1D-cases : definition of inputs and outputs for models:

A/ inputs for 1D simulations :

1/ Initial profile:

- Time of the beginning
- Latitude and longitude of the point
- initial profiles of th, q, u, v, P on a vertical grid. The pressure and altitude at the surface will also be provided.
- Rugosity length scale
- In case where the surface scheme will be run, the specification of soil characteristics (ocean or land : % clay and % sand), ground temperature and soil moisture initialisation (here the example provided below gives the temperature and soil moisture at three different levels), emissivity and albedo.

A proposition for the format of the initial profile, written in ascii file, is :
Press(0) Nlevels
Alt(1) Press(1) Th(1) rv(1) u(1) v(1) T(1) q(1) in [m, hPa, K, kg/kg, m/s, m/s, K, kg/kg]
Alt(2) Press(2) Th(2) rv(2) u(2) v(2) T(2) q(2)
….
Alt(n) Press(n) Th(n) rv(n) u(n) v(n) T(n) q(n)
Zo zoT in [m, m]
Lat Lon in [°, °]
Ocean/Land (keyword)
%clay %sand (if fluxes are forced all the following value are equal to 999.)
Nlevels
Tg1 Sm1 in [K, given in Soil Water index]
Tg2 sm2
Tg3 sm3
ε &

Note here that the initial conditions are provided in potential temperature and mixing ratio in the file above they have been converted to temperature and specific humidity using the following formula:
T=th*(P/Po)^(R/cp)
q=r/(1.+r)
with th, the potential temperature, Po=1000., P the pressure in hPa, r the mixing ratio, T the temperature and q the specific humidity.
R/Cp=0.286 in our computation.

2/ Boundary conditions:
The surface boundary conditions can either be a ‘flux condition’ or a ‘surface temperature’ or ‘a fixed beta ratio’ (beta being the evaporation over the potential evaporation, and the soil temperature being nudged) or’ a fixed bowen ratio’ or the ‘normal surface scheme’.
- evolving with time prescribed surface fluxes (W/m2) given every 30 min.
- a temperature in (K)
- albedo if it evolves with time
- If there is a nudging towards soil temperature then a keyword SOILT, then number of levels and the temperature towards the nudging is done with the given nudging time

A proposition for the format of the boundary conditions, written in ascii file, is:
Keyword (FLUX or TEMP or BETA or BOWEN or SURF)
Ntime Beta Bowen
Time (1) Sens_heat_flux (1) Lat_heat_flux (1) in [s, W/m2, W/m2] or Time (1) Temp (1) Albedo (1) in [s, K, K]
Time (2) Sensible_heat_flux (2) Latent_heat_flux (2) or Time (2) Temp (2) Albedo (2)
…
Time (n) Sensible_heat_flux (nt) Latent_heat_flux (nt) or Time (n) Temp (n) Albedo (n)
[SOILT
3
Tg1 Tau1
Tg2 Tau2
Tg3 Tau3]

In case of a fixed sea surface temperature of 300K, the file will be:
TEMP
1
300 0.23

3/ Large-scale forcings:

The large-scale forcings can be given in term of large-scale tendency on potential temperature, water vapour mixing ratio and wind or in term of profiles towards which the profiles are nudged. These forcings can evolve with time.
A proposition for the format of the large-scale forcings, written in ascii file, *tendance_profile_z_P_tendu_tendv_wfrc_tendth_tendrv_tendT_tendq_setupI.txt*, is :

The first two lines correspond to a mask giving which fields are nudged and for which one a tendency is prescribed. Following there is for the different time, 7 columns: altitude, pressure, u profile or u tendency, v profile or v tendency, w profile, th profile or th tendency, qv profile or qv tendency
TEND 0 0 1 1 1 : this means that the vertical velocity is used to prescribed the vertical advection and that the tendency for potential temperature and water vapour are used.
TEND 0 0 0 1 1 : this means that only the tendency for potential temperature and water vapour are used.
NUD T1 T1 0 0 0 : this means that the winds are nudged towards the provided profiles with a nudging time of T1
NUD –1 –1 0 0 0 : this means that the winds are nudged towards a geostrophic winds provided

