

# **Linux Standard Base C++ Specification for IA32 4.1**

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## Foreword

This is version 4.1 of the Linux Standard Base C++ Specification for IA32. This specification is one of a series of volumes under the collective title *Linux Standard Base*:

- Core
- C++
- Desktop
- Languages
- Printing

Note that the Core, C++ and Desktop volumes consist of a generic volume augmented by an architecture-specific volume.

## Status of this Document

This is a released specification. Other documents may supersede or augment this specification. A list of current Linux Standard Base (LSB) specifications is available at <http://refspecs.linuxfoundation.org> (<http://refspecs.linuxfoundation.org/>).

If you wish to make comments regarding this document in a manner that is tracked by the LSB project, please submit them using our public bug database at <http://bugs.linuxbase.org>. Please enter your feedback, carefully indicating the title of the section for which you are submitting feedback, and the volume and version of the specification where you found the problem, quoting the incorrect text if appropriate. If you are suggesting a new feature, please indicate what the problem you are trying to solve is. That is more important than the solution, in fact.

If you do not have or wish to create a bug database account then you can also e-mail feedback to [<lsb-discuss@lists.linuxfoundation.org>](mailto:lsb-discuss@lists.linuxfoundation.org) (subscribe (<http://lists.linux-foundation.org/mailman/listinfo/lsb-discuss>), archives (<http://lists.linux-foundation.org/pipermail/lsb-discuss/>)), and arrangements will be made to transpose the comments to our public bug database.

## Introduction

The LSB defines a binary interface for application programs that are compiled and packaged for LSB-conforming implementations on many different hardware architectures. A binary specification must include information specific to the computer processor architecture for which it is intended. To avoid the complexity of conditional descriptions, the specification has instead been divided into generic parts which are augmented by one of several architecture-specific parts, depending on the target processor architecture; the generic part will indicate when reference must be made to the architecture part, and vice versa.

This document should be used in conjunction with the documents it references. This document enumerates the system components it includes, but descriptions of those components may be included entirely or partly in this document, partly in other documents, or entirely in other reference documents. For example, the section that describes system service routines includes a list of the system routines supported in this interface, formal declarations of the data structures they use that are visible to applications, and a pointer to the underlying referenced specification for information about the syntax and semantics of each call. Only those routines not described in standards referenced by this document, or extensions to those standards, are described in the detail. Information referenced in this way is as much a part of this document as is the information explicitly included here.

The specification carries a version number of either the form  $x.y$  or  $x.y.z$ . This version number carries the following meaning:

1. The first number ( $x$ ) is the major version number. Versions sharing the same major version number shall be compatible in a backwards direction; that is, a newer version shall be compatible with an older version. Any deletion of a library results in a new major version number. Interfaces marked as deprecated may be removed from the specification at a major version change.
2. The second number ( $y$ ) is the minor version number. Libraries and individual interfaces may be added, but not removed. Interfaces may be marked as deprecated at a minor version change. Other minor changes may be permitted at the discretion of the LSB workgroup.
3. The third number ( $z$ ), if present, is the editorial level. Only editorial changes should be included in such versions.

Since this specification is a descriptive Application Binary Interface, and not a source level API specification, it is not possible to make a guarantee of 100% backward compatibility between major releases. However, it is the intent that those parts of the binary interface that are visible in the source level API will remain backward compatible from version to version, except where a feature marked as "Deprecated" in one release may be removed from a future release. Implementors are strongly encouraged to make use of symbol versioning to permit simultaneous support of applications conforming to different releases of this specification.

LSB is a trademark of the Linux Foundation. Developers of applications or implementations interested in using the trademark should see the Linux Foundation Certification Policy for details.



# I Introductory Elements





# 1 Scope

## 1.1 General

The Linux Standard Base (LSB) defines a system interface for compiled applications and a minimal environment for support of installation scripts. Its purpose is to enable a uniform industry standard environment for high-volume applications conforming to the LSB.

These specifications are composed of two basic parts: A common specification ("LSB-generic" or "generic LSB"), ISO/IEC 23360 Part 1, describing those parts of the interface that remain constant across all implementations of the LSB, and an architecture-specific part ("LSB-arch") describing the parts of the interface that vary by processor architecture. Together, the LSB-generic and the relevant architecture-specific part of ISO/IEC 23360 for a single hardware architecture provide a complete interface specification for compiled application programs on systems that share a common hardware architecture.

ISO/IEC 23360 Part 1, the LSB-generic document, should be used in conjunction with an architecture-specific part. Whenever a section of the LSB-generic specification is supplemented by architecture-specific information, the LSB-generic document includes a reference to the architecture part. Architecture-specific parts of ISO/IEC 23360 may also contain additional information that is not referenced in the LSB-generic document.

The LSB contains both a set of Application Program Interfaces (APIs) and Application Binary Interfaces (ABIs). APIs may appear in the source code of portable applications, while the compiled binary of that application may use the larger set of ABIs. A conforming implementation provides all of the ABIs listed here. The compilation system may replace (e.g. by macro definition) certain APIs with calls to one or more of the underlying binary interfaces, and may insert calls to binary interfaces as needed.

The LSB is primarily a binary interface definition. Not all of the source level APIs available to applications may be contained in this specification.

## 1.2 Module Specific Scope

This is the C++ module of the Linux Standards Base (LSB). This module supplements the core interfaces by providing system interfaces, libraries, and a runtime environment for applications built using the C++ programming language. These interfaces provide low-level support for the core constructs of the language, and implement the standard base C++ libraries.

Interfaces described in this module are presented in terms of C++; the binary interfaces will use encoded or mangled versions of the names.

## 2 Normative References

The specifications listed below are referenced in whole or in part by this module of the Linux Standard Base. In this specification, where only a particular section of one of these references is identified, then the normative reference is to that section alone, and the rest of the referenced document is informative.

**Table 2-1 Normative References**

Name	Title	URL
ISO/IEC 23360 Part 1	ISO/IEC 23360:2005 Linux Standard Base - Part 1 Generic Specification	<a href="http://www.linuxbase.org/spec/">http://www.linuxbase.org/spec/</a>
ISO C (1999)	ISO/IEC 9899: 1999, Programming Languages --C	
ISO/IEC 14882: 2003 C++ Language	ISO/IEC 14882: 2003 Programming languages --C++	
Itanium™ C++ ABI	Itanium™ C++ ABI (Revision 1.86)	<a href="http://refspecs.linuxfoundation.org/cxxabi-1.86.html">http://refspecs.linuxfoundation.org/cxxabi-1.86.html</a>
POSIX 1003.1-2001 (ISO/IEC 9945-2003)	ISO/IEC 9945-1:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 1: Base Definitions  ISO/IEC 9945-2:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 2: System Interfaces  ISO/IEC 9945-3:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 3: Shell and Utilities  ISO/IEC 9945-4:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 4: Rationale  Including Technical Cor. 1: 2004	<a href="http://www.unix.org/version3/">http://www.unix.org/version3/</a>

## 3 Requirements

### 3.1 Relevant Libraries

The libraries listed in Table 3-1 shall be available on a Linux Standard Base system, with the specified runtime names.

**Table 3-1 Standard Library Names**

Library	Runtime Name
libstdcxx	libstdc++.so.6

These libraries will be in an implementation-defined directory which the dynamic linker shall search by default.

### 3.2 LSB Implementation Conformance

An implementation shall satisfy the following requirements:

- The implementation shall implement fully the architecture described in the hardware manual for the target processor architecture.
- The implementation shall be capable of executing compiled applications having the format and using the system interfaces described in this document.
- The implementation shall provide libraries containing the interfaces specified by this document, and shall provide a dynamic linking mechanism that allows these interfaces to be attached to applications at runtime. All the interfaces shall behave as specified in this document.
- The map of virtual memory provided by the implementation shall conform to the requirements of this document.
- The implementation's low-level behavior with respect to function call linkage, system traps, signals, and other such activities shall conform to the formats described in this document.
- The implementation shall provide all of the mandatory interfaces in their entirety.
- The implementation may provide one or more of the optional interfaces. Each optional interface that is provided shall be provided in its entirety. The product documentation shall state which optional interfaces are provided.
- The implementation shall provide all files and utilities specified as part of this document in the format defined here and in other referenced documents. All commands and utilities shall behave as required by this document. The implementation shall also provide all mandatory components of an application's runtime environment that are included or referenced in this document.
- The implementation, when provided with standard data formats and values at a named interface, shall provide the behavior defined for those values and data formats at that interface. However, a conforming implementation may consist of components which are separately packaged and/or sold. For example, a vendor of a conforming implementation might sell the hardware, operating system, and windowing system as separately packaged items.

- The implementation may provide additional interfaces with different names. It may also provide additional behavior corresponding to data values outside the standard ranges, for standard named interfaces.

### 3.3 LSB Application Conformance

An application shall satisfy the following requirements:

- Its executable files are either shell scripts or object files in the format defined for the Object File Format system interface.
- Its object files participate in dynamic linking as defined in the Program Loading and Linking System interface.
- It employs only the instructions, traps, and other low-level facilities defined in the Low-Level System interface as being for use by applications.
- If it requires any optional interface defined in this document in order to be installed or to execute successfully, the requirement for that optional interface is stated in the application's documentation.
- It does not use any interface or data format that is not required to be provided by a conforming implementation, unless:
  - If such an interface or data format is supplied by another application through direct invocation of that application during execution, that application is in turn an LSB conforming application.
  - The use of that interface or data format, as well as its source, is identified in the documentation of the application.
- It shall not use any values for a named interface that are reserved for vendor extensions.

A strictly conforming application does not require or use any interface, facility, or implementation-defined extension that is not defined in this document in order to be installed or to execute successfully.

## 4 Terms and Definitions

For the purposes of this document, the terms given in *ISO/IEC Directives, Part 2, Annex H* and the following apply.

### archLSB

Some LSB specification documents have both a generic, architecture-neutral part and an architecture-specific part. The latter describes elements whose definitions may be unique to a particular processor architecture. The term archLSB may be used in the generic part to refer to the corresponding section of the architecture-specific part.

### Binary Standard, ABI

The total set of interfaces that are available to be used in the compiled binary code of a conforming application, including the run-time details such as calling conventions, binary format, C++ name mangling, etc.

### Implementation-defined

Describes a value or behavior that is not defined by this document but is selected by an implementor. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence of the value or behavior. An application that relies on such a value or behavior cannot be assured to be portable across conforming implementations. The implementor shall document such a value or behavior so that it can be used correctly by an application.

### Shell Script

A file that is read by an interpreter (e.g., awk). The first line of the shell script includes a reference to its interpreter binary.

### Source Standard, API

The total set of interfaces that are available to be used in the source code of a conforming application. Due to translations, the Binary Standard and the Source Standard may contain some different interfaces.

### Undefined

Describes the nature of a value or behavior not defined by this document which results from use of an invalid program construct or invalid data input. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence or validity of the value or behavior. An application that relies on any particular value or behavior cannot be assured to be portable across conforming implementations.

### Unspecified

Describes the nature of a value or behavior not specified by this document which results from use of a valid program construct or valid data input. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence or validity of the value or behavior. An application that relies on any particular value or behavior cannot be assured to be portable across conforming implementations.

#### 4 *Terms and Definitions*

In addition, for the portions of this specification which build on IEEE Std 1003.1-2001, the definitions given in *IEEE Std 1003.1-2001, Base Definitions, Chapter 3* apply.

## 5 Documentation Conventions

Throughout this document, the following typographic conventions are used:

`function()`

the name of a function

**command**

the name of a command or utility

CONSTANT

a constant value

*parameter*

a parameter

variable

a variable

Throughout this specification, several tables of interfaces are presented. Each entry in these tables has the following format:

name

the name of the interface

(symver)

An optional symbol version identifier, if required.

[*refno*]

A reference number indexing the table of referenced specifications that follows this table.

For example,

<code>forkpty(GLIBC_2.0) [SUSv3]</code>
---

refers to the interface named `forkpty()` with symbol version `GLIBC_2.0` that is defined in the `SUSv3` reference.

**Note:** For symbols with versions which differ between architectures, the symbol versions are defined in the architecture specific parts of ISO/IEC 23360 only.

## II Base Libraries



## 6 Libraries

An LSB-conforming implementation shall support some base libraries which provide interfaces for accessing the operating system, processor and other hardware in the system.

Interfaces that are unique to the IA32 platform are defined here. This section should be used in conjunction with the corresponding section in the Linux Standard Base Specification.

### 6.1 Interfaces for libstdcxx

Table 6-1 defines the library name and shared object name for the libstdcxx library

**Table 6-1 libstdcxx Definition**

Library:	libstdcxx
SONAME:	libstdc++.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] Itanium™ C++ ABI  
[ISOCXX] ISO/IEC 14882: 2003 C++ Language  
[LSB] ISO/IEC 23360 Part 1

#### 6.1.1 C++ Runtime Support

##### 6.1.1.1 Interfaces for C++ Runtime Support

An LSB conforming implementation shall provide the architecture specific methods for C++ Runtime Support specified in Table 6-2, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-2 libstdcxx - C++ Runtime Support Function Interfaces**

<code>operator new[](unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>operator new[](unsigned int, nothrow_t const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>operator new(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>operator new(unsigned int, nothrow_t const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>

#### 6.1.2 C++ type descriptors for built-in types

##### 6.1.2.1 Interfaces for C++ type descriptors for built-in types

No external methods are defined for libstdcxx - C++ type descriptors for built-in types in this part of the specification. See also the generic specification.

#### 6.1.3 C++ `_Rb_tree`

##### 6.1.3.1 Interfaces for C++ `_Rb_tree`

No external methods are defined for libstdcxx - C++ `_Rb_tree` in this part of the specification. See also the generic specification.

## 6.1.4 Class `type_info`

### 6.1.4.1 Class data for `type_info`

The virtual table for the `std::type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `std::type_info` class is described by Table 6-3

**Table 6-3** `typeinfo` for `type_info`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	<code>typeinfo</code> name for <code>type_info</code>

### 6.1.4.2 Interfaces for Class `type_info`

No external methods are defined for `libstdcxx` - Class `std::type_info` in this part of the specification. See also the generic specification.

## 6.1.5 Class `__cxxabiv1::__enum_type_info`

### 6.1.5.1 Class data for `__cxxabiv1::__enum_type_info`

The virtual table for the `__cxxabiv1::__enum_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__enum_type_info` class is described by Table 6-4

**Table 6-4** `typeinfo` for `__cxxabiv1::__enum_type_info`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>__cxxabiv1::__enum_type_info</code>

### 6.1.5.2 Interfaces for Class `__cxxabiv1::__enum_type_info`

No external methods are defined for `libstdcxx` - Class `__cxxabiv1::__enum_type_info` in this part of the specification. See also the generic specification.

## 6.1.6 Class `__cxxabiv1::__array_type_info`

### 6.1.6.1 Class data for `__cxxabiv1::__array_type_info`

The virtual table for the `__cxxabiv1::__array_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__array_type_info` class is described by Table 6-5

**Table 6-5** `typeinfo` for `__cxxabiv1::__array_type_info`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for

	__cxxabiv1::__array_type_info
--	-------------------------------

### 6.1.6.2 Interfaces for Class `__cxxabiv1::__array_type_info`

No external methods are defined for `libstdcxx` - Class `__cxxabiv1::__array_type_info` in this part of the specification. See also the generic specification.

### 6.1.7 Class `__cxxabiv1::__class_type_info`

#### 6.1.7.1 Class data for `__cxxabiv1::__class_type_info`

The virtual table for the `__cxxabiv1::__class_type_info` class is described by Table 6-6

**Table 6-6 Primary vtable for `__cxxabiv1::__class_type_info`**

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for <code>__cxxabiv1::__class_type_info</code>
<code>vfunc[0]:</code>	<code>__cxxabiv1::__class_type_info::~~_class_type_info()</code>
<code>vfunc[1]:</code>	<code>__cxxabiv1::__class_type_info::~~_class_type_info()</code>
<code>vfunc[2]:</code>	<code>type_info::__is_pointer_p() const</code>
<code>vfunc[3]:</code>	<code>type_info::__is_function_p() const</code>
<code>vfunc[4]:</code>	<code>__cxxabiv1::__class_type_info::__do_catch(type_info const*, void**, unsigned int) const</code>
<code>vfunc[5]:</code>	<code>__cxxabiv1::__class_type_info::__do_upcast(__cxxabiv1::__class_type_info const*, void**) const</code>
<code>vfunc[6]:</code>	<code>__cxxabiv1::__class_type_info::__do_upcast(__cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__upcast_result&amp;) const</code>
<code>vfunc[7]:</code>	<code>__cxxabiv1::__class_type_info::__do_dyn_cast(int, __cxxabiv1::__class_type_info::__sub_kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__dyn_cast_result&amp;) const</code>
<code>vfunc[8]:</code>	<code>__cxxabiv1::__class_type_info::__do_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*,</code>

	void const*) const
--	--------------------

The Run Time Type Information for the `__cxxabiv1::__class_type_info` class is described by Table 6-7

**Table 6-7 typeinfo for `__cxxabiv1::__class_type_info`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__class_type_info</code>

### 6.1.7.2 Interfaces for Class `__cxxabiv1::__class_type_info`

An LSB conforming implementation shall provide the architecture specific methods for Class `__cxxabiv1::__class_type_info` specified in Table 6-8, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-8 libstdcxx - Class `__cxxabiv1::__class_type_info` Function Interfaces**

<code>__cxxabiv1::__class_type_info::__do_dyncast(int, __cxxabiv1::__class_type_info::__sub_kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__dyncast_result&amp;) const(CXXABI_1.3)</code> [CXXABI-1.86]
<code>__cxxabiv1::__class_type_info::__do_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*, void const*) const(CXXABI_1.3)</code> [CXXABI-1.86]

### 6.1.8 Class `__cxxabiv1::__pbase_type_info`

#### 6.1.8.1 Class data for `__cxxabiv1::__pbase_type_info`

The virtual table for the `__cxxabiv1::__pbase_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__pbase_type_info` class is described by Table 6-9

**Table 6-9 typeinfo for `__cxxabiv1::__pbase_type_info`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__pbase_type_info</code>

#### 6.1.8.2 Interfaces for Class `__cxxabiv1::__pbase_type_info`

No external methods are defined for libstdcxx - Class `__cxxabiv1::__pbase_type_info` in this part of the specification. See also the generic specification.

## 6.1.9 Class `__cxxabiv1::__pointer_type_info`

### 6.1.9.1 Class data for `__cxxabiv1::__pointer_type_info`

The virtual table for the `__cxxabiv1::__pointer_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__pointer_type_info` class is described by Table 6-10

**Table 6-10** typeinfo for `__cxxabiv1::__pointer_type_info`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__pointer_type_info</code>

### 6.1.9.2 Interfaces for Class `__cxxabiv1::__pointer_type_info`

No external methods are defined for `libstdc++` - Class `__cxxabiv1::__pointer_type_info` in this part of the specification. See also the generic specification.

