Title

> **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

Remarks are presented under the following headings:

> Maximum size limits
> Determining which edition of Stata you are running

Maximum size limits

	Stata/BE	Stata/MP and Stata/SE
# of observations	2,147,483,619	1,099,511,627,775 (MP) (1)
		2,147,483,619 (SE) (1)
# of variables	2,048	120,000 (MP)
		32,767 (SE)
# of RHS variables	798	65,532 (MP)
		10,998 (SE)
# characters in a command	264,408	4,227,159
# options for a command	256	256
# of elements in a *numlist*	2,500	2,500
# of interacted continuous variables	64	64
# of interacted factor variables	8	8
# of unique time-series operators in a command	100	100
# seasonal suboperators per time-series operator	8	8
# of dyadic operators in an expression	800	800
# of numeric literals in an expression	300	300
# of string literals in an expression	512	512
length of string in string expression (bytes)	2,000,000,000	2,000,000,000
# of sum functions in an expression	5	5
# of pairs of nested parentheses	249	249
# of characters in a macro (2)	264,392	15,480,200 (MP)
		4,227,143 (SE)

continued	Stata/BE	Stata/MP and Stata/SE
# of nested do-files	64	64
# of lines in a program	3,500	3,500
# of bytes in a program	135,600	135,600
length of a variable name (characters)	32	32
length of ado-command name (characters)	32	32
length of a global macro name (characters)	32	32
length of a local macro name (characters)	31	31
length of a `str#` variable (bytes)	2,045	2,045
length of a `strL` variable (bytes)	2,000,000,000	2,000,000,000
`anova`		
# of variables in one `anova` term	8	8
# of terms in the `repeated()` option	4	4
`char`		
length of one characteristic (bytes)	67,784	67,784
`constraint`		
# of constraints	1,999	1,999
`encode` and `decode`		
# of unique values	65,536	65,536
`_estimates hold`		
# of stored estimation results	300	300
`estimates store`		
# of stored estimation results	300	300
`exlogistic` and `expoisson`		
maximum memory specification in `memory(#)`	2gb	2gb
`frames`		
# of frames	100	100
`grmeanby`		
# of unique values in *varlist*	$\_N/2$	$\_N/2$
`graph`		
minimum graph size (inches)	1	1
maximum graph size (inches)	100	100
`graph twoway`		
# of variables in a plot	100	100
# of styles in an option's stylelist	20	20
`import sas`		
# of variables	2,048	32,766
`import spss`		
# of variables	2,048	32,766

continued	Stata/BE	Stata/MP and Stata/SE
`infile (free format)`		
record length without dictionary	none	none
`infile (fixed format)`		
record length with a dictionary	524,275	524,275
`infix (fixed format)`		
record length with a dictionary	524,275	524,275
`label`		
length of dataset label (characters)	80	80
length of variable label (characters)	80	80
length of value label string (bytes)	32,000	32,000
length of name of value label (characters)	32	32
# of codings within one value label	65,536	65,536
`label language`		
# of different languages	100	100
`macro`		
# of nested macros	20	20
`manova`		
# of variables in single `manova` term	8	8
`matrix` (3)		
dimension of single matrix	800×800	$65,534 \times 65,534$ (MP) $11,000 \times 11,000$ (SE)
`maximize` options		
`iterate()` maximum	16,000	16,000
`mprobit`		
# of categories in a *depvar*	30	30
`net`		
# of description lines in `.pkg` file	100	100
`nlogit` and `nlogittree`		
# of levels in model	8	8
`notes`		
length of one note (bytes)	67,784	67,784
# of notes attached to `_dta`	9,999	9,999
# of notes attached to each variable	9,999	9,999
numlist		
# of elements in the numeric list	2,500	2,500
`_pctile`		
# of percentiles	4,096	4,096

continued	Stata/BE	Stata/MP and Stata/SE
putdocx and putpdf		
# of tables added to a document	10,000	10,000
reg3, sureg, and other system estimators		
# of equations	800	65,534 (MP)
		11,000 (SE)
set adosize		
memory ado-files may consume	1000K	1000K
set scrollbufsize		
memory for Results window buffer	2000K	2000k
slogit		
# of categories in a *depvar*	30	30
snapshot		
length of label (characters)	80	80
# of saved snapshots	1,000	1,000
stcox		
# of variables in strata() option	5	5
stcurve		
# of curves plotted on the same graph	10	10
tabdisp		
# of by variables	4	4
# of margins, i.e., sum of rows, columns, supercolumns, and by groups	3,000	3,000
tabulate oneway		
# of rows in one-way table	3,000	12,000
tabulate twoway		
# of rows & cols in two-way table	300×20	$1,200 \times 80$
tabulate, summarize()		
# of cells (rows X cols)	375	375
teffects		
# of treatments	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	800	65,534 (MP)
		11,000 (SE)
# of integration points accepted by intpoints(#)	195	195

(1) For Stata/MP, the maximum number of observations is 1,099,511,627,775, and for Stata/SE, the maximum number is 2,147,483,619. In practice, both editions are limited by memory.

(2) The maximum length of the contents of a macro are fixed in Stata/BE 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 $maximum\_length = 129 \times \texttt{maxvar} + 200$.

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

Determining which edition of Stata you are running

Type

```
. about
```

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

Also see

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

[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)** — Import text data in fixed format with a dictionary

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

[D] **memory** — Memory management

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