isdiagonal() — Whether matrix is diagonal

Description

isdiagonal(A) returns 1 if A has only zeros off the principal diagonal and returns 0 otherwise. isdiagonal() may be used with either real or complex matrices.

Syntax

    real scalar isdiagonal(numeric matrix A)

Remarks and examples

See [M-5] diag() for making diagonal matrices out of vectors or out of nondiagonal matrices; see [M-5] diagonal() for extracting the diagonal of a matrix into a vector.

Conformability

isdiagonal(A):

A: r × c
result: 1 × 1

Diagnostics

isdiagonal(A) returns 1 if A is void.

Also see

[M-5] diag() — Create diagonal matrix
[M-5] diagonal() — Extract diagonal into column vector
[M-4] Utility — Matrix utility functions