Linux Standard Base C++ Specification for Itanium™ 3.1

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# **Foreword**

This is version 3.1 of the Linux Standard Base C++ Specification for Itanium<sup>TM</sup>. This specification is part of a family of specifications under the general title "Linux Standard Base". Developers of applications or implementations interested in using the LSB trademark should see the Free Standards Group Certification Policy for details.

#### Introduction

The LSB defines a binary interface for application programs that are compiled and packaged for LSB-conforming implementations on many different hardware architectures. Since a binary specification shall include information specific to the computer processor architecture for which it is intended, it is not possible for a single document to specify the interface for all possible LSB-conforming implementations. Therefore, the LSB is a family of specifications, rather than a single one.

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:

- The first number (x) is the major version number. All versions with the same major version number should share binary compatibility. Any addition or deletion of a new library results in a new version number. Interfaces marked as deprecated may be removed from the specification at a major version change.
- The second number (y) is the minor version number. Individual interfaces may be added if all certified implementations already had that (previously undocumented) interface. Interfaces may be marked as deprecated at a minor version change. Other minor changes may be permitted at the discretion of the LSB workgroup.
- 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.

# 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" or "archLSB") 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	http://www.linuxbase. org/spec/
ISO C (1999)	ISO/IEC 9899: 1999, Programming LanguagesC	
ISO POSIX (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 3: Shell and Utilities ISO/IEC 9945-4:2003 Information technology Portable Operating System Interface (POSIX) Part 4: Rationale Including Technical Cor. 1: 2004	http://www.unix.org/version3/
ISO/IEC 14882: 2003 C++ Language	ISO/IEC 14882: 2003 Programming languagesC++	
Itanium™ C++ ABI	Itanium™ C++ ABI (Revision 1.83)	http://refspecs.freestan dards.org/cxxabi- 1.83.html

# 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 Definitions

For the purposes of this document, the following definitions, as specified in the *ISO/IEC Directives, Part 2*, 2001, 4th Edition, apply:

can

be able to; there is a possibility of; it is possible to

cannot

be unable to; there is no possibilty of; it is not possible to

may

is permitted; is allowed; is permissible

need not

it is not required that; no...is required

shall

is to; is required to; it is required that; has to; only...is permitted; it is necessary

shall not

is not allowed [permitted] [acceptable] [permissible]; is required to be not; is required that...be not; is not to be

should

it is recommended that; ought to

should not

it is not recommended that; ought not to

# 5 Terminology

For the purposes of this document, the following terms apply:

#### archLSB

The architectural part of the LSB Specification which describes the specific parts of the interface that are platform specific. The archLSB is complementary to the gLSB.

#### Binary Standard

The total set of interfaces that are available to be used in the compiled binary code of a conforming application.

#### gLSB

The common part of the LSB Specification that describes those parts of the interface that remain constant across all hardware implementations of the LSB

#### 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

The set of interfaces that are available to be used in the source code of a conforming application.

#### 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.

Other terms and definitions used in this document shall have the same meaning as defined in Chapter 3 of the Base Definitions volume of ISO POSIX (2003).

#### **6 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,

forkpty(GLIBC\_2.0) [SUSv3]

refers to the interface named <code>forkpty()</code> with symbol version <code>GLIBC\_2.0</code> that is defined in the <code>SUSv3</code> reference.

**Note:** Symbol versions are defined in the architecture specific parts of ISO/IEC 23360 only.

# **II Base Libraries**

#### 7 Libraries

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

Only those interfaces that are unique to the Itanium<sup>™</sup> platform are defined here. This section should be used in conjunction with the corresponding section in the Linux Standard Base Specification.

#### 7.1 Interfaces for libstdcxx

Table 7-1 defines the library name and shared object name for the libstdcxx library

Table 7-1 libstdcxx Definition

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

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

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

#### 7.1.1 C++ Runtime Support

#### 7.1.1.1 Interfaces for C++ Runtime Support

An LSB conforming implementation shall provide the architecture specific methods for C++ Runtime Support specified in Table 7-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-2 libstdcxx - C++ Runtime Support Function Interfaces

operator new[](unsigned long)(GLIBCXX_3.4) [ISOCXX]	
operator new[](unsigned long, nothrow_t const&)(GLIBCXX_3.4) [ISOCXX]	
operator new(unsigned long)(GLIBCXX_3.4) [ISOCXX]	
operator new(unsigned long, nothrow_t const&)(GLIBCXX_3.4) [ISOCXX]	

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

#### 7.1.2.1 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, ISO/IEC 23360 Part 1.

#### 7.1.3 C++ \_Rb\_tree

#### 7.1.3.1 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, ISO/IEC 23360 Part 1.

### 7.1.4 Class type\_info

#### 7.1.4.1 Class data for type\_info

The virtual table for the std::type\_info class is described by Table 7-3

Table 7-3 Primary vtable for type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for type_info
vfunc[0]:	type_info::~type_info()
vfunc[1]:	type_info::~type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	type_info::do_catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const

The Run Time Type Information for the std::type\_info class is described by Table 7-4

Table 7-4 typeinfo for type\_info

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for type_info

### 7.1.4.2 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, ISO/IEC 23360 Part 1.

#### 7.1.5 Class \_\_cxxabiv1::\_\_enum\_type\_info

# 7.1.5.1 Class data for \_\_cxxabiv1::\_\_enum\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_enum\_type\_info class is described by Table 7-5

Table 7-5 Primary vtable for \_\_cxxabiv1::\_\_enum\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::enum_type_info
vfunc[0]:	cxxabiv1::enum_type_info::~e num_type_info()
vfunc[1]:	cxxabiv1::enum_type_info::~e

	num_type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	type_info::do_catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_enum\_type\_info class is described by Table 7-6

Table 7-6 typeinfo for \_\_cxxabiv1::\_\_enum\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::enum_type_info

#### 7.1.5.2 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, ISO/IEC 23360 Part 1.

# 7.1.6 Class \_\_cxxabiv1::\_\_array\_type\_info

### 7.1.6.1 Class data for \_\_cxxabiv1::\_\_array\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_array\_type\_info class is described by Table 7-7

Table 7-7 Primary vtable for \_\_cxxabiv1::\_array\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::array_type_info
vfunc[0]:	cxxabiv1::array_type_info::~array_type_info()
vfunc[1]:	cxxabiv1::array_type_info::~array_type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	type_info::do_catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_array\_type\_info class is described by Table 7-8

Table 7-8 typeinfo for \_\_cxxabiv1::\_array\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::array_type_info

# 7.1.6.2 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, ISO/IEC 23360 Part 1.

# 7.1.7 Class \_\_cxxabiv1::\_\_class\_type\_info

#### 7.1.7.1 Class data for \_\_cxxabiv1::\_\_class\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_class\_type\_info class is described by Table 7-9

Table 7-9 Primary vtable for \_\_cxxabiv1::\_\_class\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::class_type_info
vfunc[0]:	cxxabiv1::class_type_info::~class_type_info()
vfunc[1]:	cxxabiv1::class_type_info::~cla ss_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::class_type_info::do_ upcast(cxxabiv1::class_type_info const*, void const*, cxxabiv1::class_type_info::upc ast_result&) const
vfunc[7]:	cxxabiv1::class_type_info::do_ dyncast(long, 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::class_type_info::do_ find_public_src(long, void const*, cxxabiv1::class_type_info const*, void const*) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_class\_type\_info class is described by Table 7-10

Table 7-10 typeinfo for \_\_cxxabiv1::\_\_class\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::class_type_info

# 7.1.7.2 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 7-11, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-11 libstdcxx - Class \_\_cxxabiv1::\_\_class\_type\_info Function Interfaces

```
__cxxabiv1::_class_type_info::_do_dyncast(long,
__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&) const(CXXABI_1.3)
[CXXABI]

__cxxabiv1::_class_type_info::_do_find_public_src(long, void const*,
__cxxabiv1::_class_type_info const*, void const*) const(CXXABI_1.3)
[CXXABI]
```

# 7.1.8 Class \_\_cxxabiv1::\_\_pbase\_type\_info

#### 7.1.8.1 Class data for \_\_cxxabiv1::\_\_pbase\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_pbase\_type\_info class is described by Table 7-12

Table 7-12 Primary vtable for \_\_cxxabiv1::\_\_pbase\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::pbase_type_info
vfunc[0]:	cxxabiv1::pbase_type_info::~p base_type_info()

vfunc[1]:	cxxabiv1::pbase_type_info::~p base_type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	cxxabiv1::pbase_type_info::do _catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const
vfunc[6]:	cxxabiv1::pbase_type_info::poi nter_catch(cxxabiv1::pbase_type _info const*, void**, unsigned int) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_pbase\_type\_info class is described by Table 7-13

Table 7-13 typeinfo for \_\_cxxabiv1::\_\_pbase\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::pbase_type_info

# 7.1.8.2 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, ISO/IEC 23360 Part 1.

# 7.1.9 Class \_\_cxxabiv1::\_\_pointer\_type\_info

# 7.1.9.1 Class data for \_\_cxxabiv1::\_\_pointer\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_pointer\_type\_info class is described by Table 7-14

Table 7-14 Primary vtable for \_\_cxxabiv1::\_\_pointer\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::pointer_type_info
vfunc[0]:	cxxabiv1::pointer_type_info::~ pointer_type_info()
vfunc[1]:	cxxabiv1::pointer_type_info::~ pointer_type_info()
vfunc[2]:	cxxabiv1::pointer_type_info::is _pointer_p() const

vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	cxxabiv1::pbase_type_info::do _catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const
vfunc[6]:	cxxabiv1::pointer_type_info::p ointer_catch(cxxabiv1::pbase_ty pe_info const*, void**, unsigned int) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_pointer\_type\_info class is described by Table 7-15

Table 7-15 typeinfo for \_\_cxxabiv1::\_\_pointer\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::pointer_type_info

#### 7.1.9.2 Interfaces for Class \_\_cxxabiv1::\_\_pointer\_type\_info

No external methods are defined for libstdcxx - Class \_\_cxxabiv1::\_pointer\_type\_info in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

# 7.1.10 Class \_\_cxxabiv1::\_\_function\_type\_info

# 7.1.10.1 Class data for \_\_cxxabiv1::\_\_function\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_function\_type\_info class is described by Table 7-16

Table 7-16 Primary vtable for \_\_cxxabiv1::\_\_function\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::function_type_info
vfunc[0]:	cxxabiv1::function_type_info::~_ _function_type_info()
vfunc[1]:	cxxabiv1::function_type_info::~_ _function_type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	cxxabiv1::function_type_info::i s_function_p() const
vfunc[4]:	type_info::do_catch(type_info const*, void**, unsigned int) const

vfunc[5]:	type_info::do_upcast(cxxabiv1::_
	_class_type_info const*, void**) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_function\_type\_info class is described by Table 7-17

Table 7-17 typeinfo for \_\_cxxabiv1::\_\_function\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::function_type_info

#### 7.1.10.2 Interfaces for Class \_\_cxxabiv1::\_\_function\_type\_info

No external methods are defined for libstdcxx - Class \_cxxabiv1::\_function\_type\_info in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

# 7.1.11 Class \_\_cxxabiv1::\_si\_class\_type\_info

#### 7.1.11.1 Class data for \_\_cxxabiv1::\_\_si\_class\_type\_info

The virtual table for the  $\_cxxabiv1::\_si\_class\_type\_info$  class is described by Table 7-18

Table 7-18 Primary vtable for \_\_cxxabiv1::\_si\_class\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::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(long,     _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(long, 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 7-19

Table 7-19 typeinfo for \_\_cxxabiv1::\_si\_class\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::si_class_type_info

### 7.1.11.2 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 7-20, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-20 libstdcxx - Class \_\_cxxabiv1::\_si\_class\_type\_info Function Interfaces

```
__cxxabiv1::__si_class_type_info::__do_dyncast(long,
__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&) const(CXXABI_1.3)
[CXXABI]

__cxxabiv1::__si_class_type_info::__do_find_public_src(long, void const*,
__cxxabiv1::__class_type_info const*, void const*) const(CXXABI_1.3)
[CXXABI]
```

#### 7.1.12 Class \_\_cxxabiv1::\_\_vmi\_class\_type\_info

#### 7.1.12.1 Class data for cxxabiv1:: vmi class type info

The virtual table for the \_\_cxxabiv1::\_\_vmi\_class\_type\_info class is described by Table 7-21

Table 7-21 Primary vtable for \_\_cxxabiv1::\_\_vmi\_class\_type\_info

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo forcxxabiv1::vmi_class_type_info
vfunc[0]:	cxxabiv1::vmi_class_type_info::~ vmi_class_type_info()
vfunc[1]:	cxxabiv1::vmi_class_type_info::~ vmi_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::vmi_class_type_info::_ _do_upcast(cxxabiv1::class_type _info const*, void const*, cxxabiv1::class_type_info::upc ast_result&) const
vfunc[7]:	cxxabiv1::vmi_class_type_info::do_dyncast(long,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::vmi_class_type_info::_ _do_find_public_src(long, void const*,cxxabiv1::class_type_info const*, void const*) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_vmi\_class\_type\_info class is described by Table 7-22

Table 7-22 typeinfo for \_\_cxxabiv1::\_vmi\_class\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::vmi_class_type_info

# 7.1.12.2 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 7-23, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-23 libstdcxx - Class \_\_cxxabiv1::\_vmi\_class\_type\_info Function Interfaces

```
__cxxabiv1::_vmi_class_type_info::_do_dyncast(long,
__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&) const(CXXABI_1.3)
[CXXABI]

__cxxabiv1::_vmi_class_type_info::_do_find_public_src(long, void const*,
__cxxabiv1::_class_type_info const*, void const*) const(CXXABI_1.3)
[CXXABI]
```

# 7.1.13 Class \_\_cxxabiv1::\_\_fundamental\_type\_info

#### 7.1.13.1 Class data for \_\_cxxabiv1::\_\_fundamental\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_fundamental\_type\_info class is described by Table 7-24

Table 7-24 Primary vtable for \_\_cxxabiv1::\_\_fundamental\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::fundamental_type_inf o
vfunc[0]:	cxxabiv1::fundamental_type_inf o::~fundamental_type_info()
vfunc[1]:	cxxabiv1::fundamental_type_inf o::~fundamental_type_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	type_info::do_catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_fundamental\_type\_info class is described by Table 7-25

Table 7-25 typeinfo for \_\_cxxabiv1::\_\_fundamental\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::fundamental_type_inf o

## 7.1.13.2 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, ISO/IEC 23360 Part 1.

## 7.1.14 Class \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info

## 7.1.14.1 Class data for \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info

The virtual table for the \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info class is described by Table 7-26

Table 7-26 Primary vtable for \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forcxxabiv1::pointer_to_member_ty pe_info
vfunc[0]:	cxxabiv1::pointer_to_member_ty pe_info::~pointer_to_member_typ e_info()
vfunc[1]:	cxxabiv1::pointer_to_member_ty pe_info::~pointer_to_member_typ e_info()
vfunc[2]:	type_info::is_pointer_p() const
vfunc[3]:	type_info::is_function_p() const
vfunc[4]:	cxxabiv1::pbase_type_info::do _catch(type_info const*, void**, unsigned int) const
vfunc[5]:	type_info::do_upcast(cxxabiv1::_ _class_type_info const*, void**) const
vfunc[6]:	cxxabiv1::pointer_to_member_ty pe_info::pointer_catch(cxxabiv1::    pbase_type_info const*, void**, unsigned int) const

The Run Time Type Information for the \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info class is described by Table 7-27

Table 7-27 typeinfo for \_\_cxxabiv1::\_\_pointer\_to\_member\_type\_info

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name forcxxabiv1::pointer_to_member_ty pe_info

#### 7.1.14.2 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, ISO/IEC 23360 Part 1.

# 7.1.15 Class \_\_gnu\_cxx::stdio\_filebuf<char, char\_traits<char>

## 7.1.15.1 Class data for \_\_gnu\_cxx::stdio\_filebuf<char, char\_traits<char> >

The virtual table for the \_\_gnu\_cxx::stdio\_filebuf<char, std::char\_traits<char> > class is described by Table 7-28

Table 7-28 Primary vtable for \_\_gnu\_cxx::stdio\_sync\_filebuf<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo forgnu_cxx::stdio_sync_filebuf<char, char_traits<char=""> &gt;</char,></pre>
vfunc[0]:	Unspecified
vfunc[1]:	Unspecified
vfunc[2]:	basic_streambuf <char, char_traits<char>&gt;::imbue(locale const&amp;)</char></char, 
vfunc[3]:	<pre>basic_streambuf<char, char_traits<char="">&gt;::setbuf(char*, long)</char,></pre>
vfunc[4]:	Unspecified
vfunc[5]:	Unspecified
vfunc[6]:	Unspecified
vfunc[7]:	basic_streambuf <char, char_traits<char> &gt;::showmanyc()</char></char, 
vfunc[8]:	Unspecified
vfunc[9]:	Unspecified
vfunc[10]:	Unspecified
vfunc[11]:	Unspecified
vfunc[12]:	Unspecified
vfunc[13]:	Unspecified

# 7.1.15.2 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, ISO/IEC 23360 Part 1.

# 7.1.16 Class \_\_gnu\_cxx::stdio\_filebuf<wchar\_t, char\_traits<wchar\_t> >

## 7.1.16.1 Class data for \_\_gnu\_cxx::stdio\_filebuf<wchar\_t, char\_traits<wchar\_t> >

The virtual table for the \_\_gnu\_cxx::stdio\_filebuf<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-29

Table 7-29 Primary vtable for \_\_gnu\_cxx::stdio\_sync\_filebuf<wchar\_t, char\_traits<wchar\_t>>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forgnu_cxx::stdio_sync_filebuf <wcha char_traits<wchar_t="" r_t,="">&gt;</wcha>
vfunc[0]:	Unspecified
vfunc[1]:	Unspecified
vfunc[2]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::imbue(locale const&amp;)</wchar_t,></pre>
vfunc[3]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::setbuf(wchar_t*, long)</wchar_t,>
vfunc[4]:	Unspecified
vfunc[5]:	Unspecified
vfunc[6]:	Unspecified
vfunc[7]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::showmanyc()</wchar_t,>
vfunc[8]:	Unspecified
vfunc[9]:	Unspecified
vfunc[10]:	Unspecified
vfunc[11]:	Unspecified
vfunc[12]:	Unspecified
vfunc[13]:	Unspecified

# 7.1.16.2 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, ISO/IEC 23360 Part 1.

## 7.1.17 Class \_\_gnu\_cxx::\_\_pool\_alloc\_base

## 7.1.17.1 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 7-30, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-30 libstdcxx - Class \_\_gnu\_cxx::\_pool\_alloc\_base Function Interfaces

\_\_gnu\_cxx::\_\_pool\_alloc\_base::\_M\_get\_free\_list(unsigned long)(GLIBCXX\_3.4.2) [LSB]
\_\_gnu\_cxx::\_\_pool\_alloc\_base::\_M\_refill(unsigned long)(GLIBCXX\_3.4.2) [LSB]

# 7.1.18 Class \_\_gnu\_cxx::stdio\_sync\_filebuf<char, char traits<char>>

## 7.1.18.1 Interfaces for Class \_\_gnu\_cxx::stdio\_sync\_filebuf<char, char traits<char>>

No external methods are defined for libstdcxx - Class \_\_gnu\_cxx::stdio\_sync\_filebuf<char, std::char\_traits<char> > in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

# 7.1.19 Class \_\_gnu\_cxx::stdio\_sync\_filebuf<wchar\_t, char\_traits<wchar\_t>>

#### 7.1.19.1 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, ISO/IEC 23360 Part 1.

## 7.1.20 Class exception

#### 7.1.20.1 Class data for exception

The virtual table for the std::exception class is described by Table 7-31

Table 7-31 Primary vtable for exception

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for exception
vfunc[0]:	exception::~exception()

vfunc[1]:	exception::~exception()
vfunc[2]:	exception::what() const

The Run Time Type Information for the std::exception class is described by Table 7-32

#### Table 7-32 typeinfo for exception

Base Vtable	vtable for cxxabiv1::class_type_info
Name	typeinfo name for exception

## 7.1.20.2 Interfaces for Class exception

No external methods are defined for libstdcxx - Class std::exception in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.21 Class bad\_typeid

