

band

v1.0.0-dev

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Chapter 1

README

`band` is a c++ media-library.

The focus of the UI component is on controls. The controls are meant to be building blocks that can be composed into more complicated controls.

Dependencies

- `libtool`: Combining static libraries when building.
- `doxygen`: Documentation generation.

Building

- `make` in the root-directory builds documentation.
- `make` in the 'band'-directory builds `band` into a static-library.
- `make` in the 'example'-directory builds all the examples. A `make clean` should be run before if the library itself was actually modified.

Running

- `cmd/file-to-code/file-to-code` runs a tool which generates a header and source file from a normal file.
- `example/bin/simple` runs the simple-example.
- `example/bin/control` runs an example using controls.

Linking

- Provide the path to the compiled 'band'-directory as an include-path and the compiled static-library as a linked-library. Additionally, `dl`, `X11`, and `pthread` should be linked. These aren't a dependency for all platforms so they are left to the consumer to link. An example can be seen in the 'Makefile' in the 'example' folder.

Feature-Requests

- Create a issue with the label 'enhancement'. It will be groomed then sorted into a release to be worked on.

Contributing

- Any task or feature-request can be worked on before being groomed on its own branch. If the feature is desired, it will be merged until a release.

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

band	11
band::asset	17
band::asset::font	18
band::control	18
band::interface	18

Chapter 3

Hierarchical Index

3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

band::Area	22
band::Circle	31
band::Color	32
band::Control	33
band::control::Anchor< T >	19
band::control::Border	23
band::control::Button< T >	25
band::control::FixedPanel< T >	36
band::control::Fps	38
band::control::Label	47
band::control::Rectangle	62
band::control::StackPanel< T >	65
band::control::Texture	68
band::Dimension	34
band::File	35
band::Interface	39
band::interface::RaylibInterface	52
band::Line	50
band::Point	51
band::Rectangle	61
band::Scope	64
band::Triangle	70
band::WindowArea	71

Chapter 4

Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

band::control::Anchor< T >	19
band::Area	22
band::control::Border	23
band::control::Button< T >	25
band::Circle	31
band::Color	32
band::Control	33
band::Dimension	34
band::File	35
band::control::FixedPanel< T >	36
band::control::Fps	38
band::Interface	39
band::control::Label	47
band::Line	50
band::Point	51
band::interface::RaylibInterface	52
band::Rectangle	61
band::control::Rectangle	62
band::Scope	64
band::control::StackPanel< T >	65
band::control::Texture	68
band::Triangle	70
band::WindowArea	71

Chapter 5

File Index

5.1 File List

Here is a list of all files with brief descriptions:

band/all.h	73
band/control.d	75
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band/interface.d	88
band/interface.h	88
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band/asset/font/helvetica.font.h	74
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band/control/border.d	77
band/control/border.h	77
band/control/button.h	78
band/control/fixed_panel.h	80
band/control/fps.d	81
band/control/fps.h	81
band/control/label.d	82
band/control/label.h	82
band/control/rectangle.d	83
band/control/rectangle.h	83
band/control/separator.h	84
band/control/stack_panel.h	86
band/control/texture.d	87
band/control/texture.h	87
band/interface/raylib_interface.d	90
band/interface/raylib_interface.h	90

Chapter 6

Namespace Documentation

6.1 band Namespace Reference

Namespaces

- [asset](#)
- [control](#)
- [interface](#)

Classes

- struct [Area](#)
- struct [Circle](#)
- struct [Color](#)
- class [Control](#)
- struct [Dimension](#)
- struct [File](#)
- class [Interface](#)
- struct [Line](#)
- struct [Point](#)
- struct [Rectangle](#)
- class [Scope](#)
- struct [Triangle](#)
- struct [WindowArea](#)

Typedefs

- using [Text](#) = std::string
- using [Size](#) = uint32_t
- using [TextureId](#) = size_t
- using [ImageId](#) = size_t
- using [FontId](#) = size_t
- using [Real](#) = double
- using [Component](#) = uint8_t

Enumerations

- enum [Alignment](#) { [Alignment::kTop](#), [Alignment::kMiddle](#), [Alignment::kBottom](#) }
- enum [Direction](#) { [Direction::kHorizontal](#), [Direction::kVertical](#) }
- enum [Unit](#) { [Unit::kPixel](#), [Unit::kRatio](#) }
- enum [Leg](#) { [Leg::kWidth](#), [Leg::kHeight](#) }

Functions

- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface, [Control](#) &control)
- void [DrawFrame](#) (const [Color](#) &clear_color, const [Point](#) &position, [Interface](#) &interface, [Control](#) &control)
- bool [operator==](#) (const [Dimension](#) &a, const [Dimension](#) &b)
- bool [operator!=](#) (const [Dimension](#) &a, const [Dimension](#) &b)
- bool [IsDimensionGreaterThanOrEqualTo](#) (const [Dimension](#) &a, const [Dimension](#) &b, [Real](#) pixels)
- [Dimension](#) [MaxDimension](#) (const [Dimension](#) &a, const [Dimension](#) &b, [Real](#) pixels)
- [Dimension](#) [MinDimension](#) (const [Dimension](#) &a, const [Dimension](#) &b, [Real](#) pixels)
- [Dimension](#) [AddDimensions](#) (const [Dimension](#) &a, const [Dimension](#) &b, [Real](#) pixels)
- [Dimension](#) [SubtractDimensions](#) (const [Dimension](#) &a, const [Dimension](#) &b, [Real](#) pixels)
- [Dimension](#) [MultiplyDimension](#) (const [Dimension](#) &a, [Real](#) scalar)
- bool [operator!=](#) (const [Point](#) &a, const [Point](#) &b)
- bool [operator!=](#) (const [Line](#) &a, const [Line](#) &b)
- bool [operator!=](#) (const [Circle](#) &a, const [Circle](#) &b)
- bool [operator!=](#) (const [Triangle](#) &a, const [Triangle](#) &b)
- bool [operator!=](#) (const [Rectangle](#) &a, const [Rectangle](#) &b)
- bool [operator!=](#) (const [Area](#) &a, const [Area](#) &b)
- bool [operator!=](#) (const [WindowArea](#) &a, const [WindowArea](#) &b)
- bool [operator!=](#) (const [Color](#) &a, const [Color](#) &b)
- std::unique_ptr< [Interface](#) > [DefaultInterface](#) ()

6.1.1 Typedef Documentation

6.1.1.1 Component

```
using band::Component = typedef uint8_t
```

6.1.1.2 FontId

```
using band::FontId = typedef size_t
```

6.1.1.3 ImageId

```
using band::ImageId = typedef size_t
```

6.1.1.4 Real

```
using band::Real = typedef double
```

6.1.1.5 Size

```
using band::Size = typedef uint32_t
```

6.1.1.6 Text

```
using band::Text = typedef std::string
```

6.1.1.7 TextureId

```
using band::TextureId = typedef size_t
```

6.1.2 Enumeration Type Documentation

6.1.2.1 Alignment

```
enum band::Alignment [strong]
```

Enumerator

kTop	
kMiddle	
kBottom	

6.1.2.2 Direction

```
enum band::Direction [strong]
```

Enumerator

kHorizontal	
kVertical	

6.1.2.3 Leg

```
enum band::Leg [strong]
```

Enumerator

kWidth	
kHeight	

6.1.2.4 Unit

```
enum band::Unit [strong]
```

Enumerator

kPixel	
kRatio	

6.1.3 Function Documentation

6.1.3.1 AddDimensions()

```
Dimension band::AddDimensions (
    const Dimension & a,
    const Dimension & b,
    Real pixels )
```

6.1.3.2 DefaultInterface()

```
std::unique_ptr<Interface> band::DefaultInterface ( )
```

6.1.3.3 DrawFrame()

```
void band::DrawFrame (
    const Color & clear_color,
    const Point & position,
    Interface & interface,
    Control & control )
```

6.1.3.4 IsDimensionGreaterThanOrEqualTo()

```
bool band::IsDimensionGreaterThanOrEqualTo (
    const Dimension & a,
    const Dimension & b,
    Real pixels )
```

6.1.3.5 MaxDimension()

```
Dimension band::MaxDimension (
    const Dimension & a,
    const Dimension & b,
    Real pixels )
```

6.1.3.6 MinDimension()

```
Dimension band::MinDimension (
    const Dimension & a,
    const Dimension & b,
    Real pixels )
```

6.1.3.7 MultiplyDimension()

```
Dimension band::MultiplyDimension (
    const Dimension & a,
    Real scalar )
```

6.1.3.8 operator!=() [1/9]

```
bool band::operator!=(
    const Dimension & a,
    const Dimension & b )
```

6.1.3.9 operator!=() [2/9]

```
bool band::operator!= (
    const Point & a,
    const Point & b )
```

6.1.3.10 operator!=() [3/9]

```
bool band::operator!= (
    const Line & a,
    const Line & b )
```

6.1.3.11 operator!=() [4/9]

```
bool band::operator!= (
    const Circle & a,
    const Circle & b )
```

6.1.3.12 operator!=() [5/9]

```
bool band::operator!= (
    const Triangle & a,
    const Triangle & b )
```

6.1.3.13 operator!=() [6/9]

```
bool band::operator!= (
    const Rectangle & a,
    const Rectangle & b )
```

6.1.3.14 operator!=() [7/9]

```
bool band::operator!= (
    const Area & a,
    const Area & b )
```

6.1.3.15 operator!=() [8 / 9]

```
bool band::operator!= (
    const WindowArea & a,
    const WindowArea & b )
```

6.1.3.16 operator!=() [9 / 9]

```
bool band::operator!= (
    const Color & a,
    const Color & b )
```

6.1.3.17 operator==()

```
bool band::operator== (
    const Dimension & a,
    const Dimension & b )
```

6.1.3.18 SubtractDimensions()

```
Dimension band::SubtractDimensions (
    const Dimension & a,
    const Dimension & b,
    Real pixels )
```

6.1.3.19 Update()

```
void band::Update (
    const Point & position,
    const Interface & interface,
    Control & control )
```

6.2 band::asset Namespace Reference

Namespaces

- [font](#)

6.3 band::asset::font Namespace Reference

Functions

- [band::File Helvetica](#) ()

6.3.1 Function Documentation

6.3.1.1 Helvetica()

```
band::File band::asset::font::Helvetica ( )
```

6.4 band::control Namespace Reference

Classes

- class [Anchor](#)
- class [Border](#)
- class [Button](#)
- class [FixedPanel](#)
- class [Fps](#)
- class [Label](#)
- class [Rectangle](#)
- class [StackPanel](#)
- class [Texture](#)

Typedefs

- using [Separator](#) = [::band::control::Rectangle](#)

6.4.1 Typedef Documentation

6.4.1.1 Separator

```
using band::control::Separator = typedef ::band::control::Rectangle
```

6.5 band::interface Namespace Reference

Classes

- class [RaylibInterface](#)

