General Steering Parameters

PALM group

Institute of Meteorology and Climatology, Leibniz Universität Hannover

last update: 21st September 2015













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- Grid spacing
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- Data analysis should start only after onset of turbulence and after the mean flow has reached a (quasi-) stationary state
- Getting correct mean flow profiles generally requires temporal averaging of the data (e.g. over the eddy-turnover timescale in the convective boundary layer)



PALM Seminar





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 - kind of initial profiles, restart run, main run (following pre-run)





Steering parameters can be classified into different groups:

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 - grid spacing, number of gridpoints, etc.
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 - horizontal (cyclic/non-cyclic), vertical (Prandtl-layer, free-slip condition, etc.)
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- Output parameters
 - 1d, 2d, 3d output, output intervals, etc.



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 - 1d, 2d, 3d output, output intervals, etc.
- Physical parameters
 - latitude, angular velocity, etc.





A complete alphabetical list of all parameters can be found under: http://palm.muk.uni-hannover.de/trac/wiki/doc/app/parlist





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 - initializing_actions = 'set_constant_profiles' constant, piecewise linear, profiles are used





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 - initializing_actions = 'set_constant_profiles' constant, piecewise linear, profiles are used
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Restart run:

- initializing_actions = 'read_restart_data' data from the previous run in the job-chain are used



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General Steering Parameters 000• General Steering Parameters

PALM - Initialization Example

The following parameters have to be set for an initial atmosphere at rest with neutral temperature stratification and a capping inversion:

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initializing_actions = 'set_constant_profiles',
ug_surface = 0.0, vg_surface = 0.0,
pt_surface = 300.0,
pt_vertical_gradient = 0.0, 1.0,
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