

My Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

Color	11
Drawable	12
Button	7
Circle	9
Heart	16
Line	18
Pixel	20
Sqaure	23
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Chapter 2

Class Index

2.1 Class List

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

Button	7
Circle	9
Color	11
Drawable	12
Enemy	13
FiredBullet	15
Heart	16
Line	18
Pixel	20
Point< T >	21
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Text	25
Turret	26

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

OpenGLSkeleton/ drawlist.cpp	29
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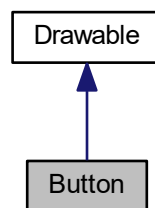
Chapter 4

Class Documentation

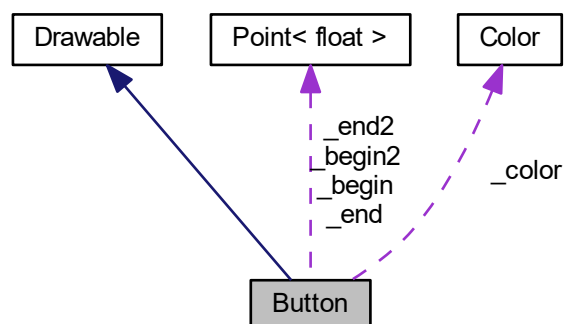
4.1 Button Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Button:



Collaboration diagram for Button:



Public Member Functions

- [Button](#) (string [text](#), int mode, [Color](#) color, [PointF](#) begin, [PointF](#) end, [PointF](#) begin2, [PointF](#) end2)
- void [draw](#) () const override
- void [print](#) () const override
- void [Update](#) ()

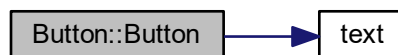
Public Attributes

- [Color _color](#)
- [PointF _begin](#)
- [PointF _end](#)
- [PointF _end2](#)
- [PointF _begin2](#)
- [int _mode](#)
- [string _text](#)

4.1.1 Constructor & Destructor Documentation

4.1.1.1 `Button::Button (string text, int mode, Color color, PointF begin, PointF end, PointF begin2, PointF end2)`

Here is the call graph for this function:



4.1.2 Member Function Documentation

4.1.2.1 `void Button::draw () const` `[override],[virtual]`

Implements [Drawable](#).

4.1.2.2 `void Button::print () const` `[override],[virtual]`

Implements [Drawable](#).

4.1.2.3 void Button::Update ()

4.1.3 Member Data Documentation

4.1.3.1 PointF Button::_begin

4.1.3.2 PointF Button::_begin2

4.1.3.3 Color Button::_color

4.1.3.4 PointF Button::_end

4.1.3.5 PointF Button::_end2

4.1.3.6 int Button::_mode

4.1.3.7 string Button::_text

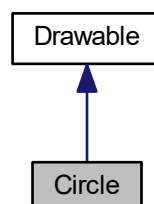
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

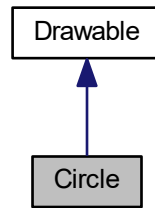
4.2 Circle Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Circle:



Collaboration diagram for Circle:



Public Member Functions

- `Circle` (const `PointF` &position, const `Color` &color, float radius, int segments)
- void `draw` () const override
- void `print` () const override

4.2.1 Constructor & Destructor Documentation

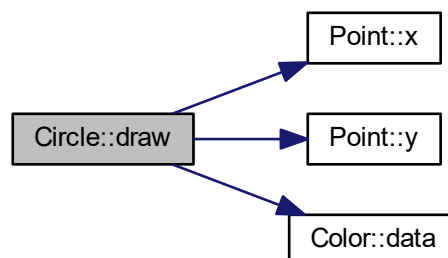
4.2.1.1 `Circle::Circle (const PointF & position, const Color & color, float radius, int segments)`

4.2.2 Member Function Documentation

4.2.2.1 `void Circle::draw () const` [override],[virtual]

Implements `Drawable`.

Here is the call graph for this function:



4.2.2.2 `void Circle::print () const [override],[virtual]`

Implements [Drawable](#).

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

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

4.3 Color Struct Reference

```
#include <drawtools.h>
```

Public Member Functions

- [Color](#) ()=default
- [Color](#) (float red, float green, float blue)
- float & [r](#) ()
- const float & [r](#) () const
- float & [g](#) ()
- const float & [g](#) () const
- float & [b](#) ()
- const float & [b](#) () const
- float & [operator\[\]](#) (int i)
- const float & [operator\[\]](#) (int i) const
- float * [data](#) ()
- const float * [data](#) () const

4.3.1 Constructor & Destructor Documentation

4.3.1.1 `Color::Color () [default]`

4.3.1.2 `Color::Color (float red, float green, float blue) [inline]`

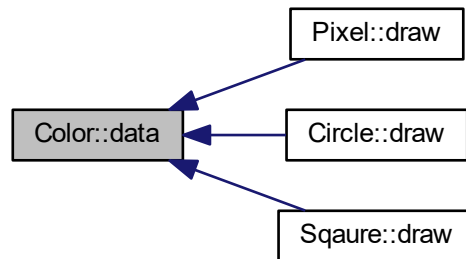
4.3.2 Member Function Documentation

4.3.2.1 `float& Color::b () [inline]`

4.3.2.2 `const float& Color::b () const [inline]`

4.3.2.3 `float* Color::data () [inline]`

Here is the caller graph for this function:



4.3.2.4 `const float* Color::data () const [inline]`

4.3.2.5 `float& Color::g () [inline]`

4.3.2.6 `const float& Color::g () const [inline]`

4.3.2.7 `float& Color::operator[] (int i) [inline]`

4.3.2.8 `const float& Color::operator[] (int i) const [inline]`

4.3.2.9 `float& Color::r () [inline]`

4.3.2.10 `const float& Color::r () const [inline]`

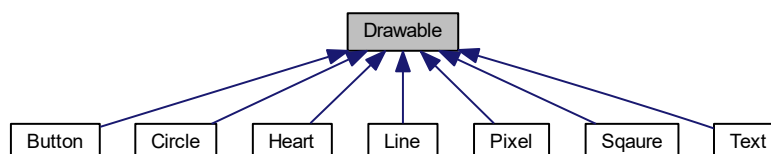
The documentation for this struct was generated from the following file:

- OpenGLSkeleton/[drawtools.h](#)

4.4 Drawable Class Reference

```
#include <drawlist.h>
```

Inheritance diagram for Drawable:



Public Member Functions

- [Drawable](#) ()=default
- [Drawable](#) (const std::string &name)
- virtual [~Drawable](#) ()=default
- virtual void [draw](#) () const =0
- virtual void [print](#) () const =0
- const std::string & [name](#) () const

4.4.1 Constructor & Destructor Documentation

4.4.1.1 [Drawable::Drawable](#) () [default]

4.4.1.2 [Drawable::Drawable](#) (const std::string & *name*)

4.4.1.3 [virtual Drawable::~~Drawable](#) () [virtual],[default]

4.4.2 Member Function Documentation

4.4.2.1 [virtual void Drawable::draw](#) () const [pure virtual]

Implemented in [Button](#), [Heart](#), [Text](#), [Sqaure](#), [Circle](#), [Line](#), and [Pixel](#).

4.4.2.2 [const std::string & Drawable::name](#) () const

4.4.2.3 [virtual void Drawable::print](#) () const [pure virtual]

Implemented in [Button](#), [Heart](#), [Text](#), [Sqaure](#), [Circle](#), [Line](#), and [Pixel](#).

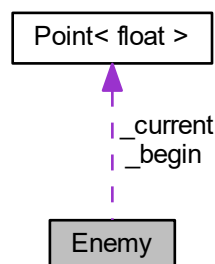
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawlist.h](#)
- OpenGLSkeleton/[drawlist.cpp](#)

4.5 Enemy Class Reference

```
#include <Enemy.h>
```

Collaboration diagram for Enemy:



Public Member Functions

- [Enemy](#) (const [PointF](#) &begin, [PointF](#) current, float speed, int health)
- void [Health](#) (int i)
- virtual [PointF Move](#) (int i, int j)
- int [Update](#) ([PointF](#) current)
- [PointF Value](#) ()

Public Attributes

- [PointF _begin](#)
- [PointF _current](#)
- int [_health](#)
- int [_id](#)
- float [_speed](#)

4.5.1 Constructor & Destructor Documentation

4.5.1.1 [Enemy::Enemy](#) (const [PointF](#) & *begin*, [PointF](#) *current*, float *speed*, int *health*)

4.5.2 Member Function Documentation

4.5.2.1 void [Enemy::Health](#) (int *i*)

4.5.2.2 [PointF](#) [Enemy::Move](#) (int *i*, int *j*) [virtual]

4.5.2.3 int [Enemy::Update](#) ([PointF](#) *current*)

4.5.2.4 [PointF](#) [Enemy::Value](#) ()

4.5.3 Member Data Documentation

4.5.3.1 [PointF](#) [Enemy::_begin](#)

4.5.3.2 [PointF](#) [Enemy::_current](#)

4.5.3.3 int [Enemy::_health](#)

4.5.3.4 int [Enemy::_id](#)

4.5.3.5 float [Enemy::_speed](#)

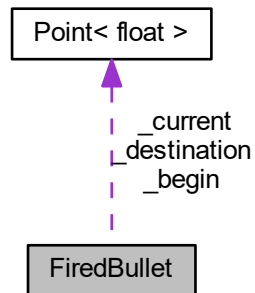
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[Enemy.h](#)
- OpenGLSkeleton/[Enemy.cpp](#)

4.6 FiredBullet Class Reference

```
#include <FiredBullet.h>
```

Collaboration diagram for FiredBullet:



Public Member Functions

- [FiredBullet](#) ([PointF](#) destination, [PointF](#) begin, [PointF](#) current, int speed)
- [~FiredBullet](#) ()
- [PointF Move](#) ()
- [PointF Move2](#) ()
- void [Update](#) ([PointF](#) begin)
- void [Update2](#) ([PointF](#) begin)

Public Attributes

- [PointF _begin](#)
- [PointF _destination](#)
- [PointF _current](#)
- int [_speed](#)
- int [_id](#)

4.6.1 Constructor & Destructor Documentation

4.6.1.1 `FiredBullet::FiredBullet (PointF destination, PointF begin, PointF current, int speed)`

4.6.1.2 `FiredBullet::~~FiredBullet ()`

4.6.2 Member Function Documentation

4.6.2.1 `PointF FiredBullet::Move ()`

4.6.2.2 **PointF** FiredBullet::Move2 ()

4.6.2.3 **void** FiredBullet::Update (**PointF** *begin*)

4.6.2.4 **void** FiredBullet::Update2 (**PointF** *begin*)

4.6.3 Member Data Documentation

4.6.3.1 **PointF** FiredBullet::_begin

4.6.3.2 **PointF** FiredBullet::_current

4.6.3.3 **PointF** FiredBullet::_destination

4.6.3.4 **int** FiredBullet::_id

4.6.3.5 **int** FiredBullet::_speed

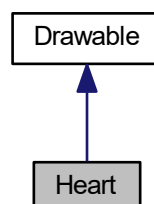
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[FiredBullet.h](#)
- OpenGLSkeleton/[FiredBullet.cpp](#)

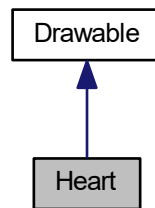
4.7 Heart Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Heart:



Collaboration diagram for Heart:



Public Member Functions

- [Heart](#) ([Color](#) color, [PointF](#) Pos)
- void [draw](#) () const override
- void [print](#) () const override

4.7.1 Constructor & Destructor Documentation

4.7.1.1 `Heart::Heart (Color color, PointF Pos)`

4.7.2 Member Function Documentation

4.7.2.1 `void Heart::draw () const` `[override]`, `[virtual]`

Implements [Drawable](#).

4.7.2.2 `void Heart::print () const` `[override]`, `[virtual]`

Implements [Drawable](#).

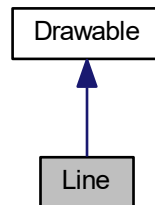
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

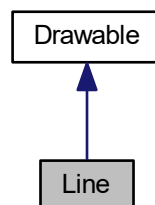
4.8 Line Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Line:



Collaboration diagram for Line:



Public Member Functions

- [Line](#) (const [PointF](#) &[begin](#), const [PointF](#) &[end](#), const [Color](#) &color, float lineWidth)
- const [PointF](#) & [begin](#) () const
- const [PointF](#) & [end](#) () const
- void [draw](#) () const override
- void [print](#) () const override

4.8.1 Constructor & Destructor Documentation

4.8.1.1 `Line::Line (const PointF & begin, const PointF & end, const Color & color, float lineWidth)`

Here is the call graph for this function:



4.8.2 Member Function Documentation

4.8.2.1 `const PointF & Line::begin () const`

4.8.2.2 `void Line::draw () const` `[override],[virtual]`

Implements [Drawable](#).

Here is the call graph for this function:



4.8.2.3 `const PointF & Line::end () const`

Here is the caller graph for this function:



4.8.2.4 `void Line::print () const` `[override],[virtual]`

Implements [Drawable](#).

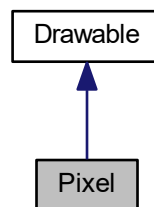
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

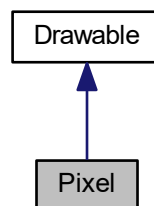
4.9 Pixel Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Pixel:



Collaboration diagram for Pixel:



Public Member Functions

- [Pixel](#) (const [PointF](#) &position, const [Color](#) &color)
- void [draw](#) () const override
- void [print](#) () const override

4.9.1 Constructor & Destructor Documentation

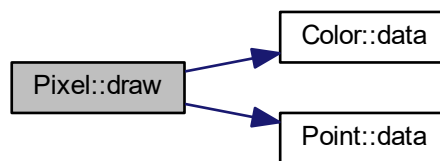
4.9.1.1 Pixel::Pixel (const PointF & *position*, const Color & *color*)

4.9.2 Member Function Documentation

4.9.2.1 void Pixel::draw () const [override],[virtual]

Implements [Drawable](#).

Here is the call graph for this function:



4.9.2.2 void Pixel::print () const [override],[virtual]

Implements [Drawable](#).

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

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

4.10 Point< T > Class Template Reference

```
#include <drawtools.h>
```

Public Member Functions

- [Point](#) ()=default
- [Point](#) (const T &[x](#), const T &[y](#))
- T & [x](#) ()
- const T & [x](#) () const
- T & [y](#) ()
- const T & [y](#) () const
- T & [operator\[\]](#) (int i)
- const T & [operator\[\]](#) (int i) const
- T * [data](#) ()
- const T * [data](#) () const

4.10.1 Constructor & Destructor Documentation

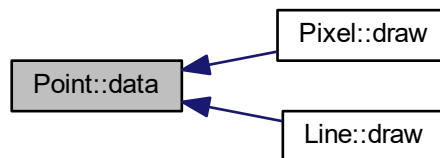
4.10.1.1 `template<typename T> Point< T >::Point () [default]`

4.10.1.2 `template<typename T> Point< T >::Point (const T & x, const T & y) [inline]`

4.10.2 Member Function Documentation

4.10.2.1 `template<typename T> T* Point< T >::data () [inline]`

Here is the caller graph for this function:



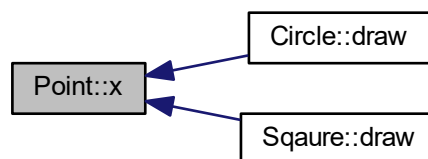
4.10.2.2 `template<typename T> const T* Point< T >::data () const [inline]`

4.10.2.3 `template<typename T> T& Point< T >::operator[] (int i) [inline]`

4.10.2.4 `template<typename T> const T& Point< T >::operator[] (int i) const [inline]`

4.10.2.5 `template<typename T> T& Point< T >::x () [inline]`

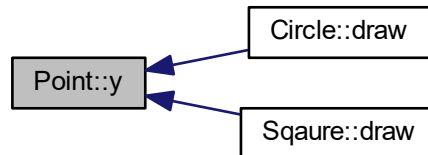
Here is the caller graph for this function:



4.10.2.6 `template<typename T> const T& Point<T>::x () const` `[inline]`

4.10.2.7 `template<typename T> T& Point<T>::y ()` `[inline]`

Here is the caller graph for this function:



4.10.2.8 `template<typename T> const T& Point<T>::y () const` `[inline]`

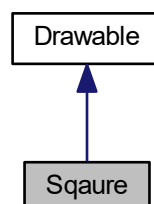
The documentation for this class was generated from the following file:

- OpenGLSkeleton/[drawtools.h](#)

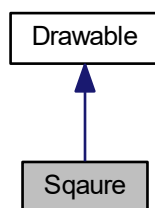
4.11 Sqaure Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Sqaure:



Collaboration diagram for Sqaure:



Public Member Functions

- [Sqaure](#) (const [PointF](#) &begin, const [PointF](#) &end, const [PointF](#) &begin2, const [PointF](#) &end2, const [Color](#) &color)
- void [draw](#) () const override
- void [print](#) () const override

4.11.1 Constructor & Destructor Documentation

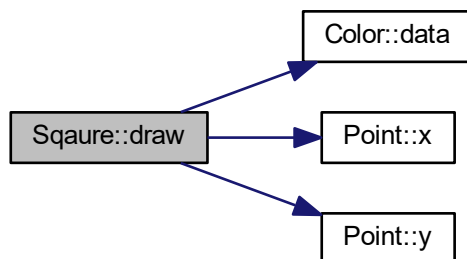
4.11.1.1 `Sqaure::Sqaure (const PointF & begin, const PointF & end, const PointF & begin2, const PointF & end2, const Color & color)`

4.11.2 Member Function Documentation

4.11.2.1 `void Sqaure::draw () const` [override],[virtual]

Implements [Drawable](#).

Here is the call graph for this function:



4.11.2.2 `void Sqaure::print () const` `[override],[virtual]`

Implements [Drawable](#).

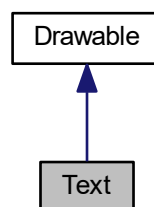
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

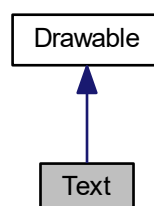
4.12 Text Class Reference

```
#include <drawtools.h>
```

Inheritance diagram for Text:



Collaboration diagram for Text:



Public Member Functions

- [Text](#) (const string str, [Color](#) color, [PointF](#) Pos)
- void [draw](#) () const override
- void [print](#) () const override

4.12.1 Constructor & Destructor Documentation

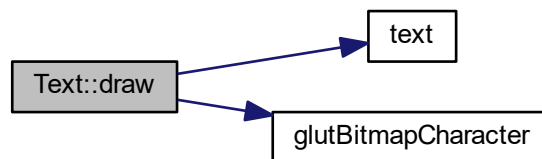
4.12.1.1 `Text::Text (const string str, Color color, PointF Pos)`

4.12.2 Member Function Documentation

4.12.2.1 `void Text::draw () const` `[override]`, `[virtual]`

Implements [Drawable](#).

Here is the call graph for this function:



4.12.2.2 `void Text::print () const` `[override]`, `[virtual]`

Implements [Drawable](#).

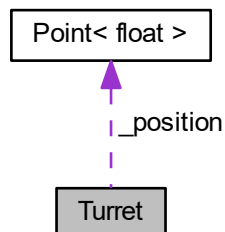
The documentation for this class was generated from the following files:

- OpenGLSkeleton/[drawtools.h](#)
- OpenGLSkeleton/[drawtools.cpp](#)

4.13 Turret Class Reference

```
#include <Turret.h>
```

Collaboration diagram for Turret:



Public Member Functions

- [Turret](#) ([PointF](#) position, [Color](#) color, int range, int health, int upgrade, int type, int time)
- void [TimeUpdate](#) (int CurTime)
- int [Aim](#) (int i)
- [PointF](#) [Position](#) ()

Public Attributes

- [PointF](#) [_position](#)
- int [_upgrade](#)
- int [_type](#)
- int [_range](#)
- int [_health](#)
- int [_bulletSpeed](#)
- int [_aiming](#) = 0
- int [_lastTime](#)

4.13.1 Constructor & Destructor Documentation

4.13.1.1 [Turret::Turret](#) ([PointF](#) *position*, [Color](#) *color*, int *range*, int *health*, int *upgrade*, int *type*, int *time*)

4.13.2 Member Function Documentation

4.13.2.1 int [Turret::Aim](#) (int *i*)

4.13.2.2 [PointF](#) [Turret::Position](#) ()

4.13.2.3 void [Turret::TimeUpdate](#) (int *CurTime*)

4.13.3 Member Data Documentation

4.13.3.1 int [Turret::_aiming](#) = 0

4.13.3.2 int [Turret::_bulletSpeed](#)

4.13.3.3 int [Turret::_health](#)

4.13.3.4 int [Turret::_lastTime](#)

4.13.3.5 [PointF](#) [Turret::_position](#)

4.13.3.6 int [Turret::_range](#)

4.13.3.7 int [Turret::_type](#)

4.13.3.8 int [Turret::_upgrade](#)

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

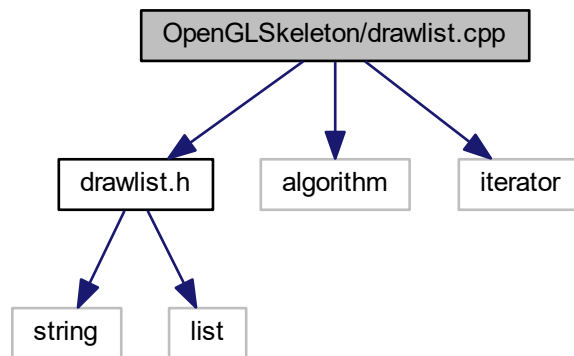
- OpenGLSkeleton/[Turret.h](#)
- OpenGLSkeleton/[Turret.cpp](#)

Chapter 5

File Documentation

5.1 OpenGLSkeleton/drawlist.cpp File Reference

```
#include "drawlist.h"  
#include <algorithm>  
#include <iterator>  
Include dependency graph for drawlist.cpp:
```



Functions

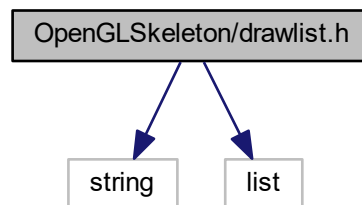
- `DrawList::iterator findDrawable (DrawList &list, const std::string &name)`

5.1.1 Function Documentation

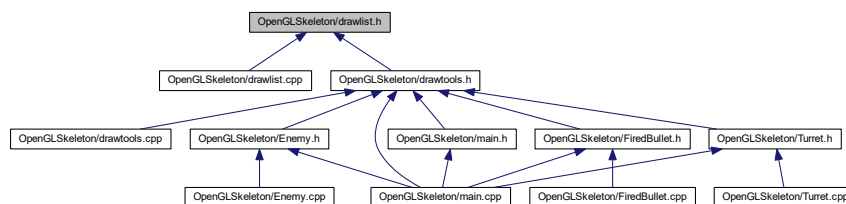
5.1.1.1 `DrawList::iterator findDrawable (DrawList & list, const std::string & name)`

5.2 OpenGLSkeleton/drawlist.h File Reference

```
#include <string>
#include <list>
Include dependency graph for drawlist.h:
```



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



Classes

- class [Drawable](#)

Typedefs

- using [DrawList](#) = std::list< [Drawable](#) * >

Functions

- DrawList::iterator [findDrawable](#) ([DrawList](#) &list, const std::string &name)

5.2.1 Typedef Documentation

5.2.1.1 using DrawList = std::list<Drawable*>

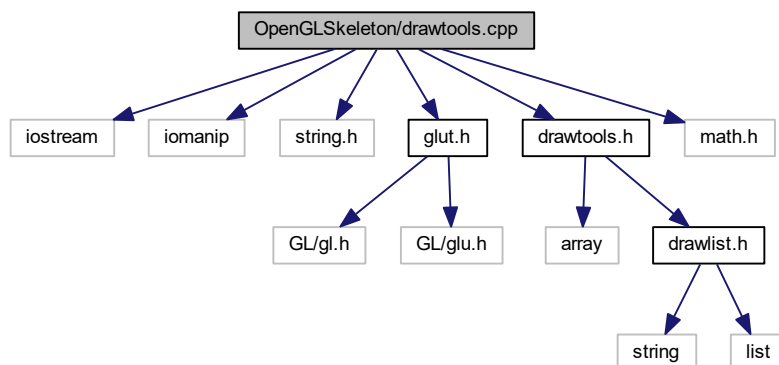
5.2.2 Function Documentation

5.2.2.1 DrawList::iterator findDrawable (DrawList & *list*, const std::string & *name*)

5.3 OpenGLSkeleton/drawtools.cpp File Reference

```
#include <iostream>
#include <iomanip>
#include <string.h>
#include "glut.h"
#include "drawtools.h"
#include <math.h>
```

Include dependency graph for drawtools.cpp:



Macros

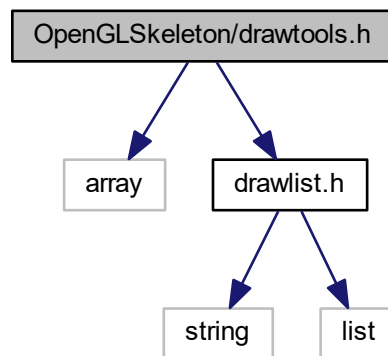
- `#define _USE_MATH_DEFINES`

5.3.1 Macro Definition Documentation

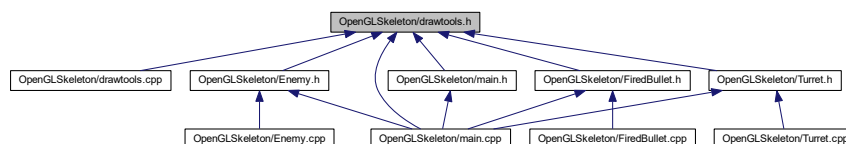
5.3.1.1 #define _USE_MATH_DEFINES

5.4 OpenGLSkeleton/drawtools.h File Reference

```
#include <array>
#include "drawlist.h"
Include dependency graph for drawtools.h:
```



