

**Molto Allegro**

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Top element of a given menu - names shown in top menu bar . . . . . ??



## Chapter 2

# File Index

### 2.1 File List

Here is a list of all documented files with brief descriptions:

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## Chapter 3

# Class Documentation

### 3.1 Menu Class Reference

Main class for menu control and drawing, focused around the concept of a menu as a state machine.

```
#include <molto-allegro.h>
```

#### Public Member Functions

- void [addElem](#) (string)  
*Adds top-level elements to menu.*
- void [getPos](#) (float &, float &, float &, float &)  
*Gets the menu rectangle.*
- [Menu](#) (ALLEGRO\_DISPLAY \*&)  
*Constructor. Requires display for getting drawing rectangle size.*
- void [draw](#) (ALLEGRO\_DISPLAY \*)  
*Draws menu to a display.*
- void [draw](#) (ALLEGRO\_BITMAP \*)  
*Draws menu to a bitmap.*
- [MenuTopElem](#) \* [element](#) (const char \*)  
*Returns [MenuTopElem](#) by name.*
- bool [click](#) (float, float)  
*Click event for menu class.*

#### 3.1.1 Detailed Description

Main class for menu control and drawing, focused around the concept of a menu as a state machine.

#### Author

Paweł J. Wal [pjw@paweljw.eu](mailto:pjw@paweljw.eu)

#### 3.1.2 Constructor & Destructor Documentation

##### 3.1.2.1 Menu::Menu ( ALLEGRO\_DISPLAY \*& *disp* )

Constructor. Requires display for getting drawing rectangle size.

**Parameters**

<i>disp</i>	Allegro display.
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**3.1.3 Member Function Documentation****3.1.3.1 void Menu::addElem ( string s )**

Adds top-level elements to menu.

**Parameters**

s	Name for element.
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**3.1.3.2 bool Menu::click ( float x, float y )**

Click event for menu class.

**Parameters**

x	X coordinate of mouse during click.
y	Y coordinate of mouse during click.

**3.1.3.3 void Menu::draw ( ALLEGRO\_DISPLAY \* display )**

Draws menu to a display.

**Parameters**

<i>display</i>	Allegro display.
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**3.1.3.4 void Menu::draw ( ALLEGRO\_BITMAP \* bmp )**

Draws menu to a bitmap.

**Parameters**

<i>bmp</i>	Allegro bitmap.
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**3.1.3.5 MenuTopElem \* Menu::element ( const char \* cs )**

Returns [MenuTopElem](#) by name.

**Parameters**

cs	name of element to be found.
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**Returns**

MenuTopElem\* of given name.

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

- [molto-allegro.h](#)

- [molto-allegro.cpp](#)

## 3.2 MenuElem Class Reference

Basic clickable element of a menu.

```
#include <molto-allegro.h>
```

### Public Member Functions

- [MenuElem](#) (string, [fptr](#), void \*)  
*MenuElem constructor.*
- void [click](#) ()  
*MenuElem click event.*
- bool [isActive](#) ()  
*Check whether MenuElem is active (clickable).*
- void [activate](#) ()  
*Activate a MenuElem.*
- void [deactivate](#) ()  
*Deactivate a MenuElem.*
- string [getName](#) ()  
*Returns name of a MenuElem.*

### 3.2.1 Detailed Description

Basic clickable element of a menu.

### 3.2.2 Constructor & Destructor Documentation

#### 3.2.2.1 MenuElem::MenuElem ( string *s*, *fptr* *f*, void \* *a* )

[MenuElem](#) constructor.

#### Parameters

<i>s</i>	String for name.
<i>f</i>	Pointer to a callback function
<i>a</i>	Callback argument payload.

### 3.2.3 Member Function Documentation

#### 3.2.3.1 string MenuElem::getName ( )

Returns name of a [MenuElem](#).

#### Returns

Element's name.

#### 3.2.3.2 bool MenuElem::isActive ( )

Check whether [MenuElem](#) is active (clickable).

**Returns**

Boolean active.

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

- [molto-allegro.h](#)
- [molto-allegro.cpp](#)

**3.3 MenuTopElem Class Reference**

Top element of a given menu - names shown in top menu bar.

```
#include <molto-allegro.h>
```

**Public Member Functions**

- [MenuTopElem](#) (string)  
*Constructor of a [MenuTopElem](#) using a string.*
- void [addElem](#) (string, [fptr](#), void \*)  
*Add a button to a top menu element (category).*
- string [getName](#) ()  
*Get name of a [MenuTopElem](#).*
- void [setPos](#) (float, float, float, float)  
*Sets rectangle coordinates of a [MenuTopElem](#).*
- void [getPos](#) (float &, float &, float &, float &)  
*Get rectangle coordinates of a [MenuTopElem](#).*

**Public Attributes**

- vector< [MenuElem](#) > [elems](#)

**3.3.1 Detailed Description**

Top element of a given menu - names shown in top menu bar.

