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std::filebuf::underflow

<fstream>

```
int underflow();
```

Get character on underflow

Returns the character at the current input position, without advancing the input position pointer.

Before that, this function attempts to read characters from the associated file and -if the object keeps an *intermediate buffer*- makes them available by altering the *internal input buffer* pointers (`gptr`, `egptr` and `eback`) as needed.

If there are no more characters available and the function did not succeed in reading more characters from the associated file, it returns the *end-of-file* value (`EOF`), indicating failure.

This virtual member function overrides the inherited member streambuf::underflow, called by members such as `sgetc` to request a new character when there are no read positions available at the *get pointer* (`gptr`).

The behavior of this member function is similar to that of uflow, except that the input position is not advanced.

Parameters

none

Return Value

The character at the current position of the *controlled input sequence*, converted to a value of type `int`.
If there are no more characters to read from the *controlled input sequence*, it returns the *end-of-file* value (`EOF`).

Data races

Modifies the `filebuf` object.
Concurrent access to the same *file stream buffer* object may introduce data races.

Exception safety

Basic guarantee: if an exception is thrown, the *file stream buffer* is in a valid state.

See also

filebuf::uflow	Get character on overflow and advance position (protected virtual member function)
streambuf::underflow	Get character on underflow (protected virtual member function)
streambuf::sgetc	Get current character (public member function)