Web Interface to R for High-Performance Computing

Junji Nakano[1,*] , Ei-ji Nakama[2]

1. The Institute of Statistical Mathematics, Tokyo, Japan
2. COM-ONE Ltd. Ishikawa, Japan
* Contact author: nakanoj@ism.ac.jp

As the amount of data is continuously increasing in these days mainly because of the development of data acquisition systems using powerful personal computers and networks, there is much need for R to handle large data sets. Supercomputers are appropriate means for such purposes. Supercomputer requires batch and job queuing system for achieving highest performance. The usage of such a system, however, is not easy for novices. For the ease of use of supercompers and personal cluster systems, we have developed a Web interface to R working with several job queuing systems such as OpenPBS, Torque, LoadLeveler and a UNIX command "at". Our Web interface enables us to select queue, numbers of active cores for multi-thread BLAS and MPI slaves. It uses a daemon process to execute user authentication, job submitting and file transfer.