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Linux Standard Base (LSB)

Part 2-3: Desktop specification for X86-32 architecture

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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Foreword

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This document was prepared by the Linux Foundation as Linux Standard Base (LSB): Desktop specification for X86-32 architecture and drafted in accordance with its editorial rules. It was assigned to Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*, and adopted by National Bodies.

This first edition of ISO/IEC 23360-2-3 cancels and replaces ISO/IEC 23360-2:2006, which has been technically revised.

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Introduction

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

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

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

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

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

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I Introductory Elements

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1 Scope

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 part describing those parts of the interface that remain constant across all implementations of the LSB, and an architecture-specific part describing the parts of the interface that vary by processor architecture. Together, the common part and the relevant architecture-specific part for a single hardware architecture provide a complete interface specification for compiled application programs on systems that share a common hardware architecture.

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.

This is the X86 architecture specific part of the Desktop module of the Linux Standard Base (LSB). This part supplements the common part of the LSB Desktop module with those interfaces that differ between architectures.

This part should be used in conjunction with the common part of LSB Desktop. Whenever a section of the common part is supplemented by architecture-specific information, the common part includes a reference to the architecture-specific part. This part may also contain additional information that is not referenced in the common part.

Interfaces described in this part of LSB Desktop are mandatory except where explicitly listed otherwise. Interfaces described in the LSB Desktop module supplement those described in the LSB Core module. They do not depend on other LSB modules.

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2 References

2.1 Normative References

The specifications listed below are referenced in whole or in part by the LSB Desktop specification. Such references may be normative or informative; a reference to specification shall only be considered normative if it is explicitly cited as such. The LSB Desktop specification may make normative references to a portion of these specifications (that is, to define a specific function or group of functions); in such cases, only the explicitly referenced portion of the specification is to be considered normative.

Table 2-1 Normative References

Name	Title	URL
ATK 2.2.0 Reference Manual	ATK 2.2.0 Reference Manual	http://developer.gnome.org/atk/2.2/index.html
Double Buffer Extension Library	Double Buffer Extension Library - Protocol Version 1.0	http://refspecs.linux-foundation.org/X11/dbelib.pdf
Fontconfig Developers Reference	Fontconfig Developers Reference, Version 2.6.0	http://refspecs.linuxfoundation.org/fontconfig-2.6.0
Gdk 2.10.14 Reference Manual	Gdk 2.10.14 Reference Manual	http://library.gnome.org/devel/gdk/2.10/
Gdk-pixbuf 2.26.0 Reference Manual	Gdk-pixbuf 2.26.0 Reference Manual	http://developer.gnome.org/gdk-pixbuf/2.26
Gio 2.32 Reference Manual	Gio 2.32 Reference Manual	http://developer.gnome.org/gio/2.32
Glib 2.32 Reference Manual	Glib 2.32 Reference Manual	http://developer.gnome.org/glib/2.32
Gobject 2.32 Reference Manual	Gobject 2.32 Reference Manual	http://developer.gnome.org/gobject/2.32
Gtk+ 2.10.14 Reference Manual	Gtk+ 2.10.14 Reference Manual	http://library.gnome.org/devel/gtk/2.10/
ISO C (1999)	ISO/IEC 9899:1999 - Programming Languages -- C	
ISO/IEC 14882: 2003 C++ Language	ISO/IEC 14882: 2003 Programming languages --C++	
Itanium™ C++ ABI	Itanium™ C++ ABI (Revision 1.86)	http://refspecs.linuxfoundation.org/cxxabi-1.86.html
Libtiff 4.0.2 Reference Manual	Libtiff 4.0.2 Reference Manual	http://www.libtiff.org/man/index.html

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Name	Title	URL
Libxcb API	Libxcb API	http://xcb.freedesktop.org/XcbApi/
OpenGL 2.1	The OpenGL® Graphics System: A Specification (Version 2.1)	http://www.opengl.org/registry/doc/glspec21.20061201.pdf
OpenGL ABI	OpenGL® Application Binary Interface for Linux	http://www.opengl.org/registry/ABI/
OpenGL Extensions	OpenGL® Graphics with the X Window System® (Version 1.3)	http://opengl.org/documentation/specs/glx/glx1.3.pdf
OpenGL Utilities	The OpenGL Graphics System Utility Library (Version 1.3)	http://www.opengl.org/documentation/specs/glu/glu1_3.pdf
Pango 1.30.1 Reference Manual	Pango 1.30.1 Reference Manual	http://developer.gnome.org/pango/1.30/index.html
POSIX 1003.1-2008 (ISO/IEC 9945-2009)	Portable Operating System Interface (POSIX®) 2008 Edition / The Open Group Technical Standard Base Specifications, Issue 7	http://www.unix.org/version4/
QtCore 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtcore.html
QtGui 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtgui.html
QtNetwork 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtnetwork.html
QtOpenGL 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtopengl.html
QtSql 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtsql.html
QtSvg 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtsvg.html
QtXml 4.2.0	Qt 4.2.0 Reference Manual	http://doc.qt.digia.com/4.2/qtxml.html
The MIT Shared Memory Extension	MIT-SHM - The MIT Shared Memory Extension - X version 11, Release 5	http://refspecs.linux-foundation.org/X11/mit-shm.pdf

