matsize — Set the maximum number of variables in a model

Syntax

```stata
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

`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