isreal() — Storage type of matrix

Description

isreal(X) returns 1 if X is a real and returns 0 otherwise.
iscomplex(X) returns 1 if X is a complex and returns 0 otherwise.
isstring(X) returns 1 if X is a string and returns 0 otherwise.
ispointer(X) returns 1 if X is a pointer and returns 0 otherwise.

Syntax

real scalar isreal(transmorphic matrix X)
real scalar iscomplex(transmorphic matrix X)
real scalar isstring(transmorphic matrix X)
real scalar ispointer(transmorphic matrix X)

Remarks and examples

These functions base their results on storage type. isreal() is not the way to check whether a number is real, since it might be stored as a complex and yet still be a real number, such as 2 + 0i. To determine whether x is real, you want to use isrealvalues(X); see [M-5] isrealvalues().

Conformability

isreal(X), iscomplex(X), isstring(X), ispointer(X):

X: \ r \times c 
result: 1 \times 1

Diagnostics

These functions return 1 or 0; they cannot fail.
2 \texttt{isreal}() — Storage type of matrix

Also see

[M-5] \texttt{eltype()} — Element type, organizational type, and type name of object

[M-5] \texttt{isrealvalues()} — Whether matrix contains only real values

[M-4] \texttt{Utility} — Matrix utility functions