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Name	Title	URL
X Display Power Management Signaling	X Display Power Management Signaling (DPMS) Extension - Library Specificationi - Version 1.0	http://refspecs.linux-foundation.org/X11/DPMSlib.pdf
X Extended Visual Interface Extension	Extended Visual Information Extension - Version 1.0	http://refspecs.linux-foundation.org/X11/evi.pdf
X Nonrectangular Window Shape Extension Library	X Nonrectangular Window Shape Extension Library - Version 1.0	http://refspecs.linux-foundation.org/X11/shapelib.pdf
X Record Extension Library	X Record Extension Library - Version 1.13	http://refspecs.linux-foundation.org/X11/recordlib.pdf
X Security Extension Specification	Security Extension Specification - Version 7.1	http://refspecs.linux-foundation.org/X11/security.pdf
X Synchronization Extension Library	X Synchronization Extension Library - Version 3.0	http://refspecs.linux-foundation.org/X11/synclib.pdf
X11 C Library	Xlib - C Language X Interface - X Version 11 Release 6.4	http://refspecs.linux-foundation.org/X11/xlib.pdf
X11 Input Library	X Input Device Extension Library - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/Xinput.pdf
X11 Inter-Client Exchange	Inter-Client Exchange Library - Version 1.0	http://refspecs.linux-foundation.org/X11/ICElib.pdf
X11 Keyboard Extension	X Keyboard Extension Library Specification - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/XKBlib.pdf
X11 Session Management	X Session Management Library - Version 1.0	http://refspecs.linux-foundation.org/X11/SMlib.pdf
X11 Toolkit Intrinsics	X Toolkit Intrinsics - C Language Interface - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/intrinsics.pdf
Xft Placeholder	Xft Specification Placeholder	
Xrender Placeholder	Xrender Specification Placeholder	http://refspecs.linux-foundation.org/X11/XRenderProtocol.html

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Name	Title	URL
XTEST Extension Library	XTEST Extension Library - Version 2.2	http://refspecs.linux-foundation.org/X11/xtestlib.pdf

2.2 Informative References/Bibliography

In addition, the specifications listed below provide essential background information to implementors of this specification. These references are included for information only.

Table 2-2 Other References

Name	Title	URL
A description on how to use and modify libpng	A description on how to use and modify libpng	http://www.libpng.org/pub/png/libpng-1.2.5-manual.html
ALSA Library API Reference	ALSA Library API Reference	http://www.alsa-project.org/alsa-doc/alsa-lib/
Base Directory Spec	XDG Base Directory Specification Version 0.6	http://standards.freedesktop.org/basedir-spec/basedir-spec-0.6.html
Cairo API Reference	Cairo Vector Graphics API Specification for 1.12.4	http://cairographics.org/manual-1.12.4
Desktop Entry Spec	Desktop Entry Specification Version 1.0	http://standards.freedesktop.org/desktop-entry-spec/desktop-entry-spec-1.0.html
Desktop Menu Spec	Desktop Menu Specification Version 1.0	http://standards.freedesktop.org/menu-spec/menu-spec-1.0.html
FreeType 2.2 Reference	FreeType 2.2.1 API Reference	http://refspecs.linuxfoundation.org/freetype/freetype-doc-2.2.1/docs/reference/ft2-toc.html
Icon Theme Spec	Icon Theme Specification Version 0.11	http://standards.freedesktop.org/icon-theme-spec/icon-theme-spec-0.11.html
Independent JPEG Group	Independent JPEG Group	http://www.ijg.org/
xdg-utils reference	Portland Project XDG Utilities Reference 1.0	http://portland.freedesktop.org/xdg-utils-1.0/

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3 Requirements

3.1 Relevant Libraries

The libraries listed in Table 3-1 shall be available on a Linux Standard Base - Desktop system, with the specified runtime names. This list may be supplemented or amended by the architecture-specific specification.

Table 3-1 Standard Library Names

Library	Runtime Name
libQtCore	libQtCore.so.4
libQtGui	libQtGui.so.4
libQtNetwork	libQtNetwork.so.4
libQtOpenGL	libQtOpenGL.so.4
libQtSql	libQtSql.so.4
libQtSvg	libQtSvg.so.4
libQtXml	libQtXml.so.4
libatk-1.0	libatk-1.0.so.0
libgdk-x11-2.0	libgdk-x11-2.0.so.0
libgdk_pixbuf-2.0	libgdk_pixbuf-2.0.so.0
libgdk_pixbuf_xlib-2.0	libgdk_pixbuf_xlib-2.0.so.0
libgio-2.0	libgio-2.0.so.0
libglib-2.0	libglib-2.0.so.0
libgmodule-2.0	libgmodule-2.0.so.0
libgobject-2.0	libgobject-2.0.so.0
libgthread-2.0	libgthread-2.0.so.0
libgtk-x11-2.0	libgtk-x11-2.0.so.0
libpango-1.0	libpango-1.0.so.0
libpangocairo-1.0	libpangocairo-1.0.so.0
libpangoft2-1.0	libpangoft2-1.0.so.0
libpangoxft-1.0	libpangoxft-1.0.so.0

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

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4 Terms and Definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382, ISO 80000–2, and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4.1

archLSB

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

4.2

Binary Standard, ABI

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

4.3

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.

