NAME
atoi, atol, atoll – convert a string to an integer

LIBRARY
Standard C library (*libc*, *−lc*)

SYNOPSIS
#include <stdlib.h>

int atoi(const char **nptr***);**
long atol(const char **nptr***);**
long long atoll(const char **nptr***);**

Feature Test Macro Requirements for glibc (see **feature_test_macros**(7)):

atoll():
   _ISOC99_SOURCE
     || /* glibc <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE

DESCRIPTION
The **atoi**() function converts the initial portion of the string pointed to by *nptr* to *int*. The behavior is the same as

```
strtol(nptr, NULL, 10);
```

except that **atoi**() does not detect errors.

The **atol**() and **atoll**() functions behave the same as **atoi**(), except that they convert the initial portion of the string to their return type of *long* or *long long*.

RETURN VALUE
The converted value or 0 on error.

ATTRIBUTES
For an explanation of the terms used in this section, see **attributes**(7).

Interface	Attribute	Value
atoi(), **atol**(), **atoll**()	Thread safety	MT-Safe locale

STANDARDS
POSIX.1-2001, POSIX.1-2008, C99, SVr4, 4.3BSD.

NOTES
POSIX.1 leaves the return value of **atoi**() on error unspecified. On glibc, musl libc, and uClibc, 0 is returned on error.

BUGS
errno is not set on error so there is no way to distinguish between 0 as an error and as the converted value. No checks for overflow or underflow are done. Only base-10 input can be converted. It is recommended to instead use the **strtol**() and **strtoul**() family of functions in new programs.

SEE ALSO
atof(3), **strtod**(3), **strtol**(3), **strtoul**(3)