frames describe — Describe frames in memory or in a file

Description

frames describe produces a summary of frames in memory or in a Stata frameset (.dtas) file.

Quick start

Describe all frames in memory

    frames describe

Describe frames in file myframeset.dtas

    frames describe using myframeset

Describe variable var1 in frames A and B in memory

    frames describe var1, frames(A B)

Menu

Data > Frames Manager

Syntax

Describe frames in memory

> frames describe [*varlist*] [, *memory_options*]

Describe frames in a file

> frames describe [*varlist*] using *filename* [, *file_options*]

If *filename* is specified without an extension, .dtas is assumed. If *filename* contains embedded spaces or other special characters, enclose it in double quotes.

memory_options	Description
frames(*framelist*)	list of frames to describe
<u>sim</u>ple	display only variable names
<u>short</u>	display only general information
<u>full</u>names	do not abbreviate variable names
<u>numbers</u>	display variable number along with name

file_options	Description
frames(*framelist*)	list of frames to describe
<u>sim</u>ple	display only variable names
<u>short</u>	display only general information

Options

Options are presented under the following headings:

> Options to describe frames in memory
> Options to describe frames in a file

Options to describe frames in memory

frames(*framelist*) specifies the list of frames to describe.

simple displays only the variable names in a compact format. simple may not be combined with other options, except for frames().

short suppresses the specific information for each variable. Only the general information (number of observations, number of variables, and sort order) is displayed.

fullnames specifies that frames describe display the full names of the variables. The default is to present an abbreviation when the variable name is longer than 15 characters. fullnames may not be specified with numbers.

numbers specifies that frames describe present the variable number with the variable name. If numbers is specified, variable names are abbreviated when the name is longer than eight characters. numbers may not be specified with fullnames.

Options to describe frames in a file

`frames`(*framelist*) specifies the list of frames to describe.

`simple` displays only the variable names in a compact format. `simple` may not be combined with other options, except for `frames()`.

`short` suppresses the specific information for each variable. Only the general information (number of observations, number of variables, and sort order) is displayed.

Remarks and examples

`frames describe`, with no operands, describes the frames in memory in alphabetical order.

`frames describe` with the `using` modifier describes frames on disk in the order they were specified in *framelist* when saved with `frames save, frames`(*framelist*). This ordering is reflected in stored result `r(frames)` after `frames describe using`.

▷ Example 1: Describe frames in memory

After loading multiple datasets in memory with data frames, you can use `frames describe` to get a summary of the data in each frame. To demonstrate, below we create one frame with demographic information from the 1980 census (`census.dta`) and another with housing data (`hsng.dta`) from the same census.

```
. clear frames
. sysuse census
(1980 Census data by state)
. frame rename default census
. frame create housing
. frame change housing
. use https://www.stata-press.com/data/r19/hsng
(1980 Census housing data)
```

By simply typing `frames describe`, we get detailed information about the data in each frame, such as the number of observations and details about all the variables:

```
. frames describe
```

Frame: census
Contains data from C:\Program Files\Stata19\ado\base\c\census.dta

| Observations: | 50 | | 1980 Census data by state |
| Variables: | 13 | | 6 Apr 2024 15:43 |

Variable name	Storage type	Display format	Value label	Variable label
state	str14	%-14s		State
state2	str2	%-2s		Two-letter state abbreviation
region	int	%-8.0g	cenreg	Census region
pop	long	%12.0gc		Population
poplt5	long	%12.0gc		Pop, < 5 year
pop5_17	long	%12.0gc		Pop, 5 to 17 years
pop18p	long	%12.0gc		Pop, 18 and older
pop65p	long	%12.0gc		Pop, 65 and older
popurban	long	%12.0gc		Urban population
medage	float	%9.2f		Median age
death	long	%12.0gc		Number of deaths
marriage	long	%12.0gc		Number of marriages
divorce	long	%12.0gc		Number of divorces

Sorted by:

Frame: housing
Contains data from https://www.stata-press.com/data/r19/hsng.dta

| Observations: | 50 | | 1980 Census housing data |
| Variables: | 12 | | 3 Feb 2024 16:22 |

Variable name	Storage type	Display format	Value label	Variable label
state	str14	%14s		State
division	int	%8.0g	division	Census division
region	int	%8.0g	region	Census region
pop	long	%10.0g		Population in 1980
popgrow	float	%6.1f		Pop. growth 1970-80
popden	int	%6.1f		Pop/sq. mile
pcturban	float	%8.1f		Percent urban
faminc	long	%8.2f		Median family inc., 1979
hsng	long	%10.0g		Hsng units 1980
hsnggrow	float	%8.1f		% housing growth
hsngval	long	%9.2f		Median hsng value
rent	long	%6.2f		Median gross rent

Sorted by: state

In the `census` data frame, we have information for each state about the median age and the numbers of children and teens, adults, and senior citizens. In the `housing` data frame, we have information about the housing units, median family income, and median housing value.

