



OSSIM MAPPING ARCHIVE (OMAR)

 DATA SHEET

OSSIM Mapping Archive (OMAR)

OSSIM Mapping Archive (OMAR) is an open source, web-based system for archiving, retrieving, processing and distributing geospatial data—including satellite and aerial images, features and video. OMAR fully leverages the Open Source Software Image Map (OSSIM) community by facilitating geospatial asset searches on the basis of location, time and other metadata, then dynamically processing the search results to create value-added products on the fly.

Features and benefits

OMAR is unique in its ability to provide data exploitation in a simple browser over low-bandwidth networks using open standards and interfaces.

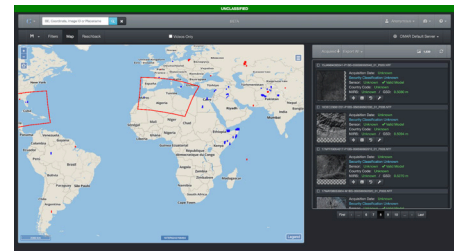
- Presents a free and open source software alternative to expensive, desktop commercial image-processing tools
- Eliminates the need to copy full-resolution files across networks—allowing for reduced networking and storage costs and ensuring service to low-bandwidth users
- Offers data search, discovery and dissemination using standards-based interfaces defined by the Open Geospatial Consortium—including web map services, web feature services, web coverage services and web map tile services
- Includes a variety of powerful image-exploitation options, including time-lapse viewing, orthorectification, raw image space exploitation, mosaic and fusion and super overlay
- JPIP streaming
- KML services
- ITAR compliant



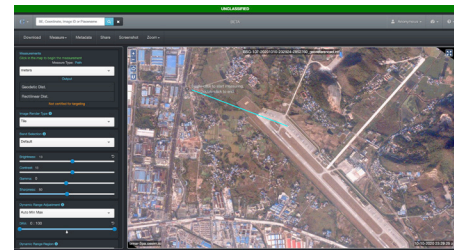
WEB-BASED IMAGERY EXPLOITATION

Images processed server-side in near-real time per user request and delivered via web browser

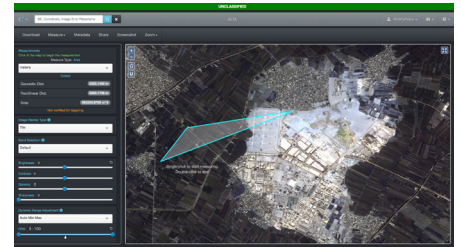
DISCOVERY



EXPLOITATION



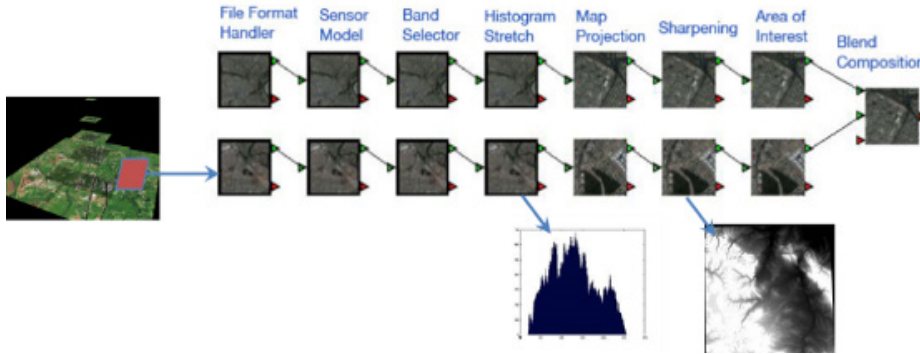
TIME-LAPSE VIEWING AND ORTHORECTIFICATION



MAXAR

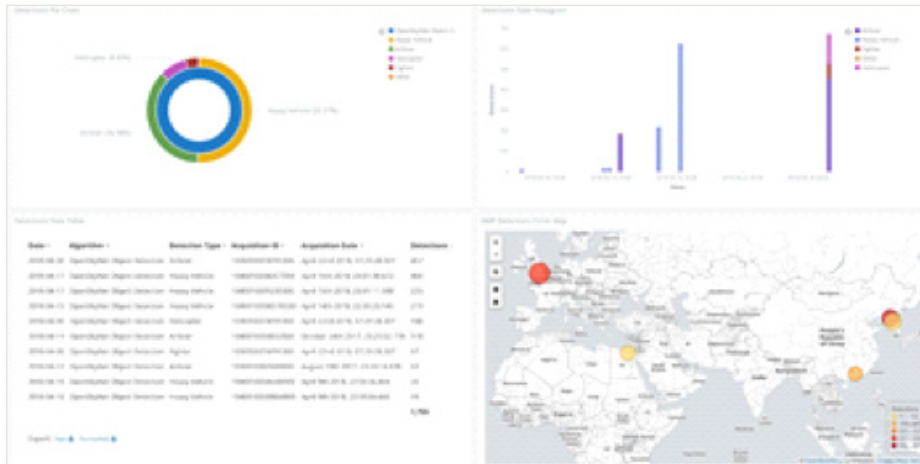
Open Source Software Image Map (OSSIM)

- Started in 2000 as one of the founding projects of the Open Source Geospatial Foundation (osgeo.org)
- Advanced open source C++ remote sensing and geospatial processing
- Images processed on the fly with data in place in the native format
- Precision terrain-correction and orthorectification



OMAR at a glance

- Web services, web UI and database components
- Serves >10,000 users, millions of geospatial datasets and terabytes of data per day



OMAR/OSSIM FOR THE CLOUD

Microservices

- Enables dynamic scaling of individual services that do one thing and do it well; can be configured, reconfigured and reused based on mission needs

Containers (e.g., Docker)

- Enables automation and allows a service to be deployed as a single package that can run on a developer's laptop, AWS, C2S or bare metal

Platform as a service (PaaS)

- Performs dynamic scaling of the services to enable high performance, availability and reliability

DevOps: Continuous integration and continuous deployment

- Supports automated, rapid build and delivery of services to the operational environment with a fully automated CI/CD pipeline with integrated automated testing

Using agile development and architecture principles

- Features SAFe lean development processes to enable efficient, interactive, frequent delivery of new customer capabilities—architectures are continuously reviewed, documented, versioned and approved as additional features are added

