

# ESS [Emacs Speaks Statistics] Reference Card for S and R

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## Interacting with the process

For use in a process buffer (`inferior-ess-mode`):

|                              |                                |
|------------------------------|--------------------------------|
| <code>&lt;RET&gt;</code>     | Send a command                 |
| <code>C-c &lt;RET&gt;</code> | Copy old input                 |
| <code>&lt;TAB&gt;</code>     | Complete object or file name   |
| <code>C-c C-c</code>         | Break                          |
| <code>C-g</code>             | interrupt Emacs' waiting for S |
| <code>C-a / C-e</code>       | Beginning / End of command     |
| <code>C-c C-u</code>         | Delete this command            |
| <code>C-c C-w</code>         | Delete last word               |
| <code>C-c C-r</code>         | Top of last output             |
| <code>C-c C-o</code>         | Delete last output             |
| <code>C-c C-n</code>         | Next prompt                    |
| <code>C-c C-p</code>         | Previous prompt                |

## Command history (part of Menu 'In/Out')

|                      |                                  |
|----------------------|----------------------------------|
| <code>M-p</code>     | Previous command                 |
| <code>M-n</code>     | Next command                     |
| <code>C-c C-l</code> | List command history (& choose!) |
| <code>C-c M-r</code> | Previous similar command         |
| <code>C-c M-s</code> | Next similar command             |

## Others

|                      |                                     |
|----------------------|-------------------------------------|
| <code>C-c C-v</code> | Help for object                     |
| <code>C-c M-l</code> | Load source file                    |
| <code>C-c C-x</code> | List objects                        |
| <code>C-c C-s</code> | Display search list                 |
| <code>C-c C-q</code> | Quit from S                         |
| <code>C-c C-z</code> | Switch to most recent script buffer |

## Inside ESS Transcripts (I + O)

Inside `*.Rout` files:

|                            |                                   |
|----------------------------|-----------------------------------|
| <code>M-&lt;RET&gt;</code> | Send current line                 |
| <code>&lt;RET&gt;</code>   | Send and move to next line        |
| <code>C-&lt;RET&gt;</code> | Copy current line into ESS buffer |
| <code>C-c C-w</code>       | Clean Region (→ input only)       |

## Sweave

|                    |                 |
|--------------------|-----------------|
| <code>M-n s</code> | Sweave the file |
| <code>M-n l</code> | Run latex       |
| <code>M-n p</code> | Postscript file |
| <code>M-n P</code> | PDF file        |

## Editing source files

For use in `ess-mode` edit buffers, (`*.R` files):

|                            |                                     |
|----------------------------|-------------------------------------|
| <code>&lt;TAB&gt;</code>   | Indent this line                    |
| <code>M-&lt;TAB&gt;</code> | Complete filename/object            |
| <code>M-C-/</code>         | Indent region                       |
| <code>M-C-q</code>         | Indent this expression (use at '{') |
| <code>M-C-a</code>         | Beginning of function               |
| <code>M-C-e</code>         | End of function                     |
| <code>M-C-h</code>         | Mark this function                  |
| <code>C-u C-u C-y</code>   | Yank striped commands               |

## Evaluation commands (Prefix `C-u`: *in/visibly*)

|                            |  |
|----------------------------|--|
| <code>M-C-x</code>         | Evaluate region or function or para                |
| <code>C-c C-c</code>       | Evaluate region or para. or function & <i>step</i> |
| <code>C-&lt;RET&gt;</code> | Evaluate region or line & <i>step</i>              |
| <code>C-c C-l</code>       | Load this buffer's source file                     |
| <code>C-c C-j</code>       | Evaluate this line                                 |
| <code>C-c M-j</code>       | Evaluate this line and go                          |
| <code>C-c C-f</code>       | Evaluate this function                             |
| <code>C-c M-f</code>       | Evaluate this function and go                      |
| <code>C-c C-p</code>       | Evaluate this paragraph and step                   |
| <code>C-c C-r</code>       | Evaluate this region                               |
| <code>C-c M-r</code>       | Evaluate this region and go                        |
| <code>C-c C-b</code>       | Evaluate this buffer                               |
| <code>C-c M-b</code>       | Evaluate this buffer and go                        |

## Others

|                      |                          |
|----------------------|--------------------------|
| <code>C-c C-v</code> | Help for object          |
| <code>C-c C-z</code> | Switch to process buffer |

