

**stata()** — Execute Stata command

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## Description

`stata(cmd)` executes the Stata command contained in the string scalar `cmd`. Output from the command appears at the terminal, and any macros contained in `cmd` are expanded.

`stata(cmd, nooutput)` does the same thing, but if `nooutput`  $\neq$  0, output produced by the execution is not displayed. `stata(cmd, 0)` is equivalent to `stata(cmd)`.

`stata(cmd, nooutput, nomacroexpand)` does the same thing but, before execution, suppresses expansion of any macros contained in `cmd` if `nomacroexpand`  $\neq$  0. `stata(cmd, 0, 0)` is equivalent to `stata(cmd)`.

`_stata()` repeats the syntaxes of `stata()`. The difference is that, whereas `stata()` aborts with error if the execution results in a nonzero return code, `_stata()` returns the resulting return code.

## Syntax

```
void          stata(cmd)
void          stata(cmd, nooutput)
void          stata(cmd, nooutput, nomacroexpand)

real scalar  _stata(cmd)
real scalar  _stata(cmd, nooutput)
real scalar  _stata(cmd, nooutput, nomacroexpand)
```

where

```
      cmd:      string scalar
    nooutput:   real scalar
nomacroexpand: real scalar
```

## Remarks and examples

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

The command you execute may invoke a process that causes another instance of Mata to be invoked. For instance, Stata program *A* calls Mata function `m1()`, which executes `stata()` to invoke Stata program *B*, which in turn calls Mata function `m2()`, which . . .

`stata(cmd)` and `_stata(cmd)` execute `cmd` at the current run level. This means that any local macros refer to local macros in the caller's space. Consider the following:

```
program example
    ...
    local x = "value from A"
    mata: myfunc()
    display "'x'"
    ...
end

mata void myfunc()
{
    stata("local x = "new value"")
}

```

After `example` executes `mata: myfunc()`, `'x'` will be `"new value"`.

That `stata()` and `_stata()` work that way was intentional: Mata functions can modify the caller's environment so that they may create temporary variables for the caller's use, etc., and you only have to exercise a little caution. Executing `stata()` functions to run other ado-files and programs will cause no problems because other ado-files and programs create their own new environment in which temporary variables, local macros, etc., are private.

Also, do not use `stata()` or `_stata()` to execute a multiline command or to execute the first line of what could be considered a multiline command. Once the first line is executed, Stata will fetch the remaining lines from the caller's environment. For instance, consider

```
----- begin myfile.do -----
mata void myfunc()
{
    stata("if (1==1) {")
}
mata: myfunc()
display "hello"
}
----- end myfile.do -----
```

In the example above, `myfunc()` will consume the `display "hello"` and `}` lines.

## Conformability

```
stata(cmd, nooutput, nomacroexpand):
    cmd:          1 × 1
    nooutput:     1 × 1 (optional)
    nomacroexpand: 1 × 1 (optional)
    result:       void
```

```
_stata(cmd, nooutput, nomacroexpand):
    cmd:          1 × 1
    nooutput:     1 × 1 (optional)
    nomacroexpand: 1 × 1 (optional)
    result:       1 × 1
```

## Diagnostics

`stata()` aborts with error if *cmd* is too long (exceedingly unlikely), if macro expansion fails, or if execution results in a nonzero return code.

`_stata()` aborts with error if *cmd* is too long.

## Also see

[M-3] [mata stata](#) — Execute Stata command

[M-4] [Stata](#) — Stata interface functions