#### 7.1.21.1 Class data for bad typeid

The virtual table for the std::bad\_typeid class is described by Table 7-33

Table 7-33 Primary vtable for bad\_typeid

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for bad_typeid
vfunc[0]:	bad_typeid::~bad_typeid()
vfunc[1]:	bad_typeid::~bad_typeid()
vfunc[2]:	exception::what() const

The Run Time Type Information for the std::bad\_typeid class is described by Table 7-34

Table 7-34 typeinfo for bad\_typeid

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for bad_typeid

## 7.1.21.2 Interfaces for Class bad\_typeid

No external methods are defined for libstdcxx - Class std::bad\_typeid in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.22 Class logic\_error

## 7.1.22.1 Class data for logic\_error

The virtual table for the std::logic\_error class is described by Table 7-35

Table 7-35 Primary vtable for logic\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for logic_error
vfunc[0]:	logic_error::~logic_error()
vfunc[1]:	logic_error::~logic_error()
vfunc[2]:	logic_error::what() const

The Run Time Type Information for the std::logic\_error class is described by Table 7-36

Table 7-36 typeinfo for logic\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for logic_error

## 7.1.22.2 Interfaces for Class logic\_error

No external methods are defined for libstdcxx - Class std::logic\_error in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.23 Class range\_error

## 7.1.23.1 Class data for range\_error

The virtual table for the std::range\_error class is described by Table 7-37

Table 7-37 Primary vtable for range\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for range_error
vfunc[0]:	range_error::~range_error()
vfunc[1]:	range_error::~range_error()
vfunc[2]:	runtime_error::what() const

The Run Time Type Information for the std::range\_error class is described by Table 7-38

Table 7-38 typeinfo for range\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for range_error

#### 7.1.23.2 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, ISO/IEC 23360 Part 1.

## 7.1.24 Class domain error

## 7.1.24.1 Class data for domain\_error

The virtual table for the std::domain\_error class is described by Table 7-39

 $Table \ 7\text{-}39 \ Primary \ vtable \ for \ domain\_error$ 

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for domain_error
vfunc[0]:	domain_error::~domain_error()
vfunc[1]:	domain_error::~domain_error()
vfunc[2]:	logic_error::what() const

The Run Time Type Information for the std::domain\_error class is described by Table 7-40

Table 7-40 typeinfo for domain\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for domain_error

### 7.1.24.2 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, ISO/IEC 23360 Part  $^{1}$ 

## 7.1.25 Class length\_error

## 7.1.25.1 Class data for length\_error

The virtual table for the std::length\_error class is described by Table 7-41

Table 7-41 Primary vtable for length\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for length_error
vfunc[0]:	length_error::~length_error()
vfunc[1]:	length_error::~length_error()
vfunc[2]:	logic_error::what() const

The Run Time Type Information for the std::length\_error class is described by Table 7-42

#### Table 7-42 typeinfo for length\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for length_error

## 7.1.25.2 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, ISO/IEC 23360 Part 1.

## 7.1.26 Class out\_of\_range

## 7.1.26.1 Class data for out\_of\_range

The virtual table for the std::out\_of\_range class is described by Table 7-43

Table 7-43 Primary vtable for out\_of\_range

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for out_of_range
vfunc[0]:	out_of_range::~out_of_range()
vfunc[1]:	out_of_range::~out_of_range()
vfunc[2]:	logic_error::what() const

The Run Time Type Information for the std::out\_of\_range class is described by Table 7-44

#### Table 7-44 typeinfo for out\_of\_range

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for out_of_range

#### 7.1.26.2 Interfaces for Class out\_of\_range

No external methods are defined for libstdcxx - Class std::out\_of\_range in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

### 7.1.27 Class bad\_exception

#### 7.1.27.1 Class data for bad\_exception

The virtual table for the std::bad\_exception class is described by Table 7-45

### Table 7-45 Primary vtable for bad\_exception

Base Offset	0
-------------	---

Virtual Base Offset	0
RTTI	typeinfo for bad_exception
vfunc[0]:	bad_exception::~bad_exception()
vfunc[1]:	bad_exception::~bad_exception()
vfunc[2]:	exception::what() const

The Run Time Type Information for the std::bad\_exception class is described by Table 7-46

Table 7-46 typeinfo for bad\_exception

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for bad_exception

## 7.1.27.2 Interfaces for Class bad\_exception

No external methods are defined for libstdcxx - Class std::bad\_exception in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.28 Class runtime\_error

#### 7.1.28.1 Class data for runtime\_error

The virtual table for the std::runtime\_error class is described by Table 7-47

Table 7-47 Primary vtable for runtime\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for runtime_error
vfunc[0]:	runtime_error::~runtime_error()
vfunc[1]:	runtime_error::~runtime_error()
vfunc[2]:	runtime_error::what() const

The Run Time Type Information for the std::runtime\_error class is described by Table 7-48

Table 7-48 typeinfo for runtime\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for runtime_error

## 7.1.28.2 Interfaces for Class runtime error

No external methods are defined for libstdcxx - Class std::runtime\_error in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.29 Class overflow\_error

### 7.1.29.1 Class data for overflow\_error

The virtual table for the std::overflow\_error class is described by Table 7-49

Table 7-49 Primary vtable for overflow\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for overflow_error
vfunc[0]:	overflow_error::~overflow_error()
vfunc[1]:	overflow_error::~overflow_error()
vfunc[2]:	runtime_error::what() const

The Run Time Type Information for the std::overflow\_error class is described by Table 7-50  $\,$ 

Table 7-50 typeinfo for overflow\_error

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for overflow_error

#### 7.1.29.2 Interfaces for Class overflow error

No external methods are defined for libstdcxx - Class std::overflow\_error in this part of the specification. See also the generic specification, ISO/IEC 23360 Part  $^{1}$ 

## 7.1.30 Class underflow\_error

## 7.1.30.1 Class data for underflow\_error

The virtual table for the std::underflow\_error class is described by Table 7-51

Table 7-51 Primary vtable for underflow\_error

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for underflow_error
vfunc[0]:	underflow_error::~underflow_error()
vfunc[1]:	underflow_error::~underflow_error()
vfunc[2]:	runtime_error::what() const

The Run Time Type Information for the std::underflow\_error class is described by Table 7-52

Table 7-52 typeinfo for underflow\_error

Base Vtable	vtable for	
-------------	------------	--

	cxxabiv1::si_class_type_info
Name	typeinfo name for underflow_error

## 7.1.30.2 Interfaces for Class underflow\_error

No external methods are defined for libstdcxx - Class std::underflow\_error in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.31 Class invalid\_argument

## 7.1.31.1 Class data for invalid\_argument

The virtual table for the std::invalid\_argument class is described by Table 7-53

Table 7-53 Primary vtable for invalid\_argument

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for invalid_argument
vfunc[0]:	invalid_argument::~invalid_argume nt()
vfunc[1]:	invalid_argument::~invalid_argume nt()
vfunc[2]:	logic_error::what() const

The Run Time Type Information for the std::invalid\_argument class is described by Table 7-54

Table 7-54 typeinfo for invalid\_argument

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for invalid_argument

#### 7.1.31.2 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, ISO/IEC 23360 Part 1.

### 7.1.32 Class bad\_cast

#### 7.1.32.1 Class data for bad cast

The virtual table for the std::bad\_cast class is described by Table 7-55

Table 7-55 Primary vtable for bad\_cast

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for bad_cast

vfunc[0]:	bad_cast::~bad_cast()
vfunc[1]:	bad_cast::~bad_cast()
vfunc[2]:	exception::what() const

The Run Time Type Information for the std::bad\_cast class is described by Table 7-56

#### Table 7-56 typeinfo for bad\_cast

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for bad_cast

### 7.1.32.2 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, ISO/IEC 23360 Part 1.

## 7.1.33 Class bad\_alloc

### 7.1.33.1 Class data for bad\_alloc

The virtual table for the std::bad\_alloc class is described by Table 7-57

Table 7-57 Primary vtable for bad\_alloc

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for bad_alloc
vfunc[0]:	bad_alloc::~bad_alloc()
vfunc[1]:	bad_alloc::~bad_alloc()
vfunc[2]:	exception::what() const

The Run Time Type Information for the std::bad\_alloc class is described by Table 7-58

Table 7-58 typeinfo for bad\_alloc

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for bad_alloc

### 7.1.33.2 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, ISO/IEC 23360 Part 1.

## 7.1.34 struct numeric limits base

#### 7.1.34.1 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, ISO/IEC 23360 Part 1.

## 7.1.35 struct numeric\_limits<long double>

#### 7.1.35.1 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, ISO/IEC 23360 Part 1.

## 7.1.36 struct numeric\_limits<long long>

#### 7.1.36.1 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, ISO/IEC 23360 Part 1.

## 7.1.37 struct numeric\_limits<unsigned long long>

#### 7.1.37.1 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, ISO/IEC 23360 Part 1.

#### 7.1.38 struct numeric\_limits<float>

## 7.1.38.1 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, ISO/IEC 23360 Part 1.

#### 7.1.39 struct numeric limits<double>

#### 7.1.39.1 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, ISO/IEC 23360 Part 1.

#### 7.1.40 struct numeric limits<short>

#### 7.1.40.1 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, ISO/IEC 23360 Part 1.

## 7.1.41 struct numeric\_limits<unsigned short>

#### 7.1.41.1 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, ISO/IEC 23360 Part 1.

#### 7.1.42 struct numeric limits<int>

#### 7.1.42.1 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, ISO/IEC 23360 Part 1.

## 7.1.43 struct numeric\_limits<unsigned int>

#### 7.1.43.1 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, ISO/IEC 23360 Part 1.

## 7.1.44 struct numeric\_limits<long>

#### 7.1.44.1 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, ISO/IEC 23360 Part 1.

## 7.1.45 struct numeric\_limits<unsigned long>

## 7.1.45.1 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, ISO/IEC 23360 Part 1.

### 7.1.46 struct numeric\_limits<wchar\_t>

#### 7.1.46.1 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, ISO/IEC 23360 Part 1.

#### 7.1.47 struct numeric limits<unsigned char>

#### 7.1.47.1 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, ISO/IEC 23360 Part 1.

## 7.1.48 struct numeric limits<signed char>

#### 7.1.48.1 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, ISO/IEC 23360 Part 1.

## 7.1.49 struct numeric limits<char>

#### 7.1.49.1 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, ISO/IEC 23360 Part 1.

## 7.1.50 struct numeric\_limits<bool>

## 7.1.50.1 Interfaces for struct numeric\_limits<bool>

No external methods are defined for libstdcxx - struct numeric\_limits<br/>
bool> in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

## 7.1.51 Class ctype\_base

#### 7.1.51.1 Class data for ctype\_base

The Run Time Type Information for the std::ctype\_base class is described by Table 7-59

## Table 7-59 typeinfo for ctype\_base

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for ctype_base

#### 7.1.51.2 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, ISO/IEC 23360 Part 1.

#### 7.1.52 Class \_\_ctype\_abstract\_base<char>

### 7.1.52.1 Class data for \_\_ctype\_abstract\_base<char>

The virtual table for the std::\_\_ctype\_abstract\_base<char> class is described by Table 7-60

Table 7-60 Primary vtable for \_\_ctype\_abstract\_base<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forctype_abstract_base <char></char>
vfunc[0]:	

vfunc[1]:	
vfunc[2]:	cxa_pure_virtual
vfunc[3]:	cxa_pure_virtual
vfunc[4]:	cxa_pure_virtual
vfunc[5]:	cxa_pure_virtual
vfunc[6]:	cxa_pure_virtual
vfunc[7]:	cxa_pure_virtual
vfunc[8]:	cxa_pure_virtual
vfunc[9]:	cxa_pure_virtual
vfunc[10]:	cxa_pure_virtual
vfunc[11]:	cxa_pure_virtual
vfunc[12]:	cxa_pure_virtual
vfunc[13]:	cxa_pure_virtual

## 7.1.52.2 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, ISO/IEC 23360 Part 1.

## 7.1.53 Class \_\_ctype\_abstract\_base<wchar\_t>

## 7.1.53.1 Class data for \_\_ctype\_abstract\_base<wchar\_t>

The virtual table for the std::\_\_ctype\_abstract\_base<wchar\_t> class is described by Table 7-61

Table 7-61 Primary vtable for \_\_ctype\_abstract\_base<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo forctype_abstract_base <wchar_t></wchar_t>
vfunc[0]:	
vfunc[1]:	
vfunc[2]:	cxa_pure_virtual
vfunc[3]:	cxa_pure_virtual
vfunc[4]:	cxa_pure_virtual
vfunc[5]:	cxa_pure_virtual
vfunc[6]:	cxa_pure_virtual
vfunc[7]:	cxa_pure_virtual
vfunc[8]:	cxa_pure_virtual

vfunc[9]:	cxa_pure_virtual
vfunc[10]:	cxa_pure_virtual
vfunc[11]:	cxa_pure_virtual
vfunc[12]:	cxa_pure_virtual
vfunc[13]:	cxa_pure_virtual

## 7.1.53.2 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, ISO/IEC 23360 Part 1.

## 7.1.54 Class ctype<char>

## 7.1.54.1 Class data for ctype<char>

The virtual table for the std::ctype<char> class is described by Table 7-62

Table 7-62 Primary vtable for ctype<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for ctype <char></char>
vfunc[0]:	ctype <char>::~ctype()</char>
vfunc[1]:	ctype <char>::~ctype()</char>
vfunc[2]:	ctype <char>:::do_toupper(char) const</char>
vfunc[3]:	ctype <char>::do_toupper(char*, char const*) const</char>
vfunc[4]:	ctype <char>::do_tolower(char) const</char>
vfunc[5]:	ctype <char>::do_tolower(char*, char const*) const</char>
vfunc[6]:	ctype <char>::do_widen(char) const</char>
vfunc[7]:	ctype <char>::do_widen(char const*, char const*, char*) const</char>
vfunc[8]:	ctype <char>::do_narrow(char, char) const</char>
vfunc[9]:	ctype <char>:::do_narrow(char const*, char const*, char, char*) const</char>

## 7.1.54.2 Interfaces for Class ctype<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::ctype<char> specified in Table 7-63, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-63 libstdcxx - Class ctype<char> Function Interfaces

ctype<char>::ctype(\_\_locale\_struct\*, unsigned short const\*, bool, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

ctype<char>::ctype(unsigned short const\*, bool, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

ctype<char>::ctype(\_\_locale\_struct\*, unsigned short const\*, bool, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

ctype<char>::ctype(unsigned short const\*, bool, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

## 7.1.55 Class ctype<wchar\_t>

## 7.1.55.1 Class data for ctype<wchar\_t>

The virtual table for the std::ctype<wchar\_t> class is described by Table 7-64

Table 7-64 Primary vtable for ctype<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for ctype <wchar_t></wchar_t>
vfunc[0]:	ctype <wchar_t>::~ctype()</wchar_t>
vfunc[1]:	ctype <wchar_t>::~ctype()</wchar_t>
vfunc[2]:	ctype <wchar_t>::do_is(unsigned short, wchar_t) const</wchar_t>
vfunc[3]:	ctype <wchar_t>::do_is(wchar_t const*, wchar_t const*, unsigned short*) const</wchar_t>
vfunc[4]:	ctype <wchar_t>::do_scan_is(unsigne d short, wchar_t const*, wchar_t const*)</wchar_t>
vfunc[5]:	ctype <wchar_t>::do_scan_not(unsign ed short, wchar_t const*, wchar_t const*)</wchar_t>
vfunc[6]:	ctype <wchar_t>::do_toupper(wchar_t) const</wchar_t>
vfunc[7]:	ctype <wchar_t>::do_toupper(wchar_ t*, wchar_t const*) const</wchar_t>
vfunc[8]:	ctype <wchar_t>::do_tolower(wchar_t) const</wchar_t>
vfunc[9]:	ctype <wchar_t>::do_tolower(wchar_ t*, wchar_t const*) const</wchar_t>
vfunc[10]:	ctype <wchar_t>::do_widen(char) const</wchar_t>
vfunc[11]:	ctype <wchar_t>::do_widen(char</wchar_t>

	const*, char const*, wchar_t*) const
vfunc[12]:	ctype <wchar_t>::do_narrow(wchar_t , char) const</wchar_t>
vfunc[13]:	ctype <wchar_t>::do_narrow(wchar_t const*, wchar_t const*, char, char*) const</wchar_t>

The Run Time Type Information for the std::ctype<wchar\_t> class is described by Table 7-65

Table 7-65 typeinfo for ctype<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for ctype <wchar_t></wchar_t>

## 7.1.55.2 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 7-66, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-66 libstdcxx - Class ctype<wchar\_t> Function Interfaces

ctype <wchar_t>::ctype(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
ctype <wchar_t>::ctype(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
ctype <wchar_t>::ctype(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
ctype <wchar_t>::ctype(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	

## 7.1.56 Class ctype\_byname<char>

### 7.1.56.1 Class data for ctype\_byname<char>

The virtual table for the std::ctype\_byname<char> class is described by Table 7-67

Table 7-67 Primary vtable for ctype\_byname<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for ctype_byname <char></char>
vfunc[0]:	ctype_byname <char>::~ctype_byna me()</char>
vfunc[1]:	ctype_byname <char>::~ctype_byna me()</char>
vfunc[2]:	ctype <char>::do_toupper(char) const</char>
vfunc[3]:	ctype <char>::do_toupper(char*, char</char>

	const*) const
vfunc[4]:	ctype <char>::do_tolower(char) const</char>
vfunc[5]:	ctype <char>::do_tolower(char*, char const*) const</char>
vfunc[6]:	ctype <char>::do_widen(char) const</char>
vfunc[7]:	ctype <char>::do_widen(char const*, char const*, char*) const</char>
vfunc[8]:	ctype <char>::do_narrow(char, char) const</char>
vfunc[9]:	ctype <char>::do_narrow(char const*, char const*, char, char*) const</char>

The Run Time Type Information for the std::ctype\_byname<char> class is described by Table 7-68

Table 7-68 typeinfo for ctype\_byname<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for ctype_byname <char></char>

## 7.1.56.2 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 7-69, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-69 libstdcxx - Class ctype\_byname<char> Function Interfaces

e <char>::ctype_byname(char const*, unsigned (X_3.4) [ISOCXX]</char>
e <char>::ctype_byname(char const*, unsigned (X_3.4) [ISOCXX]</char>

## 7.1.57 Class ctype\_byname<wchar\_t>

### 7.1.57.1 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 7-70, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-70 libstdcxx - Class ctype\_byname<wchar\_t> Function Interfaces

ctype_byname <wchar_t>::ctype_byname(char const*, unsigned long)(GLIBCXX_3.4) [CXXABI]</wchar_t>
ctype_byname <wchar_t>::ctype_byname(char const*, unsigned long)(GLIBCXX_3.4) [CXXABI]</wchar_t>

# 7.1.58 Class basic\_string<char, char\_traits<char>, allocator<char> >

## 7.1.58.1 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 7-71, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-71 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 long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::find\_last\_of(char const\*, unsigned long, unsigned long) 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 long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_last\_of(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_first\_of(char const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_first\_of(char const\*, unsigned long, unsigned long) 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 long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_first\_of(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_last\_not\_of(char const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find\_last\_not\_of(char const\*, unsigned long, unsigned long) 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 long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::find\_last\_not\_of(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::find\_first\_not\_of(char const\*, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::find\_first\_not\_of(char const\*, unsigned long, unsigned long)
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 long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::find\_first\_not\_of(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::at(unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::copy(char\*, unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find(char const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find(char const\*, unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::find(basic\_string<char, char\_traits<char>, allocator<char> > const&,
unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::find(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::rfind(char const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::rfind(char const\*, unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::rfind(basic\_string<char, char\_traits<char>, allocator<char> > const&,
unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::rfind(char, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::substr(unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::compare(unsigned long, unsigned long, char const\*) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::compare(unsigned long, unsigned long, char const\*, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::compare(unsigned long, unsigned long, basic\_string<char, char\_traits<char>, allocator<char>> const&) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::compare(unsigned long, unsigned long, basic\_string<char, char\_traits<char>, allocator<char>> const&, unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::\_M\_check(unsigned long, char const\*) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::operator[](unsigned

