

The R Function Sweave

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Why Sweave

Using the source code and the results of calculations in scientific documents it is convenient to use Sweave. Sweave is an R function, that includes R code and the results in a tex file.

Possible extensions:

- *.Snw
- *.Rnw
- *.snw
- *.rnw

Write a tex file as you are used to. Additionally use the following instructions within the tex file for the Sweave function:

- code chunks:
use `<<>>=` at the beginning of code chunks
- documentation chunks:
@ shows the end of code chunks and in the same time the continuing of tex code
- within the tex text:
use `\Sexpr {}`

Example

```
\documentclass[a4paper]{article}
\usepackage{ngerman}
\begin{document}
I would like to present the summary of a data frame concerning
salad dressings
<<>>=
library(prefmod)
data(salad)
summary(salad)
@
Above you could have a look at the summary, calculated by R.
\end{document}
```

Run Sweave function

- Start R
- change to the right directory
- *Sweave(filename)* creates a tex file
- *Stangle(filename)* enables to get R code in an own file
- compile the filename.tex file to get a pdf file

Individual output

To get another output like just the result you have to use the following parameters:

- just result and no R source
`<< echo = false >>`
- just the R source and no results
`<< results = hide >>`

For further details have a look at [Lei06]

For Further Reading



LEISCH, FRIEDRICH: *Sweave User Manual*.

[http://www.ci.tuwien.ac.at/~leisch/Sweave/
Sweave-manual-20060104.pdf](http://www.ci.tuwien.ac.at/~leisch/Sweave/Sweave-manual-20060104.pdf), 2006.