

# BlendSplitter

3.0.0

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# Chapter 1

## BlendSplitter

A blender-like Qt Widget management library, version 3.

You can download the whole documentation in pdf on (<https://genabitu.github.io/BlendSplitter/latex/BlendSplitter.pdf>).

This library offers 2 kinds of functionality - one implemented by the [BlendSplitter](#) class, the other by the [SwitchingWidget](#) class. Although these are intended to be used together, each one of them can be used separately.

### BlendSplitter

This widget implements the functionality of Blender (Open-source 3D modelling software) widget management. This widget displays a splitter similar to QSplitter. However, each widget in [BlendSplitter](#) has a pair of Expanders (one in top right and one in bottom left corner). By dragging from these Expanders inwards a new widget is created in the direction of the drag. If the direction is different to that of the [BlendSplitter](#), a new [BlendSplitter](#) with parallel direction is created in place of the widget with the widget and the new widget in it. By dragging from these expanders outwards, a neighbouring widget (or a collection of widgets) can be closed. While the mouse is held, the widgets to be closed are marked with black overlay. When the mouse is released, they are closed. [BlendSplitter](#) can be used like any other QWidget, although setting one as the central widget is recommended. A [BlendSplitter](#) can contain objects of any class inheriting from QWidget. Note that you have to manually set the initial state of the [BlendSplitter](#). You need to add at least 1 widget, otherwise nothing will be displayed.

[BlendSplitter](#) provides 3 static variables that allow some customization of the library design. These are [expanderSize](#), [switchingBarHeight](#) and [expanderImage](#). These are all initialized with default values. The default Expander image is provided by the library.

The default Expander image:

### Example

```
{C++}
#include <QApplication>
#include <QMainWindow>

#include <BlendSplitter>

int main(int argc, char** argv)
{
    new QApplication(argc, argv);
    QMainWindow* window{new QMainWindow{}};
    BlendSplitter* splitter{new BlendSplitter{[]() -> QWidget* {return new QLabel{"My Widget"}}}};
```

```

window->setCentralWidget(splitter);
window->resize(400, 200);
window->setWindowTitle("BlendSplitter example");

splitter->addWidget();

window->show();
return qApp->exec();
}

```

On Gnome 3.22, this example looks like:

### Example with composite splitters

```

{C++}
#include <QApplication>
#include <QMainWindow>

#include <BlendSplitter>

int main(int argc, char** argv)
{
    new QApplication(argc, argv);
    QMainWindow* window{new QMainWindow{}};
    BlendSplitter* splitter{new BlendSplitter{[]()->QWidget* {return new QLabel{"My Widget"}}}};

    window->setCentralWidget(splitter);
    window->resize(400, 200);
    window->setWindowTitle("BlendSplitter example 2");

    splitter->addWidget();
    BlendSplitter* splitter2{new BlendSplitter{[]()->QWidget* {return new QLabel{"My Widget"}}},
        Qt::Vertical};
    splitter->addSplitter(splitter2);
    splitter2->addWidget();
    splitter2->addWidget();

    window->show();
    return qApp->exec();
}

```

On Gnome 3.22, this example looks like:

## SwitchingWidget

This class displays a Widget with a [SwitchingBar](#) on the bottom. The widget displayed is one from [WidgetRegistry](#) and it can be selected using a combo box in the [SwitchingBar](#). The [SwitchingBar](#) is like a QMenuBar, but can also contain plain widgets. A [SwitchingWidget](#) can contain objects of any class inheriting from QWidget.

Note that constructing an object of this class when [WidgetRegistry](#) is empty will cause a default [RegistryItem](#) to be added to it. The height of the [SwitchingBar](#) can be modified by changing [BlendSplitter::switchingBarHeight](#).

### Example

```

{C++}
#include <QApplication>
#include <QMainWindow>

#include <BlendSplitter>

int main(int argc, char** argv)
{
    new QApplication(argc, argv);
    QMainWindow* window{new QMainWindow{}};