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



Classes

- class [Point< T >](#)
- struct [Color](#)
- class [Pixel](#)
- class [Line](#)
- class [Circle](#)
- class [Sqaure](#)
- class [Text](#)
- class [Heart](#)
- class [Button](#)

Typedefs

- using [PointI](#) = [Point](#)< int >
- using [PointF](#) = [Point](#)< float >

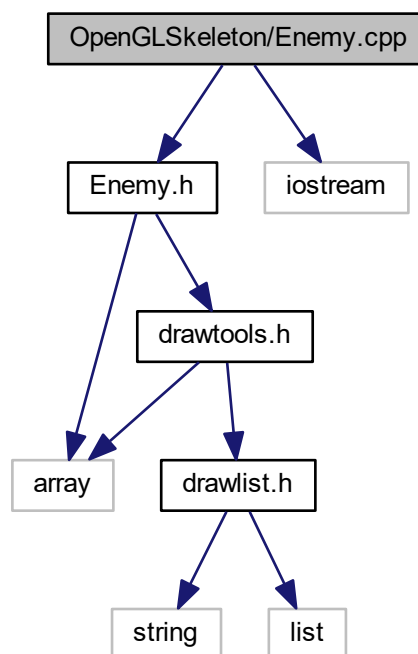
5.4.1 Typedef Documentation

5.4.1.1 using PointF = Point<float>

5.4.1.2 using PointI = Point<int>

5.5 OpenGLSkeleton/Enemy.cpp File Reference

```
#include "Enemy.h"  
#include <iostream>  
Include dependency graph for Enemy.cpp:
```



Variables

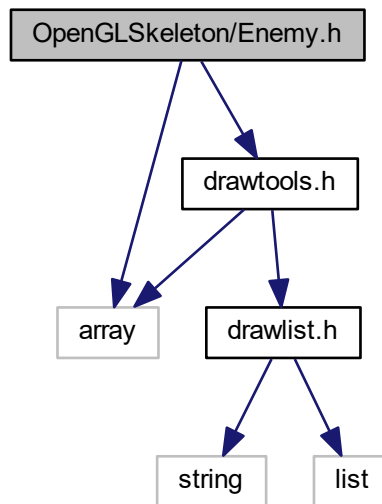
- int `Count` = 1

5.5.1 Variable Documentation

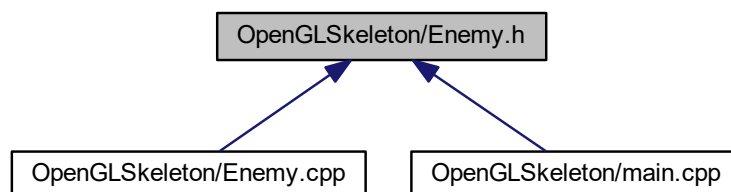
5.5.1.1 int `Count` = 1

5.6 OpenGLSkeleton/Enemy.h File Reference

```
#include <array>
#include "drawtools.h"
Include dependency graph for Enemy.h:
```



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

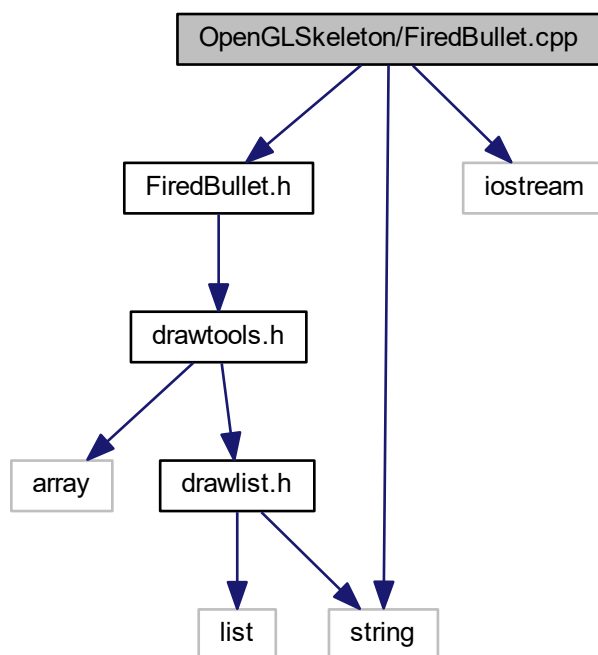


Classes

- class [Enemy](#)

5.7 OpenGLSkeleton/FiredBullet.cpp File Reference

```
#include "FiredBullet.h"  
#include <iostream>  
#include <string>  
Include dependency graph for FiredBullet.cpp:
```



Variables

- int `Count2` = 0

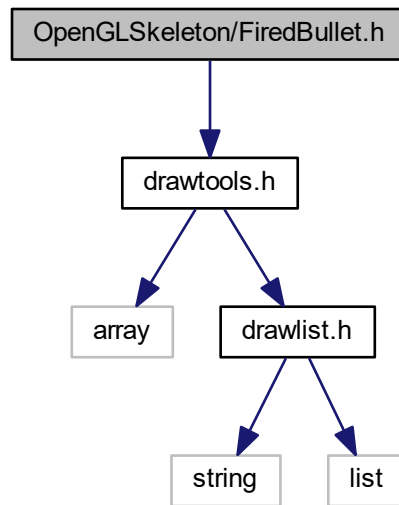
5.7.1 Variable Documentation

5.7.1.1 int `Count2` = 0

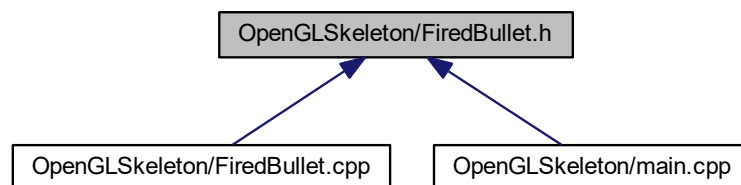
5.8 OpenGLSkeleton/FiredBullet.h File Reference

```
#include "drawtools.h"
```

Include dependency graph for FiredBullet.h:



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



Classes

- class [FiredBullet](#)

Macros

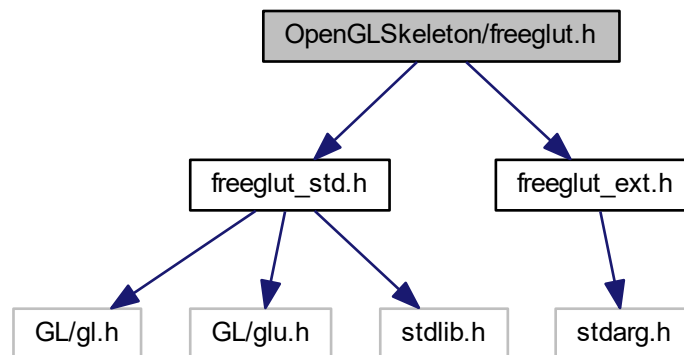
- `#define` [FIREDBULLET_H](#)

5.8.1 Macro Definition Documentation

5.8.1.1 #define FIREDBULLET_H

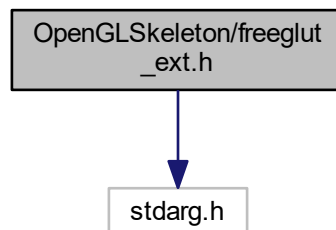
5.9 OpenGLSkeleton/freeglut.h File Reference

```
#include "freeglut_std.h"  
#include "freeglut_ext.h"  
Include dependency graph for freeglut.h:
```

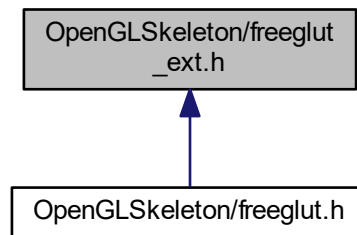


5.10 OpenGLSkeleton/freeglut_ext.h File Reference

```
#include <stdarg.h>  
Include dependency graph for freeglut_ext.h:
```



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



Macros

- #define [GLUT_KEY_NUM_LOCK](#) 0x006D
- #define [GLUT_KEY_BEGIN](#) 0x006E
- #define [GLUT_KEY_DELETE](#) 0x006F
- #define [GLUT_KEY_SHIFT_L](#) 0x0070
- #define [GLUT_KEY_SHIFT_R](#) 0x0071
- #define [GLUT_KEY_CTRL_L](#) 0x0072
- #define [GLUT_KEY_CTRL_R](#) 0x0073
- #define [GLUT_KEY_ALT_L](#) 0x0074
- #define [GLUT_KEY_ALT_R](#) 0x0075
- #define [GLUT_ACTION_EXIT](#) 0
- #define [GLUT_ACTION_GLUTMAINLOOP_RETURNS](#) 1
- #define [GLUT_ACTION_CONTINUE_EXECUTION](#) 2
- #define [GLUT_CREATE_NEW_CONTEXT](#) 0
- #define [GLUT_USE_CURRENT_CONTEXT](#) 1
- #define [GLUT_FORCE_INDIRECT_CONTEXT](#) 0
- #define [GLUT_ALLOW_DIRECT_CONTEXT](#) 1
- #define [GLUT_TRY_DIRECT_CONTEXT](#) 2
- #define [GLUT_FORCE_DIRECT_CONTEXT](#) 3
- #define [GLUT_INIT_STATE](#) 0x007C
- #define [GLUT_ACTION_ON_WINDOW_CLOSE](#) 0x01F9
- #define [GLUT_WINDOW_BORDER_WIDTH](#) 0x01FA
- #define [GLUT_WINDOW_BORDER_HEIGHT](#) 0x01FB
- #define [GLUT_WINDOW_HEADER_HEIGHT](#) 0x01FB /* Docs say it should always have been GLUT_WINDOW_BORDER_HEIGHT, keep this for backward compatibility */
- #define [GLUT_VERSION](#) 0x01FC
- #define [GLUT_RENDERING_CONTEXT](#) 0x01FD
- #define [GLUT_DIRECT_RENDERING](#) 0x01FE
- #define [GLUT_FULL_SCREEN](#) 0x01FF
- #define [GLUT_SKIP_STALE_MOTION_EVENTS](#) 0x0204
- #define [GLUT_GEOMETRY_VISUALIZE_NORMALS](#) 0x0205
- #define [GLUT_STROKE_FONT_DRAW_JOIN_DOTS](#) 0x0206 /* Draw dots between line segments of stroke fonts? */
- #define [GLUT_AUX](#) 0x1000
- #define [GLUT_AUX1](#) 0x1000
- #define [GLUT_AUX2](#) 0x2000

- `#define GLUT_AUX3 0x4000`
- `#define GLUT_AUX4 0x8000`
- `#define GLUT_INIT_MAJOR_VERSION 0x0200`
- `#define GLUT_INIT_MINOR_VERSION 0x0201`
- `#define GLUT_INIT_FLAGS 0x0202`
- `#define GLUT_INIT_PROFILE 0x0203`
- `#define GLUT_DEBUG 0x0001`
- `#define GLUT_FORWARD_COMPATIBLE 0x0002`
- `#define GLUT_CORE_PROFILE 0x0001`
- `#define GLUT_COMPATIBILITY_PROFILE 0x0002`
- `#define GLUT_HAS_MULTI 1`
- `#define GLUT_APPSTATUS_PAUSE 0x0001`
- `#define GLUT_APPSTATUS_RESUME 0x0002`
- `#define GLUT_CAPTIONLESS 0x0400`
- `#define GLUT_BORDERLESS 0x0800`
- `#define GLUT_SRGB 0x1000`

Typedefs

- `typedef void(* GLUTproc) ()`

Functions

- `FGAPI void FGAPIENTRY glutMainLoopEvent (void)`
- `FGAPI void FGAPIENTRY glutLeaveMainLoop (void)`
- `FGAPI void FGAPIENTRY glutExit (void)`
- `FGAPI void FGAPIENTRY glutFullScreenToggle (void)`
- `FGAPI void FGAPIENTRY glutLeaveFullScreen (void)`
- `FGAPI void FGAPIENTRY glutSetMenuFont (int menuID, void *font)`
- `FGAPI void FGAPIENTRY glutMouseWheelFunc (void(*callback)(int, int, int, int))`
- `FGAPI void FGAPIENTRY glutPositionFunc (void(*callback)(int, int))`
- `FGAPI void FGAPIENTRY glutCloseFunc (void(*callback)(void))`
- `FGAPI void FGAPIENTRY glutWMCloseFunc (void(*callback)(void))`
- `FGAPI void FGAPIENTRY glutMenuDestroyFunc (void(*callback)(void))`
- `FGAPI void FGAPIENTRY glutSetOption (GLenum option_flag, int value)`
- `FGAPI int *FGAPIENTRY glutGetModeValues (GLenum mode, int *size)`
- `FGAPI void *FGAPIENTRY glutGetWindowData (void)`
- `FGAPI void FGAPIENTRY glutSetWindowData (void *data)`
- `FGAPI void *FGAPIENTRY glutGetMenuData (void)`
- `FGAPI void FGAPIENTRY glutSetMenuData (void *data)`
- `FGAPI int FGAPIENTRY glutBitmapHeight (void *font)`
- `FGAPI GLfloat FGAPIENTRY glutStrokeHeight (void *font)`
- `FGAPI void FGAPIENTRY glutBitmapString (void *font, const unsigned char *string)`
- `FGAPI void FGAPIENTRY glutStrokeString (void *font, const unsigned char *string)`
- `FGAPI void FGAPIENTRY glutWireRhombicDodecahedron (void)`
- `FGAPI void FGAPIENTRY glutSolidRhombicDodecahedron (void)`
- `FGAPI void FGAPIENTRY glutWireSierpinskiSponge (int num_levels, double offset[3], double scale)`
- `FGAPI void FGAPIENTRY glutSolidSierpinskiSponge (int num_levels, double offset[3], double scale)`
- `FGAPI void FGAPIENTRY glutWireCylinder (double radius, double height, GLint slices, GLint stacks)`
- `FGAPI void FGAPIENTRY glutSolidCylinder (double radius, double height, GLint slices, GLint stacks)`
- `FGAPI void FGAPIENTRY glutWireTeacup (double size)`
- `FGAPI void FGAPIENTRY glutSolidTeacup (double size)`
- `FGAPI void FGAPIENTRY glutWireTeaspoon (double size)`

- [FGAPI void FGAPIENTRY glutSolidTeaspoon](#) (double size)
- [FGAPI GLUTproc FGAPIENTRY glutGetProcAddress](#) (const char *procName)
- [FGAPI void FGAPIENTRY glutMultiEntryFunc](#) (void(*callback)(int, int))
- [FGAPI void FGAPIENTRY glutMultiButtonFunc](#) (void(*callback)(int, int, int, int, int))
- [FGAPI void FGAPIENTRY glutMultiMotionFunc](#) (void(*callback)(int, int, int))
- [FGAPI void FGAPIENTRY glutMultiPassiveFunc](#) (void(*callback)(int, int, int))
- [int glutJoystickGetNumAxes](#) (int ident)
- [int glutJoystickGetNumButtons](#) (int ident)
- [int glutJoystickNotWorking](#) (int ident)
- [float glutJoystickGetDeadBand](#) (int ident, int axis)
- [void glutJoystickSetDeadBand](#) (int ident, int axis, float db)
- [float glutJoystickGetSaturation](#) (int ident, int axis)
- [void glutJoystickSetSaturation](#) (int ident, int axis, float st)
- [void glutJoystickSetMinRange](#) (int ident, float *axes)
- [void glutJoystickSetMaxRange](#) (int ident, float *axes)
- [void glutJoystickSetCenter](#) (int ident, float *axes)
- [void glutJoystickGetMinRange](#) (int ident, float *axes)
- [void glutJoystickGetMaxRange](#) (int ident, float *axes)
- [void glutJoystickGetCenter](#) (int ident, float *axes)
- [FGAPI void FGAPIENTRY glutInitContextVersion](#) (int majorVersion, int minorVersion)
- [FGAPI void FGAPIENTRY glutInitContextFlags](#) (int flags)
- [FGAPI void FGAPIENTRY glutInitContextProfile](#) (int profile)
- [FGAPI void FGAPIENTRY glutInitErrorFunc](#) (void(*callback)(const char *fmt, va_list ap))
- [FGAPI void FGAPIENTRY glutInitWarningFunc](#) (void(*callback)(const char *fmt, va_list ap))
- [FGAPI void FGAPIENTRY glutSetVertexAttribCoord3](#) (GLint attrib)
- [FGAPI void FGAPIENTRY glutSetVertexAttribNormal](#) (GLint attrib)
- [FGAPI void FGAPIENTRY glutSetVertexAttribTexCoord2](#) (GLint attrib)
- [FGAPI void FGAPIENTRY glutInitContextFunc](#) (void(*callback)())
- [FGAPI void FGAPIENTRY glutAppStatusFunc](#) (void(*callback)(int))

5.10.1 Macro Definition Documentation

5.10.1.1 `#define GLUT_ACTION_CONTINUE_EXECUTION 2`

5.10.1.2 `#define GLUT_ACTION_EXIT 0`

5.10.1.3 `#define GLUT_ACTION_GLUTMAINLOOP_RETURNS 1`

5.10.1.4 `#define GLUT_ACTION_ON_WINDOW_CLOSE 0x01F9`

5.10.1.5 `#define GLUT_ALLOW_DIRECT_CONTEXT 1`

5.10.1.6 `#define GLUT_APPSTATUS_PAUSE 0x0001`

5.10.1.7 `#define GLUT_APPSTATUS_RESUME 0x0002`

5.10.1.8 `#define GLUT_AUX 0x1000`

5.10.1.9 `#define GLUT_AUX1 0x1000`

- 5.10.1.10 `#define GLUT_AUX2 0x2000`
- 5.10.1.11 `#define GLUT_AUX3 0x4000`
- 5.10.1.12 `#define GLUT_AUX4 0x8000`
- 5.10.1.13 `#define GLUT_BORDERLESS 0x0800`
- 5.10.1.14 `#define GLUT_CAPTIONLESS 0x0400`
- 5.10.1.15 `#define GLUT_COMPATIBILITY_PROFILE 0x0002`
- 5.10.1.16 `#define GLUT_CORE_PROFILE 0x0001`
- 5.10.1.17 `#define GLUT_CREATE_NEW_CONTEXT 0`
- 5.10.1.18 `#define GLUT_DEBUG 0x0001`
- 5.10.1.19 `#define GLUT_DIRECT_RENDERING 0x01FE`
- 5.10.1.20 `#define GLUT_FORCE_DIRECT_CONTEXT 3`
- 5.10.1.21 `#define GLUT_FORCE_INDIRECT_CONTEXT 0`
- 5.10.1.22 `#define GLUT_FORWARD_COMPATIBLE 0x0002`
- 5.10.1.23 `#define GLUT_FULL_SCREEN 0x01FF`
- 5.10.1.24 `#define GLUT_GEOMETRY_VISUALIZE_NORMALS 0x0205`
- 5.10.1.25 `#define GLUT_HAS_MULTI 1`
- 5.10.1.26 `#define GLUT_INIT_FLAGS 0x0202`
- 5.10.1.27 `#define GLUT_INIT_MAJOR_VERSION 0x0200`
- 5.10.1.28 `#define GLUT_INIT_MINOR_VERSION 0x0201`
- 5.10.1.29 `#define GLUT_INIT_PROFILE 0x0203`
- 5.10.1.30 `#define GLUT_INIT_STATE 0x007C`
- 5.10.1.31 `#define GLUT_KEY_ALT_L 0x0074`
- 5.10.1.32 `#define GLUT_KEY_ALT_R 0x0075`

5.10.1.33 `#define GLUT_KEY_BEGIN 0x006E`

5.10.1.34 `#define GLUT_KEY_CTRL_L 0x0072`

5.10.1.35 `#define GLUT_KEY_CTRL_R 0x0073`

5.10.1.36 `#define GLUT_KEY_DELETE 0x006F`

5.10.1.37 `#define GLUT_KEY_NUM_LOCK 0x006D`

5.10.1.38 `#define GLUT_KEY_SHIFT_L 0x0070`

5.10.1.39 `#define GLUT_KEY_SHIFT_R 0x0071`

5.10.1.40 `#define GLUT_RENDERING_CONTEXT 0x01FD`

5.10.1.41 `#define GLUT_SKIP_STALE_MOTION_EVENTS 0x0204`

5.10.1.42 `#define GLUT_SRGB 0x1000`

5.10.1.43 `#define GLUT_STROKE_FONT_DRAW_JOIN_DOTS 0x0206 /* Draw dots between line segments of stroke fonts? */`

5.10.1.44 `#define GLUT_TRY_DIRECT_CONTEXT 2`

5.10.1.45 `#define GLUT_USE_CURRENT_CONTEXT 1`

5.10.1.46 `#define GLUT_VERSION 0x01FC`

5.10.1.47 `#define GLUT_WINDOW_BORDER_HEIGHT 0x01FB`

5.10.1.48 `#define GLUT_WINDOW_BORDER_WIDTH 0x01FA`

5.10.1.49 `#define GLUT_WINDOW_HEADER_HEIGHT 0x01FB /* Docs say it should always have been GLUT_WINDOW_BORDER_HEIGHT, keep this for backward compatibility */`

5.10.2 Typedef Documentation

5.10.2.1 `typedef void(* GLUTproc) ()`

5.10.3 Function Documentation

5.10.3.1 **FGAPI** `void FGAPIENTRY glutAppStatusFunc (void(*)(int) callback)`

5.10.3.2 **FGAPI** `int FGAPIENTRY glutBitmapHeight (void * font)`

- 5.10.3.3 **FGAPI void FGAPIENTRY** glutBitmapString (void * *font*, const unsigned char * *string*)
- 5.10.3.4 **FGAPI void FGAPIENTRY** glutCloseFunc (void(*) (void) *callback*)
- 5.10.3.5 **FGAPI void FGAPIENTRY** glutExit (void)
- 5.10.3.6 **FGAPI void FGAPIENTRY** glutFullScreenToggle (void)
- 5.10.3.7 **FGAPI void* FGAPIENTRY** glutGetMenuData (void)
- 5.10.3.8 **FGAPI int* FGAPIENTRY** glutGetModeValues (GLenum *mode*, int * *size*)
- 5.10.3.9 **FGAPI GLUTproc FGAPIENTRY** glutGetProcAddress (const char * *procName*)
- 5.10.3.10 **FGAPI void* FGAPIENTRY** glutGetWindowData (void)
- 5.10.3.11 **FGAPI void FGAPIENTRY** glutInitContextFlags (int *flags*)
- 5.10.3.12 **FGAPI void FGAPIENTRY** glutInitContextFunc (void(*)() *callback*)
- 5.10.3.13 **FGAPI void FGAPIENTRY** glutInitContextProfile (int *profile*)
- 5.10.3.14 **FGAPI void FGAPIENTRY** glutInitContextVersion (int *majorVersion*, int *minorVersion*)
- 5.10.3.15 **FGAPI void FGAPIENTRY** glutInitErrorFunc (void(*) (const char *fmt, va_list ap) *callback*)
- 5.10.3.16 **FGAPI void FGAPIENTRY** glutInitWarningFunc (void(*) (const char *fmt, va_list ap) *callback*)
- 5.10.3.17 void glutJoystickGetCenter (int *ident*, float * *axes*)
- 5.10.3.18 float glutJoystickGetDeadBand (int *ident*, int *axis*)
- 5.10.3.19 void glutJoystickGetMaxRange (int *ident*, float * *axes*)
- 5.10.3.20 void glutJoystickGetMinRange (int *ident*, float * *axes*)
- 5.10.3.21 int glutJoystickGetNumAxes (int *ident*)
- 5.10.3.22 int glutJoystickGetNumButtons (int *ident*)
- 5.10.3.23 float glutJoystickGetSaturation (int *ident*, int *axis*)
- 5.10.3.24 int glutJoystickNotWorking (int *ident*)
- 5.10.3.25 void glutJoystickSetCenter (int *ident*, float * *axes*)

- 5.10.3.26 void glutJoystickSetDeadBand (int *ident*, int *axis*, float *db*)
- 5.10.3.27 void glutJoystickSetMaxRange (int *ident*, float * *axes*)
- 5.10.3.28 void glutJoystickSetMinRange (int *ident*, float * *axes*)
- 5.10.3.29 void glutJoystickSetSaturation (int *ident*, int *axis*, float *st*)
- 5.10.3.30 FGAPI void FGAPIENTRY glutLeaveFullScreen (void)
- 5.10.3.31 FGAPI void FGAPIENTRY glutLeaveMainLoop (void)
- 5.10.3.32 FGAPI void FGAPIENTRY glutMainLoopEvent (void)
- 5.10.3.33 FGAPI void FGAPIENTRY glutMenuDestroyFunc (void(*) (void) *callback*)
- 5.10.3.34 FGAPI void FGAPIENTRY glutMouseWheelFunc (void(*) (int, int, int, int) *callback*)
- 5.10.3.35 FGAPI void FGAPIENTRY glutMultiButtonFunc (void(*) (int, int, int, int, int) *callback*)
- 5.10.3.36 FGAPI void FGAPIENTRY glutMultiEntryFunc (void(*) (int, int) *callback*)
- 5.10.3.37 FGAPI void FGAPIENTRY glutMultiMotionFunc (void(*) (int, int, int) *callback*)
- 5.10.3.38 FGAPI void FGAPIENTRY glutMultiPassiveFunc (void(*) (int, int, int) *callback*)
- 5.10.3.39 FGAPI void FGAPIENTRY glutPositionFunc (void(*) (int, int) *callback*)
- 5.10.3.40 FGAPI void FGAPIENTRY glutSetMenuData (void * *data*)
- 5.10.3.41 FGAPI void FGAPIENTRY glutSetMenuFont (int *menuID*, void * *font*)
- 5.10.3.42 FGAPI void FGAPIENTRY glutSetOption (GLenum *option_flag*, int *value*)
- 5.10.3.43 FGAPI void FGAPIENTRY glutSetVertexAttribCoord3 (GLint *attrib*)
- 5.10.3.44 FGAPI void FGAPIENTRY glutSetVertexAttribNormal (GLint *attrib*)
- 5.10.3.45 FGAPI void FGAPIENTRY glutSetVertexAttribTexCoord2 (GLint *attrib*)
- 5.10.3.46 FGAPI void FGAPIENTRY glutSetWindowData (void * *data*)
- 5.10.3.47 FGAPI void FGAPIENTRY glutSolidCylinder (double *radius*, double *height*, GLint *slices*, GLint *stacks*)
- 5.10.3.48 FGAPI void FGAPIENTRY glutSolidRhombicDodecahedron (void)