Ntime
Nlevels
To, given in : forecast time (s) year month day time (s)
*Alt (1) Press (1) LS_u_tend (1) or u(1) LS_v_tend(1) or v(1) LS_vert_vel (1) LS_*θ*_tend (1) or* θ*(1) LS_rv_tend (1) or rv (1) LS_*T*_tend (1) or* T*(1) LS_q_tend (1) or q (1)in [m, hPa, m/s², m/s², m/s, K/s, kg/kg/s, K/s, kg/kg/s]*
*Alt (2) Press (1) LS_u_tend (2) or u(2) LS_v_tend(2) or v(2) LS_vert_vel (2) LS_*θ*_tend (2) or* θ*(2) LS_rv_tend (2) or rv(2) LS_*T*_tend (2) or* T*(2) LS_q_tend (2) or q (2)*

….
Alt (n) Press (n) LS_u_tend (n) or u(n) LS_v_tend(n) or v(n) LS_vert_vel (n) LS_θ_tend (n) or θ(n) LS_rv_tend (n) or rv(n) LS_T_tend (n) or T(n) LS_q_tend (n) or q (n)
t1
Alt (1) Press (1) LS_u_tend (1) or u(1) LS_v_tend(1) or v(1) LS_vert_vel (1)   LS_θ_tend (1) or θ(1) LS_rv_tend (1) or rv (1) LS_T_tend (1) or T(1) LS_q_tend (1) or q (1)in [m, hPa, m/s², m/s², m/s, K/s, kg/kg/s, K/s, kg/kg/s]
….
Alt (n) Press (n) LS_u_tend (n) or u(n) LS_v_tend(n) or v(n) LS_vert_vel (n) LS_θ_tend (n) or θ(n) LS_rv_tend (n) or rv(n) LS_T_tend (n) or T(n) LS_q_tend (n) or q (n)
…
nt
Alt (1) Press (1) LS_u_tend (1) or u(1) LS_v_tend(1) or v(1) LS_vert_vel (1)   LS_θ_tend (1) or θ(1) LS_rv_tend (1) or rv (1) LS_T_tend (1) or T(1) LS_q_tend (1) or q (1)in [m, hPa, m/s², m/s², m/s, K/s, kg/kg/s, K/s, kg/kg/s]
….
Alt (n) Press (n) LS_u_tend (n) or u(n) LS_v_tend(n) or v(n) LS_vert_vel (n) LS_θ_tend (n) or θ(n) LS_rv_tend (n) or rv(n) LS_T_tend (n) or T(n) LS_q_tend (n) or q (n)

If the LS vertical velocity is null then the tendency corresponds to the total advection whereas if the vertical velocity is non-null then the tendency corresponds to the horizontal advection and the vertical velocity should be used to compute the vertical advection using the vertical gradient computed by the model.
When, no radiation scheme is used the temperature tendency will include the radiative tendency.

If possible, all the models should provide two runs : one with a predefined fine vertical resolution (at lease for case 1.1 in order to test the LES vertical grid) and one with the standard vertical resolution used in the climate runs.

For the nudging, an additional file could be provided giving the nudging coefficient if it varies with height following the format:
Ntime
Nlevels
To, given in : forecast time (s) year month day time (s)
Alt (1) Press (1) nudg_time_u (1) nudg_time_v (1) nudg_time_th(1) nudg_time_qv(1)
Alt (2) Press (2) nudg_time_u (2) nudg_time_v (2) nudg_time_th(2) nudg_time_qv(2)
…
Alt (n) Press (n) nudg_time_u (n) nudg_time_v (n) nudg_time_th(n) nudg_time_qv(n)
T1, given in : forecast time (s) year month day time (s)
Alt (1) Press (1) nudg_time_u (1) nudg_time_v (1) nudg_time_th(1) nudg_time_qv(1)
Alt (2) Press (2) nudg_time_u (2) nudg_time_v (2) nudg_time_th(2) nudg_time_qv(2)
…
Alt (n) Press (n) nudg_time_u (n) nudg_time_v (n) nudg_time_th(n) nudg_time_qv(n)
…
Tn, given in : forecast time (s) year month day time (s)
Alt (1) Press (1) nudg_time_u (1) nudg_time_v (1) nudg_time_th(1) nudg_time_qv(1)
Alt (2) Press (2) nudg_time_u (2) nudg_time_v (2) nudg_time_th(2) nudg_time_qv(2)
…

Alt (n) Press (n) nudg_time_u (n) nudg_time_v (n) nudg_time_th(n) nudg_time_qv(n)

4/ Scalar information:

Similarly, three files that describe the scalar initial profiles, fluxes and large-scale forcings (tendency or nudging) can also be given. The scalars can be any passive scalar or also any mixing ratio (ql, qi,…).