```

```
WidgetRegistry::getRegistry()->addItem();
WidgetRegistry::getRegistry()->addItem("Type1", []()->QWidget* {return new QLabel{"Type 1 Label"}});
[](SwitchingBar* bar, QWidget*)->void {
    QMenu* menu{new QMenu{"My first menu"}};
    bar->addMenu(menu);
    QMenu* menu2{new QMenu{"My second menu"}};
    menu2->addAction(new QAction{"New", 0});
    menu2->addAction(new QAction{"Close", 0});
    bar->addMenu(menu2);
    QLabel* lab{new QLabel{"My third not-so-menu"}};
    bar->addWidget(lab);
};
WidgetRegistry::getRegistry()->addItem(new RegistryItem{"Type2", []()->QWidget* {return new
    QLabel{"Type 2 Label"}}});
WidgetRegistry::getRegistry()->setDefault(1);

SwitchingWidget* widget{new SwitchingWidget{}};

window->setCentralWidget(widget);
window->resize(600, 400);
window->setWindowTitle("SwitchingWidget example");

window->show();
return qApp->exec();
}
```

On Gnome 3.22, this example looks like:





## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

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

QObject	
WidgetRegistry . . . . .	21
QSplitter	
BlendSplitter . . . . .	9
SwitchingWidget . . . . .	19
QWidget	
SwitchingBar . . . . .	17
RegistryItem . . . . .	14



## Chapter 3

# Class Index

### 3.1 Class List

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

<a href="#">BlendSplitter</a>		
	A user-defined Splitter . . . . .	9
<a href="#">RegistryItem</a>		
	An item intended to be put into <a href="#">WidgetRegistry</a> . . . . .	14
<a href="#">SwitchingBar</a>		
	A menu bar which is always found on the bottom of <a href="#">SwitchingWidget</a> . . . . .	17
<a href="#">SwitchingWidget</a>		
	A widget whose actual content can be selected from a combo box . . . . .	19
<a href="#">WidgetRegistry</a>		
	A registry of all widgets that can be displayed in a <a href="#">SwitchingWidget</a> . . . . .	21



## Chapter 4

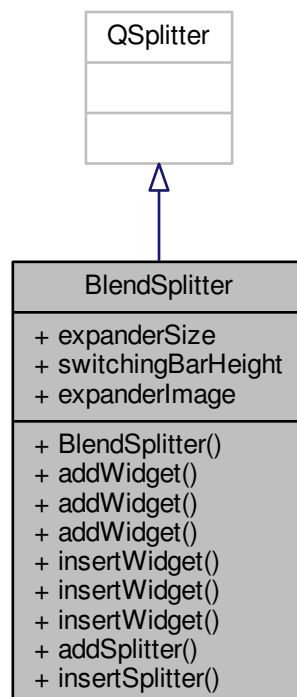
# Class Documentation

### 4.1 BlendSplitter Class Reference

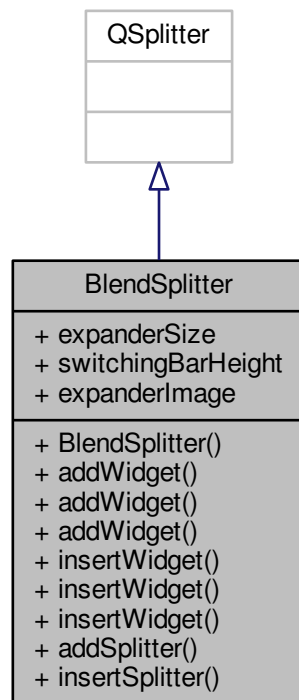
A user-defined Splitter.

```
#include <BlendSplitter.hpp>
```

Inheritance diagram for BlendSplitter:



Collaboration diagram for BlendSplitter:



## Public Member Functions

- `BlendSplitter` (`QWidget *(*defaultWidget)()=[]()` -> `QWidget *`{return new `SwitchingWidget`{}}; `Qt::Orientation orientation=Qt::Horizontal`)  
*BlendSplitter* class constructor.
- void `addWidget` ()  
*Add a widget to the BlendSplitter.*
- void `addWidget` (`QWidget *widget`)  
*Add a widget to the BlendSplitter.*
- void `addWidget` (`RegistryItem *item`)  
*Add a widget to the BlendSplitter.*
- void `insertWidget` (`int index`)  
*Insert a widget into the BlendSplitter.*
- void `insertWidget` (`int index`, `QWidget *widget`)  
*Insert a widget into the BlendSplitter.*
- void `insertWidget` (`int index`, `RegistryItem *item`)  
*Insert a widget into the BlendSplitter.*
- void `addSplitter` (`BlendSplitter *splitter`)  
*Add another BlendSplitter to this BlendSplitter.*
- void `insertSplitter` (`int index`, `BlendSplitter *splitter`)  
*Insert another BlendSplitter into this BlendSplitter.*

## Static Public Attributes

- static int [expanderSize](#)
- static int [switchingBarHeight](#)
- static QString [expanderImage](#)

### 4.1.1 Detailed Description

A user-defined Splitter.