#### long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::\_S\_construct(unsigned long, char, allocator<char> const&)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::\_M\_replace\_aux(unsigned long, unsigned long, unsigned long, char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::\_M\_replace\_safe(unsigned long, unsigned long, char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::at(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::\_Rep::\_M\_clone(allocator<char> const&, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::\_Rep::\_S\_create(unsigned long, unsigned long, allocator<char>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::erase(unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::append(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::append(basic\_string<char, char\_traits<char>, allocator<char> > const&,
unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::append(unsigned long, char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::assign(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::assign(basic\_string<char, char\_traits<char>, allocator<char> > const&,
unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::assign(unsigned long, 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 long, char)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::insert(unsigned long, char const\*)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::insert(unsigned long, char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::insert(unsigned long, basic\_string<char, char\_traits<char>, allocator<char>>

#### const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::insert(unsigned long, basic\_string<char, char\_traits<char>, allocator<char> > const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::insert(unsigned long, unsigned long, char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::resize(unsigned long)(GLIBCXX 3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::resize(unsigned long, char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::replace(\_\_gnu\_cxx::\_\_normal\_iterator<char\*, basic\_string<char,
char\_traits<char>, allocator<char>>>, \_\_gnu\_cxx::\_\_normal\_iterator<char\*,
basic\_string<char, char\_traits<char>, allocator<char>>>, char const\*,
unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::replace(\_\_gnu\_cxx::\_\_normal\_iterator<char\*, basic\_string<char,
char\_traits<char>, allocator<char>>>, \_\_gnu\_cxx::\_\_normal\_iterator<char\*,
basic\_string<char, char\_traits<char>, allocator<char>>>, unsigned long,
char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::replace(unsigned long, unsigned long, char const\*)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::replace(unsigned long, unsigned long, char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::replace(unsigned long, unsigned long, basic\_string<char, char\_traits<char>, allocator<char>> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::replace(unsigned long, unsigned long, basic\_string<char, char\_traits<char>, allocator<char> > const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::replace(unsigned long, unsigned long, char)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::reserve(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::\_M\_mutate(unsigned long, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::basic\_string(char const\*, unsigned long, allocator<char> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(basic\_string<char, char\_traits<char>, allocator<char> >
const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(basic\_string<char, char\_traits<char>, allocator<char> >
const&, unsigned long, unsigned long, allocator<char>

#### const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(unsigned long, char, allocator<char> const&)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::basic\_string(char const\*, unsigned long, allocator<char> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(basic\_string<char, char\_traits<char>, allocator<char>>
const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(basic\_string<char, char\_traits<char>, allocator<char> >
const&, unsigned long, unsigned long, allocator<char>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>
>::basic\_string(unsigned long, char, allocator<char> const&)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char> >::operator[](unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.59 Class basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

## 7.1.59.1 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 7-72, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-72 libstdcxx - Class basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> > Function Interfaces

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_of(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_of(wchar\_t const\*, unsigned long, unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_of(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_of(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_of(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_of(wchar\_t const\*, unsigned long, unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_of(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_of(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_not\_of(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_not\_of(wchar\_t const\*, unsigned long, unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_not\_of(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_last\_not\_of(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_not\_of(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_not\_of(wchar\_t const\*, unsigned long, unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_not\_of(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find\_first\_not\_of(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::at(unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::copy(wchar\_t\*, unsigned long, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find(wchar\_t const\*, unsigned long, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find(basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >
const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::find(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::rfind(wchar\_t const\*, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::rfind(wchar\_t const\*, unsigned long, unsigned long) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::rfind(basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >
const&, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::rfind(wchar\_t, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::substr(unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::compare(unsigned long, unsigned long, wchar\_t const\*)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::compare(unsigned long, unsigned long, wchar\_t const\*, unsigned long)
const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::compare(unsigned long, unsigned long, basic\_string<wchar\_t,
char\_traits<wchar\_t>, allocator<wchar\_t> > const&) const(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::compare(unsigned long, unsigned long, basic\_string<wchar\_t,
char\_traits<wchar\_t>, allocator<wchar\_t> > const&, unsigned long, unsigned
long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_M\_check(unsigned long, char const\*) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >::\_M\_limit(unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::operator[](unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<char, char\_traits<char>, allocator<char>>::\_M\_limit(unsigned long, unsigned long) const(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_S\_construct(unsigned long, wchar\_t, allocator<wchar\_t>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >::\_M\_replace\_aux(unsigned long, unsigned long, unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_M\_replace\_safe(unsigned long, unsigned long, wchar\_t const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::at(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_Rep::\_M\_clone(allocator<wchar\_t> const&, unsigned long)(GLIBCXX\_3.4)

#### [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_Rep::\_S\_create(unsigned long, unsigned long, allocator<wchar\_t>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::erase(unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::append(wchar\_t const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::append(basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >
const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::append(unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::assign(wchar\_t const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::assign(basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>
const&, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::assign(unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >::insert(\_\_gnu\_cxx::\_\_normal\_iterator<wchar\_t\*, basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >>, unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::insert(unsigned long, wchar\_t const\*)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::insert(unsigned long, wchar\_t const\*, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::insert(unsigned long, basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::insert(unsigned long, basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::insert(unsigned long, unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::resize(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::resize(unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(\_\_gnu\_cxx::\_\_normal\_iterator<wchar\_t\*, basic\_string<wchar\_t,</pre>

char\_traits<wchar\_t>, allocator<wchar\_t> >>,
\_\_gnu\_cxx::\_\_normal\_iterator<wchar\_t\*, basic\_string<wchar\_t,
char\_traits<wchar\_t>, allocator<wchar\_t> >>, wchar\_t const\*, unsigned
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(\_\_gnu\_cxx::\_\_normal\_iterator<wchar\_t\*, basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >>,
 \_\_gnu\_cxx::\_\_normal\_iterator<wchar\_t\*, basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >>, unsigned long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(unsigned long, unsigned long, wchar\_t const\*)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(unsigned long, unsigned long, wchar\_t const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(unsigned long, unsigned long, basic\_string<wchar\_t,
char\_traits<wchar\_t>, allocator<wchar\_t> > const&)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(unsigned long, unsigned long, basic\_string<wchar\_t,
char\_traits<wchar\_t>, allocator<wchar\_t> > const&, unsigned long, unsigned
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::replace(unsigned long, unsigned long, unsigned long,
wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::reserve(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_M\_mutate(unsigned long, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(wchar\_t const\*, unsigned long, allocator<wchar\_t>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long, unsigned long,
allocator<wchar\_t> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(unsigned long, wchar\_t, allocator<wchar\_t>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>

>::basic\_string(wchar\_t const\*, unsigned long, allocator<wchar\_t> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(basic\_string<wchar\_t, char\_traits<wchar\_t>,
allocator<wchar\_t> > const&, unsigned long, unsigned long,
allocator<wchar\_t> const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::basic\_string(unsigned long, wchar\_t, allocator<wchar\_t>
const&)(GLIBCXX\_3.4) [ISOCXX]

basic\_string<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::operator[](unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.60 Class basic\_stringstream<char, char\_traits<char>, allocator<char> >

## 7.1.60.1 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 7-73

Table 7-73 Primary vtable for basic\_stringstream<char, char\_traits<char>, allocator<char>>

Base Offset	0
Virtual Base Offset	104
RTTI	typeinfo for basic_stringstream <char, char_traits<char="">, allocator<char>&gt;</char></char,>
vfunc[0]:	basic_stringstream <char, char_traits<char>, allocator<char> &gt;::~basic_stringstream()</char></char></char, 
vfunc[1]:	basic_stringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_stringstream()</char></char,>

Table 7-74 Secondary vtable for basic\_stringstream<char, char\_traits<char>, allocator<char>>

Base Offset	-16
Virtual Base Offset	88
RTTI	<pre>typeinfo for basic_stringstream<char, char_traits<char="">, allocator<char>&gt;</char></char,></pre>
vfunc[0]:	non-virtual thunk to basic_stringstream <char, char_traits<char>, allocator<char></char></char></char, 

	>::~basic_stringstream()
vfunc[1]:	non-virtual thunk to basic_stringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_stringstream()</char></char,>

Table 7-75 Secondary vtable for basic\_stringstream<char, char\_traits<char>, allocator<char>>

Base Offset	-104
Virtual Base Offset	-104
RTTI	typeinfo for basic_stringstream <char, char_traits<char="">, allocator<char>&gt;</char></char,>
vfunc[0]:	virtual thunk to basic_stringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_stringstream()</char></char,>
vfunc[1]:	virtual thunk to basic_stringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_stringstream()</char></char,>

The VTT for the std::basic\_stringstream<char, std::char\_traits<char>, std::allocator<char> > class is described by Table 7-76

Table 7-76 VTT for basic\_stringstream<char, char\_traits<char>, allocator<char>>

VTT Name	_ZTTSt18basic_stringstreamIcSt11ch ar_traitsIcESaIcEE
Number of Entries	10

## 7.1.60.2 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 7-77, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-77 libstdcxx - Class basic\_stringstream<char, char\_traits<char>, allocator<char> > Function Interfaces

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

>::~basic\_stringstream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.61 Class basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

# 7.1.61.1 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 7-78

Table 7-78 Primary vtable for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	0
Virtual Base Offset	104
RTTI	<pre>typeinfo for basic_stringstream<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,></pre>
vfunc[0]:	basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>
vfunc[1]:	basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>

Table 7-79 Secondary vtable for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	-16
Virtual Base Offset	88
RTTI	typeinfo for basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,>
vfunc[0]:	non-virtual thunk to basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>
vfunc[1]:	non-virtual thunk to basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>

Table 7-80 Secondary vtable for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	-104
Virtual Base Offset	-104
RTTI	<pre>typeinfo for basic_stringstream<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>
vfunc[1]:	virtual thunk to basic_stringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringstream()</wchar_t></wchar_t,>

The VTT for the std::basic\_stringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > class is described by Table 7-81

Table 7-81 VTT for basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

VTT Name	_ZTTSt18basic_stringstreamIwSt11ch ar_traitsIwESaIwEE
Number of Entries	10

# 7.1.61.2 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 7-82, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-82 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]

non-virtual thunk to basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>::~basic\_stringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>::~basic\_stringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_stringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>::~basic\_stringstream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.62 Class basic\_istringstream<char, char\_traits<char>, allocator<char> >

## 7.1.62.1 Class data for basic\_istringstream<char, char\_traits<char>, allocator<char> >

The virtual table for the std::basic\_istringstream<char, std::char\_traits<char>, std::allocator<char> > class is described by Table 7-83

Table 7-83 Primary vtable for basic\_istringstream<char, char\_traits<char>, allocator<char>>

Base Offset	0
Virtual Base Offset	96
RTTI	<pre>typeinfo for basic_istringstream<char, char_traits<char="">, allocator<char>&gt;</char></char,></pre>
vfunc[0]:	basic_istringstream <char, char_traits<char>, allocator<char> &gt;::~basic_istringstream()</char></char></char, 
vfunc[1]:	basic_istringstream <char, char_traits<char>, allocator<char> &gt;::~basic_istringstream()</char></char></char, 

Table 7-84 Secondary vtable for basic\_istringstream<char, char\_traits<char>, allocator<char>>

Base Offset	-96
Virtual Base Offset	-96
RTTI	typeinfo for basic_istringstream <char, char_traits<char="">, allocator<char>&gt;</char></char,>
vfunc[0]:	virtual thunk to basic_istringstream <char, char_traits<char>, allocator<char> &gt;::~basic_istringstream()</char></char></char, 
vfunc[1]:	virtual thunk to basic_istringstream <char, char_traits<char>, allocator<char> &gt;::~basic_istringstream()</char></char></char, 

The VTT for the std::basic\_istringstream<char, std::char\_traits<char>, std::allocator<char> > class is described by Table 7-85

Table 7-85 VTT for basic\_istringstream<char, char\_traits<char>, allocator<char>>

VTT Name	_ZTTSt19basic_istringstreamIcSt11ch ar_traitsIcESaIcEE
Number of Entries	4

## 7.1.62.2 Interfaces for Class basic\_istringstream<char, char\_traits<char>, allocator<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_istringstream<char, std::char\_traits<char>, std::allocator<char> > specified in Table 7-86, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-86 libstdcxx - Class basic\_istringstream<char, char\_traits<char>, allocator<char> > Function Interfaces

virtual thunk to basic\_istringstream<char, char\_traits<char>, allocator<char>>::~basic\_istringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_istringstream<char, char\_traits<char>, allocator<char>:::~basic\_istringstream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.63 Class basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

## 7.1.63.1 Class data for basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

The virtual table for the std::basic\_istringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > class is described by Table 7-87

Table 7-87 Primary vtable for basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	0
Virtual Base Offset	96
RTTI	<pre>typeinfo for basic_istringstream<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,></pre>
vfunc[0]:	basic_istringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_istringstream()</wchar_t></wchar_t,>
vfunc[1]:	basic_istringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_istringstream()</wchar_t></wchar_t,>

Table 7-88 Secondary vtable for basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	-96
Virtual Base Offset	-96
RTTI	typeinfo for basic_istringstream <wchar_t, char_traits<wchar_t="">,</wchar_t,>

	allocator <wchar_t>&gt;</wchar_t>
vfunc[0]:	virtual thunk to basic_istringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_istringstream()</wchar_t></wchar_t,>
vfunc[1]:	virtual thunk to basic_istringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_istringstream()</wchar_t></wchar_t,>

The VTT for the std::basic\_istringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > class is described by Table 7-89

Table 7-89 VTT for basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

VTT Name	_ZTTSt19basic_istringstreamIwSt11c har_traitsIwESaIwEE
Number of Entries	4

## 7.1.63.2 Interfaces for Class basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_istringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > specified in Table 7-90, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-90 libstdcxx - Class basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> > Function Interfaces

virtual thunk to basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>::~basic\_istringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_istringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>::~basic\_istringstream()(GLIBCXX\_3.4) [CXXABI]

## 7.1.64 Class basic\_ostringstream<char, char\_traits<char>, allocator<char> >

## 7.1.64.1 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 7-91

Table 7-91 Primary vtable for basic\_ostringstream<char, char\_traits<char>, allocator<char>>

Base Offset	0
Virtual Base Offset	88
RTTI	typeinfo for

	basic_ostringstream <char, char_traits<char>, allocator<char>&gt;</char></char></char, 
vfunc[0]:	basic_ostringstream <char, char_traits<char>, allocator<char> &gt;::~basic_ostringstream()</char></char></char, 
vfunc[1]:	basic_ostringstream <char, char_traits<char>, allocator<char> &gt;::~basic_ostringstream()</char></char></char, 

Table 7-92 Secondary vtable for basic\_ostringstream<char, char\_traits<char>, allocator<char>>

Base Offset	-88
Virtual Base Offset	-88
RTTI	typeinfo for basic_ostringstream <char, char_traits<char="">, allocator<char>&gt;</char></char,>
vfunc[0]:	virtual thunk to basic_ostringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_ostringstream()</char></char,>
vfunc[1]:	virtual thunk to basic_ostringstream <char, char_traits<char="">, allocator<char> &gt;::~basic_ostringstream()</char></char,>

The VTT for the std::basic\_ostringstream<char, std::char\_traits<char>, std::allocator<char> > class is described by Table 7-93

Table 7-93 VTT for basic\_ostringstream<char, char\_traits<char>, allocator<char>>

VTT Name	_ZTTSt19basic_ostringstreamIcSt11c har_traitsIcESaIcEE
Number of Entries	4

## 7.1.64.2 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 7-94, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-94 libstdcxx - Class basic\_ostringstream<char, char\_traits<char>, allocator<char> > Function Interfaces

virtual thunk to basic\_ostringstream<char, char\_traits<char>, allocator<char> :::~basic\_ostringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_ostringstream<char, char\_traits<char>, allocator<char>:::~basic\_ostringstream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.65 Class basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

# 7.1.65.1 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 7-95

Table 7-95 Primary vtable for basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	0
Virtual Base Offset	88
RTTI	typeinfo for basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,>
vfunc[0]:	basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_ostringstream()</wchar_t></wchar_t,>
vfunc[1]:	basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_ostringstream()</wchar_t></wchar_t,>

Table 7-96 Secondary vtable for basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	-88
Virtual Base Offset	-88
RTTI	typeinfo for basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,>
vfunc[0]:	virtual thunk to basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_ostringstream()</wchar_t></wchar_t,>
vfunc[1]:	virtual thunk to basic_ostringstream <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_ostringstream()</wchar_t></wchar_t,>

The VTT for the std::basic\_ostringstream<wchar\_t, std::char\_traits<wchar\_t>, std::allocator<wchar\_t> > class is described by Table 7-97

Table 7-97 VTT for basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

VTT Name	_ZTTSt19basic_ostringstreamIwSt11c har_traitsIwESaIwEE
Number of Entries	4

# 7.1.65.2 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 7-98, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-98 libstdcxx - Class basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> > Function Interfaces

virtual thunk to basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >::~basic\_ostringstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_ostringstream<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >::~basic\_ostringstream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.66 Class basic\_stringbuf<char, char\_traits<char>, allocator<char> >

## 7.1.66.1 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 7-99

Table 7-99 Primary vtable for basic\_stringbuf<char, char\_traits<char>, allocator<char>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for basic_stringbuf<char, char_traits<char="">, allocator<char>&gt;</char></char,></pre>
vfunc[0]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::~basic_stringbuf()</char></char></char, 
vfunc[1]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::~basic_stringbuf()</char></char></char, 
vfunc[2]:	basic_streambuf <char, char_traits<char> &gt;::imbue(locale const&amp;)</char></char, 
vfunc[3]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::setbuf(char*, long)</char></char></char, 

vfunc[4]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::seekoff(long, _Ios_Seekdir, _Ios_Openmode)</char></char></char, 
vfunc[5]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::seekpos(fpos<mbstate_t>, _Ios_Openmode)</mbstate_t></char></char></char, 
vfunc[6]:	basic_streambuf <char, char_traits<char>&gt;::sync()</char></char, 
vfunc[7]:	basic_streambuf <char, char_traits<char> &gt;::showmanyc()</char></char, 
vfunc[8]:	basic_streambuf <char, char_traits<char> &gt;::xsgetn(char*, long)</char></char, 
vfunc[9]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::underflow()</char></char></char, 
vfunc[10]:	basic_streambuf <char, char_traits<char>&gt;::uflow()</char></char, 
vfunc[11]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::pbackfail(int)</char></char></char, 
vfunc[12]:	basic_streambuf <char, char_traits<char> &gt;::xsputn(char const*, long)</char></char, 
vfunc[13]:	basic_stringbuf <char, char_traits<char>, allocator<char> &gt;::overflow(int)</char></char></char, 

The Run Time Type Information for the std::basic\_stringbuf<char, std::char\_traits<char>, std::allocator<char> > class is described by Table 7-100

Table 7-100 typeinfo for basic\_stringbuf<char, char\_traits<char>, allocator<char>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for basic_stringbuf <char, char_traits<char="">, allocator<char>&gt;</char></char,>

# 7.1.66.2 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 7-101, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-101 libstdcxx - Class basic\_stringbuf<char, char\_traits<char>, allocator<char> > Function Interfaces

basic\_stringbuf<char, char\_traits<char>, allocator<char> >::setbuf(char\*, long)(GLIBCXX\_3.4) [ISOCXX]

basic\_stringbuf<char, char\_traits<char>, allocator<char> >::\_M\_sync(char\*, unsigned long, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

basic\_stringbuf<char, char\_traits<char>, allocator<char>>::seekoff(long, \_Ios\_Seekdir, \_Ios\_Openmode)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.67 Class basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> >

# 7.1.67.1 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 7-102

Table 7-102 Primary vtable for basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,></pre>
vfunc[0]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringbuf()</wchar_t></wchar_t,></pre>
vfunc[1]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::~basic_stringbuf()</wchar_t></wchar_t,></pre>
vfunc[2]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::imbue(locale const&amp;)</wchar_t,></pre>
vfunc[3]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">,   allocator<wchar_t> &gt;::setbuf(wchar_t*, long)</wchar_t></wchar_t,></pre>
vfunc[4]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">,   allocator<wchar_t> &gt;::seekoff(long,   _Ios_Seekdir, _Ios_Openmode)</wchar_t></wchar_t,></pre>
vfunc[5]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">,</wchar_t,></pre>

	allocator <wchar_t> &gt;::seekpos(fpos<mbstate_t>, _Ios_Openmode)</mbstate_t></wchar_t>
vfunc[6]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::sync()</wchar_t,></pre>
vfunc[7]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t=""> &gt;::showmanyc()</wchar_t,></pre>
vfunc[8]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t=""> &gt;::xsgetn(wchar_t*, long)</wchar_t,></pre>
vfunc[9]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::underflow()</wchar_t></wchar_t,></pre>
vfunc[10]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::uflow()</wchar_t,>
vfunc[11]:	basic_stringbuf <wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::pbackfail(unsigned int)</wchar_t></wchar_t,>
vfunc[12]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::xsputn(wchar_t const*, long)</wchar_t,>
vfunc[13]:	<pre>basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;::overflow(unsigned int)</wchar_t></wchar_t,></pre>

