Title

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limits — Quick reference for limits

Description Remarks and examples Also see

Description

This entry provides a quick reference for the size limits in Stata. Note that most of these limits are so high that you will never encounter them.

Remarks and examples

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Remarks are presented under the following headings:

Maximum size limits

	Small	Stata/IC	Stata/MP and Stata/SE
# of observations	1,200	2,147,483,647	(1)
# of variables	99	2,047	32,767
value of matsize	100	800	11,000
# of RHS variables	98	798	10,998
# characters in a command	51,816	264,408	4,227,159
# options for a command	70	70	70
# of elements in a numlist	2,500	2,500	2,500
# of interacted continuous variables	8	8	8
# of interacted factor variables	8	8	8
# of unique time-series operators in a command	100	100	100
# seasonal suboperators per time-series operator	8	8	8
# of dyadic operators in an expression	66	800	800
# of numeric literals in an expression	50	300	300
# of string literals in an expression	256	512	512
length of string in string expression (bytes)	2,000,000,000	2,000,000,000	2,000,000,000
# of sum functions in an expression	5	5	5
# of pairs of nested parentheses	249	249	249
# of characters in a macro (2)	51,800	264,392	4,227,143
# of nested do-files	64	64	64

continued	Small	Stata/IC	Stata/MP and Stata/SE
# of lines in a program	3,500	3,500	3,500
# of bytes in a program	135,600	135,600	135,600
length of a variable name (characters)	32	32	32
length of ado-command name (characters)	32	32	32
length of a global macro name (characters)	32	32	32
length of a local macro name (characters)	31	31	31
length of a `str#` variable (bytes)	2,045	2,045	2,045
length of a `strL` variable (bytes)	2,000,000,000	2,000,000,000	2,000,000,000
`anova`			
# of variables in one `anova` term	8	8	8
# of terms in the `repeated()` option	4	4	4
`char`			
length of one characteristic (bytes)	13,400	67,784	67,784
`constraint`			
# of constraints	1,999	1,999	1,999
`encode` and `decode`			
# of unique values	1,000	65,536	65,536
`_estimates hold`			
# of stored estimation results	300	300	300
`estimates store`			
# of stored estimation results	300	300	300
`exlogistic` and `expoisson`			
maximum memory specification in `memory(#)`	2gb	2gb	2gb
`grmeanby`			
# of unique values in *varlist*	_N/2	_N/2	_N/2
`graph twoway`			
# of variables in a plot	100	100	100
# of styles in an option's stylelist	20	20	20
`infile (free format)`			
record length without dictionary	none	none	none
`infile (fixed format)`			
record length with a dictionary	524,275	524,275	524,275
`infix (fixed format)`			
record length with a dictionary	524,275	524,275	524,275

continued	Small	Stata/IC	Stata/MP and Stata/SE
`label`			
length of dataset label (characters)	80	80	80
length of variable label (characters)	80	80	80
length of value label string (bytes)	32,000	32,000	32,000
length of name of value label (characters)	32	32	32
# of codings within one value label	1,000	65,536	65,536
`label language`			
# of different languages	100	100	100
`macro`			
# of nested macros	20	20	20
`manova`			
# of variables in single `manova` term	8	8	8
`matrix` (3)			
dimension of single matrix	40 × 40	800 × 800	11,000 × 11,000
`maximize` options			
`iterate()` maximum	16,000	16,000	16,000
`mprobit`			
# of categories in a *depvar*	30	30	30
`net`			
# of description lines in `.pkg` file	100	100	100
`nlogit` and `nlogittree`			
# of levels in model	8	8	8
`notes`			
length of one note (bytes)	13,400	67,784	67,784
# of notes attached to `_dta`	9,999	9,999	9,999
# of notes attached to each variable	9,999	9,999	9,999
numlist			
# of elements in the numeric list	2,500	2,500	2,500
`reg3`, `sureg`, and other system estimators			
# of equations	40	800	11,000
`set adosize`			
memory ado-files may consume	1000K	1000K	1000K
`set scrollbufsize`			
memory for Results window buffer	2000K	2000K	2000k

continued	Small	Stata/IC	Stata/MP and Stata/SE
`slogit`			
# of categories in a *depvar*	30	30	30
`snapshot`			
length of label (characters)	80	80	80
# of saved snapshots	1,000	1,000	1,000
`stcox`			
# of variables in `strata()` option	5	5	5
`stcurve`			
# of curves plotted on the same graph	10	10	10
`table` and `tabdisp`			
# of by variables	4	4	4
# of margins, i.e., sum of rows, columns, supercolumns, and by groups	3,000	3,000	3,000
`tabulate oneway`			
# of rows in one-way table	500	3,000	12,000
`tabulate twoway`			
# of rows & cols in two-way table	160 × 20	300 × 20	1,200 × 80
`tabulate, summarize()`			
# of cells (rows X cols)	375	375	375
`teffects`			
# of treatments	20	20	20
`xt` estimation commands (e.g., `xtgee`, `xtgls`, `xtpoisson`, `xtprobit`, `xtreg` with `mle` option, and `xtpcse` when neither option `hetonly` nor option `independent` is specified)			
# of time periods within panel	40	800	11,000
# of integration points accepted by `intpoints(#)`	195	195	195

(1) For Stata/MP, the maximum number of observations is 281,474,976,710,655, and for Stata/SE, the maximum number is 2,147,483,647. In practice, both flavors are limited by memory.

(2) The maximum length of the contents of a macro are fixed in Stata/IC and settable in Stata/SE and Stata/MP. The currently set maximum length is recorded in `c(macrolen)`; type `display c(macrolen)`. The maximum length can be changed with `set maxvar`. If you set `maxvar` to a larger value, the maximum length increases; if you set `maxvar` to a smaller value, the maximum length decreases. The relationship between them is *maximum_length* = 33 × `maxvar` + 200.

(3) In Mata, matrices are limited only by the amount of memory on your computer.

Matrix size

See [R] **matsize**.

Determining which flavor of Stata you are running

Type

```
. about
```

The response will be Stata/MP, Stata/SE, Stata/IC, or Small Stata. Other information is also shown, including your serial number. See [R] **about**.

Also see

[R] **about** — Display information about your Stata

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

[D] **compress** — Compress data in memory

[D] **data types** — Quick reference for data types

[D] **import** — Overview of importing data into Stata

[D] **infile (fixed format)** — Read text data in fixed format with a dictionary

[D] **infile (free format)** — Read unformatted text data

[D] **memory** — Memory management

[D] **obs** — Increase the number of observations in a dataset