

Global Land products available!

A Soil Moisture (SM) Level 3 product has been created at BEC, and it is now available online.

The Level 3 product is generated from the operational ESA Level 2 Soil Moisture User Data Product (UDP) that include geophysical parameters, a theoretical estimate of their accuracy, and a set of product flags and descriptors.

The nominal L2 SM data is first filtered in order to ensure the quality of our L3 products. Soil Moisture values are rejected if: i) no value has been retrieved for that given gridpoint; ii) the retrieval is negative; iii) the retrieval is outside the extended range; or iv) the associated Data Quality Index (DQX) is larger than $0.07 \text{ m}^3/\text{m}^3$. Next, a weighted average is performed to bin the data to a EASE-ML grid with cells of 25 km (see [documentation](#) for additional information). Products are provided in netcdf format.



SMOS soil moisture L3-days binned maps. The plots show the soil moisture evolution during the Bosnian floods in May 2014. Heavy rains was received from 14 to 16 of May 2014

What products are available?

Two different kinds of L3 products are served:

1. **Maps of SM in the ISEA4h9 grid:** these products use the same grid than L2 products; they are generated daily, with no spatial or temporal averaging. They contain SM, optical thickness, the real and imaginary parts of retrieved dielectric constant and their quality estimators.
2. **Maps of SM in an EASE-ML (25 km) grid:** 1 and 3-day maps generated daily, 9-day maps generated every 3 days,

monthly and annual maps.

All the products are provided separately for ascending and descending orbits.

How can data be accessed?

The BEC [Web Map Server](#) can be used to visualize and interact with the different data sets. All our products are available through a [THREDDS](#) service. The BEC research products are freely distributed, after registration. Automatic download is possible using our [getBEC](#) bash script.

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