

## tokenize — Divide strings into tokens

[Description](#)
[Syntax](#)
[Option](#)
[Remarks and examples](#)
[Also see](#)

## Description

`tokenize` divides *string* into tokens, storing the result in ‘1’, ‘2’, ... (the positional local macros). Tokens are determined based on the parsing characters *pchars*, which default to a space if not specified.

## Syntax

```
tokenize [['"] [string] [''] ] [ , parse("pchars") ]
```

## Option

`parse("pchars")` specifies the parsing characters. If `parse()` is not specified, `parse(" ")` is assumed, and *string* is split into words. Note that *pchars* is treated as a sequence of bytes. Any Unicode character in multibyte UTF-8 encoding, which applies to all Unicode characters except ASCII characters, is treated as a sequence of bytes rather than as a single character. For example, `parse()` will not work as expected when trying to break a string into tokens based on a Unicode whitespace character `\u2000`.

## Remarks and examples

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`tokenize` may be used as an alternative or supplement to the `syntax` command (see [\[P\] syntax](#)) for parsing command-line arguments. Generally, it is used to further process the local macros created by `syntax`, as shown below.

```
program myprog
    version 15.1
    syntax [varlist] [if] [in]
    marksample touse
    tokenize 'varlist'
    local first '1'
    macro shift
    local rest '*'
    ...
end
```

### ► Example 1

We interactively apply `tokenize` and then display several of the numbered macros to illustrate how the command works.

```
. tokenize some words
. display "1=|'1'|, 2=|'2'|, 3=|'3'|"
1=|some|, 2=|words|, 3=|
. tokenize "some more words"
. display "1=|'1'|, 2=|'2'|, 3=|'3'|, 4=|'4'|"
1=|some|, 2=|more|, 3=|words|, 4=|
```

```
. tokenize "'Marcello Pagano'Rino Bellocco'"
. display "1='1', 2='2', 3='3'"
1=|Marcello Pagano|, 2=|Rino Bellocco|, 3=|

. local str "A strange++string"
. tokenize 'str'
. display "1='1', 2='2', 3='3'"
1=|A|, 2=|strange++string|, 3=|

. tokenize 'str', parse(" +")
. display "1='1', 2='2', 3='3', 4='4', 5='5', 6='6'"
1=|A|, 2=|strange|, 3=|+|, 4=|+|, 5=|string|, 6=|

. tokenize 'str', parse("+")
. display "1='1', 2='2', 3='3', 4='4', 5='5', 6='6'"
1=|A strange|, 2=|+|, 3=|+|, 4=|string|, 5=|, 6=|

. tokenize
. display "1='1', 2='2', 3='3'"
1=|, 2=|, 3=|
```

These examples illustrate that the quotes surrounding the string are optional; the space parsing character is not saved in the numbered macros; nonspace parsing characters are saved in the numbered macros together with the tokens being parsed; and more than one parsing character may be specified. Also, when called with no string argument, `tokenize` resets the local numbered macros to empty.

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## Also see

[P] [foreach](#) — Loop over items

[P] [gettoken](#) — Low-level parsing

[P] [macro](#) — Macro definition and manipulation

[P] [syntax](#) — Parse Stata syntax

[M-5] [invtokens\(\)](#) — Concatenate string rowvector into string scalar

[M-5] [tokenget\(\)](#) — Advanced parsing

[M-5] [tokens\(\)](#) — Obtain tokens from string

[U] [18 Programming Stata](#)