A proposition for the format of the initial profile, written in ascii file, is :

Press(0) Nlevels Nscalar
Alt(1) Press(1) Q_sc1(1) Q_sc2 (1) Q_sc3 (1) … Q_scn(1)
Alt(2) Press(2) Q_sc1(2) Q_sc2 (2) Q_sc3 (2) … Q_scn(2)
….
Alt(n) Press(n) Q_sc1(n) Q_sc2 (n) Q_sc3 (n) … Q_scn(1)

A proposition for the format of the scalar flux conditions, written in ascii file, is:

Ntime Nscalar
Time (1) Flux_sc1 (1) Flux_sc2 (1)… Flux_scn(1)
…
Time (n) Flux_sc1 (n) Flux_sc2 (n)… Flux_scn(n)

A proposition for the format of the large-scale forcings, written in ascii file, is :

Nscalar
TEND 0 0 1 1 1 : indicating the scalar that will use a tendency for the large-scale forcings
NUD T1 T1 0 0 0 : indicating the scalars that will be nudged with a nudging time..
NUD –1 –1 0 0 0 : this means that the winds are nudged towardsa geostrophic winds provided

Ntime
Nlevels
To
Alt (1) Press (1) sc1_tend (1) or sc1(1) sc2_tend(1) or sc2(1) … scn_tend (1) or scn (1)
…
Alt (n) Press (n) sc1_tend (n) or sc1(n) sc2_tend(n) or sc2(n) … scn_tend (n) or scn (n)
…
Tn
Alt (1) Press (1) sc1_tend (1) or sc1(1) sc2_tend(1) or sc2(1) … scn_tend (1) or scn (1)
…
Alt (n) Press (n) sc1_tend (n) or sc1(n) sc2_tend(n) or sc2(n) … scn_tend (n) or scn (n)

B/ Outputs for 1D simulations:

In this section, there will be two levels of outputs. Level A corresponds to the mandatory outputs and Level B to the desirable outputs.

If possible, the output of the runs should be in netcdf files but ascii files are also possible.

For the netcdf files, the name of the variables is given into {}.

For ascii files, please follow this order and fill with –9999. if the variable is not given.

0/Description of the model:

Please send in a short description of the SCM you use that adresses shortly the following points. In addition a reference of a publication that contains a model description would also be helpful.

Turbulence scheme:

* 1a. What kind of turbulence scheme ? (e.g., K profile, Louis type, TKE-l ...)
* b. Give formulation of eddy diffusivity K. For E-l and Louis-type scheme: give formulation length scale, and for K-profile: how is this profile determined ? (e.g., based on Richardson, Brunt-Vaisala frequency (N^2), Parcel method, other
* c. Which variables are used for mixing (give them all) ? (e.g., theta, water vapor, and liquid water, wind) ? Do they use the same K?
* d. Moist (based on moist conserved variables) or dry formulation stability parameters (Ri, N^2). For moist formulations: How is interpolation between dry and wet cases done (e.g., linear in cloud fraction.
* e. Is top-entrainment prescribed or implicit?
* f. For TKE schemes: TKE surface boundary condition. How is transport of TKE done (diffusion constant TKE transport).
* g. Is there also a mass-flux scheme? How is it initialised? What is the closure? What is the definition of entrainment and detrainement? For which variables are there some equations (mass-flux, vertical velocity, liquid potential temperature, total mixing ratio…)?
* h Other things you would like to mention.

Cumulus convection:

* 2a. Separate scheme (which?) for cumulus convection, or is mixing in Cu represented by turbulence scheme.
* b. How is the cumulus scheme triggered (when is convection switched on)?
* c. If turbulence scheme: is there any special treatment of K for cumulus clouds ?
* d. If mass flux scheme, give: 1) Closure at cloud base (cloud base value of massflux, q_t, theta_l), 2) entrainment and detrainment formulation for updraft (e.q., fixed or variable entrainment coefficients) and 3), formulation detrainment at cloud top (e.g., Prescribed thickness, prescribed number of levels, dependent on stability inversion, ...)
* e. other things you would like to mention?

Cloud fraction and condensation/evaporation:

* 3a. Diagnostic or prognostic cloud fraction. If diagnostic: based on which variables? If prognostic: based on which processes?
* b. Does the model have a prognostic equation for liquid (ice) water, and if so, how is condensation and evaporation computed.
* c. Which parameters are passed to the radiation code.