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 7-103

Table 7-103 typeinfo for basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for basic_stringbuf<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt;</wchar_t></wchar_t,></pre>

# 7.1.67.2 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 7-104, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-104 libstdcxx - Class basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t> > Function Interfaces

basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::setbuf(wchar\_t\*, long)(GLIBCXX\_3.4) [ISOCXX]

basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::\_M\_sync(wchar\_t\*, unsigned long, unsigned long)(GLIBCXX\_3.4)
[ISOCXX]

basic\_stringbuf<wchar\_t, char\_traits<wchar\_t>, allocator<wchar\_t>
>::seekoff(long, \_Ios\_Seekdir, \_Ios\_Openmode)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.68 Class basic\_iostream<char, char\_traits<char> >

#### 7.1.68.1 Class data for basic\_iostream<char, char\_traits<char> >

The virtual table for the std::basic\_iostream<char, std::char\_traits<char> > class is described by Table 7-105

Table 7-105 Primary vtable for basic\_iostream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	24
RTTI	typeinfo for basic_iostream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_iostream <char, char_traits<char> &gt;::~basic_iostream()</char></char, 
vfunc[1]:	basic_iostream <char, char_traits<char> &gt;::~basic_iostream()</char></char, 

#### Table 7-106 Secondary vtable for basic\_iostream<char, char\_traits<char>>

Base Offset	-16
Virtual Base Offset	8
RTTI	typeinfo for basic_iostream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	non-virtual thunk to basic_iostream <char, char_traits<char> &gt;::~basic_iostream()</char></char, 
vfunc[1]:	non-virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()</char,>

#### Table 7-107 Secondary vtable for basic\_iostream<char, char\_traits<char>>

Base Offset	-24
-------------	-----

Virtual Base Offset	-24
RTTI	typeinfo for basic_iostream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()</char,>
vfunc[1]:	virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()</char,>

The VTT for the std::basic\_iostream<char, std::char\_traits<char> > class is described by Table 7-108

Table 7-108 VTT for basic\_iostream<char, char\_traits<char>>

VTT Name	_ZTTSd
Number of Entries	7

# 7.1.68.2 Interfaces for Class basic\_iostream<char, char\_traits<char> >

An LSB conforming implementation shall provide the architecture specific methods for Class std::basic\_iostream<char, std::char\_traits<char> > specified in Table 7-109, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-109 libstdcxx - Class basic\_iostream<char, char\_traits<char> > Function Interfaces

non-virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()(GLIBCXX_3.4) [CXXABI]</char,>
non-virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()(GLIBCXX_3.4) [CXXABI]</char,>
virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()(GLIBCXX_3.4) [CXXABI]</char,>
virtual thunk to basic_iostream <char, char_traits<char=""> &gt;::~basic_iostream()(GLIBCXX_3.4) [CXXABI]</char,>

### 7.1.69 Class basic\_iostream<wchar\_t, char\_traits<wchar\_t> >

# 7.1.69.1 Class data for basic\_iostream<wchar\_t, char\_traits<wchar\_t> >

The virtual table for the std::basic\_iostream<wchar\_t, std::char\_traits<wchar\_t> class is described by Table 7-110

Table 7-110 Primary vtable for basic\_iostream<wchar\_t, char\_traits<wchar\_t> >

Base Offset	0
Virtual Base Offset	24

RTTI	<pre>typeinfo for basic_iostream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	<pre>basic_iostream<wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,></pre>
vfunc[1]:	basic_iostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,>

## Table 7-111 Secondary vtable for basic\_iostream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-16
Virtual Base Offset	8
RTTI	<pre>typeinfo for basic_iostream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	non-virtual thunk to basic_iostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,>
vfunc[1]:	non-virtual thunk to basic_iostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,>

# Table 7-112 Secondary vtable for basic\_iostream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-24
Virtual Base Offset	-24
RTTI	<pre>typeinfo for basic_iostream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_iostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_iostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_iostream()</wchar_t,>

The VTT for the std::basic\_iostream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-113

### Table 7-113 VTT for basic\_iostream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt14basic_iostreamIwSt11char_t
	raitsIwEE

Number of Entries	7
-------------------	---

## 7.1.69.2 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 7-114, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-114 libstdcxx - Class basic\_iostream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

non-virtual thunk to basic\_iostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_iostream()(GLIBCXX\_3.4) [CXXABI]

non-virtual thunk to basic\_iostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_iostream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_iostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_iostream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_iostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_iostream()(GLIBCXX\_3.4) [CXXABI]

#### 7.1.70 Class basic\_istream<char, char\_traits<char> >

#### 7.1.70.1 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 7-115

Table 7-115 Primary vtable for basic\_istream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	16
RTTI	typeinfo for basic_istream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_istream <char, char_traits<char>&gt;::~basic_istream()</char></char, 
vfunc[1]:	basic_istream <char, char_traits<char>&gt;::~basic_istream()</char></char, 

### Table 7-116 Secondary vtable for basic\_istream<char, char\_traits<char>>

Base Offset	-16
Virtual Base Offset	-16
RTTI	typeinfo for basic_istream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	<pre>virtual thunk to basic_istream<char, char_traits<char="">&gt;::~basic_istream()</char,></pre>
vfunc[1]:	virtual thunk to basic_istream <char,< td=""></char,<>

	char_traits <char> &gt;::~basic_istream()</char>
--	--

The VTT for the std::basic\_istream<char, std::char\_traits<char> > class is described by Table 7-117

#### Table 7-117 VTT for basic\_istream<char, char\_traits<char>>

VTT Name	_ZTTSi
Number of Entries	2

## 7.1.70.2 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 7-118, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-118 libstdcxx - Class basic\_istream<char, char\_traits<char> > Function Interfaces

basic_istream <char, char_traits<char="">&gt;::get(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char="">&gt;::get(char*, long, char)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char="">&gt;::read(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char=""> &gt;::seekg(long, _Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char=""> &gt;::ignore(long, int)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char=""> &gt;::getline(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char=""> &gt;::getline(char*, long, char)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_istream <char, char_traits<char="">&gt;::readsome(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
virtual thunk to basic_istream <char, char_traits<char=""> &gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI]</char,>
virtual thunk to basic_istream <char, char_traits<char=""> &gt;::~basic_istream()(GLIBCXX_3.4) [CXXABI]</char,>

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

# 7.1.71.1 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 7-119

Table 7-119 Primary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	0
Virtual Base Offset	16
RTTI	<pre>typeinfo for basic_istream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	basic_istream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_istream()</wchar_t,>
vfunc[1]:	basic_istream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_istream()</wchar_t,>

Table 7-120 Secondary vtable for basic\_istream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-16
Virtual Base Offset	-16
RTTI	<pre>typeinfo for basic_istream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_istream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_istream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_istream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_istream()</wchar_t,>

The VTT for the std::basic\_istream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-121

Table 7-121 VTT for basic\_istream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt13basic_istreamIwSt11char_tr aitsIwEE
Number of Entries	2

# 7.1.71.2 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 7-122, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-122 libstdcxx - Class basic\_istream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::get(wchar\_t\*,
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::get(wchar\_t\*, long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::read(wchar\_t\*,
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::seekg(long,
\_Ios\_Seekdir)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::ignore(long, unsigned int)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::getline(wchar\_t\*,
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::getline(wchar\_t\*, long, wchar\_t)(GLIBCXX\_3.4) [ISOCXX]

basic\_istream<wchar\_t, char\_traits<wchar\_t> >::readsome(wchar\_t\*,
long)(GLIBCXX\_3.4) [ISOCXX]

virtual thunk to basic\_istream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_istream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_istream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_istream()(GLIBCXX\_3.4) [CXXABI]

# 7.1.72 Class istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >

# 7.1.72.1 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, ISO/IEC 23360 Part 1.

#### 7.1.73 Class istreambuf\_iterator<char, char\_traits<char> >

## 7.1.73.1 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, ISO/IEC 23360 Part 1.

#### 7.1.74 Class basic ostream<char, char traits<char>>

#### 7.1.74.1 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 7-123

Table 7-123 Primary vtable for basic\_ostream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	8
RTTI	typeinfo for basic_ostream <char,< td=""></char,<>

	char_traits <char>&gt;</char>
vfunc[0]:	basic_ostream <char, char_traits<char> &gt;::~basic_ostream()</char></char, 
vfunc[1]:	basic_ostream <char, char_traits<char> &gt;::~basic_ostream()</char></char, 

Table 7-124 Secondary vtable for basic\_ostream<char, char\_traits<char>>

Base Offset	-8
Virtual Base Offset	-8
RTTI	typeinfo for basic_ostream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	virtual thunk to basic_ostream <char, char_traits<char=""> &gt;::~basic_ostream()</char,>
vfunc[1]:	virtual thunk to basic_ostream <char, char_traits<char=""> &gt;::~basic_ostream()</char,>

The VTT for the std::basic\_ostream<char, std::char\_traits<char> > class is described by Table 7-125

Table 7-125 VTT for basic\_ostream<char, char\_traits<char>>

VTT Name	_ZTTSo
Number of Entries	2

# 7.1.74.2 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 7-126, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-126 libstdcxx - Class basic\_ostream<char, char\_traits<char> > Function Interfaces

basic_ostream <char, char_traits<char=""> &gt;::seekp(long,Ios_Seekdir)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_ostream <char, char_traits<char=""> &gt;::write(char const*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
basic_ostream <char, char_traits<char="">&gt;::_M_write(char const*, long)(GLIBCXX_3.4) [ISOCXX]</char,>
virtual thunk to basic_ostream <char, char_traits<char=""> &gt;::~basic_ostream()(GLIBCXX_3.4) [CXXABI]</char,>
virtual thunk to basic_ostream <char, char_traits<char=""></char,>

>::~basic\_ostream()(GLIBCXX\_3.4) [CXXABI]

### 7.1.75 Class basic\_ostream<wchar\_t, char\_traits<wchar\_t> >

# 7.1.75.1 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 7-127

Table 7-127 Primary vtable for basic\_ostream<wchar\_t, char\_traits<wchar\_t>

Base Offset	0
Virtual Base Offset	8
RTTI	<pre>typeinfo for basic_ostream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	basic_ostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ostream()</wchar_t,>
vfunc[1]:	basic_ostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ostream()</wchar_t,>

Table 7-128 Secondary vtable for basic\_ostream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-8
Virtual Base Offset	-8
RTTI	<pre>typeinfo for basic_ostream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_ostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ostream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_ostream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ostream()</wchar_t,>

The VTT for the std::basic\_ostream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-129

Table 7-129 VTT for basic\_ostream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt13basic_ostreamIwSt11char_t raitsIwEE
Number of Entries	2

# 7.1.75.2 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 7-130, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-130 libstdcxx - Class basic\_ostream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

basic\_ostream<wchar\_t, char\_traits<wchar\_t>>::seekp(long,
\_Ios\_Seekdir)(GLIBCXX\_3.4) [ISOCXX]

basic\_ostream<wchar\_t, char\_traits<wchar\_t>>::write(wchar\_t const\*,
long)(GLIBCXX\_3.4) [ISOCXX]

virtual thunk to basic\_ostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ostream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_ostream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ostream()(GLIBCXX\_3.4) [CXXABI]

### 7.1.76 Class basic\_fstream<char, char\_traits<char> >

#### 7.1.76.1 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 7-131

Table 7-131 Primary vtable for basic\_fstream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	264
RTTI	typeinfo for basic_fstream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_fstream <char, char_traits<char>&gt;::~basic_fstream()</char></char, 
vfunc[1]:	basic_fstream <char, char_traits<char>&gt;::~basic_fstream()</char></char, 

Table 7-132 Secondary vtable for basic\_fstream<char, char\_traits<char>>

Base Offset	-16
Virtual Base Offset	248
RTTI	<pre>typeinfo for basic_fstream<char, char_traits<char="">&gt;</char,></pre>
vfunc[0]:	<pre>non-virtual thunk to basic_fstream<char, char_traits<char="">&gt;::~basic_fstream()</char,></pre>
vfunc[1]:	non-virtual thunk to basic_fstream <char, char_traits<char="">&gt;::~basic_fstream()</char,>

Table 7-133 Secondary vtable for basic\_fstream<char, char\_traits<char>>

Base Offset	-264
Virtual Base Offset	-264
RTTI	typeinfo for basic_fstream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	<pre>virtual thunk to basic_fstream<char, char_traits<char="">&gt;::~basic_fstream()</char,></pre>
vfunc[1]:	virtual thunk to basic_fstream <char, char_traits<char=""> &gt;::~basic_fstream()</char,>

The VTT for the std::basic\_fstream<char, std::char\_traits<char> > class is described by Table 7-134

Table 7-134 VTT for basic\_fstream<char, char\_traits<char>>

VTT Name	_ZTTSt13basic_fstreamIcSt11char_tra itsIcEE
Number of Entries	10

## 7.1.76.2 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 7-135, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-135 libstdcxx - Class basic\_fstream<char, char\_traits<char> > Function Interfaces

non-virtual thunk to basic_fstream <char, char_traits<char=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</char,>	
non-virtual thunk to basic_fstream <char, char_traits<char=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</char,>	
virtual thunk to basic_fstream <char, char_traits<char=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</char,>	
virtual thunk to basic_fstream <char, char_traits<char=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</char,>	

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

## 7.1.77.1 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 7-136

Table 7-136 Primary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	0
-------------	---

Virtual Base Offset	264
RTTI	<pre>typeinfo for basic_fstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>
vfunc[1]:	basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>

## Table 7-137 Secondary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-16
Virtual Base Offset	248
RTTI	<pre>typeinfo for basic_fstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	non-virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>
vfunc[1]:	non-virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>

# Table 7-138 Secondary vtable for basic\_fstream<wchar\_t, char\_traits<wchar\_t> >

Base Offset	-264
Virtual Base Offset	-264
RTTI	<pre>typeinfo for basic_fstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()</wchar_t,>

The VTT for the std::basic\_fstream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-139

Table 7-139 VTT for basic\_fstream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt13basic_fstreamIwSt11char_tr
----------	------------------------------------

	aitsIwEE
Number of Entries	10

# 7.1.77.2 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 7-140, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-140 libstdcxx - Class basic\_fstream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

non-virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</wchar_t,>	
non-virtual thunk to basic_fstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</wchar_t,>	
<pre>virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</wchar_t,></pre>	

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

#### 7.1.78.1 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 7-141

Table 7-141 Primary vtable for basic\_ifstream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	256
RTTI	typeinfo for basic_ifstream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_ifstream <char, char_traits<char> &gt;::~basic_ifstream()</char></char, 
vfunc[1]:	basic_ifstream <char, char_traits<char> &gt;::~basic_ifstream()</char></char, 

#### Table 7-142 Secondary vtable for basic\_ifstream<char, char\_traits<char>>

Base Offset	-256
Virtual Base Offset	-256
RTTI	typeinfo for basic_ifstream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	virtual thunk to basic_ifstream <char, char_traits<char=""> &gt;::~basic_ifstream()</char,>

 virtual thunk to basic_ifstream <char, char_traits<char=""></char,>
>::~basic_ifstream()

The VTT for the std::basic\_ifstream<char, std::char\_traits<char> > class is described by Table 7-143

Table 7-143 VTT for basic\_ifstream<char, char\_traits<char>>

VTT Name	_ZTTSt14basic_ifstreamIcSt11char_tr aitsIcEE
Number of Entries	4

## 7.1.78.2 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 7-144, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-144 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]

virtual thunk to basic\_ifstream<char, char\_traits<char>
>::~basic\_ifstream()(GLIBCXX\_3.4) [CXXABI]

### 7.1.79 Class basic\_ifstream<wchar\_t, char\_traits<wchar\_t>>

## 7.1.79.1 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 7-145

Table 7-145 Primary vtable for basic\_ifstream<wchar\_t, char\_traits<wchar\_t>

Base Offset	0
Virtual Base Offset	256
RTTI	<pre>typeinfo for basic_ifstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	basic_ifstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ifstream()</wchar_t,>
vfunc[1]:	basic_ifstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ifstream()</wchar_t,>

Table 7-146 Secondary vtable for basic\_ifstream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-256
Virtual Base Offset	-256
RTTI	<pre>typeinfo for basic_ifstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_ifstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ifstream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_ifstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ifstream()</wchar_t,>

The VTT for the std::basic\_ifstream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-147

Table 7-147 VTT for basic\_ifstream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt14basic_ifstreamIwSt11char_t raitsIwEE
Number of Entries	4

# 7.1.79.2 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 7-148, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-148 libstdcxx - Class basic\_ifstream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

virtual thunk to basic\_ifstream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ifstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_ifstream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ifstream()(GLIBCXX\_3.4) [CXXABI]

#### 7.1.80 Class basic\_ofstream<char, char\_traits<char> >

#### 7.1.80.1 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 7-149

Table 7-149 Primary vtable for basic\_ofstream<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	248

RTTI	typeinfo for basic_ofstream <char, char_traits<char=""> &gt;</char,>
vfunc[0]:	basic_ofstream <char, char_traits<char> &gt;::~basic_ofstream()</char></char, 
vfunc[1]:	basic_ofstream <char, char_traits<char> &gt;::~basic_ofstream()</char></char, 

Table 7-150 Secondary vtable for basic\_ofstream<char, char\_traits<char>>

Base Offset	-248
Virtual Base Offset	-248
RTTI	typeinfo for basic_ofstream <char, char_traits<char="">&gt;</char,>
vfunc[0]:	virtual thunk to basic_ofstream <char, char_traits<char=""> &gt;::~basic_ofstream()</char,>
vfunc[1]:	virtual thunk to basic_ofstream <char, char_traits<char=""> &gt;::~basic_ofstream()</char,>

The VTT for the std::basic\_ofstream<char, std::char\_traits<char> > class is described by Table 7-151

Table 7-151 VTT for basic\_ofstream<char, char\_traits<char>>

VTT Name	_ZTTSt14basic_ofstreamIcSt11char_tr aitsIcEE
Number of Entries	4

# 7.1.80.2 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 7-152, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-152 libstdcxx - Class basic\_ofstream<char, char\_traits<char> > Function Interfaces

virtual thunk to basic_ofstream <char, char_traits<char=""> &gt;::~basic_ofstream()(GLIBCXX_3.4) [CXXABI]</char,>	
virtual thunk to basic_ofstream <char, char_traits<char=""> &gt;::~basic_ofstream()(GLIBCXX_3.4) [CXXABI]</char,>	

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

# 7.1.81.1 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 7-153

Table 7-153 Primary vtable for basic\_ofstream<wchar\_t, char\_traits<wchar\_t>

Base Offset	0
Virtual Base Offset	248
RTTI	<pre>typeinfo for basic_ofstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	basic_ofstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ofstream()</wchar_t,>
vfunc[1]:	basic_ofstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ofstream()</wchar_t,>

Table 7-154 Secondary vtable for basic\_ofstream<wchar\_t, char\_traits<wchar\_t>>

Base Offset	-248
Virtual Base Offset	-248
RTTI	<pre>typeinfo for basic_ofstream<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>
vfunc[0]:	virtual thunk to basic_ofstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ofstream()</wchar_t,>
vfunc[1]:	virtual thunk to basic_ofstream <wchar_t, char_traits<wchar_t=""> &gt;::~basic_ofstream()</wchar_t,>

The VTT for the std::basic\_ofstream<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-155

Table 7-155 VTT for basic\_ofstream<wchar\_t, char\_traits<wchar\_t>>

VTT Name	_ZTTSt14basic_ofstreamIwSt11char_t raitsIwEE
Number of Entries	4

# 7.1.81.2 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 7-156, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-156 libstdcxx - Class basic\_ofstream<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

virtual thunk to basic\_ofstream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ofstream()(GLIBCXX\_3.4) [CXXABI]

virtual thunk to basic\_ofstream<wchar\_t, char\_traits<wchar\_t>
>::~basic\_ofstream()(GLIBCXX\_3.4) [CXXABI]

