PARALLEL-R and GIS: A FIRST LOOK

G. Fann, N. Samatova, S. Yoginath, D. Bauer, G. Kora and J. Kohl
Computer Science and Mathematics Division
Oak Ridge National Laboratory

INTRODUCTION

We report on work in progress on the integration of the parallel-R (Samatova et al), a parallel data analysis programming language for parallel computers and the GRASS GIS with PostgresSQL. The integration of GRASS GIS, PostgresSQL and R was reported in 2000 (Bivand-Neteler). The parallel-R code provides an interface and a user environment similar to the software R. Parallel-R, GRASS and PostgresSQL are Open Source software. We report on the performance GRASS/parallel-R applied to analyzing climate data on Beowulf clusters of PCs and also on a 256 processor SGI Altix. The results are visualized on the 35 Megapixel powerwall, EVEREST, at ORNL.

BIOGRAPHY

George Fann

Senior Staff Member, Computer Science and Mathematics Division, Oak Ridge National Laboratory. Research interest in parallel computing, fast computational methods and feature extraction.

REFERENCES