Deep convection:

* 2a. What are the main assumptions and theory of the scheme?
* b. How is the convection scheme triggered (when is convection switched on)?
* c. Are the down drafts considered ?
* d. If mass flux scheme, give: 1) Closure at cloud base (cloud base value of massflux, q_t, theta_l), 2) entrainment and detrainment formulation for updraft (e.q., fixed or variable entrainment coefficients) and 3), formulation detrainment at cloud top (e.g., Prescribed thickness, prescribed number of levels, dependent on stability inversion, ...)

* e. other things you would like to mention?

Numerical aspects:
* 4a. What is the vertical (and horizontal) resolution of the model ? In which model (climate model, mesoscale weather prediction model, regional model) ? Which time step do you use ?
* b. At which vertical resolution do you aim in the near future (say, coming 5 years)

<u>1/ Vertical profiles:</u>

Level A:

Vertical profiles at every time step (including the initial time) of :

A keyword can be at the beginning to ask every time steps (ALL) , or every xxxxs (3600s for every hours):

- altitude (m) {zf}
- pressure (hPa) {P}
- density (kg/m3) {rho}
- potential temperature (K) {theta}
- liquid potential temperature (K) {thetal}
- total mixing ratio (kg/kg) {qt}
- water vapour mixing ratio (kg/kg) {qv}
- saturation mixing ratio (kg/kg) {qs}
- liquid mixing ratio (kg/kg) {ql}
- ice mixing ratio (kg/kg) {qi}
- rain mixing ratio (kg/kg) {qr}
- snow mixing ratio (kg/kg) {qsn}
- graupel mixing ratio (kg/kg) {qg}

NB the number of given hydrometeors will depend on the microphysics scheme used in the models)

- zonal wind (m/s) {u}
- meridional wind (m/s) {v}
- cloud fraction () {cf}
- mass flux (kg/m-2/s) {Mf}
- updraft cloud mass flux from the shallow convection scheme (kg/m-2/s) {Mu_sc}
- updraft cloud mass flux from the deep convection scheme (kg/m-2/s) {Mu_dc}
- downdraft cloud mass flux from the shallow convection scheme (kg/m-2/s) {Md_sc}
- downdraft cloud mass flux from the deep convection scheme (kg/m-2/s) {Md_dc}
- turbulent vertical total moisture flux (m.kg/kg/s) {wqt_turb}
- turbulent vertical liquid potential temperature flux (m. K/s) {wthl_turb}
- convective vertical total moisture flux (m.kg/kg/s) {wqt_conv}
- convective vertical liquid potential temperature flux (m. K/s) {wthl_conv}
- liquid potential temperature flux (m.K/s) {wthl}
- total moisture flux (m.kg/kg/s) {wqt}
- zonal momentum flux (kg/m/s²) {wu}
- meridional momentum flux (kg/m/s²) {wv}
- turbulent kinetic energy (m2/s2) {TKE}
- liquid potential temperature tendency from radiation scheme (K/s) {dthldt_rad}
- liquid potential temperature tendency from shallow convection or EDMF scheme (K/s) {dthldt_shcon}

- liquid potential temperature tendency from deep convection scheme (K/s) {dthldt_conv}
- liquid potential temperature tendency from turbulence scheme (K/s) {dthldt_turb}
- liquid potential temperature tendency from microphysics scheme (K/s) {dthldt_mi}
- liquid potential temperature tendency from large-scale forcings (K/s) {dthldt_ls}
- total moisture tendency from shallow convection or EDMF scheme (kg/kg/s) {dqtdt_shcon}
- total moisture tendency from deep convection scheme (kg/kg /s) {dqtdt_conv}
- total moisture tendency from turbulence scheme (kg/kg /s) {dqtdt_turb}
- total moisture tendency from microphysics scheme (kg/kg /s) {dqtdt_mi}
- total moisture tendency from large-scale forcings (kg/kg/s) {dqtdt_ls}

As the 1D simulations are not very heavy, an output for each time step is asked. The different averaging could then be computed afterwards.

