EOxServer, GDAL, MapServer - Zugang zu großen Archiven von Erdbeobachtungsdaten

Entwicklungen im Rahmen des FP7 Projektes EarthServer

FOSSGIS 2012, Dessau
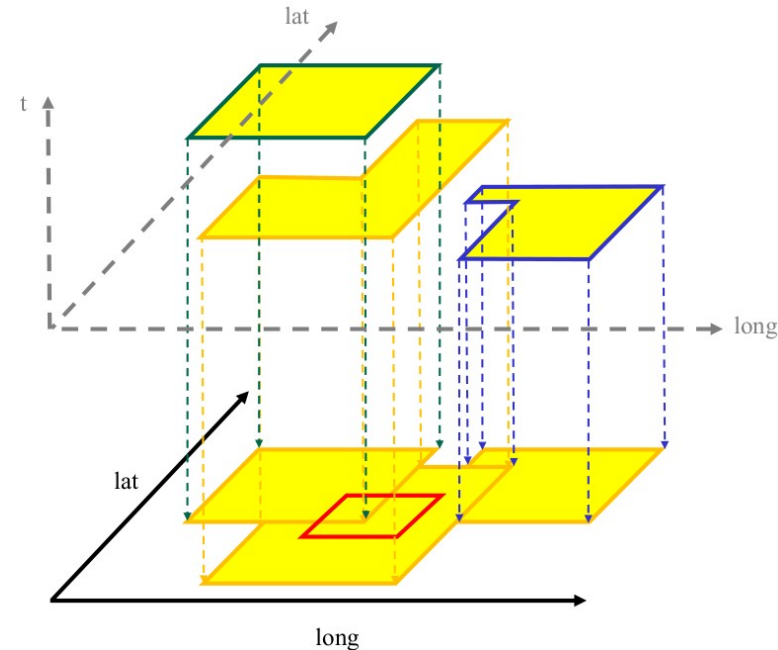
Erdbeobachtungsdaten
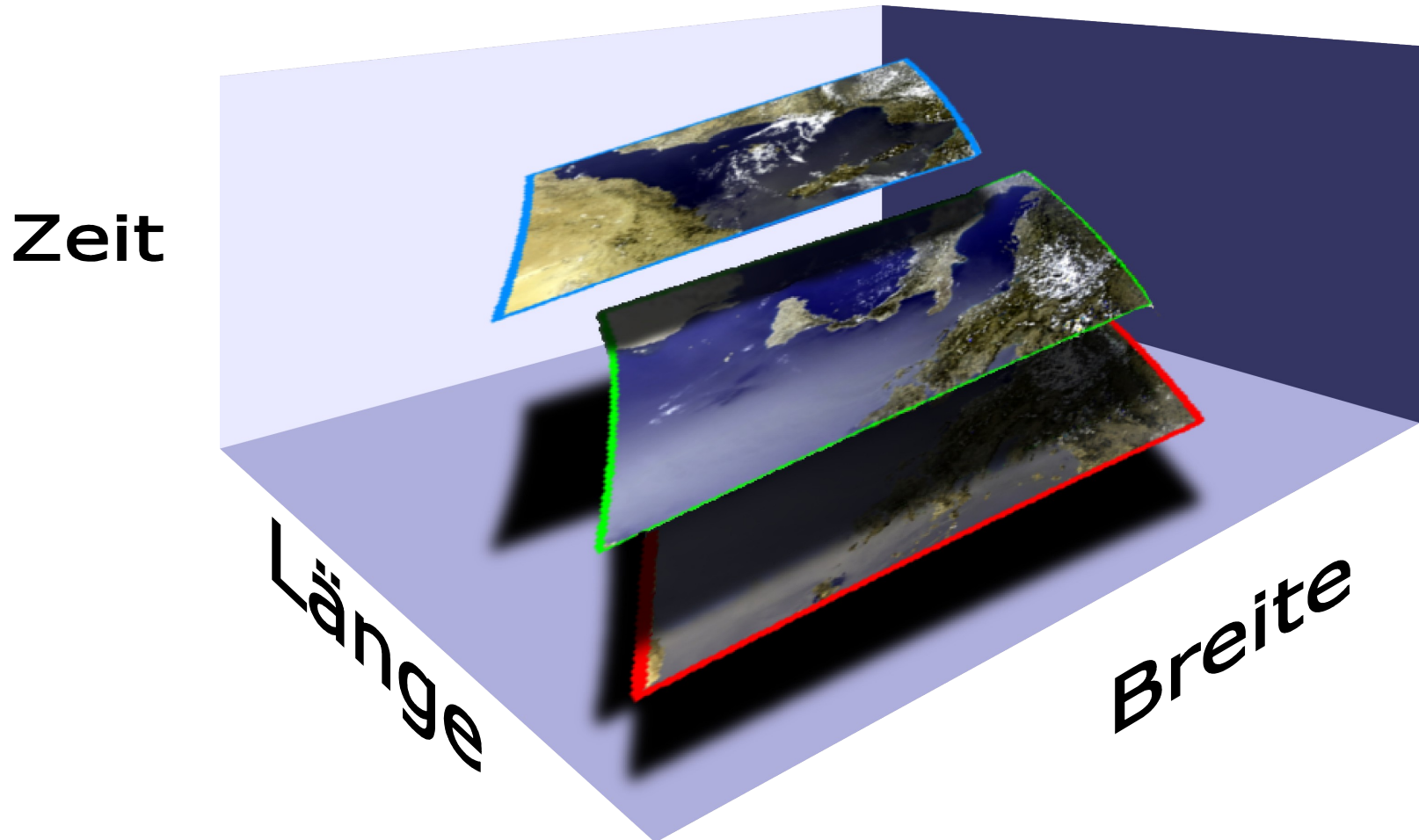
EO-WCS