### 7.1.82 Class basic\_streambuf<char, char\_traits<char> >

### 7.1.82.1 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 7-157

Table 7-157 Primary vtable for basic\_streambuf<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for basic_streambuf <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_streambuf <char, char_traits<char> &gt;::~basic_streambuf()</char></char, 
vfunc[1]:	basic_streambuf <char, char_traits<char> &gt;::~basic_streambuf()</char></char, 
vfunc[2]:	basic_streambuf <char, char_traits<char>&gt;::imbue(locale const&amp;)</char></char, 
vfunc[3]:	basic_streambuf <char, char_traits<char>&gt;::setbuf(char*, long)</char></char, 
vfunc[4]:	basic_streambuf <char, char_traits<char> &gt;::seekoff(long, _Ios_Seekdir, _Ios_Openmode)</char></char, 
vfunc[5]:	<pre>basic_streambuf<char, char_traits<char=""> &gt;::seekpos(fpos<mbstate_t>, _Ios_Openmode)</mbstate_t></char,></pre>
vfunc[6]:	basic_streambuf <char, char_traits<char> &gt;::sync()</char></char, 

vfunc[7]:	basic_streambuf <char, char_traits<char>&gt;::showmanyc()</char></char, 
vfunc[8]:	basic_streambuf <char, char_traits<char>&gt;::xsgetn(char*, long)</char></char, 
vfunc[9]:	<pre>basic_streambuf<char, char_traits<char=""> &gt;::underflow()</char,></pre>
vfunc[10]:	<pre>basic_streambuf<char, char_traits<char="">&gt;::uflow()</char,></pre>
vfunc[11]:	basic_streambuf <char, char_traits<char> &gt;::pbackfail(int)</char></char, 
vfunc[12]:	basic_streambuf <char, char_traits<char> &gt;::xsputn(char const*, long)</char></char, 
vfunc[13]:	basic_streambuf <char, char_traits<char> &gt;::overflow(int)</char></char, 

The Run Time Type Information for the std::basic\_streambuf<char, std::char\_traits<char> > class is described by Table 7-158

Table 7-158 typeinfo for basic\_streambuf<char, char\_traits<char>>

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for basic_streambuf <char, char_traits<char="">&gt;</char,>

# 7.1.82.2 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 7-159, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-159 libstdcxx - Class basic\_streambuf<char, char\_traits<char> > Function Interfaces

basic_streambuf <char, char_traits<char=""> &gt;::pubseekoff(long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_streambuf <char, char_traits<char=""> &gt;::sgetn(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_streambuf <char, char_traits<char=""> &gt;::sputn(char const*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_streambuf <char, char_traits<char=""> &gt;::setbuf(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_streambuf <char, char_traits<char=""> &gt;::xsgetn(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	

basic\_streambuf<char, char\_traits<char> >::xsputn(char const\*,
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_streambuf<char, char\_traits<char> >::seekoff(long, \_Ios\_Seekdir, \_Ios\_Openmode)(GLIBCXX\_3.4) [ISOCXX]

basic\_streambuf<char, char\_traits<char> >::pubsetbuf(char\*, long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.83 Class basic\_streambuf<wchar\_t, char\_traits<wchar\_t>

# 7.1.83.1 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 7-160

Table 7-160 Primary vtable for basic\_streambuf<wchar\_t, char\_traits<wchar\_t>>

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

vfunc[8]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::xsgetn(wchar_t*, long)</wchar_t,>
vfunc[9]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::underflow()</wchar_t,></pre>
vfunc[10]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::uflow()</wchar_t,></pre>
vfunc[11]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::pbackfail(unsigned int)</wchar_t,>
vfunc[12]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::xsputn(wchar_t const*, long)</wchar_t,>
vfunc[13]:	basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::overflow(unsigned int)</wchar_t,>

The Run Time Type Information for the std::basic\_streambuf<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-161

Table 7-161 typeinfo for basic\_streambuf<wchar\_t, char\_traits<wchar\_t>>

Base Vtable	vtable forcxxabiv1::class_type_info
Name	<pre>typeinfo name for basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>

## 7.1.83.2 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 7-162, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-162 libstdcxx - Class basic\_streambuf<wchar\_t, char\_traits<wchar\_t> Function Interfaces

basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::pubseekoff(long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::sgetn(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::sputn(wchar_t const*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::setbuf(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
basic_streambuf <wchar_t, char_traits<wchar_t=""> &gt;::xsgetn(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	

basic\_streambuf<wchar\_t, char\_traits<wchar\_t> >::xsputn(wchar\_t const\*,
long)(GLIBCXX\_3.4) [ISOCXX]

basic\_streambuf<wchar\_t, char\_traits<wchar\_t> >::seekoff(long,
 \_Ios\_Seekdir, \_Ios\_Openmode)(GLIBCXX\_3.4) [ISOCXX]

basic\_streambuf<wchar\_t, char\_traits<wchar\_t> >::pubsetbuf(wchar\_t\*,
long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.84 Class basic\_filebuf<char, char\_traits<char> >

### 7.1.84.1 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 7-163

Table 7-163 Primary vtable for basic\_filebuf<char, char\_traits<char>>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for basic_filebuf <char, char_traits<char="">&gt;</char,>
vfunc[0]:	basic_filebuf <char, char_traits<char=""> &gt;::~basic_filebuf()</char,>
vfunc[1]:	basic_filebuf <char, char_traits<char=""> &gt;::~basic_filebuf()</char,>
vfunc[2]:	basic_filebuf <char, char_traits<char=""> &gt;::imbue(locale const&amp;)</char,>
vfunc[3]:	basic_filebuf <char, char_traits<char=""> &gt;::setbuf(char*, long)</char,>
vfunc[4]:	basic_filebuf <char, char_traits<char=""> &gt;::seekoff(long, _Ios_Seekdir, _Ios_Openmode)</char,>
vfunc[5]:	basic_filebuf <char, char_traits<char=""> &gt;::seekpos(fpos<mbstate_t>, _Ios_Openmode)</mbstate_t></char,>
vfunc[6]:	basic_filebuf <char, char_traits<char=""> &gt;::sync()</char,>
vfunc[7]:	basic_filebuf <char, char_traits<char=""> &gt;::showmanyc()</char,>
vfunc[8]:	basic_filebuf <char, char_traits<char=""> &gt;::xsgetn(char*, long)</char,>
vfunc[9]:	basic_filebuf <char, char_traits<char=""> &gt;::underflow()</char,>
vfunc[10]:	<pre>basic_streambuf<char, char_traits<char="">&gt;::uflow()</char,></pre>
vfunc[11]:	basic_filebuf <char, char_traits<char=""> &gt;::pbackfail(int)</char,>

vfunc[12]:	basic_filebuf <char, char_traits<char=""> &gt;::xsputn(char const*, long)</char,>
vfunc[13]:	<pre>basic_filebuf<char, char_traits<char=""> &gt;::overflow(int)</char,></pre>

The Run Time Type Information for the std::basic\_filebuf<char, std::char\_traits<char> > class is described by Table 7-164

#### Table 7-164 typeinfo for basic\_filebuf<char, char\_traits<char>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for basic_filebuf <char, char_traits<char=""> &gt;</char,>

#### 7.1.84.2 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 7-165, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-165 libstdcxx - Class basic\_filebuf<char, char\_traits<char> > Function Interfaces

basic_filebuf <char, char_traits<char=""> &gt;::_M_set_buffer(long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char=""> &gt;::_M_convert_to_external(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char=""> &gt;::setbuf(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char="">&gt;::xsgetn(char*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char=""> &gt;::xsputn(char const*, long)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char=""> &gt;::_M_seek(long, _Ios_Seekdir,mbstate_t)(GLIBCXX_3.4) [ISOCXX]</char,>	
basic_filebuf <char, char_traits<char=""> &gt;::seekoff(long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</char,>	

### 7.1.85 Class basic\_filebuf<wchar\_t, char\_traits<wchar\_t> >

## 7.1.85.1 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 7-166

#### Table 7-166 Primary vtable for basic\_filebuf<wchar\_t, char\_traits<wchar\_t>>

Base Offset	0
-------------	---

Virtual Base Offset	0
RTTI	typeinfo for basic_filebuf <wchar_t, char_traits<wchar_t="">&gt;</wchar_t,>
vfunc[0]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::~basic_filebuf()</wchar_t,></pre>
vfunc[1]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::~basic_filebuf()</wchar_t,></pre>
vfunc[2]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t="">&gt;::imbue(locale const&amp;)</wchar_t,></pre>
vfunc[3]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::setbuf(wchar_t*, long)</wchar_t,></pre>
vfunc[4]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t="">&gt;::seekoff(long,     _Ios_Seekdir, _Ios_Openmode)</wchar_t,></pre>
vfunc[5]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::seekpos(fpos<mbstate_t>, _Ios_Openmode)</mbstate_t></wchar_t,></pre>
vfunc[6]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::sync()</wchar_t,></pre>
vfunc[7]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::showmanyc()</wchar_t,></pre>
vfunc[8]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::xsgetn(wchar_t*, long)</wchar_t,></pre>
vfunc[9]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t="">&gt;::underflow()</wchar_t,></pre>
vfunc[10]:	<pre>basic_streambuf<wchar_t, char_traits<wchar_t="">&gt;::uflow()</wchar_t,></pre>
vfunc[11]:	basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::pbackfail(unsigned int)</wchar_t,>
vfunc[12]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::xsputn(wchar_t const*, long)</wchar_t,></pre>
vfunc[13]:	<pre>basic_filebuf<wchar_t, char_traits<wchar_t=""> &gt;::overflow(unsigned int)</wchar_t,></pre>

The Run Time Type Information for the std::basic\_filebuf<wchar\_t, std::char\_traits<wchar\_t> > class is described by Table 7-167

#### Table 7-167 typeinfo for basic\_filebuf<wchar\_t, char\_traits<wchar\_t>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for basic_filebuf<wchar_t, char_traits<wchar_t="">&gt;</wchar_t,></pre>

## 7.1.85.2 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 7-168, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-168 libstdcxx - Class basic\_filebuf<wchar\_t, char\_traits<wchar\_t> > Function Interfaces

basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::_M_set_buffer(long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::_M_convert_to_external(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::setbuf(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::xsgetn(wchar_t*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::xsputn(wchar_t const*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::_M_seek(long, _Ios_Seekdir,mbstate_t)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_filebuf <wchar_t, char_traits<wchar_t=""> &gt;::seekoff(long, _Ios_Seekdir, _Ios_Openmode)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
basic_ostream <wchar_t, char_traits<wchar_t="">&gt;::_M_write(wchar_t const*, long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
<pre>virtual thunk to basic_fstream<wchar_t, char_traits<wchar_t=""> &gt;::~basic_fstream()(GLIBCXX_3.4) [CXXABI]</wchar_t,></pre>

### 7.1.86 Class ios\_base

#### 7.1.86.1 Class data for ios\_base

The Run Time Type Information for the std::ios\_base class is described by Table 7-169

#### Table 7-169 typeinfo for ios\_base

Base Vtable	vtable for
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	cxxabiv1::class_type_info
Name	typeinfo name for ios_base

#### 7.1.86.2 Interfaces for Class ios\_base

No external methods are defined for libstdcxx - Class std::ios\_base in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

#### 7.1.87 Class basic ios<char, char traits<char>>

#### 7.1.87.1 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 by Table 7-170

Table 7-170 Primary vtable for basic\_ios<char, char\_traits<char>>

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

#### 7.1.87.2 Interfaces for Class basic ios<char, char traits<char>>

No external methods are defined for libstdcxx - Class std::basic\_ios<char, std::char\_traits<char> > in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

#### 7.1.88 Class basic\_ios<wchar\_t, char\_traits<wchar\_t>>

# 7.1.88.1 Interfaces for Class basic\_ios<wchar\_t, char\_traits<wchar\_t>>

No external methods are defined for libstdcxx - Class std::basic\_ios<wchar\_t, std::char\_traits<wchar\_t> > in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

#### 7.1.89 Class ios\_base::failure

#### 7.1.89.1 Class data for ios base::failure

The virtual table for the std::ios\_base::failure class is described by Table 7-171

Table 7-171 Primary vtable for ios\_base::failure

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for ios_base::failure
vfunc[0]:	ios_base::failure::~failure()

vfunc[1]:	ios_base::failure::~failure()
vfunc[2]:	ios_base::failure::what() const

The Run Time Type Information for the std::ios\_base::failure class is described by Table 7-172

Table 7-172 typeinfo for ios\_base::failure

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for ios_base::failure

### 7.1.89.2 Interfaces for Class ios\_base::failure

No external methods are defined for libstdcxx - Class std::ios\_base::failure in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

### 7.1.90 Class \_\_timepunct<char>

#### 7.1.90.1 Class data for \_\_timepunct<char>

The virtual table for the std::\_\_timepunct<char> class is described by Table 7-173

Table 7-173 Primary vtable for \_\_timepunct<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo fortimepunct <char></char>
vfunc[0]:	timepunct <char>::~timepunct()</char>
vfunc[1]:	timepunct <char>::~timepunct()</char>

The Run Time Type Information for the std::\_timepunct<char> class is described by Table 7-174

Table 7-174 typeinfo for \_\_timepunct<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name fortimepunct <char></char>

#### 7.1.90.2 Interfaces for Class \_\_timepunct<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::\_\_timepunct<char> specified in Table 7-175, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-175 libstdcxx - Class \_\_timepunct<char> Function Interfaces

\_\_timepunct<char>::\_M\_put(char\*, unsigned long, char const\*, tm const\*) const(GLIBCXX\_3.4) [ISOCXX]

timepunct <char>::timepunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
timepunct <char>::timepunct(timepunct_cache<char>*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char></char>
timepunct <char>::timepunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
timepunct <char>::timepunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
timepunct <char>::timepunct(timepunct_cache<char>*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char></char>
timepunct <char>::timepunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>

### 7.1.91 Class \_\_timepunct<wchar\_t>

### 7.1.91.1 Class data for \_\_timepunct<wchar\_t>

The virtual table for the std::\_\_timepunct<wchar\_t> class is described by Table 7-176

Table 7-176 Primary vtable for \_\_timepunct<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo fortimepunct <wchar_t></wchar_t>
vfunc[0]:	timepunct <wchar_t>::~timepunc t()</wchar_t>
vfunc[1]:	timepunct <wchar_t>::~timepunc t()</wchar_t>

The Run Time Type Information for the std::\_\_timepunct<wchar\_t> class is described by Table 7-177

Table 7-177 typeinfo for \_\_timepunct<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name fortimepunct <wchar_t></wchar_t>

### 7.1.91.2 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 7-178, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-178 libstdcxx - Class \_\_timepunct<wchar\_t> Function Interfaces

timepunct <wchar_t>::_M_put(wchar_t*, unsigned long, wchar_t const*, tm const*) const(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
timepunct <wchar_t>::timepunct(locale_struct*, char const*, unsigned</wchar_t>	

long)(GLIBCXX_3.4) [ISOCXX]
timepunct <wchar_t>::timepunct(timepunct_cache<wchar_t>*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t></wchar_t>
timepunct <wchar_t>::timepunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
timepunct <wchar_t>::timepunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
timepunct <wchar_t>::timepunct(timepunct_cache<wchar_t>*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t></wchar_t>
timepunct <wchar_t>::timepunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>

### 7.1.92 Class messages\_base

#### 7.1.92.1 Class data for messages\_base

The Run Time Type Information for the std:: $messages\_base\ class\ is\ described\ by\ Table\ 7-179$ 

Table 7-179 typeinfo for messages\_base

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for messages_base

### 7.1.92.2 Interfaces for Class messages\_base

No external methods are defined for libstdcxx - Class std::messages\_base in this part of the specification. See also the generic specification, ISO/IEC 23360 Part  $^{1}$ 

### 7.1.93 Class messages<char>

#### 7.1.93.1 Class data for messages<char>

The virtual table for the std::messages<char> class is described by Table 7-180

Table 7-180 Primary vtable for messages<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for messages <char></char>
vfunc[0]:	messages <char>::~messages()</char>
vfunc[1]:	messages <char>::~messages()</char>
vfunc[2]:	messages <char>::do_open(basic_stri ng<char, char_traits<char="">, allocator<char> &gt; const&amp;, locale const&amp;) const</char></char,></char>
vfunc[3]:	messages <char>::do_get(int, int, int, basic_string<char, char_traits<char="">,</char,></char>

	allocator <char> &gt; const&amp;) const</char>
vfunc[4]:	messages <char>::do_close(int) const</char>

### 7.1.93.2 Interfaces for Class messages<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::messages<char> specified in Table 7-181, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-181 libstdcxx - Class messages<char> Function Interfaces

messages <char>::messages(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>	
messages <char>::messages(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>	
messages <char>::messages(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>	
messages <char>::messages(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>	

### 7.1.94 Class messages<wchar\_t>

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

The virtual table for the std::messages<wchar\_t> class is described by Table 7-182

Table 7-182 Primary vtable for messages<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for messages <wchar_t></wchar_t>
vfunc[0]:	messages <wchar_t>::~messages()</wchar_t>
vfunc[1]:	messages <wchar_t>::~messages()</wchar_t>
vfunc[2]:	messages <wchar_t>::do_open(basic_ string<char, char_traits<char="">, allocator<char> &gt; const&amp;, locale const&amp;) const</char></char,></wchar_t>
vfunc[3]:	messages <wchar_t>::do_get(int, int, int, basic_string<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt; const&amp;) const</wchar_t></wchar_t,></wchar_t>
vfunc[4]:	messages <wchar_t>::do_close(int) const</wchar_t>

### 7.1.94.2 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 7-183, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-183 libstdcxx - Class messages<wchar\_t> Function Interfaces

messages <wchar_t>::messages(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
messages <wchar_t>::messages(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
messages <wchar_t>::messages(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
messages <wchar_t>::messages(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	

### 7.1.95 Class messages\_byname<char>

#### 7.1.95.1 Class data for messages\_byname<char>

The virtual table for the std::messages\_byname<char> class is described by Table 7-184

Table 7-184 Primary vtable for messages\_byname<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for messages_byname <char></char>
vfunc[0]:	messages_byname <char>::~messages _byname()</char>
vfunc[1]:	messages_byname <char>::~messages _byname()</char>
vfunc[2]:	messages <char>::do_open(basic_stri ng<char, char_traits<char="">, allocator<char> &gt; const&amp;, locale const&amp;) const</char></char,></char>
vfunc[3]:	messages <char>::do_get(int, int, int, basic_string<char, char_traits<char="">, allocator<char> &gt; const&amp;) const</char></char,></char>
vfunc[4]:	messages <char>::do_close(int) const</char>

The Run Time Type Information for the std::messages\_byname<char> class is described by Table 7-185

Table 7-185 typeinfo for messages\_byname<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for messages_byname <char></char>

#### 7.1.95.2 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 7-186, with

the full mandatory functionality as described in the referenced underlying specification.

