Package ‘diagonals’

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Title  Block Diagonal Extraction or Replacement
Version  6.4.0
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
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Suggests  testthat, knitr, rmarkdown
VignetteBuilder  knitr
RoxygenNote  7.1.1
Encoding  UTF-8
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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.

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See Also

https://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 applied to the elements on the fat diagonal.
value replacement value
split_vector

Details
Either steps or size is expected to be provided.

Functions
• \texttt{fatdiag<-}: the set version of \texttt{fatdiag}

Examples

\begin{verbatim}
fatdiag(12, steps=3)

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

fatdiag(m, steps=3)
fatdiag(12, size=4)
fatdiag(12, size=c(3,4) )
\end{verbatim}

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split_vector \hspace{1cm} \textit{Split Vector}

Description
Split Vector

Usage
\texttt{split_vector(x, steps = NULL, size = NULL, replacement = 0)}

Arguments
\begin{itemize}
\item \texttt{x} \hspace{1cm} a numeric or character vector
\item \texttt{steps} \hspace{1cm} the number of steps
\item \texttt{size} \hspace{1cm} the size of the step
\item \texttt{replacement} \hspace{1cm} value to be inserted on the diagonal, by default this is zero (0).
\end{itemize}

Details
Either steps or size is expected to be provided.
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