5.10.3.49 **FGAPI** void **FGAPIENTRY** glutSolidSierpinskiSponge (int *num_levels*, double *offset[3]*, double *scale*)

5.10.3.50 **FGAPI** void **FGAPIENTRY** glutSolidTeacup (double *size*)

5.10.3.51 **FGAPI** void **FGAPIENTRY** glutSolidTeaspoon (double *size*)

5.10.3.52 **FGAPI** GLfloat **FGAPIENTRY** glutStrokeHeight (void * *font*)

5.10.3.53 **FGAPI** void **FGAPIENTRY** glutStrokeString (void * *font*, const unsigned char * *string*)

5.10.3.54 **FGAPI** void **FGAPIENTRY** glutWireCylinder (double *radius*, double *height*, GLint *slices*, GLint *stacks*)

5.10.3.55 **FGAPI** void **FGAPIENTRY** glutWireRhombicDodecahedron (void)

5.10.3.56 **FGAPI** void **FGAPIENTRY** glutWireSierpinskiSponge (int *num_levels*, double *offset[3]*, double *scale*)

5.10.3.57 **FGAPI** void **FGAPIENTRY** glutWireTeacup (double *size*)

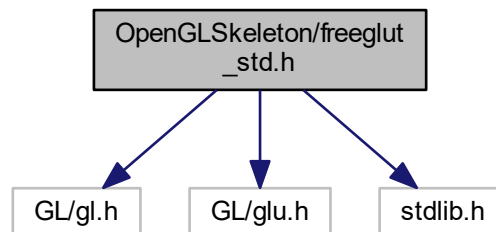
5.10.3.58 **FGAPI** void **FGAPIENTRY** glutWireTeaspoon (double *size*)

5.10.3.59 **FGAPI** void **FGAPIENTRY** glutWMCloseFunc (void(*) (void) *callback*)

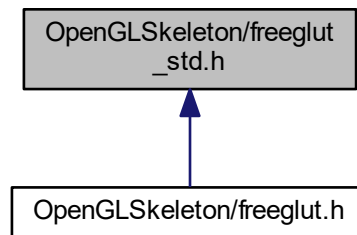
5.11 OpenGLSkeleton/freeglut_std.h File Reference

```
#include <GL/gl.h>
#include <GL/glu.h>
#include <stdlib.h>
```

Include dependency graph for freeglut_std.h:



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



Macros

- #define [FGAPI](#)
- #define [FGAPIENTRY](#)
- #define [FREEGLUT](#) 1
- #define [GLUT_API_VERSION](#) 4
- #define [GLUT_XLIB_IMPLEMENTATION](#) 13
- #define [FREEGLUT_VERSION_2_0](#) 1
- #define [GLUT_KEY_F1](#) 0x0001
- #define [GLUT_KEY_F2](#) 0x0002
- #define [GLUT_KEY_F3](#) 0x0003
- #define [GLUT_KEY_F4](#) 0x0004
- #define [GLUT_KEY_F5](#) 0x0005
- #define [GLUT_KEY_F6](#) 0x0006
- #define [GLUT_KEY_F7](#) 0x0007
- #define [GLUT_KEY_F8](#) 0x0008
- #define [GLUT_KEY_F9](#) 0x0009
- #define [GLUT_KEY_F10](#) 0x000A
- #define [GLUT_KEY_F11](#) 0x000B
- #define [GLUT_KEY_F12](#) 0x000C
- #define [GLUT_KEY_LEFT](#) 0x0064
- #define [GLUT_KEY_UP](#) 0x0065
- #define [GLUT_KEY_RIGHT](#) 0x0066
- #define [GLUT_KEY_DOWN](#) 0x0067
- #define [GLUT_KEY_PAGE_UP](#) 0x0068
- #define [GLUT_KEY_PAGE_DOWN](#) 0x0069
- #define [GLUT_KEY_HOME](#) 0x006A
- #define [GLUT_KEY_END](#) 0x006B
- #define [GLUT_KEY_INSERT](#) 0x006C
- #define [GLUT_LEFT_BUTTON](#) 0x0000
- #define [GLUT_MIDDLE_BUTTON](#) 0x0001
- #define [GLUT_RIGHT_BUTTON](#) 0x0002
- #define [GLUT_DOWN](#) 0x0000
- #define [GLUT_UP](#) 0x0001
- #define [GLUT_LEFT](#) 0x0000
- #define [GLUT_ENTERED](#) 0x0001
- #define [GLUT_RGB](#) 0x0000

- `#define GLUT_RGBA 0x0000`
- `#define GLUT_INDEX 0x0001`
- `#define GLUT_SINGLE 0x0000`
- `#define GLUT_DOUBLE 0x0002`
- `#define GLUT_ACCUM 0x0004`
- `#define GLUT_ALPHA 0x0008`
- `#define GLUT_DEPTH 0x0010`
- `#define GLUT_STENCIL 0x0020`
- `#define GLUT_MULTISAMPLE 0x0080`
- `#define GLUT_STEREO 0x0100`
- `#define GLUT_LUMINANCE 0x0200`
- `#define GLUT_MENU_NOT_IN_USE 0x0000`
- `#define GLUT_MENU_IN_USE 0x0001`
- `#define GLUT_NOT_VISIBLE 0x0000`
- `#define GLUT_VISIBLE 0x0001`
- `#define GLUT_HIDDEN 0x0000`
- `#define GLUT_FULLY_RETAINED 0x0001`
- `#define GLUT_PARTIALLY_RETAINED 0x0002`
- `#define GLUT_FULLY_COVERED 0x0003`
- `#define GLUT_STROKE_ROMAN ((void *) &glutStrokeRoman)`
- `#define GLUT_STROKE_MONO_ROMAN ((void *) &glutStrokeMonoRoman)`
- `#define GLUT_BITMAP_9_BY_15 ((void *) &glutBitmap9By15)`
- `#define GLUT_BITMAP_8_BY_13 ((void *) &glutBitmap8By13)`
- `#define GLUT_BITMAP_TIMES_ROMAN_10 ((void *) &glutBitmapTimesRoman10)`
- `#define GLUT_BITMAP_TIMES_ROMAN_24 ((void *) &glutBitmapTimesRoman24)`
- `#define GLUT_BITMAP_HELVETICA_10 ((void *) &glutBitmapHelvetica10)`
- `#define GLUT_BITMAP_HELVETICA_12 ((void *) &glutBitmapHelvetica12)`
- `#define GLUT_BITMAP_HELVETICA_18 ((void *) &glutBitmapHelvetica18)`
- `#define GLUT_WINDOW_X 0x0064`
- `#define GLUT_WINDOW_Y 0x0065`
- `#define GLUT_WINDOW_WIDTH 0x0066`
- `#define GLUT_WINDOW_HEIGHT 0x0067`
- `#define GLUT_WINDOW_BUFFER_SIZE 0x0068`
- `#define GLUT_WINDOW_STENCIL_SIZE 0x0069`
- `#define GLUT_WINDOW_DEPTH_SIZE 0x006A`
- `#define GLUT_WINDOW_RED_SIZE 0x006B`
- `#define GLUT_WINDOW_GREEN_SIZE 0x006C`
- `#define GLUT_WINDOW_BLUE_SIZE 0x006D`
- `#define GLUT_WINDOW_ALPHA_SIZE 0x006E`
- `#define GLUT_WINDOW_ACCUM_RED_SIZE 0x006F`
- `#define GLUT_WINDOW_ACCUM_GREEN_SIZE 0x0070`
- `#define GLUT_WINDOW_ACCUM_BLUE_SIZE 0x0071`
- `#define GLUT_WINDOW_ACCUM_ALPHA_SIZE 0x0072`
- `#define GLUT_WINDOW_DOUBLEBUFFER 0x0073`
- `#define GLUT_WINDOW_RGBA 0x0074`
- `#define GLUT_WINDOW_PARENT 0x0075`
- `#define GLUT_WINDOW_NUM_CHILDREN 0x0076`
- `#define GLUT_WINDOW_COLORMAP_SIZE 0x0077`
- `#define GLUT_WINDOW_NUM_SAMPLES 0x0078`
- `#define GLUT_WINDOW_STEREO 0x0079`
- `#define GLUT_WINDOW_CURSOR 0x007A`
- `#define GLUT_SCREEN_WIDTH 0x00C8`
- `#define GLUT_SCREEN_HEIGHT 0x00C9`
- `#define GLUT_SCREEN_WIDTH_MM 0x00CA`
- `#define GLUT_SCREEN_HEIGHT_MM 0x00CB`

- #define [GLUT_MENU_NUM_ITEMS](#) 0x012C
- #define [GLUT_DISPLAY_MODE_POSSIBLE](#) 0x0190
- #define [GLUT_INIT_WINDOW_X](#) 0x01F4
- #define [GLUT_INIT_WINDOW_Y](#) 0x01F5
- #define [GLUT_INIT_WINDOW_WIDTH](#) 0x01F6
- #define [GLUT_INIT_WINDOW_HEIGHT](#) 0x01F7
- #define [GLUT_INIT_DISPLAY_MODE](#) 0x01F8
- #define [GLUT_ELAPSED_TIME](#) 0x02BC
- #define [GLUT_WINDOW_FORMAT_ID](#) 0x007B
- #define [GLUT_HAS_KEYBOARD](#) 0x0258
- #define [GLUT_HAS_MOUSE](#) 0x0259
- #define [GLUT_HAS_SPACEBALL](#) 0x025A
- #define [GLUT_HAS_DIAL_AND_BUTTON_BOX](#) 0x025B
- #define [GLUT_HAS_TABLET](#) 0x025C
- #define [GLUT_NUM_MOUSE_BUTTONS](#) 0x025D
- #define [GLUT_NUM_SPACEBALL_BUTTONS](#) 0x025E
- #define [GLUT_NUM_BUTTON_BOX_BUTTONS](#) 0x025F
- #define [GLUT_NUM_DIALS](#) 0x0260
- #define [GLUT_NUM_TABLET_BUTTONS](#) 0x0261
- #define [GLUT_DEVICE_IGNORE_KEY_REPEAT](#) 0x0262
- #define [GLUT_DEVICE_KEY_REPEAT](#) 0x0263
- #define [GLUT_HAS_JOYSTICK](#) 0x0264
- #define [GLUT_OWNS_JOYSTICK](#) 0x0265
- #define [GLUT_JOYSTICK_BUTTONS](#) 0x0266
- #define [GLUT_JOYSTICK_AXES](#) 0x0267
- #define [GLUT_JOYSTICK_POLL_RATE](#) 0x0268
- #define [GLUT_OVERLAY_POSSIBLE](#) 0x0320
- #define [GLUT_LAYER_IN_USE](#) 0x0321
- #define [GLUT_HAS_OVERLAY](#) 0x0322
- #define [GLUT_TRANSPARENT_INDEX](#) 0x0323
- #define [GLUT_NORMAL_DAMAGED](#) 0x0324
- #define [GLUT_OVERLAY_DAMAGED](#) 0x0325
- #define [GLUT_VIDEO_RESIZE_POSSIBLE](#) 0x0384
- #define [GLUT_VIDEO_RESIZE_IN_USE](#) 0x0385
- #define [GLUT_VIDEO_RESIZE_X_DELTA](#) 0x0386
- #define [GLUT_VIDEO_RESIZE_Y_DELTA](#) 0x0387
- #define [GLUT_VIDEO_RESIZE_WIDTH_DELTA](#) 0x0388
- #define [GLUT_VIDEO_RESIZE_HEIGHT_DELTA](#) 0x0389
- #define [GLUT_VIDEO_RESIZE_X](#) 0x038A
- #define [GLUT_VIDEO_RESIZE_Y](#) 0x038B
- #define [GLUT_VIDEO_RESIZE_WIDTH](#) 0x038C
- #define [GLUT_VIDEO_RESIZE_HEIGHT](#) 0x038D
- #define [GLUT_NORMAL](#) 0x0000
- #define [GLUT_OVERLAY](#) 0x0001
- #define [GLUT_ACTIVE_SHIFT](#) 0x0001
- #define [GLUT_ACTIVE_CTRL](#) 0x0002
- #define [GLUT_ACTIVE_ALT](#) 0x0004
- #define [GLUT_CURSOR_RIGHT_ARROW](#) 0x0000
- #define [GLUT_CURSOR_LEFT_ARROW](#) 0x0001
- #define [GLUT_CURSOR_INFO](#) 0x0002
- #define [GLUT_CURSOR_DESTROY](#) 0x0003
- #define [GLUT_CURSOR_HELP](#) 0x0004
- #define [GLUT_CURSOR_CYCLE](#) 0x0005
- #define [GLUT_CURSOR_SPRAY](#) 0x0006
- #define [GLUT_CURSOR_WAIT](#) 0x0007

- #define [GLUT_CURSOR_TEXT](#) 0x0008
- #define [GLUT_CURSOR_CROSSHAIR](#) 0x0009
- #define [GLUT_CURSOR_UP_DOWN](#) 0x000A
- #define [GLUT_CURSOR_LEFT_RIGHT](#) 0x000B
- #define [GLUT_CURSOR_TOP_SIDE](#) 0x000C
- #define [GLUT_CURSOR_BOTTOM_SIDE](#) 0x000D
- #define [GLUT_CURSOR_LEFT_SIDE](#) 0x000E
- #define [GLUT_CURSOR_RIGHT_SIDE](#) 0x000F
- #define [GLUT_CURSOR_TOP_LEFT_CORNER](#) 0x0010
- #define [GLUT_CURSOR_TOP_RIGHT_CORNER](#) 0x0011
- #define [GLUT_CURSOR_BOTTOM_RIGHT_CORNER](#) 0x0012
- #define [GLUT_CURSOR_BOTTOM_LEFT_CORNER](#) 0x0013
- #define [GLUT_CURSOR_INHERIT](#) 0x0064
- #define [GLUT_CURSOR_NONE](#) 0x0065
- #define [GLUT_CURSOR_FULL_CROSSHAIR](#) 0x0066
- #define [GLUT_RED](#) 0x0000
- #define [GLUT_GREEN](#) 0x0001
- #define [GLUT_BLUE](#) 0x0002
- #define [GLUT_KEY_REPEAT_OFF](#) 0x0000
- #define [GLUT_KEY_REPEAT_ON](#) 0x0001
- #define [GLUT_KEY_REPEAT_DEFAULT](#) 0x0002
- #define [GLUT_JOYSTICK_BUTTON_A](#) 0x0001
- #define [GLUT_JOYSTICK_BUTTON_B](#) 0x0002
- #define [GLUT_JOYSTICK_BUTTON_C](#) 0x0004
- #define [GLUT_JOYSTICK_BUTTON_D](#) 0x0008
- #define [GLUT_GAME_MODE_ACTIVE](#) 0x0000
- #define [GLUT_GAME_MODE_POSSIBLE](#) 0x0001
- #define [GLUT_GAME_MODE_WIDTH](#) 0x0002
- #define [GLUT_GAME_MODE_HEIGHT](#) 0x0003
- #define [GLUT_GAME_MODE_PIXEL_DEPTH](#) 0x0004
- #define [GLUT_GAME_MODE_REFRESH_RATE](#) 0x0005
- #define [GLUT_GAME_MODE_DISPLAY_CHANGED](#) 0x0006

Functions

- [FGAPI void FGAPIENTRY glutInit](#) (int *pargc, char **argv)
- [FGAPI void FGAPIENTRY glutInitWindowPosition](#) (int x, int y)
- [FGAPI void FGAPIENTRY glutInitWindowSize](#) (int width, int height)
- [FGAPI void FGAPIENTRY glutInitDisplayMode](#) (unsigned int displayMode)
- [FGAPI void FGAPIENTRY glutInitDisplayString](#) (const char *displayMode)
- [FGAPI void FGAPIENTRY glutMainLoop](#) (void)
- [FGAPI int FGAPIENTRY glutCreateWindow](#) (const char *title)
- [FGAPI int FGAPIENTRY glutCreateSubWindow](#) (int window, int x, int y, int width, int height)
- [FGAPI void FGAPIENTRY glutDestroyWindow](#) (int window)
- [FGAPI void FGAPIENTRY glutSetWindow](#) (int window)
- [FGAPI int FGAPIENTRY glutGetWindow](#) (void)
- [FGAPI void FGAPIENTRY glutSetWindowTitle](#) (const char *title)
- [FGAPI void FGAPIENTRY glutSetIconTitle](#) (const char *title)
- [FGAPI void FGAPIENTRY glutReshapeWindow](#) (int width, int height)
- [FGAPI void FGAPIENTRY glutPositionWindow](#) (int x, int y)
- [FGAPI void FGAPIENTRY glutShowWindow](#) (void)
- [FGAPI void FGAPIENTRY glutHideWindow](#) (void)
- [FGAPI void FGAPIENTRY glutIconifyWindow](#) (void)
- [FGAPI void FGAPIENTRY glutPushWindow](#) (void)

- [FGAPI void FGAPIENTRY glutPopWindow \(void\)](#)
- [FGAPI void FGAPIENTRY glutFullScreen \(void\)](#)
- [FGAPI void FGAPIENTRY glutPostWindowRedisplay \(int window\)](#)
- [FGAPI void FGAPIENTRY glutPostRedisplay \(void\)](#)
- [FGAPI void FGAPIENTRY glutSwapBuffers \(void\)](#)
- [FGAPI void FGAPIENTRY glutWarpPointer \(int x, int y\)](#)
- [FGAPI void FGAPIENTRY glutSetCursor \(int cursor\)](#)
- [FGAPI void FGAPIENTRY glutEstablishOverlay \(void\)](#)
- [FGAPI void FGAPIENTRY glutRemoveOverlay \(void\)](#)
- [FGAPI void FGAPIENTRY glutUseLayer \(GLenum layer\)](#)
- [FGAPI void FGAPIENTRY glutPostOverlayRedisplay \(void\)](#)
- [FGAPI void FGAPIENTRY glutPostWindowOverlayRedisplay \(int window\)](#)
- [FGAPI void FGAPIENTRY glutShowOverlay \(void\)](#)
- [FGAPI void FGAPIENTRY glutHideOverlay \(void\)](#)
- [FGAPI int FGAPIENTRY glutCreateMenu \(void\(*callback\)\(int menu\)\)](#)
- [FGAPI void FGAPIENTRY glutDestroyMenu \(int menu\)](#)
- [FGAPI int FGAPIENTRY glutGetMenu \(void\)](#)
- [FGAPI void FGAPIENTRY glutSetMenu \(int menu\)](#)
- [FGAPI void FGAPIENTRY glutAddMenuEntry \(const char *label, int value\)](#)
- [FGAPI void FGAPIENTRY glutAddSubMenu \(const char *label, int subMenu\)](#)
- [FGAPI void FGAPIENTRY glutChangeToMenuEntry \(int item, const char *label, int value\)](#)
- [FGAPI void FGAPIENTRY glutChangeToSubMenu \(int item, const char *label, int value\)](#)
- [FGAPI void FGAPIENTRY glutRemoveMenuItem \(int item\)](#)
- [FGAPI void FGAPIENTRY glutAttachMenu \(int button\)](#)
- [FGAPI void FGAPIENTRY glutDetachMenu \(int button\)](#)
- [FGAPI void FGAPIENTRY glutTimerFunc \(unsigned int time, void\(*callback\)\(int\), int value\)](#)
- [FGAPI void FGAPIENTRY glutIdleFunc \(void\(*callback\)\(void\)\)](#)
- [FGAPI void FGAPIENTRY glutKeyboardFunc \(void\(*callback\)\(unsigned char, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutSpecialFunc \(void\(*callback\)\(int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutReshapeFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutVisibilityFunc \(void\(*callback\)\(int\)\)](#)
- [FGAPI void FGAPIENTRY glutDisplayFunc \(void\(*callback\)\(void\)\)](#)
- [FGAPI void FGAPIENTRY glutMouseFunc \(void\(*callback\)\(int, int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutMotionFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutPassiveMotionFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutEntryFunc \(void\(*callback\)\(int\)\)](#)
- [FGAPI void FGAPIENTRY glutKeyboardUpFunc \(void\(*callback\)\(unsigned char, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutSpecialUpFunc \(void\(*callback\)\(int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutJoystickFunc \(void\(*callback\)\(unsigned int, int, int, int\), int pollInterval\)](#)
- [FGAPI void FGAPIENTRY glutMenuStateFunc \(void\(*callback\)\(int\)\)](#)
- [FGAPI void FGAPIENTRY glutMenuStatusFunc \(void\(*callback\)\(int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutOverlayDisplayFunc \(void\(*callback\)\(void\)\)](#)
- [FGAPI void FGAPIENTRY glutWindowStatusFunc \(void\(*callback\)\(int\)\)](#)
- [FGAPI void FGAPIENTRY glutSpaceballMotionFunc \(void\(*callback\)\(int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutSpaceballRotateFunc \(void\(*callback\)\(int, int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutSpaceballButtonFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutButtonBoxFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutDialsFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutTabletMotionFunc \(void\(*callback\)\(int, int\)\)](#)
- [FGAPI void FGAPIENTRY glutTabletButtonFunc \(void\(*callback\)\(int, int, int, int\)\)](#)
- [FGAPI int FGAPIENTRY glutGet \(GLenum query\)](#)
- [FGAPI int FGAPIENTRY glutDeviceGet \(GLenum query\)](#)
- [FGAPI int FGAPIENTRY glutGetModifiers \(void\)](#)
- [FGAPI int FGAPIENTRY glutLayerGet \(GLenum query\)](#)
- [FGAPI void FGAPIENTRY glutBitmapCharacter \(void *font, int character\)](#)

- [FGAPI int FGAPIENTRY glutBitmapWidth](#) (void *font, int character)
- [FGAPI void FGAPIENTRY glutStrokeCharacter](#) (void *font, int character)
- [FGAPI int FGAPIENTRY glutStrokeWidth](#) (void *font, int character)
- [FGAPI GLfloat FGAPIENTRY glutStrokeWidthf](#) (void *font, int character)
- [FGAPI int FGAPIENTRY glutBitmapLength](#) (void *font, const unsigned char *string)
- [FGAPI int FGAPIENTRY glutStrokeLength](#) (void *font, const unsigned char *string)
- [FGAPI GLfloat FGAPIENTRY glutStrokeLengthf](#) (void *font, const unsigned char *string)
- [FGAPI void FGAPIENTRY glutWireCube](#) (double size)
- [FGAPI void FGAPIENTRY glutSolidCube](#) (double size)
- [FGAPI void FGAPIENTRY glutWireSphere](#) (double radius, GLint slices, GLint stacks)
- [FGAPI void FGAPIENTRY glutSolidSphere](#) (double radius, GLint slices, GLint stacks)
- [FGAPI void FGAPIENTRY glutWireCone](#) (double base, double height, GLint slices, GLint stacks)
- [FGAPI void FGAPIENTRY glutSolidCone](#) (double base, double height, GLint slices, GLint stacks)
- [FGAPI void FGAPIENTRY glutWireTorus](#) (double innerRadius, double outerRadius, GLint sides, GLint rings)
- [FGAPI void FGAPIENTRY glutSolidTorus](#) (double innerRadius, double outerRadius, GLint sides, GLint rings)
- [FGAPI void FGAPIENTRY glutWireDodecahedron](#) (void)
- [FGAPI void FGAPIENTRY glutSolidDodecahedron](#) (void)
- [FGAPI void FGAPIENTRY glutWireOctahedron](#) (void)
- [FGAPI void FGAPIENTRY glutSolidOctahedron](#) (void)
- [FGAPI void FGAPIENTRY glutWireTetrahedron](#) (void)
- [FGAPI void FGAPIENTRY glutSolidTetrahedron](#) (void)
- [FGAPI void FGAPIENTRY glutWireIcosahedron](#) (void)
- [FGAPI void FGAPIENTRY glutSolidIcosahedron](#) (void)
- [FGAPI void FGAPIENTRY glutWireTeapot](#) (double size)
- [FGAPI void FGAPIENTRY glutSolidTeapot](#) (double size)
- [FGAPI void FGAPIENTRY glutGameModeString](#) (const char *string)
- [FGAPI int FGAPIENTRY glutEnterGameMode](#) (void)
- [FGAPI void FGAPIENTRY glutLeaveGameMode](#) (void)
- [FGAPI int FGAPIENTRY glutGameModeGet](#) (GLenum query)
- [FGAPI int FGAPIENTRY glutVideoResizeGet](#) (GLenum query)
- [FGAPI void FGAPIENTRY glutSetupVideoResizing](#) (void)
- [FGAPI void FGAPIENTRY glutStopVideoResizing](#) (void)
- [FGAPI void FGAPIENTRY glutVideoResize](#) (int x, int y, int width, int height)
- [FGAPI void FGAPIENTRY glutVideoPan](#) (int x, int y, int width, int height)
- [FGAPI void FGAPIENTRY glutSetColor](#) (int color, GLfloat red, GLfloat green, GLfloat blue)
- [FGAPI GLfloat FGAPIENTRY glutGetColor](#) (int color, int component)
- [FGAPI void FGAPIENTRY glutCopyColormap](#) (int window)
- [FGAPI void FGAPIENTRY glutIgnoreKeyRepeat](#) (int ignore)
- [FGAPI void FGAPIENTRY glutSetKeyRepeat](#) (int repeatMode)
- [FGAPI void FGAPIENTRY glutForceJoystickFunc](#) (void)
- [FGAPI int FGAPIENTRY glutExtensionSupported](#) (const char *extension)
- [FGAPI void FGAPIENTRY glutReportErrors](#) (void)

