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function

std::showbase

<ios> <iostream>

```
ios_base& showbase (ios_base& str);
```

Show numerical base prefixes

Sets the `showbase` format flag for the *str* stream.

When the `showbase` format flag is set, numerical integer values inserted into output streams are prefixed with the same prefixes used by C++ literal constants: `0x` for hexadecimal values (see `hex`), `0` for octal values (see `oct`) and no prefix for decimal-base values (see `dec`).

This option can be unset with the `noshowbase` manipulator. When not set, all numerical values are inserted without base prefixes.

For standard streams, the `showbase` flag is **not set** on initialization.

Parameters

`str`
Stream object whose *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

```
// modify showbase flag
#include <iostream>     // std::cout, std::showbase, std::noshowbase

int main () {
  int n = 20;
  std::cout << std::hex << std::showbase << n << '\n';
  std::cout << std::hex << std::noshowbase << n << '\n';
  return 0;
}
```

Output:

```
0x14
14
```

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

noshowbase	Do not show numerical base prefixes (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)

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