

Tutorial: Emacs Speaks Statistics

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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)
Exercise 1: ESS
4. Emacs extensions, including Sweave and Org-babel (40 minutes)
Exercise 2: Sweave
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.