Wikiprint Book

Title: CORDEX data publication

Subject: TracMeteo - CORDEXPublication

Version: 12

Date: 05/25/2022 09:27:18 AM

Table of Contents

CORDEX data publication

Previous configuration

See 3. Configuration for publishing

CORDEX publication

This documentation gives instructions to publish 02_EuroCORDEX_INTERIM_044_v20140616 datasets.

The source code of esgprep must be modified in order to work with symbolic links! See ?https://github.com/IS-ENES-Data/esgf-prepare/pull/3

Add the dataset root to /esg/config/esgcet/esg.ini:

```
thredds_dataset_roots =
       esg_dataroot | /esg/data
       01_EuroCORDEX_INTERIM_022 | /esg/cordex/01_EuroCORDEX_INTERIM_022
       02_EuroCORDEX_INTERIM_044 | /esg/cordex/02_EuroCORDEX_INTERIM_044
       eur44-wrf341i-eraint | /esg/cordex/eur44-wrf341i-eraint
       eur44-wrf341i-canesm | /esg/cordex/eur44-wrf341i-canesm
       sam44-wrf341i-eraint | /esg/cordex/sam44-wrf341i-eraint
```

Modify /esg/config/esgcet/esg.cordex.ini to fit your needs. In this case:

```
[project:cordex]

categories =
   project        | enum   | true  | true  | 0
   product        | enum   | true  | true  | 1
   domain         | enum   | true  | true  | 2
   institute      | enum   | true  | true  | 3
   driving_model  | enum   | false | true  | 4
   experiment     | enum   | false | true  | 5
   ensemble       | string | false | true  | 6
   rcm_name       | string | false | true  | 7
   rcm_version    | enum   | false | true  | 8
   time_frequency | enum   | false | true  | 9
   description    | text   | false | false | 99

category_defaults =
   project | CORDEX

filename_format = %(variable)s_%(domain)s_%(driving_model)s_%(experiment)s_%(ensemble)s_%(rcm_model)s_%(rcm_version)s_%(ti

dataset_id = cordex.%(product)s.%(domain)s.%(institute)s.%(driving_model)s.%(experiment)s.%(ensemble)s.%(rcm_name)s.%(rcm_

directory_format = %(root)s/%(project)s/%(product)s/%(domain)s/%(institute)s/%(driving_model)s/%(experiment)s/%(ensemble)s

product_options = output

domain_options = AFR-44, AFR-44i, ANT-44, ANT-44i, ARC-44, ARC-44i, AUS-44, AUS-44i, CAM-44, CAM-44i, CAS-44, CAS-44i, EAS

institute_options = AUTH-LHTEE, AUTH-Met, AWI, BCCR, CCCma, CHMI, CLMcom, CNRM, CRP-GL, CUNI, DHMZ, DMI, ENEA, GERICS, HMS

driving_model_options = CCCma-CanESM2, CSIRO-QCCCE-CSIRO-Mk3-6-0, CNRM-CERFACS-CNRM-CM5, ECMWF-ERAINT, ICHEC-EC-EARTH, IPS

experiment_options =
  cordex | evaluation | Evaluation
  cordex | historical | Historical
  cordex | rcp26      | RCP2.6
```

```
  cordex | rcp45      | RCP4.5
  cordex | rcp60      | RCP6.0
  cordex | rcp85      | RCP8.5

ensemble_pattern = r%(digit)si%(digit)sp%(digit)s

rcm_model_options = AUTH-LHTEE-WRF321B, AUTH-Met-WRF331A, AWI-HIRHAM5, BCCR-WRF331, BCCR-WRF331C, CCCma-CanRCM4, CHMI-ALAD

rcm_version_options = v1, v01, v2, v3, v4, v411, v1a, v5

time_frequency_options = day, fx, mon, sem, 3hr, 6hr

maps = las_time_delta_map, domain_description_map, rcm_name_map

domain_description_map = map(project_id, domain : domain_description)
   cordex | AFR-44  | Africa
   cordex | AFR-44i | Africa
   cordex | ANT-44  | Antarctica
   cordex | ANT-44i | Antarctica
   cordex | ARC-44  | The Arctic
   cordex | ARC-44i | The Arctic
   cordex | AUS-44  | Australasia
   cordex | AUS-44i | Australasia
   cordex | CAM-44  | Central America
   cordex | CAM-44i | Central America
   cordex | CAS-44  | Central Asia
   cordex | CAS-44i | Central Asia
   cordex | EAS-44  | East Asia
   cordex | EAS-44i | East Asia
   cordex | EUR-11  | High-res. Europe
   cordex | EUR-11i | High-res. Europe
   cordex | EUR-44  | Europe
   cordex | EUR-44i | Europe
   cordex | MED-44  | HYMEX Mediterranean
   cordex | MED-44i | HYMEX Mediterranean
   cordex | MNA-22  | Middle East and North Africa
   cordex | MNA-22i | Middle East and North Africa
   cordex | MNA-44  | Middle East and North Africa
   cordex | MNA-44i | Middle East and North Africa
   cordex | NAM-44  | North America
   cordex | NAM-44i | North America
   cordex | SAM-44  | South America
   cordex | SAM-44i | South America
   cordex | WAS-44  | West Asia
   cordex | WAS-44i | West Asia

rcm_name_map = map(project, rcm_model : rcm_name)
   cordex | AUTH-LHTEE-WRF321B  | WRF321B
   cordex | AUTH-Met-WRF331A    | WRF331A
   cordex | AWI-HIRHAM5         | HIRHAM5
   cordex | BCCR-WRF331         | WRF331
   cordex | BCCR-WRF331C        | WRF331C
   cordex | CCCma-CanRCM4       | CanRCM4
   cordex | CHMI-ALADIN52       | ALADIN52
   cordex | CLMcom-CCLM4-8-17   | CCLM4-8-17
   cordex | CNRM-ALADIN52       | ALADIN52
   cordex | CNRM-ARPEGE51       | ARPEGE51
   cordex | CNRM-ARPEGE52       | ARPEGE52
   cordex | CNRM-ALADIN53       | ALADIN53
   cordex | CRP-GL-WRF331A      | WRF331A
   cordex | CUNI-RegCM4-2       | RegCM4-2
```

```
   cordex | DHMZ-RegCM4-2       | RegCM4-2
   cordex | DMI-HIRHAM5         | HIRHAM5
   cordex | ENEA-RegCM4-3       | RegCM4-3
   cordex | GERICS-REMO2009     | REMO2009
   cordex | HMS-ALADIN52        | ALADIN52
   cordex | ICTP-RegCM4-3       | RegCM4-3
   cordex | IDL-WRF331D         | WRF331D
   cordex | IPSL-INERIS-WRF331F | WRF331F
   cordex | IITM-RegCM4-1       | RegCM4-1
   cordex | IITM-RegCM4-4       | RegCM4-4
   cordex | KNMI-RACMO21P       | RACMO21P
   cordex | KNMI-RACMO22E       | RACMO22E
   cordex | KNMI-RACMO22T       | RACMO22T
   cordex | MGO-RRCM            | RRCM
   cordex | MIUB-WRF331A        | WRF331A
   cordex | MOHC-HadGEM3-RA     | HadGEM3-RA
   cordex | MOHC-HadRM3P        | HadRM3P
   cordex | MPI-CSC-REMO2009    | REMO2009
   cordex | NUIM-WRF331F        | WRF331F
   cordex | RMIB-UGent-ALARO-0  | ALARO-0
   cordex | SMHI-RCA4           | RCA4
   cordex | SMHI-RCA4-SN        | RCA4-SN
   cordex | SMHI-RCAO           | RCAO
   cordex | SMHI-RCAO-SN        | RCAO-SN
   cordex | UCAN-WRF331G        | WRF331G
   cordex | UCAN-WRF350I        | WRF350I
   cordex | UCLM-PROMES         | PROMES
   cordex | UHOH-WRF331H        | WRF331H
   cordex | ULg-MAR36           | MAR36
   cordex | UQAM-CRCM5          | CRCM5

las_time_delta_map = map(time_frequency : las_time_delta)
   mon | 1 month
   day | 1 day
   fx  | fixed
   3hr | 3 hours
   sem | seasonal mean
   6hr | 6 hours

project_handler_name = basic_builtin

las_configure = true

thredds_exclude_variables = a, a_bnds, alev1, alevel, alevhalf, alt40, b, b_bnds, basin, bnds, bounds_lat, bounds_lon, dbz

variable_locate = ps,ps_

variable_per_file = true
```

