_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: 1×1, $1 \times n$, or $n \times 1$

or

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