| Description | Syntax | Remarks and examples | Conformability |
| :--- | :--- | :--- | :--- |
| Diagnostics | Also see |  |  |

## Description

rowshape ( $T, r$ ) returns $T$ transformed into a matrix with trunc $(r)$ rows.
colshape ( $T, c$ ) returns $T$ having trunc ( $c$ ) columns.
In both cases, elements are assigned sequentially with the column index varying more rapidly. See [M-5] vec() for a function that varies the row index more rapidly.

## Syntax

transmorphic matrix rowshape (transmorphic matrix $T$, real scalar $r$ )
transmorphic matrix colshape (transmorphic matrix $T$, real scalar $c$ )

## Remarks and examples

Remarks are presented under the following headings:

```
Example of rowshape()
Example of colshape( )
```


## Example of rowshape()

: 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 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | 11 | 12 | 13 | 14 | 21 | 22 | 23 | 24 |
| 2 | 31 | 32 | 33 | 34 | 41 | 42 | 43 | 44 |

## Example of colshape()

: colshape (A, 2)

|  | 1 | 2 |
| :---: | :---: | :---: |
|  | 11 | 12 |
| 2 | 13 | 14 |
| 3 | 21 | 22 |
| 4 | 23 | 24 |
| 5 | 31 | 32 |
| 6 | 33 | 34 |
| 7 | 41 | 42 |
| 8 | 43 | 44 |

## Conformability

```
rowshape(T,r):
    T: }\quad\mp@subsup{r}{0}{}\times\mp@subsup{c}{0}{
    r: }1\times
    result: }\quadr\times\mp@subsup{r}{0}{}\mp@subsup{c}{0}{}/
```

colshape ( $T, c$ ):
$T: \quad r_{0} \times c_{0}$
$c: \quad 1 \times 1$
result: $\quad r_{0} c_{0} / c \times c$

## Diagnostics

Let $r_{0}$ and $c_{0}$ be the number of rows and columns of $T$. rowshape() aborts with error if $r_{0} \times c_{0}$ is not evenly divisible by trunc $(r)$. colshape() aborts with error if $r_{0} \times c_{0}$ is not evenly divisible by trunc (c).

## Also see

[M-4] Manipulation - Matrix manipulation

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