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sf::Utf< 32 > Class Template Reference

Specialization of the [Utf](http://docs.google.com/classsf_1_1Utf.htm) template for UTF-32. [More...](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#details)

#include <[Utf.hpp](http://docs.google.com/Utf_8hpp_source.htm)>

| Static Public Member Functions | |
| --- | --- |
| template<typename In > | |
| static In | [decode](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#ad754ce8476f7b80563890dec12cefd46) (In begin, In end, Uint32 &output, Uint32 replacement=0) |
|  | Decode a single UTF-32 character. |
|  | |
| template<typename Out > | |
| static Out | [encode](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a27b9d3f3fc49a8c88d91966889fcfca1) (Uint32 input, Out output, Uint32 replacement=0) |
|  | Encode a single UTF-32 character. |
|  | |
| template<typename In > | |
| static In | [next](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a788b4ebc728dde2aaba38f3605d4867c) (In begin, In end) |
|  | Advance to the next UTF-32 character. |
|  | |
| template<typename In > | |
| static std::size\_t | [count](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a9b18c32b9e6d4b3126e9b4af45988b55) (In begin, In end) |
|  | Count the number of characters of a UTF-32 sequence. |
|  | |
| template<typename In , typename Out > | |
| static Out | [fromAnsi](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a384a4169287af15876783ad477cac4e3) (In begin, In end, Out output, const std::locale &locale=std::locale()) |
|  | Convert an ANSI characters range to UTF-32. |
|  | |
| template<typename In , typename Out > | |
| static Out | [fromWide](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#abdf0d41e0c8814a68326688e3b8d187f) (In begin, In end, Out output) |
|  | Convert a wide characters range to UTF-32. |
|  | |
| template<typename In , typename Out > | |
| static Out | [fromLatin1](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a05741b76b5a26267a72735e40ca61c55) (In begin, In end, Out output) |
|  | Convert a latin-1 (ISO-5589-1) characters range to UTF-32. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toAnsi](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a768cb205f7f1d20cd900e34fb48f9316) (In begin, In end, Out output, char replacement=0, const std::locale &locale=std::locale()) |
|  | Convert an UTF-32 characters range to ANSI characters. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toWide](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a0d5bf45a9732beb935592da6bed1242c) (In begin, In end, Out output, wchar\_t replacement=0) |
|  | Convert an UTF-32 characters range to wide characters. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toLatin1](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a064ce0ad81768d0d99b6b3e2e980e3ce) (In begin, In end, Out output, char replacement=0) |
|  | Convert an UTF-16 characters range to latin-1 (ISO-5589-1) characters. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toUtf8](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a193e155964b073c8ba838434f41d5e97) (In begin, In end, Out output) |
|  | Convert a UTF-32 characters range to UTF-8. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toUtf16](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a3f97efb599ad237af06f076f3fcfa354) (In begin, In end, Out output) |
|  | Convert a UTF-32 characters range to UTF-16. |
|  | |
| template<typename In , typename Out > | |
| static Out | [toUtf32](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#abd7c1e80791c80c4d78257440de96140) (In begin, In end, Out output) |
|  | Convert a UTF-32 characters range to UTF-32. |
|  | |
| template<typename In > | |
| static Uint32 | [decodeAnsi](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a68346ea833f88267a7c739d4d96fb86f) (In input, const std::locale &locale=std::locale()) |
|  | Decode a single ANSI character to UTF-32. |
|  | |
| template<typename In > | |
| static Uint32 | [decodeWide](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a043fe25f5f4dbc205e78e6f1d99840dc) (In input) |
|  | Decode a single wide character to UTF-32. |
|  | |
| template<typename Out > | |
| static Out | [encodeAnsi](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#af6590226a071076ca22d818573a16ded) (Uint32 codepoint, Out output, char replacement=0, const std::locale &locale=std::locale()) |
|  | Encode a single UTF-32 character to ANSI. |
|  | |
| template<typename Out > | |
| static Out | [encodeWide](http://docs.google.com/classsf_1_1Utf_3_0132_01_4.htm#a52e511e74ddc5df1bbf18f910193bc47) (Uint32 codepoint, Out output, wchar\_t replacement=0) |
|  | Encode a single UTF-32 character to wide. |
|  | |

## Detailed Description

template<>

class sf::Utf< 32 >

Specialization of the [Utf](http://docs.google.com/classsf_1_1Utf.htm) template for UTF-32.

Definition at line [462](http://docs.google.com/Utf_8hpp_source.htm#l00462) of file [Utf.hpp](http://docs.google.com/Utf_8hpp_source.htm).

## Member Function Documentation

template<typename In >

| | static std::size\_t [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::count | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Count the number of characters of a UTF-32 sequence.

This function is trivial for UTF-32, which can store every character in a single storage element.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |

ReturnsIterator pointing to one past the last read element of the input sequence

template<typename In >

| | static In [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::decode | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Uint32 & | *output*, | |  |  | Uint32 | *replacement* = 0 | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Decode a single UTF-32 character.

