

Ozone assessment service (O3as) in action

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The assessment of ozone in the atmosphere is an essential task for Climate and Environment studies. The ozone assessment service (O3as) supports scientists in determining ozone trends and metrics indicating a recovery from ozone loss for different parts of the world. It also aims to aid scientists to prepare the quadrennial Scientific Assessments of Ozone Depletion. Moreover, it provides access to a comprehensive selection of ozone data for interested citizens.

The service uses a unified approach to analyse results from a large number of different chemistry-climate models, helps to harmonise the calculation of ozone trends efficiently and consistently, and produces publication-quality figures in a coherent and user-friendly way. It is one of the thematic services of the EOSC-Synergy project.

The service relies on multiple containerised components that are distributed across the cloud (orchestrated in Kubernetes) and HPC resources. It leverages the Large Scale Data Facility (LSDF) at KIT for storing the raw data. We incorporate software best practices and the Software Quality Assurance as a Service (SQaaS) approach of the EOSC-Synergy project which includes software and service testing, Continuous Integration and Continuous Delivery (CI/CD), assessment for findability, accessibility, interoperability, and reusability (FAIR) of a data repository, and service documentation.

In this contribution, we are going to present the attractiveness of the service for climate scientists and highlight the service's internal architecture and communication interface.

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