

Porting & Developing: Overview

Category: Porting & Developing Applications

When you are in the process of developing a code or porting a code from another platform, it is important that the code runs correctly and/or reproduces the results from another platform.

These are some steps you can follow when developing or porting a code or when testing a new version of a compiler.

General guidelines:

- Start with small problem sizes and a few time steps/iterations so that you won't have to wait in the queue for a long time just to check whether the program is running correctly; setting up your PBS script, data files, and getting the program to run correctly can often be done with 10 minute jobs
- Use PBS' debug queue to get better turn-around time (**q=debug**)
- While porting, make the fewest changes possible in the code
- Use the same data sets to compare results on both old and new platforms
- Don't assume that an absence of error messages means the program is running correctly on either the old or the new platforms
- Be attentive to porting user data files: Fortran FORM='unformatted' files cannot be assumed to be portable
- Don't assume that the new platform is wrong and the old platform is right, both might be wrong

Other useful information that helps you to port or develop a code on NAS HECC systems can be found in subsequent articles.

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