

**NAME**

atoi, atol, atoll - convert a string to an integer

**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()**:

```
_BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE ||
```

```
_POSIX_C_SOURCE >= 200112L;
```

```
or cc -std=c99
```

**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.

**ATTRIBUTES**

**Multithreading (see [pthreads\(7\)](#))**

The **atoi()**, **atol()**, and **atoll()** functions are thread-safe with exceptions. These functions can be safely used in multithreaded applications, as long as [setlocale\(3\)](#) is not called to change the locale during their execution.

**CONFORMING TO**

SVr4, POSIX.1-2001, 4.3BSD, C99. C89 and POSIX.1-1996 include the functions **atoi()** and **atol()** only.

**NOTES**

Linux libc provided **atoq()** as an obsolete name for **atoll()**; **atoq()** is not provided by glibc.

**SEE ALSO**

[atof\(3\)](#), [strtod\(3\)](#), [strtol\(3\)](#), [strtoul\(3\)](#)

**COLOPHON**

This page is part of release 3.74 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <http://www.kernel.org/doc/man-pages/>.