

Default Variables Set by PBS

Category: PBS on Columbia

Columbia Phase Out:

As of Feb. 27, 2013, the Columbia21, Columbia23, and Columbia24 nodes have been taken offline as part of the Columbia phase out process. Columbia22 is still available. If your script requires a specific node, please make the appropriate changes in order to ensure the success of your job.

You can use the `env` command--either in a PBS script or from the command line of an interactive PBS session--to find out what environment variables are set within a PBS job. In addition to the PBS_xxxx variables, the following ones are useful to know:

NCPUS

Defaults to number of CPUs that you requested.

OMP_NUM_THREADS

Defaults to 1 unless you explicitly set it to a different number. If your PBS job runs an OpenMP or MPI/OpenMP application, this variable sets the number of threads in the parallel region.

OMP_DYNAMIC

Defaults to *false*. If your PBS job runs an OpenMP application, this disables dynamic adjustment of the number of threads available for execution of parallel regions.

MPI_DSM_DISTRIBUTE

Defaults to *true*. If your PBS job runs an MPI application, this ensures that each MPI process gets a unique CPU and physical memory on the node with which that CPU is associated.

FORT_BUFFERED

Defaults to 1. Setting this variable to 1 enables records to be accumulated in the buffer and flushed to disk later.

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Computing at NAS -> Running Jobs with PBS -> PBS on Columbia -> Default Variables Set by PBS

<http://www.nas.nasa.gov/hecc/support/kb/entry/195/?ajax=1>