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function

std::internal

<ios> <iostream>

ios_base& internal (ios_base& str);

Adjust field by inserting characters at an internal position

Sets the adjustfield format flag for the *str* stream to internal.

When adjustfield is set to internal, the output is padded to the *field width* (*width*) by inserting *fill characters* (*fill*) at a specified internal point, which for numerical values is between the sign and/or numerical base and the number magnitude. For non-numerical values it is equivalent to *right*.

The adjustfield format flag can take any of the following values (each with its own manipulator):

flag value	effect when set
internal	the output is padded to the <i>field width</i> by inserting <i>fill characters</i> at a specified internal point.
left	the output is padded to the <i>field width</i> appending <i>fill characters</i> at the end.
right	the output is padded to the <i>field width</i> by inserting <i>fill characters</i> at the beginning.

For standard streams, the adjustfield flag is set to *right* on initialization.

Parameters

str

Stream object whose adjustfield format flag is affected.

Because this function is a manipulator, it is designed to be used alone with no arguments in conjunction with the *insertion* (<<) and *extraction* (>>) operations on streams (see example below).

Return Value

Argument *str*.

Example

```
1 // modify adjustfield using manipulators
2 #include <iostream> // std::cout, std::internal, std::left, std::right
3
4 int main () {
5     int n = -77;
6     std::cout.width(6); std::cout << std::internal << n << '\n';
7     std::cout.width(6); std::cout << std::left << n << '\n';
8     std::cout.width(6); std::cout << std::right << n << '\n';
9     return 0;
10 }
```

Output:

```
- 77
-77
-77
```

Data races

Modifies *str*. Concurrent access to the same stream object may cause data races.

Exception safety

Basic guarantee: if an exception is thrown, *str* is in a valid state.

See also

left	Adjust output to the left (function)
right	Adjust output to the right (function)
ios_base::flags	Get/set format flags (public member function)
ios_base::setf	Set specific format flags (public member function)
ios_base::unsetf	Clear specific format flags (public member function)