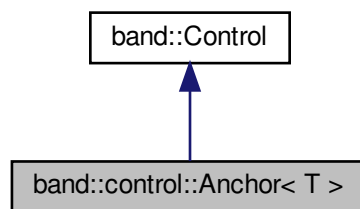
Chapter 7

Class Documentation

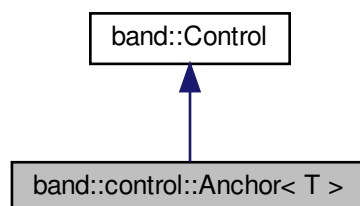
7.1 band::control::Anchor< T > Class Template Reference

```
#include <anchor.h>
```

Inheritance diagram for band::control::Anchor< T >:



Collaboration diagram for band::control::Anchor< T >:



Public Member Functions

- [Alignment](#) [HorizontalAlignment](#) () const
- void [SetHorizontalAlignment](#) (const [Alignment](#) &alignment)
- [Alignment](#) [VerticalAlignment](#) () const
- void [SetVerticalAlignment](#) (const [Alignment](#) &alignment)
- [::band::Area](#) [ReferenceArea](#) () const
- void [SetReferenceArea](#) (const [::band::Area](#) &area)
- void [SetControl](#) (T control)
- [::band::Area](#) [Area](#) (const [Interface](#) &interface) const override
- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface) override
- void [Display](#) (const [Point](#) &position, [Interface](#) &interface) override

7.1.1 Member Function Documentation

7.1.1.1 Area()

```
template<typename T >
band::Area band::control::Anchor< T >::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.1.1.2 Display()

```
template<typename T >
void band::control::Anchor< T >::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.1.1.3 HorizontalAlignment()

```
template<typename T >
Alignment band::control::Anchor< T >::HorizontalAlignment ( ) const
```

7.1.1.4 ReferenceArea()

```
template<typename T >
band::Area band::control::Anchor< T >::ReferenceArea ( ) const
```

7.1.1.5 SetControl()

```
template<typename T >
void band::control::Anchor< T >::SetControl (
    T control )
```

7.1.1.6 SetHorizontalAlignment()

```
template<typename T >
void band::control::Anchor< T >::SetHorizontalAlignment (
    const Alignment & alignment )
```

7.1.1.7 SetReferenceArea()

```
template<typename T >
void band::control::Anchor< T >::SetReferenceArea (
    const ::band::Area & area )
```

7.1.1.8 SetVerticalAlignment()

```
template<typename T >
void band::control::Anchor< T >::SetVerticalAlignment (
    const Alignment & alignment )
```

7.1.1.9 Update()

```
template<typename T >
void band::control::Anchor< T >::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.1.1.10 VerticalAlignment()

```
template<typename T >
Alignment band::control::Anchor< T >::VerticalAlignment ( ) const
```

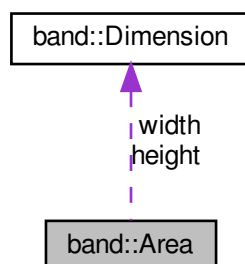
The documentation for this class was generated from the following file:

- [band/control/anchor.h](#)

7.2 band::Area Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Area:



Public Attributes

- [Dimension width](#) {}
- [Dimension height](#) {}

7.2.1 Member Data Documentation

7.2.1.1 height

```
Dimension band::Area::height {}
```

7.2.1.2 width

```
Dimension band::Area::width {}
```

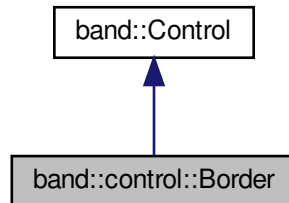
The documentation for this struct was generated from the following file:

- [band/interface.h](#)

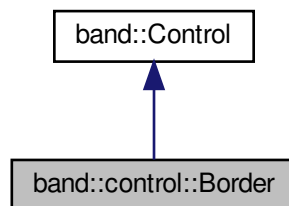
7.3 band::control::Border Class Reference

```
#include <border.h>
```

Inheritance diagram for band::control::Border:



Collaboration diagram for band::control::Border:



Public Member Functions

- [Dimension Thickness](#) () const
- void [SetThickness](#) (const [Dimension](#) &thickness)
- [::band::Color Color](#) () const
- void [SetColor](#) (const [::band::Color](#) &color)
- [Real RealBorderThickness](#) (const [Interface](#) &interface) const
- void [SetArea](#) (const [::band::Area](#) &area)
- [::band::Area Area](#) (const [Interface](#) &interface) const override
- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface) override
- void [Display](#) (const [Point](#) &position, [Interface](#) &interface) override

7.3.1 Member Function Documentation

7.3.1.1 Area()

```
::band::Area band::control::Border::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.3.1.2 Color()

```
::band::Color band::control::Border::Color ( ) const
```

7.3.1.3 Display()

```
void band::control::Border::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.3.1.4 RealBorderThickness()

```
Real band::control::Border::RealBorderThickness (
    const Interface & interface ) const
```

7.3.1.5 SetArea()

```
void band::control::Border::SetArea (
    const ::band::Area & area )
```

7.3.1.6 SetColor()

```
void band::control::Border::SetColor (
    const ::band::Color & color )
```

7.3.1.7 SetThickness()

```
void band::control::Border::SetThickness (
    const Dimension & thickness )
```

7.3.1.8 Thickness()

```
Dimension band::control::Border::Thickness ( ) const
```

7.3.1.9 Update()

```
void band::control::Border::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

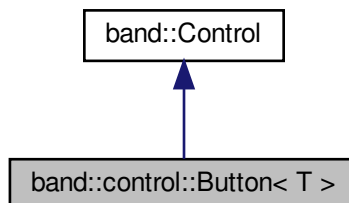
The documentation for this class was generated from the following file:

- [band/control/border.h](#)

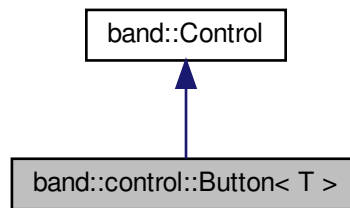
7.4 band::control::Button< T > Class Template Reference

```
#include <button.h>
```

Inheritance diagram for band::control::Button< T >:



Collaboration diagram for `band::control::Button< T >`:



Public Types

- enum `Action` { `Action::kNone`, `Action::kPress`, `Action::kHover` }

Public Member Functions

- `Color FillColor` () const
- void `SetFillColor` (const `Color` &color)
- `Color HoverColor` () const
- void `SetHoverColor` (const `Color` &color)
- `Color DisabledColor` () const
- void `SetDisabledColor` (const `Color` &color)
- `Color BorderColor` () const
- void `SetBorderColor` (const `Color` &color)
- `Alignment HorizontalAlignment` () const
- void `SetHorizontalAlignment` (const `Alignment` &alignment)
- `Alignment VerticalAlignment` () const
- void `SetVerticalAlignment` (const `Alignment` &alignment)
- `Dimension BorderThickness` () const
- void `SetBorderThickness` (const `Dimension` &border_thickness)
- void `Disable` ()
- void `Enable` ()
- bool `IsEnabled` () const
- void `SetArea` (const std::optional<::band::Area> &area)
- void `SetControl` (T control)
- `Action LastAction` () const
- ::band::Area `Area` (const `Interface` &interface) const override
- void `Update` (const `Point` &position, const `Interface` &interface) override
- void `Display` (const `Point` &position, `Interface` &interface) override

7.4.1 Member Enumeration Documentation

7.4.1.1 Action

```

template<typename T>
enum band::control::Button::Action [strong]

```


Enumerator

kNone	
kPress	
kHover	

7.4.2 Member Function Documentation

7.4.2.1 Area()

```
template<typename T >
band::Area band::control::Button< T >::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.4.2.2 BorderColor()

```
template<typename T >
Color band::control::Button< T >::BorderColor ( ) const
```

7.4.2.3 BorderThickness()

```
template<typename T >
Dimension band::control::Button< T >::BorderThickness ( ) const
```

7.4.2.4 Disable()

```
template<typename T >
void band::control::Button< T >::Disable ( )
```

7.4.2.5 DisabledColor()

```
template<typename T >
Color band::control::Button< T >::DisabledColor ( ) const
```

7.4.2.6 Display()

```
template<typename T >
void band::control::Button< T >::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.4.2.7 Enable()

```
template<typename T >
void band::control::Button< T >::Enable ( )
```

7.4.2.8 FillColor()

```
template<typename T >
Color band::control::Button< T >::FillColor ( ) const
```

7.4.2.9 HorizontalAlignment()

```
template<typename T >
Alignment band::control::Button< T >::HorizontalAlignment ( ) const
```

7.4.2.10 HoverColor()

```
template<typename T >
Color band::control::Button< T >::HoverColor ( ) const
```

7.4.2.11 IsEnabled()

```
template<typename T >
bool band::control::Button< T >::IsEnabled ( ) const
```

7.4.2.12 LastAction()

```
template<typename T >
band::control::Button< T >::Action band::control::Button< T >::LastAction ( ) const
```

7.4.2.13 SetArea()

```
template<typename T >
void band::control::Button< T >::SetArea (
    const std::optional<::band::Area > & area )
```

7.4.2.14 SetBorderColor()

```
template<typename T >
void band::control::Button< T >::SetBorderColor (
    const Color & color )
```

7.4.2.15 SetBorderThickness()

```
template<typename T >
void band::control::Button< T >::SetBorderThickness (
    const Dimension & border_thickness )
```

7.4.2.16 SetControl()

```
template<typename T >
void band::control::Button< T >::SetControl (
    T control )
```

7.4.2.17 SetDisabledColor()

```
template<typename T >
void band::control::Button< T >::SetDisabledColor (
    const Color & color )
```

7.4.2.18 SetFillColor()

```
template<typename T >
void band::control::Button< T >::SetFillColor (
    const Color & color )
```

7.4.2.19 SetHorizontalAlignment()

```
template<typename T >
void band::control::Button< T >::SetHorizontalAlignment (
    const Alignment & alignment )
```

7.4.2.20 SetHoverColor()

```
template<typename T >
void band::control::Button< T >::SetHoverColor (
    const Color & color )
```

7.4.2.21 SetVerticalAlignment()

```
template<typename T >
void band::control::Button< T >::SetVerticalAlignment (
    const Alignment & alignment )
```

7.4.2.22 Update()

```
template<typename T >
void band::control::Button< T >::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.4.2.23 VerticalAlignment()

```
template<typename T >
Alignment band::control::Button< T >::VerticalAlignment ( ) const
```

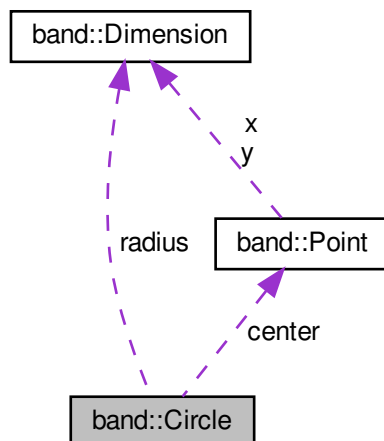
The documentation for this class was generated from the following file:

- [band/control/button.h](#)

7.5 band::Circle Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Circle:



Public Attributes

- [Point](#) `center` {}
- [Dimension](#) `radius` {}

7.5.1 Member Data Documentation

7.5.1.1 center

