



Introduction to C++ (Season 2)

Unit 7: File Input and Output

第7单元:出入虽同趣,所向各有宜—文件输入输出

Section 01 : Introduction to the Input and Output Classes

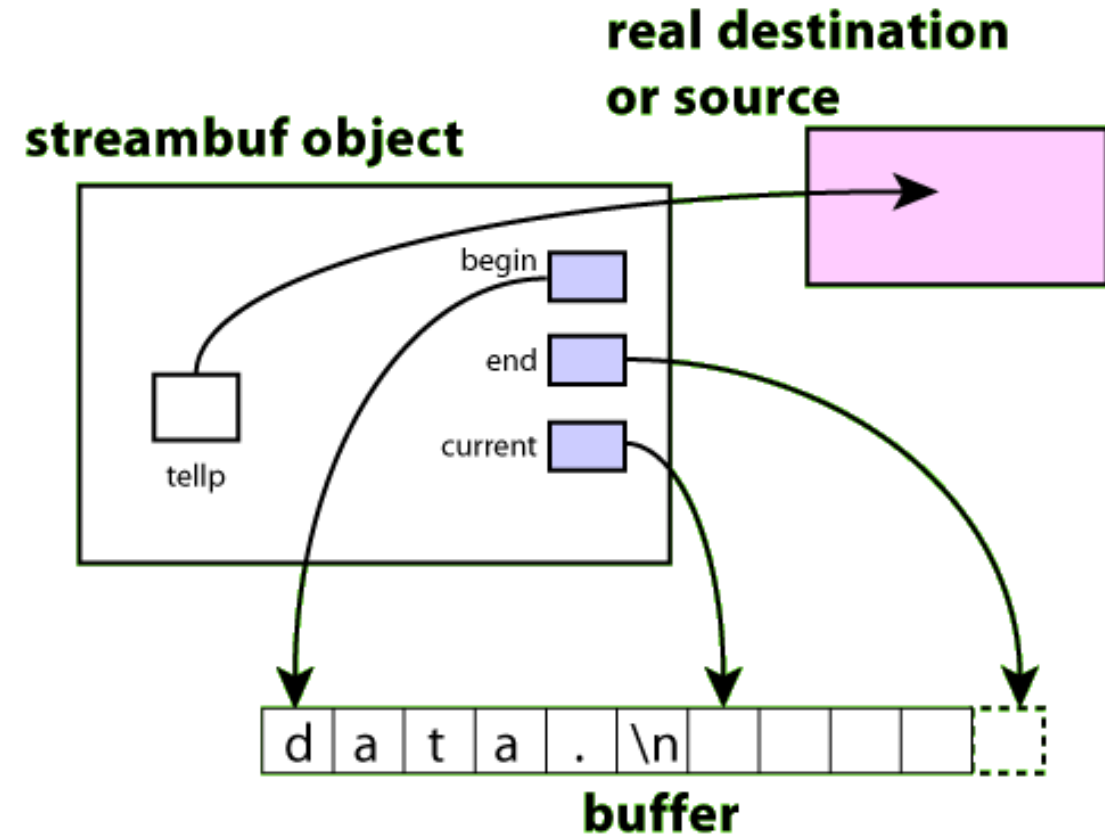
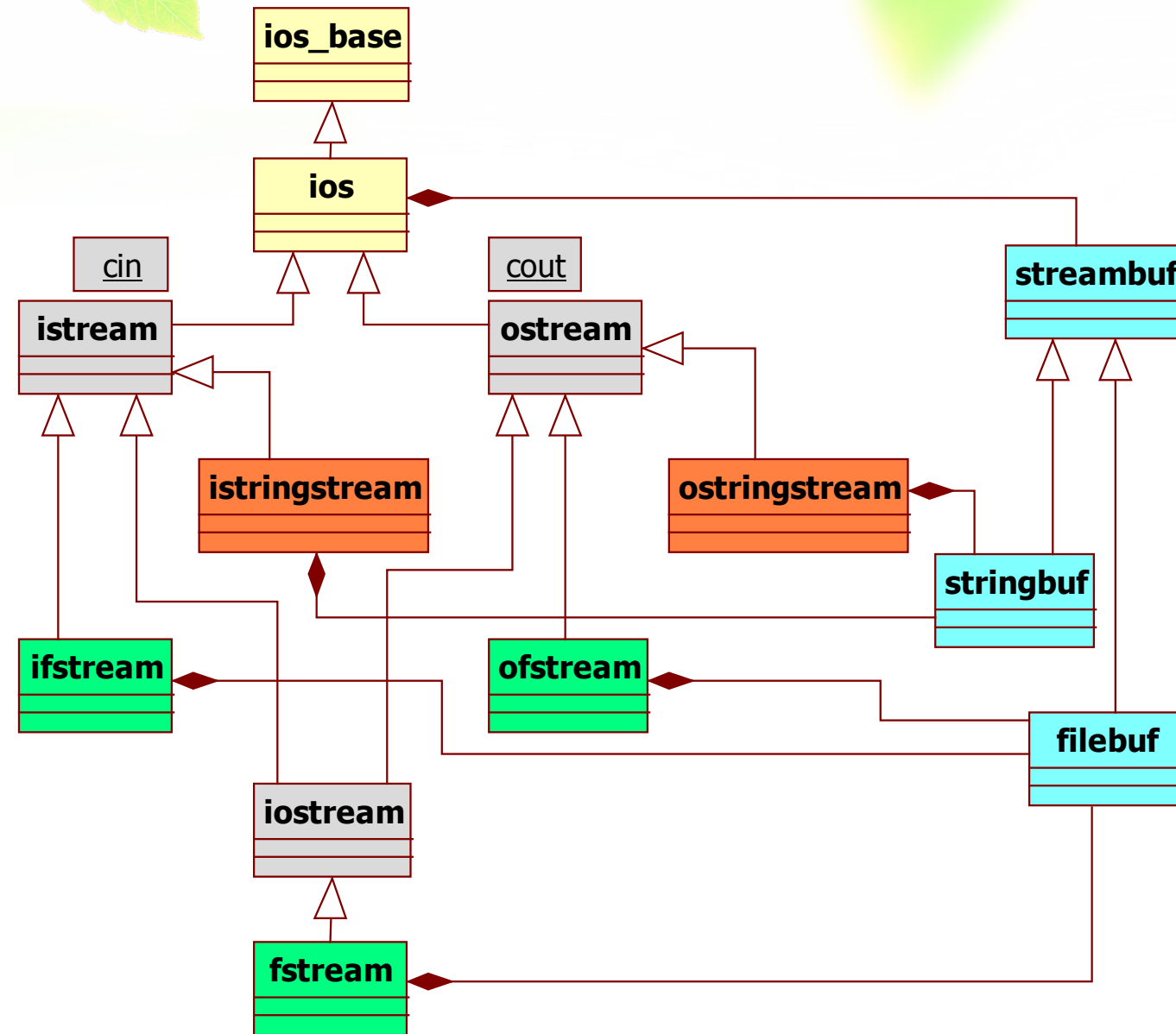
第01节: 介绍输入输出的类



