

**rowshape()** — Reshape matrix

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**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**

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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
1   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
```

1	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)`:

$T$ :  $r_0 \times c_0$   
 $r$ :  $1 \times 1$   
*result*:  $r \times r_0 c_0 / r$

`colshape(T, c)`:

$T$ :  $r_0 \times c_0$   
 $c$ :  $1 \times 1$   
*result*:  $r_0 c_0 / c \times c$

### 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