Level B:
Vertical profiles every time step of :

- downwelling shortwave radiative fluxes (W/m2) {SW_dn}
- upwelling shortwave radiative fluxes (W/m2) {SW_up}
- downwelling longwave radiative fluxes (W/m2) {LW_dn}
- upwelling longwave radiative fluxes (W/m2) {LW_up}
- precipitation fluxes (m.kg/kg/s) {prec_flux}
- vertical velocity variance (m2/s2) {w2}
- vertical velocity skewness () {sk_w}

NB: For each mass-flux scheme (boundary layer, shallow convection ,deep convection), please provide characteristics of the mean updraft. For the variable names, Sch can be substituted by (turb, shcon,conv) depending of the function of the mass-flux scheme

- vertical velocity (m/s) {Sch_wu}
- liquid potential temperature (K) {Sch_thlu}
- total mixing ratio (kg/kg) {Sch_qtu}
- virtual potential temperature (K) {Sch_thvu}
- liquid mixing ratio (kg/kg) {Sch_qlu}
- coverage fraction (-){Sch_alphau}

NB: the same values can be provided if downdrafts are considered in the mass flux :

- vertical velocity (m/s) {Sch_wd}
- liquid potential temperature (K) {Sch_thld}
- total mixing ratio (kg/kg) {Sch_qtd}
- virtual potential temperature (K) {Sch_thvd}
- liquid mixing ratio (kg/kg) {Sch_qld}
- coverage fraction{Sch_alphad}

If ascii files, please provide those fields in three different files:
File 1: ‘mean_state_’+NAMEOFTHEMODEL

Nt
Nlevels
Time (1) (in hours)
Alt(1) Press(1) u(1) v(1) Th(1) qv(1) ql(1) qi(1) qr(1) qs(1) qg(1) rho(1) cf(1) in [m, hPa, m/s, m/s, K, kg/kg, kg/kg, kg/kg, kg/kg, kg/kg, kg/kg, kg/m3,-]
Alt(2) Press(2) u(2) v(2) Th(2) qv(2) ql(2) qi(2) qr(2) qs(2) qg(2) rho(2) cf(2)

...
Alt(n) Press(n) u(n) v(n) Th(n) qv(n) ql(n) qi(n) qr(n) qs(n) qg(n) rho(n) cf(n)
Time (2) (in hours)
Alt(1) Press(1) u(1) v(1) Th(1) qv(1) ql(1) qi(1) qr(1) qs(1) qg(1) rho(1) cf(1)
Alt(2) Press(2) u(2) v(2) Th(2) qv(2) ql(2) qi(2) qr(2) qs(2) qg(2) rho(2) cf(2)
...
Alt(n) Press(n) u(n) v(n) Th(n) qv(n) ql(n) qi(n) qr(n) qs(n) qg(n) rho(n) cf(n)

File 2: 'fluxes_'+NAMEOFTHEMODEL
Nt
Nlevels
Time (1) (in hours)
Alt(1) Press(1) Mu_sc(1) Md_sc(1) Mu_dc(1) Md_dc(1) wqt_turb(1) wthl_turb(1) wqt_conv(1) wthl_conv(1) wu(1) wv(1), tke(1) in [m, hPa, kg/m-2/s, kg/m-2/s, kg/m-2/s, kg/m-2/s, m.kg/kg/s, m.K/s, m.kg/kg/s, m.K/s, kg/m/s², kg/m/s², m²/s²]
Alt(2) Press(2)…

File 4: 'tendencies_'+NAMEOFTHEMODEL
Nt
Nlevels
Time (1) (in hours)
Alt(1) Press(1) dthldt_rad(1) dthldt_shcon(1) dthldt_conv(1) dthldt_turb(1) dthldt_mi (1) dthldt_ls(1) dqtdt_shcon(1) dqtdt_conv(1) dqtdt_turb(1) dqtdt_mi(1) dqtdt_ls (1) in [m, hPa, K/s, K/s, K/s, K/s, K/s, K/s, kg/kg/s, kg/kg/s, kg/kg/s, kg/kg/s, kg/kg/s
Alt(2) Press(2) …

File 5: 'othermoments_'+NAMEOFTHEMODEL
Nt
Nlevels
Time (1) (in hours)
Alt(1) Press(1) SW_down(1) SW_up(1) LW_up(1) LW_down(1) prec_flux (1) w2(1) sk_w (1) in [m, hPa, W/m², W/m², W/m², W/m², kg/kg.m/s, m²/s², -]
Alt(2) Press(2)…

File 6: 'updraft_mass_flux _'+NAMEOFTHEMODEL
Nt
Nlevels
Nsch [nb of mass-flux scheme]
Time (1) (in hours)
Alt(1) Press(1) Sch1_wu(1), Sch1_thlu (1), Sch1_qtu (1) Sch1_thvu (1) Sch1_qlu (1) Sch1_alphau(1), Sch2_wu(1) Sch2_thlu(1) Sch2_qtu(1) Sch2_thvu (1) Sch2_qlu (1) Sch2_alphau(1) in [m, hPa, m/s, K, kg/kg, -, m/s, K, kg/kg, -]