**Author**

Paweł J. Wal [pjw@paweljw.eu](mailto:pjw@paweljw.eu)

**3.3.2 Constructor & Destructor Documentation****3.3.2.1 MenuTopElem::MenuTopElem ( string s )**

Constructor of a [MenuTopElem](#) using a string.

**Parameters**

<a href="#">s</a>	Name to be set.
-------------------	-----------------

### 3.3.3 Member Function Documentation

#### 3.3.3.1 void MenuTopElem::addElem ( string s, fptr f, void \* a )

Add a button to a top menu element (category).

##### Parameters

<i>s</i>	String for name.
<i>f</i>	Pointer to a callback function
<i>a</i>	Callback argument payload.

#### 3.3.3.2 void MenuTopElem::getPos ( float & ex1, float & ey1, float & ex2, float & ey2 )

Get rectangle coordinates of a [MenuTopElem](#).

##### Parameters

out	<i>ex1</i>	top left corner of rectangle
out	<i>ey1</i>	top left corner of rectangle
out	<i>ex2</i>	bottom right corner of rectangle
out	<i>ey2</i>	bottom right corner of rectangle

#### 3.3.3.3 void MenuTopElem::setPos ( float ex1, float ey1, float ex2, float ey2 )

Sets rectangle coordinates of a [MenuTopElem](#).

##### Parameters

<i>ex1</i>	top left corner of rectangle
<i>ey1</i>	top left corner of rectangle
<i>ex2</i>	bottom right corner of rectangle
<i>ey2</i>	bottom right corner of rectangle

### 3.3.4 Member Data Documentation

#### 3.3.4.1 vector<MenuElem> MenuTopElem::elems

All elements of the category.

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

- [molto-allegro.h](#)
- [molto-allegro.cpp](#)



# Chapter 4

## File Documentation

### 4.1 molto-allegro.cpp File Reference

```
#include <vector>
#include <string>
#include <allegro5/allegro.h>
#include <allegro5/allegro_primitives.h>
#include <iostream>
#include <stdlib.h>
#include <time.h>
#include "molto-allegro.h"
```

#### Macros

- #define [MENU\\_HT](#) 25

#### Functions

- bool [pIR](#) (float x1, float y1, float x2, float y2, float xp, float yp)  
*Checks whether point is within a rectangle.*

#### 4.1.1 Detailed Description

##### Author

Paweł J. Wal [pjw@paweljw.eu](mailto:pjw@paweljw.eu)

##### Date

#### 4.1.2 Macro Definition Documentation

##### 4.1.2.1 #define MENU\_HT 25

[Menu](#) height.

## 4.2 molto-allegro.h File Reference

```
#include <vector>
#include <string>
#include <allegro5/allegro.h>
#include <allegro5/allegro_primitives.h>
#include <allegro5/allegro_ttf.h>
```

### Classes

- class [MenuElem](#)  
*Basic clickable element of a menu.*
- class [MenuTopElem](#)  
*Top element of a given menu - names shown in top menu bar.*
- class [Menu](#)  
*Main class for menu control and drawing, focused around the concept of a menu as a state machine.*

### Typedefs

- typedef int(\* [fptr](#))(void \*)

### Enumerations

- enum [MENU\\_STATE](#) { [MENU\\_CLOSED](#), [MENU\\_OPEN](#) }

### Functions

- bool [pointInRectangle](#) (float, float, float, float, float, float)

#### 4.2.1 Detailed Description

##### Author

Paweł J. Wal [pjw@pawel.jw.eu](mailto:pjw@pawel.jw.eu)

#### 4.2.2 Typedef Documentation

##### 4.2.2.1 typedef int(\* fptr)(void \*)

Simple function pointer definition for later use in callbacks.

#### 4.2.3 Enumeration Type Documentation

##### 4.2.3.1 enum MENU\_STATE

[Menu](#) states. Extendable if needed.



## 4.2.4 Function Documentation

### 4.2.4.1 bool pointInRectangle ( float , float , float , float , float , float )

Function checking whether points lay within a rectangle.