



## **From satellite data to GIS application**

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Many satellite data products are available in formats well known to scientists in space and atmospheric research fields. Use cases developed for the ADAGUC project (Atmospheric Data Access for the Geospatial User Community) showed that this information can be of interest for the geospatial community. However it is still not straightforward to easily share data among users representing the different scientific communities without performing some cumbersome conversions. The ADAGUC project aims to reduce the need for scientists to invent their own conversion tools. Conversion tools will be developed to make atmospheric satellite data available to the geospatial community for data comparison, resampling, selection, manipulation and visualization.

In particular SRON's Sciamachy products will be transformed as an initial example of the possibilities this project can deliver. Sciamachy, on board of ESA's Envisat, is an imaging spectrometer whose primary mission objective is to perform global measurements of trace gases in the troposphere and in the stratosphere. The high resolution and the wide wavelength range make it possible to detect many different trace gases, even in low concentrations. Furthermore, the large wavelength range is ideally suited for the detection of clouds and aerosols.

The current format in which the Sciamachy products are made available to the scientific community (product specific ASCII and binary formats) are not well suited for GIS applications (Geographic Information System). To bridge between the space and atmospheric scientific users and the GIS users, we aim to convert (Sciamachy) data products to a well structured HDF5 format which can be read into GIS applications and, if required, exported into GIS friendly formats (such as GeoTIFF, ESRI Grid, ESRI Shapefile and GML). In addition, the scientific user communities indicated that they need an easy to use online viewing tool, including access by Google Earth

(KML).