

Manipulation — Matrix manipulation

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[M-5] Manual entry	Function	Purpose
Transposition		
transposeonly()	transposeonly()	transposition without conjugation
_transpose()	_transpose()	transposition in place
Diagonals		
diag()	diag()	create diagonal matrix from vector
_diag()	_diag()	replace diagonal of matrix
diagonal()	diagonal()	extract diagonal of matrix into vector
Triangular & symmetric		
lowertriangle()	lowertriangle()	extract lower triangle
	uppertriangle()	extract upper triangle
sublowertriangle()	sublowertriangle()	generalized lowertriangle()
makesymmetric()	makesymmetric()	make matrix symmetric (Hermitian)
Sorting		
sort()	sort()	sort rows of matrix
	jumble()	randomize order of rows of matrix
	order()	permutation vector for ordered rows
	unorder()	permutation vector for randomized rows
	_collate()	order matrix on permutation vector
uniqrows()	uniqrows()	sorted, unique rows

Editing

<code>_fillmissing()</code>	<code>_fillmissing()</code>	change matrix to contain missing values
<code>editmissing()</code>	<code>editmissing()</code>	replace missing values in matrix
<code>editvalue()</code>	<code>editvalue()</code>	replace values in matrix
<code>edittozero()</code>	<code>edittozero()</code> <code>edittozerotol()</code>	edit matrix for roundoff error (zeros) same, absolute tolerance
<code>edittoint()</code>	<code>edittoint()</code> <code>edittointtol()</code>	edit matrix for roundoff error (integers) same, absolute tolerance

Permutation vectors

<code>invorder()</code>	<code>invorder()</code> <code>revorder()</code>	inverse of permutation vector reverse of permutation vector
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Matrices into vectors & vice versa

<code>vec()</code>	<code>vec()</code> <code>vech()</code> <code>invvech()</code>	convert matrix into column vector convert symmetric matrix into column vector convert column vector into symmetric matrix
<code>rowshape()</code>	<code>rowshape()</code> <code>colshape()</code>	reshape matrix to have r rows reshape matrix to have c columns

Associative arrays

<code>asarray()</code>	<code>asarray()</code> <code>asarray_*</code>	store or retrieve element in array utility routines
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Description

The above functions manipulate matrices, such as extracting the diagonal and sorting.

Remarks and examples

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

There is a thin line between manipulation and utility; also see

[M-4] [Utility](#) Matrix utility functions

Also see

[M-4] [Intro](#) — Categorical guide to Mata functions