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COSMO GRIB 2 Policy

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COSMO GM



COSMO GRIB 2 Policy

Field short name

- define a set of **common definitions** used by all COSMO members
- the **master tables** are managed by DWD (grib2/localConcepts/edzw)
- MeteoSwiss provides a **script to synchronize** fieldextra dictionaries and localConcepts definition files (in both directions)



COSMO GRIB 2 Policy

Center specific table values

- define a set of **common values** used by all COSMO members, avoid as much as possible local values not part of this set
- the **master tables** are managed by DWD
(grib2/tables/local/edzw/<version>)



COSMO GRIB 2 Policy

Model name

- the name of each model in operation in the COSMO centers is uniquely defined by the **n-tuple** (center, subcenter, product category, generating process identifier)
- the associated information is **always** coded in each GRIB record



COSMO GRIB 2 Policy

COSMO standard keys and local use section

- COSMO standard keys are coded in the **local use section**
- a **default local use section**, with localSectionNumber = 250, and containing all COSMO standard keys, is defined for each center
- current COSMO standard keys are :
 - '**localNumberOfExperiment**' (unsigned integer coded on 2 bytes)



COSMO GRIB 2 Policy

GRIB API definition files

- A **COSMO set of definition files** is maintained, which is compatible with all COSMO software
- **Local modifications** to the official ECMWF definition files should be put in the local part of the GRIB API definitions (e.g. localConcepts, tables/local), with the following exceptions:
 - Bug fixes (should be communicated to ECMWF)
 - Typing errors and units corrections (should be communicated to ECMWF)
 - New features not yet in the official definitions, but planned for the next GRIB API release
 - Modifications which are absolutely needed (e.g. new alias) - document and clearly mark these modifications in the definition files, try to convince ECMWF to put these in the next release



COSMO GRIB 2 Policy

Information flow (1/2)

- The COSMO TAG is responsible to **coordinate** the use of GRIB 2 within the consortium
 - It is informed about any planned modification of GRIB 2 coding at DWD (e.g. new short name, new local value), and has the opportunity to give a recommendation to the DWD
 - It is informed about any local requirement by a COSMO member, and will propose a solution
 - The cosmo-tag mailing list is used for communication



COSMO GRIB 2 Policy

Information flow (2/2)

- The following information is maintained on the **COSMO web**
 - COSMO model names and associated n-tuples
 - COSMO standard keys and their definitions
 - Local table values common to all COSMO members
 - Master table for COSMO short names
 - For each center:
 - list and content of each local sections
 - definition of additional short names not integrated in common COSMO table