Table 7-186 libstdcxx - Class messages\_byname<char> Function Interfaces

messages\_byname<char>::messages\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

messages\_byname<char>::messages\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.96 Class messages\_byname<wchar\_t>

### 7.1.96.1 Class data for messages\_byname<wchar\_t>

The virtual table for the std::messages\_byname<wchar\_t> class is described by Table 7-187

Table 7-187 Primary vtable for messages\_byname<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for messages_byname <wchar_t></wchar_t>
vfunc[0]:	messages_byname <wchar_t>::~mess ages_byname()</wchar_t>
vfunc[1]:	messages_byname <wchar_t>::~mess ages_byname()</wchar_t>
vfunc[2]:	messages <wchar_t>::do_open(basic_ string<char, char_traits<char="">, allocator<char> &gt; const&amp;, locale const&amp;) const</char></char,></wchar_t>
vfunc[3]:	messages <wchar_t>::do_get(int, int, int, basic_string<wchar_t, char_traits<wchar_t="">, allocator<wchar_t> &gt; const&amp;) const</wchar_t></wchar_t,></wchar_t>
vfunc[4]:	messages <wchar_t>::do_close(int) const</wchar_t>

The Run Time Type Information for the std::messages\_byname<wchar\_t> class is described by Table 7-188

Table 7-188 typeinfo for messages\_byname<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for messages_byname <wchar_t></wchar_t>

#### 7.1.96.2 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 7-189, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-189 libstdcxx - Class messages\_byname<wchar\_t> Function Interfaces

messages\_byname<wchar\_t>::messages\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

messages\_byname<wchar\_t>::messages\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.97 Class numpunct<char>

#### 7.1.97.1 Class data for numpunct<char>

The virtual table for the std::numpunct<char> class is described by Table 7-190

Table 7-190 Primary vtable for numpunct<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for numpunct <char></char>
vfunc[0]:	numpunct <char>::~numpunct()</char>
vfunc[1]:	numpunct <char>::~numpunct()</char>
vfunc[2]:	<pre>numpunct<char>::do_decimal_point( ) const</char></pre>
vfunc[3]:	numpunct <char>::do_thousands_sep () const</char>
vfunc[4]:	numpunct <char>::do_grouping() const</char>
vfunc[5]:	numpunct <char>::do_truename() const</char>
vfunc[6]:	numpunct <char>::do_falsename() const</char>

The Run Time Type Information for the std::numpunct<char> class is described by Table 7-191

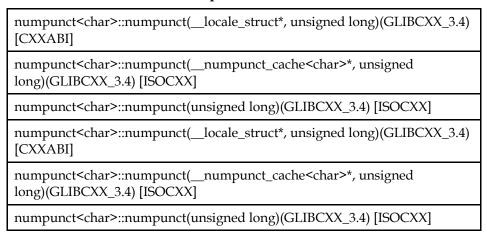
Table 7-191 typeinfo for numpunct<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for numpunct <char></char>

#### 7.1.97.2 Interfaces for Class numpunct<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::numpunct<char> specified in Table 7-192, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-192 libstdcxx - Class numpunct<char> Function Interfaces



### 7.1.98 Class numpunct<wchar\_t>

#### 7.1.98.1 Class data for numpunct<wchar t>

The virtual table for the std::numpunct<wchar\_t> class is described by Table 7-193

Table 7-193 Primary vtable for numpunct<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for numpunct <wchar_t></wchar_t>
vfunc[0]:	numpunct <wchar_t>::~numpunct()</wchar_t>
vfunc[1]:	numpunct <wchar_t>::~numpunct()</wchar_t>
vfunc[2]:	numpunct <wchar_t>::do_decimal_p oint() const</wchar_t>
vfunc[3]:	numpunct <wchar_t>::do_thousands _sep() const</wchar_t>
vfunc[4]:	numpunct <wchar_t>::do_grouping() const</wchar_t>
vfunc[5]:	numpunct <wchar_t>::do_truename() const</wchar_t>
vfunc[6]:	numpunct <wchar_t>::do_falsename( ) const</wchar_t>

The Run Time Type Information for the std::numpunct<wchar\_t> class is described by Table 7-194

Table 7-194 typeinfo for numpunct<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for numpunct <wchar_t></wchar_t>

#### 7.1.98.2 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 7-195, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-195 libstdcxx - Class numpunct<wchar\_t> Function Interfaces

numpunct <wchar_t>::numpunct(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
numpunct <wchar_t>::numpunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
numpunct <wchar_t>::numpunct(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	
numpunct <wchar_t>::numpunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>	

### 7.1.99 Class numpunct\_byname<char>

#### 7.1.99.1 Class data for numpunct\_byname<char>

The virtual table for the std::numpunct\_byname<char> class is described by Table 7-196

Table 7-196 Primary vtable for numpunct\_byname<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for numpunct_byname <char></char>
vfunc[0]:	numpunct_byname <char>::~numpu nct_byname()</char>
vfunc[1]:	numpunct_byname <char>::~numpu nct_byname()</char>
vfunc[2]:	numpunct <char>::do_decimal_point( ) const</char>
vfunc[3]:	numpunct <char>::do_thousands_sep () const</char>
vfunc[4]:	numpunct <char>::do_grouping() const</char>
vfunc[5]:	numpunct <char>::do_truename() const</char>
vfunc[6]:	numpunct <char>::do_falsename()</char>

const

The Run Time Type Information for the std::numpunct\_byname<char> class is described by Table 7-197

Table 7-197 typeinfo for numpunct\_byname<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for numpunct_byname <char></char>

#### 7.1.99.2 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 7-198, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-198 libstdcxx - Class numpunct\_byname<char> Function Interfaces

numpunct_byname <char>::numpunct_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
numpunct_byname <char>::numpunct_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>

### 7.1.100 Class numpunct\_byname<wchar\_t>

#### 7.1.100.1 Class data for numpunct\_byname<wchar\_t>

The virtual table for the std::numpunct\_byname<wchar\_t> class is described by Table 7-199

Table 7-199 Primary vtable for numpunct\_byname<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for numpunct_byname <wchar_t></wchar_t>
vfunc[0]:	numpunct_byname <wchar_t>::~num punct_byname()</wchar_t>
vfunc[1]:	numpunct_byname <wchar_t>::~num punct_byname()</wchar_t>
vfunc[2]:	numpunct <wchar_t>::do_decimal_p oint() const</wchar_t>
vfunc[3]:	numpunct <wchar_t>::do_thousands _sep() const</wchar_t>
vfunc[4]:	numpunct <wchar_t>::do_grouping() const</wchar_t>
vfunc[5]:	numpunct <wchar_t>::do_truename()</wchar_t>

	const
vfunc[6]:	numpunct <wchar_t>::do_falsename( ) const</wchar_t>

The Run Time Type Information for the std::numpunct\_byname<wchar\_t> class is described by Table 7-200

Table 7-200 typeinfo for numpunct\_byname<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for numpunct_byname <wchar_t></wchar_t>

#### 7.1.100.2 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 7-201, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-201 libstdcxx - Class numpunct\_byname<wchar\_t> Function Interfaces

numpunct\_byname<wchar\_t>::numpunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

numpunct\_byname<wchar\_t>::numpunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.101 Class \_\_codecvt\_abstract\_base<char, char, \_\_mbstate\_t>

## 7.1.101.1 Interfaces for Class \_\_codecvt\_abstract\_base<char, char, \_\_mbstate\_t>

No external methods are defined for libstdcxx - Class std::\_codecvt\_abstract\_base<char, char, \_\_mbstate\_t> in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

# 7.1.102 Class \_\_codecvt\_abstract\_base<wchar\_t, char, \_\_mbstate\_t>

# 7.1.102.1 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 by Table 7-202

Table 7-202 Primary vtable for \_\_codecvt\_abstract\_base<wchar\_t, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for

	codecvt_abstract_base <wchar_t, char,mbstate_t=""></wchar_t,>
vfunc[0]:	
vfunc[1]:	
vfunc[2]:	cxa_pure_virtual
vfunc[3]:	cxa_pure_virtual
vfunc[4]:	cxa_pure_virtual
vfunc[5]:	cxa_pure_virtual
vfunc[6]:	cxa_pure_virtual
vfunc[7]:	cxa_pure_virtual
vfunc[8]:	cxa_pure_virtual

# 7.1.102.2 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, ISO/IEC 23360 Part 1.

#### 7.1.103 Class codecvt\_base

#### 7.1.103.1 Class data for codecvt\_base

The Run Time Type Information for the std::codecvt\_base class is described by Table 7-203

Table 7-203 typeinfo for codecvt\_base

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for codecvt_base

### 7.1.103.2 Interfaces for Class codecvt\_base

No external methods are defined for libstdcxx - Class std::codecvt\_base in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

#### 7.1.104 Class codecvt<char, char, \_\_mbstate\_t>

#### 7.1.104.1 Class data for codecvt<char, char, \_\_mbstate\_t>

The virtual table for the std::codecvt<char, char, \_\_mbstate\_t> class is described by Table 7-204

Table 7-204 Primary vtable for codecvt<char, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for codecvt <char, char,<="" td=""></char,>

	mbstate_t>
vfunc[0]:	codecvt <char, char,<br="">mbstate_t&gt;::~codecvt()</char,>
vfunc[1]:	codecvt <char, char,<br="">mbstate_t&gt;::~codecvt()</char,>
vfunc[2]:	codecvt <char, char,<br="">mbstate_t&gt;::do_out(mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*&amp;) const</char,>
vfunc[3]:	codecvt <char, char,mbstate_t="">::do_unshift(mbstate_ t&amp;, char*, char*, char*&amp;) const</char,>
vfunc[4]:	codecvt <char, char,<br="">mbstate_t&gt;::do_in(mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*&amp;) const</char,>
vfunc[5]:	codecvt <char, char,<br="">mbstate_t&gt;::do_encoding() const</char,>
vfunc[6]:	codecvt <char, char,<br="">mbstate_t&gt;::do_always_noconv() const</char,>
vfunc[7]:	codecvt <char, char,mbstate_t="">::do_length(mbstate_t &amp;, char const*, char const*, unsigned long) const</char,>
vfunc[8]:	codecvt <char, char,<br="">mbstate_t&gt;::do_max_length() const</char,>

The Run Time Type Information for the std::codecvt<char, char, \_\_mbstate\_t> class is described by Table 7-205

Table 7-205 typeinfo for codecvt<char, char, \_\_mbstate\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for codecvt <char, char,mbstate_t=""></char,>

# 7.1.104.2 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 by Table 7-206

Table 7-206 Primary vtable for \_\_codecvt\_abstract\_base<char, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo forcodecvt_abstract_base <char, char,mbstate_t=""></char,>
vfunc[0]:	
vfunc[1]:	
vfunc[2]:	cxa_pure_virtual
vfunc[3]:	cxa_pure_virtual
vfunc[4]:	cxa_pure_virtual
vfunc[5]:	cxa_pure_virtual
vfunc[6]:	cxa_pure_virtual
vfunc[7]:	cxa_pure_virtual
vfunc[8]:	cxa_pure_virtual

#### 7.1.104.3 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 7-207, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-207 libstdcxx - Class codecvt<char, char, \_\_mbstate\_t> Function Interfaces

codecvt <char, char,mbstate_t="">::do_length(mbstate_t&amp;, char const*, char const*, unsigned long) const(GLIBCXX_3.4) [ISOCXX]</char,>	
codecvt <char, char,mbstate_t="">::codecvt(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
codecvt <char, char,mbstate_t="">::codecvt(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
codecvt <char, char,mbstate_t="">::codecvt(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
codecvt <char, char,mbstate_t="">::codecvt(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	

### 7.1.105 Class codecvt<wchar\_t, char, \_\_mbstate\_t>

#### 7.1.105.1 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 7-208

Table 7-208 Primary vtable for codecvt<wchar\_t, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for codecvt <wchar_t, char,mbstate_t=""></wchar_t,>

vfunc[0]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::~codecvt()</wchar_t,>
vfunc[1]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::~codecvt()</wchar_t,>
vfunc[2]:	codecvt <wchar_t, char,mbstate_t="">::do_out(mbstate_t&amp;, wchar_t const*, wchar_t const*, wchar_t const*&amp;, char*, char*, char*&amp;) const</wchar_t,>
vfunc[3]:	codecvt <wchar_t, char,mbstate_t="">::do_unshift(mbstate_ t&amp;, char*, char*, char*&amp;) const</wchar_t,>
vfunc[4]:	codecvt <wchar_t, char,mbstate_t="">::do_in(mbstate_t&amp;, char const*, char const*, char const*&amp;, wchar_t*, wchar_t*, wchar_t*&amp;) const</wchar_t,>
vfunc[5]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::do_encoding() const</wchar_t,>
vfunc[6]:	codecvt <wchar_t, char,mbstate_t="">::do_always_noconv() const</wchar_t,>
vfunc[7]:	codecvt <wchar_t, char,mbstate_t="">::do_length(mbstate_t &amp;, char const*, char const*, unsigned long) const</wchar_t,>
vfunc[8]:	codecvt <wchar_t, char,mbstate_t="">::do_max_length() const</wchar_t,>

The Run Time Type Information for the std::codecvt<wchar\_t, char, \_\_mbstate\_t> class is described by Table 7-209

Table 7-209 typeinfo for codecvt<wchar\_t, char, \_\_mbstate\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for codecvt <wchar_t, char,mbstate_t=""></wchar_t,>

#### 7.1.105.2 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 7-210, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-210 libstdcxx - Class codecvt<wchar\_t, char, \_\_mbstate\_t> Function Interfaces

and acrety washam to aham	mbatata tanda lamath/	mbatata tl- abay sanat*
i codecvi≤wcnar t, cnar,	mostate t>::go length(	mbstate_t&, char const*,

char const*, unsigned long) const(GLIBCXX_3.4) [ISOCXX]
codecvt <wchar_t, char,mbstate_t="">::codecvt(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
codecvt <wchar_t, char,mbstate_t="">::codecvt(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
codecvt <wchar_t, char,mbstate_t="">::codecvt(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
codecvt <wchar_t, char,mbstate_t="">::codecvt(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>

## 7.1.106 Class codecvt\_byname<char, char, \_\_mbstate\_t>

## 7.1.106.1 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 7-211

Table 7-211 Primary vtable for codecvt\_byname<char, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for codecvt_byname <char, char,mbstate_t=""></char,>
vfunc[0]:	codecvt_byname <char, char,<br="">mbstate_t&gt;::~codecvt_byname()</char,>
vfunc[1]:	codecvt_byname <char, char,<br="">mbstate_t&gt;::~codecvt_byname()</char,>
vfunc[2]:	codecvt <char, char,<br="">_mbstate_t&gt;::do_out(mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*&amp;) const</char,>
vfunc[3]:	codecvt <char, char,mbstate_t="">::do_unshift(mbstate_ t&amp;, char*, char*, char*&amp;) const</char,>
vfunc[4]:	codecvt <char, char,<br="">mbstate_t&gt;::do_in(mbstate_t&amp;, char const*, char const*, char const*&amp;, char*, char*&amp;) const</char,>
vfunc[5]:	codecvt <char, char,<br="">mbstate_t&gt;::do_encoding() const</char,>
vfunc[6]:	codecvt <char, char,mbstate_t="">::do_always_noconv() const</char,>
vfunc[7]:	codecvt <char, char,<br="">mbstate_t&gt;::do_length(mbstate_t &amp;, char const*, char const*, unsigned long) const</char,>

vfunc[8]:	codecvt <char, char,<="" th=""></char,>
	mbstate_t>::do_max_length() const

The Run Time Type Information for the std::codecvt\_byname<char, char, \_\_mbstate\_t> class is described by Table 7-212

Table 7-212 typeinfo for codecvt\_byname<char, char, \_\_mbstate\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for codecvt_byname <char, char,mbstate_t=""></char,>

# 7.1.106.2 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 7-213, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-213 libstdcxx - Class codecvt\_byname<char, char, \_\_mbstate\_t> Function Interfaces

codecvt\_byname<char, char, \_\_mbstate\_t>::codecvt\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

codecvt\_byname<char, char, \_\_mbstate\_t>::codecvt\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

#### 7.1.107 Class codecvt\_byname<wchar\_t, char, \_\_mbstate\_t>

# 7.1.107.1 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 7-214

Table 7-214 Primary vtable for codecvt\_byname<wchar\_t, char, \_\_mbstate\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for codecvt_byname <wchar_t, char,mbstate_t=""></wchar_t,>
vfunc[0]:	codecvt_byname <wchar_t, char,<br="">mbstate_t&gt;::~codecvt_byname()</wchar_t,>
vfunc[1]:	codecvt_byname <wchar_t, char,<br="">mbstate_t&gt;::~codecvt_byname()</wchar_t,>
vfunc[2]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::do_out(mbstate_t&amp;, wchar_t const*, wchar_t const*,</wchar_t,>

	wchar_t const*&, char*, char*, char*&) const
vfunc[3]:	codecvt <wchar_t, char,mbstate_t="">::do_unshift(mbstate_ t&amp;, char*, char*&amp;) const</wchar_t,>
vfunc[4]:	codecvt <wchar_t, char,mbstate_t="">::do_in(mbstate_t&amp;, char const*, char const*, char const*&amp;, wchar_t*, wchar_t*, wchar_t*&amp;) const</wchar_t,>
vfunc[5]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::do_encoding() const</wchar_t,>
vfunc[6]:	codecvt <wchar_t, char,mbstate_t="">::do_always_noconv() const</wchar_t,>
vfunc[7]:	codecvt <wchar_t, char,mbstate_t="">::do_length(mbstate_t &amp;, char const*, char const*, unsigned long) const</wchar_t,>
vfunc[8]:	codecvt <wchar_t, char,<br="">mbstate_t&gt;::do_max_length() const</wchar_t,>

The Run Time Type Information for the std::codecvt\_byname<wchar\_t, char, \_\_mbstate\_t> class is described by Table 7-215

Table 7-215 typeinfo for codecvt\_byname<wchar\_t, char, \_\_mbstate\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for codecvt_byname <wchar_t, char,mbstate_t=""></wchar_t,>

#### 7.1.107.2 Class data for collate\_byname<wchar\_t>

The virtual table for the std::collate\_byname<wchar\_t> class is described by Table 7-216

Table 7-216 Primary vtable for collate\_byname<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for collate_byname <wchar_t></wchar_t>
vfunc[0]:	collate_byname <wchar_t>::~collate_ byname()</wchar_t>
vfunc[1]:	collate_byname <wchar_t>::~collate_ byname()</wchar_t>

vfunc[2]:	collate <wchar_t>::do_compare(wcha r_t const*, wchar_t const*, wchar_t const*, wchar_t const*) const</wchar_t>
vfunc[3]:	collate <wchar_t>::do_transform(wch ar_t const*, wchar_t const*) const</wchar_t>
vfunc[4]:	collate <wchar_t>::do_hash(wchar_t const*, wchar_t const*) const</wchar_t>

The Run Time Type Information for the std::collate\_byname<wchar\_t> class is described by Table 7-217

Table 7-217 typeinfo for collate\_byname<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for collate_byname <wchar_t></wchar_t>

# 7.1.107.3 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 7-218, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-218 libstdcxx - Class codecvt\_byname<wchar\_t, char, \_\_mbstate\_t> Function Interfaces

codecvt_byname <wchar_t, char,mbstate_t="">::codecvt_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
codecvt_byname <wchar_t, char,mbstate_t="">::codecvt_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>
collate_byname <wchar_t>::collate_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
collate_byname <wchar_t>::collate_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>

#### 7.1.108 Class collate<char>

#### 7.1.108.1 Class data for collate<char>

The virtual table for the std::collate<char> class is described by Table 7-219

Table 7-219 Primary vtable for collate<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for collate <char></char>
vfunc[0]:	collate <char>::~collate()</char>

vfunc[1]:	collate <char>::~collate()</char>
vfunc[2]:	collate <char>::do_compare(char const*, char const*, char const*, char const*)</char>
vfunc[3]:	collate <char>::do_transform(char const*, char const*) const</char>
vfunc[4]:	collate <char>:::do_hash(char const*, char const*) const</char>

The Run Time Type Information for the std::collate<char> class is described by Table 7-220

Table 7-220 typeinfo for collate<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for collate <char></char>

#### 7.1.108.2 Interfaces for Class collate<char>

An LSB conforming implementation shall provide the architecture specific methods for Class std::collate<char> specified in Table 7-221, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-221 libstdcxx - Class collate < char > Function Interfaces

collate <char>::_M_transform(char*, char const*, unsigned long) const(GLIBCXX_3.4) [ISOCXX]</char>
collate <char>::collate(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
collate <char>::collate(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
collate <char>::collate(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
collate <char>::collate(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>

### 7.1.109 Class collate<wchar\_t>

### 7.1.109.1 Class data for collate<wchar\_t>

The virtual table for the std::collate<wchar\_t> class is described by Table 7-222

Table 7-222 Primary vtable for collate<wchar\_t>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for collate <wchar_t></wchar_t>
vfunc[0]:	collate <wchar_t>::~collate()</wchar_t>
vfunc[1]:	collate <wchar_t>::~collate()</wchar_t>
vfunc[2]:	collate <wchar_t>::do_compare(wcha</wchar_t>

	r_t const*, wchar_t const*, wchar_t const*, wchar_t const*)
vfunc[3]:	collate <wchar_t>::do_transform(wch ar_t const*, wchar_t const*) const</wchar_t>
vfunc[4]:	collate <wchar_t>::do_hash(wchar_t const*, wchar_t const*) const</wchar_t>

The Run Time Type Information for the std::collate<wchar\_t> class is described by Table 7-223

Table 7-223 typeinfo for collate<wchar\_t>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for collate <wchar_t></wchar_t>

### 7.1.109.2 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 7-224, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-224 libstdcxx - Class collate<wchar\_t> Function Interfaces

collate <wchar_t>::_M_transform(wchar_t*, wchar_t const*, unsigned long) const(GLIBCXX_3.4) [ISOCXX]</wchar_t>
collate <wchar_t>::collate(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
collate <wchar_t>::collate(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
collate <wchar_t>::collate(locale_struct*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>
collate <wchar_t>::collate(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t>

