



Search: Go

Not logged in

Reference <sstream> **stringstream** stringstream

register log in

C++

Information
Tutorials
Reference
Articles
Forum

Reference

C library:
Containers:
Input/Output:
<fstream>
<iomanip>
<ios>
<iosfwd>
<iostream>
<istream>
<ostream>
<sstream>
<streambuf>
Multi-threading:
Other:

<sstream>

class templates:
basic_istream
basic_ostream
basic_stringbuf
basic_stringstream
classes:
istream
ostream
stringbuf
stringstream
wstringstream
wstringstream

stringstream

stringstream::stringstream
public member functions:
stringstream::operator=
stringstream::rddbuf
stringstream::str
stringstream::swap
non-member overloads:
swap (stringstream)

public member function

std::stringstream::stringstream

<sstream>

C++98 C++11 ?

```

default (1) explicit stringstream (ios_base::openmode which = ios_base::in | ios_base::out);
initialization (2) explicit stringstream (const string& str,
ios_base::openmode which = ios_base::in | ios_base::out);

```

Construct object

Constructs a `stringstream` object:

(1) empty constructor (default constructor)

Constructs a `stringstream` object with an empty sequence as content. Internally, its `iostream` base constructor is passed a pointer to a `stringbuf` object constructed with `which` as argument.

(2) initialization constructor

Constructs a `stringstream` object with a copy of `str` as content. Internally, its `iostream` base constructor is passed a pointer to a `stringbuf` object constructed with `str` and `which` as arguments.

(3) copy constructor (deleted)

Deleted (no copy constructor).

(4) move constructor

Acquires the contents of `x`. First, the function move-constructs both its base `iostream` class from `x` and a `stringbuf` object from `x`'s internal `streambuf` object, and then associates them by calling member `set_rdbuf`. `x` is left in an unspecified but valid state. It is unspecified whether the sequence controlled by the internal `stringbuf` object is the one in `x` before the call, or a copy of it. In any case, both objects have internal `string buffers` that use independent sequences after the call.

The internal `stringbuf` object has at least the same duration as the `stringstream` object.

Parameters

str

A `string` object, whose content is copied.

x

A `stringstream` object, whose value is moved.

which

Open mode: Access given by the internal `stringbuf` object to its internal sequence of characters. It is an object of member type `openmode` for which any combination of the following member values is significant:

C++98 C++11 ?

member	constant	stands for	access
<code>ios_base::in</code>		input	The sequence supports input operations.
<code>ios_base::out</code>		output	The sequence supports output operations.

Other values of type `ios_base::openmode` may also be specified, although whether they have an effect on `stringstream` objects depends on the library implementation.

Example

```

1 // swapping ostream objects
2 #include <string>      // std::string
3 #include <iostream>    // std::cout
4 #include <sstream>     // std::stringstream
5
6 int main () {
7
8     std::stringstream ss;
9
10    ss << 100 << ' ' << 200;
11
12    int foo,bar;
13    ss >> foo >> bar;
14
15    std::cout << "foo: " << foo << '\n';
16    std::cout << "bar: " << bar << '\n';
17
18    return 0;
19 }

```

http://www.cplusplus.com/reference/ssstream/stringstream/stringstream/

1/2

Output:

```
foo: 100  
bar: 200
```

• Data races

The *move constructor* (4) modifies *x*.

• Exception safety

Strong guarantee: if an exception is thrown, there are no side effects.

🔗 See also

stringstream::str

Get/set content (public member function)
--

[Home page](#) | [Privacy policy](#)
© cplusplus.com, 2000-2015 - All rights reserved - v3.1
[Spotted an error? contact us](#)