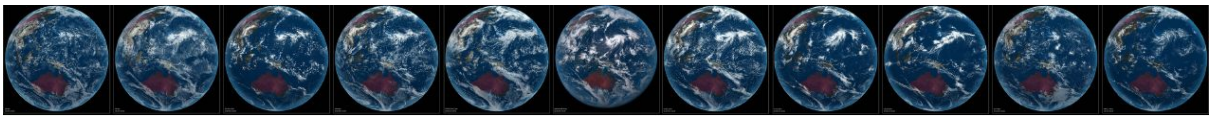

DYAMOND Winter Data request details

Data transfer

You might transfer your data via:

- scp or rsync
- Globus with endpoint: dkrz#hpc-data

If you have questions or need further information, please contact the ESiWACE coordination team esiwace@dkrz.de.

File splitting

This time we will not have enough disk space to keep all data available at the same time. We will probably be able to have ⅓ of the data on disk, and will have to move the remainder to the tape archive.

With the request below, we aim to

1. keep the total number of files limited so handling is less cumbersome
2. keep files small enough for quick transfer and selective download from the tape archive
3. group variables where file sizes stay reasonable for use in post-processing tools where loading from different files at the same time is cumbersome.

To ensure smooth operation of the DYAMOND winter data collection and provision despite these limitations, we kindly ask you to adhere to the following standards as much as possible:

File conventions:

- **Split the data by day.**
  This keeps file count and sizes reasonable. It also allows keeping one or two representative days on disk for testing and debugging scripts, and downloading the remainder sequentially on use.
- **Grouping in sensible units is appreciated.** See below for an example.
  - **Atm 3D 3h fields in one file per variable and day.**
  - **Atm 2D 15 min fields by use, one file per day**
  - **Oce 3D 3h fields (top layers) one file per day for all variables.**
  - **Oce 2D hourly fields in one file per day for all variables.**
- **If your model splits output by geographical region (e.g. cubed sphere) that's fine.**

Example grouping:

The following ICON grouping may serve as an example.

Atmosphere 3D requested fields on 3h interval, one file per variable and day (Table 1)

dpp0015_atm_3d_u_ml_20200121T000000Z.nc
ua | standard name "eastward_wind"
dpp0015_atm_3d_v_ml_20200121T000000Z.nc
va | standard name "northward_wind"
dpp0015_atm_3d_w_ml_20200121T000000Z.nc
wap | standard name "omega"
dpp0015_atm_3d_t_ml_20200121T000000Z.nc
ta | standard name "air_temperature"
dpp0015_atm_3d_pres_ml_20200121T000000Z.nc
pfull | standard name "air_pressure"
dpp0015_atm_3d_qv_ml_20200121T000000Z.nc
hus | standard name "specific_humidity"
dpp0015_atm_3d_tot_qc_dia_ml_20200121T000000Z.nc
clw | standard name "clw"
dpp0015_atm_3d_tot_qi_dia_ml_20200121T000000Z.nc
cli | standard name "cli"

Atmosphere 2D requested fields on 15min interval, one file per day (Table 2)

dpp0015_atm1_2d_ml_20200121T000000Z.nc
prw | standard name "total_vapour"
cllvi | standard name "total_cloud_water"
clivi | standard name "total_cloud_ice"
qgvi | standard name "total_graupel"
qrvi | standard name "total_rain"
qsvi | standard name "total_snow"
dpp0015_atm2_2d_ml_20200121T000000Z.nc
clt | standard name "clt"
hfls | standard name "lhflx"
hfss | standard name "shflx"
psl | standard name "mean sea level pressure"
ps | standard name "surface_air_pressure"
pr | standard name "pr"
dpp0015_atm3_2d_ml_20200121T000000Z.nc
uas | standard name "uas"
vas | standard name "vas"
tas | standard name "tas"
dpp0015_atm4_2d_ml_20200121T000000Z.nc
ts | standard name "surface_temperature"
tauu | standard name "u_stress"
tauv | standard name "v_stress"
dpp0015_atm_2d_avg_ml_20200121T000000Z.nc
rsut | standard name "toa_outgoing_shortwave_flux"
rlut | standard name "toa_outgoing_longwave_flux"
rsds | standard name "surface_downwelling_shortwave_flux_in_air"
rlds | standard name "surface_downwelling_longwave_flux_in_air"
rsus | standard name "surface_upwelling_shortwave_flux_in_air"

