Title

matrix utility — List, rename, and drop matrices

Syntax   Menu   Description   Options
Remarks and examples   Also see

Syntax

List matrix names

> <u>mat</u>rix <u>dir</u>

List contents of matrix

> <u>mat</u>rix <u>list</u> *mname* [, <u>nobl</u>ank <u>noha</u>lf <u>nohe</u>ader <u>non</u>ames <u>f</u>ormat(*%fmt*)
>
> <u>t</u>itle(*string*) nodotz]

Rename matrix

> <u>mat</u>rix <u>ren</u>ame *oldname newname*

Drop matrix

> <u>mat</u>rix drop { _all | *mnames* }

Menu

matrix list

Data > Matrices, ado language > List contents of matrix

matrix rename

Data > Matrices, ado language > Rename matrix

matrix drop

Data > Matrices, ado language > Drop matrices

Description

matrix dir lists the names of currently existing matrices. matrix list lists the contents of a matrix. matrix rename changes the name of a matrix. matrix drop eliminates a matrix.

Options

noblank suppresses printing a blank line before printing the matrix. This is useful in programs.

nohalf specifies that, even if the matrix is symmetric, the full matrix be printed. The default is to print only the lower triangle in such cases.

noheader suppresses the display of the matrix name and dimension before the matrix itself. This is useful in programs.

nonames suppresses the display of the bordering names around the matrix.

format(%*fmt*) specifies the format to be used to display the individual elements of the matrix. The default is format(%10.0g).

title(*string*) adds the specified title *string* to the header displayed before the matrix itself. If noheader is specified, title() does nothing because displaying the header is suppressed.

nodotz specifies that .z missing values be displayed as blanks.

Remarks and examples

▷ Example 1

In the example below, matrix list normally displays only the lower half of symmetric matrices. nohalf prevents this.

```
. mat b = (2, 5, 4\ 5, 8, 6\ 4, 6, 3)
. mat a = (1, 2\ 2, 4)
. matrix dir
              a[2,2]
              b[3,3]
. matrix rename a z
. matrix dir
              z[2,2]
              b[3,3]
. matrix list b
symmetric b[3,3]
     c1  c2  c3
r1    2
r2    5   8
r3    4   6   3
. matrix list b, nohalf
symmetric b[3,3]
     c1  c2  c3
r1    2   5   4
r2    5   8   6
r3    4   6   3
. matrix drop b
. matrix dir
              z[2,2]
. matrix drop _all
. matrix dir
```

◁

❑ Technical note

When writing programs and using matrix names obtained through tempname (see [P] **macro**), it is not necessary to explicitly drop matrices; the matrices are removed automatically at the conclusion of the program.

```
. program example
  1.          tempname a
  2.          matrix 'a' = (1,2\3,4)                // this is temporary
  3.          matrix b = (5,6\7,8)                  // and this permanent
  4.          display "The temporary matrix a contains"
  5.          matrix list 'a', noheader
  6. end
. example
The temporary matrix a contains

     c1  c2
r1   1   2
r2   3   4
. matrix dir
           b[2,2]
```

Nevertheless, dropping matrices with temporary names in programs when they are no longer needed is recommended, unless the program is about to exit (when they will be dropped anyway). Matrices consume memory; dropping them frees memory.

❑

Also see

[P] **matlist** — Display a matrix and control its format

[P] **matrix** — Introduction to matrix commands

[U] **14 Matrix expressions**