

**NAME**

**iswalnum, iswalph, iswascii, iswblank, iswcntrl, iswdigit, iswgraph, iswhexnumber, iswideogram, iswlower, iswnumber, iswphonogram, iswprint, iswpunct, iswrune, iswspace, iswspecial, iswupper, iswxdigit** - wide character classification utilities

**LIBRARY**

Standard C Library (libc, -lc)

**SYNOPSIS**

```
#include <wctype.h>
```

*int*

```
iswalnum(wint_t wc);
```

*int*

```
iswalpha(wint_t wc);
```

*int*

```
iswascii(wint_t wc);
```

*int*

```
iswblank(wint_t wc);
```

*int*

```
iswcntrl(wint_t wc);
```

*int*

```
iswdigit(wint_t wc);
```

*int*

```
iswgraph(wint_t wc);
```

*int*

```
iswhexnumber(wint_t wc);
```

*int*

```
iswideogram(wint_t wc);
```

*int*

```
iswlower(wint_t wc);
```

*int*

**iswnumber**(*wint\_t wc*);

*int*

**iswphonogram**(*wint\_t wc*);

*int*

**iswprint**(*wint\_t wc*);

*int*

**iswpunct**(*wint\_t wc*);

*int*

**iswrune**(*wint\_t wc*);

*int*

**iswspace**(*wint\_t wc*);

*int*

**iswspecial**(*wint\_t wc*);

*int*

**iswupper**(*wint\_t wc*);

*int*

**iswxdigit**(*wint\_t wc*);

## DESCRIPTION

The above functions are character classification utility functions, for use with wide characters (*wchar\_t* or *wint\_t*). See the description for the similarly-named single byte classification functions (like `isalnum(3)`), for details.

## RETURN VALUES

The functions return zero if the character tests false and return non-zero if the character tests true.

## SEE ALSO

`isalnum(3)`, `isalpha(3)`, `isascii(3)`, `isblank(3)`, `iscntrl(3)`, `isdigit(3)`, `isgraph(3)`, `ishexnumber(3)`, `isideogram(3)`, `islower(3)`, `isnumber(3)`, `isphonogram(3)`, `isprint(3)`, `ispunct(3)`, `isrune(3)`, `isspace(3)`, `isspecial(3)`, `isupper(3)`, `isxdigit(3)`, `wctype(3)`

**STANDARDS**

These functions conform to IEEE Std 1003.1-2001 ("POSIX.1"), except **iswascii()**, **iswhexnumber()**, **iswideogram()**, **iswnumber()**, **iswphonogram()**, **iswrune()** and **iswspecial()**, which are FreeBSD extensions.

**CAVEATS**

The result of these functions is undefined unless the argument is WEOF or a valid *wchar\_t* value for the current locale.