- EO Coverages
  - **Rectified**- oder **Reference-ableGridCoverages** plus EO Metadata (Aufnahme-zeitpunkt, Footprint, etc.)
  - **Dataset**
  - **StitchedMosaic** – homogene Gruppierung
- **DatasetSeries** – heterogene Gruppierung
- **DescribeEOCoverageSet** Operation – zeitliche und räumliche Suche der Metadaten

http://eoxserver.org/

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Welcome to the EOxServer Open Source Project

EOxServer is a server for Earth Observation (EO) data

EOxServer implements the ➯OGC Implementation Specifications EO-WCS and EO-WMS on top of ➯MapServer's ➯WCS and ➯WMS implementations.

EOxServer is released under the EOxServer Open License a MIT-style license and written in ➯Python and entirely based on Open Source software including ➯MapServer, ➯Django, ➯GDAL, ➯SpatiaLite, or ➯PostGIS, and ➯PROJ.4. Versions 0.1.x are released under the GNU General Public License.

Download EOxServer

EOxServer Demonstration

The currently available functionality includes:

- Support of GML AP – Coverages for RectifiedGridCoverages
- Support of adopted WCS 2.0 specification (Core including GetCapabilities, DescribeCoverage, and GetCoverage requests, KVP-, and XML/POST protocol binding)
- Anticipated support of envis
  "anticipating" we mean to r
- Support of 2-D EO Coverage
- Support of Dataset Series a
- Support of new DescribeEO
- Support of Stitched Mosaic
- Support of EO Metadata (re
- Protocoll bindings supported
  - KVP
  - XML/POST (used toge
- Coverage formats supported
  - GeoTIFF
  - Formats supported by
- Support of EO-WMS for EO

EOxServer Mailing Lists

EOxServer Documentation

EOxServer API Documentation

Work on EOxServer has been par

HMA

EOxServer Wiki

This wiki is a major source of info

Development discussions take pla

EOxServer 0.2-dev-SVN-1072 documentation » EOxServer's English Documentation » EOxServer Users' Guide »   previous | ne

Global Use Case

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- Global Use Case
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    - Environment & Software Configuration
    - Data Registration
  - The General *User* View
    - Web Browser
    - GIS Tool

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Getting Started

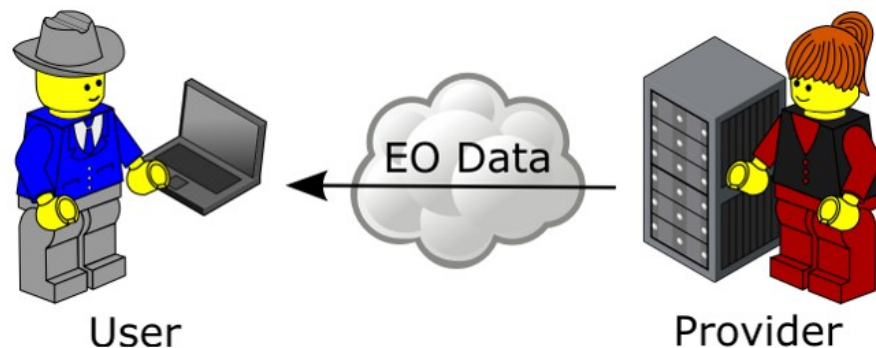### Next topic

Mailing Lists

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This section describes the global Use Case of EOxServer including concrete usage scenarios as examples.