```
Point band::Circle::center {}
```

7.5.1.2 radius

```
Dimension band::Circle::radius {}
```

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

- [band/interface.h](#)

7.6 band::Color Struct Reference

```
#include <interface.h>
```

Public Attributes

- [Component r](#) {}
- [Component g](#) {}
- [Component b](#) {}
- [Component a](#) {}

7.6.1 Member Data Documentation

7.6.1.1 a

```
Component band::Color::a {}
```

7.6.1.2 b

```
Component band::Color::b {}
```

7.6.1.3 g

```
Component band::Color::g {}
```

7.6.1.4 r

```
Component band::Color::r {}
```

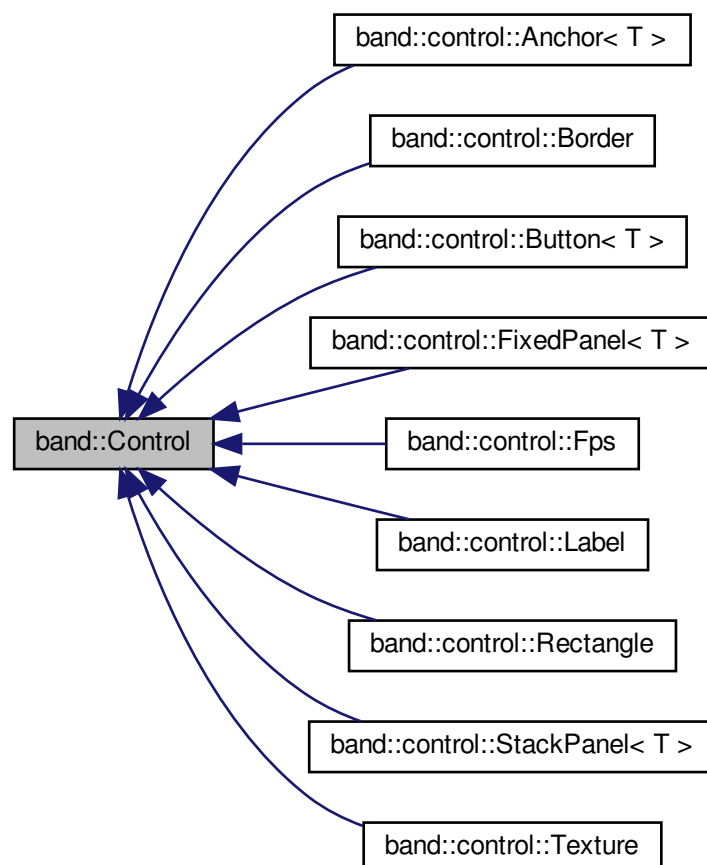
The documentation for this struct was generated from the following file:

- band/[interface.h](#)

7.7 band::Control Class Reference

```
#include <control.h>
```

Inheritance diagram for band::Control:



Public Member Functions

- virtual `~Control()`=default
- virtual `::band::Area Area` (const `Interface` &interface) const =0
- virtual void `Update` (const `Point` &position, const `Interface` &interface)=0
- virtual void `Display` (const `Point` &position, `Interface` &interface)=0

7.7.1 Constructor & Destructor Documentation

7.7.1.1 ~Control()

```
virtual band::Control::~~Control ( ) [virtual], [default]
```

7.7.2 Member Function Documentation

7.7.2.1 Area()

```
virtual ::band::Area band::Control::Area (
    const Interface & interface ) const [pure virtual]
```

Implemented in [band::control::Button< T >](#), [band::control::Border](#), [band::control::StackPanel< T >](#), [band::control::Anchor< T >](#), [band::control::Label](#), [band::control::FixedPanel< T >](#), [band::control::Rectangle](#), [band::control::Texture](#), and [band::control::Fps](#).

7.7.2.2 Display()

```
virtual void band::Control::Display (
    const Point & position,
    Interface & interface ) [pure virtual]
```

Implemented in [band::control::Button< T >](#), [band::control::Border](#), [band::control::StackPanel< T >](#), [band::control::Anchor< T >](#), [band::control::Label](#), [band::control::FixedPanel< T >](#), [band::control::Rectangle](#), [band::control::Texture](#), and [band::control::Fps](#).

7.7.2.3 Update()

```
virtual void band::Control::Update (
    const Point & position,
    const Interface & interface ) [pure virtual]
```

Implemented in [band::control::Button< T >](#), [band::control::Border](#), [band::control::StackPanel< T >](#), [band::control::Anchor< T >](#), [band::control::Label](#), [band::control::FixedPanel< T >](#), [band::control::Rectangle](#), [band::control::Texture](#), and [band::control::Fps](#).

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

- [band/control.h](#)

7.8 band::Dimension Struct Reference

```
#include <interface.h>
```


Public Attributes

- [Real scalar](#) = 0.0
- [Unit unit](#) {}

7.8.1 Member Data Documentation

7.8.1.1 scalar

```
Real band::Dimension::scalar = 0.0
```

7.8.1.2 unit

```
Unit band::Dimension::unit {}
```

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

- band/[interface.h](#)

7.9 band::File Struct Reference

```
#include <interface.h>
```

Public Attributes

- const uint8_t* [bytes](#)
- const size_t [n](#)

7.9.1 Member Data Documentation

7.9.1.1 bytes

```
const uint8_t* band::File::bytes
```

7.9.1.2 n

```
const size_t band::File::n
```

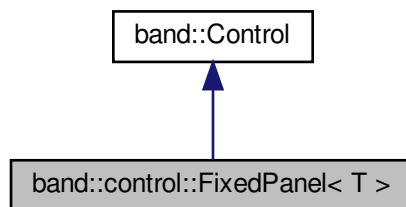
The documentation for this struct was generated from the following file:

- band/[interface.h](#)

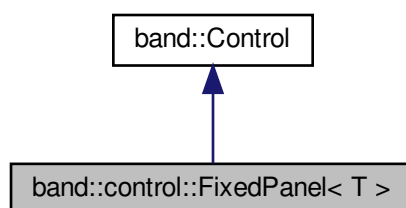
7.10 band::control::FixedPanel< T > Class Template Reference

```
#include <fixed_panel.h>
```

Inheritance diagram for band::control::FixedPanel< T >:



Collaboration diagram for band::control::FixedPanel< T >:



Public Member Functions

- template<typename Iter >
void [SetControls](#) (const Iter &begin, const Iter &end)
- void [SetControls](#) (const std::initializer_list< std::pair< T, [Point](#) >> &controls)
- ::[band::Area Area](#) (const [Interface](#) &interface) const override
- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface) override
- void [Display](#) (const [Point](#) &position, [Interface](#) &interface) override

7.10.1 Member Function Documentation

7.10.1.1 Area()

```
template<typename T >
band::Area band::control::FixedPanel< T >::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.10.1.2 Display()

```
template<typename T >
void band::control::FixedPanel< T >::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.10.1.3 SetControls() [1/2]

```
template<typename T >
template<typename Iter >
void band::control::FixedPanel< T >::SetControls (
    const Iter & begin,
    const Iter & end )
```

7.10.1.4 SetControls() [2/2]

```
template<typename T >
void band::control::FixedPanel< T >::SetControls (
    const std::initializer_list< std::pair< T, Point >> & controls )
```

7.10.1.5 Update()

```
template<typename T >
void band::control::FixedPanel< T >::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

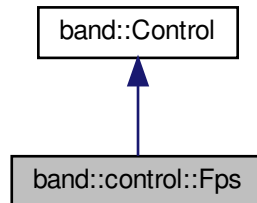
The documentation for this class was generated from the following file:

- [band/control/fixed_panel.h](#)

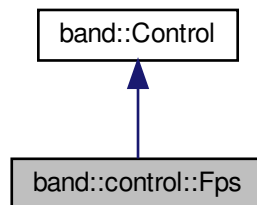
7.11 band::control::Fps Class Reference

```
#include <fps.h>
```

Inheritance diagram for band::control::Fps:



Collaboration diagram for band::control::Fps:



Public Member Functions

- `::band::Area Area` (const [Interface](#) &interface) const override
- void `Update` (const [Point](#) &position, const [Interface](#) &interface) override
- void `Display` (const [Point](#) &position, [Interface](#) &interface) override

7.11.1 Member Function Documentation

7.11.1.1 Area()

```

::band::Area band::control::Fps::Area (
    const Interface & interface ) const [override], [virtual]

```

Implements [band::Control](#).

7.11.1.2 Display()

```
void band::control::Fps::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.11.1.3 Update()

```
void band::control::Fps::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

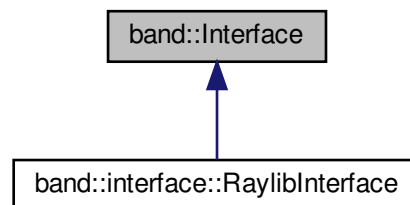
The documentation for this class was generated from the following file:

- [band/control/fps.h](#)

7.12 band::Interface Class Reference

```
#include <interface.h>
```

Inheritance diagram for band::Interface:



Public Types

- enum [Action](#) { [Action::kLeftClick](#), [Action::kRightClick](#), [Action::kClose](#), [Action::kBackspace](#) }

Public Member Functions

- virtual [~Interface](#) ()=default
- virtual void [SetTargetFps](#) ([Size](#) fps)=0
- virtual void [SetWindowArea](#) (const [::band::WindowArea](#) &area)=0
- virtual void [SetIcon](#) ([ImageId](#) id)=0
- virtual void [SetTitle](#) (const [Text](#) &text)=0
- virtual void [ToggleFullscreen](#) ()=0
- virtual void [StartDrawing](#) ()=0
- virtual void [StopDrawing](#) ()=0
- virtual [ImageId](#) [LoadImage](#) (const [File](#) &file)=0
- virtual void [DeleteImage](#) ([ImageId](#) id)=0
- virtual void [DeleteAllImages](#) ()=0
- virtual [FontId](#) [LoadFont](#) (const [File](#) &file)=0
- virtual void [DeleteFont](#) ([FontId](#) id)=0
- virtual void [DeleteAllFonts](#) ()=0
- virtual [TextureId](#) [CreateBlankTexture](#) (const [Area](#) &area)=0
- virtual [TextureId](#) [CreateImageTexture](#) ([ImageId](#) id, const [Area](#) &area)=0
- virtual void [DeleteTexture](#) ([TextureId](#) id)=0
- virtual void [DeleteAllTextures](#) ()=0
- virtual void [SelectTexture](#) ([TextureId](#) id)=0
- virtual void [UnselectTexture](#) ()=0
- virtual void [DrawTexture](#) ([TextureId](#) id, const [Point](#) &position)=0
- virtual void [Clear](#) (const [Color](#) &color)=0
- virtual void [DrawLine](#) (const [Line](#) &line, const [Dimension](#) &thickness, const [Leg](#) &leg, const [Color](#) &color)=0
- virtual void [DrawCircle](#) (const [Circle](#) &circle, const [Leg](#) &leg, const [Color](#) &color)=0
- virtual void [DrawRectangle](#) (const [Rectangle](#) &rectangle, const [Color](#) &color)=0
- virtual void [DrawTriangle](#) (const [Triangle](#) &triangle, const [Color](#) &color)=0
- virtual void [DrawText](#) (const [Text](#) &text, const [Point](#) &position, const [Dimension](#) &dimension, const [Color](#) &color, [FontId](#) id)=0
- virtual void [DrawFps](#) (const [Point](#) &position)=0
- virtual [Area](#) [MeasureText](#) (const [Text](#) &text, const [Dimension](#) &dimension, [FontId](#) id) const =0
- virtual bool [HasAction](#) (const [Action](#) &action) const =0
- virtual std::optional< char > [CharacterPressed](#) () const =0
- virtual [Point](#) [MousePosition](#) () const =0
- virtual [::band::WindowArea](#) [WindowArea](#) () const =0

