Description

\texttt{rowshape(} \texttt{T, r)} returns \texttt{T} transformed into a matrix with \texttt{trunc(r)} rows.
\texttt{colshape(} \texttt{T, c)} returns \texttt{T} having \texttt{trunc(c)} columns.

In both cases, elements are assigned sequentially with the column index varying more rapidly. See [M-5] \texttt{vec()} for a function that varies the row index more rapidly.

Syntax

\begin{verbatim}
transmorphic matrix rowshape(transmorphic matrix T, real scalar r)
transmorphic matrix colshape(transmorphic matrix T, real scalar c)
\end{verbatim}

Remarks and examples

Remarks are presented under the following headings:

- Example of rowshape()
- Example of colshape()

Example of rowshape()

\begin{verbatim}
: A
  1 2 3 4
  1 11 12 13 14
  2 21 22 23 24
  3 31 32 33 34
  4 41 42 43 44

: rowshape(A,2)
  1 2 3 4 5 6 7 8
  1 11 12 13 14 21 22 23 24
  2 31 32 33 34 41 42 43 44
\end{verbatim}
Example of \texttt{colshape()}

\begin{verbatim}
: colshape(A, 2)
  1  2
  1  11 12
  2  13 14
  3  21 22
  4  23 24
  5  31 32
  6  33 34
  7  41 42
  8  43 44
\end{verbatim}

Conformability

\texttt{rowshape}(T, r):
\begin{itemize}
  \item \(T\): \(r_0 \times c_0\)
  \item \(r\): \(1 \times 1\)
  \item result: \(r \times r_0c_0/r\)
\end{itemize}

\texttt{colshape}(T, c):
\begin{itemize}
  \item \(T\): \(r_0 \times c_0\)
  \item \(c\): \(1 \times 1\)
  \item result: \(r_0c_0/c \times c\)
\end{itemize}

Diagnostics

Let \(r_0\) and \(c_0\) be the number of rows and columns of \(T\).

\texttt{rowshape()} aborts with error if \(r_0 \times c_0\) is not evenly divisible by \(\text{trunc}(r)\).

\texttt{colshape()} aborts with error if \(r_0 \times c_0\) is not evenly divisible by \(\text{trunc}(c)\).

Also see

[M-4] \textbf{Manipulation} — Matrix manipulation