

NAME

assert - abort the program if assertion is false

SYNOPSIS

```
#include <assert.h>
```

```
void assert(scalar expression);
```

DESCRIPTION

If the macro **NDEBUG** was defined at the moment *<assert.h>* was last included, the macro **assert()** generates no code, and hence does nothing at all. Otherwise, the macro **assert()** prints an error message to standard error and terminates the program by calling [abort\(3\)](#) if *expression* is false (i.e., compares equal to zero).

The purpose of this macro is to help programmers find bugs in their programs. The message assertion failed in file foo.c, function do_bar(), line 1287 is of no help at all to a user.

RETURN VALUE

No value is returned.

CONFORMING TO

POSIX.1-2001, C89, C99. In C89, *expression* is required to be of type *int* and undefined behavior results if it is not, but in C99 it may have any scalar type.

BUGS

assert() is implemented as a macro; if the expression tested has side-effects, program behavior will be different depending on whether **NDEBUG** is defined. This may create Heisenbugs which go away when debugging is turned on.

SEE ALSO

[abort\(3\)](#), [assert_perror\(3\)](#), [exit\(3\)](#)

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/>.