This widget implements the functionality of Blender (Open-source 3D modelling software) widget management. This widget displays a splitter similar to QSplitter. However, each widget in [BlendSplitter](#) has a pair of Expanders (one in top right and one in bottom left corner). By dragging from these Expanders inwards a new widget is created in the direction of the drag. If the direction is different to that of the [BlendSplitter](#), a new [BlendSplitter](#) with parallel direction is created in place of the widget with the widget and the new widget in it. By dragging from these expanders outwards, a neighbouring widget (or a collection of widgets) can be closed. While the mouse is held, the widgets to be closed are marked with black overlay. When the mouse is released, they are closed. [BlendSplitter](#) can be used like any other QWidget, although setting one as the central widget is recommended. A [BlendSplitter](#) can contain any QWidget, but to achieve best results, use it together with [SwitchingWidget](#).

[BlendSplitter](#) provides 3 static variables that allow some customization of the library design. These are [expanderSize](#), [switchingBarHeight](#) and [expanderImage](#). These are all initialized with default values. The default Expander image is provided by the library.

The default Expander image:

Definition at line 31 of file BlendSplitter.hpp.

### 4.1.2 Constructor & Destructor Documentation

#### 4.1.2.1 BlendSplitter()

```
BlendSplitter::BlendSplitter (
    QWidget *(*)( ) defaultWidget = []() ->QWidget *{return new SwitchingWidget{};},
    Qt::Orientation orientation = Qt::Horizontal )
```

[BlendSplitter](#) class constructor.

#### Parameters

<i>defaultWidget</i>	A pointer to function constructing the default widget. This function is called when a new widget is added to <a href="#">BlendSplitter</a> .
<i>orientation</i>	Orientation of the main <a href="#">BlendSplitter</a>

### 4.1.3 Member Function Documentation

#### 4.1.3.1 addSplitter()

```
void BlendSplitter::addSplitter (
    BlendSplitter * splitter )
```

Add another [BlendSplitter](#) to this [BlendSplitter](#).

Adds a [BlendSplitter](#) (usually with parallel orientation) to the [BlendSplitter](#)

#### Parameters

<i>splitter</i>	A pointer to the <a href="#">BlendSplitter</a> to be added
-----------------	--

#### 4.1.3.2 addWidget() [1/3]

```
void BlendSplitter::addWidget ( )
```

Add a widget to the [BlendSplitter](#).

Adds the default widget to the very bottom/right of the [BlendSplitter](#).

#### 4.1.3.3 addWidget() [2/3]

```
void BlendSplitter::addWidget (
    QWidget * widget )
```

Add a widget to the [BlendSplitter](#).

Adds the specified widget to the very bottom/right of the [BlendSplitter](#)

#### Parameters

<i>widget</i>	A pointer to the widget to be added
---------------	-------------------------------------

#### 4.1.3.4 addWidget() [3/3]

```
void BlendSplitter::addWidget (
    RegistryItem * item )
```

Add a widget to the [BlendSplitter](#).

Adds the specified widget from the [WidgetRegistry](#) to the very bottom/right of the [BlendSplitter](#)

#### Parameters

<i>item</i>	A <a href="#">RegistryItem</a> to be added (inside a <a href="#">SwitchingWidget</a> ).
-------------	---

#### 4.1.3.5 insertSplitter()

```
void BlendSplitter::insertSplitter (
    int index,
    BlendSplitter * splitter )
```



Insert another [BlendSplitter](#) into this [BlendSplitter](#).

Inserts a [BlendSplitter](#) (usually with parallel orientation) into the [BlendSplitter](#) at the given position counting from top/left (counting starts at 0).

#### Parameters

<i>index</i>	The desired position
<i>splitter</i>	A pointer to the <a href="#">BlendSplitter</a> to be inserted

#### 4.1.3.6 insertWidget() [1/3]

```
void BlendSplitter::insertWidget (
    int index )
```

Insert a widget into the [BlendSplitter](#).

Inserts the default widget into the [BlendSplitter](#) at the given position counting from top/left (counting starts at 0). This function should NOT be called with a [BlendSplitter](#) as a parameter.

