levelsof — Levels of variable

Syntax

```
levelsof varname [if] [in] [, options]
```

Options

- **clean**: display string values without compound double quotes.
  - By default, each distinct string value is displayed within compound double quotes, as these are the most general delimiters. If you know that the string values in `varname` do not include embedded spaces or embedded quotes, this is an appropriate option. `clean` does not affect the display of values from numeric variables.

- **local(macname)**: insert the list of values in `local` macro `macname` within the calling program's space.
  - Hence, that macro will be accessible after `levelsof` has finished. This is helpful for subsequent use, especially with `foreach`; see [P] foreach.

- **missing**: specify that missing values of `varname` be included in the tabulation. The default is to exclude them.

- **separate(separator)**: specify a separator to serve as punctuation for the values of the returned list.
  - The default is a space. A useful alternative is a comma.

Remarks and examples

`levelsof` serves two different functions. First, it provides a compact list of the distinct values of `varname`. More commonly, it is useful when you desire to cycle through the distinct values of `varname` with (say) `foreach`; see [P] foreach. `levelsof` leaves behind a list in `r(levels)` that may be used in a subsequent command.

`levelsof` may hit the limits imposed by your Stata. However, it is typically used when the number of distinct values of `varname` is modest.
The terminology of levels of a factor has long been standard in experimental design. See Cochran and Cox (1957, 148), Fisher (1942), or Yates (1937, 5).

Example 1

```
use http://www.stata-press.com/data/r13/auto
(1978 Automobile Data)
levelsof rep78
1 2 3 4 5
display r(levels)
1 2 3 4 5
levelsof rep78, miss local(mylevs)
1 2 3 4 5.
display mylevs
1 2 3 4 5.
levelsof rep78, sep(,)
1,2,3,4,5
display r(levels)
1,2,3,4,5
```

Showing value labels when defined:
```
levelsof factor, local(levels)
foreach l of local levels {
    di "factor = `l': label (factor) `l''"
    whatever if factor == `l'
}
```

Stored results

```
levelsof stores the following in r():
```

```
Macros
```
```
r(levels) list of distinct values
```

Acknowledgments

```
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```

References

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Also see

[P] foreach — Loop over items
[D] codebook — Describe data contents
[D] inspect — Display simple summary of data’s attributes
[R] tabulate oneway — One-way table of frequencies