



**user4EO**

## **user services**

Multi-mission web-based service  
for EO imaging request

**Feasibility  
Assessment**

**Target-based  
Image Orders**

**Extended AoI  
Coverage Requests**

**Order Monitoring  
and Control**



**Access to Local  
Archive Imagery**

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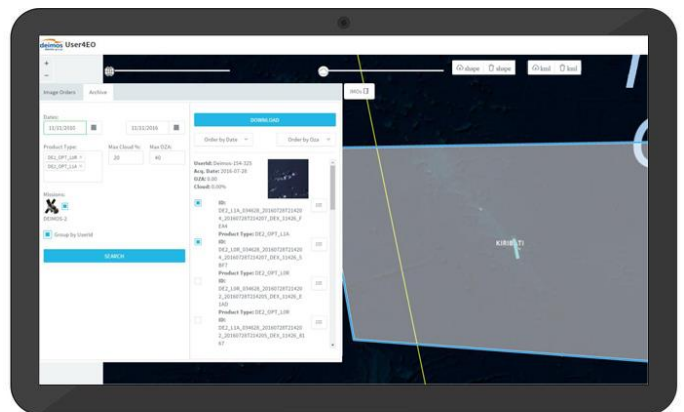
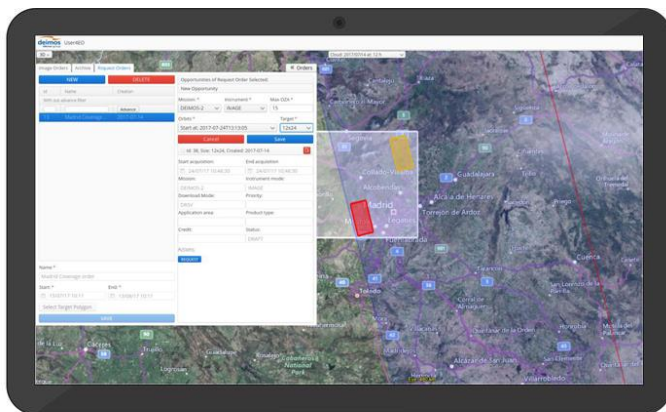
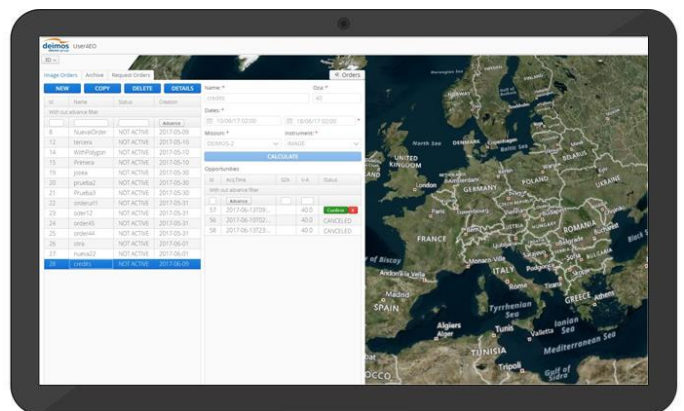
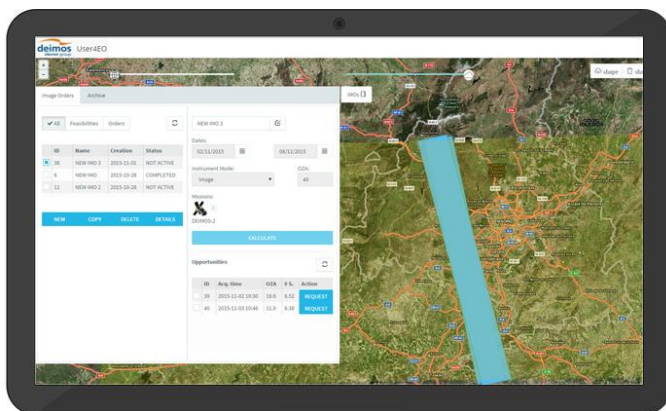
# user4EO

## user services

The User Services for Earth Observation (**user4EO**) module, part of the **gs4EO** suite, provides the mechanisms for users to **perform imaging requests** to Earth observation missions.

It is a **multi-mission web-based service** that, offering an **advanced front-end**, allows to:

- **Assess the feasibility** of new image acquisitions of a given Area of Interest (AoI).
- **Send target-based image orders** to one of the configured EO missions based on the feasibility analysis performed.
- **Request the coverage of a given AoI** using target acquisition requests (Coverage Image Orders).
- **Monitor the actions perform** by the corresponding mission control ground segment and to act on them (update, cancel, etc).
- **Monitor and control the execution process of Coverage Image Orders** whose objective is to achieve the coverage of a given area.
- Optionally, **access to local archive image products**, including the downlinked and processed image requests



**Deimos Space** ground segment systems are built using a combination of **4EO products** working in a coherent and synchronized way, although all of them can also be used as **independent applications**.