4.4

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.

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4.5

Source Standard, API

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

4.6

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.

4.7

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.

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

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5 Documentation Conventions

Throughout this document, the following typographic conventions are used:

`function()`

the name of a function

command

the name of a command or utility

`CONSTANT`

a constant value

`parameter`

a parameter

`variable`

a variable

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

name

the name of the interface

(symver)

An optional symbol version identifier, if required.

[*`refno`*]

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

For example,

forkpty(GLIBC_2.0) [SUSv4]

refers to the interface named `forkpty()` with symbol version `GLIBC_2.0` that is defined in the reference indicated by the tag `SUSv4`.

Note: For symbols with versions which differ between architectures, the symbol versions are defined in the architecture specific parts of of this module specification only. In the generic part, they will appear without symbol versions.

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II GTK+ Stack Libraries

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6 Libraries

6.1 Introduction

A conforming implementation shall support the following libraries from the GTK+ stack which provide interfaces for creating rich graphical user interface applications.

GLib

A general-purpose utility library, not specific to graphical user interfaces. Glib is implemented as several libraries, providing a type system, a signal system, data conversion routines, string utilities, a filesystem abstraction and file utility routines, threading support and a main loop abstraction.

libglib-2.0

libgmodule-2.0

libgobject-2.0

libgthread-2.0

libgio-2.0

ATK

ATK is the Accessibility Toolkit. It provides a set of generic interfaces allowing accessibility technologies to interact with a graphical user interface. For example, a screen reader uses ATK to discover the text in an interface and read it to blind users. GTK+ widgets have built-in support for accessibility using the ATK framework.

libatk-1.0

Pango

Pango is a library for laying out and rendering text. It centers around the PangoLayout object, representing a paragraph of text. Pango provides the engine for GtkTextView, GtkLabel, GtkEntry, and other widgets that display text.

libpango-1.0

libpangocairo-1.0

libpangoxft-1.0

libpangoft2-1.0

GdkPixbuf

This is a small library which allows you to create GdkPixbuf ("pixel buffer") objects from image data or image files. Use a GdkPixbuf in combination with GtkImage to display images.

libgdk_pixbuf-2.0

libgdk_pixbuf_xlib-2.0

GDK

GDK is the abstraction layer that allows GTK+ to support multiple windowing systems. GDK provides drawing and window system facilities on X11, Windows, and the Linux framebuffer device.

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libgdk-x11-2.0

GTK+

The GTK+ library contains widgets, that is, GUI components such as GtkButton or GtkTextView.

libgtk-x11-2.0

There are three main parts to the definition of each of these libraries.

The "Interfaces" section defines the required library name and version, and the required public symbols (interfaces and global data), as well as symbol versions, if any.

The "Interface Definitions" section provides complete or partial definitions of certain interfaces where either this specification is the source specification, or where there are variations from the source specification. If an interface definition requires one or more header files, one of those headers shall include the function prototype for the interface.

For source definitions of interfaces which include a reference to a header file, the contents of such header files form a part of the specification. The "Data Definitions" section provides the binary-level details for the header files from the source specifications, such as values for macros and enumerated types, as well as structure layouts, sizes and padding, etc. These data definitions, although presented in the form of header files for convenience, should not be taken a representing complete header files, as they are a supplement to the source specifications. Application developers should follow the guidelines of the source specifications when determining which header files need to be included to completely resolve all references.

Note: While the Data Definitions supplement the source specifications, this specification itself does not require conforming implementations to supply any header files.

6.2 Interfaces for libglib-2.0

Table 6-1 defines the library name and shared object name for the libglib-2.0 library

Table 6-1 libglib-2.0 Definition

Library:	libglib-2.0
SONAME:	libglib-2.0.so.0

6.2.1 GTK General purpose utility library

6.2.1.1 Interfaces for GTK General purpose utility library

No external functions are defined for libglib-2.0 - GTK General purpose utility library in this part of the specification. See also the generic specification.

6.2.2 Glib Arrays

6.2.2.1 Interfaces for Glib Arrays

No external functions are defined for libglib-2.0 - Glib Arrays in this part of the specification. See also the generic specification.

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6.2.3 Glib Asynchronous Queues

6.2.3.1 Interfaces for Glib Asynchronous Queues

No external functions are defined for libglib-2.0 - Glib Asynchronous Queues in this part of the specification. See also the generic specification.

6.2.4 Glib Atomic Operations

6.2.4.1 Interfaces for Glib Atomic Operations

No external functions are defined for libglib-2.0 - Glib Atomic Operations in this part of the specification. See also the generic specification.

6.2.5 Glib Automatic String Completion

6.2.5.1 Interfaces for Glib Automatic String Completion

No external functions are defined for libglib-2.0 - Glib Automatic String Completion in this part of the specification. See also the generic specification.

