

NAME

inch, **winch**, **mvinch**, **mvwinch** – get a *curses* character from a window

SYNOPSIS

```
#include <curses.h>
```

```
chtype inch(void);
```

```
chtype winch(WINDOW * win);
```

```
chtype mvinch(int y, int x);
```

```
chtype mvwinch(WINDOW * win, int y, int x);
```

DESCRIPTION

winch returns the *curses* character, including its attributes and color pair identifier, at the cursor position in the window *win*. Subsection “Video Attributes” of **ofattr on(3X)** explains how to extract these data from a *chtype*. **ncurses(3X)** describes the variants of this function.

RETURN VALUE

These functions return **OK** on success and **ERR** on failure.

In *ncurses*, they return **ERR** if *win* is *NULL*.

Functions prefixed with “mv” first perform cursor movement and fail if the position (*y*, *x*) is outside the window boundaries.

NOTES

inch, **mvinch**, and **mvwinch** may be implemented as macros.

These functions do not fail if the window contains cells of *curses* complex characters; that is, if they contain characters with codes wider than eight bits (or greater than 255 as an unsigned decimal integer). They instead extract only the low-order eight bits of the character code from the cell.

PORTABILITY

X/Open Curses Issue 4 describes these functions. It specifies no error conditions for them.

HISTORY

The original *curses* in 4BSD (1980) defined *winch* as a macro accessing the *WINDOW* structure member representing character cell data, at that time a *char*, containing only a 7-bit ASCII character code and a “standout” attribute bit, the only one the library supported.

SVr2 *curses* (1984) extended this approach, widening the character code to eight bits and permitting several attributes to be combined with it by storing them together in a *chtype*, an alias of *unsigned short*. Because a macro was used, its value was not type-checked as a function return value could have been. Goodheart documented SVr3 (1987) *winch* as returning an *int*. SVr3.1’s (1987) *chtype* became an alias of *unsigned long*, using 16 bits for the character code and widening the type in practical terms to 32 bits, as 64-bit Unix systems were not yet in wide use, and fixed-width integral types would not be standard until ISO C99. SVr3.2 (1988) added a 6-bit color pair identifier alongside the attributes.

SEE ALSO

curs_in_wch(3X) describes comparable functions of the *ncurses* library in its wide-character configuration (*ncursesw*).

curses(3X), **curs_instr(3X)**