## 6.1.10 Class `__cxxabiv1::__function_type_info`

### 6.1.10.1 Class data for `__cxxabiv1::__function_type_info`

The virtual table for the `__cxxabiv1::__function_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__function_type_info` class is described by Table 6-11

**Table 6-11** typeinfo for `__cxxabiv1::__function_type_info`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__function_type_info</code>

### 6.1.10.2 Interfaces for Class `__cxxabiv1::__function_type_info`

No external methods are defined for `libstdc++` - Class `__cxxabiv1::__function_type_info` in this part of the specification. See also the generic specification.

## 6.1.11 Class `__cxxabiv1::__si_class_type_info`

### 6.1.11.1 Class data for `__cxxabiv1::__si_class_type_info`

The virtual table for the `__cxxabiv1::__si_class_type_info` class is described by Table 6-12

**Table 6-12** Primary vtable for `__cxxabiv1::__si_class_type_info`

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for __cxxabiv1::__si_class_type_info
vfunc[0]:	__cxxabiv1::__si_class_type_info::~~ si_class_type_info()
vfunc[1]:	__cxxabiv1::__si_class_type_info::~~ si_class_type_info()
vfunc[2]:	type_info::__is_pointer_p() const
vfunc[3]:	type_info::__is_function_p() const
vfunc[4]:	__cxxabiv1::__class_type_info::__do_ catch(type_info const*, void**, unsigned int) const
vfunc[5]:	__cxxabiv1::__class_type_info::__do_ upcast(__cxxabiv1::__class_type_info const*, void**) const
vfunc[6]:	__cxxabiv1::__si_class_type_info::__d o_upcast(__cxxabiv1::__class_type_in fo const*, void const*, __cxxabiv1::__class_type_info::__upc ast_result&) const
vfunc[7]:	__cxxabiv1::__si_class_type_info::__d o_dyncast(int, __cxxabiv1::__class_type_info::__sub _kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__dyn cast_result&) const
vfunc[8]:	__cxxabiv1::__si_class_type_info::__d o_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*, void const*) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_si\_class\_type\_info class is described by Table 6-13

**Table 6-13 typeinfo for \_\_cxxabiv1::\_\_si\_class\_type\_info**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for __cxxabiv1::__si_class_type_info

### 6.1.11.2 Interfaces for Class \_\_cxxabiv1::\_\_si\_class\_type\_info

An LSB conforming implementation shall provide the architecture specific methods for Class \_\_cxxabiv1::\_\_si\_class\_type\_info specified in Table 6-14, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-14 libstdcxx - Class `__cxxabiv1::__si_class_type_info` Function Interfaces**

<code>__cxxabiv1::__si_class_type_info::__do_dyncast(int, __cxxabiv1::__class_type_info::__sub_kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__dyncast_result&amp;) const</code> (CXXABI_1.3) [CXXABI-1.86]
<code>__cxxabiv1::__si_class_type_info::__do_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*, void const*) const</code> (CXXABI_1.3) [CXXABI-1.86]

**6.1.12 Class `__cxxabiv1::__vmi_class_type_info`****6.1.12.1 Class data for `__cxxabiv1::__vmi_class_type_info`**

The virtual table for the `__cxxabiv1::__vmi_class_type_info` class is described by Table 6-15

**Table 6-15 Primary vtable for `__cxxabiv1::__vmi_class_type_info`**

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for <code>__cxxabiv1::__vmi_class_type_info</code>
<code>vfunc[0]:</code>	<code>__cxxabiv1::__vmi_class_type_info::~~__vmi_class_type_info()</code>
<code>vfunc[1]:</code>	<code>__cxxabiv1::__vmi_class_type_info::~~__vmi_class_type_info()</code>
<code>vfunc[2]:</code>	<code>type_info::__is_pointer_p() const</code>
<code>vfunc[3]:</code>	<code>type_info::__is_function_p() const</code>
<code>vfunc[4]:</code>	<code>__cxxabiv1::__class_type_info::__do_catch(type_info const*, void**, unsigned int) const</code>
<code>vfunc[5]:</code>	<code>__cxxabiv1::__class_type_info::__do_upcast(__cxxabiv1::__class_type_info const*, void**) const</code>
<code>vfunc[6]:</code>	<code>__cxxabiv1::__vmi_class_type_info::__do_upcast(__cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__upcast_result&amp;) const</code>
<code>vfunc[7]:</code>	<code>__cxxabiv1::__vmi_class_type_info::__do_dyncast(int, __cxxabiv1::__class_type_info::__sub_kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, void const*) const</code>

	<code>__cxxabiv1::__class_type_info::__dyn cast_result&amp;) const</code>
<code>vfunc[8]:</code>	<code>__cxxabiv1::__vmi_class_type_info::__ _do_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*, void const*) const</code>

The Run Time Type Information for the `__cxxabiv1::__vmi_class_type_info` class is described by Table 6-16

**Table 6-16 typeinfo for `__cxxabiv1::__vmi_class_type_info`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__vmi_class_type_info</code>

### 6.1.12.2 Interfaces for Class `__cxxabiv1::__vmi_class_type_info`

An LSB conforming implementation shall provide the architecture specific methods for Class `__cxxabiv1::__vmi_class_type_info` specified in Table 6-17, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-17 libstdcxx - Class `__cxxabiv1::__vmi_class_type_info` Function Interfaces**

<code>__cxxabiv1::__vmi_class_type_info::__do_dyncast(int, __cxxabiv1::__class_type_info::__sub_kind, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info const*, void const*, __cxxabiv1::__class_type_info::__dyncast_result&amp;) const(CXXABI_1.3) [CXXABI-1.86]</code>
<code>__cxxabiv1::__vmi_class_type_info::__do_find_public_src(int, void const*, __cxxabiv1::__class_type_info const*, void const*) const(CXXABI_1.3) [CXXABI-1.86]</code>

### 6.1.13 Class `__cxxabiv1::__fundamental_type_info`

#### 6.1.13.1 Class data for `__cxxabiv1::__fundamental_type_info`

The virtual table for the `__cxxabiv1::__fundamental_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__fundamental_type_info` class is described by Table 6-18

**Table 6-18 typeinfo for `__cxxabiv1::__fundamental_type_info`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__fundamental_type_inf o</code>



**6.1.13.2 Interfaces for Class `__cxxabiv1::__fundamental_type_info`**

No external methods are defined for `libstdcxx` - Class `__cxxabiv1::__fundamental_type_info` in this part of the specification. See also the generic specification.

**6.1.14 Class `__cxxabiv1::__pointer_to_member_type_info`****6.1.14.1 Class data for `__cxxabiv1::__pointer_to_member_type_info`**

The virtual table for the `__cxxabiv1::__pointer_to_member_type_info` class is described in the generic part of this specification.

The Run Time Type Information for the `__cxxabiv1::__pointer_to_member_type_info` class is described by Table 6-19

Table 6-19 `typeinfo` for `__cxxabiv1::__pointer_to_member_type_info`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>__cxxabiv1::__pointer_to_member_type_info</code>

**6.1.14.2 Interfaces for Class `__cxxabiv1::__pointer_to_member_type_info`**

No external methods are defined for `libstdcxx` - Class `__cxxabiv1::__pointer_to_member_type_info` in this part of the specification. See also the generic specification.

**6.1.15 Class `__gnu_cxx::stdio_filebuf<char, char_traits<char>>`****6.1.15.1 Interfaces for Class `__gnu_cxx::stdio_filebuf<char, char_traits<char>>`**

No external methods are defined for `libstdcxx` - Class `__gnu_cxx::stdio_filebuf<char, std::char_traits<char>>` in this part of the specification. See also the generic specification.

**6.1.16 Class `__gnu_cxx::stdio_filebuf<wchar_t, char_traits<wchar_t>>`****6.1.16.1 Interfaces for Class `__gnu_cxx::stdio_filebuf<wchar_t, char_traits<wchar_t>>`**

No external methods are defined for `libstdcxx` - Class `__gnu_cxx::stdio_filebuf<wchar_t, std::char_traits<wchar_t>>` in this part of the specification. See also the generic specification.

**6.1.17 Class `__gnu_cxx::__pool_alloc_base`****6.1.17.1 Interfaces for Class `__gnu_cxx::__pool_alloc_base`**

An LSB conforming implementation shall provide the architecture specific methods for Class `__gnu_cxx::__pool_alloc_base` specified in Table 6-20, with the full mandatory functionality as described in the referenced underlying specification.

Table 6-20 libstdcxx - Class `__gnu_cxx::__pool_alloc_base` Function Interfaces

<code>__gnu_cxx::__pool_alloc_base::M_get_free_list(unsigned int)(GLIBCXX_3.4.2) [LSB]</code>
<code>__gnu_cxx::__pool_alloc_base::M_refill(unsigned int)(GLIBCXX_3.4.2) [LSB]</code>

### 6.1.18 Class `__gnu_cxx::stdio_sync_filebuf<char, char_traits<char>>`

#### 6.1.18.1 Class data for `__gnu_cxx::stdio_sync_filebuf<char, char_traits<char>>`

The virtual table for the `__gnu_cxx::stdio_sync_filebuf<char, std::char_traits<char>>` class is described by Table 6-21

Table 6-21 Primary vtable for `__gnu_cxx::stdio_sync_filebuf<char, char_traits<char>>`

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for <code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::~~stdio_sync_filebuf()</code>
<code>vfunc[1]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::~~stdio_sync_filebuf()</code>
<code>vfunc[2]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::imbue(locale const&amp;)</code>
<code>vfunc[3]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::setbuf(char*, int)</code>
<code>vfunc[4]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)</code>
<code>vfunc[5]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::seekpos(fpos&lt;__mbstate_t&gt;, _Ios_Openmode)</code>
<code>vfunc[6]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::sync()</code>
<code>vfunc[7]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::showmanyc()</code>
<code>vfunc[8]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt;&gt;::xsgetn(char*, int)</code>

vfunc[9]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt; &gt;::underflow()</code>
vfunc[10]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt; &gt;::uflow()</code>
vfunc[11]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt; &gt;::pbackfail(int)</code>
vfunc[12]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt; &gt;::xsputn(char const*, int)</code>
vfunc[13]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;char, char_traits&lt;char&gt; &gt;::overflow(int)</code>

### 6.1.18.2 Interfaces for Class `__gnu_cxx::stdio_sync_filebuf<char, char_traits<char> >`

No external methods are defined for `libstdc++` - Class `__gnu_cxx::stdio_sync_filebuf<char, std::char_traits<char> >` in this part of the specification. See also the generic specification.

### 6.1.19 Class `__gnu_cxx::stdio_sync_filebuf<wchar_t, char_traits<wchar_t> >`

#### 6.1.19.1 Class data for `__gnu_cxx::stdio_sync_filebuf<wchar_t, char_traits<wchar_t> >`

The virtual table for the `__gnu_cxx::stdio_sync_filebuf<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-22

**Table 6-22 Primary vtable for `__gnu_cxx::stdio_sync_filebuf<wchar_t, char_traits<wchar_t> >`**

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for <code>__gnu_cxx::stdio_sync_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>
vfunc[0]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~stdio_sync_filebuf()</code>
vfunc[1]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~stdio_sync_filebuf()</code>
vfunc[2]:	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::imbue(locale const&amp;)</code>
vfunc[3]:	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::setbuf(wchar_t*, int)</code>
vfunc[4]:	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha</code>

	<code>r_t, char_traits&lt;wchar_t&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)</code>
<code>vfunc[5]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::seekpos(fpos&lt;__mbstate_t&gt;, _Ios_Openmode)</code>
<code>vfunc[6]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::sync()</code>
<code>vfunc[7]:</code>	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::showmanyc()</code>
<code>vfunc[8]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::xsgetn(wchar_t*, int)</code>
<code>vfunc[9]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::underflow()</code>
<code>vfunc[10]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::uflow()</code>
<code>vfunc[11]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::pbackfail(unsigned int)</code>
<code>vfunc[12]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::xspun(wchar_t const*, int)</code>
<code>vfunc[13]:</code>	<code>__gnu_cxx::stdio_sync_filebuf&lt;wcha r_t, char_traits&lt;wchar_t&gt; &gt;::overflow(unsigned int)</code>

### 6.1.19.2 Interfaces for Class

#### `__gnu_cxx::stdio_sync_filebuf<wchar_t, char_traits<wchar_t> >`

No external methods are defined for `libstdcxx - Class` `__gnu_cxx::stdio_sync_filebuf<wchar_t, std::char_traits<wchar_t> >` in this part of the specification. See also the generic specification.

### 6.1.20 Class exception

#### 6.1.20.1 Class data for exception

The virtual table for the `std::exception` class is described in the generic part of this specification.

The Run Time Type Information for the `std::exception` class is described by Table 6-23

Table 6-23 `typeinfo` for exception

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
-------------	--

Name	typeid name for exception
------	---------------------------

### 6.1.20.2 Interfaces for Class `exception`

No external methods are defined for `libstdc++` - Class `std::exception` in this part of the specification. See also the generic specification.

### 6.1.21 Class `bad_typeid`

#### 6.1.21.1 Class data for `bad_typeid`

The virtual table for the `std::bad_typeid` class is described in the generic part of this specification.

The Run Time Type Information for the `std::bad_typeid` class is described by Table 6-24

**Table 6-24 typeid for `bad_typeid`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>bad_typeid</code>

#### 6.1.21.2 Interfaces for Class `bad_typeid`

No external methods are defined for `libstdc++` - Class `std::bad_typeid` in this part of the specification. See also the generic specification.

### 6.1.22 Class `logic_error`

#### 6.1.22.1 Class data for `logic_error`

The virtual table for the `std::logic_error` class is described in the generic part of this specification.

The Run Time Type Information for the `std::logic_error` class is described by Table 6-25

**Table 6-25 typeid for `logic_error`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>logic_error</code>

#### 6.1.22.2 Interfaces for Class `logic_error`

No external methods are defined for `libstdc++` - Class `std::logic_error` in this part of the specification. See also the generic specification.

### 6.1.23 Class `range_error`

#### 6.1.23.1 Class data for `range_error`

The virtual table for the `std::range_error` class is described in the generic part of this specification.

The Run Time Type Information for the `std::range_error` class is described by Table 6-26

**Table 6-26 typeinfo for range\_error**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for range_error

**6.1.23.2 Interfaces for Class range\_error**

No external methods are defined for libstdcxx - Class std::range\_error in this part of the specification. See also the generic specification.

**6.1.24 Class domain\_error****6.1.24.1 Class data for domain\_error**

The virtual table for the std::domain\_error class is described in the generic part of this specification.

The Run Time Type Information for the std::domain\_error class is described by Table 6-27

**Table 6-27 typeinfo for domain\_error**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for domain_error

**6.1.24.2 Interfaces for Class domain\_error**

No external methods are defined for libstdcxx - Class std::domain\_error in this part of the specification. See also the generic specification.

**6.1.25 Class length\_error****6.1.25.1 Class data for length\_error**

The virtual table for the std::length\_error class is described in the generic part of this specification.

The Run Time Type Information for the std::length\_error class is described by Table 6-28

**Table 6-28 typeinfo for length\_error**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for length_error

**6.1.25.2 Interfaces for Class length\_error**

No external methods are defined for libstdcxx - Class std::length\_error in this part of the specification. See also the generic specification.

**6.1.26 Class out\_of\_range****6.1.26.1 Class data for out\_of\_range**

The virtual table for the std::out\_of\_range class is described in the generic part of this specification.

The Run Time Type Information for the `std::out_of_range` class is described by Table 6-29

**Table 6-29 typeinfo for out\_of\_range**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>out_of_range</code>

### 6.1.26.2 Interfaces for Class `out_of_range`

No external methods are defined for `libstdc++` - Class `std::out_of_range` in this part of the specification. See also the generic specification.

### 6.1.27 Class `bad_exception`

#### 6.1.27.1 Class data for `bad_exception`

The virtual table for the `std::bad_exception` class is described in the generic part of this specification.

The Run Time Type Information for the `std::bad_exception` class is described by Table 6-30

**Table 6-30 typeinfo for bad\_exception**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>bad_exception</code>

#### 6.1.27.2 Interfaces for Class `bad_exception`

No external methods are defined for `libstdc++` - Class `std::bad_exception` in this part of the specification. See also the generic specification.

### 6.1.28 Class `runtime_error`

#### 6.1.28.1 Class data for `runtime_error`

The virtual table for the `std::runtime_error` class is described in the generic part of this specification.

The Run Time Type Information for the `std::runtime_error` class is described by Table 6-31

**Table 6-31 typeinfo for runtime\_error**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>runtime_error</code>

#### 6.1.28.2 Interfaces for Class `runtime_error`

No external methods are defined for `libstdc++` - Class `std::runtime_error` in this part of the specification. See also the generic specification.

**6.1.29 Class overflow\_error****6.1.29.1 Class data for overflow\_error**

The virtual table for the `std::overflow_error` class is described in the generic part of this specification.

The Run Time Type Information for the `std::overflow_error` class is described by Table 6-32

**Table 6-32 typeinfo for overflow\_error**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>overflow_error</code>

**6.1.29.2 Interfaces for Class overflow\_error**

No external methods are defined for `libstdc++` - Class `std::overflow_error` in this part of the specification. See also the generic specification.

**6.1.30 Class underflow\_error****6.1.30.1 Class data for underflow\_error**

The virtual table for the `std::underflow_error` class is described in the generic part of this specification.

The Run Time Type Information for the `std::underflow_error` class is described by Table 6-33

**Table 6-33 typeinfo for underflow\_error**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>underflow_error</code>

**6.1.30.2 Interfaces for Class underflow\_error**

No external methods are defined for `libstdc++` - Class `std::underflow_error` in this part of the specification. See also the generic specification.

**6.1.31 Class invalid\_argument****6.1.31.1 Class data for invalid\_argument**

The virtual table for the `std::invalid_argument` class is described in the generic part of this specification.

The Run Time Type Information for the `std::invalid_argument` class is described by Table 6-34

**Table 6-34 typeinfo for invalid\_argument**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>invalid_argument</code>



### 6.1.31.2 Interfaces for Class `invalid_argument`

No external methods are defined for `libstdcxx` - Class `std::invalid_argument` in this part of the specification. See also the generic specification.

### 6.1.32 Class `bad_cast`

#### 6.1.32.1 Class data for `bad_cast`

The virtual table for the `std::bad_cast` class is described in the generic part of this specification.

The Run Time Type Information for the `std::bad_cast` class is described by Table 6-35

**Table 6-35** `typeinfo` for `bad_cast`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>bad_cast</code>

#### 6.1.32.2 Interfaces for Class `bad_cast`

No external methods are defined for `libstdcxx` - Class `std::bad_cast` in this part of the specification. See also the generic specification.

### 6.1.33 Class `bad_alloc`

#### 6.1.33.1 Class data for `bad_alloc`

The virtual table for the `std::bad_alloc` class is described in the generic part of this specification.

The Run Time Type Information for the `std::bad_alloc` class is described by Table 6-36

**Table 6-36** `typeinfo` for `bad_alloc`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>bad_alloc</code>

#### 6.1.33.2 Interfaces for Class `bad_alloc`

No external methods are defined for `libstdcxx` - Class `std::bad_alloc` in this part of the specification. See also the generic specification.