6.2.6 Glib Balanced Binary Trees

6.2.6.1 Interfaces for Glib Balanced Binary Trees

No external functions are defined for libglib-2.0 - Glib Balanced Binary Trees in this part of the specification. See also the generic specification.

6.2.7 Glib Byte Arrays

6.2.7.1 Interfaces for Glib Byte Arrays

No external functions are defined for libglib-2.0 - Glib Byte Arrays in this part of the specification. See also the generic specification.

6.2.8 Glib Caches

6.2.8.1 Interfaces for Glib Caches

No external functions are defined for libglib-2.0 - Glib Caches in this part of the specification. See also the generic specification.

6.2.9 Glib Character Set Conversion

6.2.9.1 Interfaces for Glib Character Set Conversion

No external functions are defined for libglib-2.0 - Glib Character Set Conversion in this part of the specification. See also the generic specification.

6.2.10 Glib Commandline Option Parser

6.2.10.1 Interfaces for Glib Commandline Option Parser

No external functions are defined for libglib-2.0 - Glib Commandline Option Parser in this part of the specification. See also the generic specification.

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6.2.11 Glib Datasets

6.2.11.1 Interfaces for Glib Datasets

No external functions are defined for libglib-2.0 - Glib Datasets in this part of the specification. See also the generic specification.

6.2.12 Glib Date and Time Functions

6.2.12.1 Interfaces for Glib Date and Time Functions

No external functions are defined for libglib-2.0 - Glib Date and Time Functions in this part of the specification. See also the generic specification.

6.2.13 Glib Double-Ended Queues

6.2.13.1 Interfaces for Glib Double-Ended Queues

No external functions are defined for libglib-2.0 - Glib Double-Ended Queues in this part of the specification. See also the generic specification.

6.2.14 Glib Doubly-Linked Lists

6.2.14.1 Interfaces for Glib Doubly-Linked Lists

No external functions are defined for libglib-2.0 - Glib Doubly-Linked Lists in this part of the specification. See also the generic specification.

6.2.15 Glib Error Reporting

6.2.15.1 Interfaces for Glib Error Reporting

No external functions are defined for libglib-2.0 - Glib Error Reporting in this part of the specification. See also the generic specification.

6.2.16 Glib File Utilities

6.2.16.1 Interfaces for Glib File Utilities

No external functions are defined for libglib-2.0 - Glib File Utilities in this part of the specification. See also the generic specification.

6.2.17 Glib Glob-Style Pattern Matching

6.2.17.1 Interfaces for Glib Glob-Style Pattern Matching

No external functions are defined for libglib-2.0 - Glib Glob-Style Pattern Matching in this part of the specification. See also the generic specification.

6.2.18 Glib Hash Tables

6.2.18.1 Interfaces for Glib Hash Tables

No external functions are defined for libglib-2.0 - Glib Hash Tables in this part of the specification. See also the generic specification.

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6.2.19 Glib Hook Functions

6.2.19.1 Interfaces for Glib Hook Functions

No external functions are defined for libglib-2.0 - Glib Hook Functions in this part of the specification. See also the generic specification.

6.2.20 Glib IO Channels

6.2.20.1 Interfaces for Glib IO Channels

No external functions are defined for libglib-2.0 - Glib IO Channels in this part of the specification. See also the generic specification.

6.2.21 Glib Internationalization

6.2.21.1 Interfaces for Glib Internationalization

No external functions are defined for libglib-2.0 - Glib Internationalization in this part of the specification. See also the generic specification.

6.2.22 Glib Key-Value File Parser

6.2.22.1 Interfaces for Glib Key-Value File Parser

No external functions are defined for libglib-2.0 - Glib Key-Value File Parser in this part of the specification. See also the generic specification.

6.2.23 Glib Keyed Data Lists

6.2.23.1 Interfaces for Glib Keyed Data Lists

No external functions are defined for libglib-2.0 - Glib Keyed Data Lists in this part of the specification. See also the generic specification.

6.2.24 Glib Lexical Scanner

6.2.24.1 Interfaces for Glib Lexical Scanner

No external functions are defined for libglib-2.0 - Glib Lexical Scanner in this part of the specification. See also the generic specification.

6.2.25 Glib Memory Allocation

6.2.25.1 Interfaces for Glib Memory Allocation

No external functions are defined for libglib-2.0 - Glib Memory Allocation in this part of the specification. See also the generic specification.

6.2.26 Glib Memory Allocators

6.2.26.1 Interfaces for Glib Memory Allocators

No external functions are defined for libglib-2.0 - Glib Memory Allocators in this part of the specification. See also the generic specification.

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6.2.27 Glib Memory Chunks

6.2.27.1 Interfaces for Glib Memory Chunks

No external functions are defined for libglib-2.0 - Glib Memory Chunks in this part of the specification. See also the generic specification.

6.2.28 Glib Message Logging

6.2.28.1 Interfaces for Glib Message Logging

No external functions are defined for libglib-2.0 - Glib Message Logging in this part of the specification. See also the generic specification.

6.2.29 Glib Message Output and Debugging Functions

6.2.29.1 Interfaces for Glib Message Output and Debugging Functions

No external functions are defined for libglib-2.0 - Glib Message Output and Debugging Functions in this part of the specification. See also the generic specification.