Figure: "*Parties involved in the EOxServer Global Use Case*" introduces the involved parties in this global Us


Parties involved in the EOxServer Global Use Case

On the one side there is a provider of Earth Observation (EO) data. The provider has a possibly huge, in size, archive of EO data and wants to provide this data to users. Of course the data provision has constraints and requirements like technical, managerial, or security frame conditions but in general the reach as many users as possible with minimal efforts.

EOxServer

EOxServer Open Source SW


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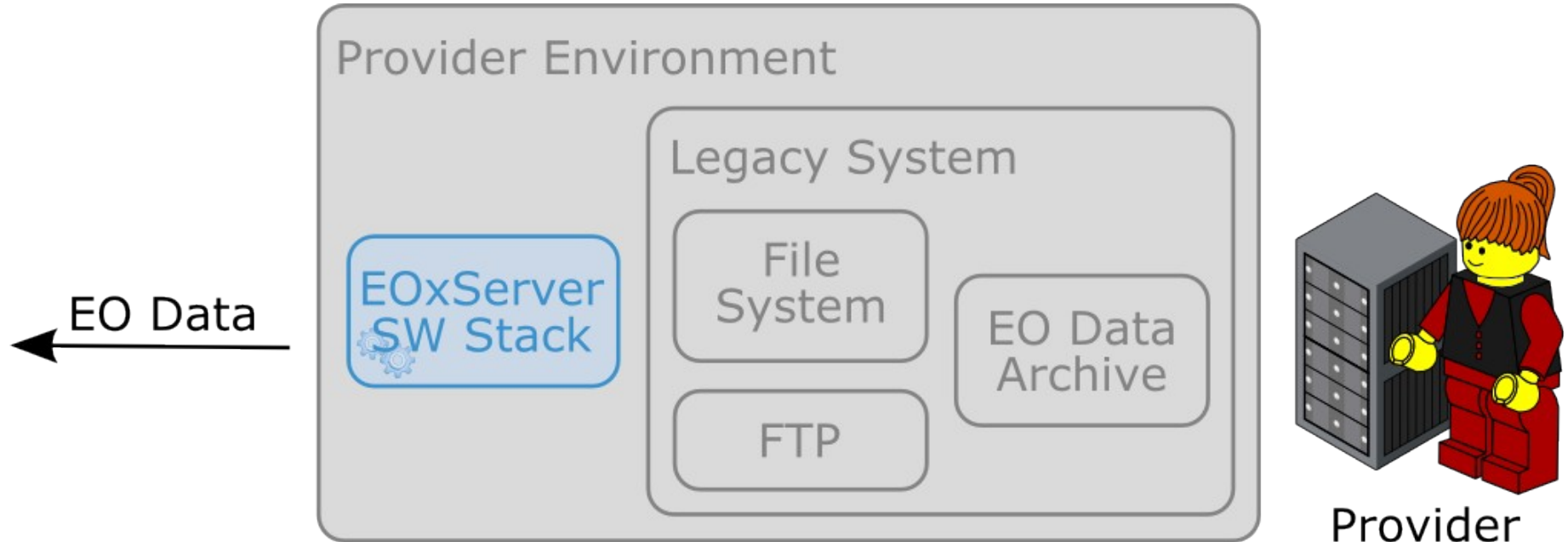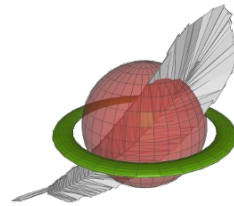
EOxServer

- MIT-style license

- Rectified- und ReferenceableGridCoverages

- DatasetSeries und StitchedMosaics

- WCS Transactional (WCS-T)

- Integration mit Authentifizierungssystem

- Registrierung von Daten via GUI oder Command Line

- Client (integrierte Verwendung von EO-WMS & EO-WCS)

Earth Server

- "Big Earth Data Analytics"
- EU FP7-INFRA Projekt 283610
- Projektlaufzeit: 3 Jahre
- Beginn: September 2011

http://earthserver.eu

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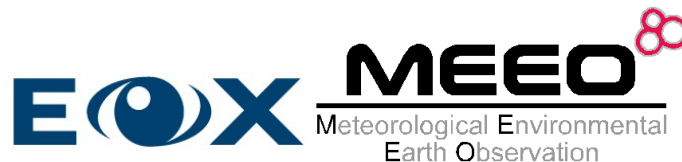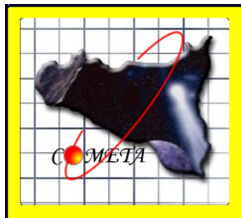
- Mission: Standardisierte ad-hoc Analysen für Geowissenschaften via Web