Decoding a character means finding its unique 32-bits code (called the codepoint) in the Unicode standard. For UTF-32, the character value is the same as the codepoint.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Codepoint of the decoded UTF-32 character |
| replacement | Replacement character to use in case the UTF-8 sequence is invalid |

ReturnsIterator pointing to one past the last read element of the input sequence

template<typename In >

| | static Uint32 [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::decodeAnsi | ( | In | *input*, | | --- | --- | --- | --- | |  |  | const std::locale & | *locale* = std::locale() | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Decode a single ANSI character to UTF-32.

This function does not exist in other specializations of sf::Utf<>, it is defined for convenience (it is used by several other conversion functions).

Parameters

| input | Input ANSI character |
| --- | --- |
| locale | Locale to use for conversion |

ReturnsConverted character

template<typename In >

| | static Uint32 [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::decodeWide | ( | In | *input* | ) |  | | --- | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- | --- |

Decode a single wide character to UTF-32.

This function does not exist in other specializations of sf::Utf<>, it is defined for convenience (it is used by several other conversion functions).

Parameters

| input | Input wide character |
| --- | --- |

ReturnsConverted character

template<typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::encode | ( | Uint32 | *input*, | | --- | --- | --- | --- | |  |  | Out | *output*, | |  |  | Uint32 | *replacement* = 0 | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Encode a single UTF-32 character.

Encoding a character means converting a unique 32-bits code (called the codepoint) in the target encoding, UTF-32. For UTF-32, the codepoint is the same as the character value.

Parameters

| input | Codepoint to encode as UTF-32 |
| --- | --- |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement for characters not convertible to UTF-32 (use 0 to skip them) |

ReturnsIterator to the end of the output sequence which has been written

template<typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::encodeAnsi | ( | Uint32 | *codepoint*, | | --- | --- | --- | --- | |  |  | Out | *output*, | |  |  | char | *replacement* = 0, | |  |  | const std::locale & | *locale* = std::locale() | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Encode a single UTF-32 character to ANSI.

This function does not exist in other specializations of sf::Utf<>, it is defined for convenience (it is used by several other conversion functions).

Parameters

| codepoint | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement if the input character is not convertible to ANSI (use 0 to skip it) |
| locale | Locale to use for conversion |

ReturnsIterator to the end of the output sequence which has been written

template<typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::encodeWide | ( | Uint32 | *codepoint*, | | --- | --- | --- | --- | |  |  | Out | *output*, | |  |  | wchar\_t | *replacement* = 0 | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Encode a single UTF-32 character to wide.

This function does not exist in other specializations of sf::Utf<>, it is defined for convenience (it is used by several other conversion functions).

Parameters

| codepoint | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement if the input character is not convertible to wide (use 0 to skip it) |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::fromAnsi | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output*, | |  |  | const std::locale & | *locale* = std::locale() | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert an ANSI characters range to UTF-32.

The current global locale will be used by default, unless you pass a custom one in the *locale* parameter.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |
| locale | Locale to use for conversion |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::fromLatin1 | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert a latin-1 (ISO-5589-1) characters range to UTF-32.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::fromWide | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert a wide characters range to UTF-32.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |

ReturnsIterator to the end of the output sequence which has been written

template<typename In >

| | static In [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::next | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Advance to the next UTF-32 character.

This function is trivial for UTF-32, which can store every character in a single storage element.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |

ReturnsIterator pointing to one past the last read element of the input sequence

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toAnsi | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output*, | |  |  | char | *replacement* = 0, | |  |  | const std::locale & | *locale* = std::locale() | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert an UTF-32 characters range to ANSI characters.

The current global locale will be used by default, unless you pass a custom one in the *locale* parameter.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement for characters not convertible to ANSI (use 0 to skip them) |
| locale | Locale to use for conversion |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toLatin1 | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output*, | |  |  | char | *replacement* = 0 | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert an UTF-16 characters range to latin-1 (ISO-5589-1) characters.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement for characters not convertible to wide (use 0 to skip them) |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toUtf16 | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert a UTF-32 characters range to UTF-16.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toUtf32 | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert a UTF-32 characters range to UTF-32.

This functions does nothing more than a direct copy; it is defined only to provide the same interface as other specializations of the sf::Utf<> template, and allow generic code to be written on top of it.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toUtf8 | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert a UTF-32 characters range to UTF-8.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |

ReturnsIterator to the end of the output sequence which has been written

template<typename In , typename Out >

| | static Out [sf::Utf](http://docs.google.com/classsf_1_1Utf.htm)< 32 >::toWide | ( | In | *begin*, | | --- | --- | --- | --- | |  |  | In | *end*, | |  |  | Out | *output*, | |  |  | wchar\_t | *replacement* = 0 | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Convert an UTF-32 characters range to wide characters.

Parameters

| begin | Iterator pointing to the beginning of the input sequence |
| --- | --- |
| end | Iterator pointing to the end of the input sequence |
| output | Iterator pointing to the beginning of the output sequence |
| replacement | Replacement for characters not convertible to wide (use 0 to skip them) |

ReturnsIterator to the end of the output sequence which has been written

The documentation for this class was generated from the following file:

* [Utf.hpp](http://docs.google.com/Utf_8hpp_source.htm)

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