rlus | standard name "surface_upwelling_longwave_flux_in_air"
rsdt | standard name "toa_incoming_shortwave_flux"
rsutcs | standard name "toa_outgoing_shortwave_flux_assuming_clear_sky"
rlutcs | standard name "toa_outgoing_longwave_flux_assuming_clear_sky"
rsdscs | standard name "surface_downwelling_shortwave_flux_in_air_assuming_clear_sky"
rldscs | standard name "surface_downwelling_longwave_flux_in_air_assuming_clear_sky"
rsuscs | standard name "surface_upwelling_shortwave_flux_in_air_assuming_clear_sky"
dpp0015_atm_omega_3d_pl_20200121T000000Z.nc (atm fields on pressure levels)
wap | standard name "omega"
zg | standard name "geometric_height_at_full_level_center"

Ocean 3D requested fields on 3h interval, one file per day (Table 3)

dpp0015_ocean3D_u200m_20200121T000000Z.nc
to | standard name "sea_water_potential_temperature"
so | standard name "sea_water_salinity"
u | standard name "u"
v | standard name "v"
w | standard name "w"

Ocean 2D requested fields on 1h interval, one file per day (Table 4)

dpp0015_ocean2D_1h_20200121T000000Z.nc
zos | standard name "zos.TL2"
mlotst | standard name "mlotst"
Qtop | standard name "Qtop"
Qbot | standard name "Qbot"
atmos_fluxes_stress_x | standard name "atmos_fluxes_stress_x"
atmos_fluxes_stress_y | standard name "atmos_fluxes_stress_y"
atmos_fluxes_stress_xw | standard name "atmos_fluxes_stress_xw"
atmos_fluxes_stress_yw | standard name "atmos_fluxes_stress_yw"
atmos_fluxes_HeatFlux_ShortWave | standard name "atmos_fluxes_HeatFlux_ShortWave"
atmos_fluxes_HeatFlux_LongWave | standard name "atmos_fluxes_HeatFlux_LongWave"
atmos_fluxes_HeatFlux_Sensible | standard name "atmos_fluxes_HeatFlux_Sensible"
atmos_fluxes_HeatFlux_Latent | standard name "atmos_fluxes_HeatFlux_Latent"
atmos_fluxes_HeatFlux_Total | standard name "atmos_fluxes_HeatFlux_Total"
atmos_fluxes_FrshFlux_Precipitation | standard name "atmos_fluxes_FrshFlux_Precipitation"
atmos_fluxes_FrshFlux_SnowFall | standard name "atmos_fluxes_FrshFlux_SnowFall"
atmos_fluxes_FrshFlux_Evaporation | standard name "atmos_fluxes_FrshFlux_Evaporation"
atmos_fluxes_FrshFlux_Runoff | standard name "atmos_fluxes_FrshFlux_Runoff"
sea_level_pressure | standard name "Sea_Level_Pressure"
Wind_Speed_10m | standard name "Wind_Speed_10m"
dpp0015_ocean3D_top_level_20200121T000000Z.nc
to | standard name "sea_water_potential_temperature"
so | standard name "sea_water_salinity"
u | standard name "u"
v | standard name "v"
vort | standard name "vort"
dpp0015_ocean2D_3h_20200121T000000Z.nc
hi | standard name "hi"
conc | standard name "conc"
ice_u | standard name "ice_u"
ice_v | standard name "ice_v"