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## Reference

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## ifstream

ifstream::ifstream  
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PatchIT offers fully automated  
updating libraries for coding

public member function

## std::ifstream::ifstream

&lt;fstream&gt;

C++98

C++11

?

default (1) ifstream();

initialization (2) explicit ifstream (const char\* filename, ios\_base::openmode mode = ios\_base::in);

## Construct object and optionally open file

Constructs an ifstream object:

## (1) default constructor

Constructs an ifstream object that is not associated with any file.

Internally, its istream base constructor is passed a pointer to a newly constructed filebuf object (the internal file stream buffer).

## (2) initialization constructor

Constructs an ifstream object, initially associated with the file identified by its first argument (filename), open with the mode specified by mode.

Internally, its istream base constructor is passed a pointer to a newly constructed filebuf object (the internal file stream buffer). Then, filebuf::open is called with filename and mode as arguments. If the file cannot be opened, the stream's failbit flag is set.

## (3) copy constructor (deleted)

Deleted (no copy constructor).

## (4) move constructor

Acquires the contents of x.

First, the function move-constructs both its base istream class from x and a filebuf object from x's internal filebuf object, and then associates them by calling member set\_rdbuf.

x is left in an unspecified but valid state.

The internal filebuf object has at least the same duration as the ifstream object.

## Parameters

filename

A string representing the name of the file to open.

Specifics about its format and validity depend on the library implementation and running environment.

mode

Flags describing the requested i/o mode for the file.

This is an object of the bitmask member type openmode that consists of a combination of the following member constants:

member constant	stands for	access
in *	input	File open for reading: the <i>internal stream buffer</i> supports input operations.
out	output	File open for writing: the <i>internal stream buffer</i> supports output operations.
binary	binary	Operations are performed in binary mode rather than text.
ate	at end	The <i>output position</i> starts at the end of the file.
app	append	All output operations happen at the end of the file, appending to its existing contents.
trunc	truncate	Any contents that existed in the file before it is open are discarded.

These flags can be combined with the bitwise OR operator (|).

\* in is always set for ifstream objects (even if explicitly not set in argument mode).

Note that even though ifstream is an input stream, its internal filebuf object may be set to also support output operations.

C++98

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If the mode has app set, the opening operation fails. It also fails if trunc is set but out is not.

x

A ifstream object of the same type (with the same class template parameters charT and traits), whose value is moved.

## Example

```

1 // ifstream constructor.
2 #include <iostream>      // std::cout
3 #include <fstream>      // std::ifstream
4
5 int main () {

```

```
6
7  std::ifstream ifs ("test.txt", std::ifstream::in);
8
9  char c = ifs.get();
10
11 while (ifs.good()) {
12     std::cout << c;
13     c = ifs.get();
14 }
15
16 ifs.close();
17
18 return 0;
19 }
```

### ● Data races

The *move constructor* (4) modifies x.

### ● Exception safety

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### 🔗 See also

<b>ifstream::open</b>	Open file (public member function )
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