frames describe — Describe frames in memory or in a file

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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(<i>framelist</i>)	list of frames to describe
<u>si</u> mple	display only variable names
<u>s</u> hort	display only general information
fullnames	do not abbreviate variable names
<u>n</u> umbers	display variable number along with name
file_options	Description
frames(<i>framelist</i>)	list of frames to describe
<u>si</u> mple	display only variable names
<u>s</u> hort	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

Observatio	ons:	50		1980 Census data by state
Variabl	es:	13		6 Apr 2024 15:43
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
рор	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 Sorted by: Frame: hous	•	%12.0gc		Number of divorces
divorce Sorted by: Frame: hous Contains da Observatic	ting ta from http: ns:	ps://www.st 50	ata-press.co	om/data/r19/hsng.dta 1980 Census housing data
divorce Sorted by: Frame: hous Contains da	ting ta from http: ns:	ps://www.st	ata-press.co	om/data/r19/hsng.dta
divorce Sorted by: Frame: hous Contains da Observatic Variabl	ting ta from http: ns:	ps://www.st 50	ata-press.co Value	om/data/r19/hsng.dta 1980 Census housing data
divorce Sorted by: Frame: hous Contains da Observatic Variabl	ting ta from http ns: es:	ps://www.st 50 12	-	om/data/r19/hsng.dta 1980 Census housing data
divorce Sorted by: Frame: hous Contains da Observatic Variable name	ting ta from http ns: es: Storage	ps://www.st 50 12 Display	Value	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22
divorce Sorted by: Frame: hous Contains da Observatic Variable name state	ting ta from http: es: Storage type	ps://www.st 50 12 Display format	Value	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division	ting ta from http: ns: es: Storage type str14	ps://www.st 50 12 Display format %14s	Value label	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region	ting ta from http: ns: es: Storage type str14 int	ps://www.st 50 12 Display format %14s %8.0g	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region pop	ta from http: ns: es: Storage type str14 int int	ps://www.st 50 12 Display format %14s %8.0g %8.0g	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region pop popgrow	ting ta from http ns: es: Storage type str14 int int long	ps://www.st 50 12 Display format %14s %8.0g %8.0g %10.0g	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region pop popgrow popden	ting ta from http ns: .es: Storage type str14 int int long float	ps://www.st 50 12 Display format %14s %8.0g %8.0g %10.0g %6.1f	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980 Pop. growth 1970-80
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region pop popgrow popgrow popden pcturban	ting ta from http ns: es: Storage type str14 int int long float int	ps://www.st 50 12 Display format %14s %8.0g %8.0g %10.0g %6.1f %6.1f	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980 Pop. growth 1970-80 Pop/sq. mile
divorce Sorted by: Frame: hous Contains da Observatic Variable name State division region pop popgrow popgrow popden pcturban faminc	ting ta from http ns: es: Storage type str14 int int long float int float	ps://www.st 50 12 Display format %14s %8.0g %10.0g %6.1f %6.1f %8.1f	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980 Pop. growth 1970-80 Pop/sq. mile Percent urban
divorce Sorted by: Frame: hous Contains da Observatic Variable name state division region pop popgrow popden pcturban faminc hsng	ting ta from http: ns: .es: Storage type str14 int int long float int float long	ps://www.st 50 12 Display format %14s %8.0g %8.0g %6.1f %6.1f %8.1f %8.2f	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980 Pop. growth 1970-80 Pop/sq. mile Percent urban Median family inc., 1979
divorce Sorted by: Frame: hous Contains da Observatic Variable	ting ta from http: ns: es: Storage type str14 int int long float int float long long	ps://www.st 50 12 Display format %14s %8.0g %8.0g %10.0g %6.1f %8.1f %8.2f %10.0g	Value label division	om/data/r19/hsng.dta 1980 Census housing data 3 Feb 2024 16:22 Variable label State Census division Census region Population in 1980 Pop. growth 1970-80 Pop/sq. mile Percent urban Median family inc., 1979 Hsng units 1980

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:

Frame: cens	us				
Variable	Storage	Display	Value		
name	type	format	label	Variable label	
state	str14	%-14s		State	
region	int	%-8.0g	cenreg	Census region	
рор	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: hous	ing				
Variable	Storage	Display	Value		
name	type	format	label	Variable label	
state	str14	%14s		State	
region	int	%8.0g	region	Census region	
рор	long	%10.0g		Population in 1980	
popgrow	float	%6.1f		Pop. growth 1970-80	
popden	int	%6.1f		Pop/sq. mile	

. frames describe state region pop*

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 name	Storage type	Display format	Value label	Variable label		
pop popgrow popden	long float int	%10.0g %6.1f %6.1f		Population in 1980 Pop. growth 1970-80 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	a-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

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

Contains data Observations: 50				1980 Census data by state 28 Mar 2025 19:42
Variable	es:	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
рор	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

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

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