

**mata describe** — Describe contents of Mata’s memory

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## 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](#).

## Syntax

```
: mata describe [namelist] [, all]
```

```
: mata describe 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 ...
```

## 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 lmatbase
```

# 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()
<i>(output omitted)</i>		
672	auto transmorphic colvector	vech()
184	auto real scalar	whether_ssd()

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## 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