PCRC-based HPF Compilation

Guansong Zhang, Bryan Carpenter, Geoffrey Fox
Xiaoming Li*, Xinying Li, Yuhong Wen

NPAC at Syracuse University
Syracuse, NY 13244
{zgs, dbc, gcf, lxm, xli, wen}npac.syr.edu

July 11, 1997

Abstract

This paper describes an ongoing effort supported by ARPA PCRC (Parallel Compiler Runtime Consortium) project. In particular, we discuess the design and implementation of an HPF compilation system based on PCRC runtime. The approaches to issues such as directive analysis and communication detection are discussed in detail. The discussion includes fragments of code generated by the compiler.

Key words: HPF, PCRC, compiler, runtime
Acknowledgement: Much of the work reported here is a result of collaboration among Syracuse University, Harbin Institute of Technology, China, and Peking University, China. The authors would like to acknowledge this collaboration and thank our friends in the other two groups.

*Visiting scholar from HIT, China