_diag( ) — Replace diagonal of a matrix

Description Syntax Conformability Diagnostics Also see

Description

_diag(*Z*, *v*) replaces the diagonal of the matrix *Z* with *v*. *Z* need not be square.

1. If *v* is a vector, the vector replaces the principal diagonal.
2. If *v* is 1×1, each element of the principal diagonal is replaced with *v*.
3. If *v* is a void vector (1×0 or 0×1), *Z* is left unchanged.

Syntax

void _diag(*numeric matrix Z*, *numeric vector v*)

Conformability

_diag(*Z*, *v*):

input:

Z: $n \times m, n \le m$
v: $1 \times 1, 1 \times n$, or $n \times 1$

or

Z: $n \times m, n > m$
v: $1 \times 1, 1 \times m$, or $m \times 1$

output:

Z: $n \times m$

Diagnostics

_diag(*Z*, *v*) aborts with error if *Z* or *v* is a view.

Also see

[M-5] **diag( )** — Create diagonal matrix

[M-4] **Manipulation** — Matrix manipulation