Comparision of File Manipulation between C and C++ (文件操作对比)

		C++	C
Header File	file input	ifstream	stdio.h
	file output	ofstream	
	file input & output	fstream	
Read/Write	read from file	>>; get(); get(char); get(char*); getline(); read(char*,streamsize);	fscanf(); fgets(char*, size_t , FILE*); fread(void *ptr, size, nitems, FILE *stream);
	write to file	<<; put(char), put(int); write (const char*, streamsize); flush()	fprintf(); fwrite(const void *ptr, size, nitems, FILE *stream); fputs(const char*, FILE *);
	Status test	eof(); bad(); good(); fail()	feof(); ferror();

Hierarchy of C++ I/O Stream Classes



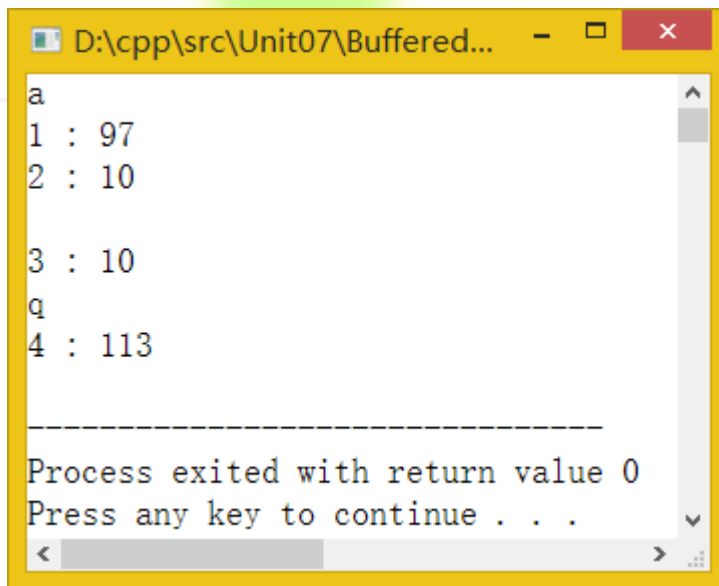
Buffered Input and Output (带缓冲的输入输出)

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

```
int main() {

    char c;
    int i = 0;
    do {
        c = cin.get();
        cout << ++i << " : " <<
             static_cast<int>(c) << endl;
    } while (c != 'q');

    return 0;
}
```

A screenshot of a Windows command prompt window titled "D:\cpp\src\Unit07\Buffered...". The window shows the output of a C++ program. It displays four lines of input and output: "a", "1 : 97", "2 : 10", and "3 : 10". Below these, there is a dashed line, followed by "q" and "4 : 113". At the bottom, it says "Process exited with return value 0" and "Press any key to continue . . .".

```
a
1 : 97
2 : 10

3 : 10
q
4 : 113

-----
Process exited with return value 0
Press any key to continue . . .
```



`c = cin.get(void)` 每次读取一个字符并把由Enter键生成的换行符留在输入队列中