

May 2022 software release

The May 2022 release of our software provides many new features, improvements and fixes!

ecCodes

[ecCodes](#), the heart of GRIB and BUFR handling, brings several new features, improvements and fixes in version **2.26.0**:

- support for Fire GRIBs in MARS
- latest GRIB/BUFR WMO tables
- support for JasPer v3.x
- improvements in GRIB CCSDS packing
- full support for BUFR operator 203
- miscellaneous bug fixes
- see [ecCodes Release Notes](#) for full details



Please note:

The ecCodes Python 2 interface is no longer being developed and **will be removed in 2023**. Users are strongly advised to migrate to Python 3

Also note that the CMake option `ENABLE_AEC` is now ON by default. AEC (Adaptive Entropy Coding) provides the WMO GRIB CCSDS compression and decompression of data.

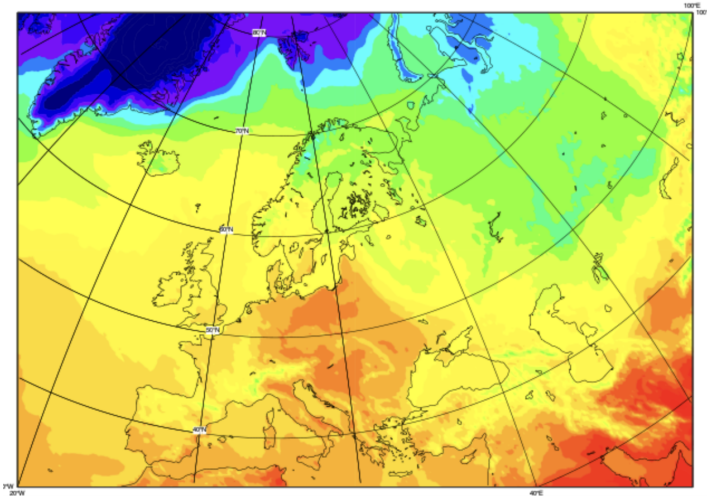
To force the build without it, use `-DENABLE_AEC=OFF`

Magics

[Magics](#), ECMWF's plotting library, brings more improvements in version **4.12.0** including:

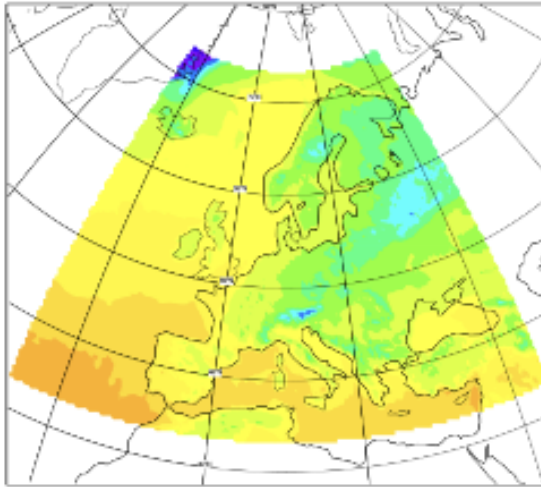
- EPSG:3035 projection

```
map = magics.mmap(  
    subpage_map_projection = 'EPSG:3035',  
)
```



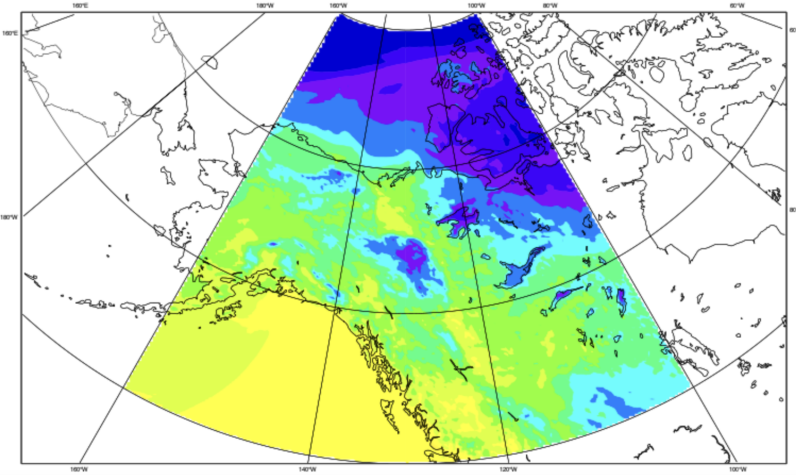
- Automatic adjustment of the projection according to the data extent

```
area = magics.mmap( subpage_map_projection = 'EPSG:3035',  
    subpage_map_area_definition = "data")
```



