Keywords:  ESS, R, development environment

Abstract

This tutorial will introduce the emacs environment, ESS (Emacs Speaks Statistics), for editing R code and interacting with R.

Emacs Speaks Statistics (ESS) is an add-on package for emacs text editors. It is designed to support editing of scripts and interaction with various statistical analysis programs such as R, S-Plus, SAS, Stata and JAGS. Although all users of these statistical analysis programs are welcome to apply ESS, advanced users or professionals who regularly work with text-based statistical analysis scripts, with various statistical languages/programs, or with different operating systems might benefit from it the most.

Goals

Show new users the advantages of using ESS and emacs. Show existing users newly-developed tools, such as those for literate programming (both Sweave and Org-babel).

Outline

1. Introduction (5 minutes)
2. Using Emacs (45 minutes)
3. Using ESS (60 minutes)
4. Emacs extensions, including Sweave and Org-babel (40 minutes)
5. Emacs Lisp and customization (20 minutes)
6. Future directions for ESS, wrap-up (10 minutes)

Prerequisites

Attendees should have a working knowledge of R. Some previous experience with Emacs is helpful, but not essential. Bring your laptop with you to complete the exercises. Please install R on it, and if possible, Emacs and ESS. Precompiled Emacs+ ESS bundles for Windows and Mac are available on the ESS home page http://ess.r-project.org/.

Intended Audience

We hope to attract both new users and provide a base for existing users to swap ideas and discuss future plans for ESS.

Material for Participants

Some material from the UseR! 2011 ESS Tutorial is available http://www.damtp.cam.ac.uk/user/sje30/ess11/. This year’s material will be available in May 2012.