Performance Analysis and Comparison of MPI, OpenMP and Hybrid NPB – MZ

Héctor J. Machín Machín
Texas A&M CS Department
REU Summer 2008
hjmachin@cs.tamu.edu

Weekly Report (May 27 – June 06)

Main Tasks:

- Gain knowledge in the area of parallel processing:
    1. Read the Introduction to Parallelism and Computing and MPI chapters of the Ian Foster Book.
    2. Then continuing with Dr Wu's links and papers about MPI, OpenMP and NPB – MZ has offered me a sense of knowledge in message passing.
    3. Learn how to copy, compile and run scripts in ssh submitting them to the San Diego Supercomputer Center (SDSC).
    4. Compile and run MPI scripts.
- Abstract of the project submitted.
- Web – page started.

Main Goals for future:

- Gain a deep understanding in the main directives of the MPI, OpenMP and NPB – MZ scripts to be able to describe what is doing each function in the script.
- Compile and run OpenMP and NPB – MZ scripts in SDSC and in Texas A&M Hydra.
- Learn the process of how to upload performance data to the Prophesy database and how to model this data via online Prophesy.

Need Help:

- Basically I need help for developing all my main future goals.