6.2.30 Glib Miscellaneous Utility Functions

6.2.30.1 Interfaces for Glib Miscellaneous Utility Functions

No external functions are defined for libglib-2.0 - Glib Miscellaneous Utility Functions in this part of the specification. See also the generic specification.

6.2.31 Glib N-ary Trees

6.2.31.1 Interfaces for Glib N-ary Trees

No external functions are defined for libglib-2.0 - Glib N-ary Trees in this part of the specification. See also the generic specification.

6.2.32 Glib Pointer Arrays

6.2.32.1 Interfaces for Glib Pointer Arrays

No external functions are defined for libglib-2.0 - Glib Pointer Arrays in this part of the specification. See also the generic specification.

6.2.33 Glib Quarks

6.2.33.1 Interfaces for Glib Quarks

No external functions are defined for libglib-2.0 - Glib Quarks in this part of the specification. See also the generic specification.

6.2.34 Glib Random Numbers

6.2.34.1 Interfaces for Glib Random Numbers

No external functions are defined for libglib-2.0 - Glib Random Numbers in this part of the specification. See also the generic specification.

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6.2.35 Glib Relations and Tuples

6.2.35.1 Interfaces for Glib Relations and Tuples

No external functions are defined for libglib-2.0 - Glib Relations and Tuples in this part of the specification. See also the generic specification.

6.2.36 Glib Shell-related Utilities

6.2.36.1 Interfaces for Glib Shell-related Utilities

No external functions are defined for libglib-2.0 - Glib Shell-related Utilities in this part of the specification. See also the generic specification.

6.2.37 Glib Simple XML Subset Parser

6.2.37.1 Interfaces for Glib Simple XML Subset Parser

No external functions are defined for libglib-2.0 - Glib Simple XML Subset Parser in this part of the specification. See also the generic specification.

6.2.38 Glib Singly-Linked Lists

6.2.38.1 Interfaces for Glib Singly-Linked Lists

No external functions are defined for libglib-2.0 - Glib Singly-Linked Lists in this part of the specification. See also the generic specification.

6.2.39 Glib Spawning Processes

6.2.39.1 Interfaces for Glib Spawning Processes

No external functions are defined for libglib-2.0 - Glib Spawning Processes in this part of the specification. See also the generic specification.

6.2.40 Glib String Chunks

6.2.40.1 Interfaces for Glib String Chunks

No external functions are defined for libglib-2.0 - Glib String Chunks in this part of the specification. See also the generic specification.

6.2.41 Glib String Utility Functions

6.2.41.1 Interfaces for Glib String Utility Functions

No external functions are defined for libglib-2.0 - Glib String Utility Functions in this part of the specification. See also the generic specification.

6.2.42 Glib Strings

6.2.42.1 Interfaces for Glib Strings

No external functions are defined for libglib-2.0 - Glib Strings in this part of the specification. See also the generic specification.

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6.2.43 Glib - The Main Event Loop

6.2.43.1 Interfaces for Glib - The Main Event Loop

No external functions are defined for libglib-2.0 - Glib - The Main Event Loop in this part of the specification. See also the generic specification.

6.2.44 Glib Thread Pools

6.2.44.1 Interfaces for Glib Thread Pools

No external functions are defined for libglib-2.0 - Glib Thread Pools in this part of the specification. See also the generic specification.

6.2.45 Glib Threads

6.2.45.1 Interfaces for Glib Threads

No external functions are defined for libglib-2.0 - Glib Threads in this part of the specification. See also the generic specification.

6.2.46 Glib Timers

6.2.46.1 Interfaces for Glib Timers

No external functions are defined for libglib-2.0 - Glib Timers in this part of the specification. See also the generic specification.

6.2.47 Glib Trash Stacks

6.2.47.1 Interfaces for Glib Trash Stacks

No external functions are defined for libglib-2.0 - Glib Trash Stacks in this part of the specification. See also the generic specification.

6.2.48 Glib Unicode Manipulation

6.2.48.1 Interfaces for Glib Unicode Manipulation

No external functions are defined for libglib-2.0 - Glib Unicode Manipulation in this part of the specification. See also the generic specification.

6.2.49 Glib Version Information

6.2.49.1 Interfaces for Glib Version Information

No external functions are defined for libglib-2.0 - Glib Version Information in this part of the specification. See also the generic specification.

6.2.50 Glib Bookmark File Parser

6.2.50.1 Interfaces for Glib Bookmark File Parser

No external functions are defined for libglib-2.0 - Glib Bookmark File Parser in this part of the specification. See also the generic specification.

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6.2.51 Glib Memory Slices

6.2.51.1 Interfaces for Glib Memory Slices

No external functions are defined for libglib-2.0 - Glib Memory Slices in this part of the specification. See also the generic specification.

6.2.52 Glib Base64 Encoding

6.2.52.1 Interfaces for Glib Base64 Encoding

No external functions are defined for libglib-2.0 - Glib Base64 Encoding in this part of the specification. See also the generic specification.

