

C++

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Containers:

Input/Output:

<fstream>

<iomanip>

<ios>

<iosfwd>

<iostream>

<istream>

<ostream>

<sstream>

<streambuf>

Multi-threading:

Other:

<iomanip>

get_money

get_time

put_money

put_time

resetiosflags

setbase

setfill

setiosflags

setprecision

setw

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function

std::setprecision

<iomanip>

/*unspecified*/ setprecision (int n);

Set decimal precision

Sets the *decimal precision* to be used to format floating-point values on output operations.

Behaves as if member `precision` were called with *n* as argument on the stream on which it is inserted/extracted as a manipulator (it can be inserted/extracted on *input streams* or *output streams*).

This manipulator is declared in header `<iomanip>`.

Parameters

n

New value for the *decimal precision*.

Return Value

Unspecified. This function should only be used as a stream manipulator (see example).

Example

```
1 // setprecision example
2 #include <iostream> // std::cout, std::fixed
3 #include <iomanip> // std::setprecision
4
5 int main () {
6     double f =3.14159;
7     std::cout << std::setprecision(5) << f << '\n';
8     std::cout << std::setprecision(9) << f << '\n';
9     std::cout << std::fixed;
10    std::cout << std::setprecision(5) << f << '\n';
11    std::cout << std::setprecision(9) << f << '\n';
12    return 0;
13 }
```

Output:

3.1416

3.14159

3.14159

3.141590000

Data races

The stream object on which it is inserted/extracted is modified.

Concurrent access to the same stream object may introduce data races.

Exception safety

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

See also

<code>ios_base::precision</code>	Get/Set floating-point decimal precision (public member function)
<code>fixed</code>	Use fixed floating-point notation (function)
<code>scientific</code>	Use scientific floating-point notation (function)