### 6.1.34 struct `__numeric_limits_base`

#### 6.1.34.1 Interfaces for struct `__numeric_limits_base`

No external methods are defined for `libstdcxx` - struct `__numeric_limits_base` in this part of the specification. See also the generic specification.

### 6.1.35 struct `numeric_limits<long double>`

#### 6.1.35.1 Interfaces for struct `numeric_limits<long double>`

No external methods are defined for `libstdcxx` - struct `numeric_limits<long double>` in this part of the specification. See also the generic specification.

### **6.1.36 struct numeric\_limits<long long>**

#### **6.1.36.1 Interfaces for struct numeric\_limits<long long>**

No external methods are defined for libstdcxx - struct numeric\_limits<long long> in this part of the specification. See also the generic specification.

### **6.1.37 struct numeric\_limits<unsigned long long>**

#### **6.1.37.1 Interfaces for struct numeric\_limits<unsigned long long>**

No external methods are defined for libstdcxx - struct numeric\_limits<unsigned long long> in this part of the specification. See also the generic specification.

### **6.1.38 struct numeric\_limits<float>**

#### **6.1.38.1 Interfaces for struct numeric\_limits<float>**

No external methods are defined for libstdcxx - struct numeric\_limits<float> in this part of the specification. See also the generic specification.

### **6.1.39 struct numeric\_limits<double>**

#### **6.1.39.1 Interfaces for struct numeric\_limits<double>**

No external methods are defined for libstdcxx - struct numeric\_limits<double> in this part of the specification. See also the generic specification.

### **6.1.40 struct numeric\_limits<short>**

#### **6.1.40.1 Interfaces for struct numeric\_limits<short>**

No external methods are defined for libstdcxx - struct numeric\_limits<short> in this part of the specification. See also the generic specification.

### **6.1.41 struct numeric\_limits<unsigned short>**

#### **6.1.41.1 Interfaces for struct numeric\_limits<unsigned short>**

No external methods are defined for libstdcxx - struct numeric\_limits<unsigned short> in this part of the specification. See also the generic specification.

### **6.1.42 struct numeric\_limits<int>**

#### **6.1.42.1 Interfaces for struct numeric\_limits<int>**

No external methods are defined for libstdcxx - struct numeric\_limits<int> in this part of the specification. See also the generic specification.

### **6.1.43 struct numeric\_limits<unsigned int>**

#### **6.1.43.1 Interfaces for struct numeric\_limits<unsigned int>**

No external methods are defined for libstdcxx - struct numeric\_limits<unsigned int> in this part of the specification. See also the generic specification.

**6.1.44 struct numeric\_limits<long>****6.1.44.1 Interfaces for struct numeric\_limits<long>**

No external methods are defined for libstdcxx - struct numeric\_limits<long> in this part of the specification. See also the generic specification.

**6.1.45 struct numeric\_limits<unsigned long>****6.1.45.1 Interfaces for struct numeric\_limits<unsigned long>**

No external methods are defined for libstdcxx - struct numeric\_limits<unsigned long> in this part of the specification. See also the generic specification.

**6.1.46 struct numeric\_limits<wchar\_t>****6.1.46.1 Interfaces for struct numeric\_limits<wchar\_t>**

No external methods are defined for libstdcxx - struct numeric\_limits<wchar\_t> in this part of the specification. See also the generic specification.

**6.1.47 struct numeric\_limits<unsigned char>****6.1.47.1 Interfaces for struct numeric\_limits<unsigned char>**

No external methods are defined for libstdcxx - struct numeric\_limits<unsigned char> in this part of the specification. See also the generic specification.

**6.1.48 struct numeric\_limits<signed char>****6.1.48.1 Interfaces for struct numeric\_limits<signed char>**

No external methods are defined for libstdcxx - struct numeric\_limits<signed char> in this part of the specification. See also the generic specification.

**6.1.49 struct numeric\_limits<char>****6.1.49.1 Interfaces for struct numeric\_limits<char>**

No external methods are defined for libstdcxx - struct numeric\_limits<char> in this part of the specification. See also the generic specification.

**6.1.50 struct numeric\_limits<bool>****6.1.50.1 Interfaces for struct numeric\_limits<bool>**

No external methods are defined for libstdcxx - struct numeric\_limits<bool> in this part of the specification. See also the generic specification.

**6.1.51 Class ctype\_base****6.1.51.1 Class data for ctype\_base**

The Run Time Type Information for the std::ctype\_base class is described by Table 6-37

Table 6-37 typeid for ctype\_base

Base Vtable	vtable for __cxxabiv1::__class_type_info
-------------	---

Name	typeinfo name for ctype_base
------	------------------------------

### 6.1.51.2 Interfaces for Class `ctype_base`

No external methods are defined for `libstdcxx` - Class `std::ctype_base` in this part of the specification. See also the generic specification.

### 6.1.52 Class `__ctype_abstract_base<char>`

#### 6.1.52.1 Class data for `__ctype_abstract_base<char>`

The virtual table for the `std::__ctype_abstract_base<char>` class is described in the generic part of this specification.

#### 6.1.52.2 Interfaces for Class `__ctype_abstract_base<char>`

No external methods are defined for `libstdcxx` - Class `std::__ctype_abstract_base<char>` in this part of the specification. See also the generic specification.

### 6.1.53 Class `__ctype_abstract_base<wchar_t>`

#### 6.1.53.1 Class data for `__ctype_abstract_base<wchar_t>`

The virtual table for the `std::__ctype_abstract_base<wchar_t>` class is described in the generic part of this specification.

#### 6.1.53.2 Interfaces for Class `__ctype_abstract_base<wchar_t>`

No external methods are defined for `libstdcxx` - Class `std::__ctype_abstract_base<wchar_t>` in this part of the specification. See also the generic specification.

### 6.1.54 Class `ctype<char>`

#### 6.1.54.1 Class data for `ctype<char>`

The virtual table for the `std::ctype<char>` class is described in the generic part of this specification.

#### 6.1.54.2 Interfaces for Class `ctype<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::ctype<char>` specified in Table 6-38, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-38 `libstdcxx` - Class `ctype<char>` Function Interfaces**

<code>ctype&lt;char&gt;::ctype(__locale_struct*, unsigned short const*, bool, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>ctype&lt;char&gt;::ctype(unsigned short const*, bool, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>ctype&lt;char&gt;::ctype(__locale_struct*, unsigned short const*, bool, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>ctype&lt;char&gt;::ctype(unsigned short const*, bool, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

## 6.1.55 Class `ctype<wchar_t>`

### 6.1.55.1 Class data for `ctype<wchar_t>`

The virtual table for the `std::ctype<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::ctype<wchar_t>` class is described by Table 6-39

**Table 6-39** `typeinfo` for `ctype<wchar_t>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>ctype&lt;wchar_t&gt;</code>

### 6.1.55.2 Interfaces for Class `ctype<wchar_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::ctype<wchar_t>` specified in Table 6-40, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-40** `libstdcxx` - Class `ctype<wchar_t>` Function Interfaces

<code>ctype&lt;wchar_t&gt;::ctype(__locale_struct*, unsigned int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>ctype&lt;wchar_t&gt;::ctype(unsigned int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>ctype&lt;wchar_t&gt;::ctype(__locale_struct*, unsigned int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>ctype&lt;wchar_t&gt;::ctype(unsigned int)(GLIBCXX_3.4)</code> [ISOCXX]

## 6.1.56 Class `ctype_byname<char>`

### 6.1.56.1 Class data for `ctype_byname<char>`

The virtual table for the `std::ctype_byname<char>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::ctype_byname<char>` class is described by Table 6-41

**Table 6-41** `typeinfo` for `ctype_byname<char>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>ctype_byname&lt;char&gt;</code>

### 6.1.56.2 Interfaces for Class `ctype_byname<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::ctype_byname<char>` specified in Table 6-42, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-42 libstdcxx - Class ctype\_byname<char> Function Interfaces**

ctype_byname<char>::ctype_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
ctype_byname<char>::ctype_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]

**6.1.57 Class ctype\_byname<wchar\_t>****6.1.57.1 Class data for ctype\_byname<wchar\_t>**

The virtual table for the std::ctype\_byname<wchar\_t> class is described in the generic part of this specification.

The Run Time Type Information for the std::ctype\_byname<wchar\_t> class is described by Table 6-43

**Table 6-43 typeid for ctype\_byname<wchar\_t>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for ctype_byname<wchar_t>

**6.1.57.2 Interfaces for Class ctype\_byname<wchar\_t>**

An LSB conforming implementation shall provide the architecture specific methods for Class std::ctype\_byname<wchar\_t> specified in Table 6-44, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-44 libstdcxx - Class ctype\_byname<wchar\_t> Function Interfaces**

ctype_byname<wchar_t>::ctype_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
ctype_byname<wchar_t>::ctype_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]

**6.1.58 Class basic\_string<char, char\_traits<char>, allocator<char> >****6.1.58.1 Interfaces for Class basic\_string<char, char\_traits<char>, allocator<char> >**

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_string<char, std::char\_traits<char>, std::allocator<char> > specified in Table 6-45, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-45 libstdcxx - Class basic\_string<char, char\_traits<char>, allocator<char> > Function Interfaces**

basic_string<char, char_traits<char>, allocator<char> >::find_last_of(char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char> >::find_last_of(char

const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_of(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_of(char, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_of(char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_of(char const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_of(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_of(char, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::M_check_length(unsigned int, unsigned int, char const*) const(GLIBCXX_3.4.5) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_not_of(char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_not_of(char const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_not_of(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_last_not_of(char, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_not_of(char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_not_of(char const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_not_of(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find_first_not_of(char, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::at(unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::copy(char*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::find(char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]

<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::find(char const*, unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::find(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::find(char, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::rfind(char const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::rfind(char const*, unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::rfind(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::rfind(char, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::substr(unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::compare(unsigned int, unsigned int, char const*) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::compare(unsigned int, unsigned int, char const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::compare(unsigned int, unsigned int, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::compare(unsigned int, unsigned int, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_check(unsigned int, char const*) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_limit(unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::operator[](unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_S_construct(unsigned int, char, allocator&lt;char&gt; const&amp;)</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_replace_aux(unsigned int, unsigned int, unsigned int, char)</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_replace_safe(unsigned int, unsigned int, char const*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::at(unsigned</code>



int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::_Rep::_M_set_length_and_sharable(unsigned int)(GLIBCXX_3.4.5) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::_Rep::_M_clone(allocator<char> const&, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::_Rep::_S_create(unsigned int, unsigned int, allocator<char> const&)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::erase(unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::append(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::append(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::append(unsigned int, char)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::assign(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::assign(basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::assign(unsigned int, char)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(__gnu_cxx::__normal_iterator<char*, basic_string<char, char_traits<char>, allocator<char>>>, unsigned int, char)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(unsigned int, char const*)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(unsigned int, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(unsigned int, basic_string<char, char_traits<char>, allocator<char>> const&)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(unsigned int, basic_string<char, char_traits<char>, allocator<char>> const&, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::insert(unsigned int, unsigned int, char)(GLIBCXX_3.4) [ISOCXX]
basic_string<char, char_traits<char>, allocator<char>>::resize(unsigned int)(GLIBCXX_3.4) [ISOCXX]

<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::resize(unsigned int, char)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_copy(char*, char const*, unsigned int)(GLIBCXX_3.4.5) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_move(char*, char const*, unsigned int)(GLIBCXX_3.4.5) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(__gnu_cxx::__normal_iterator&lt;char*, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; &gt;, __gnu_cxx::__normal_iterator&lt;char*, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; &gt;, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(__gnu_cxx::__normal_iterator&lt;char*, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; &gt;, __gnu_cxx::__normal_iterator&lt;char*, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; &gt;, unsigned int, char)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(unsigned int, unsigned int, char const*)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(unsigned int, unsigned int, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(unsigned int, unsigned int, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(unsigned int, unsigned int, basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::replace(unsigned int, unsigned int, unsigned int, char)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::reserve(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_assign(char*, unsigned int, char)(GLIBCXX_3.4.5) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_mutate(unsigned int, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(char const*, unsigned int, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>

<code>&gt;::basic_string(unsigned int, char, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(char const*, unsigned int, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt; const&amp;, unsigned int, unsigned int, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::basic_string(unsigned int, char, allocator&lt;char&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::operator[](unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

## 6.1.59 Class `basic_string<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

### 6.1.59.1 Interfaces for Class `basic_string<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_string<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` specified in Table 6-46, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-46** `libstdcxx` - Class `basic_string<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >` Function Interfaces

<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_last_of(wchar_t const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_last_of(wchar_t const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_last_of(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_last_of(wchar_t, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_first_of(wchar_t const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_first_of(wchar_t const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::find_first_of(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>

<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_first_of(wchar_t, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::M_check_length(unsigned int, unsigned int, char const*)</code> <code>const</code> (GLIBCXX_3.4.5) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_last_not_of(wchar_t const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_last_not_of(wchar_t const*, unsigned int, unsigned int)</code> <code>const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_last_not_of(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_last_not_of(wchar_t, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_first_not_of(wchar_t const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_first_not_of(wchar_t const*, unsigned int, unsigned int)</code> <code>const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_first_not_of(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find_first_not_of(wchar_t, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::at(unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::copy(wchar_t*, unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find(wchar_t const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find(wchar_t const*, unsigned int, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::find(wchar_t, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::rfind(wchar_t const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;</code>

<code>&gt;::rfind(wchar_t const*, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::rfind(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt; const&amp;, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::rfind(wchar_t, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::substr(unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::compare(unsigned int, unsigned int, wchar_t const*) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::compare(unsigned int, unsigned int, wchar_t const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::compare(unsigned int, unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::compare(unsigned int, unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_M_check(unsigned int, char const*) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_M_limit(unsigned int, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::operator[](unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_S_construct(unsigned int, wchar_t, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_M_replace_aux(unsigned int, unsigned int, unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_M_replace_safe(unsigned int, unsigned int, wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::at(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_Rep::_M_set_length_and_sharable(unsigned int)(GLIBCXX_3.4.5) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::_Rep::_M_clone(allocator&lt;wchar_t&gt; const&amp;, unsigned int)(GLIBCXX_3.4)</code>

[ISOCXX]
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::_Rep::_S_create(unsigned int, unsigned int, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::erase(unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::append(wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::append(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::append(unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::assign(wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::assign(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::assign(unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(__gnu_cxx::__normal_iterator&lt;wchar_t*, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;&gt;, unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(unsigned int, wchar_t const*)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(unsigned int, wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::insert(unsigned int, unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::resize(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::resize(unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::_M_copy(wchar_t*, wchar_t const*, unsigned int)(GLIBCXX_3.4.5) [ISOCXX]</code>

<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::_M_move(wchar_t*, wchar_t const*, unsigned int)(GLIBCXX_3.4.5) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(__gnu_cxx::__normal_iterator&lt;wchar_t*, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; &gt;, __gnu_cxx::__normal_iterator&lt;wchar_t*, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; &gt;, wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(__gnu_cxx::__normal_iterator&lt;wchar_t*, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; &gt;, __gnu_cxx::__normal_iterator&lt;wchar_t*, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; &gt;, unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(unsigned int, unsigned int, wchar_t const*)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(unsigned int, unsigned int, wchar_t const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(unsigned int, unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(unsigned int, unsigned int, basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::replace(unsigned int, unsigned int, unsigned int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::reserve(unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::_M_assign(wchar_t*, unsigned int, wchar_t)(GLIBCXX_3.4.5) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::_M_mutate(unsigned int, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::basic_string(wchar_t const*, unsigned int, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::basic_string(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>

<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int, unsigned int, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(unsigned int, wchar_t, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(wchar_t const*, unsigned int, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt; const&amp;, unsigned int, unsigned int, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::basic_string(unsigned int, wchar_t, allocator&lt;wchar_t&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_string&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::operator[](unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.60 Class `basic_stringstream<char, char_traits<char>, allocator<char> >`

#### 6.1.60.1 Class data for `basic_stringstream<char, char_traits<char>, allocator<char> >`

The virtual table for the `std::basic_stringstream<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-47

**Table 6-47 Primary vtable for `basic_stringstream<char, char_traits<char>, allocator<char> >`**

Base Offset	0
Virtual Base Offset	52
RTTI	typeinfo for <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
<code>vfunc[0]:</code>	<code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_stringstream()</code>
<code>vfunc[1]:</code>	<code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_stringstream()</code>



**Table 6-48 Secondary vtable for `basic_stringstream<char, char_traits<char>, allocator<char> >`**

Base Offset	-8
Virtual Base Offset	44
RTTI	typeid for <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	non-virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code>
vfunc[1]:	non-virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code>

**Table 6-49 Secondary vtable for `basic_stringstream<char, char_traits<char>, allocator<char> >`**

Base Offset	-52
Virtual Base Offset	-52
RTTI	typeid for <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code>
vfunc[1]:	virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code>

The VTT for the `std::basic_stringstream<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-50

**Table 6-50 VTT for `basic_stringstream<char, char_traits<char>, allocator<char> >`**

VTT Name	<code>_ZTTSt18basic_stringstreamIcSt11char_traitsIcESaIcEE</code>
Number of Entries	10

### 6.1.60.2 Interfaces for Class `basic_stringstream<char, char_traits<char>, allocator<char> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_stringstream<char, std::char_traits<char>, std::allocator<char> >` specified in Table 6-51, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-51 libstdcxx - Class `basic_stringstream<char, char_traits<char>, allocator<char> >` Function Interfaces**

non-virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_stringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~basic_stringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.61 Class `basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

#### 6.1.61.1 Class data for `basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

The virtual table for the `std::basic_stringstream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` class is described by Table 6-52

**Table 6-52 Primary vtable for `basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`**

Base Offset	0
Virtual Base Offset	52
RTTI	typeid for <code>basic_stringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;</code>
vfunc[0]:	<code>basic_stringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::~basic_stringstream()</code>
vfunc[1]:	<code>basic_stringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::~basic_stringstream()</code>

**Table 6-53 Secondary vtable for `basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`**

Base Offset	-8
Virtual Base Offset	44
RTTI	typeid for <code>basic_stringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;</code>
vfunc[0]:	non-virtual thunk to

	basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_stringstream()
vfunc[1]:	non-virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_stringstream()

**Table 6-54 Secondary vtable for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >**

Base Offset	-52
Virtual Base Offset	-52
RTTI	typeid for basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >
vfunc[0]:	virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_stringstream()
vfunc[1]:	virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_stringstream()

The VTT for the std::basic\_stringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > class is described by Table 6-55

**Table 6-55 VTT for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >**

VTT Name	_ZTTSt18basic_stringstreamIwSt11char_traitsIwESaIwEE
Number of Entries	10

### 6.1.61.2 Interfaces for Class basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_stringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > specified in Table 6-56, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-56 libstdcxx - Class basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> > Function Interfaces**

non-virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>,>
---

allocator<wchar_t> >::~~basic_stringstream()(GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~~basic_stringstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~~basic_stringstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_stringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~~basic_stringstream()(GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.62 Class `basic_istream<char, char_traits<char>, allocator<char> >`