Variables

- void * [glutStrokeRoman](#)
- void * [glutStrokeMonoRoman](#)
- void * [glutBitmap9By15](#)
- void * [glutBitmap8By13](#)
- void * [glutBitmapTimesRoman10](#)
- void * [glutBitmapTimesRoman24](#)
- void * [glutBitmapHelvetica10](#)
- void * [glutBitmapHelvetica12](#)
- void * [glutBitmapHelvetica18](#)

5.11.1 Macro Definition Documentation

5.11.1.1 `#define FGAPI`

5.11.1.2 `#define FGAPIENTRY`

5.11.1.3 `#define FREEGLUT 1`

5.11.1.4 `#define FREEGLUT_VERSION_2_0 1`

5.11.1.5 `#define GLUT_ACCUM 0x0004`

5.11.1.6 `#define GLUT_ACTIVE_ALT 0x0004`

5.11.1.7 `#define GLUT_ACTIVE_CTRL 0x0002`

5.11.1.8 `#define GLUT_ACTIVE_SHIFT 0x0001`

5.11.1.9 `#define GLUT_ALPHA 0x0008`

5.11.1.10 `#define GLUT_API_VERSION 4`

5.11.1.11 `#define GLUT_BITMAP_8_BY_13 ((void *) &glutBitmap8By13)`

5.11.1.12 `#define GLUT_BITMAP_9_BY_15 ((void *) &glutBitmap9By15)`

5.11.1.13 `#define GLUT_BITMAP_HELVETICA_10 ((void *) &glutBitmapHelvetica10)`

5.11.1.14 `#define GLUT_BITMAP_HELVETICA_12 ((void *) &glutBitmapHelvetica12)`

5.11.1.15 `#define GLUT_BITMAP_HELVETICA_18 ((void *) &glutBitmapHelvetica18)`

5.11.1.16 `#define GLUT_BITMAP_TIMES_ROMAN_10 ((void *) &glutBitmapTimesRoman10)`

5.11.1.17 `#define GLUT_BITMAP_TIMES_ROMAN_24 ((void *) &glutBitmapTimesRoman24)`

5.11.1.18 `#define GLUT_BLUE 0x0002`

5.11.1.19 `#define GLUT_CURSOR_BOTTOM_LEFT_CORNER 0x0013`

5.11.1.20 `#define GLUT_CURSOR_BOTTOM_RIGHT_CORNER 0x0012`

5.11.1.21 `#define GLUT_CURSOR_BOTTOM_SIDE 0x000D`

5.11.1.22 `#define GLUT_CURSOR_CROSSHAIR 0x0009`

- 5.11.1.23 `#define GLUT_CURSOR_CYCLE 0x0005`
- 5.11.1.24 `#define GLUT_CURSOR_DESTROY 0x0003`
- 5.11.1.25 `#define GLUT_CURSOR_FULL_CROSSHAIR 0x0066`
- 5.11.1.26 `#define GLUT_CURSOR_HELP 0x0004`
- 5.11.1.27 `#define GLUT_CURSOR_INFO 0x0002`
- 5.11.1.28 `#define GLUT_CURSOR_INHERIT 0x0064`
- 5.11.1.29 `#define GLUT_CURSOR_LEFT_ARROW 0x0001`
- 5.11.1.30 `#define GLUT_CURSOR_LEFT_RIGHT 0x000B`
- 5.11.1.31 `#define GLUT_CURSOR_LEFT_SIDE 0x000E`
- 5.11.1.32 `#define GLUT_CURSOR_NONE 0x0065`
- 5.11.1.33 `#define GLUT_CURSOR_RIGHT_ARROW 0x0000`
- 5.11.1.34 `#define GLUT_CURSOR_RIGHT_SIDE 0x000F`
- 5.11.1.35 `#define GLUT_CURSOR_SPRAY 0x0006`
- 5.11.1.36 `#define GLUT_CURSOR_TEXT 0x0008`
- 5.11.1.37 `#define GLUT_CURSOR_TOP_LEFT_CORNER 0x0010`
- 5.11.1.38 `#define GLUT_CURSOR_TOP_RIGHT_CORNER 0x0011`
- 5.11.1.39 `#define GLUT_CURSOR_TOP_SIDE 0x000C`
- 5.11.1.40 `#define GLUT_CURSOR_UP_DOWN 0x000A`
- 5.11.1.41 `#define GLUT_CURSOR_WAIT 0x0007`
- 5.11.1.42 `#define GLUT_DEPTH 0x0010`
- 5.11.1.43 `#define GLUT_DEVICE_IGNORE_KEY_REPEAT 0x0262`
- 5.11.1.44 `#define GLUT_DEVICE_KEY_REPEAT 0x0263`
- 5.11.1.45 `#define GLUT_DISPLAY_MODE_POSSIBLE 0x0190`

5.11.1.46 `#define GLUT_DOUBLE 0x0002`

5.11.1.47 `#define GLUT_DOWN 0x0000`

5.11.1.48 `#define GLUT_ELAPSED_TIME 0x02BC`

5.11.1.49 `#define GLUT_ENTERED 0x0001`

5.11.1.50 `#define GLUT_FULLY_COVERED 0x0003`

5.11.1.51 `#define GLUT_FULLY_RETAINED 0x0001`

5.11.1.52 `#define GLUT_GAME_MODE_ACTIVE 0x0000`

5.11.1.53 `#define GLUT_GAME_MODE_DISPLAY_CHANGED 0x0006`

5.11.1.54 `#define GLUT_GAME_MODE_HEIGHT 0x0003`

5.11.1.55 `#define GLUT_GAME_MODE_PIXEL_DEPTH 0x0004`

5.11.1.56 `#define GLUT_GAME_MODE_POSSIBLE 0x0001`

5.11.1.57 `#define GLUT_GAME_MODE_REFRESH_RATE 0x0005`

5.11.1.58 `#define GLUT_GAME_MODE_WIDTH 0x0002`

5.11.1.59 `#define GLUT_GREEN 0x0001`

5.11.1.60 `#define GLUT_HAS_DIAL_AND_BUTTON_BOX 0x025B`

5.11.1.61 `#define GLUT_HAS_JOYSTICK 0x0264`

5.11.1.62 `#define GLUT_HAS_KEYBOARD 0x0258`

5.11.1.63 `#define GLUT_HAS_MOUSE 0x0259`

5.11.1.64 `#define GLUT_HAS_OVERLAY 0x0322`

5.11.1.65 `#define GLUT_HAS_SPACEBALL 0x025A`

5.11.1.66 `#define GLUT_HAS_TABLET 0x025C`

5.11.1.67 `#define GLUT_HIDDEN 0x0000`

5.11.1.68 `#define GLUT_INDEX 0x0001`

5.11.1.69 `#define GLUT_INIT_DISPLAY_MODE 0x01F8`

5.11.1.70 `#define GLUT_INIT_WINDOW_HEIGHT 0x01F7`

5.11.1.71 `#define GLUT_INIT_WINDOW_WIDTH 0x01F6`

5.11.1.72 `#define GLUT_INIT_WINDOW_X 0x01F4`

5.11.1.73 `#define GLUT_INIT_WINDOW_Y 0x01F5`

5.11.1.74 `#define GLUT_JOYSTICK_AXES 0x0267`

5.11.1.75 `#define GLUT_JOYSTICK_BUTTON_A 0x0001`

5.11.1.76 `#define GLUT_JOYSTICK_BUTTON_B 0x0002`

5.11.1.77 `#define GLUT_JOYSTICK_BUTTON_C 0x0004`

5.11.1.78 `#define GLUT_JOYSTICK_BUTTON_D 0x0008`

5.11.1.79 `#define GLUT_JOYSTICK_BUTTONS 0x0266`

5.11.1.80 `#define GLUT_JOYSTICK_POLL_RATE 0x0268`

5.11.1.81 `#define GLUT_KEY_DOWN 0x0067`

5.11.1.82 `#define GLUT_KEY_END 0x006B`

5.11.1.83 `#define GLUT_KEY_F1 0x0001`

5.11.1.84 `#define GLUT_KEY_F10 0x000A`

5.11.1.85 `#define GLUT_KEY_F11 0x000B`

5.11.1.86 `#define GLUT_KEY_F12 0x000C`

5.11.1.87 `#define GLUT_KEY_F2 0x0002`

5.11.1.88 `#define GLUT_KEY_F3 0x0003`

5.11.1.89 `#define GLUT_KEY_F4 0x0004`

5.11.1.90 `#define GLUT_KEY_F5 0x0005`

5.11.1.91 `#define GLUT_KEY_F6 0x0006`

5.11.1.92 `#define GLUT_KEY_F7 0x0007`

5.11.1.93 `#define GLUT_KEY_F8 0x0008`

5.11.1.94 `#define GLUT_KEY_F9 0x0009`

5.11.1.95 `#define GLUT_KEY_HOME 0x006A`

5.11.1.96 `#define GLUT_KEY_INSERT 0x006C`

5.11.1.97 `#define GLUT_KEY_LEFT 0x0064`

5.11.1.98 `#define GLUT_KEY_PAGE_DOWN 0x0069`

5.11.1.99 `#define GLUT_KEY_PAGE_UP 0x0068`

5.11.1.100 `#define GLUT_KEY_REPEAT_DEFAULT 0x0002`

5.11.1.101 `#define GLUT_KEY_REPEAT_OFF 0x0000`

5.11.1.102 `#define GLUT_KEY_REPEAT_ON 0x0001`

5.11.1.103 `#define GLUT_KEY_RIGHT 0x0066`

5.11.1.104 `#define GLUT_KEY_UP 0x0065`

5.11.1.105 `#define GLUT_LAYER_IN_USE 0x0321`

5.11.1.106 `#define GLUT_LEFT 0x0000`

5.11.1.107 `#define GLUT_LEFT_BUTTON 0x0000`

5.11.1.108 `#define GLUT_LUMINANCE 0x0200`

5.11.1.109 `#define GLUT_MENU_IN_USE 0x0001`

5.11.1.110 `#define GLUT_MENU_NOT_IN_USE 0x0000`

5.11.1.111 `#define GLUT_MENU_NUM_ITEMS 0x012C`

5.11.1.112 `#define GLUT_MIDDLE_BUTTON 0x0001`

5.11.1.113 `#define GLUT_MULTISAMPLE 0x0080`

5.11.1.114 `#define GLUT_NORMAL 0x0000`

5.11.1.115 `#define GLUT_NORMAL_DAMAGED 0x0324`

5.11.1.116 `#define GLUT_NOT_VISIBLE 0x0000`

5.11.1.117 `#define GLUT_NUM_BUTTON_BOX_BUTTONS 0x025F`

5.11.1.118 `#define GLUT_NUM_DIALS 0x0260`

5.11.1.119 `#define GLUT_NUM_MOUSE_BUTTONS 0x025D`

5.11.1.120 `#define GLUT_NUM_SPACEBALL_BUTTONS 0x025E`

5.11.1.121 `#define GLUT_NUM_TABLET_BUTTONS 0x0261`

5.11.1.122 `#define GLUT_OVERLAY 0x0001`

5.11.1.123 `#define GLUT_OVERLAY_DAMAGED 0x0325`

5.11.1.124 `#define GLUT_OVERLAY_POSSIBLE 0x0320`

5.11.1.125 `#define GLUT_OWNS_JOYSTICK 0x0265`

5.11.1.126 `#define GLUT_PARTIALLY_RETAINED 0x0002`

5.11.1.127 `#define GLUT_RED 0x0000`

5.11.1.128 `#define GLUT_RGB 0x0000`

5.11.1.129 `#define GLUT_RGBA 0x0000`

5.11.1.130 `#define GLUT_RIGHT_BUTTON 0x0002`

5.11.1.131 `#define GLUT_SCREEN_HEIGHT 0x00C9`

5.11.1.132 `#define GLUT_SCREEN_HEIGHT_MM 0x00CB`

5.11.1.133 `#define GLUT_SCREEN_WIDTH 0x00C8`

5.11.1.134 `#define GLUT_SCREEN_WIDTH_MM 0x00CA`

5.11.1.135 `#define GLUT_SINGLE 0x0000`

5.11.1.136 `#define GLUT_STENCIL 0x0020`

5.11.1.137 `#define GLUT_STEREO 0x0100`

5.11.1.138 `#define GLUT_STROKE_MONO_ROMAN ((void *) &glutStrokeMonoRoman)`

5.11.1.139 `#define GLUT_STROKE_ROMAN ((void *) &glutStrokeRoman)`

5.11.1.140 `#define GLUT_TRANSPARENT_INDEX 0x0323`

5.11.1.141 `#define GLUT_UP 0x0001`

5.11.1.142 `#define GLUT_VIDEO_RESIZE_HEIGHT 0x038D`

5.11.1.143 `#define GLUT_VIDEO_RESIZE_HEIGHT_DELTA 0x0389`

5.11.1.144 `#define GLUT_VIDEO_RESIZE_IN_USE 0x0385`

5.11.1.145 `#define GLUT_VIDEO_RESIZE_POSSIBLE 0x0384`

5.11.1.146 `#define GLUT_VIDEO_RESIZE_WIDTH 0x038C`

5.11.1.147 `#define GLUT_VIDEO_RESIZE_WIDTH_DELTA 0x0388`

5.11.1.148 `#define GLUT_VIDEO_RESIZE_X 0x038A`

5.11.1.149 `#define GLUT_VIDEO_RESIZE_X_DELTA 0x0386`

5.11.1.150 `#define GLUT_VIDEO_RESIZE_Y 0x038B`

5.11.1.151 `#define GLUT_VIDEO_RESIZE_Y_DELTA 0x0387`

5.11.1.152 `#define GLUT_VISIBLE 0x0001`

5.11.1.153 `#define GLUT_WINDOW_ACCUM_ALPHA_SIZE 0x0072`

5.11.1.154 `#define GLUT_WINDOW_ACCUM_BLUE_SIZE 0x0071`

5.11.1.155 `#define GLUT_WINDOW_ACCUM_GREEN_SIZE 0x0070`

5.11.1.156 `#define GLUT_WINDOW_ACCUM_RED_SIZE 0x006F`

5.11.1.157 `#define GLUT_WINDOW_ALPHA_SIZE 0x006E`

5.11.1.158 `#define GLUT_WINDOW_BLUE_SIZE 0x006D`

5.11.1.159 `#define GLUT_WINDOW_BUFFER_SIZE 0x0068`

5.11.1.160 `#define GLUT_WINDOW_COLORMAP_SIZE 0x0077`

5.11.1.161 `#define GLUT_WINDOW_CURSOR 0x007A`

5.11.1.162 `#define GLUT_WINDOW_DEPTH_SIZE 0x006A`

5.11.1.163 `#define GLUT_WINDOW_DOUBLEBUFFER 0x0073`

5.11.1.164 `#define GLUT_WINDOW_FORMAT_ID 0x007B`

5.11.1.165 `#define GLUT_WINDOW_GREEN_SIZE 0x006C`

5.11.1.166 `#define GLUT_WINDOW_HEIGHT 0x0067`

5.11.1.167 `#define GLUT_WINDOW_NUM_CHILDREN 0x0076`

5.11.1.168 `#define GLUT_WINDOW_NUM_SAMPLES 0x0078`

5.11.1.169 `#define GLUT_WINDOW_PARENT 0x0075`

5.11.1.170 `#define GLUT_WINDOW_RED_SIZE 0x006B`

5.11.1.171 `#define GLUT_WINDOW_RGBA 0x0074`

5.11.1.172 `#define GLUT_WINDOW_STENCIL_SIZE 0x0069`

5.11.1.173 `#define GLUT_WINDOW_STEREO 0x0079`

5.11.1.174 `#define GLUT_WINDOW_WIDTH 0x0066`

5.11.1.175 `#define GLUT_WINDOW_X 0x0064`

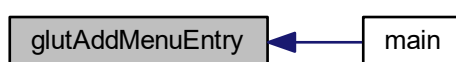
5.11.1.176 `#define GLUT_WINDOW_Y 0x0065`

5.11.1.177 `#define GLUT_XLIB_IMPLEMENTATION 13`

5.11.2 Function Documentation

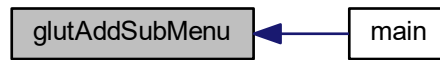
5.11.2.1 **FGAPI** void **FGAPIENTRY** glutAddMenuEntry (const char * *label*, int *value*)

Here is the caller graph for this function:



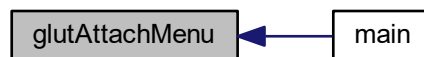
5.11.2.2 FGAPI void FGAPIENTRY glutAddSubMenu (const char * *label*, int *subMenu*)

Here is the caller graph for this function:



5.11.2.3 FGAPI void FGAPIENTRY glutAttachMenu (int *button*)

Here is the caller graph for this function:



5.11.2.4 FGAPI void FGAPIENTRY glutBitmapCharacter (void * *font*, int *character*)

Here is the caller graph for this function:



5.11.2.5 FGAPI int FGAPIENTRY glutBitmapLength (void * *font*, const unsigned char * *string*)

5.11.2.6 FGAPI int FGAPIENTRY glutBitmapWidth (void * *font*, int *character*)

5.11.2.7 FGAPI void FGAPIENTRY glutButtonBoxFunc (void(*)(int, int) *callback*)

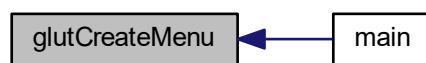
5.11.2.8 FGAPI void FGAPIENTRY glutChangeToMenuEntry (int *item*, const char * *label*, int *value*)

5.11.2.9 FGAPI void FGAPIENTRY glutChangeToSubMenu (int *item*, const char * *label*, int *value*)

5.11.2.10 FGAPI void FGAPIENTRY glutCopyColormap (int *window*)

5.11.2.11 FGAPI int FGAPIENTRY glutCreateMenu (void(*) (int menu) *callback*)

Here is the caller graph for this function:



5.11.2.12 FGAPI int FGAPIENTRY glutCreateSubWindow (int *window*, int *x*, int *y*, int *width*, int *height*)

5.11.2.13 FGAPI int FGAPIENTRY glutCreateWindow (const char * *title*)

Here is the caller graph for this function:



5.11.2.14 FGAPI void FGAPIENTRY glutDestroyMenu (int *menu*)

5.11.2.15 FGAPI void FGAPIENTRY glutDestroyWindow (int *window*)

5.11.2.16 FGAPI void FGAPIENTRY glutDetachMenu (int *button*)

5.11.2.17 FGAPI int FGAPIENTRY glutDeviceGet (GLenum *query*)

5.11.2.18 FGAPI void FGAPIENTRY glutDialsFunc (void(*) (int, int) *callback*)

5.11.2.19 **FGAPI** void **FGAPIENTRY** glutDisplayFunc (void(*)*(void)* *callback*)

Here is the caller graph for this function:



5.11.2.20 **FGAPI** int **FGAPIENTRY** glutEnterGameMode (void)

5.11.2.21 **FGAPI** void **FGAPIENTRY** glutEntryFunc (void(*)*(int)* *callback*)

5.11.2.22 **FGAPI** void **FGAPIENTRY** glutEstablishOverlay (void)

5.11.2.23 **FGAPI** int **FGAPIENTRY** glutExtensionSupported (const char * *extension*)

5.11.2.24 **FGAPI** void **FGAPIENTRY** glutForceJoystickFunc (void)

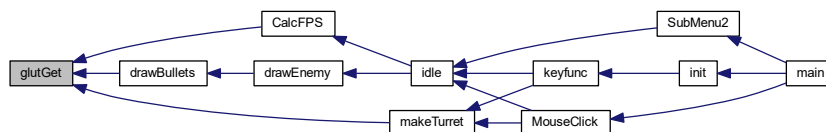
5.11.2.25 **FGAPI** void **FGAPIENTRY** glutFullScreen (void)

5.11.2.26 **FGAPI** int **FGAPIENTRY** glutGameModeGet (GLenum *query*)

5.11.2.27 **FGAPI** void **FGAPIENTRY** glutGameModeString (const char * *string*)

5.11.2.28 **FGAPI** int **FGAPIENTRY** glutGet (GLenum *query*)

Here is the caller graph for this function:



5.11.2.29 **FGAPI** GLfloat **FGAPIENTRY** glutGetColor (int *color*, int *component*)

5.11.2.30 **FGAPI** int **FGAPIENTRY** glutGetMenu (void)

5.11.2.31 **FGAPI** int **FGAPIENTRY** glutGetModifiers (void)

5.11.2.32 **FGAPI** int **FGAPIENTRY** glutGetWindow (void)

5.11.2.33 **FGAPI** void **FGAPIENTRY** glutHideOverlay (void)

5.11.2.34 **FGAPI** void **FGAPIENTRY** glutHideWindow (void)

5.11.2.35 **FGAPI** void **FGAPIENTRY** glutIconifyWindow (void)

5.11.2.36 **FGAPI** void **FGAPIENTRY** glutIdleFunc (void(*) (void) *callback*)

5.11.2.37 **FGAPI** void **FGAPIENTRY** glutIgnoreKeyRepeat (int *ignore*)

5.11.2.38 **FGAPI** void **FGAPIENTRY** glutInit (int * *argc*, char ** *argv*)

Here is the caller graph for this function:



5.11.2.39 **FGAPI** void **FGAPIENTRY** glutInitDisplayMode (unsigned int *displayMode*)

Here is the caller graph for this function:



5.11.2.40 **FGAPI** void **FGAPIENTRY** glutInitDisplayString (const char * *displayMode*)

5.11.2.41 **FGAPI** void **FGAPIENTRY** glutInitWindowPosition (int *x*, int *y*)

Here is the caller graph for this function:



5.11.2.42 **FGAPI** void **FGAPIENTRY** glutInitWindowSize (int *width*, int *height*)

Here is the caller graph for this function:



5.11.2.43 **FGAPI** void **FGAPIENTRY** glutJoystickFunc (void(*)(unsigned int, int, int, int) *callback*, int *pollInterval*)

5.11.2.44 **FGAPI** void **FGAPIENTRY** glutKeyboardFunc (void(*)(unsigned char, int, int) *callback*)

Here is the caller graph for this function:



5.11.2.45 **FGAPI** void **FGAPIENTRY** glutKeyboardUpFunc (void(*) (unsigned char, int, int) *callback*)

5.11.2.46 **FGAPI** int **FGAPIENTRY** glutLayerGet (GLenum *query*)

5.11.2.47 **FGAPI** void **FGAPIENTRY** glutLeaveGameMode (void)

5.11.2.48 **FGAPI** void **FGAPIENTRY** glutMainLoop (void)

Here is the caller graph for this function:



5.11.2.49 **FGAPI** void **FGAPIENTRY** glutMenuStateFunc (void(*) (int) *callback*)

5.11.2.50 **FGAPI** void **FGAPIENTRY** glutMenuStatusFunc (void(*) (int, int, int) *callback*)

5.11.2.51 **FGAPI** void **FGAPIENTRY** glutMotionFunc (void(*) (int, int) *callback*)

5.11.2.52 **FGAPI** void **FGAPIENTRY** glutMouseFunc (void(*) (int, int, int, int) *callback*)

Here is the caller graph for this function:



5.11.2.53 **FGAPI** void **FGAPIENTRY** glutOverlayDisplayFunc (void(*) (void) *callback*)

5.11.2.54 **FGAPI** void **FGAPIENTRY** glutPassiveMotionFunc (void(*) (int, int) *callback*)

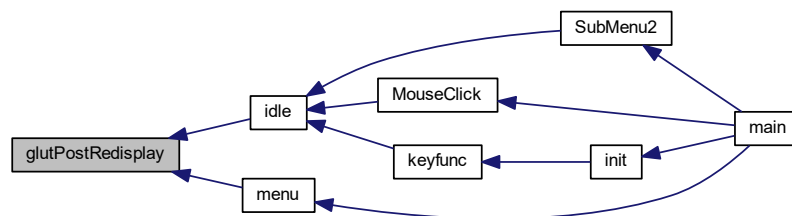
5.11.2.55 **FGAPI** void **FGAPIENTRY** glutPopWindow (void)

5.11.2.56 **FGAPI** void **FGAPIENTRY** glutPositionWindow (int *x*, int *y*)

5.11.2.57 **FGAPI** void **FGAPIENTRY** glutPostOverlayRedisplay (void)

5.11.2.58 **FGAPI** void **FGAPIENTRY** glutPostRedisplay (void)

Here is the caller graph for this function:



5.11.2.59 **FGAPI** void **FGAPIENTRY** glutPostWindowOverlayRedisplay (int *window*)

5.11.2.60 **FGAPI** void **FGAPIENTRY** glutPostWindowRedisplay (int *window*)

5.11.2.61 **FGAPI** void **FGAPIENTRY** glutPushWindow (void)

5.11.2.62 **FGAPI** void **FGAPIENTRY** glutRemoveMenuitem (int *item*)

5.11.2.63 **FGAPI** void **FGAPIENTRY** glutRemoveOverlay (void)

5.11.2.64 **FGAPI** void **FGAPIENTRY** glutReportErrors (void)

5.11.2.65 **FGAPI** void **FGAPIENTRY** glutReshapeFunc (void(*) (int, int) *callback*)

Here is the caller graph for this function:



