

SNS COLLEGE OF TECHNOLOGY, COIMBATORE –35 (An Autonomous Institution)

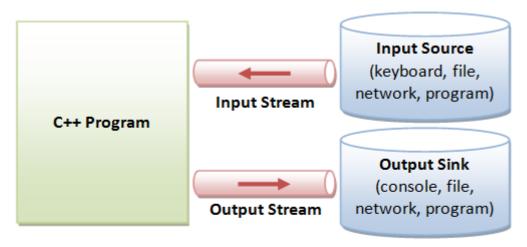


DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Character I/O – Object I/O

C++ comes with libraries that provide us with many ways for performing input and output. In C++ input and output are performed in the form of a sequence of bytes or more commonly known as **streams**.

- **Input Stream:** If the direction of flow of bytes is from the device(for example, Keyboard) to the main memory then this process is called input.
- **Output Stream:** If the direction of flow of bytes is opposite, i.e. from main memory to device(display screen) then this process is called output.



Internal Data Formats:

- Text: char, wchar_t
- int, float, double, etc.

External Data Formats:

- Text in various encodings (US-ASCII, ISO-8859-1, UCS-2, UTF-8, UTF-16, UTF-16BE, UTF16-LE, etc.)
- Binary (raw bytes)

EXAMPLE PROGRAM:

```
#include <iostream>
using namespace std;

int main() {
   int num1 = 70;
   double num2 = 256.783;
   char ch = 'A';

   cout << num1 << endl; // print integer
   cout << num2 << endl; // print double
   cout << "character: " << ch << endl; // print char
   return 0;
}</pre>
```



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Output

70

256.783 character: A

