Running with MPI ...

cbblanke 38 posts since

Apr 18, 2008 Should the output for an MPI run be an exact match for the 1-processor run? I am adding a new LSM to LIS and testing the MPI. I am seeing differences of about 10 parts per million in the forcing variables, except in the lower left quadrant of the map, where the 2 runs are exact matches. (I am running with 4 processors.) Is that normal? I am getting some other differences too but let's start with the forcing variables.

Clay Tags: lis, mpi

sujay *118 posts since*
Sep 20, 2007 1. **Re: Running with MPI** Oct 11, 2008 3:09 PM

Clay,

This is normal behavior. This occurs because of the round-off errors when each processor computes the domain locations independently. The reason your lower left corner matches the 4 process run is due to the fact that it is probably sent to the processor 0.

Hope this helps,

-S