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).