Package ‘diagonals’

January 9, 2020

Title Block Diagonal Extraction or Replacement
Version 1.0.1
Description Several tools for handling block-matrix diagonals and similar constructs are implemented. Block-diagonal matrices can be extracted or removed using two small functions implemented here. In addition, non-square matrices are supported. Block diagonal matrices occur when two dimensions of a data set are combined along one edge of a matrix. For example, trade-flow data in the ‘decompr’ and ‘gvc’ packages have each country-industry combination occur along both edges of the matrix.
Depends R (>= 2.10)
License GPL-3
LazyData true
BugReports https://github.com/bquast/diagonals/issues
Suggests testthat, knitr
VignetteBuilder knitr
RoxygenNote 7.0.2
Encoding UTF-8
NeedsCompilation no
Author Bastiaan Quast [aut, cre]
Maintainer Bastiaan Quast <bquast@gmail.com>
Repository CRAN
Date/Publication 2020-01-08 23:01:42 UTC

R topics documented:

- diagonals ................................................................. 2
- fatdiag ................................................................. 2
- split_vector ............................................................. 3

Index 4
Several tools for handling block-matrix diagonals and similar constructs are implemented. Block-diagonal matrices can be extracted or removed using two small functions implemented here. In addition, non-square matrices are supported. Block diagonal matrices occur when two dimensions of a data set are combined along one edge of a matrix. For example, trade-flow data in the decompr' and 'gvc' packages have each country-industry combination occur along both edges of the matrix.

Author(s)
Bastiaan Quast <bquast@gmail.com>

See Also
http://qua.st/diagonals

Description
Fat Matrix Diagonals
fatdiag set

Usage
fatdiag(x = 1, steps = NULL, size = NULL, nrow = NULL, ncol = NULL)
fatdiag(x, steps = NULL, size = NULL, on_diagonal = TRUE) <- value

Arguments

x a matrix where the dimensions are integer multiples of size or integer divisors of steps
steps the required number of steps (block matrices) across the diagonal
size the width or height of the matrix being dropped over the diagonal of matrix x
nrow the number of rows
ncol the number of columns
on_diagonal should the operation be apply to the elements on the fat diagonal.
value replacement value
split_vector

Details

Either steps or size is expected to be provided.

Functions

• fatdiag<-: the set version of fatdiag

Examples

fatdiag(12, steps=3)

( m <- matrix(111, nrow=6, ncol=9) )
fatdiag(m, steps=3) <- 5

fatdiag(m, steps=3)

fatdiag(12, size=4)

fatdiag(12, size=c(3,4) )

split_vector

Description

Split Vector

Usage

split_vector(x, steps = NULL, size = NULL, replacement = 0)

Arguments

x a numeric or character vector

steps the number of steps

size the size of the step

replacement value to be inserted on the diagonal, by default this is zero (0).

Details

Either steps or size is expected to be provided.
Index

diagonals, 2
fatdiag, 2
fatdiag<- (fatdiag), 2
split_vector, 3