Generate the DRS structure. Use --version to change version. User --symlink to create symlinks. If some facet is incorrect or missing use --set-value (institute_id and product in this case):

```
esgprep drs list --project cordex /oceano/gmeteo/DATA/ESGF/UNICAN-NODE/DATASETS/01_EuroCORDEX_INTERIM_022 --version 201405
esgprep drs tree --project cordex /oceano/gmeteo/DATA/ESGF/UNICAN-NODE/DATASETS/01_EuroCORDEX_INTERIM_022 --version 201405
esgprep drs todo --project cordex /oceano/gmeteo/DATA/ESGF/UNICAN-NODE/DATASETS/01_EuroCORDEX_INTERIM_022 --version 201405
esgprep drs upgrade --project cordex /oceano/gmeteo/DATA/ESGF/UNICAN-NODE/DATASETS/01_EuroCORDEX_INTERIM_022 --version 201
```

Generate the mapfiles:

```
esgprep mapfile --project cordex ./CORDEX/
```

Publish to data and index nodes:

```
esgpublish --service fileservice --map mapfiles/ --project cordex --thredds --publish
```

Data unpublication

Unpublication is well documented in ?esg-publisher docs. You can use bash commands to help with unpublication:

```
find /a/directory/with/mapfiles -regextype posix-extended -regex '.*ustar.*\.map' -exec esgunpublish --project cordex --ma
```

The previous command will unpublish datasets for the *ustar* variable, using mapfiles found in */a/directory/with/mapfiles*.