#### 6.1.62.1 Class data for `basic_istream<char, char_traits<char>, allocator<char> >`

The virtual table for the `std::basic_istream<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-57

**Table 6-57 Primary vtable for `basic_istream<char, char_traits<char>, allocator<char> >`**

Base Offset	0
Virtual Base Offset	48
RTTI	typeid for <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	<code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_istream()</code>
vfunc[1]:	<code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_istream()</code>

**Table 6-58 Secondary vtable for `basic_istream<char, char_traits<char>, allocator<char> >`**

Base Offset	-48
Virtual Base Offset	-48
RTTI	typeid for <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	virtual thunk to <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_istream()</code>
vfunc[1]:	virtual thunk to <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_istream()</code>

The VTT for the `std::basic_istream<char, std::char_traits<char>, std::allocator<char>>` class is described by Table 6-59

**Table 6-59 VTT for `basic_istream<char, char_traits<char>, allocator<char>>`**

VTT Name	<code>_ZTTSt19basic_istreamIcSt11char_traitsIcESaIcEE</code>
Number of Entries	4

### 6.1.62.2 Interfaces for Class `basic_istream<char, char_traits<char>, allocator<char>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_istream<char, std::char_traits<char>, std::allocator<char>>` specified in Table 6-60, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-60 `libstdcxx` - Class `basic_istream<char, char_traits<char>, allocator<char>>` Function Interfaces**

<code>virtual thunk to <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code></code>
<code>virtual thunk to <code>basic_istream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code></code>

### 6.1.63 Class `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`

#### 6.1.63.1 Class data for `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`

The virtual table for the `std::basic_istream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t>>` class is described by Table 6-61

**Table 6-61 Primary vtable for `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`**

Base Offset	0
Virtual Base Offset	48
RTTI	<code>typeinfo for <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;</code></code>
<code>vfunc[0]:</code>	<code><code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_istream()</code></code>
<code>vfunc[1]:</code>	<code><code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_istream()</code></code>

**Table 6-62 Secondary vtable for `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`**

Base Offset	-48
Virtual Base Offset	-48
RTTI	typeid for <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;</code>
vfunc[0]:	virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::~basic_istream()</code>
vfunc[1]:	virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt; &gt;::~basic_istream()</code>

The VTT for the `std::basic_istream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t>>` class is described by Table 6-63

**Table 6-63 VTT for `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`**

VTT Name	<code>_ZTTSt19basic_istreamlwSt11char_traitslwESaIwEE</code>
Number of Entries	4

### 6.1.63.2 Interfaces for Class `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_istream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t>>` specified in Table 6-64, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-64 `libstdcxx` - Class `basic_istream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>` Function Interfaces**

virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code>
virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code>

## 6.1.64 Class `basic_ostringstream<char, char_traits<char>, allocator<char> >`

### 6.1.64.1 Class data for `basic_ostringstream<char, char_traits<char>, allocator<char> >`

The virtual table for the `std::basic_ostringstream<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-65

**Table 6-65 Primary vtable for `basic_ostringstream<char, char_traits<char>, allocator<char> >`**

Base Offset	0
Virtual Base Offset	44
RTTI	typeid for <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	<code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_ostringstream()</code>
vfunc[1]:	<code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_ostringstream()</code>

**Table 6-66 Secondary vtable for `basic_ostringstream<char, char_traits<char>, allocator<char> >`**

Base Offset	-44
Virtual Base Offset	-44
RTTI	typeid for <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
vfunc[0]:	virtual thunk to <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_ostringstream()</code>
vfunc[1]:	virtual thunk to <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::~~basic_ostringstream()</code>

The VTT for the `std::basic_ostringstream<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-67

**Table 6-67 VTT for `basic_ostringstream<char, char_traits<char>, allocator<char> >`**

VTT Name	<code>_ZTTSt19basic_ostringstreamIcSt11char_traitsIcESaIcEE</code>
Number of Entries	4

### 6.1.64.2 Interfaces for Class `basic_ostringstream<char, char_traits<char>, allocator<char>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ostringstream<char, std::char_traits<char>, std::allocator<char>>` specified in Table 6-68, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-68 libstdc++ - Class `basic_ostringstream<char, char_traits<char>, allocator<char>>` Function Interfaces**

virtual thunk to <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~basic_ostringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_ostringstream&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~basic_ostringstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.65 Class `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`

#### 6.1.65.1 Class data for `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`

The virtual table for the `std::basic_ostringstream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t>>` class is described by Table 6-69

**Table 6-69 Primary vtable for `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`**

Base Offset	0
Virtual Base Offset	44
RTTI	typeid for <code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;</code>
vfunc[0]:	<code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_ostringstream()</code>
vfunc[1]:	<code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;::~basic_ostringstream()</code>

**Table 6-70 Secondary vtable for `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t>>`**

Base Offset	-44
Virtual Base Offset	-44
RTTI	typeid for <code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt;&gt;</code>



	allocator<wchar_t> >
vfunc[0]:	virtual thunk to basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_ostringstream()
vfunc[1]:	virtual thunk to basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::~basic_ostringstream()

The VTT for the `std::basic_ostringstream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` class is described by Table 6-71

**Table 6-71 VTT for `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`**

VTT Name	<code>_ZTTSt19basic_ostringstreamIwSt11char_traitsIwESaIwEE</code>
Number of Entries	4

### 6.1.65.2 Interfaces for Class `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ostringstream<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` specified in Table 6-72, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-72 `libstdcxx` - Class `basic_ostringstream<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >` Function Interfaces**

virtual thunk to <code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::~basic_ostringstream()(GLIBCXX_3.4)</code> [CXXABI-1.86]
virtual thunk to <code>basic_ostringstream&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::~basic_ostringstream()(GLIBCXX_3.4)</code> [CXXABI-1.86]

### 6.1.66 Class `basic_stringbuf<char, char_traits<char>, allocator<char> >`

#### 6.1.66.1 Class data for `basic_stringbuf<char, char_traits<char>, allocator<char> >`

The virtual table for the `std::basic_stringbuf<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-73

**Table 6-73 Primary vtable for `basic_stringbuf<char, char_traits<char>, allocator<char> >`**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeid for basic_stringbuf&lt;char,</code>

	<code>char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;</code>
<code>vfunc[0]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~~basic_stringbuf()</code>
<code>vfunc[1]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::~~basic_stringbuf()</code>
<code>vfunc[2]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::imbue(locale const&amp;)</code>
<code>vfunc[3]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::setbuf(char*, int)</code>
<code>vfunc[4]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)</code>
<code>vfunc[5]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::seekpos(fpos&lt;_mbstate_t&gt;, _Ios_Openmode)</code>
<code>vfunc[6]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::sync()</code>
<code>vfunc[7]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::showmanyc()</code>
<code>vfunc[8]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::xsgetn(char*, int)</code>
<code>vfunc[9]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::underflow()</code>
<code>vfunc[10]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::uflow()</code>
<code>vfunc[11]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::pbackfail(int)</code>
<code>vfunc[12]:</code>	<code>basic_streambuf&lt;char, char_traits&lt;char&gt;&gt;::xsputn(char const*, int)</code>
<code>vfunc[13]:</code>	<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt;&gt;::overflow(int)</code>

The Run Time Type Information for the `std::basic_stringbuf<char, std::char_traits<char>, std::allocator<char> >` class is described by Table 6-74

**Table 6-74 typeid for basic\_stringbuf<char, char\_traits<char>, allocator<char> >**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for basic_stringbuf<char, char_traits<char>, allocator<char> >

**6.1.66.2 Interfaces for Class basic\_stringbuf<char, char\_traits<char>, allocator<char> >**

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_stringbuf<char, std::char_traits<char>, std::allocator<char> >` specified in Table 6-75, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-75 libstdc++ - Class basic\_stringbuf<char, char\_traits<char>, allocator<char> > Function Interfaces**

<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::setbuf(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::_M_sync(char*, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_stringbuf&lt;char, char_traits&lt;char&gt;, allocator&lt;char&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>

**6.1.67 Class basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >****6.1.67.1 Class data for basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >**

The virtual table for the `std::basic_stringbuf<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` class is described by Table 6-76

**Table 6-76 Primary vtable for basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >**

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >
vfunc[0]:	<code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::~~basic_stringbuf()</code>
vfunc[1]:	<code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::basic_stringbuf()</code>

	allocator<wchar_t> >::~basic_stringbuf()
vfunc[2]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::imbue(locale const&)
vfunc[3]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::setbuf(wchar_t*, int)
vfunc[4]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)
vfunc[5]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::seekpos(fpos<__mbstate_t>, _Ios_Openmode)
vfunc[6]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::sync()
vfunc[7]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::showmanyc()
vfunc[8]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::xsgetn(wchar_t*, int)
vfunc[9]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::underflow()
vfunc[10]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::uflow()
vfunc[11]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::pbackfail(unsigned int)
vfunc[12]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::xsputn(wchar_t const*, int)
vfunc[13]:	basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >::overflow(unsigned int)

The Run Time Type Information for the `std::basic_stringbuf<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` class is described by Table 6-77

**Table 6-77** typeid for `basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;</code>

### 6.1.67.2 Interfaces for Class `basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_stringbuf<wchar_t, std::char_traits<wchar_t>, std::allocator<wchar_t> >` specified in Table 6-78, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-78** `libstdc++` - Class `basic_stringbuf<wchar_t, char_traits<wchar_t>, allocator<wchar_t> >` Function Interfaces

<code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::setbuf(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::_M_sync(wchar_t*, unsigned int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_stringbuf&lt;wchar_t, char_traits&lt;wchar_t&gt;, allocator&lt;wchar_t&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.68 Class `basic_istream<char, char_traits<char> >`

#### 6.1.68.1 Class data for `basic_istream<char, char_traits<char> >`

The virtual table for the `std::basic_istream<char, std::char_traits<char> >` class is described by Table 6-79

**Table 6-79** Primary vtable for `basic_istream<char, char_traits<char> >`

Base Offset	0
Virtual Base Offset	12
RTTI	typeid for <code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;</code>
vfunc[0]:	<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::~~basic_istream()</code>
vfunc[1]:	<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::~~basic_istream()</code>

**Table 6-80** Secondary vtable for `basic_istream<char, char_traits<char> >`

Base Offset	-8
-------------	----

Virtual Base Offset	4
RTTI	typeid for basic_istream<char, char_traits<char> >
vfunc[0]:	non-virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()
vfunc[1]:	non-virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()

**Table 6-81 Secondary vtable for basic\_istream<char, char\_traits<char> >**

Base Offset	-12
Virtual Base Offset	-12
RTTI	typeid for basic_istream<char, char_traits<char> >
vfunc[0]:	virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()
vfunc[1]:	virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()

The VTT for the std::basic\_istream<char, std::char\_traits<char> > class is described by Table 6-82

**Table 6-82 VTT for basic\_istream<char, char\_traits<char> >**

VTT Name	_ZTTSd
Number of Entries	7

### 6.1.68.2 Interfaces for Class basic\_istream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_istream<char, std::char\_traits<char> > specified in Table 6-83, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-83 libstdc++ - Class basic\_istream<char, char\_traits<char> > Function Interfaces**

non-virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to basic_istream<char, char_traits<char> >::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_istream<char, char_traits<char> >

>::~~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_istream<char, char_traits<char>> >::~~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.69 Class basic\_istream<wchar\_t, char\_traits<wchar\_t>>

#### 6.1.69.1 Class data for basic\_istream<wchar\_t, char\_traits<wchar\_t>>

The virtual table for the std::basic\_istream<wchar\_t, std::char\_traits<wchar\_t>> class is described by Table 6-84

**Table 6-84 Primary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	0
Virtual Base Offset	12
RTTI	typeinfo for basic_istream<wchar_t, char_traits<wchar_t>>
vfunc[0]:	basic_istream<wchar_t, char_traits<wchar_t>> >::~~basic_istream()
vfunc[1]:	basic_istream<wchar_t, char_traits<wchar_t>> >::~~basic_istream()

**Table 6-85 Secondary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	-8
Virtual Base Offset	4
RTTI	typeinfo for basic_istream<wchar_t, char_traits<wchar_t>>
vfunc[0]:	non-virtual thunk to basic_istream<wchar_t, char_traits<wchar_t>> >::~~basic_istream()
vfunc[1]:	non-virtual thunk to basic_istream<wchar_t, char_traits<wchar_t>> >::~~basic_istream()

**Table 6-86 Secondary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	-12
Virtual Base Offset	-12
RTTI	typeinfo for basic_istream<wchar_t, char_traits<wchar_t>>

vfunc[0]:	virtual thunk to basic_iostream<wchar_t, char_traits<wchar_t> >::~basic_iostream()
vfunc[1]:	virtual thunk to basic_iostream<wchar_t, char_traits<wchar_t> >::~basic_iostream()

The VTT for the `std::basic_iostream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-87

**Table 6-87 VTT for `basic_iostream<wchar_t, char_traits<wchar_t> >`**

VTT Name	<code>_ZTTSt14basic_iostreamIwSt11char_traitsIwEE</code>
Number of Entries	7

### 6.1.69.2 Interfaces for Class `basic_iostream<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_iostream<wchar_t, std::char_traits<wchar_t> >` specified in Table 6-88, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-88 `libstdcxx` - Class `basic_iostream<wchar_t, char_traits<wchar_t> >` Function Interfaces**

non-virtual thunk to <code>basic_iostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_iostream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to <code>basic_iostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_iostream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_iostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_iostream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_iostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_iostream()</code> (GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.70 Class `basic_istream<char, char_traits<char> >`

#### 6.1.70.1 Class data for `basic_istream<char, char_traits<char> >`

The virtual table for the `std::basic_istream<char, std::char_traits<char> >` class is described by Table 6-89

**Table 6-89 Primary vtable for `basic_istream<char, char_traits<char> >`**

Base Offset	0
Virtual Base Offset	8
RTTI	<code>typeinfo for basic_istream&lt;char, char_traits&lt;char&gt; &gt;</code>



vfunc[0]:	basic_istream<char, char_traits<char> >::~~basic_istream()
vfunc[1]:	basic_istream<char, char_traits<char> >::~~basic_istream()

**Table 6-90 Secondary vtable for basic\_istream<char, char\_traits<char> >**

Base Offset	-8
Virtual Base Offset	-8
RTTI	typeid for basic_istream<char, char_traits<char> >
vfunc[0]:	virtual thunk to basic_istream<char, char_traits<char> >::~~basic_istream()
vfunc[1]:	virtual thunk to basic_istream<char, char_traits<char> >::~~basic_istream()

The VTT for the `std::basic_istream<char, std::char_traits<char> >` class is described by Table 6-91

**Table 6-91 VTT for basic\_istream<char, char\_traits<char> >**

VTT Name	_ZTTSi
Number of Entries	2

### 6.1.70.2 Interfaces for Class basic\_istream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_istream<char, std::char_traits<char> >` specified in Table 6-92, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-92 libstdc++ - Class basic\_istream<char, char\_traits<char> > Function Interfaces**

<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::get(char*, int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::get(char*, int, char)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::read(char*, int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::seekg(long long, _Ios_Seekdir)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::ignore(int)(GLIBCXX_3.4.5)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::ignore(int, int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_istream&lt;char, char_traits&lt;char&gt; &gt;::getline(char*, int)(GLIBCXX_3.4)</code>

[ISOCXX]
basic_istream<char, char_traits<char> >::getline(char*, int, char)(GLIBCXX_3.4) [ISOCXX]
basic_istream<char, char_traits<char> >::readsome(char*, int)(GLIBCXX_3.4) [ISOCXX]
virtual thunk to basic_istream<char, char_traits<char> >::~~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_istream<char, char_traits<char> >::~~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.71 Class basic\_istream<wchar\_t, char\_traits<wchar\_t> >

#### 6.1.71.1 Class data for basic\_istream<wchar\_t, char\_traits<wchar\_t> >

The virtual table for the std::basic\_istream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 6-93

**Table 6-93 Primary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	0
Virtual Base Offset	8
RTTI	typeid for basic_istream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	basic_istream<wchar_t, char_traits<wchar_t> >::~~basic_istream()
vfunc[1]:	basic_istream<wchar_t, char_traits<wchar_t> >::~~basic_istream()

**Table 6-94 Secondary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	-8
Virtual Base Offset	-8
RTTI	typeid for basic_istream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	virtual thunk to basic_istream<wchar_t, char_traits<wchar_t> >::~~basic_istream()
vfunc[1]:	virtual thunk to basic_istream<wchar_t, char_traits<wchar_t> >::~~basic_istream()

The VTT for the `std::basic_istream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-95

**Table 6-95 VTT for `basic_istream<wchar_t, char_traits<wchar_t> >`**

VTT Name	<code>_ZTTSt13basic_istreamIwSt11char_traitsIwEE</code>
Number of Entries	2

### 6.1.71.2 Interfaces for Class `basic_istream<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_istream<wchar_t, std::char_traits<wchar_t> >` specified in Table 6-96, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-96 `libstdcxx` - Class `basic_istream<wchar_t, char_traits<wchar_t> >` Function Interfaces**

<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::get(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::get(wchar_t*, int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::read(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::ignore(int)(GLIBCXX_3.4.5) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::ignore(int, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::getline(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::getline(wchar_t*, int, wchar_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::readsome(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code>
virtual thunk to <code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI-1.86]</code>

### 6.1.72 Class `istreambuf_iterator<wchar_t, char_traits<wchar_t> >`

#### 6.1.72.1 Interfaces for Class `istreambuf_iterator<wchar_t, char_traits<wchar_t> >`

No external methods are defined for `libstdcxx` - Class `std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> >` in this part of the specification. See also the generic specification.

**6.1.73 Class `istreambuf_iterator<char, char_traits<char>>`****6.1.73.1 Interfaces for Class `istreambuf_iterator<char, char_traits<char>>`**

No external methods are defined for `libstdcxx` - Class `std::istreambuf_iterator<char, std::char_traits<char>>` in this part of the specification. See also the generic specification.