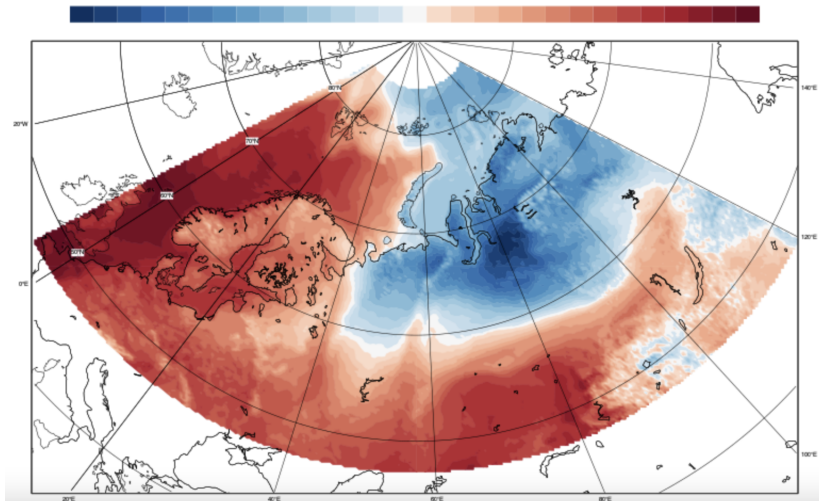
- Automatic selection of the best suited projection according to the data extent

```
map = magics.mmap(
    subpage_map_projection = 'automatic',
)
```



- Introduction of a new way to work with palette of colour lists.

```
contour = magics.mcont(
    legend = 'on',
    contour = 'off',
    contour_shade = 'on',
    contour_label = 'off',
    contour_level_selection_type = "count",
    contour_level_count = 30,
    contour_interval = contour_interval,
    contour_level_tolerance = 0,
    contour_shade_method = 'area_fill',
    contour_shade_palette_name = "colorbrewer_RdBl",
    contour_shade_colour_list_policy = "dynamic",
    contour_shade_colour_reverse_list = contour_shade_colour_reverse_list,
    contour_shade_colour_method = "palette")
```



- Thinning of the wind when using NetCDF data.

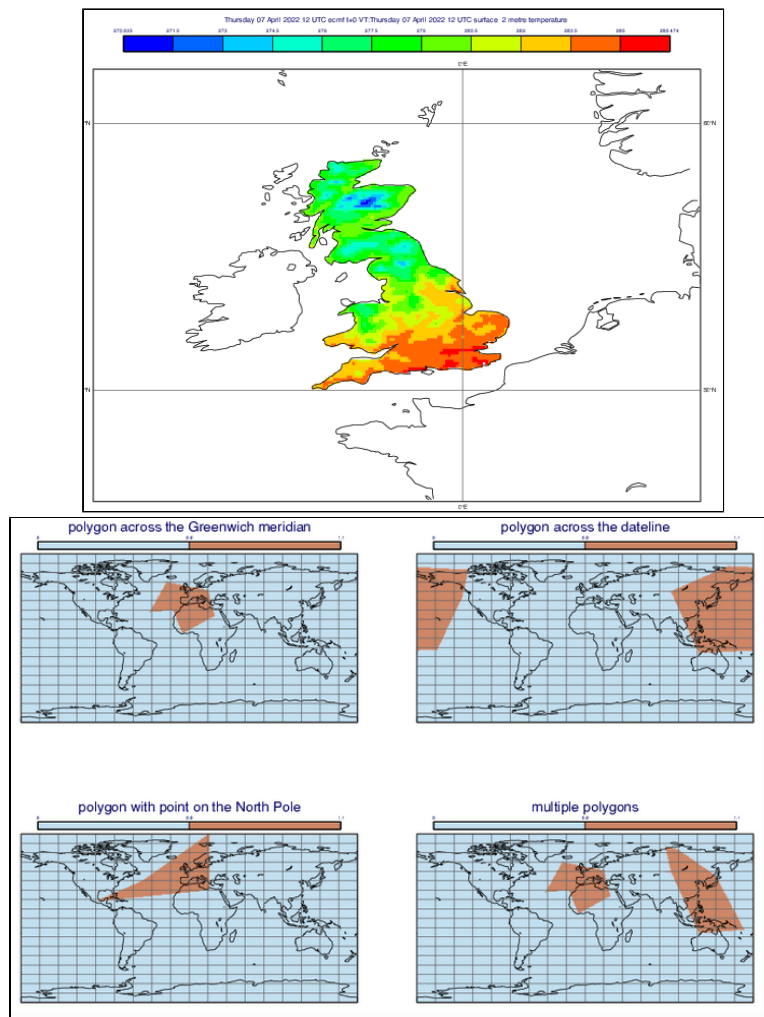
You can try all the new features on the release notebook.

