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function

std::setprecision

<iomanip>

/*unspecified*/ setprecision (int n);

Set decimal precisionSets 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****ios_base::precision**Get/Set floating-point decimal precision ([public member function](#))**fixed**Use fixed floating-point notation ([function](#))**scientific**Use scientific floating-point notation ([function](#))