- Skalierbar (> TB)

- Idee: Abfragesprache für Coverage Daten

- Ziel: OGC Standards, Client & Server Technologie
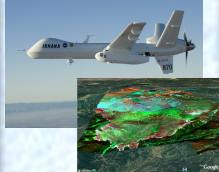
Earth Server

Lighthouse Applications
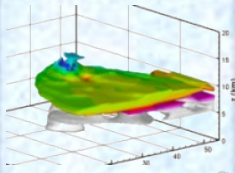
Cryospheric Science *landcover mapping*	**Airborne Science** *high-altitude long-endurance drones*	**Atmospheric Science** *climate variables*	**Geology** *geological models*	**Oceanography** *marine model runs + in-situ data*	**Planetary Science** *Mars geology*
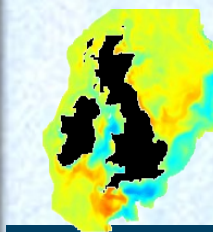
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NASA

MEEO
Meteorological Environmental
Earth Observation

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

PML PLYMOUTH MARINE LABORATORY

JACOBS UNIVERSITY

EO-W*S Client – Date Slider
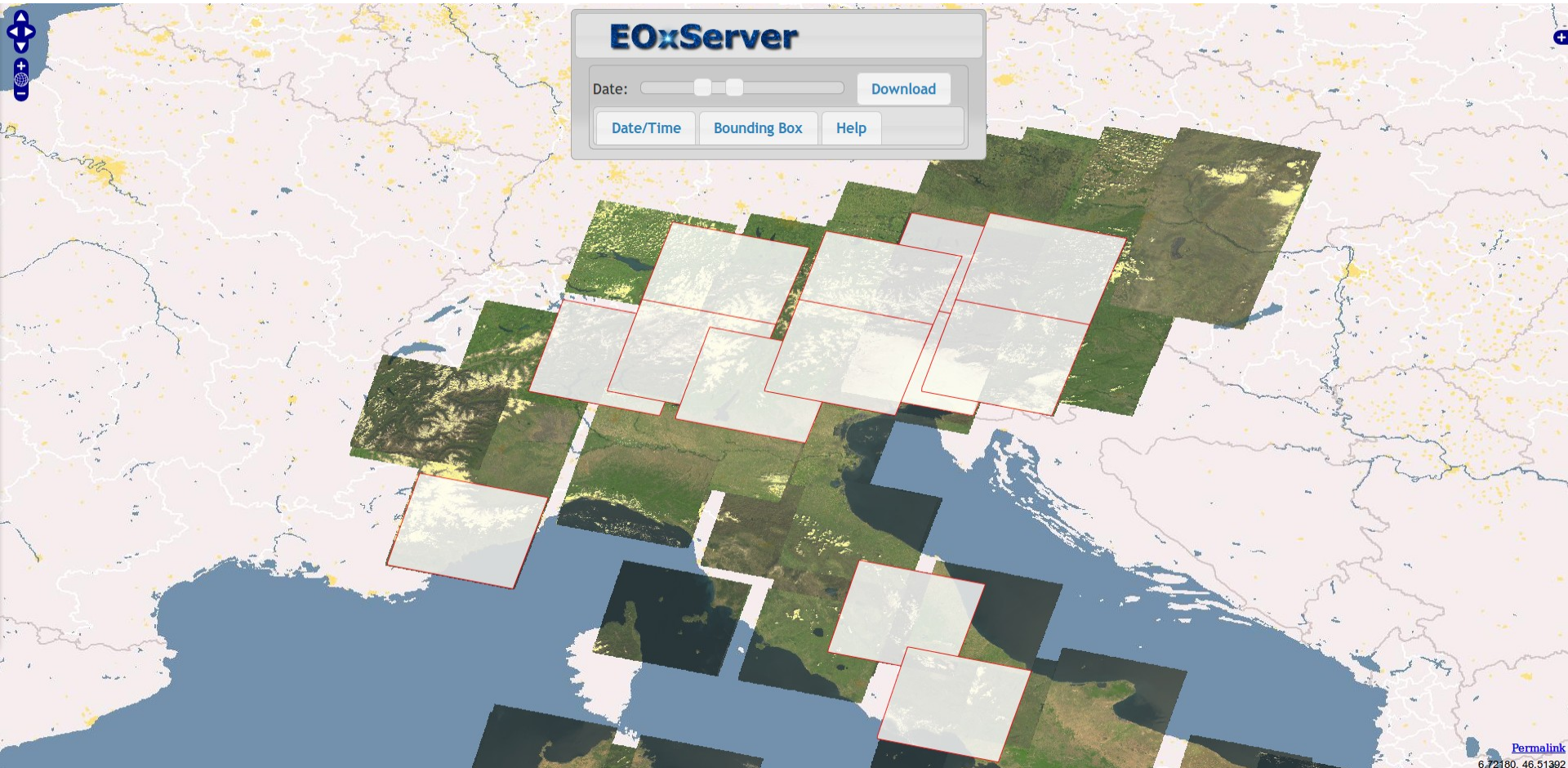
EO-W*S Client – Date Picker

