std::**fread**

```
std::size_t fread( void* buffer, std::size_t size, std::size_t count, std::FILE* stream );
```

Reads up to count objects into the array buffer from the given input stream stream as if by calling std::fgetc size times for each object, and storing the results, in the order obtained, into the successive positions of buffer, which is reinterpreted as an array of unsigned char . The file position indicator for the stream is advanced by the number of characters read.

If the objects are not *TriviallyCopyable*, the behavior is undefined.

If an error occurs, the resulting value of the file position indicator for the stream is indeterminate. If a partial element is read, its value is indeterminate.

Parameters

buffer - pointer to the first object in the array to be read
  size - size of each object in bytes
 count - the number of the objects to be read
stream - input file stream to read from

Return value

Number of objects read successfully, which may be less than count if an error or end-of-file condition occurs.

If size or count is zero, fread returns zero and performs no other action.

Example

`Run this code`

```cpp
#include <iostream>
#include <cstdio>
#include <fstream>
#include <vector>
int main()
{
    // prepare file
    std::ofstream("test.txt") << 1 << ' ' << 2 << '\n';
    std::FILE* f = std::fopen("test.txt", "r");

    std::vector<char> buf(4); // char is trivally copyable
    std::fread(&buf[0], sizeof buf[0], buf.size(), f);

    for(char n : buf)
        std::cout << n;

    std::vector<std::string> buf2; // string is not trivially copyable
// this would result in undefined behavior
//    std::fread(&buf2[0], sizeof buf2[0], buf2.size(), f);
}
```

Output:

```
1 2
```

See also

scanf fscanf sscanf	reads formatted input from stdin, a file stream or a buffer (function)
fgets	gets a character string from a file stream (function)
	writes to a file

fwrite (function)

C documentation for **fread**

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