

Updated Filename Protocol: 30-09-2020*

Key info on directory structure and filenaming highlighted in yellow

*Thanks to Han Juergen Panitz for examples and testing with DKRZ QA-Checker

Important notes from discussions with DKRZ:

- **New and/or extended global attributes won't be accepted for publication in ESGF nor will they pass the DKRZ QA-checker**
- **Directory and file name structures have to fulfill the CORDEX standards as do the names of the mandatory global attributes**
- **DRS for CORDEX:**
<activity>/<product>/<Domain>/<Institution>/<GCMModelName>/<CMIP5ExperimentName>/<CMIP5EnsembleMember>/<RCMModelName>/<RCMVersionID>/<Frequency>/<VariableName>

Therefore, the changes we chose to implement are to the CORDEX Data Reference Syntax (DRS) element: RCM_VERSION_ID. This element is flexible, and we can modify it as needed.

This resulted in our *fpsconv-x#n#-v#* syntax agreed in Toulouse (Nov. 2019)

Summary of nesting info (N.B. updated from old document (30-09-2019))

No nest: use “*fpsconv-x0n1-v1*”

One nest, no differences: use “*fpsconv-x1n2-v1*”

One nest, differences between nests: use “*fpsconv-x2yn2-v1*”

One nest, additional differences between nests: use “*fpsconv-x2yzn2-v1*”

Example directory structure for double nest run in FPSC mandatory domain ALP-3 carried out by CLMcom-KIT, basic forcing is from ERA-Interim, inner nest (i.e., CPRCM) model version is CLMcom-KIT-CCLM5-0-14, variable is hourly precipitation:

- *CORDEX-FPSCONV/output/ALP-3/CLMcom-KIT/ECMWF-ERAINT/evaluation/r1i1p1/CLMcom-KIT-CCLM5-0-14/fpsconv-x2yn2-v1/1hr/pr/*
- Note:
 - *Project_id = CORDEX-FPSCONV is fixed for the FPS Community*
 - *Domain=ALP-3 is fixed for the FPS Community*
 - *Structure of rcm_version_id is also fixed for the FPS Community: fpsconv-x2yn2-v1; the “n2” indicates that it is a 2nd nest run;*

Example file name structure for a run in FPSC mandatory domain ALP-3 carried out by CLMcom-KIT, basic forcing is from ERA-Interim, inner nest (i.e., CPRCM) model version is CLMcom-KIT-CCLM5-0-14, variable is hourly precipitation, period the whole year 2000

- *pr_ALP-3_ECMWF-ERAINT_evaluation_r1i1p1_CLMcom-KIT-CCLM5-0-14_fpsconv-x2yn2-v1_1hr_200001010030-200012312330.nc*

The information in RCM_VERSION_ID are flags which alert the user to differences. Since these differences cannot be described in the **mandatory** global attributes we instead recommend all groups include information on nests and differences in the NetCDF files by

using the following *optional* global attributes; the optional attributes will be accepted by the QA Checker.

- **:nesting_levels:** the number of nests
- **:comment_nesting:** general info
- **:comment_1nest:** info referring to outer nest run
- **:comment_2nest:** info referring to inner nest-run

Current status with respect to DKRZ QA-checker for CosmoCLM (will need to be checked for other model systems):

- FPSC data CMORized with my modified CCLM2CMO tool won't pass the present official version of the checker
- Reasons:
 - Unkown project-id = CORDEX-FPSCON
 - Unkown domain = ALP-3
 - Unknown frequency, e.g 1hr
 - Unkown variables, e.g. CAPE and CIN
- But: all the messages are only "**warnings**"
- This can be seen from a further document being attached that summarizes the results of the checker: ***ALP-3_ECMWF-ERAINT_CLMcom-KIT-CCLM5-0-14_evaluation_Summary_OrigChecker***
- However, for test purposes I modified some of the tables related to the checker. These modifications solved the "problems" mentioned above; see further document being attached: ***ALP-3_ECMWF-ERAINT_CLMcom-KIT-CCLM5-0-14_evaluation_modifiedTables***
- Such modifications of the tables might also be necessary for other projects like CORDEX-CORE
- However, **a further problem remains: data on pressure levels other than the CORDEX standard levels (200 hPa, 500 hPa, and 850 hPa) or even data on Z-levels will not be accepted by the checker**; here, modifications of some tables would not be not enough; **changes in the source code of the checker would be necessary****

** These issues to be taken up with DKRZ in collaboration with other FPSs