Using RStudio and RStudio Server with R

Link to the last RSS article here: Simulation as an important method for learning and a necessary step of good research practice. -- Ed.

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This month we look at an open-source integrated development environment (IDE) for R: RStudio and the accompanying RStudio Server - the URL for the project is located at http://www.rstudio.org.

The layout of RStudio is consistent across the stand-alone version and server version of the IDE:

There are four regions of interest in RStudio: File Editor pane; Workspace-History pane; Console pane and the Files-
Plots-Packages-Help pane. The File Editor pane allows scripts to be entered and saved, and allows the whole script or highlighted portions of the script to be run with output displaying in the Console pane:

Additionally, the History pane displays past commands that have been run either as a script or in the Console pane. The Workspace pane keeps track of objects as they are created and gives descriptions of the objects (e.g. numeric, character, function, data.frame, etc):

Plots are displayed and are accumulated in the Plot pane; previous plots can be viewed by using the "back" and "foward" arrows or by using the short-cut key combination Ctl+Shift+PgDn:

RStudio has the R-help system built into the Help pane with global (within a loaded package) and local searches (within a help page) being available:
The RStudio server version has the same interface as the stand-alone version, but is accessible through a web-browser on a specified port (e.g. port 80, 8080 or some other web-related port). The server version of RStudio allows the state of the R session to remain suspended upon logout. Logging back enables the user to continue where he/she left off prior to logout:

RStudio run as a server, makes working with and sharing data and R scripts, across multiple platforms and multiple machines, very convenient. Directions for downloading and installing the RStudio Server version can be found at: http://www.rstudio.org/docs/server/getting_started.

References

- RStudio - http://www.rstudio.org/