The Structure of the CEOP Model Data as provided by the participating Centres

Overview

by
Hans Luthardt & Frank Toussaint

WDC-Climate
at Model & Data Group / MPI-M

Remarks:

In the following graphs one dot represents one data set of one time/forecast step unless otherwise stated.
Where several dots are framed the frame colours refer to the following formats:

- GRIB
- others
- netCDF

Vertical scales can be model level, pressure levels, geometric.

Formats are IEEE, ASCII or netCDF for MOLTS data and GRIB for gridded data.

The parameter sets vary from centre to centre, identical parameters often are given different names and maybe different units.
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: NCEP - GRID

Assimilation time = model initialisation + forecast step

verification time = model initialisation + forecast step

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horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation
verification time = model initialisation + forecast step

Centre : NCEP - MOLTS
Framed area represents 1 file of all parameter and all locations
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation

verification time = model initialisation + forecast step

Centre: GLDAS - GRID

none yet
Day 1
Day 2
Day 3
Day 4

Forecast time/step
Verification time = model initialisation + forecast step
Assimilation time = model initialisation

Centre: GLDAS - MOLTS
Framed area represents 1 file for each parameter and each EOP
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation

verification time = model initialisation + forecast step

Centres: UKMO - GRID

Framed areas represent 2 data sets (2D/3D)
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: UKMO - MOLTS

Framed areas represent 2 data sets (2D/3D)

Assimilation time = model initialisation + forecast step
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: ECMWF - GRID

Every dot at t+0 represents 4 data sets (ml, pl, 2*sfc); other dots represent 2 data sets (sfc)

Assimilation time = model initialisation
verification time = model initialisation + forecast step
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation

verification time = model initialisation + forecast step

Framed areas represent 5/1 monthly files for forecast/t+0

Centre: ECMWF - MOLTS
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation
verification time = model initialisation + forecast step

Centre: JMA - GRID
Framed area represents 3 data sets of 3 different spatial resolutions
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: GMAO - GRID

Framed area represents 5 data sets for 1 day of different parameters

Assimilation time = model initialisation + forecast step

Verification time = model initialisation + forecast step
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation + forecast step

Centre: GMAO - MOLTS

Framed area represent 1 data set per location (all times)
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations
Day 1
Day 2
Day 3
Day 4
Forecast time/step
Horizontal lines connect points of equal forecast step width.
Vertical lines connect points of equal verification time.
Diagonal lines connect points of equal model runs/initialisations.

Assimilation time = model initialisation + forecast step.
Verification time = model initialisation.

Centre: BMRC - MOLTS

Framed areas represent 1 data set per location per month.

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horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: NCMRWF - GRID

Every blue dot represents 2 data sets (sfc/3d)
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: NCMRWF - MOLTS

Assimilation time = model initialisation

verification time = model initialisation + forecast step

none yet
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation

verification time = model initialisation + forecast step

Centre: ECPC_RII6 - MOLTS
horizontal lines connect points of equal forecast step width
verticle lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation
verification time = model initialisation + forecast step

Centre: ECPC_RII36 - MOLTS
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation + forecast step
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: ECPC_SFM6 - MOLTS

Assimilation time = model initialisation + forecast step

Verification time = model initialisation
Day 1

Forecast time/step:
- Horizontal lines connect points of equal forecast step width.
- Vertical lines connect points of equal verification time.
- Diagonal lines connect points of equal model runs/initialisations.

Assimilation time = model initialisation + forecast step.

Centre: ECPC_SFM36 - MOLTS.

Verification time = model initialisation + forecast step.
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: CPTEC - GRID

Assimilation time =
model initialisation

verification time =
model initialisation + forecast step

Dot represents
3 data sets consisting of
grb, gmp and
ctl files
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Assimilation time = model initialisation + forecast step

Centre: CPTEC - MOLTS

none yet

Framed area represents 1 data set for all locations per month
The image shows a graph with horizontal, vertical, and diagonal lines connecting points of equal forecast step widths, verification times, and model runs/initializations. The graph includes the following annotations:

- **Forecast time/step**: The horizontal lines connect points of equal forecast step width.
- **Verification time**: Vertical lines connect points of equal verification time.
- **Model runs/initializations**: Diagonal lines connect points of equal model runs/initializations.

The graph is labeled with time stamps such as t+0, t+6, t+12, etc., and corresponding times are shown at the bottom of the graph. The graph also includes a section titled "Centre: CMC - GRID."
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Centre: EMC - MOLTS

Assimilation time = model initialisation + forecast step

verification time = model initialisation + forecast step

planned
horizontal lines connect points of equal forecast step width
vertical lines connect points of equal verification time
diagonal lines connect points of equal model runs/initialisations

Forecast time/step

Centre: EMC - MOLTS

Assimilation time = model initialisation

Verification time = model initialisation + forecast step

planned

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