## General Commands

`ess-doc-map` (prefix `C-c C-d`):

|                     |   |
|---------------------|---|
| <code>C-a, a</code> | <b>A</b> propos   |
| <code>C-d, d</code> | <b>D</b> oc on object   |
| <code>C-e, e</code> | <b>D</b> escribe object at point ( <code>C-e</code> or <code>e</code> to cycle) |
| <code>C-i, i</code> | <b>I</b> ndex   |
| <code>C-v, v</code> | <b>V</b> ignettes   |
| <code>C-o, o</code> | <b>D</b> emos   |
| <code>C-w, w</code> | <b>W</b> eb search (dialect dependent)  |

`ess-extra-map` (prefix `C-c C-e`):

|                     |   |
|---------------------|---|
| <code>C-d, d</code> | <b>D</b> ump object into edit buffer                        |
| <code>C-e, e</code> | <b>E</b> valuate expression ( <code>C-u</code> in temp buf) |
| <code>C-i, i</code> | <b>I</b> nstall package (in R) or library                   |
| <code>C-l, l</code> | <b>L</b> oad package (in R) or library                      |
| <code>C-s, s</code> | <b>S</b> et indentation style                               |
| <code>C-t, t</code> | <b>B</b> uild tags for directory                            |

## Reading help files

For use in `*help[R] (...)*` help buffers:

|     |                                    |
|-----|------------------------------------|
| SPC | Next page                          |
| DEL | Previous page                      |
| n   | Next section                       |
| p   | Previous section                   |
| s   | Skip ('jump') to a named section   |
| s e | e.g., skip to "Examples:"          |
| l   | Evaluate one 'Example' line        |
| r   | Evaluate current region            |
| q   | Quit window                        |
| k   | Kill this buffer                   |
| x   | Kill this buffer and return to ESS |
| h   | Help on another object             |
| ?   | Help for this mode                 |
| a   | Display apropos                    |
| i   | Display index                      |
| v   | Display vignettes                  |
| w   | Display this help in web browser   |
| /   | Search (also on C-s)               |

## ESS tracebug

Commands in `ess-dev-map` (prefix C-c C-t):

|        |                                   |
|--------|-----------------------------------|
| ?      | Show key help                     |
| b      | Set BP (repeat to cycle)          |
| C-b, B | Set conditional BP                |
| C-k, k | Kill BP                           |
| C-K, K | Kill all BPs                      |
| C-n, n | Goto next BP                      |
| C-p, p | Goto previous BP                  |
| `      | Show R traceback (also on C-c `)  |
| ~      | Show R call stack (also on C-c ~) |
| C-e, e | Toggle error action (cycle)       |
| C-d, d | Flag for debugging                |
| C-u, u | Un-flag debugged objects          |
| C-w, w | Watch window                      |

Commands in `ess-debug-mode-map`  
(active during debugging):

|         |                   |
|---------|-------------------|
| M-C     | Continue          |
| M-N     | Next line         |
| M-Q     | Quit              |
| M-U     | Up frame          |
| C-M-S-c | Continue Multiple |
| C-M-S-n | Next Multiple     |

## Others

|              |                         |
|--------------|-------------------------|
| C-x ', M-g n | 'next-error' (emacs)    |
| M-g p        | 'previous-error'(emacs) |

## Package development

Evaluate your code into a given package (in `ess-dev-map`, prefix C-c C-t):

C-s, s      Select package for namespaced evaluation

Keybindings in `ess-r-package-mode` (C-c C-w)  
(call to `devtools` functions):

|        |   |
|--------|---|
| C-b, b | Build package ( <code>devtools::build()</code> )  |
| C-c c  | Check package ( <code>devtools::check()</code> )  |
| C-c w  | Check and build package with winbuilder<br>( <code>devtools::check_win_devel()</code> ) |
| C-c h  | Check and build package with R-hub<br>( <code>devtools::check_rhub()</code> )           |
| C-d, d | Document package ( <code>devtools::document()</code> )                                  |
| C-i, i | Install package ( <code>devtools::install()</code> )                                    |
| C-t, t | Run all tests ( <code>devtools::test()</code> )   |

## Editing documentation

Inside `*.Rd` files:

|               |  |
|---------------|--|
| C-c C-e       | Insert a template of help file                           |
| <TAB>         | Indent current line                                      |
| C-c C-f       | Prefix for font specifiers                               |
| C-c C-f <TAB> | Display list of font specifiers                          |
| C-c C-j       | Insert an '\item' on next line                           |
| C-c C-n       | (in example section)<br>send current line to ESS process |
| C-c C-p       | Preview help file in plain text                          |

For `Roxygen` users, inside `*.R` files  
(prefix C-c C-o):

|     |  |
|-----|--|
| C-o | Insert an <code>Roxygen</code> template                              |
| C-c | Add <code>##</code> prefix at the beginning<br>of all selected lines |
| C-r | Parse R file and get Rd code   |
| C-t | Parse R file and preview help file                                   |