- 5.11.2.66 FGAPI void FGAPIENTRY glutReshapeWindow (int *width*, int *height*)
- 5.11.2.67 FGAPI void FGAPIENTRY glutSetColor (int *color*, GLfloat *red*, GLfloat *green*, GLfloat *blue*)
- 5.11.2.68 FGAPI void FGAPIENTRY glutSetCursor (int *cursor*)
- 5.11.2.69 FGAPI void FGAPIENTRY glutSetIconTitle (const char * *title*)
- 5.11.2.70 FGAPI void FGAPIENTRY glutSetKeyRepeat (int *repeatMode*)
- 5.11.2.71 FGAPI void FGAPIENTRY glutSetMenu (int *menu*)
- 5.11.2.72 FGAPI void FGAPIENTRY glutSetupVideoResizing (void)
- 5.11.2.73 FGAPI void FGAPIENTRY glutSetWindow (int *window*)
- 5.11.2.74 FGAPI void FGAPIENTRY glutSetWindowTitle (const char * *title*)
- 5.11.2.75 FGAPI void FGAPIENTRY glutShowOverlay (void)
- 5.11.2.76 FGAPI void FGAPIENTRY glutShowWindow (void)
- 5.11.2.77 FGAPI void FGAPIENTRY glutSolidCone (double *base*, double *height*, GLint *slices*, GLint *stacks*)
- 5.11.2.78 FGAPI void FGAPIENTRY glutSolidCube (double *size*)
- 5.11.2.79 FGAPI void FGAPIENTRY glutSolidDodecahedron (void)
- 5.11.2.80 FGAPI void FGAPIENTRY glutSolidIcosahedron (void)
- 5.11.2.81 FGAPI void FGAPIENTRY glutSolidOctahedron (void)
- 5.11.2.82 FGAPI void FGAPIENTRY glutSolidSphere (double *radius*, GLint *slices*, GLint *stacks*)
- 5.11.2.83 FGAPI void FGAPIENTRY glutSolidTeapot (double *size*)
- 5.11.2.84 FGAPI void FGAPIENTRY glutSolidTetrahedron (void)
- 5.11.2.85 FGAPI void FGAPIENTRY glutSolidTorus (double *innerRadius*, double *outerRadius*, GLint *sides*, GLint *rings*)
- 5.11.2.86 FGAPI void FGAPIENTRY glutSpaceballButtonFunc (void(*) (int, int) *callback*)
- 5.11.2.87 FGAPI void FGAPIENTRY glutSpaceballMotionFunc (void(*) (int, int, int) *callback*)
- 5.11.2.88 FGAPI void FGAPIENTRY glutSpaceballRotateFunc (void(*) (int, int, int) *callback*)

5.11.2.89 FGAPI void FGAPIENTRY glutSpecialFunc (void(*)(int, int, int) *callback*)

5.11.2.90 FGAPI void FGAPIENTRY glutSpecialUpFunc (void(*)(int, int, int) *callback*)

5.11.2.91 FGAPI void FGAPIENTRY glutStopVideoResizing (void)

5.11.2.92 FGAPI void FGAPIENTRY glutStrokeCharacter (void * *font*, int *character*)

5.11.2.93 FGAPI int FGAPIENTRY glutStrokeLength (void * *font*, const unsigned char * *string*)

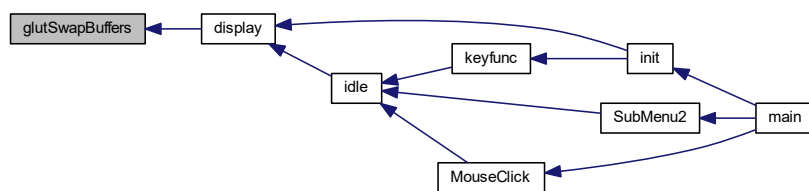
5.11.2.94 FGAPI GLfloat FGAPIENTRY glutStrokeLengthf (void * *font*, const unsigned char * *string*)

5.11.2.95 FGAPI int FGAPIENTRY glutStrokeWidth (void * *font*, int *character*)

5.11.2.96 FGAPI GLfloat FGAPIENTRY glutStrokeWidthf (void * *font*, int *character*)

5.11.2.97 FGAPI void FGAPIENTRY glutSwapBuffers (void)

Here is the caller graph for this function:

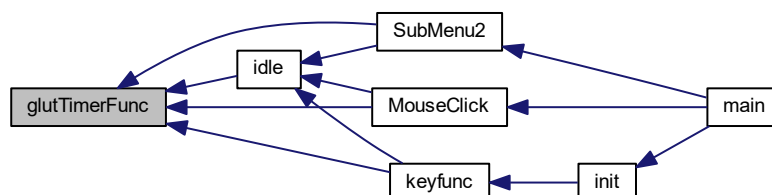


5.11.2.98 FGAPI void FGAPIENTRY glutTabletButtonFunc (void(*)(int, int, int, int) *callback*)

5.11.2.99 FGAPI void FGAPIENTRY glutTabletMotionFunc (void(*)(int, int) *callback*)

5.11.2.100 FGAPI void FGAPIENTRY glutTimerFunc (unsigned int *time*, void(*)(int) *callback*, int *value*)

Here is the caller graph for this function:



- 5.11.2.101 **FGAPI** void **FGAPIENTRY** glutUseLayer (*GLenum layer*)
- 5.11.2.102 **FGAPI** void **FGAPIENTRY** glutVideoPan (*int x, int y, int width, int height*)
- 5.11.2.103 **FGAPI** void **FGAPIENTRY** glutVideoResize (*int x, int y, int width, int height*)
- 5.11.2.104 **FGAPI** int **FGAPIENTRY** glutVideoResizeGet (*GLenum query*)
- 5.11.2.105 **FGAPI** void **FGAPIENTRY** glutVisibilityFunc (*void(*) (int) callback*)
- 5.11.2.106 **FGAPI** void **FGAPIENTRY** glutWarpPointer (*int x, int y*)
- 5.11.2.107 **FGAPI** void **FGAPIENTRY** glutWindowStatusFunc (*void(*) (int) callback*)
- 5.11.2.108 **FGAPI** void **FGAPIENTRY** glutWireCone (*double base, double height, GLint slices, GLint stacks*)
- 5.11.2.109 **FGAPI** void **FGAPIENTRY** glutWireCube (*double size*)
- 5.11.2.110 **FGAPI** void **FGAPIENTRY** glutWireDodecahedron (*void*)
- 5.11.2.111 **FGAPI** void **FGAPIENTRY** glutWireIcosahedron (*void*)
- 5.11.2.112 **FGAPI** void **FGAPIENTRY** glutWireOctahedron (*void*)
- 5.11.2.113 **FGAPI** void **FGAPIENTRY** glutWireSphere (*double radius, GLint slices, GLint stacks*)
- 5.11.2.114 **FGAPI** void **FGAPIENTRY** glutWireTeapot (*double size*)
- 5.11.2.115 **FGAPI** void **FGAPIENTRY** glutWireTetrahedron (*void*)
- 5.11.2.116 **FGAPI** void **FGAPIENTRY** glutWireTorus (*double innerRadius, double outerRadius, GLint sides, GLint rings*)

5.11.3 Variable Documentation

- 5.11.3.1 **void*** glutBitmap8By13
- 5.11.3.2 **void*** glutBitmap9By15
- 5.11.3.3 **void*** glutBitmapHelvetica10
- 5.11.3.4 **void*** glutBitmapHelvetica12
- 5.11.3.5 **void*** glutBitmapHelvetica18
- 5.11.3.6 **void*** glutBitmapTimesRoman10

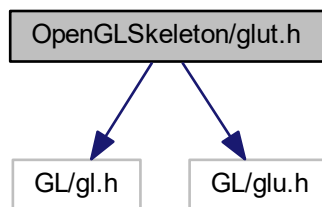
5.11.3.7 void* glutBitmapTimesRoman24

5.11.3.8 void* glutStrokeMonoRoman

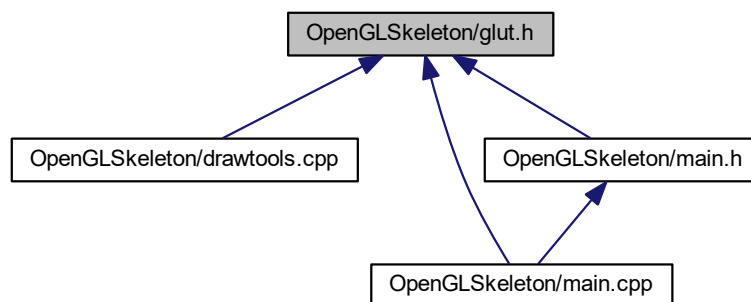
5.11.3.9 void* glutStrokeRoman

5.12 OpenGLSkeleton/glut.h File Reference

```
#include <GL/gl.h>
#include <GL/glu.h>
Include dependency graph for glut.h:
```



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



Macros

- #define [APIENTRY](#)
- #define [GLUT_APIENTRY_DEFINED](#)
- #define [CALLBACK](#)
- #define [GLUTAPI](#) extern
- #define [GLUTCALLBACK](#)

- #define `GLUT_API_VERSION` 3
- #define `GLUT_XLIB_IMPLEMENTATION` 15
- #define `GLUT_RGB` 0
- #define `GLUT_RGBA` `GLUT_RGB`
- #define `GLUT_INDEX` 1
- #define `GLUT_SINGLE` 0
- #define `GLUT_DOUBLE` 2
- #define `GLUT_ACCUM` 4
- #define `GLUT_ALPHA` 8
- #define `GLUT_DEPTH` 16
- #define `GLUT_STENCIL` 32
- #define `GLUT_MULTISAMPLE` 128
- #define `GLUT_STEREO` 256
- #define `GLUT_LUMINANCE` 512
- #define `GLUT_LEFT_BUTTON` 0
- #define `GLUT_MIDDLE_BUTTON` 1
- #define `GLUT_RIGHT_BUTTON` 2
- #define `GLUT_WHEEL_UP` 3
- #define `GLUT_WHEEL_DOWN` 4
- #define `GLUT_XBUTTON1` 5
- #define `GLUT_XBUTTON2` 6
- #define `GLUT_DOWN` 0
- #define `GLUT_UP` 1
- #define `GLUT_KEY_F1` 1
- #define `GLUT_KEY_F2` 2
- #define `GLUT_KEY_F3` 3
- #define `GLUT_KEY_F4` 4
- #define `GLUT_KEY_F5` 5
- #define `GLUT_KEY_F6` 6
- #define `GLUT_KEY_F7` 7
- #define `GLUT_KEY_F8` 8
- #define `GLUT_KEY_F9` 9
- #define `GLUT_KEY_F10` 10
- #define `GLUT_KEY_F11` 11
- #define `GLUT_KEY_F12` 12
- #define `GLUT_KEY_LEFT` 100
- #define `GLUT_KEY_UP` 101
- #define `GLUT_KEY_RIGHT` 102
- #define `GLUT_KEY_DOWN` 103
- #define `GLUT_KEY_PAGE_UP` 104
- #define `GLUT_KEY_PAGE_DOWN` 105
- #define `GLUT_KEY_HOME` 106
- #define `GLUT_KEY_END` 107
- #define `GLUT_KEY_INSERT` 108
- #define `GLUT_LEFT` 0
- #define `GLUT_ENTERED` 1
- #define `GLUT_MENU_NOT_IN_USE` 0
- #define `GLUT_MENU_IN_USE` 1
- #define `GLUT_NOT_VISIBLE` 0
- #define `GLUT_VISIBLE` 1
- #define `GLUT_HIDDEN` 0
- #define `GLUT_FULLY_RETAINED` 1
- #define `GLUT_PARTIALLY_RETAINED` 2
- #define `GLUT_FULLY_COVERED` 3
- #define `GLUT_RED` 0

- #define [GLUT_GREEN](#) 1
- #define [GLUT_BLUE](#) 2
- #define [GLUT_STROKE_ROMAN](#) (&glutStrokeRoman)
- #define [GLUT_STROKE_MONO_ROMAN](#) (&glutStrokeMonoRoman)
- #define [GLUT_BITMAP_9_BY_15](#) (&glutBitmap9By15)
- #define [GLUT_BITMAP_8_BY_13](#) (&glutBitmap8By13)
- #define [GLUT_BITMAP_TIMES_ROMAN_10](#) (&glutBitmapTimesRoman10)
- #define [GLUT_BITMAP_TIMES_ROMAN_24](#) (&glutBitmapTimesRoman24)
- #define [GLUT_BITMAP_HELVETICA_10](#) (&glutBitmapHelvetica10)
- #define [GLUT_BITMAP_HELVETICA_12](#) (&glutBitmapHelvetica12)
- #define [GLUT_BITMAP_HELVETICA_18](#) (&glutBitmapHelvetica18)
- #define [GLUT_WINDOW_X](#) ((GLenum) 100)
- #define [GLUT_WINDOW_Y](#) ((GLenum) 101)
- #define [GLUT_WINDOW_WIDTH](#) ((GLenum) 102)
- #define [GLUT_WINDOW_HEIGHT](#) ((GLenum) 103)
- #define [GLUT_WINDOW_BUFFER_SIZE](#) ((GLenum) 104)
- #define [GLUT_WINDOW_STENCIL_SIZE](#) ((GLenum) 105)
- #define [GLUT_WINDOW_DEPTH_SIZE](#) ((GLenum) 106)
- #define [GLUT_WINDOW_RED_SIZE](#) ((GLenum) 107)
- #define [GLUT_WINDOW_GREEN_SIZE](#) ((GLenum) 108)
- #define [GLUT_WINDOW_BLUE_SIZE](#) ((GLenum) 109)
- #define [GLUT_WINDOW_ALPHA_SIZE](#) ((GLenum) 110)
- #define [GLUT_WINDOW_ACCUM_RED_SIZE](#) ((GLenum) 111)
- #define [GLUT_WINDOW_ACCUM_GREEN_SIZE](#) ((GLenum) 112)
- #define [GLUT_WINDOW_ACCUM_BLUE_SIZE](#) ((GLenum) 113)
- #define [GLUT_WINDOW_ACCUM_ALPHA_SIZE](#) ((GLenum) 114)
- #define [GLUT_WINDOW_DOUBLEBUFFER](#) ((GLenum) 115)
- #define [GLUT_WINDOW_RGBA](#) ((GLenum) 116)
- #define [GLUT_WINDOW_PARENT](#) ((GLenum) 117)
- #define [GLUT_WINDOW_NUM_CHILDREN](#) ((GLenum) 118)
- #define [GLUT_WINDOW_COLORMAP_SIZE](#) ((GLenum) 119)
- #define [GLUT_WINDOW_NUM_SAMPLES](#) ((GLenum) 120)
- #define [GLUT_WINDOW_STEREO](#) ((GLenum) 121)
- #define [GLUT_WINDOW_CURSOR](#) ((GLenum) 122)
- #define [GLUT_SCREEN_WIDTH](#) ((GLenum) 200)
- #define [GLUT_SCREEN_HEIGHT](#) ((GLenum) 201)
- #define [GLUT_SCREEN_WIDTH_MM](#) ((GLenum) 202)
- #define [GLUT_SCREEN_HEIGHT_MM](#) ((GLenum) 203)
- #define [GLUT_MENU_NUM_ITEMS](#) ((GLenum) 300)
- #define [GLUT_DISPLAY_MODE_POSSIBLE](#) ((GLenum) 400)
- #define [GLUT_INIT_WINDOW_X](#) ((GLenum) 500)
- #define [GLUT_INIT_WINDOW_Y](#) ((GLenum) 501)
- #define [GLUT_INIT_WINDOW_WIDTH](#) ((GLenum) 502)
- #define [GLUT_INIT_WINDOW_HEIGHT](#) ((GLenum) 503)
- #define [GLUT_INIT_DISPLAY_MODE](#) ((GLenum) 504)
- #define [GLUT_ELAPSED_TIME](#) ((GLenum) 700)
- #define [GLUT_WINDOW_FORMAT_ID](#) ((GLenum) 123)
- #define [GLUT_HAS_KEYBOARD](#) ((GLenum) 600)
- #define [GLUT_HAS_MOUSE](#) ((GLenum) 601)
- #define [GLUT_HAS_SPACEBALL](#) ((GLenum) 602)
- #define [GLUT_HAS_DIAL_AND_BUTTON_BOX](#) ((GLenum) 603)
- #define [GLUT_HAS_TABLET](#) ((GLenum) 604)
- #define [GLUT_NUM_MOUSE_BUTTONS](#) ((GLenum) 605)
- #define [GLUT_NUM_SPACEBALL_BUTTONS](#) ((GLenum) 606)
- #define [GLUT_NUM_BUTTON_BOX_BUTTONS](#) ((GLenum) 607)

- `#define GLUT_NUM_DIALS ((GLenum) 608)`
- `#define GLUT_NUM_TABLET_BUTTONS ((GLenum) 609)`
- `#define GLUT_DEVICE_IGNORE_KEY_REPEAT ((GLenum) 610)`
- `#define GLUT_DEVICE_KEY_REPEAT ((GLenum) 611)`
- `#define GLUT_HAS_JOYSTICK ((GLenum) 612)`
- `#define GLUT_OWNS_JOYSTICK ((GLenum) 613)`
- `#define GLUT_JOYSTICK_BUTTONS ((GLenum) 614)`
- `#define GLUT_JOYSTICK_AXES ((GLenum) 615)`
- `#define GLUT_JOYSTICK_POLL_RATE ((GLenum) 616)`
- `#define GLUT_OVERLAY_POSSIBLE ((GLenum) 800)`
- `#define GLUT_LAYER_IN_USE ((GLenum) 801)`
- `#define GLUT_HAS_OVERLAY ((GLenum) 802)`
- `#define GLUT_TRANSPARENT_INDEX ((GLenum) 803)`
- `#define GLUT_NORMAL_DAMAGED ((GLenum) 804)`
- `#define GLUT_OVERLAY_DAMAGED ((GLenum) 805)`
- `#define GLUT_VIDEO_RESIZE_POSSIBLE ((GLenum) 900)`
- `#define GLUT_VIDEO_RESIZE_IN_USE ((GLenum) 901)`
- `#define GLUT_VIDEO_RESIZE_X_DELTA ((GLenum) 902)`
- `#define GLUT_VIDEO_RESIZE_Y_DELTA ((GLenum) 903)`
- `#define GLUT_VIDEO_RESIZE_WIDTH_DELTA ((GLenum) 904)`
- `#define GLUT_VIDEO_RESIZE_HEIGHT_DELTA ((GLenum) 905)`
- `#define GLUT_VIDEO_RESIZE_X ((GLenum) 906)`
- `#define GLUT_VIDEO_RESIZE_Y ((GLenum) 907)`
- `#define GLUT_VIDEO_RESIZE_WIDTH ((GLenum) 908)`
- `#define GLUT_VIDEO_RESIZE_HEIGHT ((GLenum) 909)`
- `#define GLUT_NORMAL ((GLenum) 0)`
- `#define GLUT_OVERLAY ((GLenum) 1)`
- `#define GLUT_ACTIVE_SHIFT 1`
- `#define GLUT_ACTIVE_CTRL 2`
- `#define GLUT_ACTIVE_ALT 4`
- `#define GLUT_CURSOR_RIGHT_ARROW 0`
- `#define GLUT_CURSOR_LEFT_ARROW 1`
- `#define GLUT_CURSOR_INFO 2`
- `#define GLUT_CURSOR_DESTROY 3`
- `#define GLUT_CURSOR_HELP 4`
- `#define GLUT_CURSOR_CYCLE 5`
- `#define GLUT_CURSOR_SPRAY 6`
- `#define GLUT_CURSOR_WAIT 7`
- `#define GLUT_CURSOR_TEXT 8`
- `#define GLUT_CURSOR_CROSSHAIR 9`
- `#define GLUT_CURSOR_UP_DOWN 10`
- `#define GLUT_CURSOR_LEFT_RIGHT 11`
- `#define GLUT_CURSOR_TOP_SIDE 12`
- `#define GLUT_CURSOR_BOTTOM_SIDE 13`
- `#define GLUT_CURSOR_LEFT_SIDE 14`
- `#define GLUT_CURSOR_RIGHT_SIDE 15`
- `#define GLUT_CURSOR_TOP_LEFT_CORNER 16`
- `#define GLUT_CURSOR_TOP_RIGHT_CORNER 17`
- `#define GLUT_CURSOR_BOTTOM_RIGHT_CORNER 18`
- `#define GLUT_CURSOR_BOTTOM_LEFT_CORNER 19`
- `#define GLUT_CURSOR_INHERIT 100`
- `#define GLUT_CURSOR_NONE 101`
- `#define GLUT_CURSOR_FULL_CROSSHAIR 102`
- `#define GLUT_KEY_REPEAT_OFF 0`
- `#define GLUT_KEY_REPEAT_ON 1`

- `#define GLUT_KEY_REPEAT_DEFAULT 2`
- `#define GLUT_JOYSTICK_BUTTON_A 1`
- `#define GLUT_JOYSTICK_BUTTON_B 2`
- `#define GLUT_JOYSTICK_BUTTON_C 4`
- `#define GLUT_JOYSTICK_BUTTON_D 8`
- `#define GLUT_GAME_MODE_ACTIVE ((GLenum) 0)`
- `#define GLUT_GAME_MODE_POSSIBLE ((GLenum) 1)`
- `#define GLUT_GAME_MODE_WIDTH ((GLenum) 2)`
- `#define GLUT_GAME_MODE_HEIGHT ((GLenum) 3)`
- `#define GLUT_GAME_MODE_PIXEL_DEPTH ((GLenum) 4)`
- `#define GLUT_GAME_MODE_REFRESH_RATE ((GLenum) 5)`
- `#define GLUT_GAME_MODE_DISPLAY_CHANGED ((GLenum) 6)`

Functions

- `void exit (int)`
- `GLUTAPI void APIENTRY glutInit (int *argc, char **argv)`
- `GLUTAPI void APIENTRY glutInitDisplayMode (unsigned int mode)`
- `GLUTAPI void APIENTRY glutInitDisplayString (const char *string)`
- `GLUTAPI void APIENTRY glutInitWindowPosition (int x, int y)`
- `GLUTAPI void APIENTRY glutInitWindowSize (int width, int height)`
- `GLUTAPI void APIENTRY glutMainLoop (void)`
- `GLUTAPI int APIENTRY glutCreateWindow (const char *title)`
- `GLUTAPI int APIENTRY glutCreateSubWindow (int win, int x, int y, int width, int height)`
- `GLUTAPI void APIENTRY glutDestroyWindow (int win)`
- `GLUTAPI void APIENTRY glutPostRedisplay (void)`
- `GLUTAPI void APIENTRY glutPostWindowRedisplay (int win)`
- `GLUTAPI void APIENTRY glutSwapBuffers (void)`
- `GLUTAPI int APIENTRY glutGetWindow (void)`
- `GLUTAPI void APIENTRY glutSetWindow (int win)`
- `GLUTAPI void APIENTRY glutSetWindowTitle (const char *title)`
- `GLUTAPI void APIENTRY glutSetIconTitle (const char *title)`
- `GLUTAPI void APIENTRY glutPositionWindow (int x, int y)`
- `GLUTAPI void APIENTRY glutReshapeWindow (int width, int height)`
- `GLUTAPI void APIENTRY glutPopWindow (void)`
- `GLUTAPI void APIENTRY glutPushWindow (void)`
- `GLUTAPI void APIENTRY glutIconifyWindow (void)`
- `GLUTAPI void APIENTRY glutShowWindow (void)`
- `GLUTAPI void APIENTRY glutHideWindow (void)`
- `GLUTAPI void APIENTRY glutFullScreen (void)`
- `GLUTAPI void APIENTRY glutSetCursor (int cursor)`
- `GLUTAPI void APIENTRY glutWarpPointer (int x, int y)`
- `GLUTAPI void APIENTRY glutEstablishOverlay (void)`
- `GLUTAPI void APIENTRY glutRemoveOverlay (void)`
- `GLUTAPI void APIENTRY glutUseLayer (GLenum layer)`
- `GLUTAPI void APIENTRY glutPostOverlayRedisplay (void)`
- `GLUTAPI void APIENTRY glutPostWindowOverlayRedisplay (int win)`
- `GLUTAPI void APIENTRY glutShowOverlay (void)`
- `GLUTAPI void APIENTRY glutHideOverlay (void)`
- `GLUTAPI int APIENTRY glutCreateMenu (void(GLUTCALLBACK *func)(int))`
- `GLUTAPI void APIENTRY glutDestroyMenu (int menu)`
- `GLUTAPI int APIENTRY glutGetMenu (void)`
- `GLUTAPI void APIENTRY glutSetMenu (int menu)`
- `GLUTAPI void APIENTRY glutAddMenuEntry (const char *label, int value)`