6.3 Data Definitions for libglib-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libglib-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.3.1 glib-2.0/glib.h

```
#define G_GSIZE_MODIFIER       ""
#define GPOINTER_TO_INT(p)      ((gint) (p))
#define GLONG_TO_BE(val)       ((glong) GINT32_TO_BE (val))
#define GLONG_TO_LE(val)       ((glong) GINT32_TO_LE (val))
#define GINT_TO_POINTER(i)      ((gpointer) (i))
#define GUINT_TO_POINTER(u)     ((gpointer) (u))
#define GPOINTER_TO_UINT(p)     ((guint) (p))
#define GULONG_TO_BE(val)      ((gulong) GUINT32_TO_BE (val))
#define GULONG_TO_LE(val)      ((gulong) GUINT32_TO_LE (val))
#define G_GINT64_CONSTANT(val)  (G_GNUC_EXTENSION (val ##LL))
#define GLIB_LSB_PADDING_SIZE   24
#define GLIB_LSB_DATA_SIZE     4
#define GLIB_SIZEOF_LONG       4
#define GLIB_SIZEOF_SIZE_T     4
#define GLIB_SIZEOF_VOID_P     4
#define G_BYTE_ORDER    G_LITTLE_ENDIAN
#define G_MAXSIZE      G_MAXUINT
#define G_BREAKPOINT()   G_STMT_START{ __asm__ __volatile__ ("int
$03"); }G_STMT_END
#define G_GSSIZE_FORMAT "i"
#define G_GINT64_MODIFIER      "ll"
#define G_GINT64_FORMAT "lli"
#define G_GUINT64_FORMAT       "llu"
#define G_GSIZE_FORMAT  "u"

typedef int gssize;
```


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```
typedef long long int gint64;
typedef long long unsigned int guint64;

