function

std::dec

<ios> <iostream> <iostream>

```
ios_base& dec (ios_base& str);
```

Use decimal base

Sets the `basefield` format flag for the *str* stream to `dec`.

When `basefield` is set to `dec`, integer values inserted into the stream are expressed in decimal base (i.e., radix 10). For input streams, extracted values are also expected to be expressed in decimal base when this flag is set.

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

flag value	effect when set
`dec`	read/write integer values using decimal base format.
`hex`	read/write integer values using hexadecimal base format.
`oct`	read/write integer values using octal base format.

For standard streams, the `basefield` flag is set to **dec** on initialization.

Parameters

`str`

Stream object whose `basefield` *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 basefield
2  #include <iostream>     // std::cout, std::dec, std::hex, std::oct
3
4  int main () {
5    int n = 70;
6    std::cout << std::dec << n << '\n';
7    std::cout << std::hex << n << '\n';
8    std::cout << std::oct << n << '\n';
9    return 0;
10 }
```

Output:

```
70
46
106
```

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

hex	Use hexadecimal base (function)
oct	Use octal base (function)
ios_base::flags	Get/set format flags (public member function)
ios_base::setf	Set specific format flags (public member function)