#### Parameters

<i>index</i>	The desired position
--------------	----------------------

#### 4.1.3.7 insertWidget() [2/3]

```
void BlendSplitter::insertWidget (
    int index,
    QWidget * widget )
```

Insert a widget into the [BlendSplitter](#).

Inserts the specified widget into the [BlendSplitter](#) at the given position counting from top/left (counting starts at 0). This function should NOT be called with a [BlendSplitter](#) as a parameter.

#### Parameters

<i>index</i>	The desired position
<i>widget</i>	A pointer to the widget to be inserted

#### 4.1.3.8 insertWidget() [3/3]

```
void BlendSplitter::insertWidget (
    int index,
    RegistryItem * item )
```

Insert a widget into the [BlendSplitter](#).

Inserts the specified widget from [WidgetRegistry](#) into the [BlendSplitter](#) at the given position counting from top/left (counting starts at 0). This function should NOT be called with a [BlendSplitter](#) as a parameter.

## Parameters

<i>index</i>	The desired position
<i>item</i>	A <a href="#">RegistryItem</a> to be added (inside a <a href="#">SwitchingWidget</a> ).

## 4.1.4 Member Data Documentation

### 4.1.4.1 expanderImage

```
QString BlendSplitter::expanderImage [static]
```

The image to be used for the top left expander. The bottom right one will rotate this by pi (180 degrees). Default value: `"/BlendSplitter/Expander"`

Definition at line 38 of file `BlendSplitter.hpp`.

### 4.1.4.2 expanderSize

```
int BlendSplitter::expanderSize [static]
```

Size of the expanders in the corners. Default value: 12

Definition at line 36 of file `BlendSplitter.hpp`.

### 4.1.4.3 switchingBarHeight

```
int BlendSplitter::switchingBarHeight [static]
```

Height of the [SwitchingBar](#). Default value: 36

Definition at line 37 of file `BlendSplitter.hpp`.

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

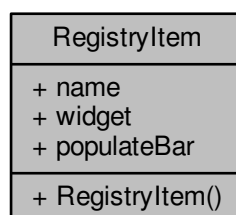
- `include/BlendSplitter.hpp`

## 4.2 RegistryItem Class Reference

An item intended to be put into [WidgetRegistry](#).

```
#include <RegistryItem.hpp>
```

Collaboration diagram for RegistryItem:



## Public Member Functions

- [RegistryItem](#) (QString [name](#)="Default", QWidget \*(\*[widget](#))()=[]) ->QWidget \*{return new QLabel{"Default Widget"};}, void(\*[populateBar](#))([SwitchingBar](#) \*, QWidget \*)=[]([SwitchingBar](#) \*, QWidget \*) ->void {})

*A constructor setting all the internal values.*

## Public Attributes

- QString [name](#)
  - QWidget \*(\* [widget](#) )()
- A function constructing the widget.*
- void(\* [populateBar](#) )([SwitchingBar](#) \*, QWidget \*)

*A function populating the [SwitchingBar](#).*

### 4.2.1 Detailed Description

An item intended to be put into [WidgetRegistry](#).

Each [RegistryItem](#) corresponds to one widget that can be displayed in a [BlendSplitter](#). It describes how this widget should be constructed, what is its name and what items should be in the [SwitchingBar](#) when this widget is selected.

Definition at line 17 of file RegistryItem.hpp.

### 4.2.2 Constructor & Destructor Documentation

#### 4.2.2.1 RegistryItem()

```
RegistryItem::RegistryItem (
    QString name = "Default",
    QWidget *(*)( ) widget = []() ->QWidget *{return new QLabel{"Default Widget"};},
    void(*)(SwitchingBar *, QWidget *) populateBar = [](SwitchingBar *, QWidget *) ->void {}
)
```

A constructor setting all the internal values.

This constructor takes 3 parameters corresponding to the 3 members of the [RegistryItem](#) class. See their description for more details.

#### Parameters

<i>name</i>	The name of the widget, used in the <a href="#">SwitchingBar</a> combo box
<i>widget</i>	A pointer to a function constructing the widget
<i>populateBar</i>	A pointer to a function populating the <a href="#">SwitchingBar</a>

### 4.2.3 Member Data Documentation

#### 4.2.3.1 name

```
QString RegistryItem::name
```

The name of the widget, used in the [SwitchingBar](#) combo box.

Definition at line 20 of file RegistryItem.hpp.

