

Package ‘BayesXsrc’

February 20, 2022

Version 3.0-2

Date 2022-02-20

Title R Package Distribution of the BayesX C++ Sources

Description BayesX performs Bayesian inference in structured additive regression (STAR) models. The R package BayesXsrc provides the BayesX command line tool for easy installation. A convenient R interface is provided in package R2BayesX.

Depends R (>= 2.8.0)

Suggests R2BayesX

SystemRequirements GNU make, C++14

License GPL-2 | GPL-3

URL <https://www.uni-goettingen.de/de/bayesx/550513.html>

NeedsCompilation yes

Author Nikolaus Umlauf [aut, cre] (<<https://orcid.org/0000-0003-2160-9803>>),
Daniel Adler [aut],
Thomas Kneib [aut],
Stefan Lang [aut],
Achim Zeileis [aut] (<<https://orcid.org/0000-0003-0918-3766>>)

Maintainer Nikolaus Umlauf <Nikolaus.Umlauf@uibk.ac.at>

Repository CRAN

Date/Publication 2022-02-20 07:00:02 UTC

R topics documented:

run.bayesx 2

Index 4

`run.bayesx`*Run BayesX*

Description

Run BayesX program files from R.

Usage

```
run.bayesx(prg = NULL, verbose = TRUE, ...)
```

Arguments

<code>prg</code>	a file path to a BayesX program file. If set to <code>NULL</code> , BayesX will start in batch mode.
<code>verbose</code>	should output be printed to the R console during runtime of BayesX .
<code>...</code>	further arguments to be passed to system .

Details

Function uses [system](#) to run **BayesX** within an R session.

Value

If a `prg` file is provided, the function returns a list containing information if **BayesX** was successfully launched and how long the process was running.

Author(s)

Daniel Adler, Thomas Kneib, Stefan Lang, Nikolaus Umlauf, Achim Zeileis.

Examples

```
## Not run:
## create a temporary directory for this example
dir <- tempdir()
prg <- file.path(dir, "demo.prg")

## generate some data
set.seed(111)
n <- 200

## regressor
dat <- data.frame(x = runif(n, -3, 3))

## response
dat$y <- with(dat, 1.5 + sin(x) + rnorm(n, sd = 0.6))
```

```
## write data to dir
write.table(dat, file.path(dir, "data.raw"),
  quote = FALSE, row.names = FALSE)

## create the .prg file
writeLines("
bayesreg b
dataset d
d.infile using data.raw
b.outfile = mcmc
b.regress y = x(psplinerw2,nrknots=20,degree=3), family=gaussian predict using d
b.getsample", prg)

## run the .prg file from R
run.bayesx(prg)

## End(Not run)
```

Index

* **regression**

run.bayesx, 2

run.bayesx, 2

system, 2