The FLEXPART interface

This documentation is outdated. Please visit this page on readthedocs for the latest version.

What is FLEXPART?

FLEXPART is a Lagrangian particle dispersion model developed and used by a scientific community. It can be driven by meteorological input data from a variety of global and regional models including ECMWF analyses and forecasts.

The home of the software is https://www.flexpart.eu/.

What Metview version do I need for FLEXPART?

The minimum Metview version to use is **5.0.**

How to use FLEXPART with Metview?

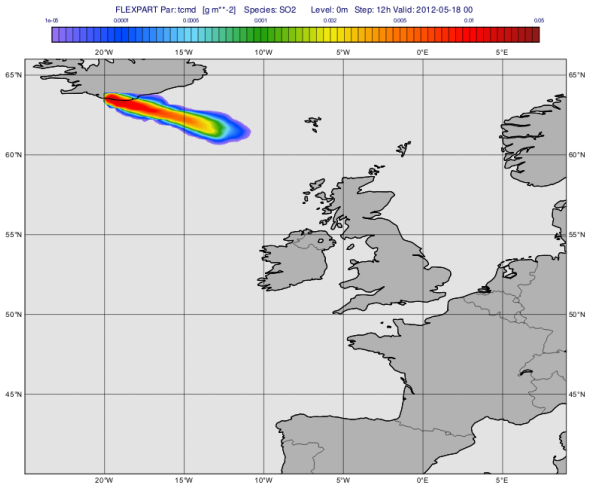
Metview provides a high level interface to **prepare** input data for FLEXPART from ECMWF's MARS archive (via the FLEXPART Prepare icon),

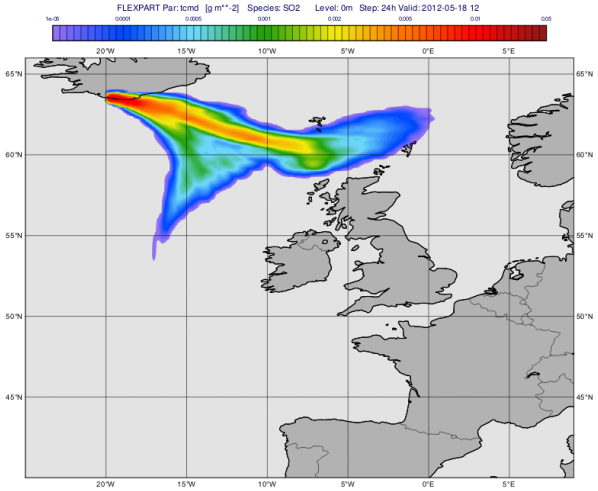
perform a FLEXPART **simulation** (via the FLEXPART Run icon)

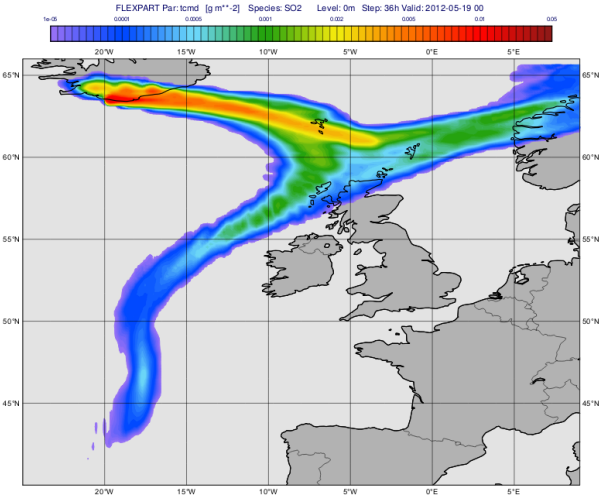
and visualise the resulting output files. For the **visualisation** the gridded outputs in FLEXPART's custom binary format are **converted** to GRIB (click here for details).