typedef unsigned int gsize;
```

6.3.2 glib-2.0/glib/gi18n.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.3.3 glib-2.0/glib/gstdio.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.4 Interfaces for libgmodule-2.0

Table 6-2 defines the library name and shared object name for the libgmodule-2.0 library

Table 6-2 libgmodule-2.0 Definition

Library:	libgmodule-2.0
SONAME:	libgmodule-2.0.so.0

6.4.1 Glib-Dynamic loading of Modules

6.4.1.1 Interfaces for Glib-Dynamic loading of Modules

No external functions are defined for libgmodule-2.0 - Glib-Dynamic loading of Modules in this part of the specification. See also the generic specification.

6.5 Data Definitions for libgmodule-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgmodule-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

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6.5.1 glib-2.0/gmodule.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.6 Interfaces for libgobject-2.0

Table 6-3 defines the library name and shared object name for the libgobject-2.0 library

Table 6-3 libgobject-2.0 Definition

Library:	libgobject-2.0
SONAME:	libgobject-2.0.so.0

6.6.1 Gobject GTypeModule

6.6.1.1 Interfaces for Gobject GTypeModule

No external functions are defined for libgobject-2.0 - Gobject GTypeModule in this part of the specification. See also the generic specification.

6.6.2 Gobject Enums and Flags

6.6.2.1 Interfaces for Gobject Enums and Flags

No external functions are defined for libgobject-2.0 - Gobject Enums and Flags in this part of the specification. See also the generic specification.

6.6.3 Gobject Signals

6.6.3.1 Interfaces for Gobject Signals

No external functions are defined for libgobject-2.0 - Gobject Signals in this part of the specification. See also the generic specification.

6.6.4 Gobject Value arrays

6.6.4.1 Interfaces for Gobject Value arrays

No external functions are defined for libgobject-2.0 - Gobject Value arrays in this part of the specification. See also the generic specification.

6.6.5 Gobject Generic Values

6.6.5.1 Interfaces for Gobject Generic Values

No external functions are defined for libgobject-2.0 - Gobject Generic Values in this part of the specification. See also the generic specification.

6.6.6 Gobject Parameters and Values

6.6.6.1 Interfaces for Gobject Parameters and Values

No external functions are defined for libgobject-2.0 - Gobject Parameters and Values in this part of the specification. See also the generic specification.

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6.6.7 Gobject GParamSpec

6.6.7.1 Interfaces for Gobject GParamSpec

No external functions are defined for libgobject-2.0 - Gobject GParamSpec in this part of the specification. See also the generic specification.

6.6.8 Gobject GBoxed

6.6.8.1 Interfaces for Gobject GBoxed

No external functions are defined for libgobject-2.0 - Gobject GBoxed in this part of the specification. See also the generic specification.

6.6.9 Gobject Closures

6.6.9.1 Interfaces for Gobject Closures

No external functions are defined for libgobject-2.0 - Gobject Closures in this part of the specification. See also the generic specification.

6.6.10 Gobject Gobject

6.6.10.1 Interfaces for Gobject Gobject

No external functions are defined for libgobject-2.0 - Gobject Gobject in this part of the specification. See also the generic specification.

6.6.11 Gobject GType

6.6.11.1 Interfaces for Gobject GType

No external functions are defined for libgobject-2.0 - Gobject GType in this part of the specification. See also the generic specification.

6.6.12 Gobject GTypePlugin

6.6.12.1 Interfaces for Gobject GTypePlugin

No external functions are defined for libgobject-2.0 - Gobject GTypePlugin in this part of the specification. See also the generic specification.

6.6.13 Gobject GBinding

6.6.13.1 Interfaces for Gobject GBinding

No external functions are defined for libgobject-2.0 - Gobject GBinding in this part of the specification. See also the generic specification.

6.7 Data Definitions for libgobject-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgobject-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

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This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.7.1 glib-2.0/glib-object.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.7.2 glib-2.0/gobject/gvaluecollector.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.8 Interfaces for libgthread-2.0

Table 6-4 defines the library name and shared object name for the libgthread-2.0 library

Table 6-4 libgthread-2.0 Definition

Library:	libgthread-2.0
SONAME:	libgthread-2.0.so.0

6.8.1 Glib thread abstraction

6.8.1.1 Interfaces for Glib thread abstraction

No external functions are defined for libgthread-2.0 - Glib thread abstraction in this part of the specification. See also the generic specification.

6.9 Interfaces for libgio-2.0

Table 6-5 defines the library name and shared object name for the libgio-2.0 library

Table 6-5 libgio-2.0 Definition

Library:	libgio-2.0
SONAME:	libgio-2.0.so.0

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6.9.1 libgio-2.0 interfaces

6.9.1.1 Interfaces for libgio-2.0 interfaces

No external functions are defined for libgio-2.0 - libgio-2.0 interfaces in this part of the specification. See also the generic specification.

6.10 Data Definitions for libgio-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgio-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.10.1 gio-unix-2.0/gio/gdesktopappinfo.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.2 gio-unix-2.0/gio/gfiledescriptorbased.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.3 gio-unix-2.0/gio/gunixconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.4 gio-unix-2.0/gio/gunixcredentialsmessage.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.5 gio-unix-2.0/gio/gunixfdlist.h

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```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.6 gio-unix-2.0/gio/gunixfdmessage.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.7 gio-unix-2.0/gio/gunixinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.8 gio-unix-2.0/gio/gunixmounts.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.9 gio-unix-2.0/gio/gunixoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.10 gio-unix-2.0/gio/gunixsocketaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.11 glib-2.0/gio/gaction.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.12 glib-2.0/gio/gactiongroup.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.13 glib-2.0/gio/gactionmap.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.14 glib-2.0/gio/gappinfo.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.15 glib-2.0/gio/gapplication.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.16 glib-2.0/gio/gapplicationcommandline.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.17 glib-2.0/gio/gasyncinitable.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.18 glib-2.0/gio/gasyncresult.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.19 glib-2.0/gio/gbufferedinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.20 glib-2.0/gio/gbufferedoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.21 glib-2.0/gio/gcancellable.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.22 glib-2.0/gio/gcharsetconverter.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.23 glib-2.0/gio/gconverter.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.24 glib-2.0/gio/gconverterinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.25 glib-2.0/gio/gconverteroutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.26 glib-2.0/gio/gcredentials.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.27 glib-2.0/gio/gdatainputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.28 glib-2.0/gio/gdataoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.29 glib-2.0/gio/gdbusactiongroup.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.30 glib-2.0/gio/gdbusauthobserver.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.31 glib-2.0/gio/gdbusconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.32 glib-2.0/gio/gdbuserror.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.33 glib-2.0/gio/gdbusinterface.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.34 glib-2.0/gio/gdbusinterfaceskeleton.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.35 glib-2.0/gio/gdbusintrospection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.36 glib-2.0/gio/gdbusmenumodel.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.37 glib-2.0/gio/gdbusmessage.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.38 glib-2.0/gio/gdbusmethodinvocation.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.39 glib-2.0/gio/gdbusnameowning.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.40 glib-2.0/gio/gdbusnamewatching.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.41 glib-2.0/gio/gdbusobject.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.42 glib-2.0/gio/gdbusobjectmanager.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.43 glib-2.0/gio/gdbusobjectmanagerclient.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.44 glib-2.0/gio/gdbusobjectmanagerserver.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.45 glib-2.0/gio/gdbusobjectproxy.