

exit

Defined in header <stdlib.h>

<code>void exit(int exit_code);</code>	(until C11)
<code>_Noreturn void exit(int exit_code);</code>	(since C11)

Causes normal program termination to occur.

Several cleanup steps are performed:

- functions passed to atexit are called, in reverse order of registration
- all C streams are flushed and closed
- files created by tmpfile are removed
- control is returned to the host environment. If exit_code is zero or EXIT_SUCCESS, an implementation-defined status, indicating successful termination is returned. If exit_code is EXIT_FAILURE, an implementation-defined status, indicating unsuccessful termination is returned. In other cases implementation-defined status value is returned.

Notes

The functions registered with at_quick_exit are not called.

The behavior is undefined if a program calls exit more than once, or if it calls exit and quick_exit

The behavior is undefined if during a call to a function registered with atexit, the function exits with longjmp.

Returning from the the main function, either by a return statement or by reaching the end of the function, executes exit(), passing the argument of the return statement (or 0 if implicit return was used) as exit_code.

Parameters

exit_code - exit status of the program

Return value

(none)

Example

Run this code

```
#include <stdio.h>
#include <stdlib.h>

int main(void)
{
    FILE *fp = fopen("data.txt", "r");
    if (fp == NULL) {
        fprintf(stderr, "error opening file data.txt in function main()\n");
        exit( EXIT_FAILURE );
    }
    fclose(fp);
    printf("Normal Return\n");
    return EXIT_SUCCESS ;
}
```

Possible output:

```
error opening file data.txt in function main()
```

References

- C11 standard (ISO/IEC 9899:2011):
 - 7.22.4.4 The exit function (p: 351-352)

- C99 standard (ISO/IEC 9899:1999):
 - 7.20.4.3 The exit function (p: 315–316)
- C89/C90 standard (ISO/IEC 9899:1990):
 - 4.10.4.3 The exit function

See also

abort	causes abnormal program termination (without cleaning up) (function)
atexit	registers a function to be called on exit() invocation (function)
quick_exit (C11)	causes normal program termination without completely cleaning up (function)
C++ documentation for <code>exit</code>	

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