

ecCodes version 2.24.0 released

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Please note:

The high-level Python interface (in eccodes/high_level/*) was always experimental and **has been removed in this release**. Please use [cfrrib](#) and [pdbuf](#) instead.

Changes for Version 2.24.0:

New Features/Improvements

- [\[ECC-1234\]](#) - Python3 bindings: Remove the experimental high-level interface
- [\[ECC-1291\]](#) - GRIB2: Implement Lambert Azimuthal geoiterator on oblate spheroid
- [\[ECC-1280\]](#) - GRIB1: Geoiterator for 'space view' is not implemented
- [\[ECC-1270\]](#) - GRIB2: Change the way MARS levtype is computed
- [\[ECC-1241\]](#) - GRIB2: Implement the new local time templates for WMO validation
- [\[ECC-1284\]](#) - bufr_dump: Display of missing strings in arrays
- [\[ECC-1300\]](#) - GRIB2: Add keys 'firstSize' and 'secondSize' for Aerosol products
- [\[ECC-1287\]](#) - GRIB2: Remove keys "is_uerra" and "is_efas"
- [\[ECC-1289\]](#) - GRIB2: parameter database changes required for removal of is_uerra and is_efas keys
- [\[ECC-1293\]](#) - Update GRIB2 tables/templates with the latest WMO V28.0.0
- [\[ECC-1297\]](#) - Update BUFR tables with the latest WMO v37.0.0
- [\[ECC-1296\]](#) - GRIB2: Fix remaining MARS key mapping issues for UERRA/CARRA/CERRA
- [\[ECC-1299\]](#) - GRIB2: Add WMO encodings for 3 CAMS parameters
- [\[ECC-1301\]](#) - Add new centre 'UFZ' in Common Code table 11
- [\[ECC-1302\]](#) - GRIB2: Add missing codes in ECMWF version 1 local tables
- [\[ECC-1306\]](#) - GRIB2: Add new dry and wet deposition mass fluxes needed for CAMS 48r1
- [\[ECC-1307\]](#) - GRIB2: Add local ECMWF entries in code table 4.230 for CAMS 48r1 parameters
- [\[ECC-1309\]](#) - GRIB2: Add new precipitation type diagnostics 'most severe' and 'most frequent'
- [\[ECC-1310\]](#) - GRIB2: Add convective specific rain/snow water content
- [\[ECC-1311\]](#) - GRIB2: Add glacier mask parameter
- [\[ECC-1313\]](#) - GRIB2: Add/update parameters needed for Copernicus flood project
- [\[ECC-1276\]](#) - MEMFS: Better management of generated files
- [\[ECC-1294\]](#) - New MARS classes for ERA6 and ERA6/LAND

Bug Fixes

- [\[ECC-1261\]](#) - GRIB local definition 12: MARS 'time' key should be HHMM not single digit
- [\[ECC-1286\]](#) - GRIB: Cannot set keys "scaleFactorOfLowerLimit" and "scaledValueOfLowerLimit" via the "lowerLimit" key for negative values
- [\[ECC-1295\]](#) - GRIB: nearest function fails on regular lat/lon grid on oblate spheroid
- [\[ECC-1273\]](#) - grib_get_data: keys added via '-p' should be separated by spaces not commas
- [\[ECC-1303\]](#) - GRIB2: Setting localDefinitionNumber=1 on paramId=228104 (e_WLCH4) corrupts message
- [\[ECC-1275\]](#) - grib_set: Setting unsigned values to -1 sets the maximum value for that key
- [\[ECC-1314\]](#) - GRIB1: Memory leak if conversion to GRIB2 fails
- [\[ECC-1277\]](#) - Test eccodes_t_grib_to_netcdf fails
- [\[ECC-1283\]](#) - bufr_compare: Does not detect differences in string arrays
- [\[ECC-1274\]](#) - BUFR: duplicated/incorrect error messages during decode
- [\[ECC-1290\]](#) - BUFR: Key spectralWaveDensity decoded incorrectly (on Windows)
- [\[ECC-1304\]](#) - BUFR encoding: Crash if bitmap specification is invalid
- [\[ECC-1305\]](#) - BUFR: Invalid code in definitions/bufr/tables/operators.table