

NAME

`error`, `error_at_line`, `error_message_count`, `error_one_per_line`, `error_print_progname` - glibc error reporting functions

SYNOPSIS

```
#include <error.h>

void error(int status, int errnum, const char *format, ...);

void error_at_line(int status, int errnum, const char *filename,
                  unsigned int linenum, const char *format, ...);

extern unsigned int error_message_count;

extern int error_one_per_line;

extern void (*error_print_progname) (void);
```

DESCRIPTION

`error()` is a general error-reporting function. It flushes `stdout`, and then outputs to `stderr` the program name, a colon and a space, the message specified by the `printf(3)`-style format string `format`, and, if `errnum` is nonzero, a second colon and a space followed by the string given by `strerror(errnum)`. Any arguments required for `format` should follow `format` in the argument list. The output is terminated by a newline character.

The program name printed by `error()` is the value of the global variable `program_invocation_name(3)`. `program_invocation_name` initially has the same value as `main()`'s `argv[0]`. The value of this variable can be modified to change the output of `error()`.

If `status` has a nonzero value, then `error()` calls `exit(3)` to terminate the program using the given value as the exit status.

The `error_at_line()` function is exactly the same as `error()`, except for the addition of the arguments `filename` and `linenum`. The output produced is as for `error()`, except that after the program name are written: a colon, the value of `filename`, a colon, and the value of `linenum`. The preprocessor values `__LINE__` and `__FILE__` may be useful when calling `error_at_line()`, but other values can also be used. For example, these arguments could refer to a location in an input file.

If the global variable `error_one_per_line` is set nonzero, a sequence of `error_at_line()` calls with the same value of `filename` and `linenum` will result in only one message (the first) being output.

The global variable `error_message_count` counts the number of messages that have been output by `error()` and `error_at_line()`.

If the global variable `error_print_progname` is assigned the address of a function (i.e., is not `NULL`), then that function is called instead of prefixing the message with the program name and colon. The function should print a suitable string to `stderr`.

CONFORMING TO

These functions and variables are GNU extensions, and should not be used in programs intended to be portable.

SEE ALSO

`err(3)`, `errno(3)`, `exit(3)`, `perror(3)`, `program_invocation_name(3)`, `strerror(3)`

COLOPHON

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