7.12.1 Member Enumeration Documentation

7.12.1.1 Action

```
enum band::Interface::Action [strong]
```

Enumerator

kLeftClick	
kRightClick	
kClose	
kBackspace	

7.12.2 Constructor & Destructor Documentation

7.12.2.1 ~Interface()

```
virtual band::Interface::~~Interface ( ) [virtual], [default]
```

7.12.3 Member Function Documentation

7.12.3.1 CharacterPressed()

```
virtual std::optional<char> band::Interface::CharacterPressed ( ) const [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.2 Clear()

```
virtual void band::Interface::Clear (
    const Color & color ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.3 CreateBlankTexture()

```
virtual TextureId band::Interface::CreateBlankTexture (
    const Area & area ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.4 CreateImageTexture()

```
virtual TextureId band::Interface::CreateImageTexture (
    ImageId id,
    const Area & area ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.5 DeleteAllFonts()

```
virtual void band::Interface::DeleteAllFonts ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.6 DeleteAllImages()

```
virtual void band::Interface::DeleteAllImages ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.7 DeleteAllTextures()

```
virtual void band::Interface::DeleteAllTextures ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.8 DeleteFont()

```
virtual void band::Interface::DeleteFont (
    FontId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.9 DeleteImage()

```
virtual void band::Interface::DeleteImage (
    ImageId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.10 DeleteTexture()

```
virtual void band::Interface::DeleteTexture (
    TextureId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.11 DrawCircle()

```
virtual void band::Interface::DrawCircle (
    const Circle & circle,
    const Leg & leg,
    const Color & color ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.12 DrawFps()

```
virtual void band::Interface::DrawFps (
    const Point & position ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.13 DrawLine()

```
virtual void band::Interface::DrawLine (
    const Line & line,
    const Dimension & thickness,
    const Leg & leg,
    const Color & color ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.14 DrawRectangle()

```
virtual void band::Interface::DrawRectangle (
    const Rectangle & rectangle,
    const Color & color ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.15 DrawText()

```
virtual void band::Interface::DrawText (
    const Text & text,
    const Point & position,
    const Dimension & dimension,
    const Color & color,
    FontId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.16 DrawTexture()

```
virtual void band::Interface::DrawTexture (
    TextureId id,
    const Point & position ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.17 DrawTriangle()

```
virtual void band::Interface::DrawTriangle (
    const Triangle & triangle,
    const Color & color ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.18 HasAction()

```
virtual bool band::Interface::HasAction (
    const Action & action ) const [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.19 LoadFont()

```
virtual FontId band::Interface::LoadFont (
    const File & file ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.20 LoadImage()

```
virtual ImageId band::Interface::LoadImage (
    const File & file ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.21 MeasureText()

```
virtual Area band::Interface::MeasureText (
    const Text & text,
    const Dimension & dimension,
    FontId id ) const [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.22 MousePosition()

```
virtual Point band::Interface::MousePosition ( ) const [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.23 SelectTexture()

```
virtual void band::Interface::SelectTexture (
    TextureId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.24 SetIcon()

```
virtual void band::Interface::SetIcon (
    ImageId id ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.25 SetTargetFps()

```
virtual void band::Interface::SetTargetFps (
    Size fps ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.26 SetTitle()

```
virtual void band::Interface::SetTitle (
    const Text & text ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.27 SetWindowArea()

```
virtual void band::Interface::SetWindowArea (
    const ::band::WindowArea & area ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.28 StartDrawing()

```
virtual void band::Interface::StartDrawing ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.29 StopDrawing()

```
virtual void band::Interface::StopDrawing ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.30 ToggleFullscreen()

```
virtual void band::Interface::ToggleFullscreen ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.31 UnselectTexture()

```
virtual void band::Interface::UnselectTexture ( ) [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

7.12.3.32 WindowArea()

```
virtual ::band::WindowArea band::Interface::WindowArea ( ) const [pure virtual]
```

Implemented in [band::interface::RaylibInterface](#).

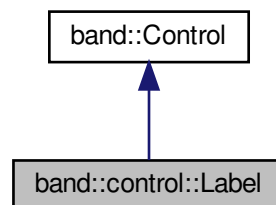
The documentation for this class was generated from the following file:

- [band/interface.h](#)

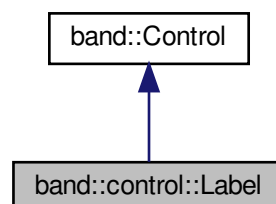
7.13 band::control::Label Class Reference

```
#include <label.h>
```

Inheritance diagram for band::control::Label:



Collaboration diagram for band::control::Label:



Public Member Functions

- `::band::Text Text () const`
- `void SetText (const ::band::Text &text)`
- `Dimension FontSize () const`
- `void SetFontSize (const Dimension &font_size)`
- `Color FontColor () const`
- `void SetFontColor (const Color &font_color)`
- `::band::FontId FontId () const`
- `void SetFontId (::band::FontId font_id)`
- `::band::Area Area (const Interface &interface) const override`
- `void Update (const Point &position, const Interface &interface) override`
- `void Display (const Point &position, Interface &interface) override`

7.13.1 Member Function Documentation

7.13.1.1 Area()

```
::band::Area band::control::Label::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements `band::Control`.

7.13.1.2 Display()

```
void band::control::Label::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements `band::Control`.

7.13.1.3 FontColor()

```
Color band::control::Label::FontColor ( ) const
```

7.13.1.4 FontId()

```
::band::FontId band::control::Label::FontId ( ) const
```

7.13.1.5 FontSize()

```
Dimension band::control::Label::FontSize ( ) const
```

7.13.1.6 SetFontColor()

```
void band::control::Label::SetFontColor (
    const Color & font_color )
```

7.13.1.7 SetFontId()

```
void band::control::Label::SetFontId (
    ::band::FontId font_id )
```

7.13.1.8 SetFontSize()

```
void band::control::Label::SetFontSize (
    const Dimension & font_size )
```

7.13.1.9 SetText()

```
void band::control::Label::SetText (
    const ::band::Text & text )
```

7.13.1.10 Text()

```
::band::Text band::control::Label::Text ( ) const
```

7.13.1.11 Update()

```
void band::control::Label::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

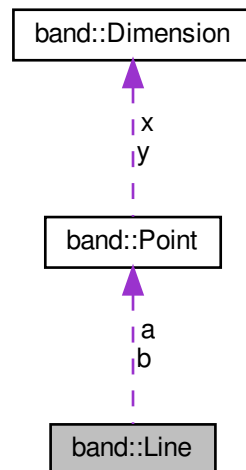
The documentation for this class was generated from the following file:

- [band/control/label.h](#)

7.14 band::Line Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Line:



Public Attributes

- [Point a](#) {}
- [Point b](#) {}

7.14.1 Member Data Documentation

7.14.1.1 a

```
Point band::Line::a {}
```

7.14.1.2 b

```
Point band::Line::b {}
```

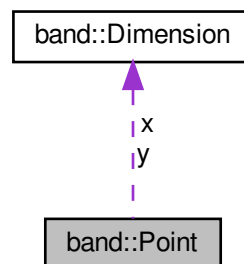
The documentation for this struct was generated from the following file:

- [band/interface.h](#)

7.15 band::Point Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Point:



Public Attributes

- [Dimension x](#) {}
- [Dimension y](#) {}

7.15.1 Member Data Documentation

7.15.1.1 x

```
Dimension band::Point::x {}
```

7.15.1.2 y

```
Dimension band::Point::y {}
```

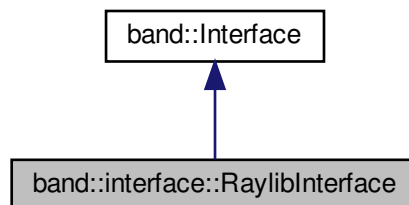
The documentation for this struct was generated from the following file:

- [band/interface.h](#)

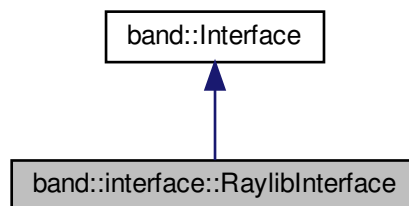
7.16 band::interface::RaylibInterface Class Reference

```
#include <raylib_interface.h>
```

Inheritance diagram for band::interface::RaylibInterface:



Collaboration diagram for band::interface::RaylibInterface:



Public Member Functions

- [RaylibInterface](#) ()
- [~RaylibInterface](#) () override
- [RaylibInterface](#) (const [RaylibInterface](#) &)=delete
- [RaylibInterface](#) & [operator=](#) (const [RaylibInterface](#) &)=delete
- [RaylibInterface](#) (const [RaylibInterface](#) &&)=delete
- [RaylibInterface](#) & [operator=](#) (const [RaylibInterface](#) &&)=delete
- void [Open](#) ()
- void [Close](#) ()
- void [SetTargetFps](#) ([Size](#) fps) override
- void [SetWindowArea](#) (const ::[band::WindowArea](#) &area) override
- void [SetIcon](#) ([ImageId](#) id) override
- void [SetTitle](#) (const [Text](#) &text) override
- void [ToggleFullscreen](#) () override
- void [StartDrawing](#) () override

