

**NAME**

**border**, **wborder**, **box**, **hline**, **whline**, **vline**, **wvline**, **mvhline**, **mvwhline**, **mvvline**, **mvvwline** - 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 mvvwline(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.

`curs_border(3X)`

`curs_border(3X)`

**SEE ALSO**

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

`curs_border(3X)`