#### 7.1.110 Class collate\_byname<char>

#### 7.1.110.1 Class data for collate\_byname<char>

The virtual table for the std::collate\_byname<char> class is described by Table 7-225

Table 7-225 Primary vtable for collate\_byname<char>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for collate_byname <char></char>
vfunc[0]:	collate_byname <char>::~collate_byname()</char>
vfunc[1]:	collate_byname <char>::~collate_byname()</char>

vfunc[2]:	collate <char>:::do_compare(char const*, char const*, char const*, char const*)</char>
vfunc[3]:	collate <char>::do_transform(char const*, char const*) const</char>
vfunc[4]:	collate <char>:::do_hash(char const*, char const*) const</char>

The Run Time Type Information for the std::collate\_byname<char> class is described by Table 7-226

Table 7-226 typeinfo for collate\_byname<char>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for collate_byname <char></char>

#### 7.1.110.2 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 7-227, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-227 libstdcxx - Class collate\_byname<char> Function Interfaces

collate_byname <char>::collate_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>
collate_byname <char>::collate_byname(char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char>

### 7.1.111 Class collate\_byname<wchar\_t>

## 7.1.111.1 Interfaces for Class collate\_byname<wchar\_t>

No external methods are defined for libstdcxx - Class std::collate\_byname<wchar\_t> in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

#### 7.1.112 Class time\_base

#### 7.1.112.1 Class data for time\_base

The Run Time Type Information for the std::time\_base class is described by Table 7-228

Table 7-228 typeinfo for time\_base

Base Vtable	vtable for cxxabiv1::class_type_info
Name	typeinfo name for time_base

### 7.1.112.2 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, ISO/IEC 23360 Part 1.

# 7.1.113 Class time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char>>>

# 7.1.113.1 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 by Table 7-229

Table 7-229 Primary vtable for time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_get_byname<char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;</char,></pre>
vfunc[0]:	<pre>time_get_byname<char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::~time_get_byname()</char,></pre>
vfunc[1]:	<pre>time_get_byname<char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::~time_get_byname()</char,></pre>
vfunc[2]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_date_order() const</char,>
vfunc[3]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_get_time(istreambuf_iterator<c char_traits<char="" har,="">&gt;, istreambuf_iterator<char, char_traits<char="">&gt;, ios_base&amp;, _los_lostate&amp;, tm*) const</char,></c></char,>
vfunc[4]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_get_date(istreambuf_iterator<c char_traits<char="" har,="">&gt;, istreambuf_iterator<char, char_traits<char="">&gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></c></char,>

vfunc[5]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_weekday(istreambuf_iterat or<char, char_traits<char=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></char,></char,>
vfunc[6]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_get_monthname(istreambuf_it erator<char, char_traits<char="">&gt;, istreambuf_iterator<char, char_traits<char="">&gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></char,></char,>
vfunc[7]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_year(istreambuf_iterator<c char_traits<char="" har,=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></c></char,>

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 7-230

Table 7-230 typeinfo for time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for time_get_byname<char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;</char,></pre>

# 7.1.113.2 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 7-231, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-231 libstdcxx - Class time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char> >> Function Interfaces

time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char>>
>::time\_get\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_get\_byname<char, istreambuf\_iterator<char, char\_traits<char>>

>::time\_get\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.114 Class time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

# 7.1.114.1 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 by Table 7-232

Table 7-232 Primary vtable for time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_get_byname<wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>
vfunc[0]:	time_get_byname <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::~time_get_byname()</wchar_t,>
vfunc[1]:	time_get_byname <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::~time_get_byname()</wchar_t,>
vfunc[2]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::do_date_order() const</wchar_t,>
vfunc[3]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_time(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>
vfunc[4]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_date(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>
vfunc[5]:	time_get <wchar_t,< td=""></wchar_t,<>

	<pre>istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt; &gt;::do_get_weekday(istreambuf_iterat   or<wchar_t, char_traits<wchar_t=""> &gt;,   istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;,   _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t,></wchar_t,></pre>
vfunc[6]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_monthname(istreambuf_it erator<wchar_t, char_traits<wchar_t=""> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t,></wchar_t,>
vfunc[7]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_year(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>

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 7-233

Table 7-233 typeinfo for time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for time_get_byname<wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>

# 7.1.114.2 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 7-234, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-234 libstdcxx - Class time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> > ::time\_get\_byname(char const\*, unsigned

#### long)(GLIBCXX\_3.4) [ISOCXX]

time\_get\_byname<wchar\_t, istreambuf\_iterator<wchar\_t,
char\_traits<wchar\_t> > ::time\_get\_byname(char const\*, unsigned
long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.115 Class time\_put\_byname<char, ostreambuf iterator<char, char traits<char>>>

## 7.1.115.1 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 by Table 7-235

Table 7-235 Primary vtable for time\_put\_byname<char, ostreambuf\_iterator<char, char\_traits<char>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_put_byname<char, char_traits<char="" ostreambuf_iterator<char,="">&gt;&gt;</char,></pre>
vfunc[0]:	time_put_byname <char, char_traits<char="" ostreambuf_iterator<char,="">&gt; &gt;::~time_put_byname()</char,>
vfunc[1]:	time_put_byname <char, char_traits<char="" ostreambuf_iterator<char,="">&gt; &gt;::~time_put_byname()</char,>
vfunc[2]:	time_put <char, char_traits<char="" ostreambuf_iterator<char,="">&gt; &gt;::do_put(ostreambuf_iterator<char, char_traits<char="">&gt;, ios_base&amp;, char, tm const*, char, char) const</char,></char,>

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 7-236

Table 7-236 typeinfo for time\_put\_byname<char, ostreambuf\_iterator<char, char\_traits<char>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for time_put_byname<char, char_traits<char="" ostreambuf_iterator<char,="">&gt;&gt;</char,></pre>

# 7.1.115.2 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 7-237, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-237 libstdcxx - Class time\_put\_byname<char, ostreambuf\_iterator<char, char\_traits<char> >> Function Interfaces

time\_put\_byname<char, ostreambuf\_iterator<char, char\_traits<char>>
>::time\_put\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_put\_byname<char, ostreambuf\_iterator<char, char\_traits<char>>
>::time\_put\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.116 Class time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

# 7.1.116.1 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 by Table 7-238

Table 7-238 Primary vtable for time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_put_byname<wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>
vfunc[0]:	time_put_byname <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::~time_put_byname()</wchar_t,>
vfunc[1]:	time_put_byname <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::~time_put_byname()</wchar_t,>
vfunc[2]:	time_put <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::do_put(ostreambuf_iterator<wcha char_traits<wchar_t="" r_t,="">&gt;, ios_base&amp;, wchar_t, tm const*, char, char) const</wcha></wchar_t,>

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 7-239

Table 7-239 typeinfo for time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for time_put_byname<wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>

# 7.1.116.2 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 7-240, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-240 libstdcxx - Class time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t,
char\_traits<wchar\_t>>>::time\_put\_byname(char const\*, unsigned
long)(GLIBCXX\_3.4) [ISOCXX]

time\_put\_byname<wchar\_t, ostreambuf\_iterator<wchar\_t,

char\_traits<wchar\_t, ostreambut\_iterator<wchar\_t, char\_traits<wchar\_t> >::time\_put\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.117 Class time\_get<char, istreambuf\_iterator<char, char\_traits<char> > >

# 7.1.117.1 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 by Table 7-241

Table 7-241 Primary vtable for time\_get<char, istreambuf\_iterator<char, char traits<char>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_get<char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;</char,></pre>
vfunc[0]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;::~time_get()</char,>

vfunc[1]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;::~time_get()</char,>
vfunc[2]:	time_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_date_order() const</char,>
vfunc[3]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_time(istreambuf_iterator<c char_traits<char="" har,=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></c></char,>
vfunc[4]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_date(istreambuf_iterator<c char_traits<char="" har,=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></c></char,>
vfunc[5]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_weekday(istreambuf_iterat or<char, char_traits<char=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></char,></char,>
vfunc[6]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; &gt;::do_get_monthname(istreambuf_it erator<char, char_traits<char=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</char,></char,></char,>
vfunc[7]:	time_get <char, char_traits<char="" istreambuf_iterator<char,=""> &gt; ::do_get_year(istreambuf_iterator<c char_traits<char="" har,=""> &gt;, istreambuf_iterator<char, char_traits<char=""> &gt;, ios_base&amp;, _los_lostate&amp;, tm*) const</char,></c></char,>

# 7.1.117.2 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 7-242, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-242 libstdcxx - Class time\_get<char, istreambuf\_iterator<char, char\_traits<char>>> Function Interfaces

time\_get<char, istreambuf\_iterator<char, char\_traits<char> >
::\_M\_extract\_num(istreambuf\_iterator<char, char\_traits<char> >,
istreambuf\_iterator<char, char\_traits<char> >, int&, int, int, unsigned long,
ios\_base&, \_Ios\_Iostate&) const(GLIBCXX\_3.4) [ISOCXX]

time\_get<char, istreambuf\_iterator<char, char\_traits<char>>
::\_M\_extract\_name(istreambuf\_iterator<char, char\_traits<char>>,
istreambuf\_iterator<char, char\_traits<char>>, int&, char const\*\*, unsigned
long, ios\_base&, \_Ios\_Iostate&) const(GLIBCXX\_3.4) [ISOCXX]

time\_get<char, istreambuf\_iterator<char, char\_traits<char>>
::time\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_get<char, istreambuf\_iterator<char, char\_traits<char>>
::time\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.118 Class time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> > >

# 7.1.118.1 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 by Table 7-243

Table 7-243 Primary vtable for time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for time_get<wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>
vfunc[0]:	<pre>time_get<wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::~time_get()</wchar_t,></pre>
vfunc[1]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::~time_get()</wchar_t,>
vfunc[2]:	time_get <wchar_t, istreambuf_iterator<wchar_t,<="" td=""></wchar_t,>

	char_traits <wchar_t>&gt; &gt;::do_date_order() const</wchar_t>
vfunc[3]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_time(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>
vfunc[4]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_date(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t+="" char_traits<wchar_t+,="">, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>
vfunc[5]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::do_get_weekday(istreambuf_iterat or<wchar_t, char_traits<wchar_t="">&gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t="">&gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t,></wchar_t,>
vfunc[6]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_monthname(istreambuf_it erator<wchar_t, char_traits<wchar_t=""> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t,></wchar_t,>
vfunc[7]:	time_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,=""> &gt; &gt;::do_get_year(istreambuf_iterator&lt; wchar_t, char_traits<wchar_t> &gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t="" char_traits<wchar_t,=""> &gt;, ios_base&amp;, _Ios_Iostate&amp;, tm*) const</wchar_t,></wchar_t></wchar_t,>

# 7.1.118.2 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 7-244, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-244 libstdcxx - Class time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>
>::\_M\_extract\_num(istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>,
istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>, int&, int, int, unsigned
long, ios\_base&, \_Ios\_Iostate&) const(GLIBCXX\_3.4) [ISOCXX]

time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> > ::\_M\_extract\_name(istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >, int&, wchar\_t const\*\*, unsigned long, ios\_base&, \_Ios\_Iostate&) const(GLIBCXX\_3.4) [ISOCXX]

time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::time\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::time\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.119 Class time\_put<char, ostreambuf\_iterator<char, char traits<char>>>

# 7.1.119.1 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 7-245, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-245 libstdcxx - Class time\_put<char, ostreambuf\_iterator<char, char\_traits<char>>> Function Interfaces

time\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
>::time\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
::time\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.120 Class time\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

## 7.1.120.1 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 7-246, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-246 libstdcxx - Class time\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >> Function Interfaces

time\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>
>::time\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

time\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::time\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.121 Class moneypunct<char, false>

#### 7.1.121.1 Class data for moneypunct<char, false>

The virtual table for the std::moneypunct<char, false> class is described by Table 7-247

Table 7-247 Primary vtable for moneypunct<char, false>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct <char, false=""></char,>
vfunc[0]:	moneypunct <char, false&gt;::~moneypunct()</char, 
vfunc[1]:	moneypunct <char, false&gt;::~moneypunct()</char, 
vfunc[2]:	moneypunct <char, false&gt;::do_decimal_point() const</char, 
vfunc[3]:	moneypunct <char, false&gt;::do_thousands_sep() const</char, 
vfunc[4]:	moneypunct <char, false&gt;::do_grouping() const</char, 
vfunc[5]:	moneypunct <char, false&gt;::do_curr_symbol() const</char, 
vfunc[6]:	moneypunct <char, false&gt;::do_positive_sign() const</char, 
vfunc[7]:	moneypunct <char, false&gt;::do_negative_sign() const</char, 
vfunc[8]:	moneypunct <char, false&gt;::do_frac_digits() const</char, 
vfunc[9]:	moneypunct <char, false&gt;::do_pos_format() const</char, 
vfunc[10]:	moneypunct <char, false&gt;::do_neg_format() const</char, 

#### 7.1.121.2 Interfaces for Class moneypunct<char, false>

An LSB conforming implementation shall provide the architecture specific methods for Class std::moneypunct<char, false> specified in Table 7-248, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-248 libstdcxx - Class moneypunct<char, false> Function Interfaces

moneypunct <char, false="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
moneypunct <char, false="">::moneypunct(moneypunct_cache<char, false="">*,</char,></char,>	

unsigned long)(GLIBCXX_3.4) [ISOCXX]	
moneypunct <char, false="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
moneypunct <char, false="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	
moneypunct <char, false="">::moneypunct(moneypunct_cache<char, false="">*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,></char,>	
moneypunct <char, false="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	

## 7.1.122 Class moneypunct<char, true>

## 7.1.122.1 Class data for moneypunct<char, true>

The virtual table for the std::moneypunct<char, true> class is described by Table 7-249

Table 7-249 Primary vtable for moneypunct<char, true>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct <char, true=""></char,>
vfunc[0]:	moneypunct <char, true&gt;::~moneypunct()</char, 
vfunc[1]:	moneypunct <char, true&gt;::~moneypunct()</char, 
vfunc[2]:	moneypunct <char, true&gt;::do_decimal_point() const</char, 
vfunc[3]:	moneypunct <char, true&gt;::do_thousands_sep() const</char, 
vfunc[4]:	moneypunct <char, true&gt;::do_grouping() const</char, 
vfunc[5]:	moneypunct <char, true&gt;::do_curr_symbol() const</char, 
vfunc[6]:	moneypunct <char, true&gt;::do_positive_sign() const</char, 
vfunc[7]:	moneypunct <char, true&gt;::do_negative_sign() const</char, 
vfunc[8]:	moneypunct <char, true&gt;::do_frac_digits() const</char, 
vfunc[9]:	moneypunct <char, true&gt;::do_pos_format() const</char, 
vfunc[10]:	moneypunct <char, true&gt;::do_neg_format() const</char, 

#### 7.1.122.2 Interfaces for Class moneypunct<char, true>

An LSB conforming implementation shall provide the architecture specific methods for Class std::moneypunct<char, true> specified in Table 7-250, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-250 libstdcxx - Class moneypunct<char, true> Function Interfaces

moneypunct<char, true>::moneypunct(\_locale\_struct\*, char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct<char, true>::moneypunct(\_moneypunct\_cache<char, true>\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct<char, true>::moneypunct(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct<char, true>::moneypunct(\_locale\_struct\*, char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct<char, true>::moneypunct(\_moneypunct\_cache<char, true>\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct<char, true>::moneypunct(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.123 Class moneypunct<wchar\_t, false>

#### 7.1.123.1 Class data for moneypunct<wchar\_t, false>

The virtual table for the std::moneypunct<wchar\_t, false> class is described by Table 7-251

Table 7-251 Primary vtable for moneypunct<wchar\_t, false>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct <wchar_t, false=""></wchar_t,>
vfunc[0]:	moneypunct <wchar_t, false&gt;::~moneypunct()</wchar_t, 
vfunc[1]:	moneypunct <wchar_t, false&gt;::~moneypunct()</wchar_t, 
vfunc[2]:	moneypunct <wchar_t, false&gt;::do_decimal_point() const</wchar_t, 
vfunc[3]:	moneypunct <wchar_t, false&gt;::do_thousands_sep() const</wchar_t, 
vfunc[4]:	moneypunct <wchar_t, false="">::do_grouping() const</wchar_t,>
vfunc[5]:	moneypunct <wchar_t, false="">::do_curr_symbol() const</wchar_t,>
vfunc[6]:	moneypunct <wchar_t,< td=""></wchar_t,<>

	false>::do_positive_sign() const
vfunc[7]:	moneypunct <wchar_t, false="">::do_negative_sign() const</wchar_t,>
vfunc[8]:	moneypunct <wchar_t, false&gt;::do_frac_digits() const</wchar_t, 
vfunc[9]:	moneypunct <wchar_t, false&gt;::do_pos_format() const</wchar_t, 
vfunc[10]:	moneypunct <wchar_t, false&gt;::do_neg_format() const</wchar_t, 

#### 7.1.123.2 Interfaces for Class moneypunct<wchar\_t, false>

An LSB conforming implementation shall provide the architecture specific methods for Class std::moneypunct<wchar\_t, false> specified in Table 7-252, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-252 libstdcxx - Class moneypunct<wchar\_t, false> Function Interfaces

moneypunct <wchar_t, false="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, false="">::moneypunct(moneypunct_cache<wchar_t, false="">*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,></wchar_t,>	
moneypunct <wchar_t, false="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, false="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, false="">::moneypunct(moneypunct_cache<wchar_t, false="">*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,></wchar_t,>	
moneypunct <wchar_t, false="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	

### 7.1.124 Class moneypunct<wchar\_t, true>

#### 7.1.124.1 Class data for moneypunct<wchar\_t, true>

The virtual table for the std::moneypunct<wchar\_t, true> class is described by Table 7-253

Table 7-253 Primary vtable for moneypunct<wchar\_t, true>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct <wchar_t, true=""></wchar_t,>
vfunc[0]:	moneypunct <wchar_t, true&gt;::~moneypunct()</wchar_t, 
vfunc[1]:	moneypunct <wchar_t,< td=""></wchar_t,<>

	true>::~moneypunct()
vfunc[2]:	moneypunct <wchar_t, true="">::do_decimal_point() const</wchar_t,>
vfunc[3]:	moneypunct <wchar_t, true&gt;::do_thousands_sep() const</wchar_t, 
vfunc[4]:	moneypunct <wchar_t, true&gt;::do_grouping() const</wchar_t, 
vfunc[5]:	moneypunct <wchar_t, true&gt;::do_curr_symbol() const</wchar_t, 
vfunc[6]:	moneypunct <wchar_t, true&gt;::do_positive_sign() const</wchar_t, 
vfunc[7]:	moneypunct <wchar_t, true="">::do_negative_sign() const</wchar_t,>
vfunc[8]:	moneypunct <wchar_t, true&gt;::do_frac_digits() const</wchar_t, 
vfunc[9]:	moneypunct <wchar_t, true&gt;::do_pos_format() const</wchar_t, 
vfunc[10]:	moneypunct <wchar_t, true&gt;::do_neg_format() const</wchar_t, 

#### 7.1.124.2 Interfaces for Class moneypunct<wchar\_t, true>

An LSB conforming implementation shall provide the architecture specific methods for Class std::moneypunct<wchar\_t, true> specified in Table 7-254, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-254 libstdcxx - Class moneypunct<wchar\_t, true> Function Interfaces

moneypunct <wchar_t, true="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, true="">::moneypunct(moneypunct_cache<wchar_t, true="">*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,></wchar_t,>	
moneypunct <wchar_t, true="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, true="">::moneypunct(locale_struct*, char const*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	
moneypunct <wchar_t, true="">::moneypunct(moneypunct_cache<wchar_t, true="">*, unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,></wchar_t,>	
moneypunct <wchar_t, true="">::moneypunct(unsigned long)(GLIBCXX_3.4) [ISOCXX]</wchar_t,>	

### 7.1.125 Class moneypunct\_byname<char, false>

#### 7.1.125.1 Class data for moneypunct\_byname<char, false>

The virtual table for the std::moneypunct\_byname<char, false> class is described by Table 7-255

