

# DWD Geoportal:

Converging Open Data, metadata and documentation  
in a user-friendly way



SCREEN CAPTURE  
WELCOME

Björn Reetz  
Deutscher Wetterdienst



Deutscher Wetterdienst  
Wetter und Klima aus einer Hand

1 Climate Data Operators - CDO

Climate Data Operators (CDO) is a command line tool to manipulate and analyze climate and weather prediction model data. Supported data formats are GRIB 1/2, NetCDF 3/4, SERVIC, ENTRA and H5. There are more than 100 operators available including simple statistical and arithmetic functions data selection and subsampling tools, and spatial interpolation. The software tool is open-source and covered by the GNU General Public License (GPL). More information can be found at <https://code.sageant.org.de/projects/CDO> and <https://code.sageant.org.de/projects/CDO/wiki>. CDO can be used to transform or, to be more specific, to interpolate essential weather prediction data sets from the triangular grid into the regular or hex grid like CDO (Reinterpolated Nudging/Inter) as well for the COSMO (Conversion for Small Scale Modeling). The transformation process will be described in detail in the following sections. To be able to perform the transformation and to take full advantage of CDO features the following additional libraries should be installed:

Install NetCDF library (<https://code.sageant.org.de/projects/CDO/wiki#netcdf>) version 2.6.4 or higher, needed to process NetCDF files with CDO. ECHRDY or CdoLib (<https://software.sageant.org.de/projects/CDO/wiki#echrdy>) version 2.10 or higher, which is needed to process GRIB2 files with CDO. More information can be found at <https://code.sageant.org.de/projects/CDO/wiki/CDO> and <http://www.metpyrtools.com/blog/interpol-climate-data-operator-cdo-with-a-netcdf-gridded-and-netcdf-support/>. For the different distributions please visit the following sites for Linux distribution [https://code.sageant.org.de/projects/CDO/wiki/Linux\\_Platform](https://code.sageant.org.de/projects/CDO/wiki/Linux_Platform), Windows distribution <https://code.sageant.org.de/projects/CDO/wiki/Windows>, Mac OS distribution [http://code.sageant.org.de/projects/CDO/wiki/Mac\\_OS](http://code.sageant.org.de/projects/CDO/wiki/Mac_OS).

1.1 CDO features NetCDF and reCodes

CDO uses a regular `REGR_INTERPOL_GRID` tag in order to write GRIB2 data. Note that when writing an input GRIB2 dataset for applying CDO2D rules, the output will always be done by the defined operator and packet set out of the used input dataset (i.e.). The directory of the environment variable `GRIB_SAMPLES_PATH` and the default paths are given by the commands `grib2info` (GRIB2) or `recodeinfo` (reCodes).

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The regular `REGR_INTERPOL_GRID` tag can be changed using `grib2info` or `recodeinfo` (GRIB2 tag `GRIB2` tag). Accordingly, the definition parts of GRIB2-API and reCodes have to be adjusted to the used GRIB version 1 and the "Nudging/Interpolation".

©2019 version 1.0.0 - see the NetCDF license of the source (GNU GPL)  
NetCDF Software Package, from the UNIDRIS Program Center of the University Corporation for Atmospheric Research

II **Related resources**

# Status quo: scattered resources



**Index of /weather/**

<a href="#">/</a>	05-Sep-2021 09:36	-
<a href="#">/alerts/</a>	05-Sep-2021 09:36	-
<a href="#">/charts/</a>	05-Sep-2021 09:36	-
<a href="#">/lib/</a>	05-Sep-2021 09:36	-
<a href="#">/local_forecasts/</a>	05-Sep-2021 09:36	-
<a href="#">/maritime/</a>	05-Sep-2021 09:36	-
<a href="#">/map/</a>	05-Sep-2021 09:36	-
<a href="#">/radar/</a>	05-Sep-2021 09:36	-
<a href="#">/satellite/</a>	05-Sep-2021 09:36	-
<a href="#">/text_forecasts/</a>	05-Sep-2021 09:36	-
<a href="#">/weather_reports/</a>	05-Sep-2021 09:36	-
<a href="#">/webcam/</a>	05-Sep-2021 09:36	-
<a href="#">/wmc/</a>	05-Sep-2021 09:36	-
<a href="#">/content_log_bz2</a>	05-Sep-2021 09:36	13480398
<a href="#">/fc_202109050910c1e_150_0r1b</a>	05-Sep-2021 03:52	285950556
<a href="#">/fc_202109050910c1e_150_0r1b</a>	05-Sep-2021 03:52	288551286
<a href="#">/fc_202109050910c1e_161_0r1b</a>	05-Sep-2021 03:52	288031446
<a href="#">/fc_202109050910c1e_174_0r1b</a>	05-Sep-2021 03:52	285430716
<a href="#">/fc_202109050910c1e_161_0r1b</a>	05-Sep-2021 03:52	288031446
<a href="#">/case.html</a>	05-Sep-2021 09:36	3334498

**DWD Open Data file server**

Die DWD Leistungen

Suchergebnisse (74) [Alle Filter aufheben](#)

Leistungsart: [Analysen radarbasierter stündlicher \(RW\) und täglicher \(SF\) Niederschlagshöhen](#)

Zeitraum: [RADOLAN \(Radar-Online-Anreichung\): Analysen der Niederschlagshöhen aus radar- und satellitengestützten Messungen im Echtzeitbetrieb](#)

Bezugsraum: [CDC-Portal](#)

Kondition: [Das CDC-Portal bietet interaktiven Zugriff zu einer wachsenden Zahl an Datensätzen.](#)

Kundengruppe: [Data and Navigation Provider \(Civil Aviation\)](#)

Parameter: [Data and Navigation Provider umfasst alle IT-Unternehmen, die für die Luftfahrt](#)

Bereitschaft: [Open Data on DWD's homepage](#)



# Solution: DWD Geoportal (prototype)

**Fulltext search**

**Filters**

**Open Data results**

**DWD Geoportal: search page**

**Description**

**Download**

**Interactive preview**

**Related resources**

**More metadata**

**DWD Geoportal: product page**