File 7: 'downdraft_mass_flux _'+NAMEOFTHEMODEL
Nt
Nlevels
Nsch [nb of scheme that explicitly accounts for downdrafts]

Time (1) (in hours)

Alt(1) Press(1) Sch1_wd(1), Sch1_thld (1), Sch1_qtd (1), Sch1_alphad(1), Sch2_wd(1), Sch2_thld(1), Sch2_qtd(1) Sch2_alphad(1) in [m, hPa, m/s, K, kg/kg, -, m/s, K, kg/kg, -]

2/ Time series:

Level A:

- Surface sensible heat fluxes (W/m2) {Surf_shf}
- Surface latent heat fluxes (W/m2) {Surf_lhf}
- Surface ground heat fluxes (W/m2) {Surf_ghf}
- Soil temperatures (K) at the 3 different levels {Tsoil1} {Tsoil2} {Tsoil3}
- Soil moisture in SWI at the 3 different levels {qsoil1} {qsoil2} {qsoil3}
- Surface downwelling shortwave radiative fluxes (W/m2) {Surf_SW_down}
- Surface upwelling shortwave radiative fluxes (W/m2) { Surf_SW_up}
- Surface downwelling longwave radiative fluxes (W/m2) { Surf_LW_down}
- Surface upwelling longwave radiative fluxes (W/m2) { Surf_LW_up}
- Surface clear-sky downwelling shortwave radiative fluxes (W/m2) {Surf_cs_SW_down}
- Surface clear-sky upwelling shortwave radiative fluxes (W/m2) { Surf_ cs_SW_up}
- Surface clear-sky downwelling longwave radiative fluxes (W/m2) { Surf_ cs_LW_down}
- Surface clear-sky upwelling longwave radiative fluxes (W/m2) { Surf_ cs_LW_up}
- Top of Atmosphere downwelling shortwave radiative fluxes (W/m2) { Toa _SW_down}
- Top of Atmosphere upwelling shortwave radiative fluxes (W/m2) { Toa _SW_up}
- Top of Atmosphere downwelling longwave radiative fluxes (W/m2) { Toa _LW_down}
- Top of Atmosphere upwelling longwave radiative fluxes (W/m2) { Toa_LW_up}
- Stratiform rainfall (mm) {Strat_prec}
- Convective rainfall (mm) {Conv_prec}
- Surface zonal momentum fluxes (kg/m/s2) {Surf_uw}
- Surface meridional momentum fluxes (kg/m/s2) {Surf_vw}

File 1: 'radiative_fluxes_'+NAMEOFTHEMODEL

Nt

Time (1) Surf_SW_down (1) Surf_SW_up (1) Surf_LW_down (1) Surf_LW_up(1) Surf_cs_SW_down (1) Surf_cs_SW_up (1) Surf_cs_LW_down (1) Surf_cs_LW_up(1) Toa_SW_down (1) Toa_SW_up (1) Toa_LW_down (1) Toa_LW_up(1) in
[hour, W/m², W/m², W/m², W/m², W/m², W/m², W/m², W/m², W/m², W/m², W/m², W/m²]

Time (2) Surf_SW_down (2) Surf_SW_up (2) Surf_LW_down (2) Surf_LW_up(2) Surf_cs_SW_down (2) Surf_cs_SW_up (2) Surf_cs_LW_down (2) Surf_cs_LW_up(2) Toa_SW_down (2) Toa_SW_up (2) Toa_LW_down (2) Toa_LW_up(2)

...

File 2: 'other_series_'+NAMEOFTHEMODEL

Nt

Time (1) Surf_shf (1) Surf_lhf (1) Surf_ghf (1) Tsoil1 (1) Tsoil2 (1) Tsoil3 (1) qsoil1 (1) qsoil2 (1) qsoil3 (1) Strat_prec (1) Conv_prec (1) Surf_uw(1), Surf_vw(1) in
[hour, W/m², W/m², K, K, K, -, -, -,mm, mm, kg/m/s², kg/m/s²]

Time (2) Surf_shf (1) Surf_lhf (1) Surf_ghf (1) Tsoil1 (1) Tsoil2 (1) Tsoil3 (1) qsoil1 (1) qsoil2 (1) qsoil3 (1) Strat_prec (1) Conv_prec (1) Surf_uw(1), Surf_vw(1)

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