#### 4.2.3.2 populateBar

```
void(* RegistryItem::populateBar) (SwitchingBar *, QWidget *)
```

A function populating the [SwitchingBar](#).

A pointer to a function populating the [SwitchingBar](#). This function is called each time this widget is selected in any [SwitchingWidget](#). Usually this function makes use of the interface provided by [SwitchingBar](#) to populate it.

##### Parameters

A	pointer to the <a href="#">SwitchingBar</a> to be populated
A	pointer to the newly-created widget in the <a href="#">SwitchingWidget</a>

Definition at line 33 of file RegistryItem.hpp.

#### 4.2.3.3 widget

```
QWidget*(* RegistryItem::widget) ()
```

A function constructing the widget.

A pointer to a function returning `QWidget*`. This function is called to construct the widget each time it is selected in any [SwitchingWidget](#). Usually in this function the widget is dynamically created using `new` operator and the pointer is returned.

##### Returns

A pointer to the newly-created `QWidget`

Definition at line 26 of file RegistryItem.hpp.

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

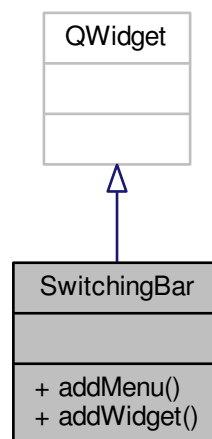
- include/BS/RegistryItem.hpp

## 4.3 SwitchingBar Class Reference

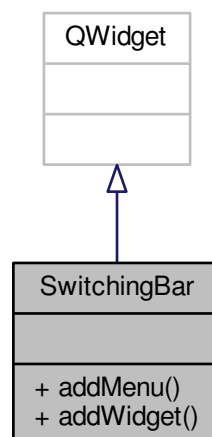
A menu bar which is always found on the bottom of [SwitchingWidget](#).

```
#include <SwitchingBar.hpp>
```

Inheritance diagram for SwitchingBar:



Collaboration diagram for SwitchingBar:



## Public Member Functions

- void [addMenu](#) (QMenu \*menu)  
*Add a QMenu.*
- void [addWidget](#) (QWidget \*widget)  
*Add a QWidget.*

### 4.3.1 Detailed Description

A menu bar which is always found on the bottom of [SwitchingWidget](#).

This menu bar is similar to the built-in QMenuBar, but can also contain plain QWidget. The first item on the left is always a combo box for selecting which widget should be displayed in the [SwitchingWidget](#).

Definition at line 20 of file SwitchingBar.hpp.

### 4.3.2 Member Function Documentation

#### 4.3.2.1 addMenu()

```
void SwitchingBar::addMenu (  
    QMenu * menu )
```

Add a QMenu.

This function adds a QMenu to the very right of the [SwitchingBar](#). The menu is wrapped in an invisible QMenuBar.

##### Parameters

<i>menu</i>	A pointer to the QMenu to be added
-------------	------------------------------------

#### 4.3.2.2 addWidget()

```
void SwitchingBar::addWidget (  
    QWidget * widget )
```

Add a QWidget.

This function adds a QWidget to the very right of the [SwitchingBar](#). The widget is placed in a QHBoxLayout.

##### Parameters

<i>widget</i>	A pointer to the QWidget to be added
---------------	--------------------------------------

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

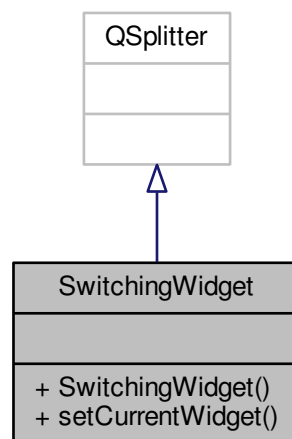
- include/BS/SwitchingBar.hpp

## 4.4 SwitchingWidget Class Reference

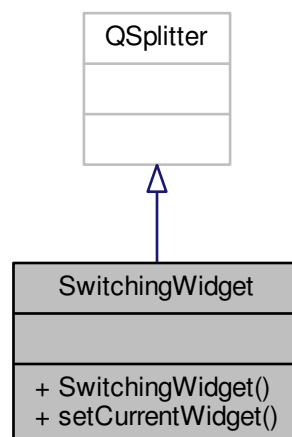
A widget whose actual content can be selected from a combo box.

```
#include <SwitchingWidget.hpp>
```

Inheritance diagram for SwitchingWidget:



Collaboration diagram for SwitchingWidget:



## Public Member Functions

- [SwitchingWidget](#) ([RegistryItem](#) \*item=nullptr, [QWidget](#) \*parent=nullptr)  
*A default constructor similar to that of [QWidget](#).*
- void [setCurrentWidget](#) ([RegistryItem](#) \*item=nullptr)  
*Set the current Widget displayed.*

### 4.4.1 Detailed Description

A widget whose actual content can be selected from a combo box.