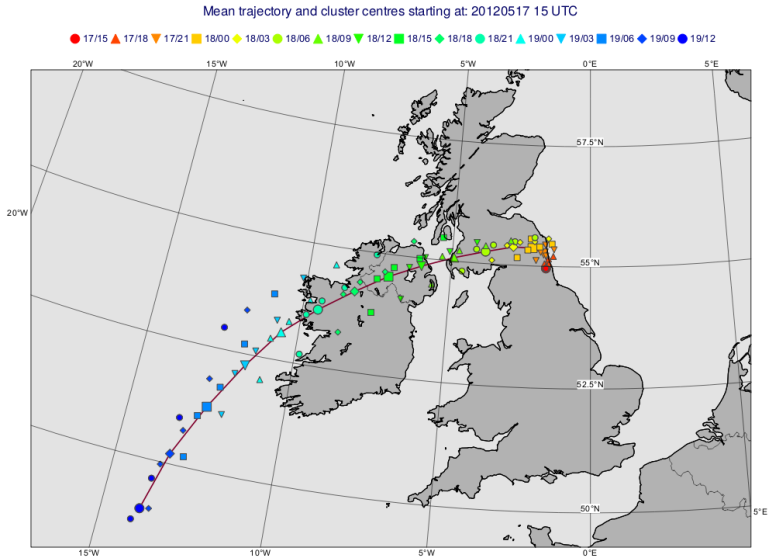
Tutorial

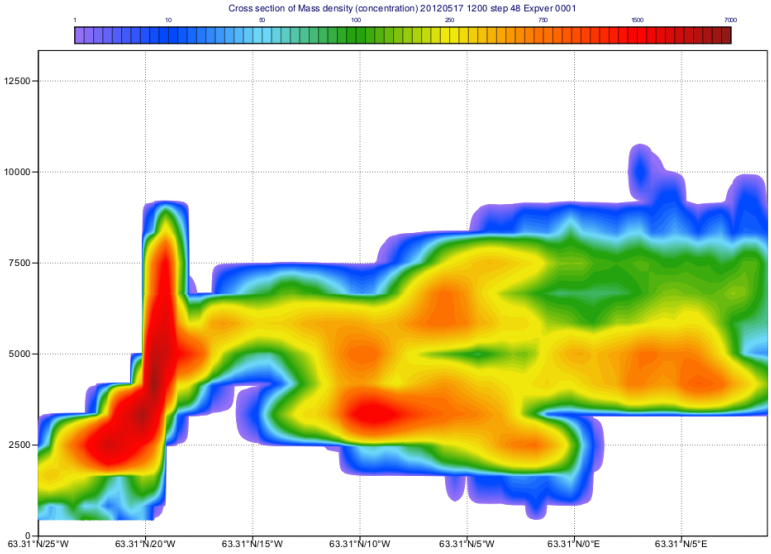
There is a tutorial available on the use of FLEXPART with Metview explaining both the basics of the FLEXPART simulations and the related visualisation techniques. The snapshots below showcase a few of the FLEXPART plot types that can be generated with Metview:


FLEXPART Par: tcmd [g m**-2] Species: SO2 Level: 0m Step: 12h Valid: 2012-05-18 00
1e-05 0.0001 0.0005 0.001 0.002 0.005 0.01 0.05
20°W 15°W 10°W 5°W 0°E 5°E
65°N 60°N 55°N 50°N 45°N


FLEXPART Par: tcmd [g m**-2] Species: SO2 Level: 0m Step: 24h Valid: 2012-05-18 12
1e-05 0.0001 0.0005 0.001 0.002 0.005 0.01 0.05
20°W 15°W 10°W 5°W 0°E 5°E
65°N 60°N 55°N 50°N 45°N


FLEXPART Par: tcmd [g m**-2] Species: SO2 Level: 0m Step: 36h Valid: 2012-05-19 00
1e-05 0.0001 0.0005 0.001 0.002 0.005 0.01 0.05
20°W 15°W 10°W 5°W 0°E 5°E
65°N 60°N 55°N 50°N 45°N





What FLEXPART version is supported in Metview?

> ⚠ Please note that the Metview interface was written for **version 9.02 of FLEXPART**.

FLEXPART at ECMWF

FLEXPART is installed at ECMWF to be directly used from within Metview. You can find out more about it here.

FLEXPART outside ECMWF

Details about setting up the Metview FLEXPART interface outside ECMWF can be accessed here.