

A Climate Change Community Gateway for Data Usage & Data Archive Metrics across the Earth System Grid Federation

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ABSTRACT

The ESGF Dashboard is a key component of the Earth System Grid Federation (ESGF). It provides a distributed and scalable software infrastructure responsible for capturing a comprehensive set of data usage and data archive metrics both at the single site and federation level. The data usage information is related to the number of downloads and successful downloads and the number of distinct downloaded files, grouped by variable, model, experiment, etc. On the other hand, the data archive information is related to the total number of published datasets, total data volume and CMIP5 models and modelling institutes. All the above metrics relate to both cross and specific projects that are very notable in the climate community, such as, CMIP5, CMIP6, Obs4MIPs and CORDEX. From a Science Gateway perspective, the ESGF Dashboard presents the collected metrics through its Community Gateway (ESGF Dashboard User Interface).

Keywords— Earth System Grid Federation, Data Usage Metrics, Dashboard Community Gateway, CMIP experiments.

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