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## First Experiences with CDI-PIO on DAOS

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CDI-PIO is the parallel I/O component of the Climate Data Interface (CDI) that is developed and maintained by the Max-Planck-Institute for Meteorology and DKRZ. It is used by ICON, MPIOM, ECHAM, and the Climate Data Operator (CDO) toolkit. The two main I/O paths for output data are writing GRIB files using MPI-IO, and writing NetCDF4 files using HDF5 (which may then also use MPI-IO, or other VOL plugins).

The Distributed Asynchronous Object Storage (DAOS) is a new open source high performance object store for storage class memory and NVMe storage, which has been integrated into the ROMIO MPI-IO implementation. The HDF5 consortium is also developing a native HDF5 VOL plugin for DAOS.

This presentation will outline how CDI-PIO can be run on a DAOS storage system using the ROMIO DAOS backend. We will also report first performance results comparing Intel DAOS and IBM Spectrum Scale on similar NVMe storage hardware.

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