plan**4EO**  
**mission planning**

archive**4EO**  
**archive & catalogue**

fly**4EO**  
**flight dynamics**

process**4EO**  
**image processing chain**

control**4EO**  
**mission control system**

monitor**4EO**  
**monitoring & control**

track**4EO**  
**ground station**

calval**4EO**  
**calibration & validation**

user**4EO**  
**user services**

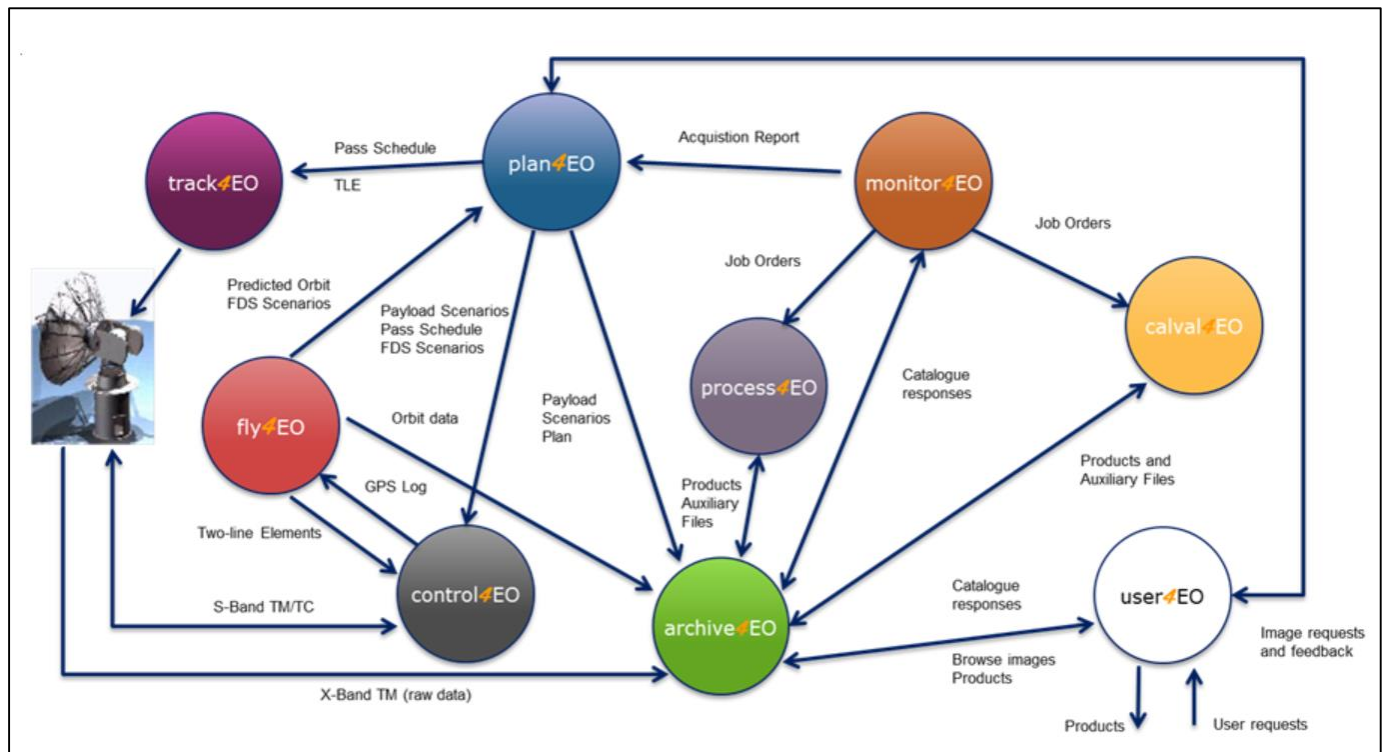
These products are already being used in different  
**ESA and Spanish Governmental missions.**

Together they form **gs4EO**,  
the **Ground Segment of DEIMOS-2.**

Thanks to its **modular design**, the **gs4EO** suite of ground segment products can be used to **customize the ground segment according to the customer's requirements**.

The various individual products can be assembled in different ways to implement different deployment configurations, **from a single product** supporting a specific mission need, **to a complete Ground Segment** or even a **Direct Receiving Station** that provides fast, direct and safe access to the mission data.

This modularity also provides extraordinary flexibility in order to accommodate **more than one Earth Observation mission within an individual** the ground segment.



The deployment shown above is the most typical set-up of all the Ground Segment elements, **providing all the ground segment capabilities required by the mission**.

With this solution, customers would mainly **access the spacecraft resources via the User Services, user4EO**, and all the data downlink and processing tasks would be performed in the single "central" ground segment (CGS).

Each application communicates with the remaining Ground Segment using file-based interfaces, easing its integration with other external solutions. The applications are controlled by means of **advanced user interfaces**, in many cases web-based, and **can be operated remotely**.

Many **gs4EO** components have **multi-mission capabilities** that allow the integration within the GS of third party missions. The archive component allows **the storage of data from different satellites** and the integration effort will depend on the specific interfaces of the third party missions.