This widget displays a [Widget](#) with a [SwitchingBar](#) on the bottom. The widget displayed is one from [WidgetRegistry](#) and it can be selected using a combo box in the [SwitchingBar](#).

Note that constructing an object of this class when [WidgetRegistry](#) is empty will cause a default [RegistryItem](#) to be added to it. The height of the [SwitchingBar](#) can be modified by changing [BlendSplitter::switchingBarHeight](#).

Definition at line 20 of file [SwitchingWidget.hpp](#).

### 4.4.2 Constructor & Destructor Documentation

#### 4.4.2.1 SwitchingWidget()

```
SwitchingWidget::SwitchingWidget (
    RegistryItem * item = nullptr,
    QWidget * parent = nullptr )
```

A default constructor similar to that of [QWidget](#).

Creates a [SwitchingWidget](#) containing the default widget specified in [WidgetRegistry](#)

#### Parameters

<i>item</i>	A <a href="#">RegistryItem</a> to display in the widget. If nullptr, then <a href="#">WidgetRegistry::getDefault()</a> is used.
<i>parent</i>	A parent widget

### 4.4.3 Member Function Documentation

#### 4.4.3.1 setCurrentWidget()

```
void SwitchingWidget::setCurrentWidget (
    RegistryItem * item = nullptr )
```

Set the current Widget displayed.

Sets the current widget to be the item



## Parameters

<i>item</i>	A <a href="#">RegistryItem</a> to display in the widget. If nullptr, then <a href="#">WidgetRegistry::getDefault()</a> is used.
-------------	---

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

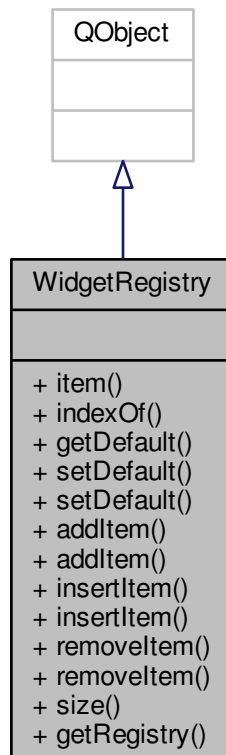
- include/BS/SwitchingWidget.hpp

## 4.5 WidgetRegistry Class Reference

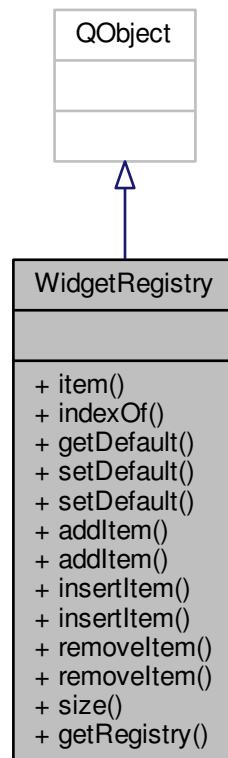
A registry of all widgets that can be displayed in a [SwitchingWidget](#).

```
#include <WidgetRegistry.hpp>
```

Inheritance diagram for WidgetRegistry:



Collaboration diagram for WidgetRegistry:



## Signals

- void [registryChanged](#) ()  
*Signal emitted when [WidgetRegistry](#) changes its contents.*

## Public Member Functions

- [RegistryItem](#) \* [item](#) (int i) const  
*Get the item at position i.*
- int [indexOf](#) ([RegistryItem](#) \*item) const  
*Get the position of an item in [WidgetRegistry](#).*
- [RegistryItem](#) \* [getDefault](#) ()  
*Get the default [RegistryItem](#).*
- void [setDefault](#) ([RegistryItem](#) \*item)  
*Set the default [RegistryItem](#).*
- void [setDefault](#) (int index=0)  
*Set the default [RegistryItem](#).*
- void [addItem](#) ([RegistryItem](#) \*item)  
*Add an item to [WidgetRegistry](#).*

