

Wikiprint Book

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Table of Contents

Placeholder for table of contents

0

The *SPECS-EUPORIAS Data Portal* is based on a password-protected THREDDS data server (TDS) providing metadata and data access to a set of georeferenced atmospheric variables using OPeNDAP and other remote data access protocols. The variables names, units and additional metadata follow the [?CF convention](#). The variables are spatial grids based on multidimensional arrays of indexed values, following Unidata's *Coordinate convention*¹².

Typically the data portal will include information at a daily resolution, but monthly-aggregated values could be also provided in some cases due to data limitations (in particular, *Météo-France* and *Met Office* have agreed to provide monthly mean hindcasts for their use by the *SPECS* and *EUPORIAS* partners). In general, the data available will be typical surface variables (e.g. precipitation and near-surface temperature), although several variables (e.g. geopotential and temperature) on pressure levels will also be stored for the statistical downscaling activities.

The data gathering activities have initially focused on the *ECMWF System4 seasonal model*. The Meteorological Archival and Retrieval System (MARS) is the main repository of meteorological data at the *ECMWF* (European Centre for Medium-Range Weather Forecasts). It contains terabytes of operational and research data as well as data from special projects³. The large amount of information stored and the inherent complexities of data access, download and post-processing is a first shortcoming for a flexible use of these datasets by a large number of partners. To overcome this issue, a reduced subset of surface variables⁴ (precipitation, temperatures and mean sea level pressure) have been downloaded from MARS (a collection of GRIB-1 files) at 0.75° spatial resolution and made available through the *SPECS-EUPORIAS data portal*. The downloaded data has been exposed as three different virtual datasets using TDS:

- **System4 seasonal range (15 members):** There are twelve initializations (hereafter called *runtimes*) per year (the first of January, February, ...) running for 7 months (hereafter called simply *times*). An ensemble of 15 members is available for the whole 1981-2010 period.
- **System4 seasonal range (51 members):** There are only four *runtimes* per year (the first of February, May, August and November) and the forecasts run for 7 months. An ensemble of 51 members is available for the whole 1981-2010 period.
- **System4 annual range (15 members):** As in the previous case, there are four *runtimes* per year, but the forecasts run for 13 months. An ensemble of 15 members is available for the whole 1981-2010 period.

Data gathering activities will next move to the CFS ([?http://cfs.ncep.noaa.gov](http://cfs.ncep.noaa.gov)) version 2 hindcast, developed at the *Environmental Modeling Center at NCEP* and also to reanalysis and observational datasets.