

OpenIFS Documentation

OpenIFS main help

- [OpenIFS User Guides](#): please see the user guide for instructions on how to install and run OpenIFS.
- [How-to articles](#): find out how to do a number of things such as altering the code, changing model output, visualizing the output, debugging and so on.
- [Known issues](#): lists various known problems and their resolution.
- [Frequently Asked Questions](#)
- [User Forums](#). You can search the User Forums for answers or ask a message or question.

IFS scientific & technical documents

ECMWF has many publications online, including user manuals, tutorials, seminar proceedings, technical reports and the newsletter, amongst other documents.

The full list of ECMWF publications can be found at: <http://www.ecmwf.int/en/research/publications>.

A more general complete description of the ECMWF Integrated Forecast System (IFS) can be found in the [ECMWF Forecast User Guide](#).

On this page...

See also...

- [OpenIFS releases and release notes](#)
- [OpenIFS publications](#)
- [ECMWF Forecast User Guide](#)

Related documents

[Model climate \(login required\)](#): plots and statistics for control integrations of the various model cycles.

[ALADIN IFS training workshop](#) (some technical presentations relevant to OpenIFS)

[Basics on Arpege/IFS 43r3](#) (from Meteo-France, some is relevant for OpenIFS 43r3)

Other IFS based models

[EC-Earth](#)

[HIRLAM consortium](#)

[Arpege-ALADIN-AROME](#)
(MeteoFrance)

[RC LACE](#)

Scientific & technical documentation

IFS manuals for all model cycles

[IFS manuals are available](#) here.

The manuals on 'Dynamics & Numerical Procedures', 'Physical Processes' and 'Technical & Computational Procedures' are the ones most appropriate for OpenIFS.

Additional ECMWF documentation

- [Numerics of physical parameterization](#), Beljaars et al, Proceedings of 2004 ECMWF seminar on Advances in Numerical Techniques.
- [Ocean wave model output parameters](#) (Jean-Raymond Bidlot - 2016).
- [Radiation quantities in the ECMWF model](#) (Robin Hogan)

Diagnostics

Manuals provided by [GmapDoc website](#) (MeteoFrance)

FULLPOS 'In-model' post-processing

Cycle **43r3**

- [FULLPOS scientific doc](#) (PDF)

Cycle **38r1/40r1**

- [FULLPOS scientific doc](#) (PDF)
- [FULLPOS user guide](#) (PDF)
This is for an older cycle but still useful introduction to FULLPOS.
- [FULLPOS scientists guide](#) (PDF)
This for an older model cycle.

DDH 'In-model' budgets on user-defined domains

- [User guide](#) (PDF).

Code standards for OpenIFS

Code in OpenIFS should be written to follow the conventions in use at ECMWF.

Please follow this link to the document maintained by MeteoFrance: <http://www.umr-cnrm.fr/gmapdoc/spip.php?article213&lang=en>

Tutorials and documentation for other software

Tutorials

ECMWF provide a number of tutorials useful for learning about aspects of OpenIFS related software. Please see [Publications on main ECMWF](#) website and follow links or follow specific links below.

- [GRIB training course notes](#): library and tools (PDFs)
- [Metview visualisation tutorials](#): New users, GUI & macros.
- [Magics plotting software](#): Simple & advanced usage.

Software tools

- [MARS - Data Archive Retrieval documentation](#).
- [GRIB-API documentation](#).
- [MAGICS graphics software](#). Includes manuals and training course materials.
- [METVIEW visualisation](#), data processing desktop application.
- [DrHook instrumentation tool](#) user guide.

e-Learning resources

ECMWF produce online, freely available, e-Learning courses on a range of topics.

Please visit the [ECMWF e-Learning portal](#) for the full list. Courses include for example:

- Parametrization of diabatic processes.
- Parametrization of sub-grid processes.
- Ensemble forecasting.