- void [StopDrawing](#) () override
- [ImageId LoadImage](#) (const [File](#) &) override
- void [DeleteImage](#) ([ImageId](#) id) override
- void [DeleteAllImages](#) () override
- [FontId LoadFont](#) (const [File](#) &) override
- void [DeleteFont](#) ([FontId](#) id) override
- void [DeleteAllFonts](#) () override
- [TextureId CreateBlankTexture](#) (const [Area](#) &area) override
- [TextureId CreateImageTexture](#) ([ImageId](#) id, const [Area](#) &area) override
- void [DeleteTexture](#) ([TextureId](#) id) override
- void [DeleteAllTextures](#) () override
- void [SelectTexture](#) ([TextureId](#) id) override
- void [UnselectTexture](#) () override
- void [DrawTexture](#) ([TextureId](#) id, const [Point](#) &position) override
- void [Clear](#) (const [Color](#) &color) override
- void [DrawLine](#) (const [Line](#) &line, const [Dimension](#) &thickness, const [Leg](#) &leg, const [Color](#) &color) override
- void [DrawCircle](#) (const [Circle](#) &circle, const [Leg](#) &leg, const [Color](#) &color) override
- void [DrawRectangle](#) (const [Rectangle](#) &rectangle, const [Color](#) &color) override
- void [DrawTriangle](#) (const [Triangle](#) &triangle, const [Color](#) &color) override
- void [DrawText](#) (const [Text](#) &text, const [Point](#) &position, const [Dimension](#) &dimension, const [Color](#) &color, [FontId](#) id) override
- void [DrawFps](#) (const [Point](#) &position) override
- [Area MeasureText](#) (const [Text](#) &text, const [Dimension](#) &dimension, [FontId](#) id) const override
- bool [HasAction](#) (const [Action](#) &action) const override
- std::optional< char > [CharacterPressed](#) () const override
- [Point MousePosition](#) () const override
- [::band::WindowArea WindowArea](#) () const override

Additional Inherited Members

7.16.1 Constructor & Destructor Documentation

7.16.1.1 RaylibInterface() [1/3]

```
band::interface::RaylibInterface::RaylibInterface ( )
```

7.16.1.2 ~RaylibInterface()

```
band::interface::RaylibInterface::~~RaylibInterface ( ) [override]
```

7.16.1.3 RaylibInterface() [2/3]

```
band::interface::RaylibInterface::RaylibInterface (
    const RaylibInterface & ) [delete]
```

7.16.1.4 RaylibInterface() [3/3]

```
band::interface::RaylibInterface::RaylibInterface (
    const RaylibInterface && ) [delete]
```

7.16.2 Member Function Documentation

7.16.2.1 CharacterPressed()

```
std::optional<char> band::interface::RaylibInterface::CharacterPressed ( ) const [override],
[virtual]
```

Implements [band::Interface](#).

7.16.2.2 Clear()

```
void band::interface::RaylibInterface::Clear (
    const Color & color ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.3 Close()

```
void band::interface::RaylibInterface::Close ( )
```

7.16.2.4 CreateBlankTexture()

```
TextureId band::interface::RaylibInterface::CreateBlankTexture (
    const Area & area ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.5 CreateImageTexture()

```
TextureId band::interface::RaylibInterface::CreateImageTexture (
    ImageId id,
    const Area & area ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.6 DeleteAllFonts()

```
void band::interface::RaylibInterface::DeleteAllFonts ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.7 DeleteAllImages()

```
void band::interface::RaylibInterface::DeleteAllImages ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.8 DeleteAllTextures()

```
void band::interface::RaylibInterface::DeleteAllTextures ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.9 DeleteFont()

```
void band::interface::RaylibInterface::DeleteFont (
    FontId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.10 DeleteImage()

```
void band::interface::RaylibInterface::DeleteImage (
    ImageId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.11 DeleteTexture()

```
void band::interface::RaylibInterface::DeleteTexture (
    TextureId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.12 DrawCircle()

```
void band::interface::RaylibInterface::DrawCircle (
    const Circle & circle,
    const Leg & leg,
    const Color & color ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.13 DrawFps()

```
void band::interface::RaylibInterface::DrawFps (
    const Point & position ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.14 DrawLine()

```
void band::interface::RaylibInterface::DrawLine (
    const Line & line,
    const Dimension & thickness,
    const Leg & leg,
    const Color & color ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.15 DrawRectangle()

```
void band::interface::RaylibInterface::DrawRectangle (
    const Rectangle & rectangle,
    const Color & color ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.16 DrawText()

```
void band::interface::RaylibInterface::DrawText (
    const Text & text,
    const Point & position,
    const Dimension & dimension,
    const Color & color,
    FontId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.17 DrawTexture()

```
void band::interface::RaylibInterface::DrawTexture (
    TextureId id,
    const Point & position ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.18 DrawTriangle()

```
void band::interface::RaylibInterface::DrawTriangle (
    const Triangle & triangle,
    const Color & color ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.19 HasAction()

```
bool band::interface::RaylibInterface::HasAction (
    const Action & action ) const [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.20 LoadFont()

```
FontId band::interface::RaylibInterface::LoadFont (
    const File & ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.21 LoadImage()

```
ImageId band::interface::RaylibInterface::LoadImage (
    const File & ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.22 MeasureText()

```
Area band::interface::RaylibInterface::MeasureText (
    const Text & text,
    const Dimension & dimension,
    FontId id ) const [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.23 MousePosition()

```
Point band::interface::RaylibInterface::MousePosition ( ) const [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.24 Open()

```
void band::interface::RaylibInterface::Open ( )
```

7.16.2.25 operator=() [1/2]

```
RaylibInterface& band::interface::RaylibInterface::operator= (
    const RaylibInterface & ) [delete]
```

7.16.2.26 operator=() [2/2]

```
RaylibInterface& band::interface::RaylibInterface::operator= (
    const RaylibInterface && ) [delete]
```


7.16.2.27 SelectTexture()

```
void band::interface::RaylibInterface::SelectTexture (
    TextureId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.28 SetIcon()

```
void band::interface::RaylibInterface::SetIcon (
    ImageId id ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.29 SetTargetFps()

```
void band::interface::RaylibInterface::SetTargetFps (
    Size fps ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.30 SetTitle()

```
void band::interface::RaylibInterface::SetTitle (
    const Text & text ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.31 SetWindowArea()

```
void band::interface::RaylibInterface::SetWindowArea (
    const ::band::WindowArea & area ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.32 StartDrawing()

```
void band::interface::RaylibInterface::StartDrawing ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.33 StopDrawing()

```
void band::interface::RaylibInterface::StopDrawing ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.34 ToggleFullscreen()

```
void band::interface::RaylibInterface::ToggleFullscreen ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.35 UnselectTexture()

```
void band::interface::RaylibInterface::UnselectTexture ( ) [override], [virtual]
```

Implements [band::Interface](#).

7.16.2.36 WindowArea()

```
::band::WindowArea band::interface::RaylibInterface::WindowArea ( ) const [override], [virtual]
```

Implements [band::Interface](#).

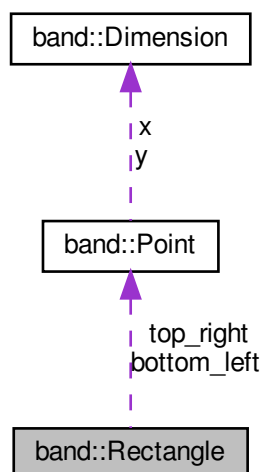
The documentation for this class was generated from the following file:

- [band/interface/raylib_interface.h](#)

7.17 band::Rectangle Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Rectangle:



Public Attributes

- [Point bottom_left](#) {}
- [Point top_right](#) {}

7.17.1 Member Data Documentation

7.17.1.1 bottom_left

```
Point band::Rectangle::bottom_left {}
```

7.17.1.2 top_right

```
Point band::Rectangle::top_right {}
```

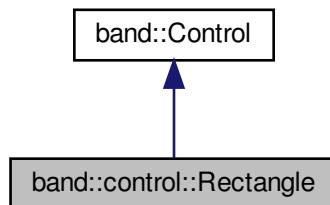
The documentation for this struct was generated from the following file:

- [band/interface.h](#)

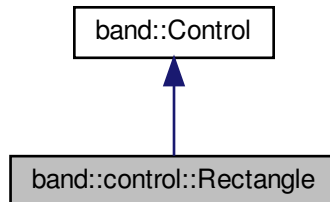
7.18 band::control::Rectangle Class Reference

```
#include <rectangle.h>
```

Inheritance diagram for band::control::Rectangle:



Collaboration diagram for band::control::Rectangle:



Public Member Functions

- [::band::Color Color](#) () const
- void [SetColor](#) (const [::band::Color](#) &color)
- void [SetArea](#) (const [::band::Area](#) &area)
- [::band::Area Area](#) (const [Interface](#) &interface) const override
- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface) override
- void [Display](#) (const [Point](#) &position, [Interface](#) &interface) override

7.18.1 Member Function Documentation

7.18.1.1 Area()

```
::band::Area band::control::Rectangle::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.18.1.2 Color()

```
::band::Color band::control::Rectangle::Color ( ) const
```

7.18.1.3 Display()

```
void band::control::Rectangle::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.18.1.4 SetArea()

```
void band::control::Rectangle::SetArea (
    const ::band::Area & area )
```

7.18.1.5 SetColor()

```
void band::control::Rectangle::SetColor (
    const ::band::Color & color )
```

7.18.1.6 Update()

```
void band::control::Rectangle::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

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

- [band/control/rectangle.h](#)

7.19 band::Scope Class Reference

```
#include <scope.h>
```

Public Member Functions

- [Scope](#) (const std::function< void()> &f)
- [~Scope](#) ()
- [Scope](#) (const [Scope](#) &)=delete
- [Scope](#) & [operator=](#) (const [Scope](#) &)=delete
- [Scope](#) (const [Scope](#) &&)=delete
- [Scope](#) & [operator=](#) (const [Scope](#) &&)=delete

7.19.1 Constructor & Destructor Documentation

7.19.1.1 [Scope\(\)](#) [1/3]

```
band::Scope::Scope (
    const std::function< void()> & f ) [explicit]
```

7.19.1.2 [~Scope\(\)](#)

```
band::Scope::~~Scope ( )
```

7.19.1.3 [Scope\(\)](#) [2/3]

```
band::Scope::Scope (
    const Scope & ) [delete]
```

7.19.1.4 [Scope\(\)](#) [3/3]

```
band::Scope::Scope (
    const Scope && ) [delete]
```

7.19.2 Member Function Documentation

7.19.2.1 operator=() [1/2]

```
Scope& band::Scope::operator= (
    const Scope & ) [delete]
```

7.19.2.2 operator=() [2/2]

```
Scope& band::Scope::operator= (
    const Scope && ) [delete]
```

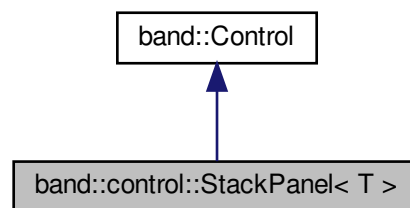
The documentation for this class was generated from the following file:

- [band/scope.h](#)

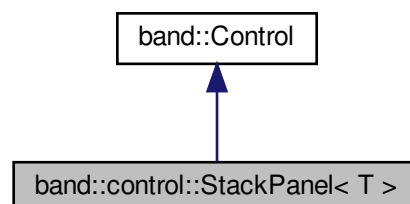
7.20 band::control::StackPanel< T > Class Template Reference

```
#include <stack_panel.h>
```

Inheritance diagram for band::control::StackPanel< T >:



Collaboration diagram for band::control::StackPanel< T >:



Public Member Functions

- `::band::Alignment Alignment () const`
- `void SetAlignment (const ::band::Alignment &alignment)`
- `::band::Direction Direction () const`
- `void SetDirection (const ::band::Direction &direction)`
- `template<typename Iter >
void SetControls (const Iter &begin, const Iter &end)`
- `void SetControls (const std::initializer_list< T > &controls)`
- `::band::Area Area (const Interface &interface) const override`
- `void Update (const Point &position, const Interface &interface) override`
- `void Display (const Point &position, Interface &interface) override`

7.20.1 Member Function Documentation

7.20.1.1 Alignment()

```
template<typename T >
band::Alignment band::control::StackPanel< T >::Alignment ( ) const
```

7.20.1.2 Area()

```
template<typename T >
band::Area band::control::StackPanel< T >::Area (
    const Interface & interface ) const [override], [virtual]
```

Implements `band::Control`.