**6.1.74 Class `basic_ostream<char, char_traits<char>>`****6.1.74.1 Class data for `basic_ostream<char, char_traits<char>>`**

The virtual table for the `std::basic_ostream<char, std::char_traits<char>>` class is described by Table 6-97

**Table 6-97 Primary vtable for `basic_ostream<char, char_traits<char>>`**

Base Offset	0
Virtual Base Offset	4
RTTI	<code>typeid for basic_ostream&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()</code>
<code>vfunc[1]:</code>	<code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()</code>

**Table 6-98 Secondary vtable for `basic_ostream<char, char_traits<char>>`**

Base Offset	-4
Virtual Base Offset	-4
RTTI	<code>typeid for basic_ostream&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>virtual thunk to basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()</code>
<code>vfunc[1]:</code>	<code>virtual thunk to basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()</code>

The VTT for the `std::basic_ostream<char, std::char_traits<char>>` class is described by Table 6-99

**Table 6-99 VTT for `basic_ostream<char, char_traits<char>>`**

VTT Name	<code>_ZTTS0</code>
Number of Entries	2

### 6.1.74.2 Interfaces for Class `basic_ostream<char, char_traits<char>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ostream<char, std::char_traits<char>>` specified in Table 6-100, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-100 libstdcxx - Class `basic_ostream<char, char_traits<char>>` > Function Interfaces**

<code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::seekp(long long, _Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::write(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::_M_write(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
virtual thunk to <code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()(GLIBCXX_3.4) [CXXABI-1.86]</code>
virtual thunk to <code>basic_ostream&lt;char, char_traits&lt;char&gt;&gt;::~~basic_ostream()(GLIBCXX_3.4) [CXXABI-1.86]</code>

### 6.1.75 Class `basic_ostream<wchar_t, char_traits<wchar_t>>`

#### 6.1.75.1 Class data for `basic_ostream<wchar_t, char_traits<wchar_t>>`

The virtual table for the `std::basic_ostream<wchar_t, std::char_traits<wchar_t>>` class is described by Table 6-101

**Table 6-101 Primary vtable for `basic_ostream<wchar_t, char_traits<wchar_t>>`**

Base Offset	0
Virtual Base Offset	4
RTTI	<code>typeid for basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::~~basic_ostream()</code>
<code>vfunc[1]:</code>	<code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::~~basic_ostream()</code>

**Table 6-102 Secondary vtable for `basic_ostream<wchar_t, char_traits<wchar_t>>`**

Base Offset	-4
Virtual Base Offset	-4
RTTI	<code>typeid for basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;</code>

vfunc[0]:	virtual thunk to basic_ostream<wchar_t, char_traits<wchar_t> >::~basic_ostream()
vfunc[1]:	virtual thunk to basic_ostream<wchar_t, char_traits<wchar_t> >::~basic_ostream()

The VTT for the `std::basic_ostream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-103

**Table 6-103 VTT for `basic_ostream<wchar_t, char_traits<wchar_t> >`**

VTT Name	<code>_ZTTSt13basic_ostreamIwSt11char_t</code> <code>raitsIwEE</code>
Number of Entries	2

### 6.1.75.2 Interfaces for Class `basic_ostream<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ostream<wchar_t, std::char_traits<wchar_t> >` specified in Table 6-104, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-104 `libstdcxx` - Class `basic_ostream<wchar_t, char_traits<wchar_t> >` Function Interfaces**

<code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::write(wchar_t const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
virtual thunk to <code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_ostream()(GLIBCXX_3.4) [CXXABI-1.86]</code>
virtual thunk to <code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_ostream()(GLIBCXX_3.4) [CXXABI-1.86]</code>

### 6.1.76 Class `basic_fstream<char, char_traits<char> >`

#### 6.1.76.1 Class data for `basic_fstream<char, char_traits<char> >`

The virtual table for the `std::basic_fstream<char, std::char_traits<char> >` class is described by Table 6-105

**Table 6-105 Primary vtable for `basic_fstream<char, char_traits<char> >`**

Base Offset	0
Virtual Base Offset	148
RTTI	<code>typeinfo for basic_fstream&lt;char, char_traits&lt;char&gt; &gt;</code>
vfunc[0]:	<code>basic_fstream&lt;char, char_traits&lt;char&gt; &gt;::~basic_fstream()</code>

vfunc[1]:	basic_fstream<char, char_traits<char> >::~~basic_fstream()
-----------	---

**Table 6-106 Secondary vtable for basic\_fstream<char, char\_traits<char> >**

Base Offset	-8
Virtual Base Offset	140
RTTI	typeid for basic_fstream<char, char_traits<char> >
vfunc[0]:	non-virtual thunk to basic_fstream<char, char_traits<char> >::~~basic_fstream()
vfunc[1]:	non-virtual thunk to basic_fstream<char, char_traits<char> >::~~basic_fstream()

**Table 6-107 Secondary vtable for basic\_fstream<char, char\_traits<char> >**

Base Offset	-148
Virtual Base Offset	-148
RTTI	typeid for basic_fstream<char, char_traits<char> >
vfunc[0]:	virtual thunk to basic_fstream<char, char_traits<char> >::~~basic_fstream()
vfunc[1]:	virtual thunk to basic_fstream<char, char_traits<char> >::~~basic_fstream()

The VTT for the std::basic\_fstream<char, std::char\_traits<char> > class is described by Table 6-108

**Table 6-108 VTT for basic\_fstream<char, char\_traits<char> >**

VTT Name	_ZTTSt13basic_fstreamIcSt11char_traitsIcEE
Number of Entries	10

### 6.1.76.2 Interfaces for Class basic\_fstream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_fstream<char, std::char\_traits<char> > specified in Table 6-109, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-109 libstdc++ - Class basic\_fstream<char, char\_traits<char> > Function Interfaces**

non-virtual thunk to basic_fstream<char, char_traits<char> >::~~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to basic_fstream<char, char_traits<char> >

>::~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_fstream<char, char_traits<char>> >::~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_fstream<char, char_traits<char>> >::~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]

## 6.1.77 Class basic\_fstream<wchar\_t, char\_traits<wchar\_t>>

### 6.1.77.1 Class data for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>

The virtual table for the std::basic\_fstream<wchar\_t, std::char\_traits<wchar\_t>> class is described by Table 6-110

**Table 6-110 Primary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	0
Virtual Base Offset	152
RTTI	typeid for basic_fstream<wchar_t, char_traits<wchar_t>>
vfunc[0]:	basic_fstream<wchar_t, char_traits<wchar_t>> >::~basic_fstream()
vfunc[1]:	basic_fstream<wchar_t, char_traits<wchar_t>> >::~basic_fstream()

**Table 6-111 Secondary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	-8
Virtual Base Offset	144
RTTI	typeid for basic_fstream<wchar_t, char_traits<wchar_t>>
vfunc[0]:	non-virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t>> >::~basic_fstream()
vfunc[1]:	non-virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t>> >::~basic_fstream()

**Table 6-112 Secondary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>**

Base Offset	-152
Virtual Base Offset	-152



RTTI	typeinfo for basic_fstream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()
vfunc[1]:	virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()

The VTT for the std::basic\_fstream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 6-113

**Table 6-113 VTT for basic\_fstream<wchar\_t, char\_traits<wchar\_t> >**

VTT Name	_ZTTSt13basic_fstreamlwSt11char_traitslwEE
Number of Entries	10

### 6.1.77.2 Interfaces for Class basic\_fstream<wchar\_t, char\_traits<wchar\_t> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_fstream<wchar\_t, std::char\_traits<wchar\_t> > specified in Table 6-114, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-114 libstdcxx - Class basic\_fstream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces**

non-virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
non-virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t> >::~~basic_fstream()(GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.78 Class basic\_ifstream<char, char\_traits<char> >

#### 6.1.78.1 Class data for basic\_ifstream<char, char\_traits<char> >

The virtual table for the std::basic\_ifstream<char, std::char\_traits<char> > class is described by Table 6-115

**Table 6-115 Primary vtable for basic\_ifstream<char, char\_traits<char> >**

Base Offset	0
Virtual Base Offset	144

RTTI	typeid for basic_ifstream<char, char_traits<char> >
vfunc[0]:	basic_ifstream<char, char_traits<char> >::~basic_ifstream()
vfunc[1]:	basic_ifstream<char, char_traits<char> >::~basic_ifstream()

**Table 6-116 Secondary vtable for basic\_ifstream<char, char\_traits<char> >**

Base Offset	-144
Virtual Base Offset	-144
RTTI	typeid for basic_ifstream<char, char_traits<char> >
vfunc[0]:	virtual thunk to basic_ifstream<char, char_traits<char> >::~basic_ifstream()
vfunc[1]:	virtual thunk to basic_ifstream<char, char_traits<char> >::~basic_ifstream()

The VTT for the std::basic\_ifstream<char, std::char\_traits<char> > class is described by Table 6-117

**Table 6-117 VTT for basic\_ifstream<char, char\_traits<char> >**

VTT Name	_ZTTSt14basic_ifstreamIcSt11char_traitsIcEE
Number of Entries	4

### 6.1.78.2 Interfaces for Class basic\_ifstream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_ifstream<char, std::char\_traits<char> > specified in Table 6-118, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-118 libstdcxx - Class basic\_ifstream<char, char\_traits<char> > Function Interfaces**

virtual thunk to basic_ifstream<char, char_traits<char> >::~basic_ifstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_ifstream<char, char_traits<char> >::~basic_ifstream()(GLIBCXX_3.4) [CXXABI-1.86]

**6.1.79 Class basic\_ifstream<wchar\_t, char\_traits<wchar\_t> >****6.1.79.1 Class data for basic\_ifstream<wchar\_t, char\_traits<wchar\_t> >**

The virtual table for the `std::basic_ifstream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-119

**Table 6-119 Primary vtable for basic\_ifstream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	0
Virtual Base Offset	148
RTTI	typeid for basic_ifstream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	basic_ifstream<wchar_t, char_traits<wchar_t> >::~~basic_ifstream()
vfunc[1]:	basic_ifstream<wchar_t, char_traits<wchar_t> >::~~basic_ifstream()

**Table 6-120 Secondary vtable for basic\_ifstream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	-148
Virtual Base Offset	-148
RTTI	typeid for basic_ifstream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	virtual thunk to basic_ifstream<wchar_t, char_traits<wchar_t> >::~~basic_ifstream()
vfunc[1]:	virtual thunk to basic_ifstream<wchar_t, char_traits<wchar_t> >::~~basic_ifstream()

The VTT for the `std::basic_ifstream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-121

**Table 6-121 VTT for basic\_ifstream<wchar\_t, char\_traits<wchar\_t> >**

VTT Name	_ZTTSt14basic_ifstreamlwSt11char_traitslwEE
Number of Entries	4

### 6.1.79.2 Interfaces for Class `basic_ifstream<wchar_t, char_traits<wchar_t>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ifstream<wchar_t, std::char_traits<wchar_t>>` specified in Table 6-122, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-122 libstdc++ - Class `basic_ifstream<wchar_t, char_traits<wchar_t>>` Function Interfaces**

virtual thunk to <code>basic_ifstream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::~basic_ifstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_ifstream&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::~basic_ifstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.80 Class `basic_ofstream<char, char_traits<char>>`

#### 6.1.80.1 Class data for `basic_ofstream<char, char_traits<char>>`

The virtual table for the `std::basic_ofstream<char, std::char_traits<char>>` class is described by Table 6-123

**Table 6-123 Primary vtable for `basic_ofstream<char, char_traits<char>>`**

Base Offset	0
Virtual Base Offset	140
RTTI	<code>typeid for basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;::~basic_ofstream()</code>
<code>vfunc[1]:</code>	<code>basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;::~basic_ofstream()</code>

**Table 6-124 Secondary vtable for `basic_ofstream<char, char_traits<char>>`**

Base Offset	-140
Virtual Base Offset	-140
RTTI	<code>typeid for basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	virtual thunk to <code>basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;::~basic_ofstream()</code>
<code>vfunc[1]:</code>	virtual thunk to <code>basic_ofstream&lt;char, char_traits&lt;char&gt;&gt;::~basic_ofstream()</code>

The VTT for the `std::basic_ofstream<char, std::char_traits<char>>` class is described by Table 6-125

**Table 6-125 VTT for basic\_ofstream<char, char\_traits<char> >**

VTT Name	_ZTTSt14basic_ofstreamlcSt11char_traitslcEE
Number of Entries	4

### 6.1.80.2 Interfaces for Class basic\_ofstream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_ofstream<char, std::char\_traits<char> > specified in Table 6-126, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-126 libstdcxx - Class basic\_ofstream<char, char\_traits<char> > Function Interfaces**

virtual thunk to basic_ofstream<char, char_traits<char> >::~basic_ofstream()(GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to basic_ofstream<char, char_traits<char> >::~basic_ofstream()(GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.81 Class basic\_ofstream<wchar\_t, char\_traits<wchar\_t> >

#### 6.1.81.1 Class data for basic\_ofstream<wchar\_t, char\_traits<wchar\_t> >

The virtual table for the std::basic\_ofstream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 6-127

**Table 6-127 Primary vtable for basic\_ofstream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	0
Virtual Base Offset	144
RTTI	typeinfo for basic_ofstream<wchar_t, char_traits<wchar_t> >
vfunc[0]:	basic_ofstream<wchar_t, char_traits<wchar_t> >::~basic_ofstream()
vfunc[1]:	basic_ofstream<wchar_t, char_traits<wchar_t> >::~basic_ofstream()

**Table 6-128 Secondary vtable for basic\_ofstream<wchar\_t, char\_traits<wchar\_t> >**

Base Offset	-144
Virtual Base Offset	-144
RTTI	typeinfo for basic_ofstream<wchar_t, char_traits<wchar_t> >

vfunc[0]:	virtual thunk to basic_ofstream<wchar_t, char_traits<wchar_t> >::~basic_ofstream()
vfunc[1]:	virtual thunk to basic_ofstream<wchar_t, char_traits<wchar_t> >::~basic_ofstream()

The VTT for the `std::basic_ofstream<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-129

**Table 6-129 VTT for `basic_ofstream<wchar_t, char_traits<wchar_t> >`**

VTT Name	<code>_ZTTSt14basic_ofstreamIwSt11char_traitsIwEE</code>
Number of Entries	4

### 6.1.81.2 Interfaces for Class `basic_ofstream<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_ofstream<wchar_t, std::char_traits<wchar_t> >` specified in Table 6-130, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-130 `libstdcxx` - Class `basic_ofstream<wchar_t, char_traits<wchar_t> >` Function Interfaces**

virtual thunk to <code>basic_ofstream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_ofstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]
virtual thunk to <code>basic_ofstream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~basic_ofstream()</code> (GLIBCXX_3.4) [CXXABI-1.86]

### 6.1.82 Class `basic_streambuf<char, char_traits<char> >`

#### 6.1.82.1 Class data for `basic_streambuf<char, char_traits<char> >`

The virtual table for the `std::basic_streambuf<char, std::char_traits<char> >` class is described by Table 6-131

**Table 6-131 Primary vtable for `basic_streambuf<char, char_traits<char> >`**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeinfo for basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;</code>
vfunc[0]:	<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::~basic_streambuf()</code>
vfunc[1]:	<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;</code>

	>::~~basic_streambuf()
vfunc[2]:	basic_streambuf<char, char_traits<char> >::imbue(locale const&)
vfunc[3]:	basic_streambuf<char, char_traits<char> >::setbuf(char*, int)
vfunc[4]:	basic_streambuf<char, char_traits<char> >::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)
vfunc[5]:	basic_streambuf<char, char_traits<char> >::seekpos(fpos<__mbstate_t>, _Ios_Openmode)
vfunc[6]:	basic_streambuf<char, char_traits<char> >::sync()
vfunc[7]:	basic_streambuf<char, char_traits<char> >::showmanyc()
vfunc[8]:	basic_streambuf<char, char_traits<char> >::xsgetn(char*, int)
vfunc[9]:	basic_streambuf<char, char_traits<char> >::underflow()
vfunc[10]:	basic_streambuf<char, char_traits<char> >::uflow()
vfunc[11]:	basic_streambuf<char, char_traits<char> >::pbackfail(int)
vfunc[12]:	basic_streambuf<char, char_traits<char> >::xsputn(char const*, int)
vfunc[13]:	basic_streambuf<char, char_traits<char> >::overflow(int)

The Run Time Type Information for the `std::basic_streambuf<char, std::char_traits<char> >` class is described by Table 6-132

**Table 6-132** typeinfo for `basic_streambuf<char, char_traits<char> >`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	typeinfo name for <code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;</code>

### 6.1.82.2 Interfaces for Class `basic_streambuf<char, char_traits<char> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_streambuf<char, std::char_traits<char> >` specified

in Table 6-133, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-133 libstdcxx - Class `basic_streambuf<char, char_traits<char> >` Function Interfaces**

<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::pubseekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::sgetn(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::sputn(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::setbuf(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::xsgetn(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::xspun(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;::pubsetbuf(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.83 Class `basic_streambuf<wchar_t, char_traits<wchar_t> >`

#### 6.1.83.1 Class data for `basic_streambuf<wchar_t, char_traits<wchar_t> >`

The virtual table for the `std::basic_streambuf<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-134

**Table 6-134 Primary vtable for `basic_streambuf<wchar_t, char_traits<wchar_t> >`**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeid for basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>
<code>vfunc[0]:</code>	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~basic_streambuf()</code>
<code>vfunc[1]:</code>	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~basic_streambuf()</code>
<code>vfunc[2]:</code>	<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::imbue(locale const&amp;)</code>



vfunc[3]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::setbuf(wchar_t*, int)
vfunc[4]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)
vfunc[5]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::seekpos(fpos<__mbstate_t>, _Ios_Openmode)
vfunc[6]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::sync()
vfunc[7]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::showmanyc()
vfunc[8]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::xsgetn(wchar_t*, int)
vfunc[9]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::underflow()
vfunc[10]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::uflow()
vfunc[11]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::pbackfail(unsigned int)
vfunc[12]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::xspn(wchar_t const*, int)
vfunc[13]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::overflow(unsigned int)

The Run Time Type Information for the `std::basic_streambuf<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-135

**Table 6-135** typeid for `basic_streambuf<wchar_t, char_traits<wchar_t> >`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	typeid name for <code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>

### 6.1.83.2 Interfaces for Class `basic_streambuf<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_streambuf<wchar_t, std::char_traits<wchar_t> >`

specified in Table 6-136, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-136 libstdc++ - Class `basic_streambuf<wchar_t, char_traits<wchar_t>>` > Function Interfaces**

<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::pubseekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::sgetn(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::sputn(wchar_t const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::setbuf(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::xsgetn(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::xspn(wchar_t const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;::pubsetbuf(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.84 Class `basic_filebuf<char, char_traits<char>>` >

#### 6.1.84.1 Class data for `basic_filebuf<char, char_traits<char>>` >

The virtual table for the `std::basic_filebuf<char, std::char_traits<char>>` class is described by Table 6-137

**Table 6-137 Primary vtable for `basic_filebuf<char, char_traits<char>>` >**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeinfo for basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;</code>
<code>vfunc[0]:</code>	<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::~~basic_filebuf()</code>
<code>vfunc[1]:</code>	<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::~~basic_filebuf()</code>
<code>vfunc[2]:</code>	<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::imbue(locale const&amp;)</code>
<code>vfunc[3]:</code>	<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::setbuf(char*, int)</code>
<code>vfunc[4]:</code>	<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)</code>

vfunc[5]:	basic_filebuf<char, char_traits<char>>::seekpos(fpos<__mbstate_t>, _Ios_Openmode)
vfunc[6]:	basic_filebuf<char, char_traits<char>>::sync()
vfunc[7]:	basic_filebuf<char, char_traits<char>>::showmanyc()
vfunc[8]:	basic_filebuf<char, char_traits<char>>::xsgetn(char*, int)
vfunc[9]:	basic_filebuf<char, char_traits<char>>::underflow()
vfunc[10]:	basic_streambuf<char, char_traits<char>>::uflow()
vfunc[11]:	basic_filebuf<char, char_traits<char>>::pbackfail(int)
vfunc[12]:	basic_filebuf<char, char_traits<char>>::xsputn(char const*, int)
vfunc[13]:	basic_filebuf<char, char_traits<char>>::overflow(int)

