

Namelist "Instantaneous_Fields_Listing"

This data set defines the instantaneous fields of the physical quantities that the user want to record as results of simulation.

The recording rate is defined with the variable "Field_Recording_Rate" that belongs to the namelist "Simulation_Management".

The files of instantaneous fields are formatted in binary. They are named on the form res_XXXXXX.YYYY.d. 'YYYY' is the subdomain number for simulations based on the MPI domain-decomposition approach, 'XXXXXX' is the file number.

Name_of_Field

- Type : String of six characters (maximum)
- This data names the physical quantity to record. This name must match with the lookup table of the code which is composed of 18 pre-selected physical quantities.
 - "U " : Velocity component along the I-direction
 - "V " : Velocity component along the J-direction
 - "W " : Velocity component along the I-direction
 - "T " : Temperature
 - "P " : Pressure
 - "RHO " : Density of the fluid
 - "divU " : Divergence of the velocity field
 - "divRU " : Divergence of the momentum field
 - "PHI " : Pressure increment ($P^{n+1} - P^n$)
 - "drho " : Part of the source term of the Poisson's equation bounded to the mass variation. For expert users only.
 - "SCR_P " : Source term of the Poisson's equation. For expert users only.
 - "S_RAD " : Radiative source term (when radiative heat transfer is considered in some specific simulations)
 - "MU " : Dynamic viscosity of the fluid
 - "MU_SG " : subgrid dynamic viscosity associated to the LES model selected.
 - "TRACE " : Passive tracer or distance function used in the context of two-phase flow simulation with a level-set approach
 - "Te " : Electronic temperature (simulation of ionized gas)
 - "rho_e " : density of electrons (simulation of ionized gas)
 - "roehe " : Electronic enthalpy (simulation of ionized gas)

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