

border(3NCURSES)

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## NAME

**border**, **wborder**, **box**, **hline**, **whline**, **vline**, **wvline**, **mvhline**, **mvwhline**, **mvvline**, **mvwvline** – create curses borders, horizontal and vertical lines

## SYNOPSIS

```
#include <curses.h>
int border(chtype ls, chtype rs, chtype ts, chtype bs,
           chtype tl, chtype tr, chtype bl, chtype br);
int wborder(WINDOW *win, chtype ls, chtype rs,
            chtype ts, chtype bs, chtype tl, chtype tr,
            chtype bl, chtype br);
int box(WINDOW *win, chtype verch, chtype horch);
int hline(chtype ch, int n);
int whline(WINDOW *win, chtype ch, int n);
int vline(chtype ch, int n);
int wvline(WINDOW *win, chtype ch, int n);
int mvhline(int y, int x, chtype ch, int n);
int mvwhline(WINDOW *, int y, int x, chtype ch, int n);
int mvvline(int y, int x, chtype ch, int n);
int mvwvline(WINDOW *, int y, int x, chtype ch, int n);
```

## DESCRIPTION

The **border**, **wborder** and **box** routines draw a box around the edges of a window. Other than the window, each argument is a character with attributes:

*ls* – left side,  
*rs* – right side,  
*ts* – top side,  
*bs* – bottom side,  
*tl* – top left-hand corner,  
*tr* – top right-hand corner,  
*bl* – bottom left-hand corner, and  
*br* – bottom right-hand corner.

If any of these arguments is zero, then the corresponding default values (defined in **curses.h**) are used instead:

**ACS\_VLINE**,  
**ACS\_VLINE**,  
**ACS\_HLINE**,  
**ACS\_HLINE**,  
**ACS\_ULCORNER**,  
**ACS\_URCORNER**,  
**ACS\_LLCORNER**,  
**ACS\_LRCORNER**.

**box**(*win*, *verch*, *horch*) is a shorthand for the following call: **wborder**(*win*, *verch*, *verch*, *horch*, *horch*, **0**, **0**, **0**, **0**).

The **hline** and **whline** functions draw a horizontal (left to right) line using *ch* starting at the current cursor position in the window. The current cursor position is not changed. The line is at most *n* characters long, or as many as fit into the window.

The **vline** and **wvline** functions draw a vertical (top to bottom) line using *ch* starting at the current cursor position in the window. The current cursor position is not changed. The line is at most *n* characters long, or as many as fit into the window.

## RETURN VALUE

All routines return the integer **OK**. The SVr4.0 manual says "or a non-negative integer if **immedok** is set", but this appears to be an error.

X/Open does not define any error conditions. This implementation returns an error if the window pointer is null.



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Functions with a "mv" prefix first perform a cursor movement using **wmove**, and return an error if the position is outside the window, or if the window pointer is null.

## NOTES

The borders generated by these functions are *inside* borders (this is also true of SVr4 curses, though the fact is not documented).

Note that **border** and **box** may be macros.

## PORTABILITY

These functions are described in the XSI Curses standard, Issue 4. The standard specifies that they return **ERR** on failure, but specifies no error conditions.

## SEE ALSO

**ncurses(3NCURSES)**, **outopts(3NCURSES)**.

