

standard — Functions to create standard matrices

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| [M-5] Manual entry | Function | Purpose |
|-------------------------------------|---------------------|---|
| Unit & constant matrices | | |
| I() | I() | identity matrix |
| e() | e() | unit vectors |
| J() | J() | matrix of constants |
| designmatrix() | designmatrix() | design matrices |
| Block-diagonal matrices | | |
| blockdiag() | blockdiag() | block-diagonal matrix |
| Ranges | | |
| range() | range() rangen() | vector over specified range vector of n over specified range |
| unitcircle() | unitcircle() | unit circle on complex plane |

Random

| | | |
|-------------------|--|---|
| runiform() | runiform() rnormal() | uniform random variates normal (Gaussian) random variates |
| | rbeta() rbinomial() rchi2() rdiscrete() rexponential() rgamma() rhypergeometric() rlogistic() rbinomial() rpoisson() rt() runiformint() rweibull() rweibullph() | beta random variates binomial random variates chi-squared random variates discrete random variates exponential random variates gamma random variates hypergeometric random variates logistic random variates negative binomial random variates Poisson random variates Student's <i>t</i> random variates uniform random integer variates Weibull random variates Weibull (proportional hazards) random variates |

Named matrices

| | | |
|----------------------|---------------------------|--|
| Hilbert() | Hilbert() invHilbert() | Hilbert matrices inverse Hilbert matrices |
| Toeplitz() | Toeplitz() | Toeplitz matrices |
| Vandermonde() | Vandermonde() | Vandermonde matrices |

vec() & vech() transform

| | | |
|------------------|-----------|----------------------|
| Dmatrix() | Dmatrix() | duplication matrices |
| Kmatrix() | Kmatrix() | commutation matrices |
| Lmatrix() | Lmatrix() | elimination matrices |

Description

The functions above create standard matrices such as the identity matrix, etc.

Remarks and examples

[stata.com](https://www.stata.com)

For other mathematical functions, see

| | |
|------------------------------------|----------------------------------|
| [M-4] matrix | Matrix mathematical functions |
| [M-4] scalar | Scalar mathematical functions |
| [M-4] mathematical | Important mathematical functions |

Also see

[M-4] [intro](#) — Index and guide to functions