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public member function

std::**ostream::seekp**

<ostream> <iostream>

```
(1)    ostream& seekp (streampos pos);
(2)    ostream& seekp (streamoff off, ios_base::seekdir way);
```

Set position in output sequence

Sets the position where the next character is to be inserted into the output stream.

| C++98 | C++11 | ❓ |

> Internally, if member `fail` returns `true`, the function returns.
> Otherwise, it calls either `pubseekpos` *(1)* or `pubseekoff` *(2)* on its associated *stream buffer* object (if any).

Notice that the function will work even if the `eofbit` flag is set before the call, but it will not modify it.

📐 Parameters

pos
> New absolute position within the stream (relative to the beginning).
> `streampos` is an `fpos` type (it can be converted to/from integral types).

off
> Offset value, relative to the *way* parameter.
> `streamoff` is an offset type (generally, a signed integral type).

way
> Object of type `ios_base::seekdir`. It may take any of the following constant values:
>
> | value | offset is relative to... |
> |---|---|
> | ios_base::beg | beginning of the stream |
> | ios_base::cur | current position in the stream |
> | ios_base::end | end of the stream |

🔁 Return Value

The *ostream* object (*this).

Errors are signaled by modifying the *internal state flags*:

| C++98 | C++14 | ❓ |

flag	error
eofbit	-
failbit	The internal call to `pubseekpos` in *(1)* failed (it may also be set if the construction of `sentry` failed).
badbit	Another error occurred on the stream (such as when the function catches an exception thrown by an internal operation). When set, the integrity of the stream may have been affected.

Multiple flags may be set by a single operation.

If the operation sets an *internal state flag* that was registered with member `exceptions`, the function throws an exception of member type `failure`.

💡 Example

```cpp
// position in output stream
#include <fstream>      // std::ofstream

int main () {

  std::ofstream outfile;
  outfile.open ("test.txt");

  outfile.write ("This is an apple",16);
  long pos = outfile.tellp();
  outfile.seekp (pos-7);
  outfile.write (" sam",4);

  outfile.close();

  return 0;
}
```

In this example, `tellp` is used to get the position in the stream after the writing operation. The pointer is then moved back 7 characters to modify the file at that position, so the final content of the file is:

```
This is a sample
```

Data races

Modifies the stream object.
Concurrent access to the same stream object may cause data races.

Exception safety

Basic guarantee: if an exception is thrown, the object is in a valid state.
It throws an exception of member type `failure` if the resulting *error state flag* is not `goodbit` and member `exceptions` was set to throw for that state.
Any exception thrown by an internal operation is caught and handled by the function, setting `badbit`. If `badbit` was set on the last call to `exceptions`, the function rethrows the caught exception.

See also

ostream::tellp	Get position in output sequence (public member function)
istream::seekg	Set position in input sequence (public member function)