

CodesUI

The top screenshot displays the 'Data tree' panel, showing a hierarchical structure of message data. The 'Locations' panel on the right shows a list of locations with columns for 'key', 'value', 'units', 'flagID', and 'flagID'. The bottom screenshot shows the 'Locations' panel with a world map displaying numerous red dots representing observation locations. The map is interactive, allowing users to zoom in and out. The table below the map lists the coordinates and other data for each location.

Message	Subnet	Rank	Latitude	Longitude
226	1	-1	37.1000	127.0000
227	1	-1	-6.8800	71.1000
228	1	-1	54.7000	17.3000
229	1	-1	51.1000	16.8000
230	1	-1	52.4000	30.3000
231	1	-1	56.4000	30.3000
232	1	-1	48.0000	32.2000
233	1	-1	49.8000	32.0000
234	1	-1	47.0000	166.8000



CodesUI is a **standalone** interactive application built on **ecCodes** and **Qt5/Qt6** to inspect:

- WMO FM-92 **GRIB** [edition 1](#) and [edition 2](#) messages
- WMO FM-94 **BUFR** [edition 3](#) and [edition 4](#) messages.

With CodesUI it is possible to:

- inspect the overall structure of GRIB and BUFR files
- examine the data and metadata of the individual messages

For BUFR data these additional features are also available:

- filtering BUFR messages
- extracting tabular data from BUFR messages
- plotting BUFR observation locations on an interactive map

Please note that although CodesUI has some basic plotting capabilities it is not a visualisation system.



You can install CodesUI from conda with:

```
conda install codes-ui -c conda-forge
```

Alternatively, you can build it from source (see instructions [here](#)).



CodesUI shares its codebase with the GRIB and BUFR examiners of the [Metview](#) meteorological workstation system. It was packaged as a **standalone software application** with the minimum possible dependencies **requiring only ecCodes and Qt5/Qt6** for installation.