

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

Matrix size

Determining which flavor of Stata you are running

Maximum size limits

	Small	Stata/IC	Stata/MP and Stata/SE
# of observations (1)	1,200	2,147,483,647	2,147,483,647
# of variables	99	2,047	32,767
width of a dataset in bytes	800	24,564	393,192
value of matsize	100	800	11,000
# of RHS variables	98	798	10,998
# characters in a command	13,416	165,216	1,081,527
# 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	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)	13,400	165,200	1,081,511
# of nested do-files	64	64	64

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<i>continued</i>	Small	Stata/IC	Stata/MP and Stata/SE
# of lines in a program	3,500	3,500	3,500
# of characters in a program	135,600	135,600	135,600
length of a variable name	32	32	32
length of ado-command name	32	32	32
length of a global macro name	32	32	32
length of a local macro name	31	31	31
length of a <code>str#</code> variable	2,045	2,045	2,045
length of a <code>strL</code> variable	2,000,000,000	2,000,000,000	2,000,000,000
anova			
# of variables in one <code>anova</code> term	8	8	8
# of terms in the <code>repeated()</code> option	4	4	4
char			
length of one characteristic	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 <code>memory(#)</code>	2gb	2gb	2gb
grmeanby			
# of unique values in <code>varlist</code>	$-N/2$	$-N/2$	$-N/2$
graph twoway			
# of variables in a plot	100	100	100
# of styles in an option's <code>stylelist</code>	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

<i>continued</i>	Small	Stata/IC	Stata/MP and Stata/SE
label			
length of dataset label	80	80	80
length of variable label	80	80	80
length of value label string	32,000	32,000	32,000
length of name of value label	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 <i>depvar</i>	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	13,400	67,784	67,784
# of notes attached to <i>_dta</i>	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 scrollbarsize			
memory for Results window buffer	2000K	2000K	2000k

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<i>continued</i>	Small	Stata/IC	Stata/MP and Stata/SE
slogit			
# of categories in a <i>depvar</i>	30	30	30
snapspan			
length of label	80	80	80
# of saved snapshots	1,000	1,000	1,000
stcox			
# of variables in <code>strata()</code> 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., <code>xtgee</code> , <code>xtgls</code> , <code>xtpoisson</code> , <code>xtprobit</code> , <code>xtreg</code> with <code>mle</code> option, and <code>xtpcse</code> when neither option <code>hetonly</code> nor option <code>independent</code> is specified)			
# of time periods within panel	40	800	11,000
# of integration points accepted by <code>intpoints(#)</code>	195	195	195

- (1) 2,147,483,647 is a theoretical maximum; memory availability will certainly impose a smaller maximum.
- (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 $maximum_length = 33 \times maxvar + 200$.
- (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