

High Performance Computing with NetWorkSpaces for R

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Increasingly, R users have access to multiprocessor machines or multiple-core CPUs. However, base R does not natively support parallel processing; this can force R users to wait while computationally intensive work is done on a single processor or core and other processors or cores lie idle. NetWorkSpaces for R (NWS-R) was developed at Scientific Computing Associates, the predecessor to REvolution Computing. It is a Python-based coordination system that is portable across virtually all popular computing platforms. NWS-R includes a web interface that displays the workspaces and their contents; this is helpful when debugging or developing a program, or monitoring the progress of an application. NWS-R is easy to learn, accessible from many development environments, and deployable on ad hoc collections of spare CPUs. The server and client for NWS-R are available at SourceForge (nws-r.sourceforge.net); the client is also available at CRAN (cran.r-project.org/web/packages/nws/). We will present NetWorkSpaces for R and demonstrate the web interface.