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 *win, int y, int x, chtype ch, int n);
int mvvline(int y, int x, chtype ch, int n);
int mvwvline(WINDOW *win, 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.

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

curses(3X), **curs_outopts**(3X).