7.20.1.3 Direction()

```
template<typename T >
band::Direction band::control::StackPanel< T >::Direction ( ) const
```

7.20.1.4 Display()

```
template<typename T >
void band::control::StackPanel< T >::Display (
    const Point & position,
    Interface & interface ) [override], [virtual]
```

Implements `band::Control`.

7.20.1.5 SetAlignment()

```
template<typename T >
void band::control::StackPanel< T >::SetAlignment (
    const ::band::Alignment & alignment )
```

7.20.1.6 SetControls() [1/2]

```
template<typename T >
template<typename Iter >
void band::control::StackPanel< T >::SetControls (
    const Iter & begin,
    const Iter & end )
```

7.20.1.7 SetControls() [2/2]

```
template<typename T >
void band::control::StackPanel< T >::SetControls (
    const std::initializer_list< T > & controls )
```

7.20.1.8 SetDirection()

```
template<typename T >
void band::control::StackPanel< T >::SetDirection (
    const ::band::Direction & direction )
```

7.20.1.9 Update()

```
template<typename T >
void band::control::StackPanel< T >::Update (
    const Point & position,
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

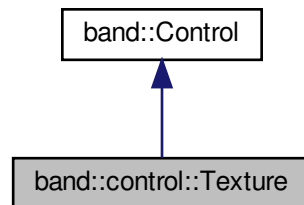
The documentation for this class was generated from the following file:

- [band/control/stack_panel.h](#)

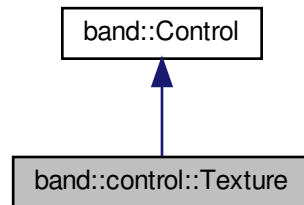
7.21 band::control::Texture Class Reference

```
#include <texture.h>
```

Inheritance diagram for band::control::Texture:



Collaboration diagram for band::control::Texture:



Public Member Functions

- void [CaptureControl](#) ([Interface](#) &interface, [Control](#) &control)
- void [CleanUp](#) ([Interface](#) &interface)
- [band::Area](#) [Area](#) (const [Interface](#) &interface) const override
- void [Update](#) (const [Point](#) &position, const [Interface](#) &interface) override
- void [Display](#) (const [Point](#) &position, [Interface](#) &interface) override

7.21.1 Member Function Documentation

7.21.1.1 Area()

```
::band::Area band::control::Texture::Area (  
    const Interface & interface ) const [override], [virtual]
```

Implements [band::Control](#).

7.21.1.2 CaptureControl()

```
void band::control::Texture::CaptureControl (  
    Interface & interface,  
    Control & control )
```

7.21.1.3 CleanUp()

```
void band::control::Texture::CleanUp (  
    Interface & interface )
```

7.21.1.4 Display()

```
void band::control::Texture::Display (  
    const Point & position,  
    Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

7.21.1.5 Update()

```
void band::control::Texture::Update (  
    const Point & position,  
    const Interface & interface ) [override], [virtual]
```

Implements [band::Control](#).

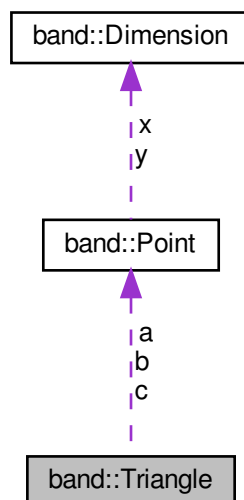
The documentation for this class was generated from the following file:

- [band/control/texture.h](#)

7.22 band::Triangle Struct Reference

```
#include <interface.h>
```

Collaboration diagram for band::Triangle:



Public Attributes

- [Point a](#) {}
- [Point b](#) {}
- [Point c](#) {}

7.22.1 Member Data Documentation

7.22.1.1 a

```
Point band::Triangle::a {}
```

7.22.1.2 b

```
Point band::Triangle::b {}
```

7.22.1.3 c

```
Point band::Triangle::c {}
```

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

- band/[interface.h](#)

7.23 band::WindowArea Struct Reference

```
#include <interface.h>
```

Public Attributes

- [Real width](#) {}
- [Real height](#) {}

7.23.1 Member Data Documentation

7.23.1.1 height

```
Real band::WindowArea::height {}
```

7.23.1.2 width

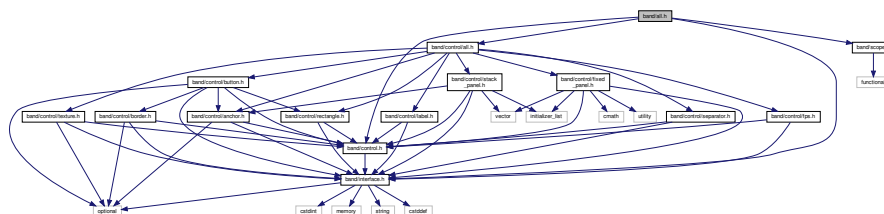
```
Real band::WindowArea::width {}
```

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

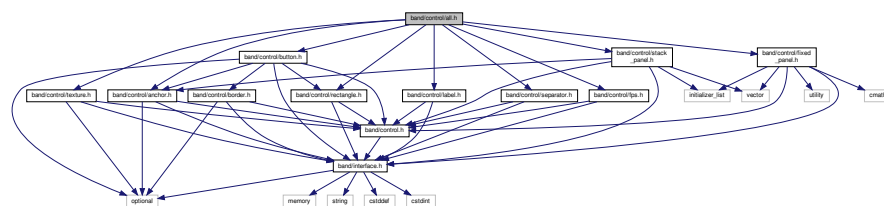
- band/[interface.h](#)

File Documentation

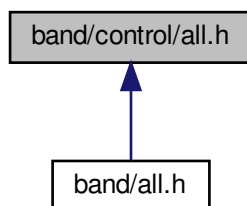
```
#include "band/control.h"
#include "band/control/all.h"
#include "band/interface.h"
#include "band/scope.h"
Include dependency graph for all.h:
```



```
#include "band/control/anchor.h"
#include "band/control/button.h"
#include "band/control/fixed_panel.h"
#include "band/control/fps.h"
#include "band/control/label.h"
#include "band/control/rectangle.h"
#include "band/control/separator.h"
#include "band/control/stack_panel.h"
#include "band/control/texture.h"
Include dependency graph for all.h:
```



This graph shows which files directly or indirectly include this file:

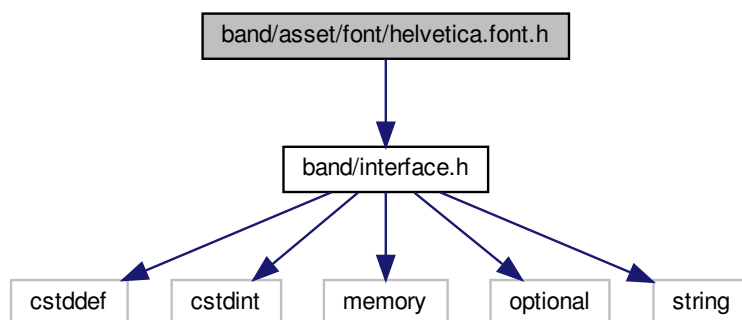


8.3 band/asset/font/helvetica.font.d File Reference

8.4 band/asset/font/helvetica.font.h File Reference

```
#include "band/interface.h"
```

Include dependency graph for helvetica.font.h:



Namespaces

- [band](#)
- [band::asset](#)
- [band::asset::font](#)

Functions

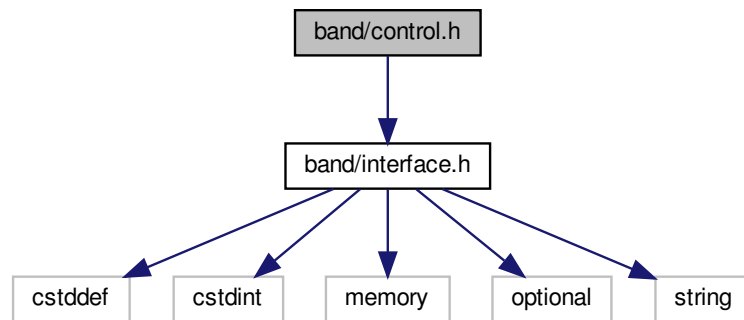
- [band::File band::asset::font::Helvetica \(\)](#)

8.5 band/control.d File Reference

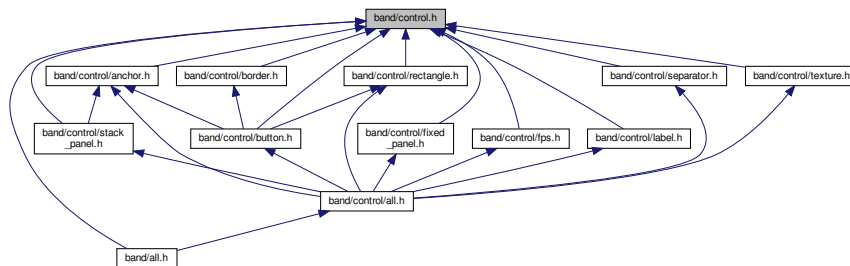
8.6 band/control.h File Reference

```
#include "band/interface.h"
```

Include dependency graph for control.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [band::Control](#)

Namespaces

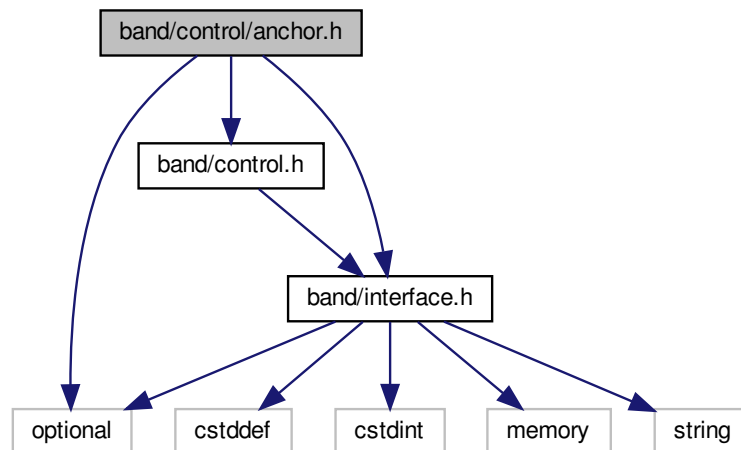
- [band](#)