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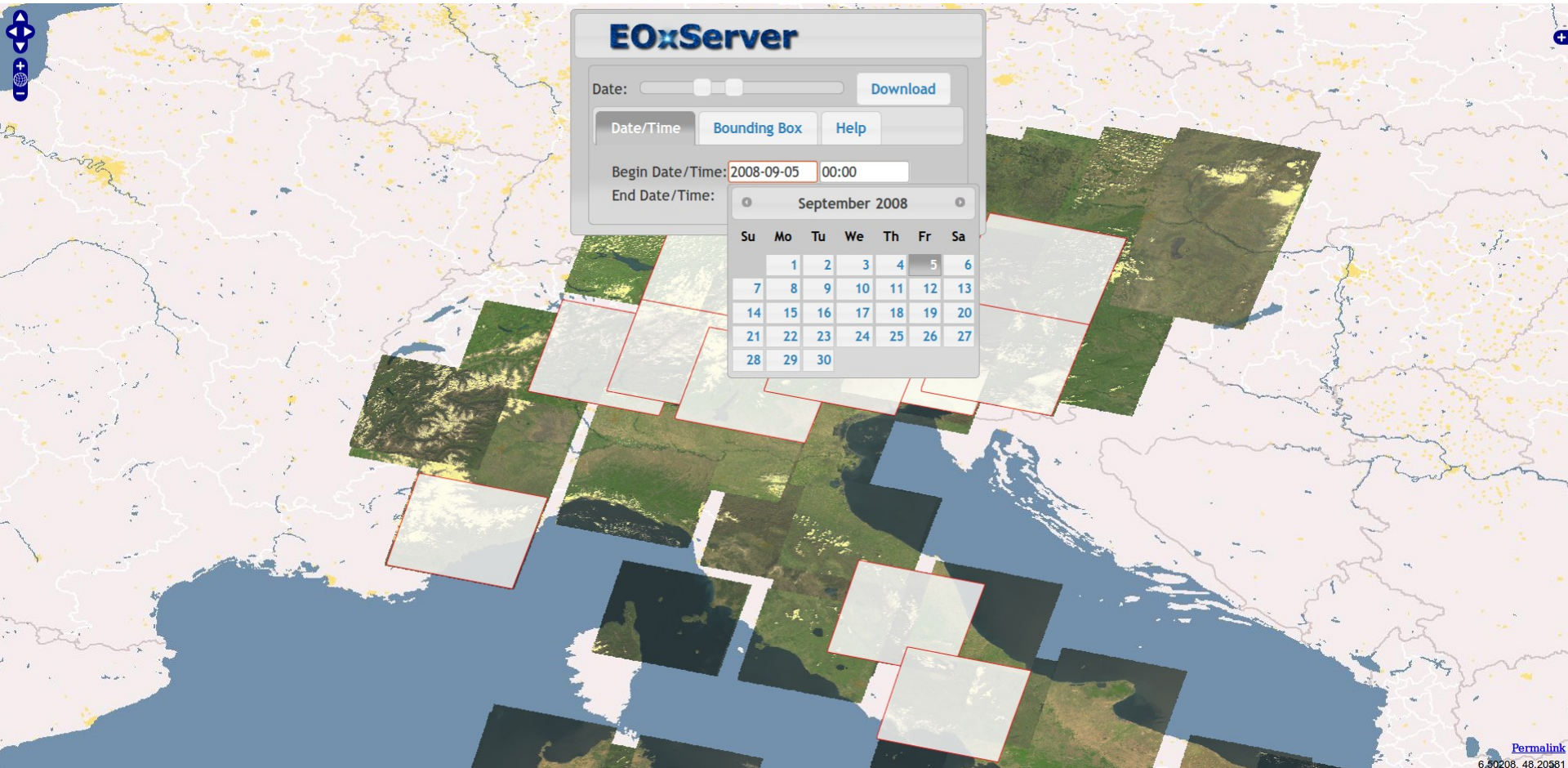
EO-W*S Client – Bounding Box
