feof

```
int feof( FILE *stream );
```

Checks if the end of the given file stream has been reached.

Parameters

stream – the file stream to check

Return value

nonzero value if the end of the stream has been reached, otherwise `0`

Notes

This function only reports the stream state as reported by the most recent I/O operation, it does not examine the associated data source. For example, if the most recent I/O was a `fgetc`, which returned the last byte of a file, `feof` returns zero. The next `fgetc` fails and changes the stream state to *end-of-file*. Only then `feof` returns non-zero.

In typical usage, input stream processing stops on any error; `feof` and `ferror` are then used to distinguish between different error conditions.

Example

Run this code

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

int main(void)
{
    int is_ok = EXIT_FAILURE;
    const char* fname = "/tmp/unique_name.txt"; // or tmpnam(NULL);
    FILE* fp = fopen(fname, "w+");
    if(!fp) {
        perror("File opening failed");
        return is_ok;
    }
    fputs("Hello, world!\n", fp);
    rewind(fp);

    int c; // note: int, not char, required to handle EOF
    while ((c = fgetc(fp)) != EOF) { // standard C I/O file reading loop
        putchar(c);
    }

    if (ferror(fp)) {
        puts("I/O error when reading");
    } else if (feof(fp)) {
        puts("End of file reached successfully");
        is_ok = EXIT_SUCCESS;
    }

    fclose(fp);
    remove(fname);
    return is_ok;
}
```

Possible output:

```
Hello, world!
End of file reached successfully
```

References

- C11 standard (ISO/IEC 9899:2011):

    - 7.21.10.2 The feof function (p: 339)

- C99 standard (ISO/IEC 9899:1999):

    - 7.19.10.2 The feof function (p: 305)

- C89/C90 standard (ISO/IEC 9899:1990):

    - 4.9.10.2 The feof function

See also

clearerr	clears errors (function)
perror	displays a character string corresponding of the current error to stderr (function)
ferror	checks for a file error (function)
C++ documentation for **feof**	

Retrieved from "https://en.cppreference.com/mwiki/index.php?title=c/io/feof&oldid=78948"