

# W

## **wc — Command**

Count words, lines, and characters in files

**wc** [-clw] [file...]

**wc** counts words, lines, and characters in each *file* named. If no *file* is given, **wc** uses the standard input. If more than one *file* is given, **wc** also prints a total for all of the files.

A *word* is a string of characters surrounded by white space (blanks, tabs, or newlines).

Options control the printing of various counts:

-c     Print a count of character.

-l     Print a count of lines.

-w     Print a count of words.

The default action is to print all counts.

### **See Also**

**commands**

## **wcstombs()** — General utility (libc)

Convert sequence of wide characters to multibyte characters

**#include <stdlib.h>**

**size\_t wcstombs(wchar\_t \*multibyte, const char \*widechar, size\_t number);**

The function **wcstombs** converts a sequence of wide characters to their corresponding multibyte characters. It is the same as a series of calls of the type:

```
wctomb(multibyte, *widechar);
```

except that the call to **wcstombs** does not affect the internal state of **wctomb**.

*widechars* points to the base of the sequence of wide characters to be converted to multibyte characters. *multibyte* points to the area into which the characters will be written. The sequence begins and ends in an initial shift state. *number* is the number of characters to be converted. **wcstombs** converts characters either until it reads and converts the null character that ends the sequence, or until it has converted *number* characters. In the latter case, no null character is written at the end of the sequence of multibyte characters.

**wcstombs** returns -1 cast to **size\_t** if it encounters an invalid wide character before it has converted *number* characters. Otherwise, it returns the number of characters converted, excluding the null character that ends the sequence.

### **Cross-reference**

Standard, §4.10.7.4

### **See Also**

**general utilities, mbstowcs**

### **Notes**

The operation of this function is affected by the program's locale, as set by the function **setlocale**. See **localization** for more information.

**wctomb()** — General utility (libc)

Convert a wide character to a multibyte character

```
#include <stdlib.h>
```

```
int wctomb(char *string, wchar_t widecharacter);
```

**wctomb** converts *widecharacter* to its corresponding multibyte character and stores the result in the area pointed to by *string*.

If *string* is set to NULL, then **wctomb** merely checks to see if the current set of multibyte characters include state-dependent encodings. It returns zero if the set does not include state-dependent codings, and a number other than zero if it does.

If *string* is set to a value other than NULL, then **wctomb** does the following:

1. It returns zero if *widecharacter* is zero.
2. It returns -1 if the value of *widecharacter* does not correspond to a legitimate multibyte character for the present locale.
3. If the value of *widecharacter* does correspond to a legitimate multibyte character, then it returns the number of bytes that comprise that character.

**wctomb** never returns a value greater than that of the macro **MB\_CUR\_MAX**.

**Cross-reference**

Standard, §4.10.7.5

**See Also**

**general utilities**, **MB\_CUR\_MAX**, **mblen**, **mbtowc**, **wchar\_t**

**Notes**

The operation of this function is affected by the program's locale, as set by the function **setlocale**. See **localization** for more information.

The address pointed to by *string* should have **MB\_CUR\_MAX** bytes of storage allocated to it. If not, you may overwrite memory currently in use.

**while** — C keyword

Loop construct

```
while(condition) statement
```

**while** introduces a conditional loop. Unlike a **do** loop, a **while** loop tests *condition* before execution of *statement*. The loop ends when *condition* is no longer satisfied. Hence, the loop may not execute at all, if *condition* is initially false.

For example,

```
while (variable < 10)
```

introduces a loop whose statements will continue to execute until **variable** is equivalent to ten or greater. The statement

```
while (1)
```

will loop until interrupted by **break**, **goto**, or **return**.

**Example**

For an example of this statement, see **scanf**.

**Cross-references**

Standard, §3.6.5.1

*The C Programming Language*, ed. 2, pp. 60ff

**See Also**

**C keywords, do, for, statements, while**

**wildcards — Definition**

*Wildcards* are characters that, under special circumstances, represent a range of ASCII characters. Another name for them is “metacharacters”. The wildcards available under MS-DOS are as follows:

- ? Match any one character.
- \* Match any number of characters, or no characters at all.

**See Also**

**Definitions, egrep, patterns, pnmacth**

**write() — Extended function (libc)**

Write into a file

**short write(short *fd*, char \**buffer*, short *n*);**

**write** writes *n* bytes of data, beginning at address *buffer*, into the file *fd*. Writing begins at the current write position, as set by the last call to either **write** or **lseek**. **write** advances the position of the file pointer by the number of characters written.

**write** returns -1 if an error occurred before the **write** operation commenced, such as if *fd* is bad or *buffer* contains an invalid address. Otherwise, it returns the number of bytes actually written. It should be considered an error if this number is not the same as *n*.

**Example**

For an example of how to use this function, see the entry for **open**.

**See Also**

**extended miscellaneous**

**Notes**

**write** is a low-level call that passes data directly to MS-DOS. It should not be intermixed with high-level calls, such as **fread**, **fwrite**, or **fopen** without care.

**write** is not described in the ANSI Standard. Programs that use it do not conform strictly to the Standard, and may not be portable to other compilers or to other environments.