Functions

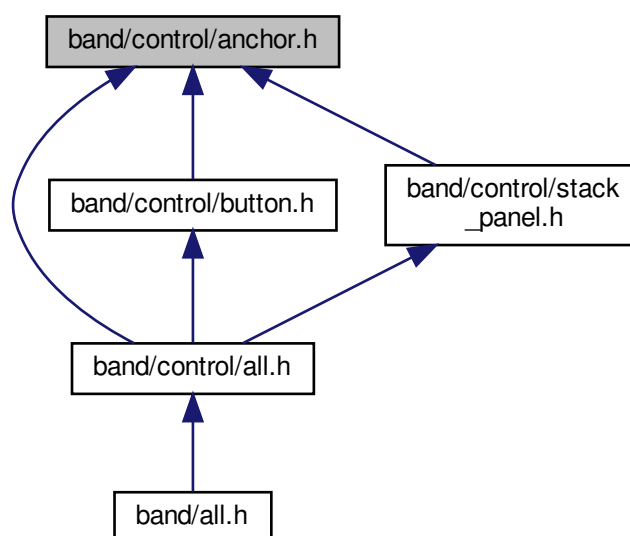
- void [band::Update](#) (const Point &position, const Interface &interface, Control &control)
- void [band::DrawFrame](#) (const Color &clear_color, const Point &position, Interface &interface, Control &control)

8.7 band/control/anchor.h File Reference

```
#include <optional>
#include "band/control.h"
#include "band/interface.h"
Include dependency graph for anchor.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::Anchor< T >](#)

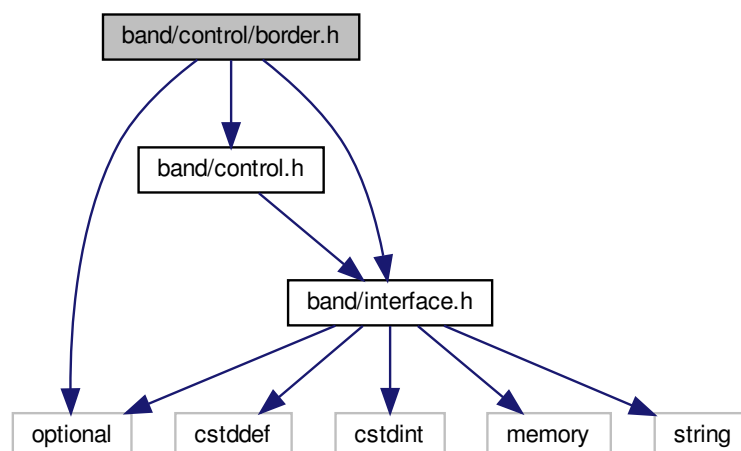
Namespaces

- [band](#)
- [band::control](#)

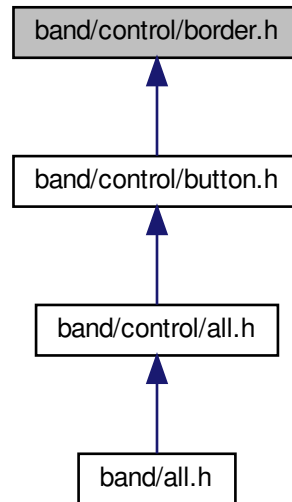
8.8 band/control/border.d File Reference

8.9 band/control/border.h File Reference

```
#include <optional>
#include "band/control.h"
#include "band/interface.h"
Include dependency graph for border.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::Border](#)

Namespaces

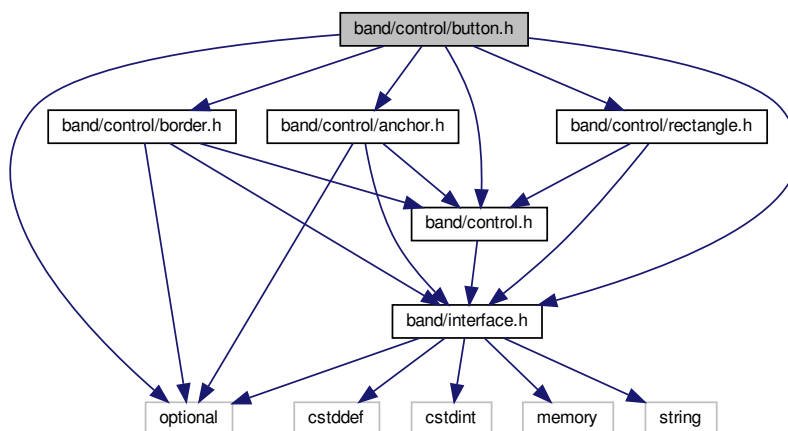
- [band](#)
- [band::control](#)

8.10 band/control/button.h File Reference

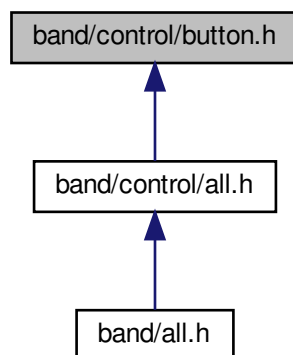
```
#include <optional>
#include "band/control.h"
#include "band/control/anchor.h"
#include "band/control/border.h"
#include "band/control/rectangle.h"
```

```
#include "band/interface.h"
```

Include dependency graph for button.h:



This graph shows which files directly or indirectly include this file:



Classes

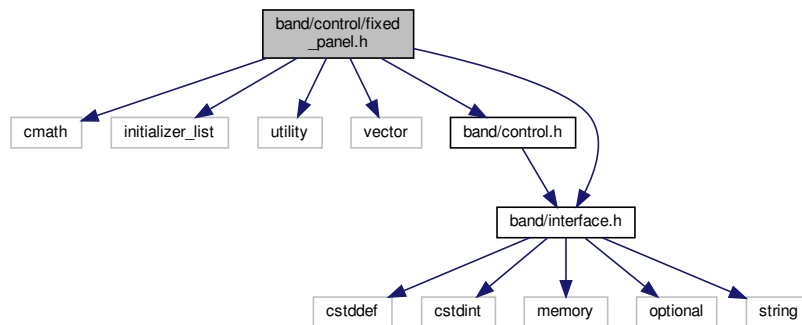
- class `band::control::Button< T >`

Namespaces

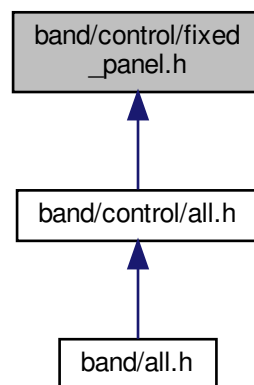
- `band`
- `band::control`

8.11 band/control/fixed_panel.h File Reference

```
#include <cmath>
#include <initializer_list>
#include <utility>
#include <vector>
#include "band/control.h"
#include "band/interface.h"
Include dependency graph for fixed_panel.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class `band::control::FixedPanel< T >`

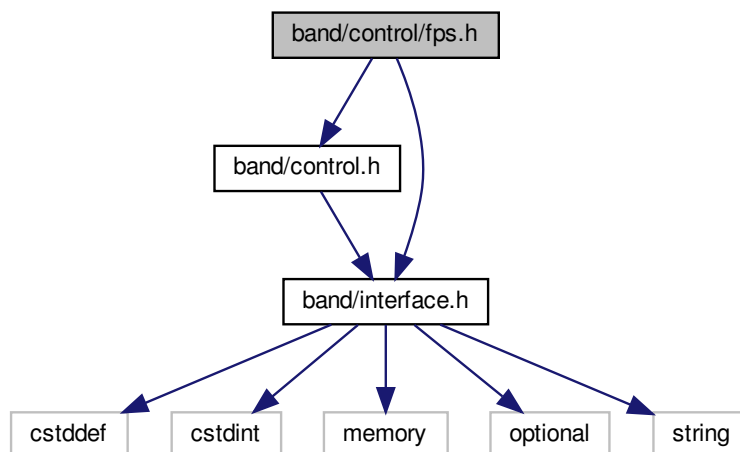
Namespaces

- `band`
- `band::control`

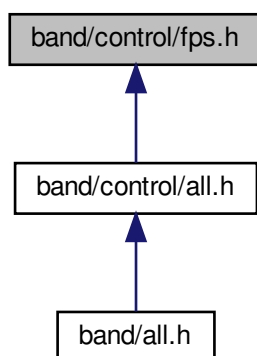
8.12 band/control/fps.d File Reference

8.13 band/control/fps.h File Reference

```
#include "band/control.h"  
#include "band/interface.h"  
Include dependency graph for fps.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class `band::control::Fps`

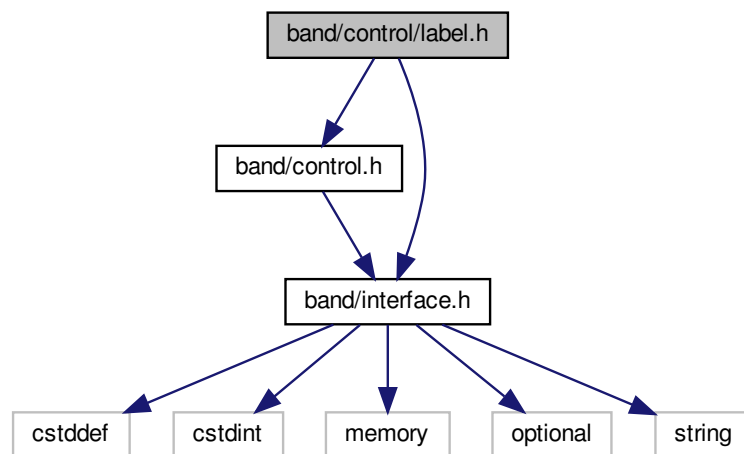
Namespaces

- [band](#)
- [band::control](#)

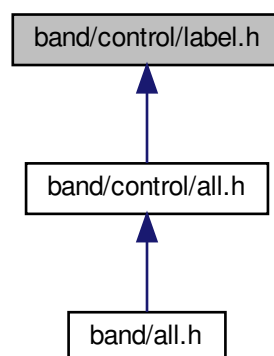
8.14 band/control/label.d File Reference

