### Description

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

### Syntax

```plaintext
real matrix designmatrix(real colvector v)
```

### Remarks and examples

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

### Conformability

designmatrix(v):

- **v:** \( r \times 1 \)
- **result:** \( r \times \text{colmax}(v) \) (\( 0 \times 0 \) if \( r = 0 \))

### Diagnostics

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

### Also see

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