Title

> **mata describe —** Describe contents of Mata's memory

Syntax

: mata <u>d</u>escribe [*namelist*] [, all]

: mata <u>d</u>escribe using *libname*

where *namelist* is as defined in [M-3] **namelists**. If *namelist* is not specified, "∗ ∗()" is assumed.

This command is for use in Mata mode following Mata's colon prompt. To use this command from Stata's dot prompt, type

. mata: mata describe ...

Description

mata describe lists the names of the matrices and functions in memory, including the amount of memory consumed by each.

mata describe using *libname* describes the contents of the specified .mlib library; see [M-3] **mata mlib**.

Option

all specifies that automatically loaded library functions that happen to be in memory are to be included in the output.

Remarks and examples

mata describe is often issued without arguments, and then everything in memory is described:

```
: mata describe
      # bytes   type                    name and extent
      ─────────────────────────────────────────────────────────
            50   real matrix             foo()
         1,600   real matrix             X[10,20]
             8   real scalar             x
      ─────────────────────────────────────────────────────────
```

mata describe using *libname* lists the functions stored in a .mlib library:

```
: mata describe using lmatabase
      # bytes   type                      name and extent

         508   auto structdef scalar      AsArray_char()
         188   auto structdef scalar      AsArray_dup()
         312   auto structdef scalar      AsArray_top()
         984   auto numeric vector        Corr()
         864   auto numeric vector        Corrslowly()
         400   auto real matrix           Dmatrix()
         340   auto real matrix           Hilbert()
  (output omitted )
         672   auto transmorphic colvector vech()
         184   auto real scalar           whether_ssd()
```

Diagnostics

The reported memory usage does not include overhead, which usually amounts to 64 bytes, but can be less (as small as zero for recently used scalars).

The reported memory usage in the case of pointer matrices reflects the memory used to store the matrix itself and does not include memory consumed by siblings.

Also see

[M-5] **sizeof( )** — Number of bytes consumed by object

[M-3] **intro** — Commands for controlling Mata