log — Echo copy of session to file

Description

log and its subcommands tell Stata to open a log file and create a record of what you type and any output that appears in the Results window, to suspend or resume logging, to check logging status, and to close the log file. The default format is Stata Markup and Control Language (SMCL) but can be plain text. You can have up to five SMCL and five text logs open at a time. cmdlog and its subcommands are similar to log but create a command log recording only what you type and can be only plain text. That is, cmdlog is designed only for interactive use. You can have only one command log open at a time.

set logtype, set logmsg, and set linesize are commands to control system parameters that relate to logs.

Quick start

Begin recording your Stata session in mylog.smcl

    `log using mylog`

Same as above, but use a text format that can be read by a word processor

    `log using mylog, text`

Save a subset of output to mylog2.smcl while mylog.smcl is still open

    `log using mylog2, name(mylog2)`

Close mylog2.smcl and keep mylog.smcl open

    `log close mylog2`

Create a do-file from commands typed interactively

    `cmdlog using mydo.do`

Menu

File > Log

Syntax

Report status of log file

```
log
```

```
log query [ logname | _all ]
```

Open log file

```
log using filename [ , append replace [ text | smcl ] name(logname) [ nomsg | msg ] ]
```

Close log

```
log close [ logname | _all ]
```

Temporarily suspend logging or resume logging

```
log { off | on } [ logname ]
```

Report status of command log file

```
cmdlog
```

Open command log file

```
cmdlog using filename [ , append replace ]
```

Close command log, temporarily suspend logging, or resume logging

```
cmdlog { close | on | off }
```

Set default format for logs

```
set logtype { text | smcl } [ , permanently ]
```

Set default for display of log messages

```
set logmsg { on | off }
```

Specify screen width

```
set linesize #
```

In addition to using the log command, you may access the capabilities of log by selecting **File > Log** from the menu and choosing one of the options in the list.

collect is allowed with log query, log, and cmdlog; see [U] 11.1.10 Prefix commands.

Options for use with both log and cmdlog

append specifies that results be appended to an existing file. If the file does not already exist, a new file is created.

replace specifies that *filename*, if it already exists, be overwritten. When you do not specify either replace or append, the file is assumed to be new. If the specified file already exists, an error message is issued and logging is not started.

Options for use with log

text and smcl specify the format in which the log is to be recorded. The default is complicated to describe but is what you would expect:

If you specify the file as *filename*.smcl, the default is to write the log in SMCL format (regardless of the value of set logtype).

If you specify the file as *filename*.log, the default is to write the log in text format (regardless of the value of set logtype).

If you type *filename* without an extension and specify neither the smcl option nor the text option, the default is to write the file according to the value of set logtype. If you have not set logtype, then the default is SMCL. Also, the *filename* you specified will be fixed to read *filename*.smcl if a SMCL log is being created or *filename*.log if a text log is being created.

If you specify either the text or smcl option, then what you specify determines how the log is written. If *filename* was specified without an extension, the appropriate extension is added for you.

If you open multiple log files, you may choose a different format for each file.

name(*logname*) specifies an optional name you may use to refer to the log while it is open. You can start multiple log files, give each a different *logname*, and then close, temporarily suspend, or resume them each individually. The default *logname* is <unnamed>.

nomsg and msg specify whether to display or suppress the default message at the top and bottom of the log file.

nomsg suppresses the default message displayed at the top and bottom of the log file. This message consists of the log name (if specified in name(), otherwise unnamed), log path, log type, and date opened or closed.

msg displays the default message at the top and bottom of the log file. This option is for use when set logmsg is turned off.

Option for use with set logtype

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

Remarks and examples

A full log is a file containing what you type and Stata's output that is shown in the Results window. To begin logging your session, you type log using *filename*. If *filename* contains embedded spaces, remember to enclose it in double quotation marks.

When the default log format is SMCL, `log` will add the extension `.smcl` if *filename* is specified without one. If `text` is specified or the default log type is changed to text, `log` adds the extension `.log`.

We recommend using SMCL because it preserves fonts and colors. SMCL logs can be viewed and printed from the Viewer window, as can any text file; see [R] **view**. Users of console Stata can use `translate` to produce printable versions of log files. `translate` also converts SMCL logs to text or other formats, such as PostScript or PDF; see [R] **translate**.

When you open a full log, the default is to show the name of the file and a time and date stamp:

```
. log using myfile
  ─────────────────────────────────────────────────────────────
       name:  <unnamed>
        log:  C:\data\proj1\myfile.smcl
   log type:  smcl
   opened on:  12 Jan 2025, 12:28:23
.
```

The above information will appear in the log. If you do not want this information to appear, precede the command by `quietly`:

```
. quietly log using myfile
```

`quietly` will not suppress any error messages or anything else you need to know.

Similarly, when you close a full log, the default is to show the full information,

```
. log close
       name:  <unnamed>
        log:  C:\data\proj1\myfile.smcl
   log type:  smcl
   closed on:  12 Jan 2025, 12:32:41
  ─────────────────────────────────────────────────────────────
```

and that information will also appear in the log. If you want to suppress that, type `quietly log close`. Alternatively, specifying `nomsg` with `log using` will suppress these messages.

If you do not specify `name(`*logname*`)`, Stata will use the name `<unnamed>`, as shown above. However, you can start multiple log files by specifying the `name()` option with each new `log using` command. To control a specific log, type, for example, `log close` *logname*; to close all log files at one time, type `log close _all`.

Stata also lets you log only your commands using `cmdlog`. Command logs are always text files, which makes them easy to convert to do-files. The default extension is `.txt` instead of `.do` to keep you from accidentally overwriting your important do-files. However, `cmdlog` will allow you to specify `.do` as the extension of *filename*.

You can have only one command log open at a time. However, you can have full logs open while logging your commands. Moreover, the text file you create for your command log does not count against the limit of five text logs.

`set logtype` specifies the default format in which full logs are to be recorded. Initially, full logs are recorded in SMCL format.

`set logmsg` specifies whether the default message is displayed at the top and bottom of the log file. The default is on. Specifying `set logmsg off` suppresses the default message from both `log using` and `log close` just as if the `nomsg` option were used with `log using`.

set linesize specifies the maximum width, in characters, of Stata output. Most commands in Stata do not respect linesize, because it is not important for most commands. Most users never need to set linesize, because it will automatically be reset if you resize your Results window. This is also why there is no permanently option allowed with set linesize. set linesize is for use with commands such as list and display and is typically used by programmers who wish the output of those commands to be wider or narrower than the current width of the Results window.

Stored results

log and cmdlog store the following in r():

Macros
r(name)	*logname*
r(filename)	name of file
r(status)	on or off
r(type)	smcl or text

log query _all stores the following in r():

Scalars
r(numlogs)	number of open log files

For each open log file, log query _all also stores

r(name#)	*logname*
r(filename#)	name of file
r(status#)	on or off
r(type#)	smcl or text

where # varies between 1 and the value of r(numlogs). Be aware that # will not necessarily represent the order in which the log files were first opened, nor will it necessarily remain constant for a given log file upon multiple calls to log query.

Reference

Hansen, M. R. 2015. graphlog: Creating log files with embedded graphics. *Stata Journal* 15: 594–596.

Also see

[R] **query** — Display system parameters

[R] **translate** — Print and translate logs

[GSM] **16 Saving and printing results by using logs**

[GSW] **16 Saving and printing results by using logs**

[GSU] **16 Saving and printing results by using logs**

[U] **15 Saving and printing output—log files**