blockdiag( ) — Block-diagonal matrix

Description Syntax Remarks and examples Conformability Diagnostics Also see

Description

`blockdiag(`Z_1`,` Z_2`)` returns a block-diagonal matrix with Z_1 in the upper-left corner and Z_2 in the lower right, that is,

$$\begin{bmatrix} Z_1 & \mathbf{0} \\ \mathbf{0} & Z_2 \end{bmatrix}$$

Z_1 and Z_2 may be either real or complex and need not be of the same type.

Syntax

numeric matrix `blockdiag(`*numeric matrix* Z_1`,` *numeric matrix* Z_2`)`

Remarks and examples

To create a block diagonal matrix of Z_1, Z_2, Z_3, code

```
: blockdiag(Z1, blockdiag(Z2,Z3))
```

Conformability

`blockdiag(`Z_1`,` Z_2`)`:

Z_1:	$r_1 \times c_1$
Z_2:	$r_2 \times c_2$
result:	$r_1 + r_2 \times c_1 + c_2$

Diagnostics

None. Either or both Z_1 and Z_2 may be void.

Also see

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