

ecCodes version 2.8.0 released

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Changes for Version 2.8.0:

New Features/Improvements

Performance enhancements

- [\[ECC-638\]](#) - grib_ls/grib_get -l using mask: nearest neighbour performance
- [\[ECC-668\]](#) - BUFR decode performance: high replication counts
- [\[ECC-689\]](#) - GRIB decode performance: remove redundant keys from GRIB2 messages
- [\[ECC-667\]](#) - BUFR decode performance: Operator 203YYY: override table keeps growing
- [\[ECC-687\]](#) - Update GRIB2 definitions with the latest WMO V21.0.0 code tables/templates
- [\[ECC-691\]](#) - Update BUFR tables with the latest WMO version 30
- [\[ECC-616\]](#) - BUFR: Cannot extract subsets when operator 203YYY is present
- [\[ECC-651\]](#) - grib_compare/bufr_compare: Enable a 'two-way' switch for symmetric comparison
- [\[ECC-658\]](#) - bufr_compare: apply relative comparison (-R) to all ranks of a given key
- [\[ECC-625\]](#) - Encoding of La1/La2/Lo1/Lo2 should 'snap out' domain edges for sub-areas.
- [\[ECC-636\]](#) - filter rules: allow printing of array data all on one line
- [\[ECC-637\]](#) - bufr_dump -p should show descriptors in the WMO F-X-Y format
- [\[ECC-646\]](#) - Harmonise names of MARS CLASSES between the paramDB, Apps Catalogues and MARS
- [\[ECC-654\]](#) - Change the name and shortName for parameter 217004 (Methane)
- [\[ECC-655\]](#) - Lightning parameters: provide GRIB2 representation
- [\[ECC-662\]](#) - Add extra keys in the EFAS local definition to store info on analysis and fillup
- [\[ECC-664\]](#) - GRIB: Change the units of the emission parameters (table 219)
- [\[ECC-672\]](#) - Use WMO codes for new lightning parameters
- [\[ECC-679\]](#) - Add numberOfForecastsInEnsemble to the GRIB1 Local Definition number 16
- [\[ECC-682\]](#) - Change the name of averaged lightning parameters
- [\[ECC-684\]](#) - GRIB: Remove shortNames 'ocu' and 'ocv' from parameters 150133 and 150134
- [\[ECC-690\]](#) - New Satellite Winds BUFR Sequence for GOES16 - AMVs
Note: This was subsequently re-opened after the release. It will be fixed in the next version of ecCodes
- [\[ECC-692\]](#) - GRIB parameters: change name and shortName of aerosols (table 215)
- [\[ECC-652\]](#) - New parameters for CAMS chemistry schemes: new species (table 217)
- [\[ECC-659\]](#) - New parameters for CAMS chemistry schemes: species total column (table 218)
- [\[ECC-660\]](#) - New parameters for CAMS chemistry schemes: Emissions and Wildfire flux (table 219)
- [\[ECC-661\]](#) - New parameters for CAMS chemistry schemes: Dry deposition velocity (table 221)
- [\[ECC-674\]](#) - Examples: typo in bufr_read_scatterometer.f90
- [\[ECC-675\]](#) - Examples: confusing comment in bufr_expanded.f90

Bug Fixes

- [\[ECC-693\]](#) - grib_to_netcdf: fails with UKMO GRIB (fields are not considered distinct)
- [\[ECC-685\]](#) - grib_to_netcdf: fails with GRIB message with almost constant values
- [\[ECC-694\]](#) - grib_to_netcdf: fails compilation with NetCDF version 3
- [\[ECC-431\]](#) - bufr_compare: succeeds for BUFR files which are different
- [\[ECC-568\]](#) - Different behaviour between bufr keys iterator and bufr dump
- [\[ECC-640\]](#) - grib_ls -B crashes with non-existent input file
- [\[ECC-645\]](#) - CRASH: BUFR encoding: setting a string key with integer value
- [\[ECC-695\]](#) - BUFR encoding: Incorrect error message when value out of range
- [\[ECC-648\]](#) - grib_filter: Cannot set codetable key to an array
- [\[ECC-649\]](#) - Valgrind error: statistics for a field with all missing values
- [\[ECC-650\]](#) - bufr_filter: outputs non-printable characters if string key is MISSING
- [\[ECC-653\]](#) - Three files still have the GPL licence notice
- [\[ECC-656\]](#) - bufr_compare: using relative comparison (-R) with 'all' does not work
- [\[ECC-657\]](#) - grib_copy behaviour of -p -P -v options / manual
- [\[ECC-677\]](#) - Delayed description replication factors not available (from bufr_dump -Dfortran)
- [\[ECC-686\]](#) - BUFR: Changing the subtype in the local section has effect on other keys