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World Data Center for Climate: Web based data access

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The World Data Center for Climate (WDC-Climate, www.wdc-climate.de) is hosted by the Model & Data Group (M&D) of the Max Planck Institute for Meteorology. The M&D department is financed by the German government and uses the computers and mass storage facilities of the German Climate Computing Centre (Deutsches Klimarechenzentrum, DKRZ).

The WDC-Climate provides web access to 220 Terabytes of climate data; the total mass storage archive contains nearly 5 Petabytes. Although the majority of the datasets concern model output data, some satellite and observational data are accessible as well. See our poster in session CL38/GI12 ("WDC-Climate: Data Support for Earth System Modelling") for a detailed description of available data.

The underlying relational database is distributed on five servers. The CERA relational data model is used to integrate catalogue data and mass data. The flexibility of the model allows to store and access very different types of data and metadata. The CERA metadata catalogue provides easy access to the content of the CERA database as well as to other data in the web. Visit ceramodel.wdc-climate.de for additional information on the CERA data model. The majority of the users access data via the CERA metadata catalogue, which is open without registration. However, prior to retrieving data user are required to check in and apply for a userid and password.

The CERA metadata catalogue and the data download is servlet based. So direct database access via internet can be accomplished through any web browser worldwide (cera.wdc-climate.de).

In addition to data and metadata access by the web catalogue, WDC-Climate offers a number of other forms of web based data access. All metadata are available via http request as xml files in various metadata formats (ISO, DC, etc., see wini.wdc-climate.de) which allows for easy data interchange with other catalogues. Model data

are retrieved in GRIB, ASCII, NetCDF, and binary (IEEE) format.

The WDC-Climate serves as data centre for various projects. Since xml files are accessible by http, the integration of data into applications of different projects is very easy. Projects supported by WDC-Climate are e.g. CEOP, IPCC, and CARIBIC. A script tool for data download (jblob) is offered on the web page, to make retrieval of huge data quantities more comfortable.