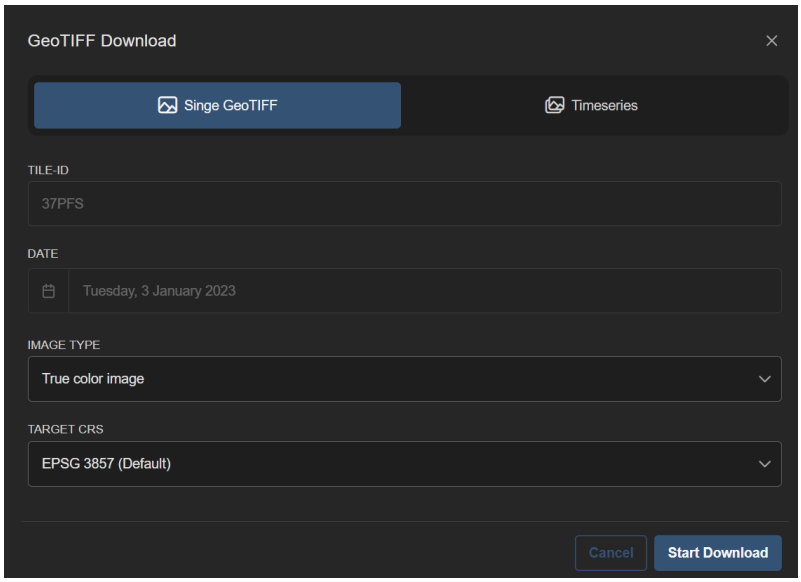
Please note that the availability of resolutions may vary across different devices and web browsers. For optimal performance, we recommend using Google Chrome on Desktop operating systems such as Linux or Windows.

NOTE

For comprehensive access to complete mission archive time series and conversion to GeoTIFFs, or if you prefer to extract an Xarray for the entire mission timeline directly from the streams for use in your local application, we highly recommend utilizing the Python examples available in the Streaming Toolbox.

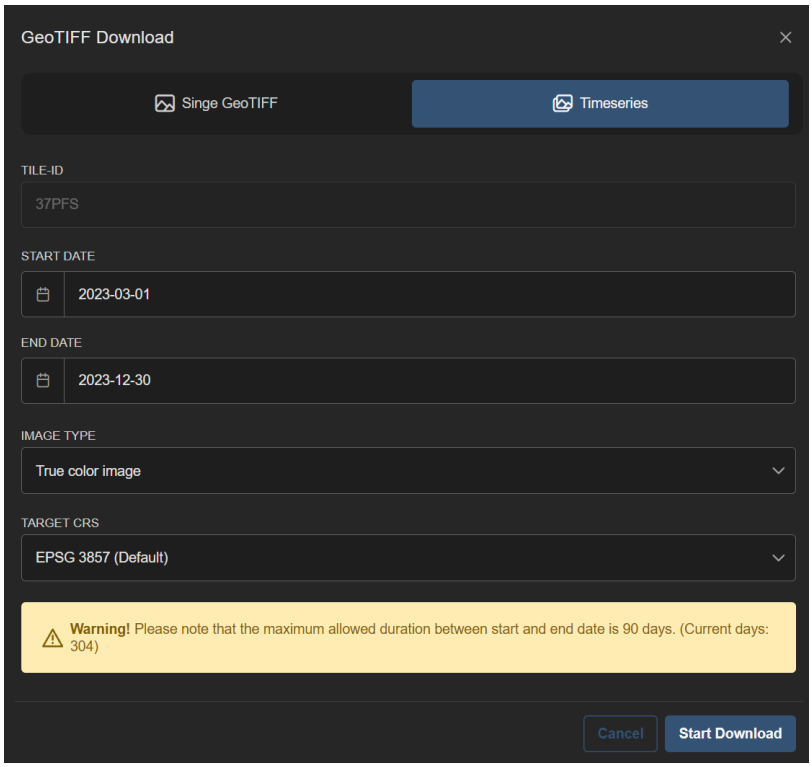


GeoTiff Download – single scene and timeseries

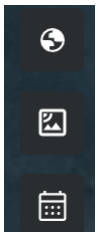


To extract data from the stream and export it to GeoTIFFs for your analysis, simply click on the camera icon in the stream control panel. For the selected scene, you can specify the Image Type and the Target Coordinates Reference System. Once your preferences are set, click on "Start Download" to initiate the extraction process. Your GeoTIFF will then be available in your standard Download directory.

For exporting time series, please specify a start and end date. Currently, the web application allows extraction within a 90-day time range. However, this limitation will be adjusted in future updates. If you require extraction of the complete time range, we recommend using the Toolbox for programmatic interaction with the streams.



The Basemap, Mission and Mission Year Picker



Located on the right upper side of the application are three pickers granting you access to essential features:

- Base Map Selection: Choose between a cloud-free Sentinel 2 mosaic or the OpenStreetMap for your base map needs.
- Satellite Mission Selector: Pick your desired satellite mission.
- Year Picker: Select the specific yearly streams you wish to explore.