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.46 glib-2.0/gio/gdbusobjectskeleton.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.47 glib-2.0/gio/gdbusproxy.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.48 glib-2.0/gio/gdbusserver.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.49 glib-2.0/gio/gdrive.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.50 glib-2.0/gio/gemblem.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.51 glib-2.0/gio/gemblemedicon.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.52 glib-2.0/gio/gfile.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.53 glib-2.0/gio/gfileattribute.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.54 glib-2.0/gio/gfileenumerator.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.55 glib-2.0/gio/gfileicon.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.56 glib-2.0/gio/gfileinfo.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.57 glib-2.0/gio/gfileinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.58 glib-2.0/gio/gfileiostream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.59 glib-2.0/gio/gfilemonitor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.60 glib-2.0/gio/gfilenamecompleter.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.61 glib-2.0/gio/gfileoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.62 glib-2.0/gio/gfilterinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.63 glib-2.0/gio/gfilteroutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.64 glib-2.0/gio/gicon.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.65 glib-2.0/gio/ginetaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.66 glib-2.0/gio/ginetaddressmask.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.67 glib-2.0/gio/ginetsocketaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.68 glib-2.0/gio/ginitable.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.69 glib-2.0/gio/ginputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.70 glib-2.0/gio/gio.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.71 glib-2.0/gio/gioenums.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.72 glib-2.0/gio/gioenumtypes.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.73 glib-2.0/gio/gioerror.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.74 glib-2.0/gio/giomodule.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.75 glib-2.0/gio/giostream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.76 glib-2.0/gio/giotypes.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.77 glib-2.0/gio/gloadableicon.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.78 glib-2.0/gio/gmemoryinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.79 glib-2.0/gio/gmemoryoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.80 glib-2.0/gio/gmenu.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.81 glib-2.0/gio/gmenumodel.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.82 glib-2.0/gio/gmount.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.83 glib-2.0/gio/gmountoperation.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.84 glib-2.0/gio/gnativevolumemonitor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.85 glib-2.0/gio/gnetworkaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.86 glib-2.0/gio/gnetworkmonitor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.87 glib-2.0/gio/gnetworkservice.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.88 glib-2.0/gio/goutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.89 glib-2.0/gio/gpermission.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.90 glib-2.0/gio/gpollableinputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.91 glib-2.0/gio/gpollableoutputstream.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.92 glib-2.0/gio/gproxy.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.93 glib-2.0/gio/gproxyaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.94 glib-2.0/gio/gproxyaddressenumerator.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.95 glib-2.0/gio/gproxyresolver.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.96 glib-2.0/gio/gremoteactiongroup.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.97 glib-2.0/gio/gresolver.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.98 glib-2.0/gio/gresource.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.99 glib-2.0/gio/gseekable.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.100 glib-2.0/gio/gsettings.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.101 glib-2.0/gio/gsettingsbackend.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.102 glib-2.0/gio/gsettingsschema.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.103 glib-2.0/gio/gsimpleaction.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.104 glib-2.0/gio/gsimpleactiongroup.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.105 glib-2.0/gio/gsimpleasyncresult.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.106 glib-2.0/gio/gsimplepermission.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.107 glib-2.0/gio/gsocket.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.108 glib-2.0/gio/gsocketaddress.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.109 glib-2.0/gio/gsocketaddressenumerator.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.110 glib-2.0/gio/gsocketclient.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.111 glib-2.0/gio/gsocketconnectable.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.112 glib-2.0/gio/gsocketconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.113 glib-2.0/gio/gsocketcontrolmessage.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.114 glib-2.0/gio/gsocketlistener.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.115 glib-2.0/gio/gsocketservice.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.116 glib-2.0/gio/gsrvtarget.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.117 glib-2.0/gio/gtcpconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.118 glib-2.0/gio/gtcpwrapperconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.119 glib-2.0/gio/gthemedicon.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.120 glib-2.0/gio/gthreadedsocketservice.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.121 glib-2.0/gio/gtlsbackend.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.122 glib-2.0/gio/gtlscertificate.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.123 glib-2.0/gio/gtlsclientconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.124 glib-2.0/gio/gtlsconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.125 glib-2.0/gio/gtlsdatabase.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.126 glib-2.0/gio/gtlsfiledatabase.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.127 glib-2.0/gio/gtlsinteraction.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.128 glib-2.0/gio/gtlspassword.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.129 glib-2.0/gio/gtlsserverconnection.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.130 glib-2.0/gio/gvfs.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.131 glib-2.0/gio/gvolume.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.132 glib-2.0/gio/gvolumemonitor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

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6.10.133 glib-2.0/gio/gzlibcompressor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.10.134 glib-2.0/gio/gzlibdecompressor.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.11 Interfaces for libatk-1.0

Table 6-6 defines the library name and shared object name for the libatk-1.0 library

Table 6-6 libatk-1.0 Definition

Library:	libatk-1.0
SONAME:	libatk-1.0.so.0

6.11.1 GTK Accessibility Toolkit

6.11.1.1 Interfaces for GTK Accessibility Toolkit

No external functions are defined for libatk-1.0 - GTK Accessibility Toolkit in this part of the specification. See also the generic specification.

6.12 Data Definitions for libatk-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libatk-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.12.1 atk-1.0/atk/atk-enum-types.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```


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6.12.2 atk-1.0/atk/atk.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.12.3 atk-1.0/atk/atkplug.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.12.4 atk-1.0/atk/atksocket.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.12.5 atk-1.0/atk/atkwindow.h

```
/*
 * This header is architecture neutral
 * Please refer to the generic specification for details
 */
```

6.13 Interfaces for libpango-1.0

Table 6-7 defines the library name and shared object name for the libpango-1.0 library

Table 6-7 libpango-1.0 Definition

Library:	libpango-1.0
SONAME:	libpango-1.0.so.0

6.13.1 GTK Internationalized Text Layout and Rendering library

6.13.1.1 Interfaces for GTK Internationalized Text Layout and Rendering library

No external functions are defined for libpango-1.0 - GTK Internationalized Text Layout and Rendering library in this part of the specification. See also the generic specification.

6.14 Data Definitions for libpango-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libpango-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content.

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