

localhost

File Edit View Run Kernel Tabs Settings Help

Launcher

Calypso\_control\_glossary.ipynb

Python 3 (ipykernel)

Block phys\_values\_ctl

Fields in the model are defined.

-Array nod\_value\_ctl [Field] [VIZ\_flag] [Monitor\_flag]

This first parameter is the field name. The field name is listed below. The second parameter is for the visualization output flag as

Flag	Description
Viz_on	Included into the field output file
Viz_off	Excluded from the field output file

The third parameter is for the spectrum monitor output flag as

Flag	Description
Viz_on	Included into monitoring data
Viz_off	Excluded from monitoring data

List of Base field

[Label]	Field name	Math expression
velocity	Velocity	$\mathbf{u}$
vorticity	Vorticity	$\omega = \nabla \times \mathbf{u}$
pressure	Pressure	$P$
temperature	Temperature	$T$
perturbation temp	Perturbation of	$\Theta = T - T_0$

Calypso\_control\_editor.ipynb

Python 3 (ipykernel)

d = Control\_Editor(ctl, '')

If the target (the last) block name is dimensionless\_ctl, coefficients\_ctl, momentum, induction, thermal, composition, or surface\_define, special block editor for the corresponding block is opened to check equations.

[14]: a = Control\_Editor(ctl, 'phys\_values\_ctl')

To reload current block, press "shift" + "return".

```
begin phys_values_ctl
  array nod_value_ctl
    nod_value_ctl velocity Viz_On Monitor_On
    nod_value_ctl temperature Viz_On Monitor_On
    nod_value_ctl pressure Viz_On Monitor_On
    nod_value_ctl vorticity Viz_On Monitor_On
    nod_value_ctl magnetic_field Viz_On Monitor_On
    nod_value_ctl current_density Viz_On Monitor_On
!
    nod_value_ctl Lorentz_work Viz_On Monitor_On
    nod_value_ctl buoyancy_flux Viz_On Monitor_On
!
    nod_value_ctl Coriolis_force Viz_On Monitor_On
    nod_value_ctl Lorentz_force Viz_On Monitor_On
    nod_value_ctl inertia Viz_On Monitor_On
!
    nod_value_ctl rot_Coriolis_force Viz_On Monitor_Off
    nod_value_ctl rot_Lorentz_force Viz_On Monitor_Off
    nod_value_ctl rot_inertia Viz_On Monitor_Off
    nod_value_ctl rot_buoyancy Viz_On Monitor_Off
  end array nod_value_ctl
end phys_values_ctl
```

Update phys\_values\_ctl

[15]: b = Control\_Editor(ctl, 'sph\_monitor\_ctl volume\_spectrum\_ctl[0]')

To reload current block, press "shift" + "return"

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