[Launch Jupyter](#)

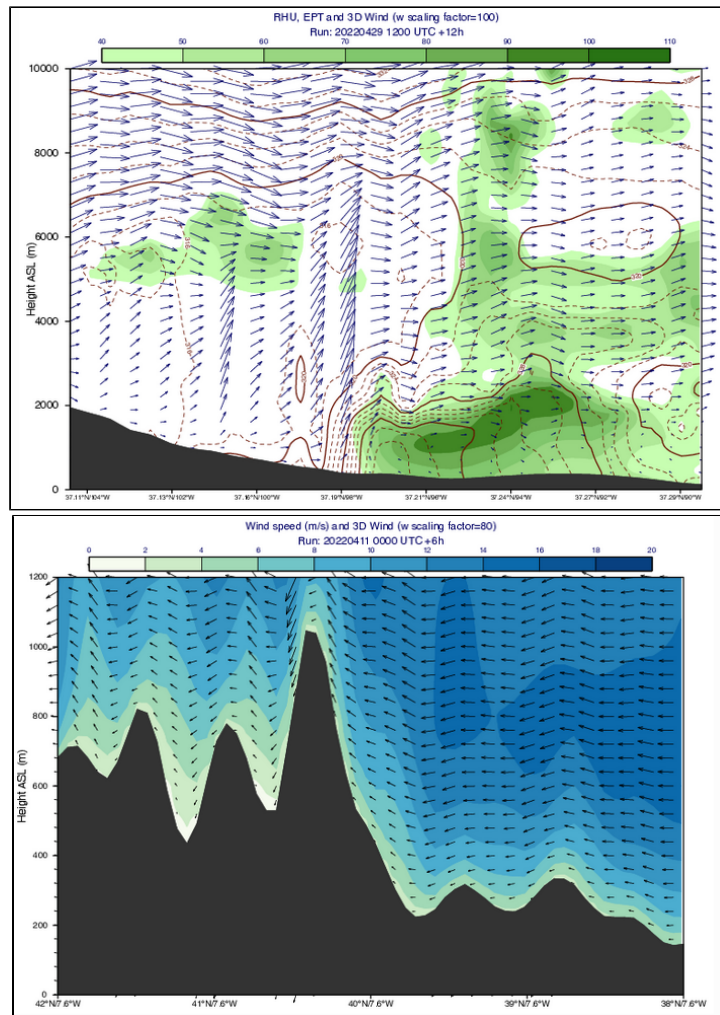
Metview

Metview 5.16.0 brings a mix of new features, fixes and improvements including:

- the ability to mask GRIB and Geopoints data to an arbitrary geographic polygon using the new [poly_mask\(\)](#) function
- improvements in the Cross Section module including more options to handle vertical levels and a fix when plotting 3D wind
- improvements in vertical Hovmoeller generation including more options to handle vertical levels and point selection
- functions [mean\(\)](#) and [sum\(\)](#) now have an option called `missing` to control how to handle missing values during the computations - this allows means and sums to be computed at gridpoints where there are a mixture of missing and valid values
- improvements in functions [mvl_ml2hPa\(\)](#), [ml_to_hl\(\)](#), [mvl_geopotential_on_ml\(\)](#) mean that they are now several times faster than before
- added the new EPSG:3035 projection to [geoview\(\)](#)
- and more - see the [release notes](#)!



The new `poly_mask()` function opens up the possibility to mask data using shapefiles and other means of defining polygons



Improvements in cross sections include handling of wind and other values close to the orography

Metview's Python interface version **1.12.0** brings new features, including:

- add 'reverse' and/or operators between Fieldsets and bools (e.g. True & my_fieldset)
- see [Metview Python Release Notes](#) for more information

Metview is built at ECMWF with all the versions of our libraries listed in the table below, and all are included in the [The Metview Source Bundle](#).

The software versions of this release are available on all ECMWF computer systems as "new" versions. Versions on conda should be available in the coming days. If you encounter any issues please feel free to use the [ECMWF Support Portal](#).

ecCodes	2.26.0	Latest news
Magics	4.12.0	Latest news
Metview	5.16.0	Latest news