# Title

**st_global( )** — Obtain strings from and put strings into global macros

Syntax Description Remarks and examples Conformability
Diagnostics Reference Also see

## Syntax

*string scalar* `st_global(`*string scalar name*`)`

*void* `st_global(`*string scalar name*`,` *string scalar contents*`)`

*void* `st_global(`*string scalar name*`,` *string scalar contents*`,`
*string scalar hcat*`)`

*string scalar* `st_global_hcat(`*string scalar name*`)`

where

1. *name* is to contain

   a. global macro such as `"myname"`

   b. `r()` macro such as `"r(names)"`

   c. `e()` macro such as `"e(cmd)"`

   d. `s()` macro such as `"s(vars)"`

   e. `c()` macro such as `"c(current_date)"`

   f. dataset characteristic such as `"_dta[date]"`

   g. variable characteristic such as `"mpg[note]"`

2. `st_global(`*name*`)` returns the contents of the specified Stata global. It returns `""` when the global does not exist.

3. `st_global(`*name*`,` *contents*`)` sets or resets the contents of the specified Stata global.

4. `st_global(`*name*`, "")` deletes the specified Stata global. It does this even if *name* is not a macro. `st_global("r(N)", "")` would delete `r(N)` whether it were a macro, scalar, or matrix.

5. `st_global(`*name*`,` *contents*`,` *hcat*`)` sets or resets the contents of the specified Stata global, and it sets or resets the hidden or historical status when *name* is an `e()` or `r()` value. Allowed *hcat* values are `"visible"`, `"hidden"`, `"historical"`, and a string scalar release number such as such as `"10"`, `"10.1"`, or any string release number matching `"`#[#][.[#[#]]]`"`. See [P] **return** for a description of hidden and historical `r()` and `e()` values.

   When `st_global(`*name*`,` *contents*`)` is used to set an `e()` or `r()` value, its *hcat* is set to `"visible"`.

6. `st_global_hcat(`*name*`)` returns the *hcat* associated with an `e()` or `r()` value.

## Description

`st_global(`*name*`)` returns the contents of the specified Stata global.

`st_global(`*name*`,` *contents*`)` sets or resets the contents of the specified Stata global. If the Stata global did not previously exist, a new global is created. If the global did exist, the new contents replace the old.

`st_global(`*name*`,` *contents*`,` *hcat*`)` and `st_global_hcat(`*name*`)` are used to set and query the *hcat* corresponding to an `e()` or `r()` value. They are also rarely used. See [R] **stored results** and [P] **return** for more information.

## Remarks and examples

Mata provides a suite of functions for obtaining and setting the contents of global macros, local macros, stored results, etc. It can sometimes be confusing to know which you should use. The table on the following page will help.

| Stata component/action | function call |
|---|---|
| Local macro | |
| obtain contents | *contents* = st_local("*name*") |
| create/set/replace | st_local("*name*", *contents*) |
| delete | st_local("*name*", "") |
| Global macro | |
| obtain contents | *contents* = st_global("*name*") |
| create/set/replace | st_global("*name*", *contents*) |
| delete | st_global("*name*", "") |
| Global numeric scalar | |
| obtain contents | *value* = st_numscalar("*name*") |
| create/set/replace | st_numscalar("*name*", *value*) |
| delete | st_numscalar("*name*", J(0,0,.)) |
| Global string scalar | |
| obtain contents | *contents* = st_strscalar("*name*") |
| create/set/replace | st_strscalar("*name*", *contents*) |
| delete | st_strscalar("*name*", J(0,0,"")) |
| Global matrix | |
| obtain contents | *matrix* = st_matrix("*name*")<br>*rowlabel* = st_matrixrowstripe("*name*")<br>*collabel* = st_matrixcolstripe("*name*") |
| create/set/replace | st_matrix("*name*”, *matrix*)<br>st_matrixrowstripe("*name*", *rowlabel*)<br>st_matrixcolstripe("*name*", *collabel*) |
| replace | st_replacematrix("*name*", *matrix*) |
| delete | st_matrix("name", J(0,0,.)) |
| Characteristic | |
| obtain contents | *contents* = st_global("*name*[*name*]") |
| create/set/replace | st_global("*name*[*name*]", *contents*) |
| delete | st_global("*name*[*name*]", "") |

| Stata component/action | function call |
|---|---|
| r() results | |
| macro | |
| obtain contents | *contents* = st_global("r(*name*)") |
| create/set/replace | st_global("r(*name*)", *contents*) |
| numeric scalar | |
| obtain contents | *value* = st_numscalar("r(*name*)") |
| create/set/replace | st_numscalar("r(*name*)", *value*) |
| matrix | |
| obtain contents | *matrix* = st_matrix("r(*name*)")<br>*rowlabel* = st_matrixrowstripe("r(*name*)")<br>*collabel* = st_matrixcolstripe("r(*name*)") |
| create/set/replace | st_matrix("r(name)", *matrix*)<br>st_matrixrowstripe("r(*name*)", *rowlabel*)<br>st_matrixcolstripe("r(*name*)", *collabel*) |
| replace | st_replacematrix("r(*name*)", *matrix*) |
| IN ALL CASES | |
| delete | st_global("r(*name*)", "") |
| to delete all of r() | st_rclear() |
| e() results | same as r() results, but code e(*name*) and st_eclear() |
| s() results | |
| macro | |
| obtain contents | *contents* = st_global("s(*name*)") |
| create/set/replace | st_global("s(*name*)", *contents*) |
| delete | st_global("s(*name*)", "") |
| to delete all of s() | st_sclear() |
| c() results | |
| macro | |
| obtain contents | *contents* = st_global("c(*name*)") |
| numeric scalar | |
| obtain contents | *value* = st_numscalar("c(*name*)") |

See [M-5] **st_local()**, [M-5] **st_numscalar()**, [M-5] **st_matrix()**, and [M-5] **st_rclear()**.

## Conformability

`st_global(`*name*`)`:

| | |
|---|---|
| *name*: | 1 × 1 |
| *result*: | 1 × 1 |

`st_global(`*name*`,` *contents*`)`:

| | |
|---|---|
| *name*: | 1 × 1 |
| *contents*: | 1 × 1 |
| *result*: | *void* |

`st_global(`*name*`,` *contents*`,` *hcat*`)`:

| | |
|---|---|
| *name*: | 1 × 1 |
| *contents*: | 1 × 1 |
| *hcat*: | 1 × 1 |
| *result*: | *void* |

`st_global_hcat(`*name*`)`:

| | |
|---|---|
| *name*: | 1 × 1 |
| *result*: | 1 × 1 |

## Diagnostics

`st_global(`*name*`)` returns `""` if the name contained in *name* is not defined. `st_global(`*name*`)` aborts with error if the name is malformed, such as `st_global("invalid name")`.

`st_global(`*name*`,` *contents*`)` aborts with error if the name contained in *name* is malformed. The maximum length of strings in Mata is significantly longer than in Stata. `st_global()` truncates what is stored at the appropriate maximum length if that is necessary.

`st_global_hcat(`*name*`)` returns `"visible"` when *name* is not an `e()` or `r()` value and returns `""` when *name* is an `e()` or `r()` value that does not exist.

## Reference

Gould, W. W. 2008. Mata Matters: Macros. *Stata Journal* 8: 401–412.

## Also see

[M-5] **st_rclear( )** — Clear r( ), e( ), or s( )

[M-4] **stata** — Stata interface functions