8.15 band/control/label.h File Reference

```
#include "band/control.h"  
#include "band/interface.h"  
Include dependency graph for label.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::Label](#)

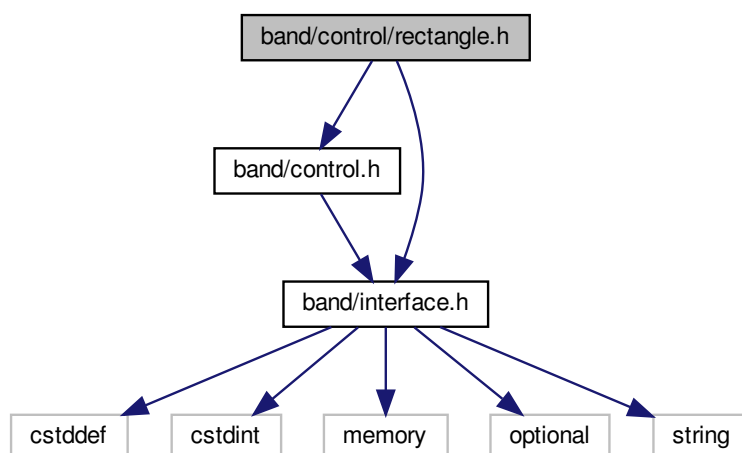
Namespaces

- [band](#)
- [band::control](#)

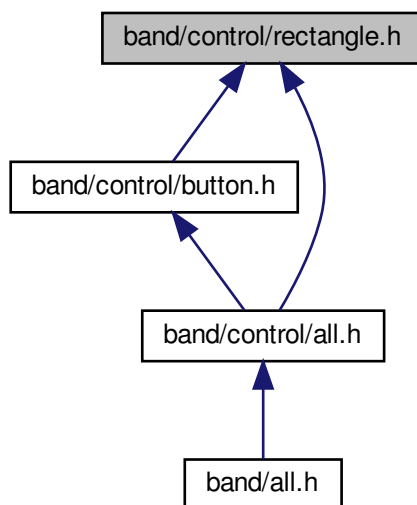
8.16 band/control/rectangle.d File Reference

8.17 band/control/rectangle.h File Reference

```
#include "band/control.h"  
#include "band/interface.h"  
Include dependency graph for rectangle.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::Rectangle](#)

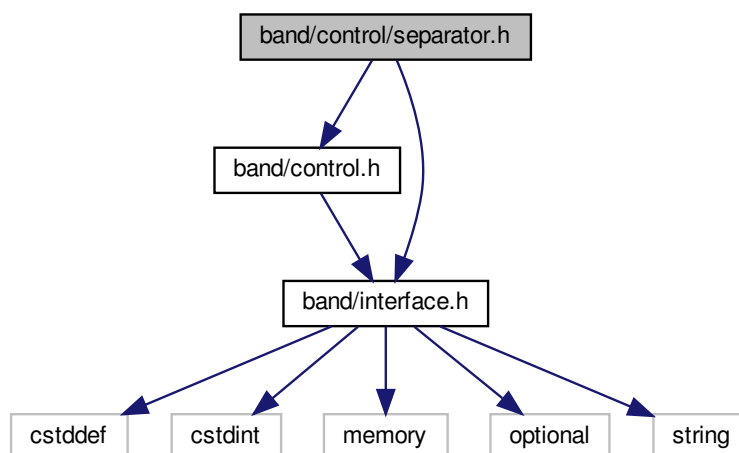
Namespaces

- [band](#)
- [band::control](#)

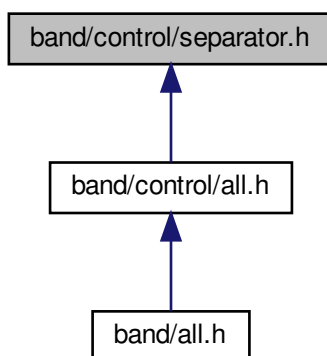
8.18 band/control/separator.h File Reference

```
#include "band/control.h"  
#include "band/interface.h"
```

Include dependency graph for separator.h:



This graph shows which files directly or indirectly include this file:



Namespaces

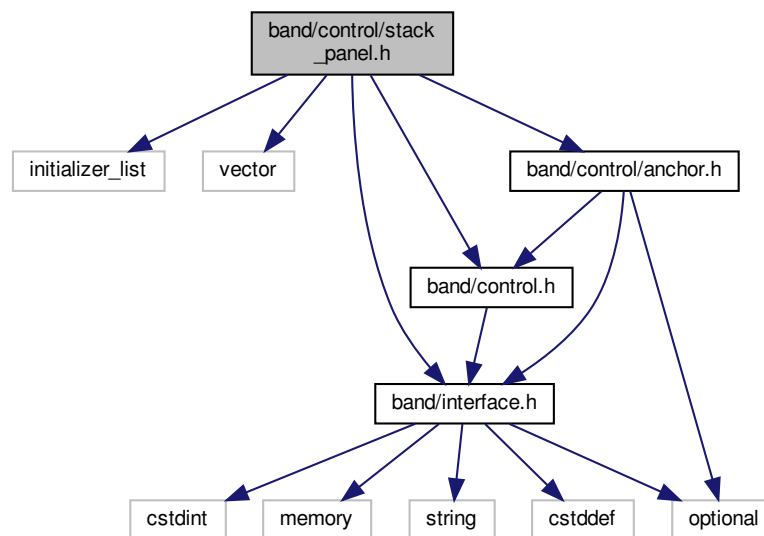
- [band](#)
- [band::control](#)

Typedefs

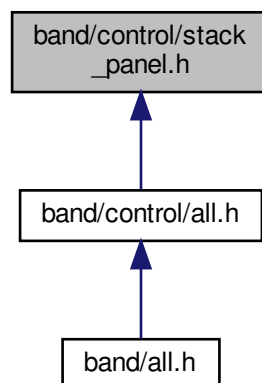
- using [band::control::Separator](#) = [::band::control::Rectangle](#)

8.19 band/control/stack_panel.h File Reference

```
#include <initializer_list>
#include <vector>
#include "band/control.h"
#include "band/control/anchor.h"
#include "band/interface.h"
Include dependency graph for stack_panel.h:
```



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::StackPanel< T >](#)

Namespaces

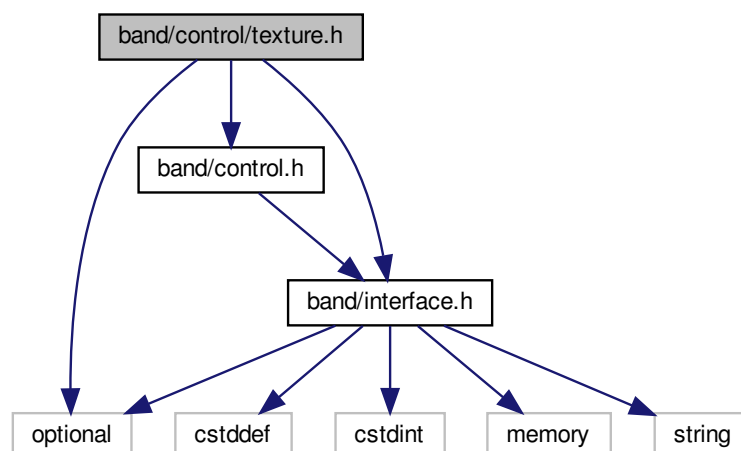
- [band](#)
- [band::control](#)

8.20 band/control/texture.d File Reference

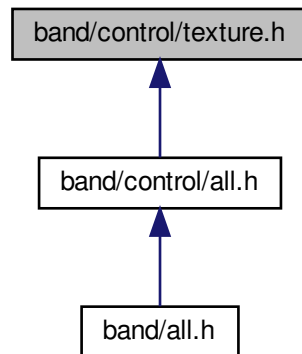
8.21 band/control/texture.h File Reference

```
#include <optional>
#include "band/control.h"
#include "band/interface.h"
```

Include dependency graph for texture.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [band::control::Texture](#)

Namespaces

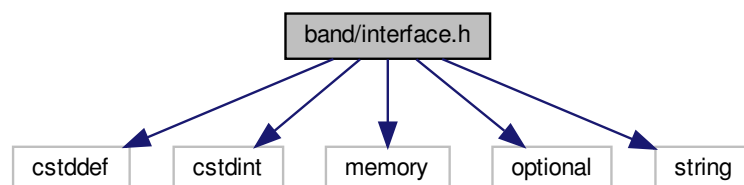
- [band](#)
- [band::control](#)

8.22 band/interface.d File Reference

8.23 band/interface.h File Reference

```
#include <cstddef>
#include <cstdint>
#include <memory>
#include <optional>
#include <string>
```

Include dependency graph for interface.h:



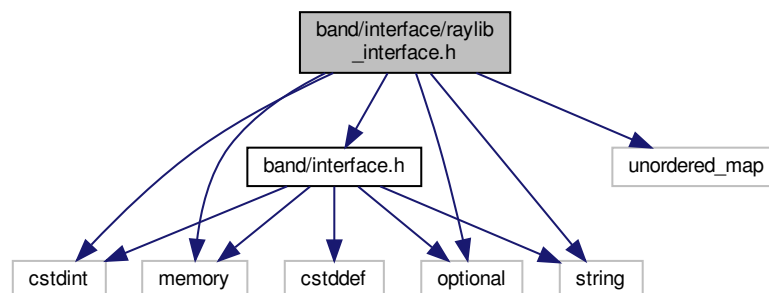
Functions

- bool [band::operator==](#) (const Dimension &a, const Dimension &b)
- bool [band::operator!=](#) (const Dimension &a, const Dimension &b)
- bool [band::IsDimensionGreaterThanOrEqualTo](#) (const Dimension &a, const Dimension &b, Real pixels)
- Dimension [band::MaxDimension](#) (const Dimension &a, const Dimension &b, Real pixels)
- Dimension [band::MinDimension](#) (const Dimension &a, const Dimension &b, Real pixels)
- Dimension [band::AddDimensions](#) (const Dimension &a, const Dimension &b, Real pixels)
- Dimension [band::SubtractDimensions](#) (const Dimension &a, const Dimension &b, Real pixels)
- Dimension [band::MultiplyDimension](#) (const Dimension &a, Real scalar)
- bool [band::operator!=](#) (const Point &a, const Point &b)
- bool [band::operator!=](#) (const Line &a, const Line &b)
- bool [band::operator!=](#) (const Circle &a, const Circle &b)
- bool [band::operator!=](#) (const Triangle &a, const Triangle &b)
- bool [band::operator!=](#) (const Rectangle &a, const Rectangle &b)
- bool [band::operator!=](#) (const Area &a, const Area &b)
- bool [band::operator!=](#) (const WindowArea &a, const WindowArea &b)
- bool [band::operator!=](#) (const Color &a, const Color &b)
- std::unique_ptr< Interface > [band::DefaultInterface](#) ()

8.24 band/interface/raylib_interface.d File Reference

8.25 band/interface/raylib_interface.h File Reference

```
#include <cstdint>
#include <memory>
#include <optional>
#include <string>
#include <unordered_map>
#include "band/interface.h"
Include dependency graph for raylib_interface.h:
```



Classes

- class [band::interface::RaylibInterface](#)

Namespaces

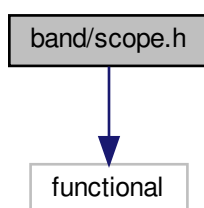
- [band](#)
- [band::interface](#)

8.26 band/scope.d File Reference

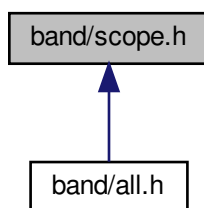
8.27 band/scope.h File Reference

```
#include <functional>
```

Include dependency graph for scope.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [band::Scope](#)

Namespaces

- [band](#)

8.28 README.md File Reference

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