- GLUTAPI void APIENTRY glutAddSubMenu (const char *label, int submenu)
- GLUTAPI void APIENTRY glutChangeToMenuEntry (int item, const char *label, int value)
- GLUTAPI void APIENTRY glutChangeToSubMenu (int item, const char *label, int submenu)
- GLUTAPI void APIENTRY glutRemoveMenuItem (int item)
- GLUTAPI void APIENTRY glutAttachMenu (int button)
- GLUTAPI void APIENTRY glutDetachMenu (int button)
- GLUTAPI void APIENTRY glutDisplayFunc (void(GLUTCALLBACK *func)(void))
- GLUTAPI void APIENTRY glutReshapeFunc (void(GLUTCALLBACK *func)(int width, int height))
- GLUTAPI void APIENTRY glutKeyboardFunc (void(GLUTCALLBACK *func)(unsigned char key, int x, int y))
- GLUTAPI void APIENTRY glutMouseFunc (void(GLUTCALLBACK *func)(int button, int state, int x, int y))
- GLUTAPI void APIENTRY glutMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- GLUTAPI void APIENTRY glutPassiveMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- GLUTAPI void APIENTRY glutEntryFunc (void(GLUTCALLBACK *func)(int state))
- GLUTAPI void APIENTRY glutVisibilityFunc (void(GLUTCALLBACK *func)(int state))
- GLUTAPI void APIENTRY glutIdleFunc (void(GLUTCALLBACK *func)(void))
- GLUTAPI void APIENTRY glutTimerFunc (unsigned int millis, void(GLUTCALLBACK *func)(int value), int value)
- GLUTAPI void APIENTRY glutMenuStateFunc (void(GLUTCALLBACK *func)(int state))
- GLUTAPI void APIENTRY glutSpecialFunc (void(GLUTCALLBACK *func)(int key, int x, int y))
- GLUTAPI void APIENTRY glutSpaceballMotionFunc (void(GLUTCALLBACK *func)(int x, int y, int z))
- GLUTAPI void APIENTRY glutSpaceballRotateFunc (void(GLUTCALLBACK *func)(int x, int y, int z))
- GLUTAPI void APIENTRY glutSpaceballButtonFunc (void(GLUTCALLBACK *func)(int button, int state))
- GLUTAPI void APIENTRY glutButtonBoxFunc (void(GLUTCALLBACK *func)(int button, int state))
- GLUTAPI void APIENTRY glutDialsFunc (void(GLUTCALLBACK *func)(int dial, int value))
- GLUTAPI void APIENTRY glutTabletMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- GLUTAPI void APIENTRY glutTabletButtonFunc (void(GLUTCALLBACK *func)(int button, int state, int x, int y))
- GLUTAPI void APIENTRY glutMenuStatusFunc (void(GLUTCALLBACK *func)(int status, int x, int y))
- GLUTAPI void APIENTRY glutOverlayDisplayFunc (void(GLUTCALLBACK *func)(void))
- GLUTAPI void APIENTRY glutWindowStatusFunc (void(GLUTCALLBACK *func)(int state))
- GLUTAPI void APIENTRY glutKeyboardUpFunc (void(GLUTCALLBACK *func)(unsigned char key, int x, int y))
- GLUTAPI void APIENTRY glutSpecialUpFunc (void(GLUTCALLBACK *func)(int key, int x, int y))
- GLUTAPI void APIENTRY glutJoystickFunc (void(GLUTCALLBACK *func)(unsigned int buttonMask, int x, int y, int z), int pollInterval)
- GLUTAPI void APIENTRY glutSetColor (int, GLfloat red, GLfloat green, GLfloat blue)
- GLUTAPI GLfloat APIENTRY glutGetColor (int ndx, int component)
- GLUTAPI void APIENTRY glutCopyColormap (int win)
- GLUTAPI int APIENTRY glutGet (GLenum type)
- GLUTAPI int APIENTRY glutDeviceGet (GLenum type)
- GLUTAPI int APIENTRY glutExtensionSupported (const char *name)
- GLUTAPI int APIENTRY glutGetModifiers (void)
- GLUTAPI int APIENTRY glutLayerGet (GLenum type)
- GLUTAPI void APIENTRY glutBitmapCharacter (void *font, int character)
- GLUTAPI int APIENTRY glutBitmapWidth (void *font, int character)
- GLUTAPI void APIENTRY glutStrokeCharacter (void *font, int character)
- GLUTAPI int APIENTRY glutStrokeWidth (void *font, int character)
- GLUTAPI int APIENTRY glutBitmapLength (void *font, const unsigned char *string)
- GLUTAPI int APIENTRY glutStrokeLength (void *font, const unsigned char *string)
- GLUTAPI void APIENTRY glutWireSphere (GLdouble radius, GLint slices, GLint stacks)
- GLUTAPI void APIENTRY glutSolidSphere (GLdouble radius, GLint slices, GLint stacks)
- GLUTAPI void APIENTRY glutWireCone (GLdouble base, GLdouble height, GLint slices, GLint stacks)
- GLUTAPI void APIENTRY glutSolidCone (GLdouble base, GLdouble height, GLint slices, GLint stacks)
- GLUTAPI void APIENTRY glutWireCube (GLdouble size)
- GLUTAPI void APIENTRY glutSolidCube (GLdouble size)

- **GLUTAPI** void **APIENTRY** [glutWireTorus](#) (GLdouble innerRadius, GLdouble outerRadius, GLint sides, GLint rings)
- **GLUTAPI** void **APIENTRY** [glutSolidTorus](#) (GLdouble innerRadius, GLdouble outerRadius, GLint sides, GLint rings)
- **GLUTAPI** void **APIENTRY** [glutWireDodecahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutSolidDodecahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutWireTeapot](#) (GLdouble size)
- **GLUTAPI** void **APIENTRY** [glutSolidTeapot](#) (GLdouble size)
- **GLUTAPI** void **APIENTRY** [glutWireOctahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutSolidOctahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutWireTetrahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutSolidTetrahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutWireIcosahedron](#) (void)
- **GLUTAPI** void **APIENTRY** [glutSolidIcosahedron](#) (void)
- **GLUTAPI** int **APIENTRY** [glutVideoResizeGet](#) (GLenum param)
- **GLUTAPI** void **APIENTRY** [glutSetupVideoResizing](#) (void)
- **GLUTAPI** void **APIENTRY** [glutStopVideoResizing](#) (void)
- **GLUTAPI** void **APIENTRY** [glutVideoResize](#) (int x, int y, int width, int height)
- **GLUTAPI** void **APIENTRY** [glutVideoPan](#) (int x, int y, int width, int height)
- **GLUTAPI** void **APIENTRY** [glutReportErrors](#) (void)
- **GLUTAPI** void **APIENTRY** [glutIgnoreKeyRepeat](#) (int ignore)
- **GLUTAPI** void **APIENTRY** [glutSetKeyRepeat](#) (int repeatMode)
- **GLUTAPI** void **APIENTRY** [glutForceJoystickFunc](#) (void)
- **GLUTAPI** void **APIENTRY** [glutGameModeString](#) (const char *string)
- **GLUTAPI** int **APIENTRY** [glutEnterGameMode](#) (void)
- **GLUTAPI** void **APIENTRY** [glutLeaveGameMode](#) (void)
- **GLUTAPI** int **APIENTRY** [glutGameModeGet](#) (GLenum mode)

Variables

- **GLUTAPI** void * [glutStrokeRoman](#)
- **GLUTAPI** void * [glutStrokeMonoRoman](#)
- **GLUTAPI** void * [glutBitmap9By15](#)
- **GLUTAPI** void * [glutBitmap8By13](#)
- **GLUTAPI** void * [glutBitmapTimesRoman10](#)
- **GLUTAPI** void * [glutBitmapTimesRoman24](#)
- **GLUTAPI** void * [glutBitmapHelvetica10](#)
- **GLUTAPI** void * [glutBitmapHelvetica12](#)
- **GLUTAPI** void * [glutBitmapHelvetica18](#)

5.12.1 Macro Definition Documentation

5.12.1.1 #define APIENTRY

5.12.1.2 #define CALLBACK

5.12.1.3 #define GLUT_ACCUM 4

5.12.1.4 #define GLUT_ACTIVE_ALT 4

5.12.1.5 `#define GLUT_ACTIVE_CTRL 2`

5.12.1.6 `#define GLUT_ACTIVE_SHIFT 1`

5.12.1.7 `#define GLUT_ALPHA 8`

5.12.1.8 `#define GLUT_API_VERSION 3`

GLUT API revision history:

GLUT_API_VERSION is updated to reflect incompatible GLUT API changes (interface changes, semantic changes, deletions, or additions).

GLUT_API_VERSION=1 First public release of GLUT. 11/29/94

GLUT_API_VERSION=2 Added support for OpenGL/GLX multisampling, extension. Supports new input devices like tablet, dial and button box, and Spaceball. Easy to query OpenGL extensions.

GLUT_API_VERSION=3 glutMenuStatus added.

GLUT_API_VERSION=4 glutInitDisplayString, glutWarpPointer, glutBitmapLength, glutStrokeLength, glut↵WindowStatusFunc, dynamic video resize subAPI, glutPostWindowRedisplay, glutKeyboardUpFunc, glutSpecial↵UpFunc, glutIgnoreKeyRepeat, glutSetKeyRepeat, glutJoystickFunc, glutForceJoystickFunc (NOT FINALIZED!).

5.12.1.9 `#define GLUT_APIENTRY_DEFINED`

5.12.1.10 `#define GLUT_BITMAP_8_BY_13 (&glutBitmap8By13)`

5.12.1.11 `#define GLUT_BITMAP_9_BY_15 (&glutBitmap9By15)`

5.12.1.12 `#define GLUT_BITMAP_HELVETICA_10 (&glutBitmapHelvetica10)`

5.12.1.13 `#define GLUT_BITMAP_HELVETICA_12 (&glutBitmapHelvetica12)`

5.12.1.14 `#define GLUT_BITMAP_HELVETICA_18 (&glutBitmapHelvetica18)`

5.12.1.15 `#define GLUT_BITMAP_TIMES_ROMAN_10 (&glutBitmapTimesRoman10)`

5.12.1.16 `#define GLUT_BITMAP_TIMES_ROMAN_24 (&glutBitmapTimesRoman24)`

5.12.1.17 `#define GLUT_BLUE 2`

5.12.1.18 `#define GLUT_CURSOR_BOTTOM_LEFT_CORNER 19`

5.12.1.19 `#define GLUT_CURSOR_BOTTOM_RIGHT_CORNER 18`

5.12.1.20 `#define GLUT_CURSOR_BOTTOM_SIDE 13`

5.12.1.21 `#define GLUT_CURSOR_CROSSHAIR 9`

5.12.1.22 `#define GLUT_CURSOR_CYCLE 5`

5.12.1.23 `#define GLUT_CURSOR_DESTROY 3`

5.12.1.24 `#define GLUT_CURSOR_FULL_CROSSHAIR 102`

5.12.1.25 `#define GLUT_CURSOR_HELP 4`

5.12.1.26 `#define GLUT_CURSOR_INFO 2`

5.12.1.27 `#define GLUT_CURSOR_INHERIT 100`

5.12.1.28 `#define GLUT_CURSOR_LEFT_ARROW 1`

5.12.1.29 `#define GLUT_CURSOR_LEFT_RIGHT 11`

5.12.1.30 `#define GLUT_CURSOR_LEFT_SIDE 14`

5.12.1.31 `#define GLUT_CURSOR_NONE 101`

5.12.1.32 `#define GLUT_CURSOR_RIGHT_ARROW 0`

5.12.1.33 `#define GLUT_CURSOR_RIGHT_SIDE 15`

5.12.1.34 `#define GLUT_CURSOR_SPRAY 6`

5.12.1.35 `#define GLUT_CURSOR_TEXT 8`

5.12.1.36 `#define GLUT_CURSOR_TOP_LEFT_CORNER 16`

5.12.1.37 `#define GLUT_CURSOR_TOP_RIGHT_CORNER 17`

5.12.1.38 `#define GLUT_CURSOR_TOP_SIDE 12`

5.12.1.39 `#define GLUT_CURSOR_UP_DOWN 10`

5.12.1.40 `#define GLUT_CURSOR_WAIT 7`

5.12.1.41 `#define GLUT_DEPTH 16`

5.12.1.42 `#define GLUT_DEVICE_IGNORE_KEY_REPEAT ((GLenum) 610)`

5.12.1.43 `#define GLUT_DEVICE_KEY_REPEAT ((GLenum) 611)`

- 5.12.1.44 `#define GLUT_DISPLAY_MODE_POSSIBLE ((GLenum) 400)`
- 5.12.1.45 `#define GLUT_DOUBLE 2`
- 5.12.1.46 `#define GLUT_DOWN 0`
- 5.12.1.47 `#define GLUT_ELAPSED_TIME ((GLenum) 700)`
- 5.12.1.48 `#define GLUT_ENTERED 1`
- 5.12.1.49 `#define GLUT_FULLY_COVERED 3`
- 5.12.1.50 `#define GLUT_FULLY_RETAINED 1`
- 5.12.1.51 `#define GLUT_GAME_MODE_ACTIVE ((GLenum) 0)`
- 5.12.1.52 `#define GLUT_GAME_MODE_DISPLAY_CHANGED ((GLenum) 6)`
- 5.12.1.53 `#define GLUT_GAME_MODE_HEIGHT ((GLenum) 3)`
- 5.12.1.54 `#define GLUT_GAME_MODE_PIXEL_DEPTH ((GLenum) 4)`
- 5.12.1.55 `#define GLUT_GAME_MODE_POSSIBLE ((GLenum) 1)`
- 5.12.1.56 `#define GLUT_GAME_MODE_REFRESH_RATE ((GLenum) 5)`
- 5.12.1.57 `#define GLUT_GAME_MODE_WIDTH ((GLenum) 2)`
- 5.12.1.58 `#define GLUT_GREEN 1`
- 5.12.1.59 `#define GLUT_HAS_DIAL_AND_BUTTON_BOX ((GLenum) 603)`
- 5.12.1.60 `#define GLUT_HAS_JOYSTICK ((GLenum) 612)`
- 5.12.1.61 `#define GLUT_HAS_KEYBOARD ((GLenum) 600)`
- 5.12.1.62 `#define GLUT_HAS_MOUSE ((GLenum) 601)`
- 5.12.1.63 `#define GLUT_HAS_OVERLAY ((GLenum) 802)`
- 5.12.1.64 `#define GLUT_HAS_SPACEBALL ((GLenum) 602)`
- 5.12.1.65 `#define GLUT_HAS_TABLET ((GLenum) 604)`
- 5.12.1.66 `#define GLUT_HIDDEN 0`

5.12.1.67 `#define GLUT_INDEX 1`

5.12.1.68 `#define GLUT_INIT_DISPLAY_MODE ((GLenum) 504)`

5.12.1.69 `#define GLUT_INIT_WINDOW_HEIGHT ((GLenum) 503)`

5.12.1.70 `#define GLUT_INIT_WINDOW_WIDTH ((GLenum) 502)`

5.12.1.71 `#define GLUT_INIT_WINDOW_X ((GLenum) 500)`

5.12.1.72 `#define GLUT_INIT_WINDOW_Y ((GLenum) 501)`

5.12.1.73 `#define GLUT_JOYSTICK_AXES ((GLenum) 615)`

5.12.1.74 `#define GLUT_JOYSTICK_BUTTON_A 1`

5.12.1.75 `#define GLUT_JOYSTICK_BUTTON_B 2`

5.12.1.76 `#define GLUT_JOYSTICK_BUTTON_C 4`

5.12.1.77 `#define GLUT_JOYSTICK_BUTTON_D 8`

5.12.1.78 `#define GLUT_JOYSTICK_BUTTONS ((GLenum) 614)`

5.12.1.79 `#define GLUT_JOYSTICK_POLL_RATE ((GLenum) 616)`

5.12.1.80 `#define GLUT_KEY_DOWN 103`

5.12.1.81 `#define GLUT_KEY_END 107`

5.12.1.82 `#define GLUT_KEY_F1 1`

5.12.1.83 `#define GLUT_KEY_F10 10`

5.12.1.84 `#define GLUT_KEY_F11 11`

5.12.1.85 `#define GLUT_KEY_F12 12`

5.12.1.86 `#define GLUT_KEY_F2 2`

5.12.1.87 `#define GLUT_KEY_F3 3`

5.12.1.88 `#define GLUT_KEY_F4 4`

5.12.1.89 `#define GLUT_KEY_F5 5`

- 5.12.1.90 `#define GLUT_KEY_F6 6`
- 5.12.1.91 `#define GLUT_KEY_F7 7`
- 5.12.1.92 `#define GLUT_KEY_F8 8`
- 5.12.1.93 `#define GLUT_KEY_F9 9`
- 5.12.1.94 `#define GLUT_KEY_HOME 106`
- 5.12.1.95 `#define GLUT_KEY_INSERT 108`
- 5.12.1.96 `#define GLUT_KEY_LEFT 100`
- 5.12.1.97 `#define GLUT_KEY_PAGE_DOWN 105`
- 5.12.1.98 `#define GLUT_KEY_PAGE_UP 104`
- 5.12.1.99 `#define GLUT_KEY_REPEAT_DEFAULT 2`
- 5.12.1.100 `#define GLUT_KEY_REPEAT_OFF 0`
- 5.12.1.101 `#define GLUT_KEY_REPEAT_ON 1`
- 5.12.1.102 `#define GLUT_KEY_RIGHT 102`
- 5.12.1.103 `#define GLUT_KEY_UP 101`
- 5.12.1.104 `#define GLUT_LAYER_IN_USE ((GLenum) 801)`
- 5.12.1.105 `#define GLUT_LEFT 0`
- 5.12.1.106 `#define GLUT_LEFT_BUTTON 0`
- 5.12.1.107 `#define GLUT_LUMINANCE 512`
- 5.12.1.108 `#define GLUT_MENU_IN_USE 1`
- 5.12.1.109 `#define GLUT_MENU_NOT_IN_USE 0`
- 5.12.1.110 `#define GLUT_MENU_NUM_ITEMS ((GLenum) 300)`
- 5.12.1.111 `#define GLUT_MIDDLE_BUTTON 1`
- 5.12.1.112 `#define GLUT_MULTISAMPLE 128`

5.12.1.113 `#define GLUT_NORMAL ((GLenum) 0)`

5.12.1.114 `#define GLUT_NORMAL_DAMAGED ((GLenum) 804)`

5.12.1.115 `#define GLUT_NOT_VISIBLE 0`

5.12.1.116 `#define GLUT_NUM_BUTTON_BOX_BUTTONS ((GLenum) 607)`

5.12.1.117 `#define GLUT_NUM_DIALS ((GLenum) 608)`

5.12.1.118 `#define GLUT_NUM_MOUSE_BUTTONS ((GLenum) 605)`

5.12.1.119 `#define GLUT_NUM_SPACEBALL_BUTTONS ((GLenum) 606)`

5.12.1.120 `#define GLUT_NUM_TABLET_BUTTONS ((GLenum) 609)`

5.12.1.121 `#define GLUT_OVERLAY ((GLenum) 1)`

5.12.1.122 `#define GLUT_OVERLAY_DAMAGED ((GLenum) 805)`

5.12.1.123 `#define GLUT_OVERLAY_POSSIBLE ((GLenum) 800)`

5.12.1.124 `#define GLUT_OWNS_JOYSTICK ((GLenum) 613)`

5.12.1.125 `#define GLUT_PARTIALLY_RETAINED 2`

5.12.1.126 `#define GLUT_RED 0`

5.12.1.127 `#define GLUT_RGB 0`

5.12.1.128 `#define GLUT_RGBA GLUT_RGB`

5.12.1.129 `#define GLUT_RIGHT_BUTTON 2`

5.12.1.130 `#define GLUT_SCREEN_HEIGHT ((GLenum) 201)`

5.12.1.131 `#define GLUT_SCREEN_HEIGHT_MM ((GLenum) 203)`

5.12.1.132 `#define GLUT_SCREEN_WIDTH ((GLenum) 200)`

5.12.1.133 `#define GLUT_SCREEN_WIDTH_MM ((GLenum) 202)`

5.12.1.134 `#define GLUT_SINGLE 0`

5.12.1.135 `#define GLUT_STENCIL 32`

- 5.12.1.136 `#define GLUT_STEREO 256`
- 5.12.1.137 `#define GLUT_STROKE_MONO_ROMAN (&glutStrokeMonoRoman)`
- 5.12.1.138 `#define GLUT_STROKE_ROMAN (&glutStrokeRoman)`
- 5.12.1.139 `#define GLUT_TRANSPARENT_INDEX ((GLenum) 803)`
- 5.12.1.140 `#define GLUT_UP 1`
- 5.12.1.141 `#define GLUT_VIDEO_RESIZE_HEIGHT ((GLenum) 909)`
- 5.12.1.142 `#define GLUT_VIDEO_RESIZE_HEIGHT_DELTA ((GLenum) 905)`
- 5.12.1.143 `#define GLUT_VIDEO_RESIZE_IN_USE ((GLenum) 901)`
- 5.12.1.144 `#define GLUT_VIDEO_RESIZE_POSSIBLE ((GLenum) 900)`
- 5.12.1.145 `#define GLUT_VIDEO_RESIZE_WIDTH ((GLenum) 908)`
- 5.12.1.146 `#define GLUT_VIDEO_RESIZE_WIDTH_DELTA ((GLenum) 904)`
- 5.12.1.147 `#define GLUT_VIDEO_RESIZE_X ((GLenum) 906)`
- 5.12.1.148 `#define GLUT_VIDEO_RESIZE_X_DELTA ((GLenum) 902)`
- 5.12.1.149 `#define GLUT_VIDEO_RESIZE_Y ((GLenum) 907)`
- 5.12.1.150 `#define GLUT_VIDEO_RESIZE_Y_DELTA ((GLenum) 903)`
- 5.12.1.151 `#define GLUT_VISIBLE 1`
- 5.12.1.152 `#define GLUT_WHEEL_DOWN 4`
- 5.12.1.153 `#define GLUT_WHEEL_UP 3`
- 5.12.1.154 `#define GLUT_WINDOW_ACCUM_ALPHA_SIZE ((GLenum) 114)`
- 5.12.1.155 `#define GLUT_WINDOW_ACCUM_BLUE_SIZE ((GLenum) 113)`
- 5.12.1.156 `#define GLUT_WINDOW_ACCUM_GREEN_SIZE ((GLenum) 112)`
- 5.12.1.157 `#define GLUT_WINDOW_ACCUM_RED_SIZE ((GLenum) 111)`
- 5.12.1.158 `#define GLUT_WINDOW_ALPHA_SIZE ((GLenum) 110)`

5.12.1.159 `#define GLUT_WINDOW_BLUE_SIZE ((GLenum) 109)`

5.12.1.160 `#define GLUT_WINDOW_BUFFER_SIZE ((GLenum) 104)`

5.12.1.161 `#define GLUT_WINDOW_COLORMAP_SIZE ((GLenum) 119)`

5.12.1.162 `#define GLUT_WINDOW_CURSOR ((GLenum) 122)`

5.12.1.163 `#define GLUT_WINDOW_DEPTH_SIZE ((GLenum) 106)`

5.12.1.164 `#define GLUT_WINDOW_DOUBLEBUFFER ((GLenum) 115)`

5.12.1.165 `#define GLUT_WINDOW_FORMAT_ID ((GLenum) 123)`

5.12.1.166 `#define GLUT_WINDOW_GREEN_SIZE ((GLenum) 108)`

5.12.1.167 `#define GLUT_WINDOW_HEIGHT ((GLenum) 103)`

5.12.1.168 `#define GLUT_WINDOW_NUM_CHILDREN ((GLenum) 118)`

5.12.1.169 `#define GLUT_WINDOW_NUM_SAMPLES ((GLenum) 120)`

5.12.1.170 `#define GLUT_WINDOW_PARENT ((GLenum) 117)`

5.12.1.171 `#define GLUT_WINDOW_RED_SIZE ((GLenum) 107)`

5.12.1.172 `#define GLUT_WINDOW_RGBA ((GLenum) 116)`

5.12.1.173 `#define GLUT_WINDOW_STENCIL_SIZE ((GLenum) 105)`

5.12.1.174 `#define GLUT_WINDOW_STEREO ((GLenum) 121)`

5.12.1.175 `#define GLUT_WINDOW_WIDTH ((GLenum) 102)`

5.12.1.176 `#define GLUT_WINDOW_X ((GLenum) 100)`

5.12.1.177 `#define GLUT_WINDOW_Y ((GLenum) 101)`

5.12.1.178 `#define GLUT_XBUTTON1 5`

5.12.1.179 `#define GLUT_XBUTTON2 6`

5.12.1.180 `#define GLUT_XLIB_IMPLEMENTATION 15`

GLUT implementation revision history:

GLUT_XLIB_IMPLEMENTATION is updated to reflect both GLUT API revisions and implementation revisions (ie, bug fixes).

GLUT_XLIB_IMPLEMENTATION=1 mjk's first public release of GLUT Xlib-based implementation. 11/29/94

GLUT_XLIB_IMPLEMENTATION=2 mjk's second public release of GLUT Xlib-based implementation providing GLUT version 2 interfaces.

GLUT_XLIB_IMPLEMENTATION=3 mjk's GLUT 2.2 images. 4/17/95

GLUT_XLIB_IMPLEMENTATION=4 mjk's GLUT 2.3 images. 6/?/95

GLUT_XLIB_IMPLEMENTATION=5 mjk's GLUT 3.0 images. 10/?/95

GLUT_XLIB_IMPLEMENTATION=7 mjk's GLUT 3.1+ with glutWarpPoiner. 7/24/96

GLUT_XLIB_IMPLEMENTATION=8 mjk's GLUT 3.1+ with glutWarpPoiner and video resize. 1/3/97

GLUT_XLIB_IMPLEMENTATION=9 mjk's GLUT 3.4 release with early GLUT 4 routines.

GLUT_XLIB_IMPLEMENTATION=11 Mesa 2.5's GLUT 3.6 release.

GLUT_XLIB_IMPLEMENTATION=12 mjk's GLUT 3.6 release with early GLUT 4 routines + signal handling.

GLUT_XLIB_IMPLEMENTATION=13 mjk's GLUT 3.7 beta with GameGLUT support.

GLUT_XLIB_IMPLEMENTATION=14 mjk's GLUT 3.7 beta with f90gl friend interface.