The Run Time Type Information for the `std::basic_filebuf<char, std::char_traits<char>>` class is described by Table 6-138

**Table 6-138** typeid for `basic_filebuf<char, char_traits<char>>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;</code>

### 6.1.84.2 Interfaces for Class `basic_filebuf<char, char_traits<char>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_filebuf<char, std::char_traits<char>>` specified in Table 6-139, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-139** `libstdc++` - Class `basic_filebuf<char, char_traits<char>>` Function Interfaces

<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::_M_set_buffer(int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::_M_convert_to_external(char*, int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::setbuf(char*, int)(GLIBCXX_3.4)</code> [ISOCXX]
<code>basic_filebuf&lt;char, char_traits&lt;char&gt;&gt;::xsgetn(char*, int)(GLIBCXX_3.4)</code> [ISOCXX]

<code>basic_filebuf&lt;char, char_traits&lt;char&gt; &gt;::xsputn(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;char, char_traits&lt;char&gt; &gt;::_M_seek(long long, _Ios_Seekdir, __mbstate_t)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;char, char_traits&lt;char&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.85 Class `basic_filebuf<wchar_t, char_traits<wchar_t> >`

#### 6.1.85.1 Class data for `basic_filebuf<wchar_t, char_traits<wchar_t> >`

The virtual table for the `std::basic_filebuf<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-140

**Table 6-140 Primary vtable for `basic_filebuf<wchar_t, char_traits<wchar_t> >`**

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for <code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>
<code>vfunc[0]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~basic_filebuf()</code>
<code>vfunc[1]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::~~basic_filebuf()</code>
<code>vfunc[2]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::imbue(locale const&amp;)</code>
<code>vfunc[3]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::setbuf(wchar_t*, int)</code>
<code>vfunc[4]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)</code>
<code>vfunc[5]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::seekpos(fpos&lt;__mbstate_t&gt;, _Ios_Openmode)</code>
<code>vfunc[6]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::sync()</code>
<code>vfunc[7]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::showmanyc()</code>
<code>vfunc[8]:</code>	<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>

	>::xsgetn(wchar_t*, int)
vfunc[9]:	basic_filebuf<wchar_t, char_traits<wchar_t> >::underflow()
vfunc[10]:	basic_streambuf<wchar_t, char_traits<wchar_t> >::uflow()
vfunc[11]:	basic_filebuf<wchar_t, char_traits<wchar_t> >::pbackfail(unsigned int)
vfunc[12]:	basic_filebuf<wchar_t, char_traits<wchar_t> >::xsputn(wchar_t const*, int)
vfunc[13]:	basic_filebuf<wchar_t, char_traits<wchar_t> >::overflow(unsigned int)

The Run Time Type Information for the `std::basic_filebuf<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-141

**Table 6-141 typeid for `basic_filebuf<wchar_t, char_traits<wchar_t> >`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;</code>

### 6.1.85.2 Interfaces for Class `basic_filebuf<wchar_t, char_traits<wchar_t> >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::basic_filebuf<wchar_t, std::char_traits<wchar_t> >` specified in Table 6-142, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-142 libstdc++ - Class `basic_filebuf<wchar_t, char_traits<wchar_t> >` Function Interfaces**

<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::_M_set_buffer(int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::_M_convert_to_external(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::setbuf(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::xsgetn(wchar_t*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::xsputn(wchar_t const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::_M_seek(long long, _Ios_Seekdir, __mbstate_t)(GLIBCXX_3.4) [ISOCXX]</code>

<code>basic_filebuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::seekoff(long long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_istream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::seekg(long long, _Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::seekp(long long, _Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</code>
<code>basic_ostream&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;::_M_write(wchar_t const*, int)(GLIBCXX_3.4) [ISOCXX]</code>

## 6.1.86 Class `ios_base`

### 6.1.86.1 Class data for `ios_base`

The virtual table for the `std::ios_base` class is described in the generic part of this specification.

The Run Time Type Information for the `std::ios_base` class is described by Table 6-143

**Table 6-143** `typeinfo` for `ios_base`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	<code>typeinfo</code> name for <code>ios_base</code>

### 6.1.86.2 Interfaces for Class `ios_base`

No external methods are defined for `libstdc++` - Class `std::ios_base` in this part of the specification. See also the generic specification.

## 6.1.87 Class `basic_ios<char, char_traits<char> >`

### 6.1.87.1 Class data for `basic_ios<char, char_traits<char> >`

The virtual table for the `std::basic_ios<char, std::char_traits<char> >` class is described in the generic part of this specification.

### 6.1.87.2 Interfaces for Class `basic_ios<char, char_traits<char> >`

No external methods are defined for `libstdc++` - Class `std::basic_ios<char, std::char_traits<char> >` in this part of the specification. See also the generic specification.

## 6.1.88 Class `basic_ios<wchar_t, char_traits<wchar_t> >`

### 6.1.88.1 Class data for `basic_ios<wchar_t, char_traits<wchar_t> >`

The virtual table for the `std::basic_ios<wchar_t, std::char_traits<wchar_t> >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::basic_ios<wchar_t, std::char_traits<wchar_t> >` class is described by Table 6-144

**Table 6-144** `typeinfo` for `basic_ios<wchar_t, char_traits<wchar_t> >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_t</code>
-------------	---

	ype_info	
Name	typeid name for basic_ios<wchar_t, char_traits<wchar_t> >	
flags:	8	
basetype:	typeid for ios_base	1026

### 6.1.88.2 Interfaces for Class `basic_ios<wchar_t, char_traits<wchar_t> >`

No external methods are defined for libstdc++ - Class `std::basic_ios<wchar_t, std::char_traits<wchar_t> >` in this part of the specification. See also the generic specification.

### 6.1.89 Class `ios_base::failure`

#### 6.1.89.1 Class data for `ios_base::failure`

The virtual table for the `std::ios_base::failure` class is described in the generic part of this specification.

The Run Time Type Information for the `std::ios_base::failure` class is described by Table 6-145

**Table 6-145 typeid for `ios_base::failure`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>ios_base::failure</code>

#### 6.1.89.2 Interfaces for Class `ios_base::failure`

No external methods are defined for libstdc++ - Class `std::ios_base::failure` in this part of the specification. See also the generic specification.

### 6.1.90 Class `__timepunct<char>`

#### 6.1.90.1 Class data for `__timepunct<char>`

The virtual table for the `std::__timepunct<char>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::__timepunct<char>` class is described by Table 6-146

**Table 6-146 typeid for `__timepunct<char>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>__timepunct&lt;char&gt;</code>

### 6.1.90.2 Interfaces for Class `__timepunct<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::__timepunct<char>` specified in Table 6-147, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-147 libstdcxx - Class `__timepunct<char>` Function Interfaces**

<code>__timepunct&lt;char&gt;::_M_put(char*, unsigned int, char const*, tm const*) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(__locale_struct*, char const*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(__timepunct_cache&lt;char&gt;*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(__locale_struct*, char const*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(__timepunct_cache&lt;char&gt;*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;char&gt;::__timepunct(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]

### 6.1.91 Class `__timepunct<wchar_t>`

#### 6.1.91.1 Class data for `__timepunct<wchar_t>`

The virtual table for the `std::__timepunct<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::__timepunct<wchar_t>` class is described by Table 6-148

**Table 6-148 typeid for `__timepunct<wchar_t>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>__timepunct&lt;wchar_t&gt;</code>

#### 6.1.91.2 Interfaces for Class `__timepunct<wchar_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::__timepunct<wchar_t>` specified in Table 6-149, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-149 libstdcxx - Class `__timepunct<wchar_t>` Function Interfaces**

<code>__timepunct&lt;wchar_t&gt;::_M_put(wchar_t*, unsigned int, wchar_t const*, tm const*) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;wchar_t&gt;::__timepunct(__locale_struct*, char const*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>__timepunct&lt;wchar_t&gt;::__timepunct(__timepunct_cache&lt;wchar_t&gt;*,</code>



unsigned int)(GLIBCXX_3.4) [ISOCXX]
__timepunct<wchar_t>::__timepunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]
__timepunct<wchar_t>::__timepunct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
__timepunct<wchar_t>::__timepunct(__timepunct_cache<wchar_t>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
__timepunct<wchar_t>::__timepunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]

## 6.1.92 Class messages\_base

### 6.1.92.1 Class data for messages\_base

The Run Time Type Information for the std::messages\_base class is described by Table 6-150

**Table 6-150 typeinfo for messages\_base**

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for messages_base

### 6.1.92.2 Interfaces for Class messages\_base

No external methods are defined for libstdc++ - Class std::messages\_base in this part of the specification. See also the generic specification.

## 6.1.93 Class messages<char>

### 6.1.93.1 Class data for messages<char>

The virtual table for the std::messages<char> class is described in the generic part of this specification.

### 6.1.93.2 Interfaces for Class messages<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::messages<char> specified in Table 6-151, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-151 libstdc++ - Class messages<char> Function Interfaces**

messages<char>::messages(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
messages<char>::messages(unsigned int)(GLIBCXX_3.4) [ISOCXX]
messages<char>::messages(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
messages<char>::messages(unsigned int)(GLIBCXX_3.4) [ISOCXX]

## 6.1.94 Class messages<wchar\_t>

### 6.1.94.1 Class data for messages<wchar\_t>

The virtual table for the std::messages<wchar\_t> class is described in the generic part of this specification.

### 6.1.94.2 Interfaces for Class `messages<wchar_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::messages<wchar_t>` specified in Table 6-152, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-152 libstdcxx - Class `messages<wchar_t>` Function Interfaces**

<code>messages&lt;wchar_t&gt;::messages(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>messages&lt;wchar_t&gt;::messages(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>messages&lt;wchar_t&gt;::messages(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>messages&lt;wchar_t&gt;::messages(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.95 Class `messages_byname<char>`

#### 6.1.95.1 Class data for `messages_byname<char>`

The virtual table for the `std::messages_byname<char>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::messages_byname<char>` class is described by Table 6-153

**Table 6-153 typeid for `messages_byname<char>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>messages_byname&lt;char&gt;</code>

#### 6.1.95.2 Interfaces for Class `messages_byname<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::messages_byname<char>` specified in Table 6-154, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-154 libstdcxx - Class `messages_byname<char>` Function Interfaces**

<code>messages_byname&lt;char&gt;::messages_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>messages_byname&lt;char&gt;::messages_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.96 Class `messages_byname<wchar_t>`

#### 6.1.96.1 Class data for `messages_byname<wchar_t>`

The virtual table for the `std::messages_byname<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::messages_byname<wchar_t>` class is described by Table 6-155

**Table 6-155 typeid for messages\_byname<wchar\_t>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for messages_byname<wchar_t>

**6.1.96.2 Interfaces for Class messages\_byname<wchar\_t>**

An LSB conforming implementation shall provide the architecture specific methods for Class std::messages\_byname<wchar\_t> specified in Table 6-156, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-156 libstdc++ - Class messages\_byname<wchar\_t> Function Interfaces**

messages_byname<wchar_t>::messages_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
messages_byname<wchar_t>::messages_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]

**6.1.97 Class numpunct<char>****6.1.97.1 Class data for numpunct<char>**

The virtual table for the std::numpunct<char> class is described in the generic part of this specification.

The Run Time Type Information for the std::numpunct<char> class is described by Table 6-157

**Table 6-157 typeid for numpunct<char>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for numpunct<char>

**6.1.97.2 Interfaces for Class numpunct<char>**

An LSB conforming implementation shall provide the architecture specific methods for Class std::numpunct<char> specified in Table 6-158, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-158 libstdc++ - Class numpunct<char> Function Interfaces**

numpunct<char>::numpunct(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
numpunct<char>::numpunct(__numpunct_cache<char>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
numpunct<char>::numpunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]
numpunct<char>::numpunct(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
numpunct<char>::numpunct(__numpunct_cache<char>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]

<code>numpunct&lt;char&gt;::numpunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

## 6.1.98 Class `numpunct<wchar_t>`

### 6.1.98.1 Class data for `numpunct<wchar_t>`

The virtual table for the `std::numpunct<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::numpunct<wchar_t>` class is described by Table 6-159

**Table 6-159 typeinfo for `numpunct<wchar_t>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>numpunct&lt;wchar_t&gt;</code>

### 6.1.98.2 Interfaces for Class `numpunct<wchar_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::numpunct<wchar_t>` specified in Table 6-160, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-160 `libstdcxx` - Class `numpunct<wchar_t>` Function Interfaces**

<code>numpunct&lt;wchar_t&gt;::numpunct(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>numpunct&lt;wchar_t&gt;::numpunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>numpunct&lt;wchar_t&gt;::numpunct(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>numpunct&lt;wchar_t&gt;::numpunct(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

## 6.1.99 Class `numpunct_byname<char>`

### 6.1.99.1 Class data for `numpunct_byname<char>`

The virtual table for the `std::numpunct_byname<char>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::numpunct_byname<char>` class is described by Table 6-161

**Table 6-161 typeinfo for `numpunct_byname<char>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>numpunct_byname&lt;char&gt;</code>

### 6.1.99.2 Interfaces for Class `numpunct_byname<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::numpunct_byname<char>` specified in Table 6-162, with

the full mandatory functionality as described in the referenced underlying specification.

**Table 6-162 libstdcxx - Class `numpunct_byname<char>` Function Interfaces**

<code>numpunct_byname&lt;char&gt;::numpunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>numpunct_byname&lt;char&gt;::numpunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.100 Class `numpunct_byname<wchar_t>`

#### 6.1.100.1 Class data for `numpunct_byname<wchar_t>`

The virtual table for the `std::numpunct_byname<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::numpunct_byname<wchar_t>` class is described by Table 6-163

**Table 6-163 `typeinfo` for `numpunct_byname<wchar_t>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>numpunct_byname&lt;wchar_t&gt;</code>

#### 6.1.100.2 Interfaces for Class `numpunct_byname<wchar_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::numpunct_byname<wchar_t>` specified in Table 6-164, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-164 libstdcxx - Class `numpunct_byname<wchar_t>` Function Interfaces**

<code>numpunct_byname&lt;wchar_t&gt;::numpunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>numpunct_byname&lt;wchar_t&gt;::numpunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.101 Class `__codecvt_abstract_base<wchar_t, char, __mbstate_t>`

#### 6.1.101.1 Class data for `__codecvt_abstract_base<wchar_t, char, __mbstate_t>`

The virtual table for the `std::__codecvt_abstract_base<wchar_t, char, __mbstate_t>` class is described in the generic part of this specification.

#### 6.1.101.2 Interfaces for Class `__codecvt_abstract_base<wchar_t, char, __mbstate_t>`

No external methods are defined for `libstdcxx` - Class `std::__codecvt_abstract_base<wchar_t, char, __mbstate_t>` in this part of the specification. See also the generic specification.

## 6.1.102 Class `codecvt_base`

### 6.1.102.1 Class data for `codecvt_base`

The Run Time Type Information for the `std::codecvt_base` class is described by Table 6-165

**Table 6-165** `typeinfo` for `codecvt_base`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	<code>typeinfo</code> name for <code>codecvt_base</code>

### 6.1.102.2 Interfaces for Class `codecvt_base`

No external methods are defined for `libstdc++` - Class `std::codecvt_base` in this part of the specification. See also the generic specification.

## 6.1.103 Class `codecvt<char, char, __mbstate_t>`

### 6.1.103.1 Class data for `codecvt<char, char, __mbstate_t>`

The virtual table for the `std::codecvt<char, char, __mbstate_t>` class is described by Table 6-166

**Table 6-166** Primary vtable for `codecvt<char, char, __mbstate_t>`

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeinfo</code> for <code>codecvt&lt;char, char, __mbstate_t&gt;</code>
<code>vfunc[0]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::~~codecvt()</code>
<code>vfunc[1]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::~~codecvt()</code>
<code>vfunc[2]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_out(__mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[3]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_unshift(__mbstate_t&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[4]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_in(__mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[5]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_encoding() const</code>
<code>vfunc[6]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_always_noconv() const</code>

vfunc[7]:	codecvt<char, char, __mbstate_t>::do_length(__mbstate_t &, char const*, char const*, unsigned int) const
vfunc[8]:	codecvt<char, char, __mbstate_t>::do_max_length() const

The Run Time Type Information for the `std::codecvt<char, char, __mbstate_t>` class is described by Table 6-167

**Table 6-167 typeid for `codecvt<char, char, __mbstate_t>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>codecvt&lt;char, char, __mbstate_t&gt;</code>

### 6.1.103.2 Class data for `__codecvt_abstract_base<char, char, __mbstate_t>`

The virtual table for the `std::__codecvt_abstract_base<char, char, __mbstate_t>` class is described in the generic part of this specification.