Table 7-255 Primary vtable for moneypunct\_byname<char, false>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct_byname <char, false=""></char,>
vfunc[0]:	moneypunct_byname <char, false&gt;::~moneypunct_byname()</char, 
vfunc[1]:	moneypunct_byname <char, false&gt;::~moneypunct_byname()</char, 
vfunc[2]:	moneypunct <char, false&gt;::do_decimal_point() const</char, 
vfunc[3]:	moneypunct <char, false&gt;::do_thousands_sep() const</char, 
vfunc[4]:	moneypunct <char, false&gt;::do_grouping() const</char, 
vfunc[5]:	moneypunct <char, false&gt;::do_curr_symbol() const</char, 
vfunc[6]:	moneypunct <char, false&gt;::do_positive_sign() const</char, 
vfunc[7]:	moneypunct <char, false&gt;::do_negative_sign() const</char, 
vfunc[8]:	moneypunct <char, false&gt;::do_frac_digits() const</char, 
vfunc[9]:	moneypunct <char, false&gt;::do_pos_format() const</char, 
vfunc[10]:	moneypunct <char, false&gt;::do_neg_format() const</char, 

The Run Time Type Information for the std::moneypunct\_byname<char, false> class is described by Table 7-256

Table 7-256 typeinfo for moneypunct\_byname<char, false>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for moneypunct_byname <char, false=""></char,>

#### 7.1.125.2 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 7-257, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-257 libstdcxx - Class moneypunct\_byname<char, false> Function Interfaces

moneypunct\_byname<char, false>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct\_byname<char, false>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.126 Class moneypunct\_byname<char, true>

#### 7.1.126.1 Class data for moneypunct\_byname<char, true>

The virtual table for the std::moneypunct\_byname<char, true> class is described by Table 7-258

Table 7-258 Primary vtable for moneypunct\_byname<char, true>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct_byname <char, true=""></char,>
vfunc[0]:	moneypunct_byname <char, true&gt;::~moneypunct_byname()</char, 
vfunc[1]:	moneypunct_byname <char, true&gt;::~moneypunct_byname()</char, 
vfunc[2]:	moneypunct <char, true&gt;::do_decimal_point() const</char, 
vfunc[3]:	moneypunct <char, true&gt;::do_thousands_sep() const</char, 
vfunc[4]:	moneypunct <char, true&gt;::do_grouping() const</char, 
vfunc[5]:	moneypunct <char, true&gt;::do_curr_symbol() const</char, 
vfunc[6]:	moneypunct <char, true&gt;::do_positive_sign() const</char, 
vfunc[7]:	moneypunct <char, true&gt;::do_negative_sign() const</char, 
vfunc[8]:	moneypunct <char, true&gt;::do_frac_digits() const</char, 
vfunc[9]:	moneypunct <char, true&gt;::do_pos_format() const</char, 
vfunc[10]:	moneypunct <char, true&gt;::do_neg_format() const</char, 

The Run Time Type Information for the std::moneypunct\_byname<char, true> class is described by Table 7-259

Table 7-259 typeinfo for moneypunct\_byname<char, true>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for moneypunct_byname <char, true=""></char,>

### 7.1.126.2 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 7-260, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-260 libstdcxx - Class moneypunct\_byname<char, true> Function Interfaces

moneypunct\_byname<char, true>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct\_byname<char, true>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.127 Class moneypunct\_byname<wchar\_t, false>

### 7.1.127.1 Class data for moneypunct\_byname<wchar\_t, false>

The virtual table for the std::moneypunct\_byname<wchar\_t, false> class is described by Table 7-261

Table 7-261 Primary vtable for moneypunct\_byname<wchar\_t, false>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct_byname <wchar_t, false=""></wchar_t,>
vfunc[0]:	moneypunct_byname <wchar_t, false="">::~moneypunct_byname()</wchar_t,>
vfunc[1]:	moneypunct_byname <wchar_t, false="">::~moneypunct_byname()</wchar_t,>
vfunc[2]:	moneypunct <wchar_t, false="">::do_decimal_point() const</wchar_t,>
vfunc[3]:	moneypunct <wchar_t, false="">::do_thousands_sep() const</wchar_t,>
vfunc[4]:	moneypunct <wchar_t, false="">::do_grouping() const</wchar_t,>
vfunc[5]:	moneypunct <wchar_t, false="">::do_curr_symbol() const</wchar_t,>
vfunc[6]:	moneypunct <wchar_t, false="">::do_positive_sign() const</wchar_t,>

vfunc[7]:	moneypunct <wchar_t, false="">::do_negative_sign() const</wchar_t,>
vfunc[8]:	moneypunct <wchar_t, false="">::do_frac_digits() const</wchar_t,>
vfunc[9]:	moneypunct <wchar_t, false="">::do_pos_format() const</wchar_t,>
vfunc[10]:	moneypunct <wchar_t, false="">::do_neg_format() const</wchar_t,>

The Run Time Type Information for the std::moneypunct\_byname<wchar\_t, false> class is described by Table 7-262

Table 7-262 typeinfo for moneypunct\_byname<wchar\_t, false>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for moneypunct_byname <wchar_t, false=""></wchar_t,>

#### 7.1.127.2 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 7-263, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-263 libstdcxx - Class moneypunct\_byname<wchar\_t, false> Function Interfaces

moneypunct\_byname<wchar\_t, false>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct\_byname<wchar\_t, false>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.128 Class moneypunct\_byname<wchar\_t, true>

### 7.1.128.1 Class data for moneypunct\_byname<wchar\_t, true>

The virtual table for the std::moneypunct\_byname<wchar\_t, true> class is described by Table 7-264

Table 7-264 Primary vtable for moneypunct\_byname<wchar\_t, true>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for moneypunct_byname <wchar_t, true=""></wchar_t,>
vfunc[0]:	moneypunct_byname <wchar_t, true&gt;::~moneypunct_byname()</wchar_t, 

vfunc[1]:	moneypunct_byname <wchar_t, true="">::~moneypunct_byname()</wchar_t,>
vfunc[2]:	moneypunct <wchar_t, true="">::do_decimal_point() const</wchar_t,>
vfunc[3]:	moneypunct <wchar_t, true&gt;::do_thousands_sep() const</wchar_t, 
vfunc[4]:	moneypunct <wchar_t, true&gt;::do_grouping() const</wchar_t, 
vfunc[5]:	moneypunct <wchar_t, true&gt;::do_curr_symbol() const</wchar_t, 
vfunc[6]:	moneypunct <wchar_t, true&gt;::do_positive_sign() const</wchar_t, 
vfunc[7]:	moneypunct <wchar_t, true="">::do_negative_sign() const</wchar_t,>
vfunc[8]:	moneypunct <wchar_t, true&gt;::do_frac_digits() const</wchar_t, 
vfunc[9]:	moneypunct <wchar_t, true&gt;::do_pos_format() const</wchar_t, 
vfunc[10]:	moneypunct <wchar_t, true&gt;::do_neg_format() const</wchar_t, 

The Run Time Type Information for the std::moneypunct\_byname<wchar\_t, true> class is described by Table 7-265

Table 7-265 typeinfo for moneypunct\_byname<wchar\_t, true>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	typeinfo name for moneypunct_byname <wchar_t, true=""></wchar_t,>

### 7.1.128.2 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 7-266, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-266 libstdcxx - Class moneypunct\_byname<wchar\_t, true> Function Interfaces

moneypunct\_byname<wchar\_t, true>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

moneypunct\_byname<wchar\_t, true>::moneypunct\_byname(char const\*, unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.129 Class money\_base

### 7.1.129.1 Class data for money\_base

The Run Time Type Information for the std::money\_base class is described by Table 7-267

Table 7-267 typeinfo for money\_base

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for money_base

### 7.1.129.2 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, ISO/IEC 23360 Part 1.

# 7.1.130 Class money\_get<char, istreambuf\_iterator<char, char\_traits<char>>>

## 7.1.130.1 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 by Table 7-268

Table 7-268 Primary vtable for money\_get<char, istreambuf\_iterator<char, char\_traits<char>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for money_get<char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;</char,></pre>
vfunc[0]:	money_get <char, istreambuf_iterator<char, char_traits<char>&gt;&gt;::~money_get()</char></char, </char, 
vfunc[1]:	money_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;::~money_get()</char,>
vfunc[2]:	money_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::do_get(istreambuf_iterator<char, char_traits<char="">&gt;, istreambuf_iterator<char, char_traits<char="">&gt;, bool, ios_base&amp;, _Ios_Iostate&amp;, long double&amp;) const</char,></char,></char,>
vfunc[3]:	money_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt;</char,>

>::do_get(istreambuf_iterator <char, char_traits<char>&gt;, istreambuf_iterator<char, char_traits<char>&gt;, bool, ios_base&amp;, _Ios_Iostate&amp;, basic_string<char, char_traits<char>, allocator<char></char></char></char, </char></char, </char></char, 
>&) const

The Run Time Type Information for the std::money\_get<char, std::istreambuf\_iterator<char, std::char\_traits<char> >> class is described by Table 7-269

Table 7-269 typeinfo for money\_get<char, istreambuf\_iterator<char, char\_traits<char>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for money_get<char, char_traits<char="" istreambuf_iterator<char,="">&gt;&gt;</char,></pre>

# 7.1.130.2 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 7-270, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-270 libstdcxx - Class money\_get<char, istreambuf\_iterator<char, char\_traits<char>>> Function Interfaces

<pre>money_get<char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::money_get(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,></pre>	
money_get <char, char_traits<char="" istreambuf_iterator<char,="">&gt; &gt;::money_get(unsigned long)(GLIBCXX_3.4) [ISOCXX]</char,>	

# 7.1.131 Class money\_get<wchar\_t, istreambuf iterator<wchar t, char traits<wchar t>>>

## 7.1.131.1 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 by Table 7-271

Table 7-271 Primary vtable for money\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for money_get <wchar_t, istreambuf_iterator<wchar_t,<="" td=""></wchar_t,>

	char_traits <wchar_t>&gt;&gt;</wchar_t>
vfunc[0]:	money_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::~money_get()</wchar_t,>
vfunc[1]:	money_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::~money_get()</wchar_t,>
vfunc[2]:	money_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::do_get(istreambuf_iterator<wchar _t,="" char_traits<wchar_t="">&gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t="">&gt;, bool, ios_base&amp;, _Ios_Iostate&amp;, long double&amp;) const</wchar_t,></wchar></wchar_t,>
vfunc[3]:	money_get <wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt; &gt;::do_get(istreambuf_iterator<wchar _t,="" char_traits<wchar_t="">&gt;, istreambuf_iterator<wchar_t, char_traits<wchar_t="">&gt;, bool, ios_base&amp;,_Ios_Iostate&amp;, basic_string<wchar_t, char_traits<wchar_t="">, allocator<wchar_t>&gt;&amp;) const</wchar_t></wchar_t,></wchar_t,></wchar></wchar_t,>

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 7-272

Table 7-272 typeinfo for money\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for money_get<wchar_t, char_traits<wchar_t="" istreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>

## 7.1.131.2 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 7-273, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-273 libstdcxx - Class money\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

money\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>
>::money\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

money\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>
>::money\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.132 Class money\_put<char, ostreambuf\_iterator<char, char\_traits<char> > >

## 7.1.132.1 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 by Table 7-274

Table 7-274 Primary vtable for money\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for money_put <char, char_traits<char="" ostreambuf_iterator<char,="">&gt;&gt;</char,>
vfunc[0]:	money_put <char, ostreambuf_iterator<char, char_traits<char>&gt;&gt;::~money_put()</char></char, </char, 
vfunc[1]:	money_put <char, ostreambuf_iterator<char, char_traits<char>&gt;&gt;::~money_put()</char></char, </char, 
vfunc[2]:	money_put <char, char_traits<char="" ostreambuf_iterator<char,="">&gt; &gt;::do_put(ostreambuf_iterator<char, char_traits<char="">&gt;, bool, ios_base&amp;, char, long double) const</char,></char,>
vfunc[3]:	money_put <char, char_traits<char="" ostreambuf_iterator<char,="">&gt; &gt;::do_put(ostreambuf_iterator<char, char_traits<char="">&gt;, bool, ios_base&amp;, char, basic_string<char, char_traits<char="">, allocator<char>&gt; const&amp;) const</char></char,></char,></char,>

The Run Time Type Information for the std::money\_put<char, std::ostreambuf\_iterator<char, std::char\_traits<char> > class is described by Table 7-275

Table 7-275 typeinfo for money\_put<char, ostreambuf\_iterator<char, char traits<char>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for money_put<char, char_traits<char="" ostreambuf_iterator<char,="">&gt;&gt;</char,></pre>

## 7.1.132.2 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 7-276, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-276 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 long)(GLIBCXX\_3.4) [ISOCXX]

money\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
>::money\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.133 Class money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

## 7.1.133.1 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 by Table 7-277

Table 7-277 Primary vtable for money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Offset	0
Virtual Base Offset	0
RTTI	<pre>typeinfo for money_put<wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>
vfunc[0]:	money_put <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::~money_put()</wchar_t,>
vfunc[1]:	money_put <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::~money_put()</wchar_t,>
vfunc[2]:	money_put <wchar_t,< td=""></wchar_t,<>

	ostreambuf_iterator <wchar_t, char_traits<wchar_t="">&gt; &gt;::do_put(ostreambuf_iterator<wcha char_traits<wchar_t="" r_t,="">&gt;, bool, ios_base&amp;, wchar_t, long double) const</wcha></wchar_t,>
vfunc[3]:	money_put <wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt; &gt;::do_put(ostreambuf_iterator<wcha char_traits<wchar_t="" r_t,="">&gt;, bool, ios_base&amp;, wchar_t, basic_string<wchar_t, char_traits<wchar_t="">, allocator<wchar_t>&gt; const&amp;) const</wchar_t></wchar_t,></wcha></wchar_t,>

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 7-278

Table 7-278 typeinfo for money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

Base Vtable	vtable forcxxabiv1::si_class_type_info
Name	<pre>typeinfo name for money_put<wchar_t, char_traits<wchar_t="" ostreambuf_iterator<wchar_t,="">&gt;&gt;</wchar_t,></pre>

## 7.1.133.2 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 7-279, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-279 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 long)(GLIBCXX\_3.4) [ISOCXX]

money\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::money\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

#### 7.1.134 Class locale

#### 7.1.134.1 Interfaces for Class locale

An LSB conforming implementation shall provide the architecture specific methods for Class std::locale specified in Table 7-280, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-280 libstdcxx - Class locale Function Interfaces

locale::_Impl::_Impl(char const*, unsigned long)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(locale::_Impl const&, unsigned long)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(unsigned long)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(char const*, unsigned long)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(locale::_Impl const&, unsigned long)(GLIBCXX_3.4) [LSB]
locale::_Impl::_Impl(unsigned long)(GLIBCXX_3.4) [LSB]

### 7.1.135 Class locale::facet

### 7.1.135.1 Class data for locale::facet

The virtual table for the std::locale::facet class is described by Table 7-281

### Table 7-281 Primary vtable for locale::facet

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for locale::facet
vfunc[0]:	locale::facet::~facet()
vfunc[1]:	locale::facet::~facet()

The Run Time Type Information for the std::locale::facet class is described by Table 7-282

### Table 7-282 typeinfo for locale::facet

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name for locale::facet

### 7.1.135.2 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, ISO/IEC 23360 Part 1.

### 7.1.136 facet functions

#### 7.1.136.1 Interfaces for facet functions

No external methods are defined for libstdcxx - facet functions in this part of the specification. See also the generic specification, ISO/IEC 23360 Part 1.

### 7.1.137 Class \_\_num\_base

#### 7.1.137.1 Class data for \_\_num\_base

The Run Time Type Information for the std::\_\_num\_base class is described by Table 7-283

#### **Table 7-283**

Base Vtable	vtable forcxxabiv1::class_type_info
Name	typeinfo name fornum_base

### 7.1.137.2 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, ISO/IEC 23360 Part 1.

# 7.1.138 Class num\_get<char, istreambuf\_iterator<char, char traits<char> >>

## 7.1.138.1 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 7-284, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-284 libstdcxx - Class num\_get<char, istreambuf\_iterator<char, char traits<char>>> Function Interfaces

```
num_get<char, istreambuf_iterator<char, char_traits<char>>
>::num_get(unsigned long)(GLIBCXX_3.4) [ISOCXX]

num_get<char, istreambuf_iterator<char, char_traits<char>>
>::num_get(unsigned long)(GLIBCXX_3.4) [ISOCXX]
```

# 7.1.139 Class num\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

## 7.1.139.1 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 7-285, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-285 libstdcxx - Class num\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

num\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::num\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

num\_get<wchar\_t, istreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::num\_get(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.140 Class num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>>

## 7.1.140.1 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 7-286, with the full mandatory functionality as described in the referenced underlying specification.

### Table 7-286 libstdcxx - 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 long, 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 long, char, char const\*, char\*, int&) const(GLIBCXX\_3.4) [ISOCXX]

num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
>::\_M\_pad(char, long, ios\_base&, char\*, char const\*, int&)
const(GLIBCXX\_3.4) [ISOCXX]

num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
>::num\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

num\_put<char, ostreambuf\_iterator<char, char\_traits<char>>
>::num\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

# 7.1.141 Class num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>>

### 7.1.141.1 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 7-287, with the full mandatory functionality as described in the referenced underlying specification.

## Table 7-287 libstdcxx - Class num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>> Function Interfaces

num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::\_M\_group\_int(char const\*, unsigned long, wchar\_t, ios\_base&, wchar\_t\*,
wchar\_t\*, int&) const(GLIBCXX\_3.4) [ISOCXX]

num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> > ::\_M\_group\_float(char const\*, unsigned long, wchar\_t, wchar\_t const\*, wchar\_t\*, wchar\_t\*, int&) const(GLIBCXX\_3.4) [ISOCXX]

num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::\_M\_pad(wchar\_t, long, ios\_base&, wchar\_t\*, wchar\_t const\*, int&)
const(GLIBCXX\_3.4) [ISOCXX]

num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t>>

### >::num\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

num\_put<wchar\_t, ostreambuf\_iterator<wchar\_t, char\_traits<wchar\_t> >
::num\_put(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.142 Class gslice

#### 7.1.142.1 Class data for gslice

### 7.1.142.2 Interfaces for Class gslice

An LSB conforming implementation shall provide the architecture specific methods for Class std::gslice specified in Table 7-288, with the full mandatory functionality as described in the referenced underlying specification.

#### Table 7-288 libstdcxx - Class gslice Function Interfaces

gslice::\_Indexer::\_Indexer(unsigned long, valarray<unsigned long> const&, valarray<unsigned long> const&)(GLIBCXX\_3.4) [ISOCXX]

gslice::\_Indexer::\_Indexer(unsigned long, valarray<unsigned long> const&, valarray<unsigned long> const&)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.143 Class \_\_basic\_file<char>

### 7.1.143.1 Class data for \_\_basic\_file<char>

#### 7.1.143.2 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 7-289, with the full mandatory functionality as described in the referenced underlying specification.

#### Table 7-289 libstdcxx - Class \_\_basic\_file<char> Function Interfaces

\_\_basic\_file<char>::xsgetn(char\*, long)(GLIBCXX\_3.4) [ISOCXX]

\_basic\_file<char>::xsputn(char const\*, long)(GLIBCXX\_3.4) [ISOCXX]

\_basic\_file<char>::seekoff(long, \_Ios\_Seekdir)(GLIBCXX\_3.4) [ISOCXX]

\_\_basic\_file<char>::xsputn\_2(char const\*, long, char const\*, long)(GLIBCXX\_3.4) [ISOCXX]

### 7.1.144 Class \_List\_node\_base

#### 7.1.144.1 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, ISO/IEC 23360 Part 1.

### 7.1.145 Class valarray<unsigned int>

### 7.1.145.1 Class data for valarray<unsigned int>

#### 7.1.145.2 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 7-290, with the

full mandatory functionality as described in the referenced underlying specification.

### Table 7-290 libstdcxx - Class valarray<unsigned int> Function Interfaces

valarray<unsigned long>::size() const(GLIBCXX\_3.4) [ISOCXX] valarray<unsigned long>::valarray(valarray<unsigned long>

const&)(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::valarray(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::valarray(valarray<unsigned long>
const&)(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::valarray(unsigned long)(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::~valarray()(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::~valarray()(GLIBCXX\_3.4) [ISOCXX]

valarray<unsigned long>::operator[](unsigned long)(GLIBCXX\_3.4) [ISOCXX]

### 7.2 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 7.1 shall behave as described in the referenced base document.

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