valofexternal() — Obtain value of external global

Syntax

transmorphic matrix    valofexternal(string scalar name)

Description

valofexternal(name) returns the contents of the external global matrix, vector, or scalar whose name is specified by name; it returns \( J(0,0,.) \) if the external global is not found.

Also see Linking to external globals in [M-2] declarations.

Remarks and examples

Also see [M-5] findexternal(). Rather than returning a pointer to the external global, as does findexternal(), valofexternal() returns the contents of the external global. This is useful when the external global contains a scalar:

\[
\text{tol} = \text{valofexternal("tolerance")}
\]
\[
\text{if } (\text{tol}==\text{J}{(0,0,.)}) \text{ tol} = 1e-6
\]

Using findexternal(), one alternative would be

\[
\text{if } ((p = \text{findexternal("tolerance")})==\text{NULL}) \text{ tol} = 1e-6
\]
\[
\text{else } \text{tol} = *p
\]

For efficiency reasons, use of valofexternal() should be avoided with nonscalar objects; see [M-5] findexternal().

Conformability

valofexternal(name):

- name: \( 1 \times 1 \)
- result: \( r \times c \) or \( 0 \times 0 \) if not found

Diagnostics

valofexternal() aborts with error if name contains an invalid name.

valofexternal(name) returns \( J(0,0,.) \) if name does not exist.
Also see

[M-5] `findexternal()` — Find, create, and remove external globals

[M-4] `programming` — Programming functions