

Input and Output

Overview

C++ use a Library for input and output. The `iostream` is the standard for input and output. Fundamental to the `iostream` library are two types named `istream` and `ostream`, which represent input and output stream. A stream is a sequence of characters read from or written to a IO device. The *stream* is intended to suggest that the characters are generated, or consumed, sequentially over time.

Standard Input and Output Objects

The library defines **four IO objects**.

- `cin` for input stream, this is also referred as the **standard input**.
- For `ostream` or output it contains 3 types
 - `cout` is the **standard output**
 - `cerr` is the **standard error**, for warning and error messages.
 - `clog` for the the general information about the execution of the program.

Example

```
#include <iostream>
int main()
{
    int number;
    std::cout << "enter number" << endl;
    std::cin >> number;
    std::cout<< number;

    return 0;
}
```

`#include <iostream>` tells the computer that we want to use the `iostream` library. The name inside the `< >` refers to a **header**. Every program that uses a library facility must include its associated header.