stata( ) — Execute Stata command

Description Syntax Remarks and examples Conformability Diagnostics Also see

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

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