frames describe — Describe frames in memory or in a file

Description Quick start Menu Syntax
Options Remarks and examples Stored results Also see

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
`simple`	display only variable names
`short`	display only general information
`fullnames`	do not abbreviate variable names
`numbers`	display variable number along with name

file_options	Description
`frames(`*framelist*`)`	list of frames to describe
`simple`	display only variable names
`short`	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
------------------------------------------------------------------------------
```

◁

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
```

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

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
```

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

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:
```

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.

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