**C++ Manipulators**

In C++ programming, language manipulators are used in the formatting of output. These are helpful in modifying the input and the output stream. They make use of the insertion and extraction operators to modify the output.

Here’s a list of a few manipulators:

|  |  |
| --- | --- |
| Manipulators | Description |
| endl | It is used to enter a new line with a flush. |
| setw(a) | It is used to specify the width of the output. |
| setprecision(a) | It is used to set the precision of floating-point values. |
| setbase(a) | It is used to set the base value of a numerical number. |

Let’s see their implementation in C++. Note that we use the header file *iomanip*for some of the manipulators.

#include <iostream>

#include <iomanip>

using namespace std;

int main()

{

float PI = 3.14;

int num = 100;

cout << "Entering a new line." << endl;

cout << setw(10) << "Output" << endl;

cout << setprecision(10) << PI << endl;

cout << setbase(16) << num << endl; //sets base to 16

}