

Atlas

What is Atlas?

Summary

Atlas is a ECMWF library for parallel data-structures supporting unstructured grids and function spaces.

Atlas is predominantly C++ code, with main features available to Fortran codes through a F2003 interface.

It requires some flavour of Unix (such as Linux). It is known to run on a number of systems, some of which are directly supported by ECMWF.

Greek Mythology

Atlas was the primordial Titan who held up the celestial spheres. He is also the titan of astronomy and navigation.

He is the son of Aether (Air) and Gaia (Earth).

The Atlantic Ocean is named after Atlas (meaning Sea of Atlas). See [Wikipedia](#).

PS -- Atlas is not an acronym, so it should not be capitalized.

Applications using Atlas

1. [FVM](#) – researching an alternative more scalable dynamical core based on an unstructured edge based finite volume scheme.
Atlas provides the underlying data storage and parallelisation
2. [MIR](#) – development of new interpolation software, capable of any to any grid interpolation.
Atlas provides the underlying mesh data structure
3. [IFS](#) – the Integrated Forecasting System
Atlas adds grid-point derivative capabilities
4. [ESCAPE](#) and [PolyMitos](#) dwarfs – isolated algorithmic building blocks that constitute a NWP model
Atlas serves as the underlying data structure for many of the dwarfs.

How to download Atlas

If you are a general user go to: <https://git.ecmwf.int/projects/ATLAS/repos/atlas/browse>

If you are an ESCAPE user go to: <https://git.ecmwf.int/projects/ESCAPE/repos/atlas/browse>

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