`frames describe` describes the frames in memory in alphabetical order. Therefore, we first get a summary of the `census` frame and then a summary of the `housing` frame.

If we are interested only in certain variables, we can list them. Below, we describe the variables `state` and `region`, as well as all variables whose names begin with `pop`, for all frames in memory:

```
. frames describe state region pop*
```

```
Frame: census
Variable     Storage   Display    Value
    name        type    format    label    Variable label

state         str14    %-14s               State
region         int     %-8.0g    cenreg    Census region
pop           long     %12.0gc             Population
poplt5        long     %12.0gc             Pop, < 5 year
pop5_17       long     %12.0gc             Pop, 5 to 17 years
pop18p        long     %12.0gc             Pop, 18 and older
pop65p        long     %12.0gc             Pop, 65 and older
popurban      long     %12.0gc             Urban population
```

```
Frame: housing
Variable     Storage   Display    Value
    name        type    format    label    Variable label

state         str14    %14s                State
region         int     %8.0g     region    Census region
pop           long     %10.0g              Population in 1980
popgrow       float    %6.1f               Pop. growth 1970-80
popden         int     %6.1f               Pop/sq. mile
```

Furthermore, if we are interested only in describing the data for certain frames, we can list the names with the `frames()` option. Below, we are interested in the population variables in the `housing` frame:

```
. frames describe pop*, frames(housing)
```

```
Frame: housing
Variable     Storage   Display    Value
    name        type    format    label    Variable label

pop           long     %10.0g              Population in 1980
popgrow       float    %6.1f               Pop. growth 1970-80
popden         int     %6.1f               Pop/sq. mile
```

We can also skip the variable information altogether with the `short` option:

```
. frames describe, frames(housing) short
```

```
Frame: housing
Contains data from https://www.stata-press.com/data/r19/hsng.dta
 Observations:           50                  1980 Census housing data
    Variables:           12                  3 Feb 2024 16:22
Sorted by: state
```

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▷ Example 2: Describe frames in a file

In example 1, we created two frames with different information from the 1980 census. Let's save these frames into a file called censuses.dtas:

```
. frames save censuses, frames(housing census) replace
(file censuses.dtas not found)
file censuses.dtas saved
```

Now suppose that we are working in a new Stata session and we wish to describe the frames from the censuses.dtas file:

```
. clear all
. frames describe using censuses
```

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Frame: housing

Contains data			1980 Census housing data
Observations:		50	28 Mar 2025 19:42
Variables:		12	

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Variable name	Storage type	Display format	Value label	Variable label
state	str14	%14s		State
division	int	%8.0g	division	Census division
region	int	%8.0g	region	Census region
pop	long	%10.0g		Population in 1980
popgrow	float	%6.1f		Pop. growth 1970-80
popden	int	%6.1f		Pop/sq. mile
pcturban	float	%8.1f		Percent urban
faminc	long	%8.2f		Median family inc., 1979
hsng	long	%10.0g		Hsng units 1980
hsnggrow	float	%8.1f		% housing growth
hsngval	long	%9.2f		Median hsng value
rent	long	%6.2f		Median gross rent

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Sorted by: state

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```
Frame: census

Contains data                                    1980 Census data by state
 Observations:                50                 28 Mar 2025 19:42
    Variables:                13

Variable        Storage    Display   Value
    name           type     format   label    Variable label

state           str14      %-14s              State
state2          str2       %-2s               Two-letter state abbreviation
region          int        %-8.0g    cenreg   Census region
pop             long       %12.0gc            Population
poplt5          long       %12.0gc            Pop, < 5 year
pop5_17         long       %12.0gc            Pop, 5 to 17 years
pop18p          long       %12.0gc            Pop, 18 and older
pop65p          long       %12.0gc            Pop, 65 and older
popurban        long       %12.0gc            Urban population
medage          float      %9.2f              Median age
death           long       %12.0gc            Number of deaths
marriage        long       %12.0gc            Number of marriages
divorce         long       %12.0gc            Number of divorces

Sorted by:
```

Note that when we describe frames from a file, the first frame listed in the `frames save` command will be the first one described. Therefore, we now see the `housing` frame described first.

You can issue the `return list` command after `frames describe using` to see the order in which the frames were saved.

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Stored results

`frames describe` stores the following in `r()`:

Scalars
    `r(complevel)`   compression level (with option using only)

Macros
    `r(frames)`   list of frames described
    `r(first)`   first frame in `r(frames)` (with option using only)
    `r(N)`   number of observations in each frame
    `r(k)`   number of variables in each frame
    `r(width)`   width of frames
    `r(changed)`   1 or 0 for each frame in memory: 1 means the data in the frame have changed since last save; 0 means they have not changed

Also see

[D] **frames save** — Save a set of frames on disk

[D] **frames use** — Load a set of frames from disk

[D] **frames** — Data frames

[D] **describe** — Describe data in memory or in a file

For suggested citations, see the FAQ on citing Stata documentation.