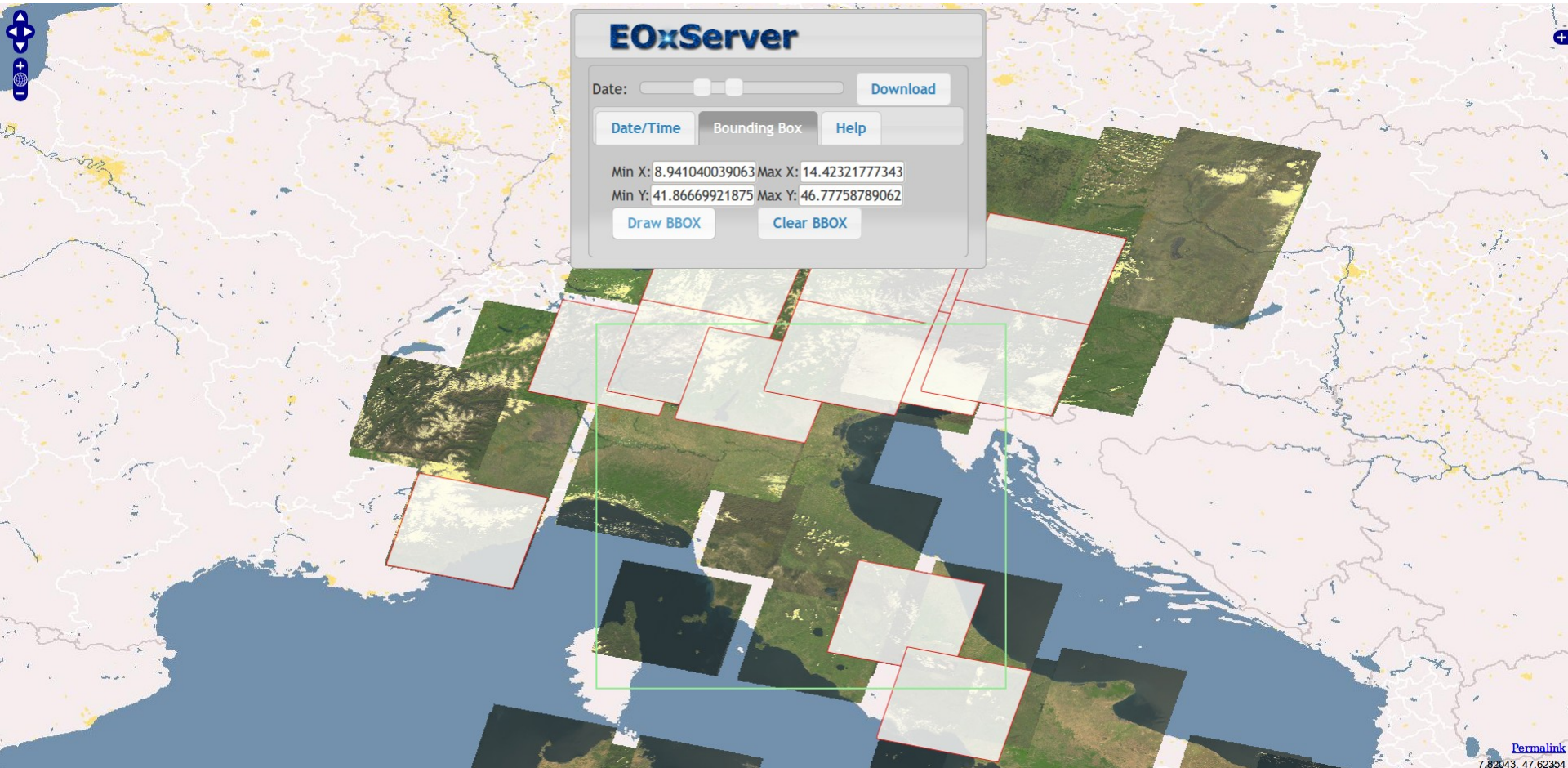
EO-W*S Client – Download Select

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