

DEPHY2 : Réunion sur un format commun de forçage des cas 1D

(en visioconférence le 15/12/2015)

Modifiés le 10/10/2017

Etaient présents : Eric Bazile, Isabelle Beau, Yves Bouteloup, Jean-François Guérémy, Romain Roehrig, Marie-Pierre Lefebvre, Pascal Marquet

On propose la structure de format ci-dessous inspirée des fichiers du testbed du KNMI.
Tous les mnémoniques sont prévus mais pas forcément présents dans le fichier pour tous les cas.
Les flags de forçages (en dessous du tableau) sont à mettre dans les attributs globaux.
Le fichier netcdf cas.nc a deux dimensions : le nombre de niveaux des forçages et le nombre de pas de temps des forçages.

E.Bazile propose de réaliser ce fichier de forçage pour le cas Gabls4.

R.Roehrig pour le cas Cindy Dynamo.

MP Lefebvre pour le cas Rico.

P.Marquet pour le cas fire ou arm_cu.

J-F Guérémy pour le cas eurocs_CVP_fg

Prochaine réunion prévue lors des AMA2016.

Name	dim1	dim2	Description	Unit
coor_par_a	nlev+1		Pressure height discretiz. coeff.	
coor_par_b	nlev+1		Pressure height discretiz. coeff.	
height_h	nlev+1		Height (half level)	m
pressure_h	nlev+1		Pressure (half level)	Pa
height_f	nlev		Height (full level)	m
pressure_f	nlev		Pressure (full level)	Pa
temp	nlev	t	Temperature	K
theta	nlev	t	Potential Temperature	K
thv	nlev	t	Virtual Potential Temperature	K
thl	nlev	t	Liquid Potential Temperature	K
ths	nlev	t		K
qv	nlev	t	Vapor specific humidity	kg/kg
ql	nlev	t	Liquid specific humidity	kg/kg
qi	nlev	t	Ice specific humidity	kg/kg
qt	nlev	t	Total specific humidity	kg/kg
rh	nlev		Relative Humidity	%
u	nlev	t	nlevonal wind component	m/s
v	nlev	t	Meridional wind component	m/s
w	nlev	t	Vertical wind	m/s
omega	nlev	t	Vertical wind	Pa/s
ug	nlev	t	Zonal geostrophic wind	m/s

Name	dim1	dim2	Description	Unit
vg	nlev	t	Meridional geostrophic wind	m/s
uadv	nlev	t	U large scale total advection : $uadv=uadvh+uadvv$	m/s/s
uadvh	nlev	t	U horizontal large scale advection	m/s/s
uadvv	nlev	t	U vertical large scale advection	m/s/s
vadv	nlev	t	V large scale total advection : $vadv=vadvh+vadvv$	m/s/s
vadvh	nlev	t	V horizontal large scale advection	m/s/s
vadvv	nlev	t	V vertical large scale advection	m/s/s
tadv	nlev	t	Temperature large scale total advection : $tadv=tadvh+tadvv$	K/s/s
tadvh	nlev	t	Temperature horizontal large scale advection	K/s/s
tadvv	nlev	t	Temperature vertical large scale advection	K/s
qadv	nlev	t	Specific humidity total large scale advection : $qadv=qadvh+qadvv$	kg/kg/s
qadvh	nlev	t	Specific humidity horizontal large scale advection	kg/kg/s
qadvv	nlev	t	Specific humidity vertical large scale advection	kg/kg/s
qtadvh	nlev	t	Total specific humidity horizontal large scale advection	kg/kg/s
thadv	nlev	t	Theta total large scale advection: $thadv=thadvh+thadvv$	K/s/s
thadvh	nlev	t	Theta horizontal large scale advection	K/s/s
thadvv	nlev	t	Theta vertical large scale advection	K/s
thladvh	nlev	t	Thetal horizontal large scale advection	K/s/s
radv	nlev	t	Mixing ratio large scale total advection: $radv=radvh+radvv$	kg/kg/s
radvh	nlev	t	Mixing ratio large scale horizontal advection	kg/kg/s
radvv	nlev	t	Mixing ratio large scale vertical advection	kg/kg/s
radcool		t	Radiative cooling	K/s
sfc_sens_flux		t	Surface sensible heat flux (positive downward)	W/m2
sfc_lat_flux		t	Surface latent heat flux (positive downward)	W/m2
ts		t	Surface temperature	K
ps		t	Surface pressure	Pa
ustar		t	Surface friction velocity	m/s
tke		t	Turbulent kinetic energy	m2/s2
q1		t	Heating rate	K/s
q2		t	Humidity rate ($-dq*Lv$)	K/s
ustress			U momentum flux	m2/s2
vstress			V momentum flux	m2/s2
orog			Orography (surface altitude)	m
albedo			albedo	0-1

Name	dim1	dim2	Description	Unit
fcorio			Coriolis force	N/kg
emiss			surface emissivity	
t_skin			skin temperature	K
q_skin			skin humidity	m
mom_rough			momentum roughness length	m
heat_rough			heat roughness length	m
o3		t	ozone concentration	
rugos			roughness length	m
clay			texture: % of clay	
sand			texture: % of sand	

Global attributes:

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:title = "Forcing and initial conditions for ?? case" ;
:reference = indicate web site address where cas description is available;
:author = Name of the person who created the driver file ;
:case = Name of the case ;
:version= Date of the version of this file;
:startDate = "yyyymmddhhmmss" ;
:endDate = "yyyymmddhhmmss" ;
:tadv=0/1;
:qadv=0/1;
:qadvh = 0/1 ;
:tadvh = 0/1 ;
:tadvv = 0/1 ;
:qadvv = 0/1 ;
:trad = 0/1/adv ;      0=activate radiation scheme
                       1=prescribed radiation with tend_rad
                       adv=radiation prescribed and included in horizontal/vertical advection

:forc_omega = 0/1 ;
:forc_w = 0/1 ;
:forc_geo = 0/1 ;
:forc_ustar=0/1;
:nudging_u = 0 or nudging time ;
:nudging_v = 0 or nudging time ;
:nudging_t = 0 or nudging time ;
:nudging_q = 0 or nudging time ;
:orog = surface altitude ;
:surfaceType = "ocean/land/see ice/land ice" ;
:surfaceForcing = "surface temperature" ;
: feel free to add any comment about forcings and setup.

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