### 6.1.103.3 Interfaces for Class `codecvt<char, char, __mbstate_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::codecvt<char, char, __mbstate_t>` specified in Table 6-168, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-168 libstdc++ - Class `codecvt<char, char, __mbstate_t>` Function Interfaces**

<code>codecvt&lt;char, char, __mbstate_t&gt;::do_length(__mbstate_t&amp;, char const*, char const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;char, char, __mbstate_t&gt;::codecvt(__locale_struct*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;char, char, __mbstate_t&gt;::codecvt(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;char, char, __mbstate_t&gt;::codecvt(__locale_struct*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;char, char, __mbstate_t&gt;::codecvt(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]

### 6.1.104 Class `codecvt<wchar_t, char, __mbstate_t>`

#### 6.1.104.1 Class data for `codecvt<wchar_t, char, __mbstate_t>`

The virtual table for the `std::codecvt<wchar_t, char, __mbstate_t>` class is described by Table 6-169

**Table 6-169 Primary vtable for `codecvt<wchar_t, char, __mbstate_t>`**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeinfo for codecvt&lt;wchar_t, char, __mbstate_t&gt;</code>
<code>vfunc[0]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::~~codecvt()</code>
<code>vfunc[1]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::~~codecvt()</code>
<code>vfunc[2]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_out(__mbstate_t&amp;, wchar_t const*, wchar_t const*, wchar_t const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[3]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_unshift(__mbstate_t&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[4]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_in(__mbstate_t&amp;, char const*, char const*, char const*&amp;, wchar_t*, wchar_t*, wchar_t*&amp;) const</code>
<code>vfunc[5]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_encoding() const</code>
<code>vfunc[6]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_always_noconv() const</code>
<code>vfunc[7]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_length(__mbstate_t&amp;, char const*, char const*, unsigned int) const</code>
<code>vfunc[8]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_max_length() const</code>

The Run Time Type Information for the `std::codecvt<wchar_t, char, __mbstate_t>` class is described by Table 6-170

**Table 6-170 `typeinfo` for `codecvt<wchar_t, char, __mbstate_t>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>codecvt&lt;wchar_t, char, __mbstate_t&gt;</code>

#### 6.1.104.2 Interfaces for Class `codecvt<wchar_t, char, __mbstate_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::codecvt<wchar_t, char, __mbstate_t>` specified in Table



6-171, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-171 libstdcxx - Class `codecvt<wchar_t, char, __mbstate_t>` Function Interfaces**

<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_length(__mbstate_t&amp;, char const*, char const*, unsigned int) const</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::codecvt(__locale_struct*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::codecvt(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::codecvt(__locale_struct*, unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]
<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::codecvt(unsigned int)</code> (GLIBCXX_3.4) [ISOCXX]

### 6.1.105 Class `codecvt_byname<char, char, __mbstate_t>`

#### 6.1.105.1 Class data for `codecvt_byname<char, char, __mbstate_t>`

The virtual table for the `std::codecvt_byname<char, char, __mbstate_t>` class is described by Table 6-172

**Table 6-172 Primary vtable for `codecvt_byname<char, char, __mbstate_t>`**

Base Offset	0
Virtual Base Offset	0
RTTI	<code>typeinfo for codecvt_byname&lt;char, char, __mbstate_t&gt;</code>
<code>vfunc[0]:</code>	<code>codecvt_byname&lt;char, char, __mbstate_t&gt;::~~codecvt_byname()</code>
<code>vfunc[1]:</code>	<code>codecvt_byname&lt;char, char, __mbstate_t&gt;::~~codecvt_byname()</code>
<code>vfunc[2]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_out(__mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[3]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_unshift(__mbstate_t&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[4]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_in(__mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[5]:</code>	<code>codecvt&lt;char, char, __mbstate_t&gt;::do_encoding() const</code>
<code>vfunc[6]:</code>	<code>codecvt&lt;char, char,</code>

	<code>__mbstate_t::do_always_noconv()</code> const
<code>vfunc[7]:</code>	<code>codecvt&lt;char, char,</code> <code>__mbstate_t::do_length(__mbstate_t</code> <code>&amp;, char const*, char const*, unsigned</code> <code>int) const</code>
<code>vfunc[8]:</code>	<code>codecvt&lt;char, char,</code> <code>__mbstate_t::do_max_length() const</code>

The Run Time Type Information for the `std::codecvt_byname<char, char, __mbstate_t>` class is described by Table 6-173

**Table 6-173** typeid for `codecvt_byname<char, char, __mbstate_t>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>codecvt_byname&lt;char, char,</code> <code>__mbstate_t&gt;</code>

### 6.1.105.2 Interfaces for Class `codecvt_byname<char, char, __mbstate_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::codecvt_byname<char, char, __mbstate_t>` specified in Table 6-174, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-174** `libstdcxx` - Class `codecvt_byname<char, char, __mbstate_t>` Function Interfaces

<code>codecvt_byname&lt;char, char, __mbstate_t::codecvt_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>codecvt_byname&lt;char, char, __mbstate_t::codecvt_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.106 Class `codecvt_byname<wchar_t, char, __mbstate_t>`

#### 6.1.106.1 Class data for `codecvt_byname<wchar_t, char, __mbstate_t>`

The virtual table for the `std::codecvt_byname<wchar_t, char, __mbstate_t>` class is described by Table 6-175

**Table 6-175** Primary vtable for `codecvt_byname<wchar_t, char, __mbstate_t>`

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for <code>codecvt_byname&lt;wchar_t, char,</code> <code>__mbstate_t&gt;</code>
<code>vfunc[0]:</code>	<code>codecvt_byname&lt;wchar_t, char,</code>

	<code>__mbstate_t::~~codecvt_byname()</code>
<code>vfunc[1]:</code>	<code>codecvt_byname&lt;wchar_t, char, __mbstate_t&gt;::~~codecvt_byname()</code>
<code>vfunc[2]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_out(__mbstate_t&amp;, wchar_t const*, wchar_t const*, wchar_t const*&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[3]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_unshift(__mbstate_t&amp;, char*, char*, char*&amp;) const</code>
<code>vfunc[4]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_in(__mbstate_t&amp;, char const*, char const*, char const*&amp;, wchar_t*, wchar_t*, wchar_t*&amp;) const</code>
<code>vfunc[5]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_encoding() const</code>
<code>vfunc[6]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_always_noconv() const</code>
<code>vfunc[7]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_length(__mbstate_t&amp;, char const*, char const*, unsigned int) const</code>
<code>vfunc[8]:</code>	<code>codecvt&lt;wchar_t, char, __mbstate_t&gt;::do_max_length() const</code>

The Run Time Type Information for the `std::codecvt_byname<wchar_t, char, __mbstate_t>` class is described by Table 6-176

**Table 6-176** `typeinfo` for `codecvt_byname<wchar_t, char, __mbstate_t>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>codecvt_byname&lt;wchar_t, char, __mbstate_t&gt;</code>

### 6.1.106.2 Class data for `collate_byname<wchar_t>`

The virtual table for the `std::collate_byname<wchar_t>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::collate_byname<wchar_t>` class is described by Table 6-177

**Table 6-177** `typeinfo` for `collate_byname<wchar_t>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
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Name	typeinfo name for collate_byname<wchar_t>
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### 6.1.106.3 Interfaces for Class `codecvt_byname<wchar_t, char, __mbstate_t>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::codecvt_byname<wchar_t, char, __mbstate_t>` specified in Table 6-178, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-178 libstdcxx - Class `codecvt_byname<wchar_t, char, __mbstate_t>` Function Interfaces**

<code>codecvt_byname&lt;wchar_t, char, __mbstate_t&gt;::codecvt_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>codecvt_byname&lt;wchar_t, char, __mbstate_t&gt;::codecvt_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate_byname&lt;wchar_t&gt;::collate_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate_byname&lt;wchar_t&gt;::collate_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.107 Class `collate<char>`

#### 6.1.107.1 Class data for `collate<char>`

The virtual table for the `std::collate<char>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::collate<char>` class is described by Table 6-179

**Table 6-179 typeinfo for `collate<char>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>collate&lt;char&gt;</code>

#### 6.1.107.2 Interfaces for Class `collate<char>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::collate<char>` specified in Table 6-180, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-180 libstdcxx - Class `collate<char>` Function Interfaces**

<code>collate&lt;char&gt;::_M_transform(char*, char const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate&lt;char&gt;::collate(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate&lt;char&gt;::collate(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate&lt;char&gt;::collate(__locale_struct*, unsigned int)(GLIBCXX_3.4)</code>

[ISOCXX]
collate<char>::collate(unsigned int)(GLIBCXX_3.4) [ISOCXX]

## 6.1.108 Class collate<wchar\_t>

### 6.1.108.1 Class data for collate<wchar\_t>

The virtual table for the std::collate<wchar\_t> class is described in the generic part of this specification.

The Run Time Type Information for the std::collate<wchar\_t> class is described by Table 6-181

**Table 6-181 typeinfo for collate<wchar\_t>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for collate<wchar_t>

### 6.1.108.2 Interfaces for Class collate<wchar\_t>

An LSB conforming implementation shall provide the architecture specific methods for Class std::collate<wchar\_t> specified in Table 6-182, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-182 libstdcxx - Class collate<wchar\_t> Function Interfaces**

collate<wchar_t>::_M_transform(wchar_t*, wchar_t const*, unsigned int) const(GLIBCXX_3.4) [ISOCXX]
collate<wchar_t>::collate(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
collate<wchar_t>::collate(unsigned int)(GLIBCXX_3.4) [ISOCXX]
collate<wchar_t>::collate(__locale_struct*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
collate<wchar_t>::collate(unsigned int)(GLIBCXX_3.4) [ISOCXX]

## 6.1.109 Class collate\_byname<char>

### 6.1.109.1 Class data for collate\_byname<char>

The virtual table for the std::collate\_byname<char> class is described in the generic part of this specification.

The Run Time Type Information for the std::collate\_byname<char> class is described by Table 6-183

**Table 6-183 typeinfo for collate\_byname<char>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for collate_byname<char>

**6.1.109.2 Interfaces for Class `collate_byname<char>`**

An LSB conforming implementation shall provide the architecture specific methods for Class `std::collate_byname<char>` specified in Table 6-184, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-184 `libstdcxx` - Class `collate_byname<char>` Function Interfaces**

<code>collate_byname&lt;char&gt;::collate_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>collate_byname&lt;char&gt;::collate_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

**6.1.110 Class `time_base`****6.1.110.1 Class data for `time_base`**

The Run Time Type Information for the `std::time_base` class is described by Table 6-185

**Table 6-185 `typeinfo` for `time_base`**

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	<code>typeinfo</code> name for <code>time_base</code>

**6.1.110.2 Interfaces for Class `time_base`**

No external methods are defined for `libstdcxx` - Class `std::time_base` in this part of the specification. See also the generic specification.

**6.1.111 Class `time_get_byname<char, istreambuf_iterator<char, char_traits<char>>>`****6.1.111.1 Class data for `time_get_byname<char, istreambuf_iterator<char, char_traits<char>>>`**

The virtual table for the `std::time_get_byname<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_get_byname<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described by Table 6-186

**Table 6-186 `typeinfo` for `time_get_byname<char, istreambuf_iterator<char, char_traits<char>>>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>time_get_byname&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code>

### 6.1.111.2 Interfaces for Class `time_get_byname<char, istreambuf_iterator<char, char_traits<char>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_get_byname<char, std::istreambuf_iterator<char, std::char_traits<char>>>` specified in Table 6-187, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-187 libstdcxx - Class `time_get_byname<char, istreambuf_iterator<char, char_traits<char>>>` Function Interfaces**

<code>time_get_byname&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code> <code>&gt;::time_get_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_get_byname&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code> <code>&gt;::time_get_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.112 Class `time_get_byname<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

#### 6.1.112.1 Class data for `time_get_byname<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

The virtual table for the `std::time_get_byname<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_get_byname<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` class is described by Table 6-188

**Table 6-188 typeid for `time_get_byname<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>time_get_byname&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;</code>

### 6.1.112.2 Interfaces for Class `time_get_byname<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_get_byname<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` specified in Table 6-189, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-189 libstdcxx - Class `time_get_byname<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>` Function Interfaces**

<code>time_get_byname&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;</code> <code>&gt;::time_get_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_get_byname&lt;wchar_t, istreambuf_iterator&lt;wchar_t,</code>

<code>char_traits&lt;wchar_t&gt; &gt; &gt;::time_get_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

### 6.1.113 Class `time_put_byname<char, ostreambuf_iterator<char, char_traits<char> > >`

#### 6.1.113.1 Class data for `time_put_byname<char, ostreambuf_iterator<char, char_traits<char> > >`

The virtual table for the `std::time_put_byname<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_put_byname<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described by Table 6-190

**Table 6-190** `typeinfo` for `time_put_byname<char, ostreambuf_iterator<char, char_traits<char> > >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>time_put_byname&lt;char, ostreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt;</code>

#### 6.1.113.2 Interfaces for Class `time_put_byname<char, ostreambuf_iterator<char, char_traits<char> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_put_byname<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` specified in Table 6-191, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-191** `libstdcxx` - Class `time_put_byname<char, ostreambuf_iterator<char, char_traits<char> > >` Function Interfaces

<code>time_put_byname&lt;char, ostreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt;::time_put_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_put_byname&lt;char, ostreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt;::time_put_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.114 Class `time_put_byname<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

#### 6.1.114.1 Class data for `time_put_byname<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

The virtual table for the `std::time_put_byname<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_put_byname<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described by Table 6-192



**Table 6-192** `typeinfo` for `time_put_byname<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>time_put_byname&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;</code>

### 6.1.114.2 Interfaces for Class `time_put_byname<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_put_byname<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` specified in Table 6-193, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-193** `libstdcxx` - Class `time_put_byname<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>` Function Interfaces

<code>time_put_byname&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;::time_put_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_put_byname&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;::time_put_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.115 Class `time_get<char, istreambuf_iterator<char, char_traits<char>>>`

#### 6.1.115.1 Class data for `time_get<char, istreambuf_iterator<char, char_traits<char>>>`

The virtual table for the `std::time_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described in the generic part of this specification.

#### 6.1.115.2 Interfaces for Class `time_get<char, istreambuf_iterator<char, char_traits<char>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` specified in Table 6-194, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-194** `libstdcxx` - Class `time_get<char, istreambuf_iterator<char, char_traits<char>>>` Function Interfaces

<code>time_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;::M_extract_num(istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;, int&amp;, int, int, unsigned int, ios_base&amp;, _Ios_Iostate&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code>

<code>&gt;::M_extract_name(istreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt;, istreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt;, int&amp;, char const**, unsigned int, ios_base&amp;, _Ios_Iostate&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
---

<code>time_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt; &gt;::time_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
--

<code>time_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt; &gt;::time_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
--

### 6.1.116 Class `time_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

#### 6.1.116.1 Class data for `time_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

The virtual table for the `std::time_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described in the generic part of this specification.

#### 6.1.116.2 Interfaces for Class `time_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` specified in Table 6-195, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-195 libstdcxx - Class `time_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >` Function Interfaces**

<code>time_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::M_extract_num(istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;, int&amp;, int, int, unsigned int, ios_base&amp;, _Ios_Iostate&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
--

<code>time_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::M_extract_name(istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;, int&amp;, wchar_t const**, unsigned int, ios_base&amp;, _Ios_Iostate&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
--

<code>time_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::time_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

<code>time_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::time_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

### 6.1.117 Class `time_put<char, ostreambuf_iterator<char, char_traits<char> > >`

#### 6.1.117.1 Class data for `time_put<char, ostreambuf_iterator<char, char_traits<char> > >`

The virtual table for the `std::time_put<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_put<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described by Table 6-196

**Table 6-196** typeinfo for `time_put<char, ostreambuf_iterator<char, char_traits<char> > >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_t</code> <code>type_info</code>	
Name	typeinfo name for <code>time_put&lt;char,</code> <code>ostreambuf_iterator&lt;ch</code> <code>ar, char_traits&lt;char&gt; &gt;</code> <code>&gt;</code>	
flags:	8	
basetype:	typeinfo for <code>locale::facet</code>	2
basetype:	typeinfo for <code>time_base</code>	2

### 6.1.117.2 Interfaces for Class `time_put<char, ostreambuf_iterator<char, char_traits<char> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_put<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` specified in Table 6-197, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-197** `libstdcxx` - Class `time_put<char, ostreambuf_iterator<char, char_traits<char> > >` Function Interfaces

<code>time_put&lt;char, ostreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt;</code> <code>&gt;::time_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_put&lt;char, ostreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt;</code> <code>&gt;::time_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.118 Class `time_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

#### 6.1.118.1 Class data for `time_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

The virtual table for the `std::time_put<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::time_put<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described by Table 6-198

**Table 6-198** typeinfo for `time_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_t</code>	
-------------	---	--

	ype_info	
Name	typeinfo name for time_put<wchar_t, ostreambuf_iterator<wc har_t, char_traits<wchar_t> > >	
flags:	8	
basetype:	typeinfo for locale::facet	2
basetype:	typeinfo for time_base	2

### 6.1.118.2 Interfaces for Class `time_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::time_put<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` specified in Table 6-199, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-199 libstdcxx - Class `time_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >` Function Interfaces**

<code>time_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::time_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>time_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::time_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.119 Class `money_punct<char, false>`

#### 6.1.119.1 Class data for `money_punct<char, false>`

The virtual table for the `std::money_punct<char, false>` class is described in the generic part of this specification.

#### 6.1.119.2 Interfaces for Class `money_punct<char, false>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::money_punct<char, false>` specified in Table 6-200, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-200 libstdcxx - Class `money_punct<char, false>` Function Interfaces**

<code>money_punct&lt;char, false&gt;::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>money_punct&lt;char, false&gt;::money_punct(__money_punct_cache&lt;char, false&gt;*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>money_punct&lt;char, false&gt;::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>money_punct&lt;char, false&gt;::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>money_punct&lt;char, false&gt;::money_punct(__money_punct_cache&lt;char, false&gt;*,</code>

unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, false>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.120 Class money\_punct<char, true>

#### 6.1.120.1 Class data for money\_punct<char, true>

The virtual table for the std::money\_punct<char, true> class is described in the generic part of this specification.

#### 6.1.120.2 Interfaces for Class money\_punct<char, true>

An LSB conforming implementation shall provide the architecture specific methods for Class std::money\_punct<char, true> specified in Table 6-201, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-201 libstdc++ - Class money\_punct<char, true> Function Interfaces**

money_punct<char, true>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, true>::money_punct(__money_punct_cache<char, true>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, true>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, true>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, true>::money_punct(__money_punct_cache<char, true>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<char, true>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.121 Class money\_punct<wchar\_t, false>

#### 6.1.121.1 Class data for money\_punct<wchar\_t, false>

The virtual table for the std::money\_punct<wchar\_t, false> class is described in the generic part of this specification.

#### 6.1.121.2 Interfaces for Class money\_punct<wchar\_t, false>

An LSB conforming implementation shall provide the architecture specific methods for Class std::money\_punct<wchar\_t, false> specified in Table 6-202, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-202 libstdc++ - Class money\_punct<wchar\_t, false> Function Interfaces**

money_punct<wchar_t, false>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, false>::money_punct(__money_punct_cache<wchar_t, false>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]

money_punct<wchar_t, false>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, false>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, false>::money_punct(__money_punct_cache<wchar_t, false>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, false>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.122 Class money\_punct<wchar\_t, true>

#### 6.1.122.1 Class data for money\_punct<wchar\_t, true>

The virtual table for the `std::money_punct<wchar_t, true>` class is described in the generic part of this specification.

