

4.5 Statistical Analysis and Profiling

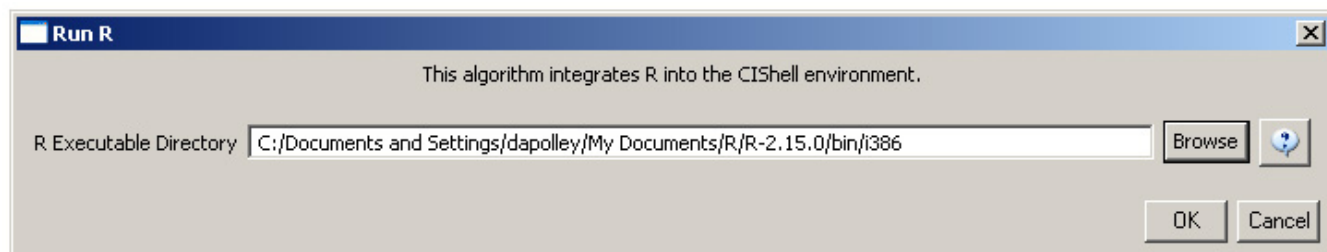
- [4.5.1 Using Sci2 with R](#)

4.5.1 Using Sci2 with R

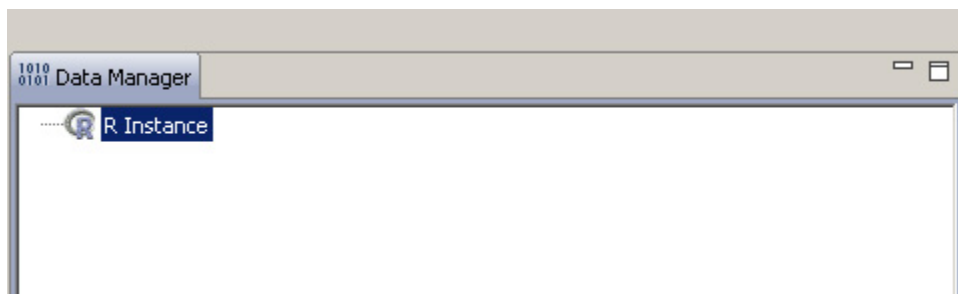
R is an environment and language for statistical analysis and modeling. R also enables graphical visualization. It is freely available under the GNU General Public License. For more information on R and to download click [here](#). You can use Sci2 to create an R instance and send tables to R for analysis as well as extract tables from R.

Create an R Instance

Once R has been downloaded, an instance will need to be generated in order to import and export tables using Sci2. Run *R > Create an R Instance* to create an R instance. The R executable directory will need to be selected (on a Windows machine it will most likely be located here: `C:\Users\username\Programs\R-2.14.1\bin\i386`):

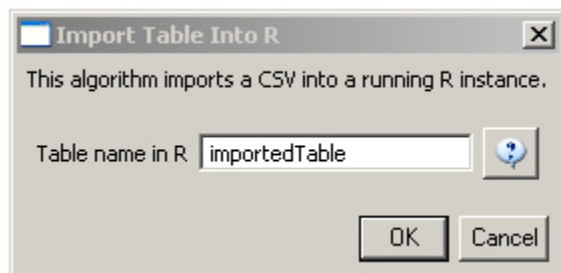


The R instance will then display in the console as follows:



Send Table to R

Tables in csv format can be sent from Sci2 to the R instance for analysis and visualization. First, load a csv file in Sci2. Select both the loaded csv file and the R instance in the data manager (in Windows, hold the `ctrl` key as you click with the mouse). Run *R > Send Table to R* and choose name for the imported table:



R can now be opened by running *R > Run Rgui* and the table is now available in the R environment using the variable name specified as a parameter in the "Import Table Into R". You can call the table in the R instance:

```
R Console

R version 2.15.0 (2012-03-30)
Copyright (C) 2012 The R Foundation for Statistical Computing
ISBN 3-900051-07-0
Platform: i386-pc-mingw32/i386 (32-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

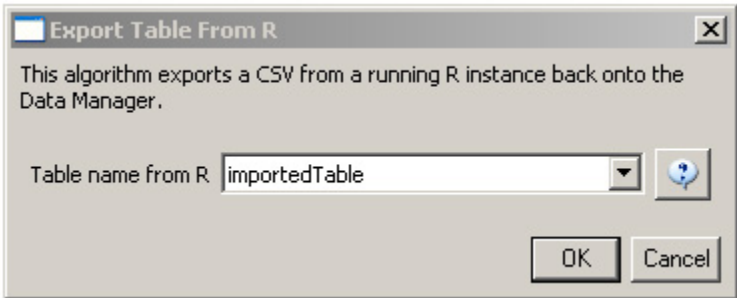
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Previously saved workspace restored]

> importedTable
  Full.Project.Number..including.subproject.ID. Type Activity Serial.Number
1                1TL1RRO24126-01          1      TL1         24126
2                STL1RRO24126-02          5      TL1         24126
3                STL1RRO24126-03          5      TL1         24126
4                STL1RRO24126-04          5      TL1         24126
5                1KL2RRO24127-01          1      KL2         24127
6                SKL2RRO24127-02          5      KL2         24127
7                SKL2RRO24127-03          5      KL2         24127
```

Get a Table from R

To get a table that has been imported to R run `/R> Get table from R` and select the table from the drop-down menu:



The table will then show up in the data manager.