GLUT_XLIB_IMPLEMENTATION=15 mjk's GLUT 3.7 beta sync'ed with Mesa <GL/glut.h>

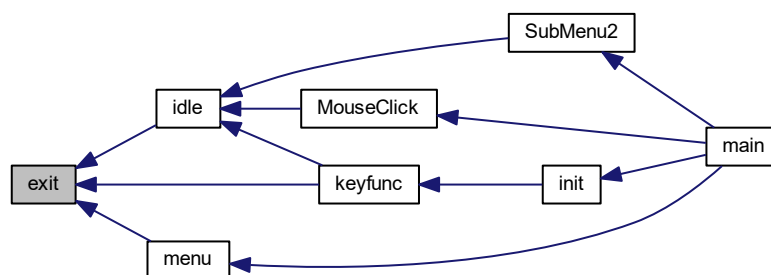
5.12.1.181 `#define GLUTAPI extern`

5.12.1.182 `#define GLUTCALLBACK`

5.12.2 Function Documentation

5.12.2.1 `void exit (int)`

Here is the caller graph for this function:



- 5.12.2.2 GLUTAPI void APIENTRY glutAddMenuEntry (const char * *label*, int *value*)
- 5.12.2.3 GLUTAPI void APIENTRY glutAddSubMenu (const char * *label*, int *submenu*)
- 5.12.2.4 GLUTAPI void APIENTRY glutAttachMenu (int *button*)
- 5.12.2.5 GLUTAPI void APIENTRY glutBitmapCharacter (void * *font*, int *character*)
- 5.12.2.6 GLUTAPI int APIENTRY glutBitmapLength (void * *font*, const unsigned char * *string*)
- 5.12.2.7 GLUTAPI int APIENTRY glutBitmapWidth (void * *font*, int *character*)
- 5.12.2.8 GLUTAPI void APIENTRY glutButtonBoxFunc (void(GLUTCALLBACK *func)(int button, int state))
- 5.12.2.9 GLUTAPI void APIENTRY glutChangeToMenuEntry (int *item*, const char * *label*, int *value*)
- 5.12.2.10 GLUTAPI void APIENTRY glutChangeToSubMenu (int *item*, const char * *label*, int *submenu*)
- 5.12.2.11 GLUTAPI void APIENTRY glutCopyColormap (int *win*)
- 5.12.2.12 GLUTAPI int APIENTRY glutCreateMenu (void(GLUTCALLBACK *func)(int))
- 5.12.2.13 GLUTAPI int APIENTRY glutCreateSubWindow (int *win*, int *x*, int *y*, int *width*, int *height*)
- 5.12.2.14 GLUTAPI int APIENTRY glutCreateWindow (const char * *title*)
- 5.12.2.15 GLUTAPI void APIENTRY glutDestroyMenu (int *menu*)
- 5.12.2.16 GLUTAPI void APIENTRY glutDestroyWindow (int *win*)
- 5.12.2.17 GLUTAPI void APIENTRY glutDetachMenu (int *button*)
- 5.12.2.18 GLUTAPI int APIENTRY glutDeviceGet (GLenum *type*)
- 5.12.2.19 GLUTAPI void APIENTRY glutDialsFunc (void(GLUTCALLBACK *func)(int dial, int value))
- 5.12.2.20 GLUTAPI void APIENTRY glutDisplayFunc (void(GLUTCALLBACK *func)(void))
- 5.12.2.21 GLUTAPI int APIENTRY glutEnterGameMode (void)
- 5.12.2.22 GLUTAPI void APIENTRY glutEntryFunc (void(GLUTCALLBACK *func)(int state))
- 5.12.2.23 GLUTAPI void APIENTRY glutEstablishOverlay (void)
- 5.12.2.24 GLUTAPI int APIENTRY glutExtensionSupported (const char * *name*)

- 5.12.2.25 GLUTAPI void APIENTRY glutForceJoystickFunc (void)
- 5.12.2.26 GLUTAPI void APIENTRY glutFullScreen (void)
- 5.12.2.27 GLUTAPI int APIENTRY glutGameModeGet (GLenum *mode*)
- 5.12.2.28 GLUTAPI void APIENTRY glutGameModeString (const char * *string*)
- 5.12.2.29 GLUTAPI int APIENTRY glutGet (GLenum *type*)
- 5.12.2.30 GLUTAPI GLfloat APIENTRY glutGetColor (int *ndx*, int *component*)
- 5.12.2.31 GLUTAPI int APIENTRY glutGetMenu (void)
- 5.12.2.32 GLUTAPI int APIENTRY glutGetModifiers (void)
- 5.12.2.33 GLUTAPI int APIENTRY glutGetWindow (void)
- 5.12.2.34 GLUTAPI void APIENTRY glutHideOverlay (void)
- 5.12.2.35 GLUTAPI void APIENTRY glutHideWindow (void)
- 5.12.2.36 GLUTAPI void APIENTRY glutIconifyWindow (void)
- 5.12.2.37 GLUTAPI void APIENTRY glutIdleFunc (void(GLUTCALLBACK *func)(void))
- 5.12.2.38 GLUTAPI void APIENTRY glutIgnoreKeyRepeat (int *ignore*)
- 5.12.2.39 GLUTAPI void APIENTRY glutInit (int * *argcp*, char ** *argv*)
- 5.12.2.40 GLUTAPI void APIENTRY glutInitDisplayMode (unsigned int *mode*)
- 5.12.2.41 GLUTAPI void APIENTRY glutInitDisplayString (const char * *string*)
- 5.12.2.42 GLUTAPI void APIENTRY glutInitWindowPosition (int *x*, int *y*)
- 5.12.2.43 GLUTAPI void APIENTRY glutInitWindowSize (int *width*, int *height*)
- 5.12.2.44 GLUTAPI void APIENTRY glutJoystickFunc (void(GLUTCALLBACK *func)(unsigned int buttonMask, int x, int y, int z) , int *pollInterval*)
- 5.12.2.45 GLUTAPI void APIENTRY glutKeyboardFunc (void(GLUTCALLBACK *func)(unsigned char key, int x, int y))
- 5.12.2.46 GLUTAPI void APIENTRY glutKeyboardUpFunc (void(GLUTCALLBACK *func)(unsigned char key, int x, int y))

- 5.12.2.47 GLUTAPI int APIENTRY glutLayerGet (GLenum *type*)
- 5.12.2.48 GLUTAPI void APIENTRY glutLeaveGameMode (void)
- 5.12.2.49 GLUTAPI void APIENTRY glutMainLoop (void)
- 5.12.2.50 GLUTAPI void APIENTRY glutMenuStateFunc (void(GLUTCALLBACK *func)(int state))
- 5.12.2.51 GLUTAPI void APIENTRY glutMenuStatusFunc (void(GLUTCALLBACK *func)(int status, int x, int y))
- 5.12.2.52 GLUTAPI void APIENTRY glutMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- 5.12.2.53 GLUTAPI void APIENTRY glutMouseFunc (void(GLUTCALLBACK *func)(int button, int state, int x, int y))
- 5.12.2.54 GLUTAPI void APIENTRY glutOverlayDisplayFunc (void(GLUTCALLBACK *func)(void))
- 5.12.2.55 GLUTAPI void APIENTRY glutPassiveMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- 5.12.2.56 GLUTAPI void APIENTRY glutPopWindow (void)
- 5.12.2.57 GLUTAPI void APIENTRY glutPositionWindow (int *x*, int *y*)
- 5.12.2.58 GLUTAPI void APIENTRY glutPostOverlayRedisplay (void)
- 5.12.2.59 GLUTAPI void APIENTRY glutPostRedisplay (void)
- 5.12.2.60 GLUTAPI void APIENTRY glutPostWindowOverlayRedisplay (int *win*)
- 5.12.2.61 GLUTAPI void APIENTRY glutPostWindowRedisplay (int *win*)
- 5.12.2.62 GLUTAPI void APIENTRY glutPushWindow (void)
- 5.12.2.63 GLUTAPI void APIENTRY glutRemoveMenuItem (int *item*)
- 5.12.2.64 GLUTAPI void APIENTRY glutRemoveOverlay (void)
- 5.12.2.65 GLUTAPI void APIENTRY glutReportErrors (void)
- 5.12.2.66 GLUTAPI void APIENTRY glutReshapeFunc (void(GLUTCALLBACK *func)(int width, int height))
- 5.12.2.67 GLUTAPI void APIENTRY glutReshapeWindow (int *width*, int *height*)
- 5.12.2.68 GLUTAPI void APIENTRY glutSetColor (int , GLfloat *red*, GLfloat *green*, GLfloat *blue*)
- 5.12.2.69 GLUTAPI void APIENTRY glutSetCursor (int *cursor*)

- 5.12.2.70 GLUTAPI void APIENTRY glutSetIconTitle (const char * *title*)
- 5.12.2.71 GLUTAPI void APIENTRY glutSetKeyRepeat (int *repeatMode*)
- 5.12.2.72 GLUTAPI void APIENTRY glutSetMenu (int *menu*)
- 5.12.2.73 GLUTAPI void APIENTRY glutSetupVideoResizing (void)
- 5.12.2.74 GLUTAPI void APIENTRY glutSetWindow (int *win*)
- 5.12.2.75 GLUTAPI void APIENTRY glutSetWindowTitle (const char * *title*)
- 5.12.2.76 GLUTAPI void APIENTRY glutShowOverlay (void)
- 5.12.2.77 GLUTAPI void APIENTRY glutShowWindow (void)
- 5.12.2.78 GLUTAPI void APIENTRY glutSolidCone (GLdouble *base*, GLdouble *height*, GLint *slices*, GLint *stacks*)
- 5.12.2.79 GLUTAPI void APIENTRY glutSolidCube (GLdouble *size*)
- 5.12.2.80 GLUTAPI void APIENTRY glutSolidDodecahedron (void)
- 5.12.2.81 GLUTAPI void APIENTRY glutSolidIcosahedron (void)
- 5.12.2.82 GLUTAPI void APIENTRY glutSolidOctahedron (void)
- 5.12.2.83 GLUTAPI void APIENTRY glutSolidSphere (GLdouble *radius*, GLint *slices*, GLint *stacks*)
- 5.12.2.84 GLUTAPI void APIENTRY glutSolidTeapot (GLdouble *size*)
- 5.12.2.85 GLUTAPI void APIENTRY glutSolidTetrahedron (void)
- 5.12.2.86 GLUTAPI void APIENTRY glutSolidTorus (GLdouble *innerRadius*, GLdouble *outerRadius*, GLint *sides*, GLint *rings*)
- 5.12.2.87 GLUTAPI void APIENTRY glutSpaceballButtonFunc (void(GLUTCALLBACK *func)(int button, int state))
- 5.12.2.88 GLUTAPI void APIENTRY glutSpaceballMotionFunc (void(GLUTCALLBACK *func)(int x, int y, int z))
- 5.12.2.89 GLUTAPI void APIENTRY glutSpaceballRotateFunc (void(GLUTCALLBACK *func)(int x, int y, int z))
- 5.12.2.90 GLUTAPI void APIENTRY glutSpecialFunc (void(GLUTCALLBACK *func)(int key, int x, int y))
- 5.12.2.91 GLUTAPI void APIENTRY glutSpecialUpFunc (void(GLUTCALLBACK *func)(int key, int x, int y))
- 5.12.2.92 GLUTAPI void APIENTRY glutStopVideoResizing (void)

- 5.12.2.93 GLUTAPI void APIENTRY glutStrokeCharacter (void * *font*, int *character*)
- 5.12.2.94 GLUTAPI int APIENTRY glutStrokeLength (void * *font*, const unsigned char * *string*)
- 5.12.2.95 GLUTAPI int APIENTRY glutStrokeWidth (void * *font*, int *character*)
- 5.12.2.96 GLUTAPI void APIENTRY glutSwapBuffers (void)
- 5.12.2.97 GLUTAPI void APIENTRY glutTabletButtonFunc (void(GLUTCALLBACK *func)(int button, int state, int x, int y))
- 5.12.2.98 GLUTAPI void APIENTRY glutTabletMotionFunc (void(GLUTCALLBACK *func)(int x, int y))
- 5.12.2.99 GLUTAPI void APIENTRY glutTimerFunc (unsigned int *millis*, void(GLUTCALLBACK *func)(int value) , int *value*)
- 5.12.2.100 GLUTAPI void APIENTRY glutUseLayer (GLenum *layer*)
- 5.12.2.101 GLUTAPI void APIENTRY glutVideoPan (int *x*, int *y*, int *width*, int *height*)
- 5.12.2.102 GLUTAPI void APIENTRY glutVideoResize (int *x*, int *y*, int *width*, int *height*)
- 5.12.2.103 GLUTAPI int APIENTRY glutVideoResizeGet (GLenum *param*)
- 5.12.2.104 GLUTAPI void APIENTRY glutVisibilityFunc (void(GLUTCALLBACK *func)(int state))
- 5.12.2.105 GLUTAPI void APIENTRY glutWarpPointer (int *x*, int *y*)
- 5.12.2.106 GLUTAPI void APIENTRY glutWindowStatusFunc (void(GLUTCALLBACK *func)(int state))
- 5.12.2.107 GLUTAPI void APIENTRY glutWireCone (GLdouble *base*, GLdouble *height*, GLint *slices*, GLint *stacks*)
- 5.12.2.108 GLUTAPI void APIENTRY glutWireCube (GLdouble *size*)
- 5.12.2.109 GLUTAPI void APIENTRY glutWireDodecahedron (void)
- 5.12.2.110 GLUTAPI void APIENTRY glutWireIcosahedron (void)
- 5.12.2.111 GLUTAPI void APIENTRY glutWireOctahedron (void)
- 5.12.2.112 GLUTAPI void APIENTRY glutWireSphere (GLdouble *radius*, GLint *slices*, GLint *stacks*)
- 5.12.2.113 GLUTAPI void APIENTRY glutWireTeapot (GLdouble *size*)
- 5.12.2.114 GLUTAPI void APIENTRY glutWireTetrahedron (void)

5.12.2.115 **GLUTAPI void APIENTRY** glutWireTorus (GLdouble *innerRadius*, GLdouble *outerRadius*, GLint *sides*, GLint *rings*)

5.12.3 Variable Documentation

5.12.3.1 **GLUTAPI void*** glutBitmap8By13

5.12.3.2 **GLUTAPI void*** glutBitmap9By15

5.12.3.3 **GLUTAPI void*** glutBitmapHelvetica10

5.12.3.4 **GLUTAPI void*** glutBitmapHelvetica12

5.12.3.5 **GLUTAPI void*** glutBitmapHelvetica18

5.12.3.6 **GLUTAPI void*** glutBitmapTimesRoman10

5.12.3.7 **GLUTAPI void*** glutBitmapTimesRoman24

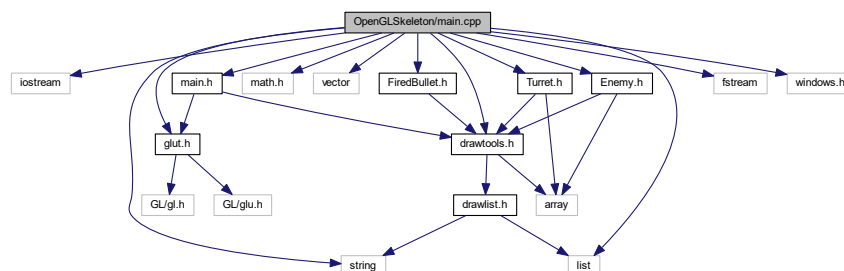
5.12.3.8 **GLUTAPI void*** glutStrokeMonoRoman

5.12.3.9 **GLUTAPI void*** glutStrokeRoman

5.13 OpenGLSkeleton/main.cpp File Reference

```
#include <iostream>
#include <string>
#include "glut.h"
#include <list>
#include <math.h>
#include <vector>
#include "main.h"
#include "drawtools.h"
#include "Enemy.h"
#include "Turret.h"
#include "FiredBullet.h"
#include <fstream>
#include <windows.h>
```

Include dependency graph for main.cpp:



Macros

- `#define _USE_MATH_DEFINES`

Enumerations

- enum `MENU_TYPE` { `MENU_FRONT`, `MENU_SPOT`, `MENU_BACK`, `MENU_BACK_FRONT` }

Functions

- void `init` ()
- void `Start` ()
- void `readFile` (string `filename`)
- void `raster` ()
- void `path` ()
- void `makeEnemy` ()
- void `drawEnemy` ()
- void `drawBullets` (`PointF` `posEnemy`, int `j`)
- void `makeTurret` (float `x`, float `y`)
- void `drawTurret` ()
- void `drawBullet` ()
- void `idle` (int `value`)
- void `text` ()
- void `CalcFPS` ()
- void `DrawButton` ()
- void `SubMenu2` (int `item`)
- void `menu` (int `item`)
- void `MouseClicked` (int `button`, int `state`, int `x`, int `y`)
- void `reshape` (int `w`, int `h`)
- void `display` ()
- void `keyfunc` (unsigned char `key`, int `x`, int `y`)
- int `main` (int `argc`, char `*argv`[])

Variables

- std::string `keytext`
- `DrawList` `drawList`
- `DrawList` `Static`
- `DrawList` `DrawTextList`
- string `filename`
- int `PlayerHealth` = 100
- int `PlayerScore` = 0
- string `MapName`
- const int `mapSizex` = 100
- const int `mapSizey` = 100
- char `Map` [`mapSizex`][`mapSizey`]
- vector< `Enemy` * > `enenemyvector`
- vector< `Turret` * > `turretvector`
- vector< `FiredBullet` * > `bulletvector`
- vector< `Button` * > `ButtonVector`
- int `NumberFrames` = 0
- int `currentTime` = 0
- int `fps`
- int `PrevTime` = 0
- int `WaitTme` = 250
- int `lose` = 0

5.13.1 Macro Definition Documentation

5.13.1.1 `#define _USE_MATH_DEFINES`

5.13.2 Enumeration Type Documentation

5.13.2.1 `enum MENU_TYPE`

Enumerator

MENU_FRONT

MENU_SPOT

MENU_BACK

MENU_BACK_FRONT

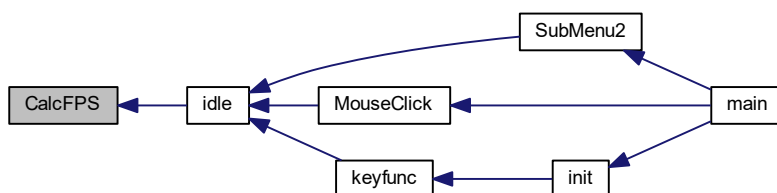
5.13.3 Function Documentation

5.13.3.1 `void CalcFPS ()`

Here is the call graph for this function:



Here is the caller graph for this function:

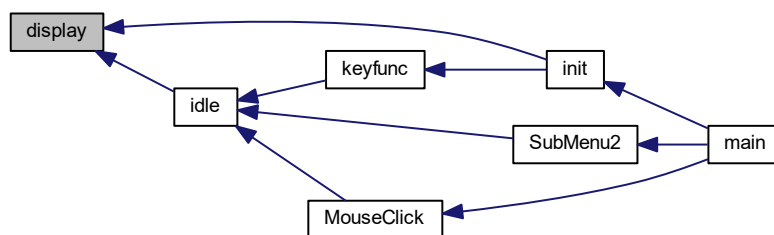


5.13.3.2 void display ()

Here is the call graph for this function:

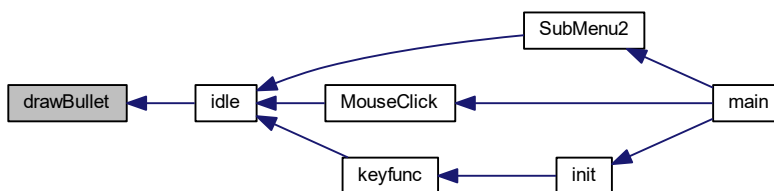


Here is the caller graph for this function:



5.13.3.3 void drawBullet ()

Here is the caller graph for this function:

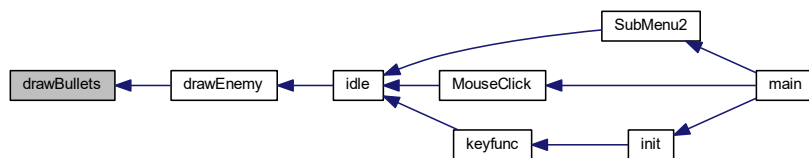


5.13.3.4 void drawBullets (PointF posEnemy, int j)

Here is the call graph for this function:



Here is the caller graph for this function:



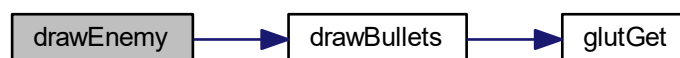
5.13.3.5 void DrawButton ()

Here is the caller graph for this function:

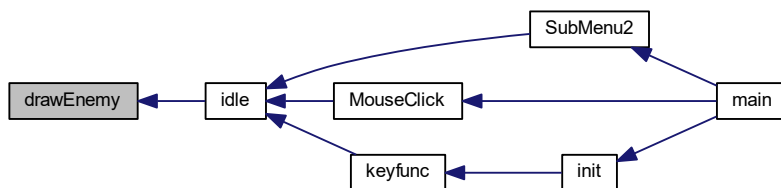


5.13.3.6 void drawEnemy ()

Here is the call graph for this function:

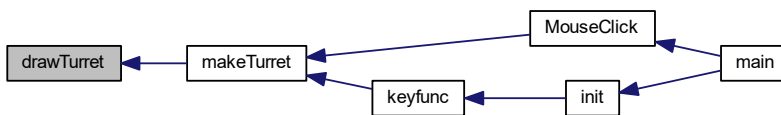


Here is the caller graph for this function:



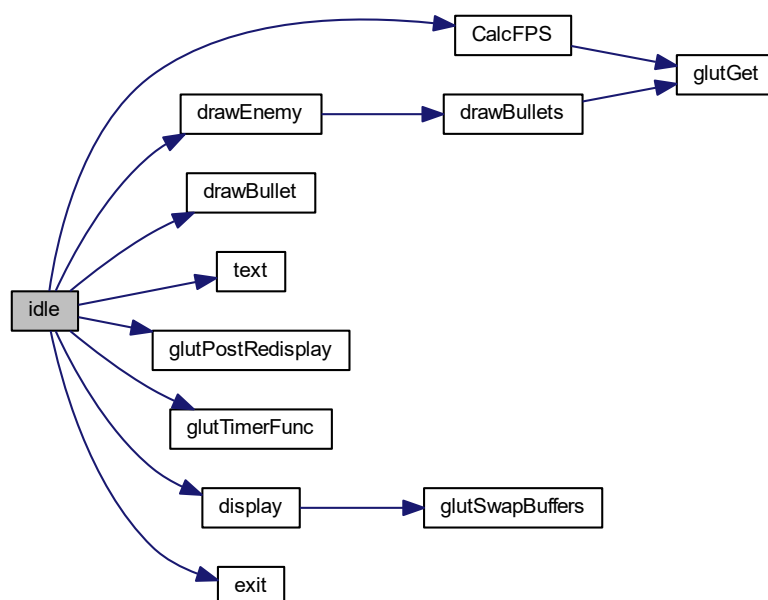
5.13.3.7 void drawTurret ()

Here is the caller graph for this function:

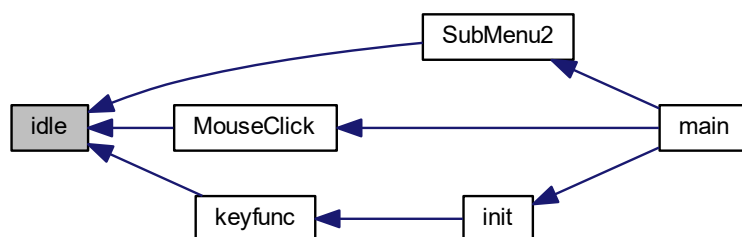


5.13.3.8 void idle (int value)

Here is the call graph for this function:

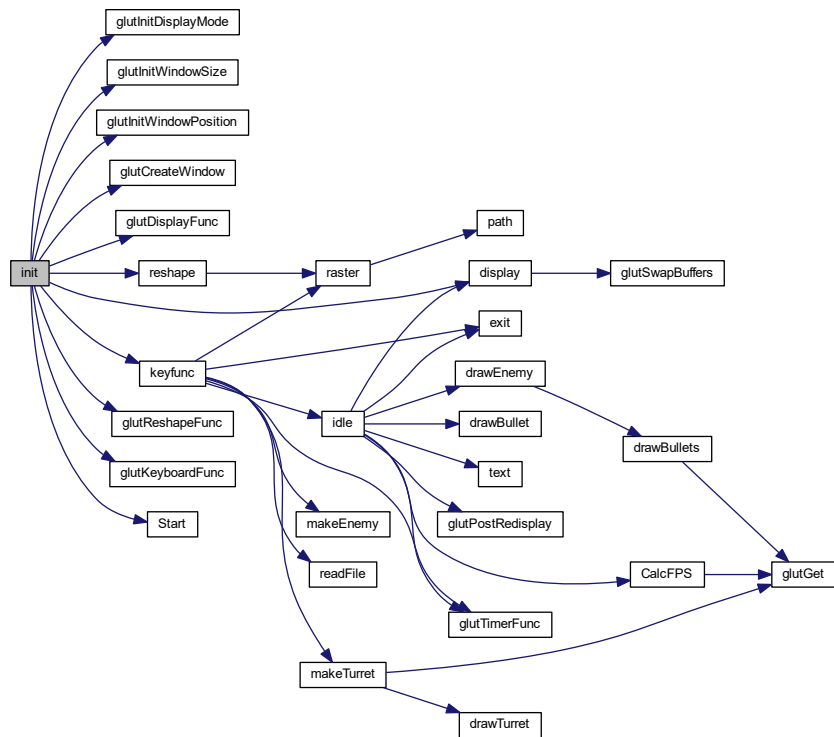


Here is the caller graph for this function:



5.13.3.9 void init ()

Here is the call graph for this function:

