designmatrix() — Design matrices

Description

designmatrix(v) returns a \( \text{rows}(v) \times \text{colmax}(v) \) matrix with ones in the indicated columns and zero everywhere else.

Syntax

\[
\text{real matrix} \quad \text{designmatrix}(\text{real colvector} \ v)
\]

Remarks and examples

designmatrix((1\ 2\ 3)) is equal to \( \text{I}(3) \), the \( 3 \times 3 \) identity matrix.

Conformability

designmatrix(v):

\[
\begin{align*}
v: & \quad r \times 1 \\
\text{result}: & \quad r \times \text{colmax}(v) \quad (0 \times 0 \text{ if } r = 0)
\end{align*}
\]

Diagnostics

designmatrix(v) aborts with error if any element of \( v \) is \(<1\).

Also see

[M-4] Standard — Functions to create standard matrices