- void [addItem](#) (QString name="Default", QWidget \*(\*widget)()=[]) ->QWidget \*{return new QLabel{"Default widget"};}, void(\*populateBar)([SwitchingBar](#) \*, QWidget \*)=[]([SwitchingBar](#) \*, QWidget \*) ->void {})  
*Add an item to [WidgetRegistry](#).*
- void [insertItem](#) (int index, [RegistryItem](#) \*item)  
*Insert an item into [WidgetRegistry](#).*
- void [insertItem](#) (int index, QString name="Default", QWidget \*(\*widget)()=[]) ->QWidget \*{return new QLabel{"Default widget"};}, void(\*populateBar)([SwitchingBar](#) \*, QWidget \*)=[]([SwitchingBar](#) \*, QWidget \*) ->void {})  
*Insert an item into [WidgetRegistry](#).*
- void [removeItem](#) ([RegistryItem](#) \*item)  
*Remove a [RegistryItem](#) from [WidgetRegistry](#).*
- void [removeItem](#) (int index)  
*Remove a [RegistryItem](#) from [WidgetRegistry](#).*
- int [size](#) () const  
*Get the size of [WidgetRegistry](#).*

## Static Public Member Functions

- static [WidgetRegistry](#) \* [getRegistry](#) ()  
*Registry getter.*

### 4.5.1 Detailed Description

A registry of all widgets that can be displayed in a [SwitchingWidget](#).

This singleton-class acts as a registry of widgets that can be displayed in a [SwitchingWidget](#) by selecting from a combo box in the [SwitchingBar](#). Each item is represented as one [RegistryItem](#). The Registry also contains a pointer to the default [RegistryItem](#), which is shown when a new [SwitchingWidget](#) is created.

Definition at line 18 of file [WidgetRegistry.hpp](#).

## 4.5.2 Member Function Documentation

### 4.5.2.1 addItem() [1/2]

```
void WidgetRegistry::addItem (
    RegistryItem * item )
```

Add an item to [WidgetRegistry](#).

Adds a given [RegistryItem](#) at the end of [WidgetRegistry](#).

#### Parameters

<i>item</i>	A pointer to the <a href="#">RegistryItem</a> to be added
-------------	---

#### 4.5.2.2 addItem() [2/2]

```
void WidgetRegistry::addItem (
    QString name = "Default",
    QWidget *(*)( ) widget = []() ->QWidget *{return new QLabel{"Default widget"};},
    void(*) (SwitchingBar *, QWidget *) populateBar = [] (SwitchingBar *, QWidget *) ->void {}
)
```

Add an item to [WidgetRegistry](#).

Adds a [RegistryItem](#) constructed with the given parameters at the end of [WidgetRegistry](#). This is equal to calling `addItem(new RegistryItem{name, widget, populateBar})`.

##### Parameters

<i>name</i>	The name of the widget, used in the <a href="#">SwitchingBar</a> combo box
<i>widget</i>	A pointer to a function constructing the widget
<i>populateBar</i>	A pointer to a function populating the <a href="#">SwitchingBar</a>

#### 4.5.2.3 getDefault()

```
RegistryItem* WidgetRegistry::getDefault ( )
```

Get the default [RegistryItem](#).

This function gives you the default [RegistryItem](#). Note that if no item was set as default, the currently first item is set as default by this function. If the registry is empty, a [RegistryItem](#) is added to the registry (using the default constructor) and set as default.

##### Returns

A pointer to the default [RegistryItem](#)

#### 4.5.2.4 getRegistry()

```
static WidgetRegistry* WidgetRegistry::getRegistry ( ) [static]
```

Registry getter.

This is a singleton class, i. e. you can't construct any object yourself. To get the one-and-only instance of this class, you need to call [WidgetRegistry::getRegistry\(\)](#). The function will create the object if necessary (= when called for the first time) and return a pointer to it.

##### Returns

A pointer to the one-and-only instance of [WidgetRegistry](#)

#### 4.5.2.5 indexOf()

```
int WidgetRegistry::indexOf (
    RegistryItem * item ) const
```

Get the position of an item in [WidgetRegistry](#).

Get the index (counting starts at 0) of an item. Often used together with `item(int i) const`.

## Parameters

<i>item</i>	A pointer to the item whose index is to be returned
-------------	---

## Returns

Index of the item

## 4.5.2.6 insertItem() [1/2]

```
void WidgetRegistry::insertItem (
    int index,
    RegistryItem * item )
```

Insert an item into [WidgetRegistry](#).

