

CORDEX data 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>

Modify /esg/config/esgcat/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_%(time_frequency)s

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

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-44, EAS-44i

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

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-ALADIN

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-INNERIS-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:

```

esgprep drs list --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/
esgprep drs tree --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/
esgprep drs todo --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/
esgprep drs upgrade --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/

```

If version must be overridden execute the following instead:

```

esgprep drs list --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/ --version YYYYMMDD
esgprep drs tree --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/ --version YYYYMMDD
esgprep drs todo --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/ --version YYYYMMDD
esgprep drs upgrade --project cordex /path/to/02_EuroCORDEX_INTERIM_044_v20140616/ --version YYYYMMDD

```

Generate the mapfiles:

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

Publish to data and index nodes:

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