

**matsize** — Set the maximum number of variables in a model

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## Syntax

```
set matsize # [ , permanently ]
```

where  $10 \leq \# \leq 11000$  for Stata/MP and Stata/SE and where  $10 \leq \# \leq 800$  for Stata/IC.

## Description

`set matsize` sets the maximum number of variables that can be included in any of Stata's estimation commands.

For Stata/MP and Stata/SE, the default value is 400, but it may be changed upward or downward. The upper limit is 11,000.

For Stata/IC, the initial value is 400, but it may be changed upward or downward. The upper limit is 800.

This command may not be used with Small Stata; `matsize` is permanently frozen at 100.

Changing `matsize` has no effect on Mata.

## Option

`permanently` specifies that, in addition to making the change right now, the `matsize` setting be remembered and become the default setting when you invoke Stata.

## Remarks and examples

[stata.com](#)

`set matsize` controls the internal size of matrices that Stata uses. The default of 400 for Stata/IC, for instance, means that linear regression models are limited to 198 independent variables—198 because the constant uses one position and the dependent variable another, making a total of 200.

You may change `matsize` with data in memory, but increasing `matsize` increases the amount of memory consumed by Stata, increasing the probability of page faults and thus of making Stata run more slowly.

### ► Example 1

We wish to fit a model of  $y$  on the variables  $x_1$  through  $x_{400}$ . Without thinking, we type

```
. regress y x1-x400
matsize too small
    You have attempted to create a matrix with more than 400 rows or columns
    or to fit a model with more than 400 variables plus ancillary parameters.
    You need to increase matsize by using the set matsize command; see help
    matsize.
r(908);
```

We realize that we need to increase `matsize`, so we type

```
. set matsize 450
. regress y x1-x400
  (output omitted)
```

◀

Programmers should note that the current setting of `matsize` is stored as the c-class value `c(matsize)`; see [P] [creturn](#).

### Also see

[R] [query](#) — Display system parameters

[D] [memory](#) — Memory management

[U] [6 Managing memory](#)