

## Instructions for running the ESS Regression R code

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These instructions assume that you are running R for Windows, version 2.9.1. If you are running R on a different computing platform, the operations will be similar.

0) Save the .zip file that you downloaded from MDAnderson.org in a directory on your computer and expand it. Make note of the name and location of your directory.

1) Go to your Start menu, and Start the RGui program. You will be typing commands into the R console window.

2) From the File menu, select "Change Dir..."

2.1) Browse to the directory where you saved the downloaded files and click "OK."

3) In the R Console window, type:

```
source("ESS_RegressionCalculator.R")
```

and press return. This will load the calculator, but no output will be displayed.

4) The calculator can be executed by preparing an R file containing input data, then "sourcing" the input file. An example file `Example_InputData.R` is provided.

4.1) In the R Console window, type:

```
source("Example_InputData.R")
```

and press return. This will run the calculator, using the input data in the `Example_InputData.R` file.

The example calculation takes approximately 20 seconds to run. Please bear in mind, however, that other numerical values in your input file may take much longer to run. When the calculation finishes you should see three calculated output values along with the 'expected' output. (This is for comparison/verification purposes.)

5) To customize the input data for your personal use select "Open script..." from the file menu and browse to find the `Example_InputData.R` file and open it.

5.1) You can read the instructions (comments) in the `Example_InputData.R` file and change the (non-commented) input lines in order to supply the input data that you want to customize. An easy way

to create your own input file is to make a copy of the `Example_InputData.R` file, rename it, and make your changes there.

Here is what will be displayed in the "R Console" window when you run the `Example_InputData.R` file described above. Note that your calculated values may differ slightly from these in the least significant digits:

```
> source("ESS_RegressionCalculator.R")
> source("Example_InputData.R")
Running test for: Example_InputData.R
The prior ESS of the whole theta is: expected (2),   calculated (2.002216)
The prior ESS of subvector1      is: expected (2),   calculated (2.002819)
The prior ESS of subvector2      is: expected (2),   calculated (1.999800)
```

These input files are also included in the `.zip` package as further examples:

```
Ex1_LinearReg_test.R
Ex2_LinearReg_test.R
Ex3_LinearReg_test.R
Ex4_LogisticReg_test.R
Ex5_LogisticReg_test.R
```