class

std::filebuf

<fstream>

```
typedef basic_filebuf<char> filebuf;
```

File stream buffer

Stream buffer to read from and write to files.

Constructed without association, these objects are associated to a file by calling member `open`. Once *open*, all input/output operations performed on the object are reflected in the associated file.

Objects of this class may internally maintain an *intermediate input buffer* and/or an *intermediate output buffer*, where individual characters are read or written by i/o operations. These buffers are synchronized with the contents of the file once filled up, when explicitly requested to do so (`sync`), or when the object is closed.

Objects of this class may be explicitly made unbuffered by calling member `pubsetbuf` with both arguments set to zero (see member `setbuf`): Unbuffered *file stream buffers* perform the i/o operations directly on the file, without an intermediate buffer.

Access to the associated sequence of characters (i.e., the file) is given to streams by means of the interface offered by the virtual members inherited from `streambuf` that are overriden in this class.

This is an instantiation of `basic_filebuf` with the following template parameters:

template parameter	definition	comments
charT	char	Aliased as member char_type
traits	char_traits<char>	Aliased as member traits_type

Member types

member type	definition
char_type	char
traits_type	char_traits<char>
int_type	int
pos_type	streampos
off_type	streamoff

Public member functions

(constructor)	Construct object (public member function)
(destructor)	Destruct object (public member function)
operator= C++11	Move-assignment (public member function)
swap C++11	Swap file buffers (public member function)

File association

open	Open file (public member function)
is_open	Check if a file is open (public member function)
close	Close file (public member function)

Public member functions inherited from `streambuf`

Locales:

pubimbue	Imbue locale (public member function)
getloc	Get current locale (public member function)

Buffer management and positioning:

pubsetbuf	Set buffer array (public member function)
pubseekoff	Set internal position pointer to relative position (public member function)
pubseekpos	Set internal position pointer to absolute position (public member function)
pubsync	Synchronize stream buffer (public member function)

Input functions (get):

in_avail	Get number of characters available to read (public member function)
snextc	Advance to next position and get character (public member function)

sbumpc	Get current character and advance to next position (public member function)
sgetc	Get current character (public member function)
sgetn	Get sequence of characters (public member function)
sputbackc	Put character back (public member function)
sungetc	Decrease current position (public member function)

Output functions (put):

sputc	Store character at current put position and increase put pointer (public member function)
sputn	Put sequence of characters (public member function)

fx Protected virtual function overrides

showmanyc	Get number of characters available (protected virtual member function)
underflow	Get character on underflow (protected virtual member function)
uflow	Get character on overflow and advance position (protected virtual member function)
pbackfail	Put character back on backup underflow (protected virtual member function)
overflow	Put character on overflow (protected virtual member function)
setbuf	Set buffer (protected virtual member function)
seekoff	Set internal position to relative position (protected virtual member function)
seekpos	Set position pointer to absolute position (protected virtual member function)
sync	Synchronize buffer (protected virtual member function)
imbue	Imbue locale (protected virtual member function)

The class also inherits other protected members that are non-virtual or not overridden. See base class `streambuf` for more details.

fx Non-member function overloads

swap C++11	Swap file buffers (function)