#### 6.1.122.2 Interfaces for Class money\_punct<wchar\_t, true>

An LSB conforming implementation shall provide the architecture specific methods for Class `std::money_punct<wchar_t, true>` specified in Table 6-203, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-203 libstdc++ - Class money\_punct<wchar\_t, true> Function Interfaces**

money_punct<wchar_t, true>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, true>::money_punct(__money_punct_cache<wchar_t, true>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, true>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, true>::money_punct(__locale_struct*, char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, true>::money_punct(__money_punct_cache<wchar_t, true>*, unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_punct<wchar_t, true>::money_punct(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.123 Class money\_punct\_byname<char, false>

#### 6.1.123.1 Class data for money\_punct\_byname<char, false>

The virtual table for the `std::money_punct_byname<char, false>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::money_punct_byname<char, false>` class is described by Table 6-204

**Table 6-204 typeid for money\_punct\_byname<char, false>**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
-------------	---

Name	typeinfo name for moneypunct_byname<char, false>
------	---

### 6.1.123.2 Interfaces for Class `moneypunct_byname<char, false>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::moneypunct_byname<char, false>` specified in Table 6-205, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-205 libstdcxx - Class `moneypunct_byname<char, false>` Function Interfaces**

<code>moneypunct_byname&lt;char, false&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>moneypunct_byname&lt;char, false&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.124 Class `moneypunct_byname<char, true>`

#### 6.1.124.1 Class data for `moneypunct_byname<char, true>`

The virtual table for the `std::moneypunct_byname<char, true>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::moneypunct_byname<char, true>` class is described by Table 6-206

**Table 6-206 typeinfo for `moneypunct_byname<char, true>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>moneypunct_byname&lt;char, true&gt;</code>

#### 6.1.124.2 Interfaces for Class `moneypunct_byname<char, true>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::moneypunct_byname<char, true>` specified in Table 6-207, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-207 libstdcxx - Class `moneypunct_byname<char, true>` Function Interfaces**

<code>moneypunct_byname&lt;char, true&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>moneypunct_byname&lt;char, true&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.125 Class `moneypunct_byname<wchar_t, false>`

#### 6.1.125.1 Class data for `moneypunct_byname<wchar_t, false>`

The virtual table for the `std::moneypunct_byname<wchar_t, false>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::moneypunct_byname<wchar_t, false>` class is described by Table 6-208

**Table 6-208 typeid for `moneypunct_byname<wchar_t, false>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>moneypunct_byname&lt;wchar_t, false&gt;</code>

### 6.1.125.2 Interfaces for Class `moneypunct_byname<wchar_t, false>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::moneypunct_byname<wchar_t, false>` specified in Table 6-209, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-209 libstdc++ - Class `moneypunct_byname<wchar_t, false>` Function Interfaces**

<code>moneypunct_byname&lt;wchar_t, false&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>moneypunct_byname&lt;wchar_t, false&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.126 Class `moneypunct_byname<wchar_t, true>`

#### 6.1.126.1 Class data for `moneypunct_byname<wchar_t, true>`

The virtual table for the `std::moneypunct_byname<wchar_t, true>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::moneypunct_byname<wchar_t, true>` class is described by Table 6-210

**Table 6-210 typeid for `moneypunct_byname<wchar_t, true>`**

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeid name for <code>moneypunct_byname&lt;wchar_t, true&gt;</code>

#### 6.1.126.2 Interfaces for Class `moneypunct_byname<wchar_t, true>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::moneypunct_byname<wchar_t, true>` specified in Table 6-211, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-211 libstdc++ - Class `moneypunct_byname<wchar_t, true>` Function Interfaces**

<code>moneypunct_byname&lt;wchar_t, true&gt;::moneypunct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---



<code>money_punct_byname&lt;wchar_t, true&gt;::money_punct_byname(char const*, unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

### 6.1.127 Class `money_base`

#### 6.1.127.1 Class data for `money_base`

The Run Time Type Information for the `std::money_base` class is described by Table 6-212

Table 6-212 `typeinfo` for `money_base`

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	<code>typeinfo</code> name for <code>money_base</code>

#### 6.1.127.2 Interfaces for Class `money_base`

No external methods are defined for `libstdcxx` - Class `std::money_base` in this part of the specification. See also the generic specification.

### 6.1.128 Class `money_get<char, istreambuf_iterator<char, char_traits<char>>>`

#### 6.1.128.1 Class data for `money_get<char, istreambuf_iterator<char, char_traits<char>>>`

The virtual table for the `std::money_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::money_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described by Table 6-213

Table 6-213 `typeinfo` for `money_get<char, istreambuf_iterator<char, char_traits<char>>>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>money_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code>

#### 6.1.128.2 Interfaces for Class `money_get<char, istreambuf_iterator<char, char_traits<char>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::money_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` specified in Table 6-214, with the full mandatory functionality as described in the referenced underlying specification.

Table 6-214 `libstdcxx` - Class `money_get<char, istreambuf_iterator<char, char_traits<char>>>` Function Interfaces

<code>money_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;::money_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
---

<pre>money_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt; &gt; &gt; &gt;::money_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
--

### 6.1.129 Class `money_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

#### 6.1.129.1 Class data for `money_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

The virtual table for the `std::money_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::money_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` class is described by Table 6-215

**Table 6-215** typeinfo for `money_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>money_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;</code>

#### 6.1.129.2 Interfaces for Class `money_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::money_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` specified in Table 6-216, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-216** `libstdcxx` - Class `money_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t> > >` Function Interfaces

<pre>money_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::money_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>
<pre>money_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt; &gt;::money_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</pre>

### 6.1.130 Class `money_put<char, ostreambuf_iterator<char, char_traits<char> > >`

#### 6.1.130.1 Class data for `money_put<char, ostreambuf_iterator<char, char_traits<char> > >`

The virtual table for the `std::money_put<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described in the generic part of this specification.

The Run Time Type Information for the `std::money_put<char, std::ostreambuf_iterator<char, std::char_traits<char> > >` class is described by Table 6-217

**Table 6-217 typeinfo for money\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for money_put<char, ostreambuf_iterator<char, char_traits<char>>>

**6.1.130.2 Interfaces for Class money\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>**

An LSB conforming implementation shall provide the architecture specific methods for Class std::money\_put<char, std::ostreambuf\_iterator<char, std::char\_traits<char>>> specified in Table 6-218, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-218 libstdcxx - Class money\_put<char, ostreambuf\_iterator<char, char\_traits<char>>> Function Interfaces**

money_put<char, ostreambuf_iterator<char, char_traits<char>>> >::money_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_put<char, ostreambuf_iterator<char, char_traits<char>>> >::money_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]

**6.1.131 Class money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>****6.1.131.1 Class data for money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>**

The virtual table for the std::money\_put<wchar\_t, std::ostreambuf\_iterator<wchar\_t, std::char\_traits<wchar\_t>>> class is described in the generic part of this specification.

The Run Time Type Information for the std::money\_put<wchar\_t, std::ostreambuf\_iterator<wchar\_t, std::char\_traits<wchar\_t>>> class is described by Table 6-219

**Table 6-219 typeinfo for money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for money_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>

**6.1.131.2 Interfaces for Class money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>**

An LSB conforming implementation shall provide the architecture specific methods for Class std::money\_put<wchar\_t, std::ostreambuf\_iterator<wchar\_t, std::char\_traits<wchar\_t>>> specified in Table 6-220, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-220 libstdcxx - Class money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces**

money_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>::money_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]
money_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t>>>::money_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.132 Class locale

#### 6.1.132.1 Interfaces for Class locale

An LSB conforming implementation shall provide the architecture specific methods for Class std::locale specified in Table 6-221, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-221 libstdcxx - Class locale Function Interfaces**

locale::_Impl::_Impl(char const*, unsigned int)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(locale::_Impl const&, unsigned int)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(unsigned int)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(char const*, unsigned int)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(locale::_Impl const&, unsigned int)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(unsigned int)(GLIBCXX_3.4) [LSB]

### 6.1.133 Class locale::facet

#### 6.1.133.1 Class data for locale::facet

The virtual table for the std::locale::facet class is described in the generic part of this specification.

The Run Time Type Information for the std::locale::facet class is described by Table 6-222

**Table 6-222 typeid for locale::facet**

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for locale::facet

#### 6.1.133.2 Interfaces for Class locale::facet

No external methods are defined for libstdcxx - Class std::locale::facet in this part of the specification. See also the generic specification.

### 6.1.134 facet functions

#### 6.1.134.1 Interfaces for facet functions

No external methods are defined for libstdcxx - facet functions in this part of the specification. See also the generic specification.

### 6.1.135 Class `__num_base`

#### 6.1.135.1 Class data for `__num_base`

#### 6.1.135.2 Interfaces for Class `__num_base`

No external methods are defined for `libstdcxx` - Class `std::__num_base` in this part of the specification. See also the generic specification.

### 6.1.136 Class `num_get<char, istreambuf_iterator<char, char_traits<char>>>`

#### 6.1.136.1 Class data for `num_get<char, istreambuf_iterator<char, char_traits<char>>>`

The virtual table for the `std::num_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::num_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` class is described by Table 6-223

**Table 6-223** `typeinfo` for `num_get<char, istreambuf_iterator<char, char_traits<char>>>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	<code>typeinfo</code> name for <code>num_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code>
basetype:	<code>typeinfo</code> for <code>locale::facet</code>

#### 6.1.136.2 Interfaces for Class `num_get<char, istreambuf_iterator<char, char_traits<char>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::num_get<char, std::istreambuf_iterator<char, std::char_traits<char>>>` specified in Table 6-224, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-224** `libstdcxx` - Class `num_get<char, istreambuf_iterator<char, char_traits<char>>>` Function Interfaces

<code>num_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code> <code>&gt;::num_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_get&lt;char, istreambuf_iterator&lt;char, char_traits&lt;char&gt;&gt;&gt;</code> <code>&gt;::num_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.137 Class `num_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

#### 6.1.137.1 Class data for `num_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

The virtual table for the `std::num_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::num_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` class is described by Table 6-225

**Table 6-225** `typeinfo` for `num_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>num_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;</code>
basetype:	typeinfo for <code>locale::facet</code>

#### 6.1.137.2 Interfaces for Class `num_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::num_get<wchar_t, std::istreambuf_iterator<wchar_t, std::char_traits<wchar_t>>>` specified in Table 6-226, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-226** `libstdcxx` - Class `num_get<wchar_t, istreambuf_iterator<wchar_t, char_traits<wchar_t>>>` Function Interfaces

<code>num_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;::num_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_get&lt;wchar_t, istreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt;&gt;&gt;::num_get(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.138 Class `num_put<char, ostreambuf_iterator<char, char_traits<char>>>`

#### 6.1.138.1 Class data for `num_put<char, ostreambuf_iterator<char, char_traits<char>>>`

The virtual table for the `std::num_put<char, std::ostreambuf_iterator<char, std::char_traits<char>>>` class is described in the generic part of this specification.

The Run Time Type Information for the `std::num_put<char, std::ostreambuf_iterator<char, std::char_traits<char>>>` class is described by Table 6-227

**Table 6-227 typeinfo for num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>**

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for num_put<char, ostreambuf_iterator<char, char_traits<char>>>
basetype:	typeinfo for locale::facet

### 6.1.138.2 Interfaces for Class num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>

An LSB conforming implementation shall provide the architecture specific methods for Class std::num\_put<char, std::ostreambuf\_iterator<char, std::char\_traits<char>>> specified in Table 6-228, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-228 libstdc++ - Class num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>> Function Interfaces**

num_put<char, ostreambuf_iterator<char, char_traits<char>>> >::M_group_int(char const*, unsigned int, char, ios_base&, char*, char*, int&) const(GLIBCXX_3.4) [ISOCXX]
num_put<char, ostreambuf_iterator<char, char_traits<char>>> >::M_group_float(char const*, unsigned int, char, char const*, char*, char*, int&) const(GLIBCXX_3.4) [ISOCXX]
num_put<char, ostreambuf_iterator<char, char_traits<char>>> >::M_pad(char, int, ios_base&, char*, char const*, int&) const(GLIBCXX_3.4) [ISOCXX]
num_put<char, ostreambuf_iterator<char, char_traits<char>>> >::num_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]
num_put<char, ostreambuf_iterator<char, char_traits<char>>> >::num_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]

### 6.1.139 Class num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

#### 6.1.139.1 Class data for num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

The virtual table for the std::num\_put<wchar\_t, std::ostreambuf\_iterator<wchar\_t, std::char\_traits<wchar\_t>>> class is described in the generic part of this specification.

The Run Time Type Information for the std::num\_put<wchar\_t, std::ostreambuf\_iterator<wchar\_t, std::char\_traits<wchar\_t>>> class is described by Table 6-229

**Table 6-229 typeinfo for num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>**

Base Vtable	vtable for
-------------	------------

	<code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>num_put&lt;wchar_t,</code> <code>ostreambuf_iterator&lt;wchar_t,</code> <code>char_traits&lt;wchar_t&gt; &gt; &gt;</code>
basetype:	typeinfo for <code>locale::facet</code>

### 6.1.139.2 Interfaces for Class `num_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::num_put<wchar_t, std::ostreambuf_iterator<wchar_t, std::char_traits<wchar_t> > >` specified in Table 6-230, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-230 libstdc++ - Class `num_put<wchar_t, ostreambuf_iterator<wchar_t, char_traits<wchar_t> > >` Function Interfaces**

<code>num_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::M_group_int(char const*, unsigned int, wchar_t, ios_base&amp;, wchar_t*, wchar_t*, int&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::M_group_float(char const*, unsigned int, wchar_t, wchar_t const*, wchar_t*, wchar_t*, int&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::M_pad(wchar_t, int, ios_base&amp;, wchar_t*, wchar_t const*, int&amp;) const(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::num_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>num_put&lt;wchar_t, ostreambuf_iterator&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt; &gt;::num_put(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

### 6.1.140 Class `gslice`

#### 6.1.140.1 Class data for `gslice`

#### 6.1.140.2 Interfaces for Class `gslice`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::gslice` specified in Table 6-231, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-231 libstdc++ - Class `gslice` Function Interfaces**

<code>gslice::_Indexer::_Indexer(unsigned int, valarray&lt;unsigned int&gt; const&amp;, valarray&lt;unsigned int&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>gslice::_Indexer::_Indexer(unsigned int, valarray&lt;unsigned int&gt; const&amp;, valarray&lt;unsigned int&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>



**6.1.141 Class `__basic_file<char>`****6.1.141.1 Class data for `__basic_file<char>`****6.1.141.2 Interfaces for Class `__basic_file<char>`**

An LSB conforming implementation shall provide the architecture specific methods for Class `std::__basic_file<char>` specified in Table 6-232, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-232 libstdcxx - Class `__basic_file<char>` Function Interfaces**

<code>__basic_file&lt;char&gt;::xsgetn(char*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>__basic_file&lt;char&gt;::xsputn(char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>__basic_file&lt;char&gt;::seekoff(long long, _Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</code>
<code>__basic_file&lt;char&gt;::xsputn_2(char const*, int, char const*, int)(GLIBCXX_3.4) [ISOCXX]</code>

**6.1.142 Class `_List_node_base`****6.1.142.1 Interfaces for Class `_List_node_base`**

No external methods are defined for libstdcxx - Class `std::_List_node_base` in this part of the specification. See also the generic specification.

**6.1.143 Class `valarray<unsigned int>`****6.1.143.1 Class data for `valarray<unsigned int>`****6.1.143.2 Interfaces for Class `valarray<unsigned int>`**

An LSB conforming implementation shall provide the architecture specific methods for Class `std::valarray<unsigned int>` specified in Table 6-233, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-233 libstdcxx - Class `valarray<unsigned int>` Function Interfaces**

<code>valarray&lt;unsigned int&gt;::size() const(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::valarray(valarray&lt;unsigned int&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::valarray(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::valarray(valarray&lt;unsigned int&gt; const&amp;)(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::valarray(unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::~~valarray()(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::~~valarray()(GLIBCXX_3.4) [ISOCXX]</code>
<code>valarray&lt;unsigned int&gt;::operator[](unsigned int)(GLIBCXX_3.4) [ISOCXX]</code>

**6.1.144 Class allocator<char>****6.1.144.1 Class data for allocator<char>****6.1.144.2 Interfaces for Class allocator<char>**

No external methods are defined for libstdcxx - Class std::allocator<char> in this part of the specification. See also the generic specification.

**6.1.145 Class allocator<wchar\_t>****6.1.145.1 Class data for allocator<wchar\_t>****6.1.145.2 Interfaces for Class allocator<wchar\_t>**

No external methods are defined for libstdcxx - Class std::allocator<wchar\_t> in this part of the specification. See also the generic specification.

**6.1.146 Class \_\_gnu\_cxx::\_\_pool<true>****6.1.146.1 Interfaces for Class \_\_gnu\_cxx::\_\_pool<true>**

An LSB conforming implementation shall provide the architecture specific methods for Class \_\_gnu\_cxx::\_\_pool<true> specified in Table 6-234, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-234 libstdcxx - Class \_\_gnu\_cxx::\_\_pool<true> Function Interfaces**

<code>__gnu_cxx::__pool&lt;true&gt;::_M_reclaim_block(char*, unsigned int)(GLIBCXX_3.4.4) [LSB]</code>
<code>__gnu_cxx::__pool&lt;true&gt;::_M_reserve_block(unsigned int, unsigned int)(GLIBCXX_3.4.4) [LSB]</code>

**6.1.147 Class \_\_gnu\_cxx::\_\_pool<false>****6.1.147.1 Interfaces for Class \_\_gnu\_cxx::\_\_pool<false>**

An LSB conforming implementation shall provide the architecture specific methods for Class \_\_gnu\_cxx::\_\_pool<false> specified in Table 6-235, with the full mandatory functionality as described in the referenced underlying specification.

**Table 6-235 libstdcxx - Class \_\_gnu\_cxx::\_\_pool<false> Function Interfaces**

<code>__gnu_cxx::__pool&lt;false&gt;::_M_reclaim_block(char*, unsigned int)(GLIBCXX_3.4.4) [LSB]</code>
<code>__gnu_cxx::__pool&lt;false&gt;::_M_reserve_block(unsigned int, unsigned int)(GLIBCXX_3.4.4) [LSB]</code>

**6.1.148 Class \_\_gnu\_cxx::free\_list****6.1.148.1 Interfaces for Class \_\_gnu\_cxx::free\_list**

An LSB conforming implementation shall provide the architecture specific methods for Class \_\_gnu\_cxx::free\_list specified in Table 6-236, with the full mandatory functionality as described in the referenced underlying specification.

Table 6-236 libstdcxx - Class `__gnu_cxx::free_list` Function Interfaces

<code>__gnu_cxx::free_list::_M_get(unsigned int)(GLIBCXX_3.4.4) [LSB]</code>
--

### 6.1.149 Class `locale::_Impl`

#### 6.1.149.1 Interfaces for Class `locale::_Impl`

An LSB conforming implementation shall provide the architecture specific methods for Class `std::locale::_Impl` specified in Table 6-237, with the full mandatory functionality as described in the referenced underlying specification.

Table 6-237 libstdcxx - Class `locale::_Impl` Function Interfaces

<code>locale::_Impl::_M_install_cache(locale::facet const*, unsigned int)(GLIBCXX_3.4.7) [ISOCXX]</code>
--

### 6.1.150 Namespace `std` Functions

#### 6.1.150.1 Interfaces for Namespace `std` Functions

An LSB conforming implementation shall provide the architecture specific methods for Namespace `std` Functions specified in Table 6-238, with the full mandatory functionality as described in the referenced underlying specification.

Table 6-238 libstdcxx - Namespace `std` Functions Function Interfaces

<code>int __copy_streambufs&lt;char, char_traits&lt;char&gt; &gt;(basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;*, basic_streambuf&lt;char, char_traits&lt;char&gt; &gt;*)(GLIBCXX_3.4.6) [ISOCXX]</code>
--

<code>int __copy_streambufs&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;(basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;*, basic_streambuf&lt;wchar_t, char_traits&lt;wchar_t&gt; &gt;*)(GLIBCXX_3.4.6) [ISOCXX]</code>
--

### 6.1.151 Class `char_traits<char>`

#### 6.1.151.1 Interfaces for Class `char_traits<char>`

No external methods are defined for libstdcxx - Class `std::char_traits<char>` in this part of the specification. See also the generic specification.

### 6.1.152 Class `char_traits<wchar_t>`

#### 6.1.152.1 Interfaces for Class `char_traits<wchar_t>`

No external methods are defined for libstdcxx - Class `std::char_traits<wchar_t>` in this part of the specification. See also the generic specification.

## 6.2 Interface Definitions for libstdcxx

The interfaces defined on the following pages are included in libstdcxx and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in Section 6.1 shall behave as described in the referenced base document. For interfaces referencing LSB and not listed below, please see the generic part of the specification.

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