Active Fire Service

ActiveFire

Service description

The **Active Fire** service creates a false colour GeoTIFF image using a combination of Sentinel-2 L1C visible (green), near infrared and short-wave infrared spectral bands that emphasises fire hotspots. This is not a classification, rather its can be used to help visually identify regions of active fire. It can process single or multiple input images.

Selecting the service

The **Active Fire** service is selected by clicking on the services 📶 icon on the left of the screen on the *Explorer pane*. This opens up the Service list, which can be filtered by service type (such as application or processor). Scroll down or type into the search interface the name of the service and after selection the *WorkSpace* panel will open.

Input data

The **Active Fire** service is designed to work with Sentinel-2 L1C images

Service Outputs

The **Active Fire** service will generate false colour GeoTIFF images, using the green, near infrared and short-wave infrared bands, from each of the input images at the 10m spatial resolution of the input images.

Parameters

- **Processor Running Mode:** The Processors can be run in two modes **standard** or **systematic**. Most users will just require standard processing i.e. processing of one or more products in a single processing run. For advanced users, systematic processing allows the service to be run periodically if the platform identifies input data that matches the user-defined criteria.
- **Input Sentinel-2 tiles:** this is the input Sentinel-2 L1C image(s) to be processed. Multiple images can be used. Drag the input Sentinel-2 image(s) (grabbing from the horizontal lines to the left of its name) from the Results tab at the bottom of the screen to the Input data field.
- **AOI:** An OPTIONAL field to define an Area of Interest (AOI) to be used to create a geographic subset of the output image. The AOI can be drawn on the Geobrowser, extracted from a shapefile uploaded by the user or selected from a previously defined AOI. Alternatively, it can be specified in the Well-Known Text (WKT) POLYGON format. An example of a valid specification is: POLYGON((-92.906633 16.190411,-92.066559 16.188383,-92.070266 15.376645,-92.907004 15.378567,-92.906633 16.190411)).
- **Label:** An OPTIONAL field for free form tagging for later identification of this processing job.
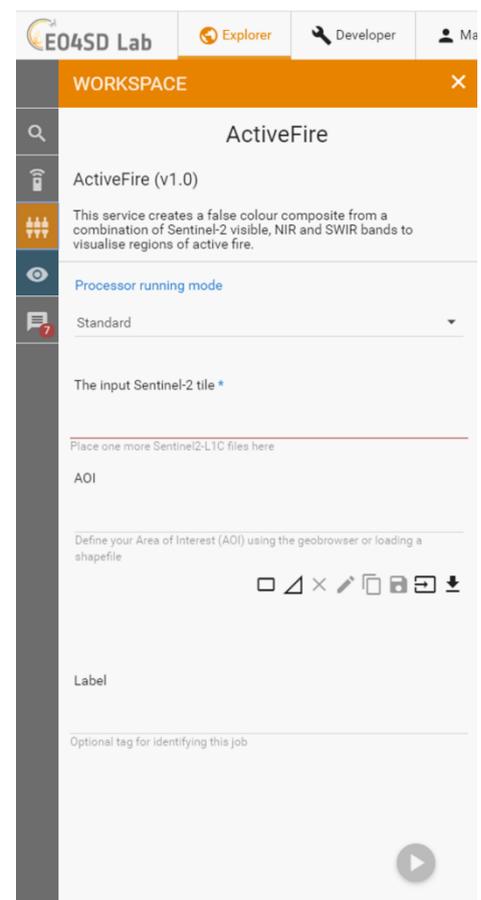
Service Execution

Once all input fields have been filled in, the service is launched by clicking the round play button at the bottom right corner of the input dialogue area. The resulting outputs GeoTIFF files can be downloaded, re-used or visualised in the Geobrowser.

The image below shows a false colour image, in this case the Chernobyl, Ukraine in April 2020, displayed in the GeoBrowser. The fires can be seen in two areas to the centre of the image.

Further analysis can be undertaken in one of the GUI applications, such as SNAP, QGIS or Monteverdi. Soon after desired application process (e.g. QGIS) is started, a '*Go to GUI*' icon appears in the job description. The desired GUI application can then be accessed by clicking this icon, which opens the GUI in another browser tab.