Inserts a given [RegistryItem](#) into [WidgetRegistry](#) at a given index.

## Parameters

<i>index</i>	The desired index of the inserted <a href="#">RegistryItem</a> (counting starts at 0)
<i>item</i>	A pointer to the <a href="#">RegistryItem</a> to be added

## 4.5.2.7 insertItem() [2/2]

```
void WidgetRegistry::insertItem (
    int index,
    QString name = "Default",
    QWidget *(*)( ) widget = []() ->QWidget *{return new QLabel{"Default widget"};},
    void(*) (SwitchingBar *, QWidget *) populateBar = [] (SwitchingBar *, QWidget *) ->void {}
)
```

Insert an item into widgetRegistry.

Inserts a [RegistryItem](#) constructed with the given parameters into [WidgetRegistry](#) at a given index. This is equal to calling insertItem(index, new [RegistryItem](#){name, widget, populateBar}).

## Parameters

<i>index</i>	The desired index of the inserted <a href="#">RegistryItem</a> (counting starts at 0)
<i>name</i>	The name of the widget, used in the <a href="#">SwitchingBar</a> combo box
<i>widget</i>	A pointer to a function constructing the widget
<i>populateBar</i>	A pointer to a function populating the <a href="#">SwitchingBar</a>

## 4.5.2.8 item()

```
RegistryItem* WidgetRegistry::item (
    int i ) const
```

Get the item at position *i*.

This function gives you the item at position *i* (counting starts at 0).

#### Parameters

<i>i</i>	Index of the item to be returned
----------	----------------------------------

#### Returns

A pointer to the [RegistryItem](#) at position *i*

#### 4.5.2.9 registryChanged

```
void WidgetRegistry::registryChanged ( ) [signal]
```

Signal emitted when [WidgetRegistry](#) changes its contents.

This signal is emitted when a [RegistryItem](#) is added, inserted or removed from [WidgetRegistry](#). It is NOT emitted when the default item is changed unless this change requires adding a [RegistryItem](#).

#### 4.5.2.10 removeItem() [1/2]

```
void WidgetRegistry::removeItem (
    RegistryItem * item )
```

Remove a [RegistryItem](#) from [WidgetRegistry](#).

Removes a given [RegistryItem](#) from [WidgetRegistry](#). If this is also the default [RegistryItem](#), the first [RegistryItem](#) is set as default if it exists. This is equal to calling `removeItem(indexOf(item))`.

#### Parameters

<i>item</i>	
-------------	--

#### 4.5.2.11 removeItem() [2/2]

```
void WidgetRegistry::removeItem (
    int index )
```

Remove a [RegistryItem](#) from [WidgetRegistry](#).

Removes the [RegistryItem](#) at position *index* (counting starts at 0) from [WidgetRegistry](#). If this is also the default [RegistryItem](#), the first [RegistryItem](#) is set as default if it exists.

#### Parameters

<i>index</i>	Index of the <a href="#">RegistryItem</a> to be removed
--------------	---

4.5.2.12 `setDefault()` [1/2]

```
void WidgetRegistry::setDefault (
    RegistryItem * item )
```

Set the default [RegistryItem](#).

This function sets the default [RegistryItem](#). Note that if the item is not in [WidgetRegistry](#), it is added as the last entry. The default item is used when a new [SwitchingWidget](#) is created as the displayed widget.

## Parameters

<i>item</i>	A pointer to the <a href="#">RegistryItem</a> to be set as default
-------------	--

4.5.2.13 `setDefault()` [2/2]

```
void WidgetRegistry::setDefault (
    int index = 0 )
```

Set the default [RegistryItem](#).

This function sets the default [RegistryItem](#) to be the [RegistryItem](#) at given index. This is equal to calling `setDefault(item(index))`.

## Parameters

<i>index</i>	Index of the <a href="#">RegistryItem</a> to be set as default (counting starts at 0)
--------------	---

4.5.2.14 `size()`

```
int WidgetRegistry::size ( ) const
```

Get the size of [WidgetRegistry](#).

This function returns the number of [RegistryItems](#) currently in [WidgetRegistry](#). Note that these are indexed as 0, ..., (`size()` - 1).

## Returns

Number of [RegistryItems](#) in [WidgetRegistry](#)

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

- `include/BS/WidgetRegistry.hpp`





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