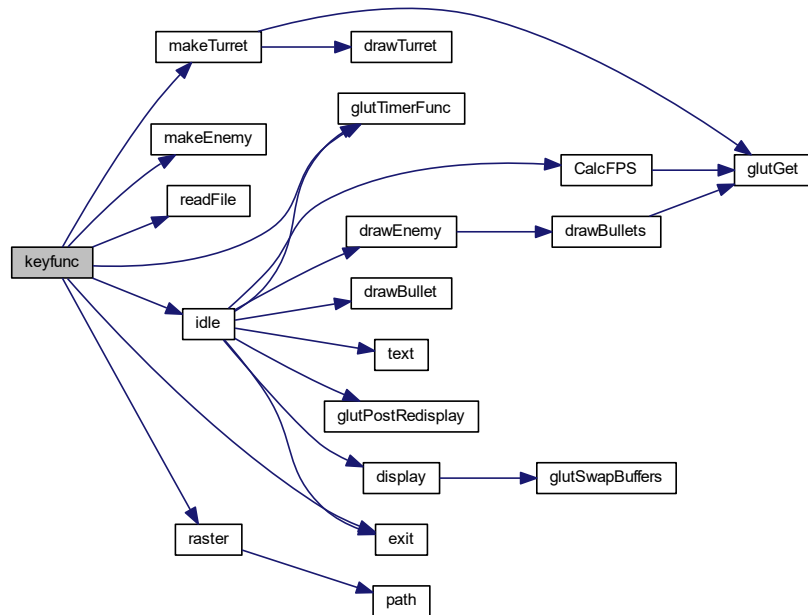


Here is the caller graph for this function:

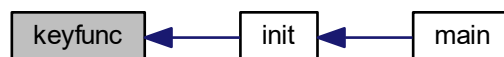


5.13.3.10 void keyfunc (unsigned char key, int x, int y)

Here is the call graph for this function:

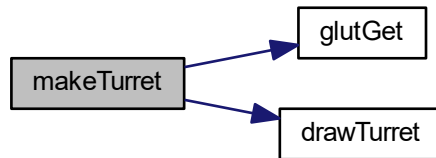


Here is the caller graph for this function:

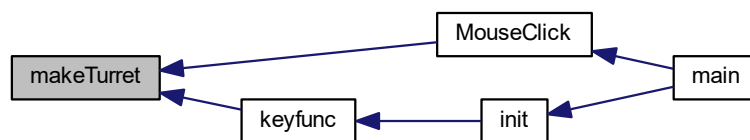


5.13.3.13 void makeTurret (float x, float y)

Here is the call graph for this function:

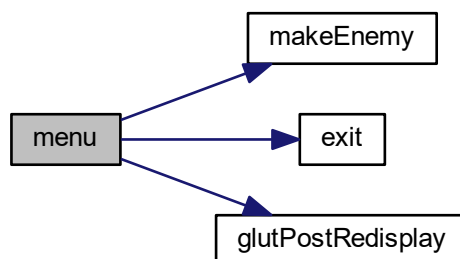


Here is the caller graph for this function:



5.13.3.14 void menu (int item)

Here is the call graph for this function:

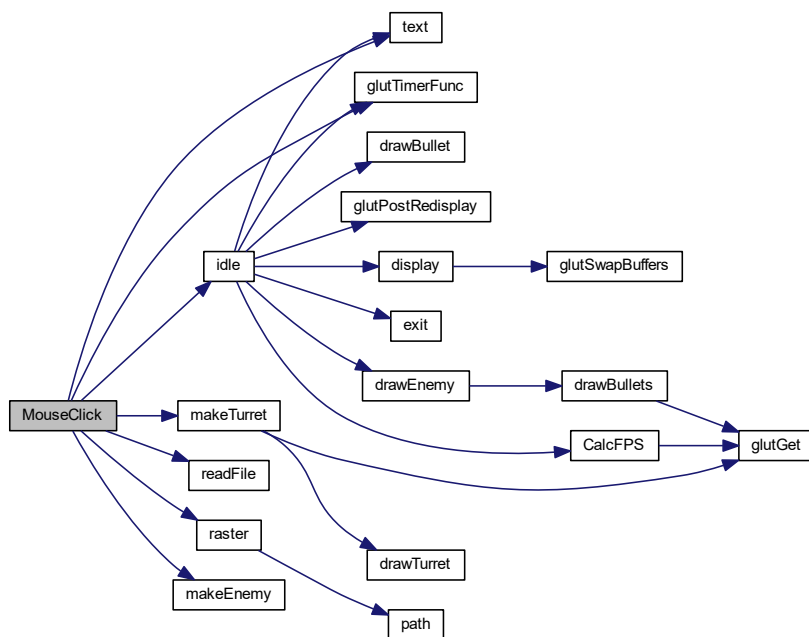


Here is the caller graph for this function:



5.13.3.15 void MouseClick (int *button*, int *state*, int *x*, int *y*)

Here is the call graph for this function:

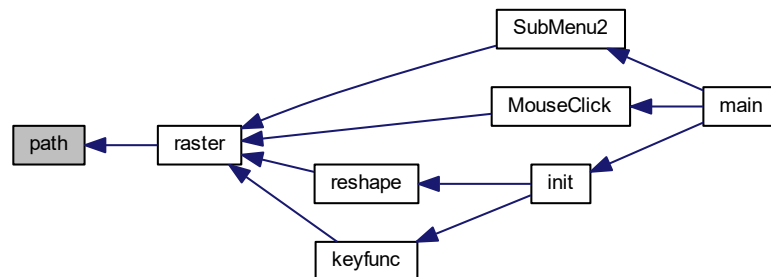


Here is the caller graph for this function:



5.13.3.16 void path ()

Here is the caller graph for this function:

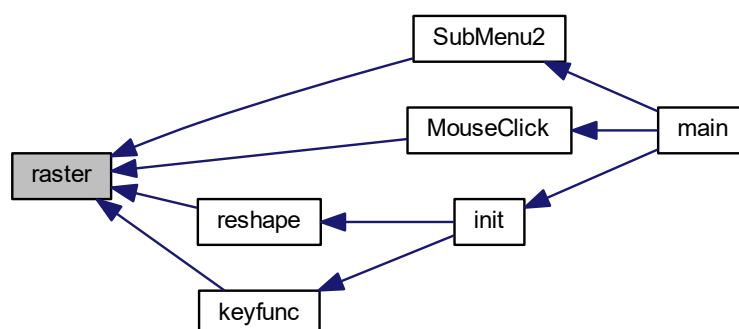


5.13.3.17 void raster ()

Here is the call graph for this function:

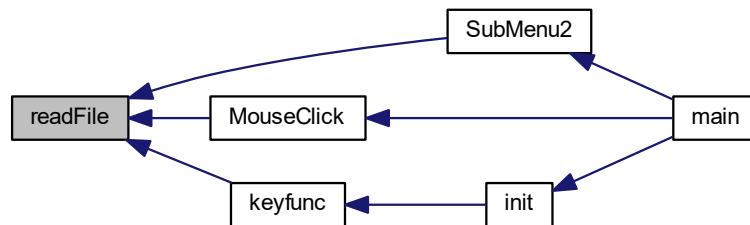


Here is the caller graph for this function:



5.13.3.18 void readFile (string filename)

Here is the caller graph for this function:

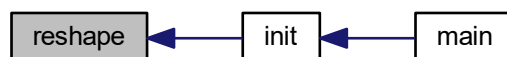


5.13.3.19 void reshape (int w, int h)

Here is the call graph for this function:

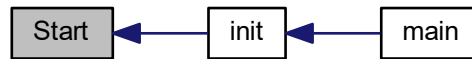


Here is the caller graph for this function:



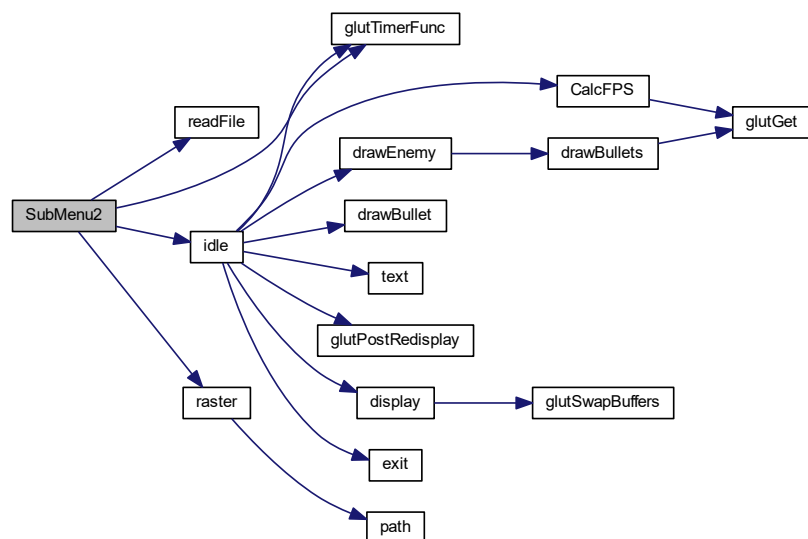
5.13.3.20 void Start ()

Here is the caller graph for this function:

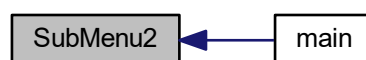


5.13.3.21 void SubMenu2 (int item)

Here is the call graph for this function:

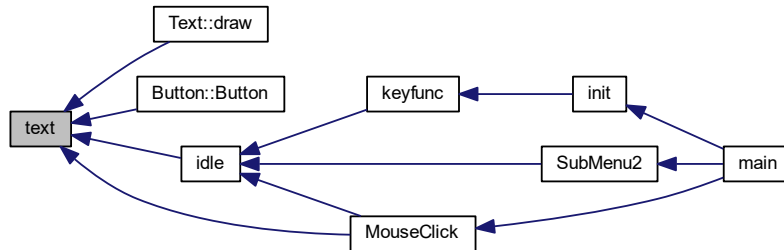


Here is the caller graph for this function:



5.13.3.22 void text ()

Here is the caller graph for this function:



5.13.4 Variable Documentation

5.13.4.1 `vector<FiredBullet*> bulletvector`

5.13.4.2 `vector<Button*> ButtonVector`

5.13.4.3 `int currentTime = 0`

5.13.4.4 `DrawList drawList`

5.13.4.5 `DrawList DrawTextList`

5.13.4.6 `vector<Enemy*> enemyvector`

5.13.4.7 `string filename`

5.13.4.8 `int fps`

5.13.4.9 `std::string keytext`

5.13.4.10 `int lose = 0`

5.13.4.11 `char Map[mapSizex][mapSizey]`

5.13.4.12 `string MapName`

5.13.4.13 `const int mapSizex = 100`

5.13.4.14 `const int mapSizey = 100`

5.13.4.15 `int NumberFrames = 0`

5.13.4.16 `int PlayerHealth = 100`

5.13.4.17 `int PlayerScore = 0`

5.13.4.18 `int PrevTime = 0`

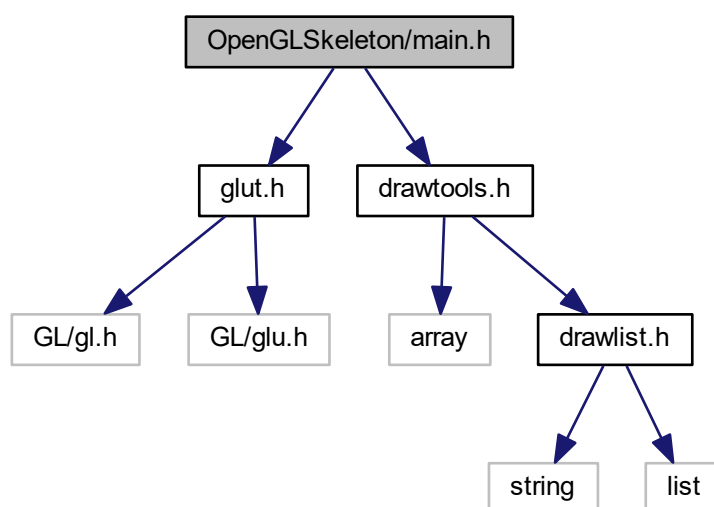
5.13.4.19 **DrawList** Static

5.13.4.20 `vector<Turret*> turretvector`

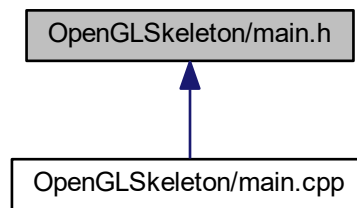
5.13.4.21 `int WaitTme = 250`

5.14 OpenGLSkeleton/main.h File Reference

```
#include "glut.h"
#include "drawtools.h"
Include dependency graph for main.h:
```



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



Functions

- int [main](#) (int argc, char *argv[])
- void [init](#) ()
- void [reshape](#) (int w, int h)
- void [display](#) ()
- void [keyfunc](#) (unsigned char key, int x, int y)
- void [makeEnemy](#) ()
- void [makeTurret](#) (float x, float y)
- void [drawEnemy](#) ()
- void [drawTurret](#) ()
- void [raster](#) ()
- void [readFile](#) (string filename)
- void [drawBullets](#) (PointF posEnemy, int i)
- void [path](#) ()
- void [Start](#) ()
- void [text](#) ()
- void [DrawButton](#) ()
- void [CalcFPS](#) ()

Variables

- const int [windowWidth](#) = 1024
- const int [windowHeight](#) = 768
- const char * [windowTitle](#) = "Final C Task: Tower Defense by: Martyn van Dijke"

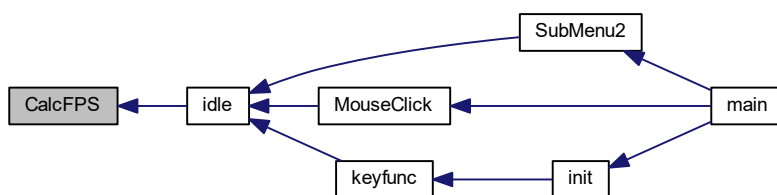
5.14.1 Function Documentation

5.14.1.1 void CalcFPS ()

Here is the call graph for this function:



Here is the caller graph for this function:

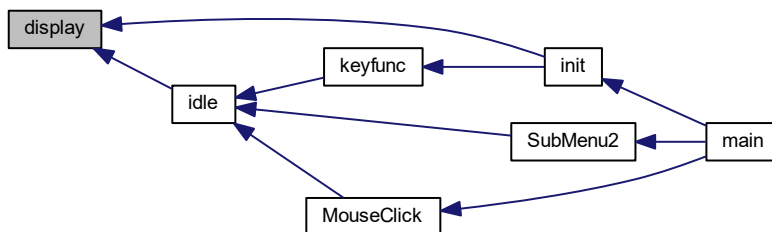


5.14.1.2 void display ()

Here is the call graph for this function:



Here is the caller graph for this function:

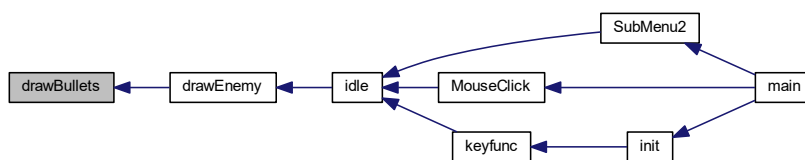


5.14.1.3 void drawBullets (PointF posEnemy, int i)

Here is the call graph for this function:



Here is the caller graph for this function:



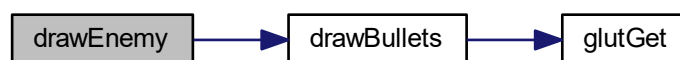
5.14.1.4 void DrawButton ()

Here is the caller graph for this function:

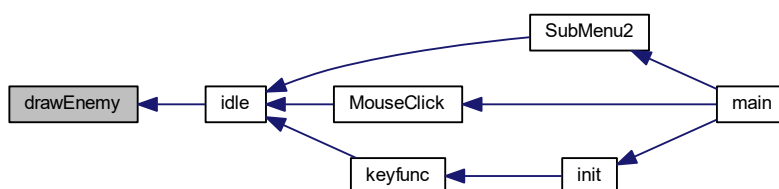


5.14.1.5 void drawEnemy ()

Here is the call graph for this function:

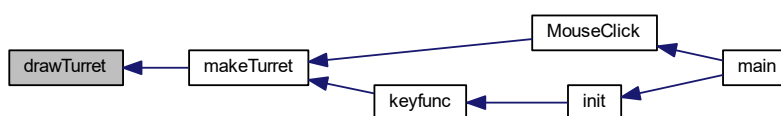


Here is the caller graph for this function:



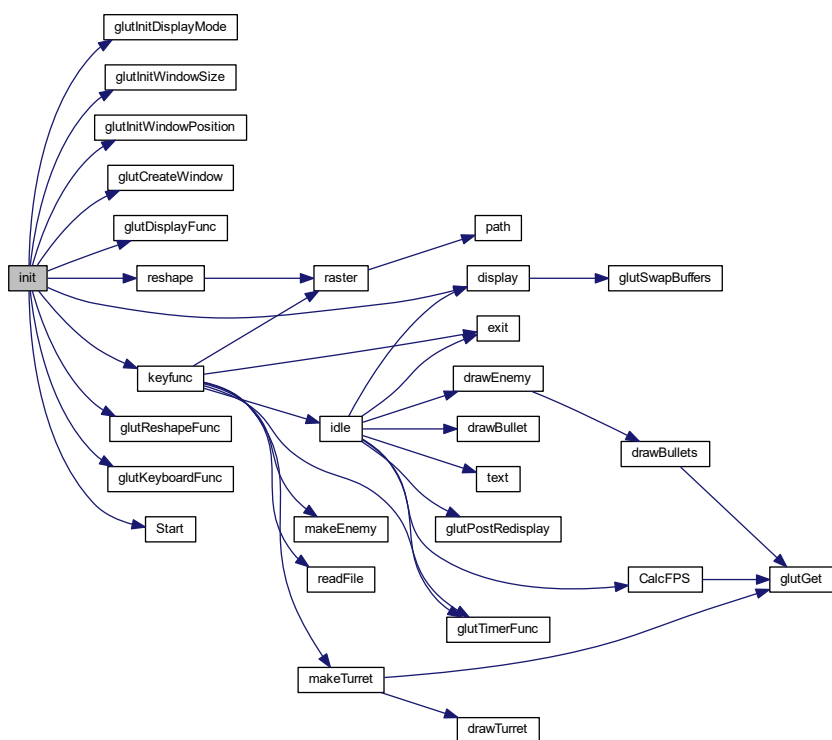
5.14.1.6 void drawTurret ()

Here is the caller graph for this function:



5.14.1.7 void init ()

Here is the call graph for this function:

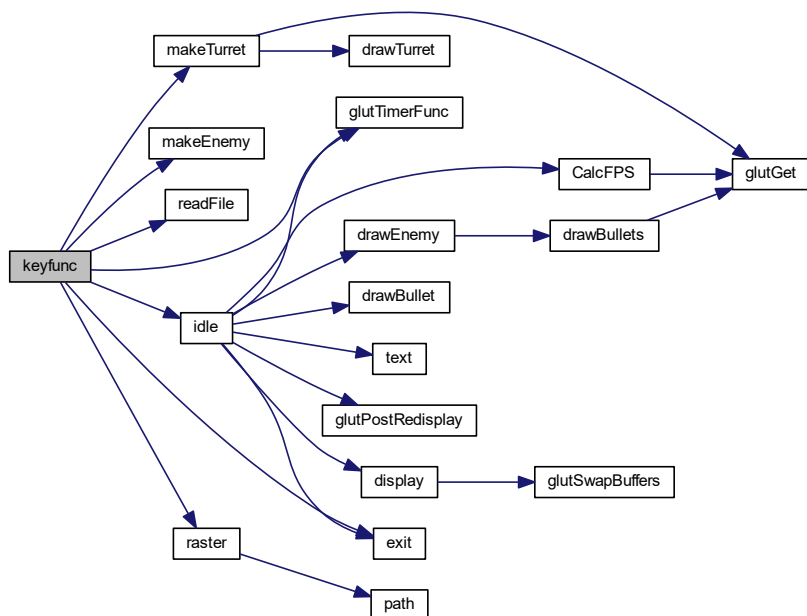


Here is the caller graph for this function:

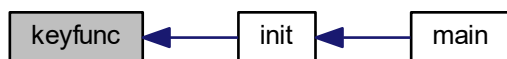


5.14.1.8 void keyfunc (unsigned char key, int x, int y)

Here is the call graph for this function:

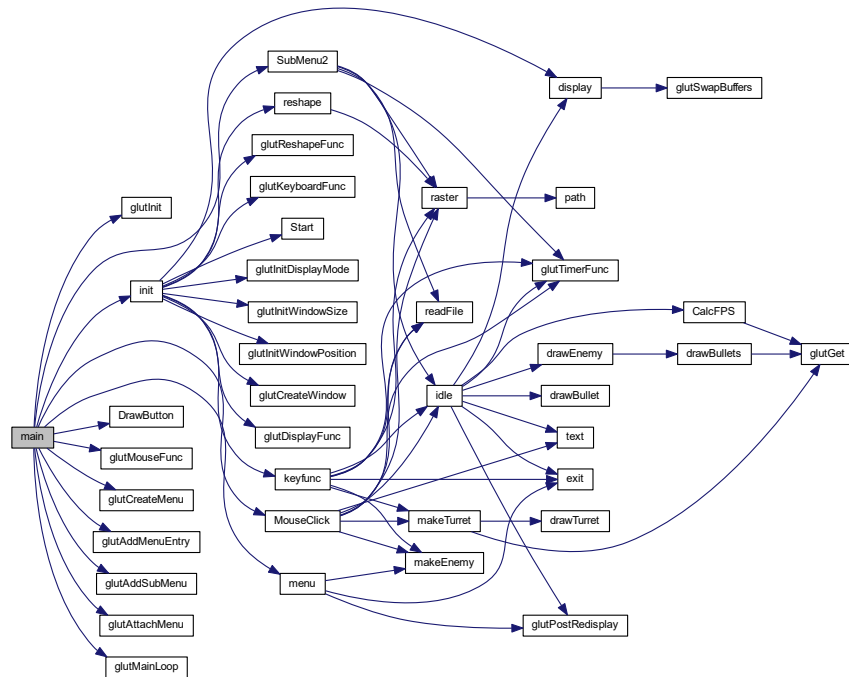


Here is the caller graph for this function:



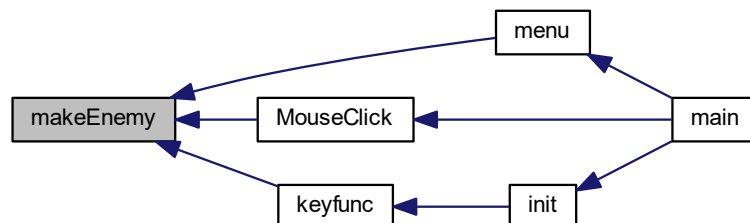
5.14.1.9 `int main (int argc, char * argv[])`

Here is the call graph for this function:



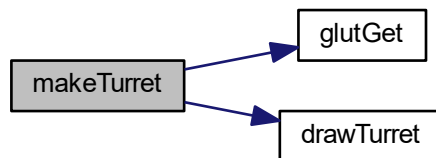
5.14.1.10 `void makeEnemy ()`

Here is the caller graph for this function:

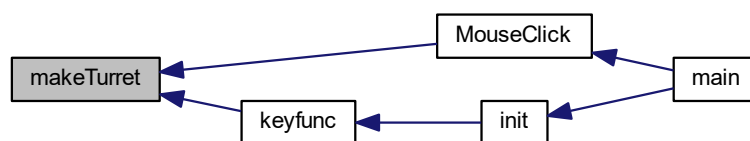


5.14.1.11 void makeTurret (float x, float y)

Here is the call graph for this function:

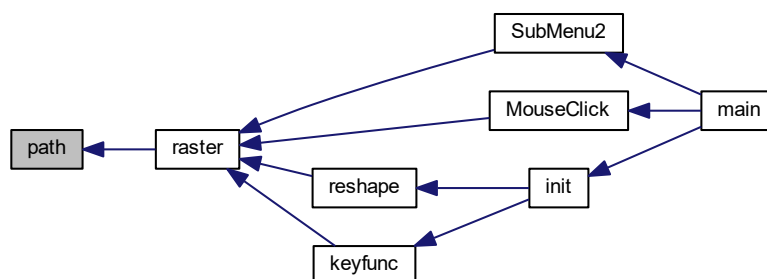


Here is the caller graph for this function:



5.14.1.12 void path ()

Here is the caller graph for this function:

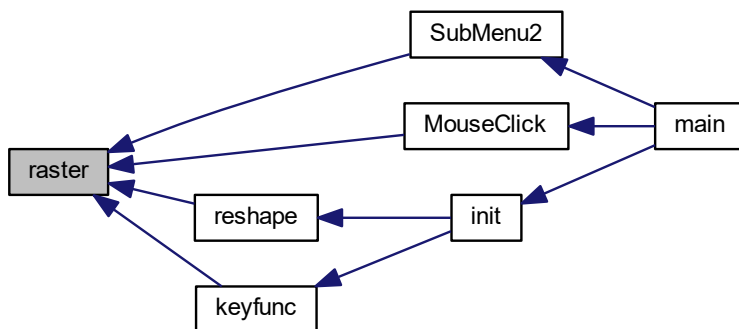


5.14.1.13 void raster ()

Here is the call graph for this function:

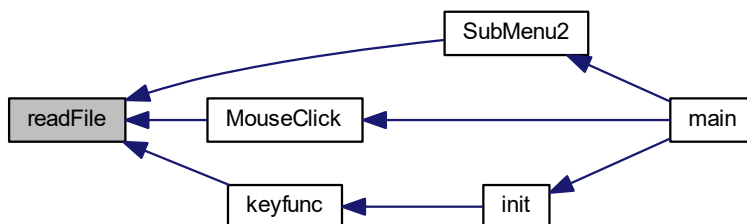


Here is the caller graph for this function:



5.14.1.14 void readFile (string filename)

Here is the caller graph for this function:

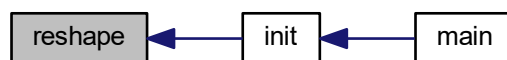


5.14.1.15 void reshape (int *w*, int *h*)

Here is the call graph for this function:

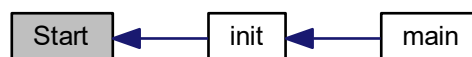


Here is the caller graph for this function:



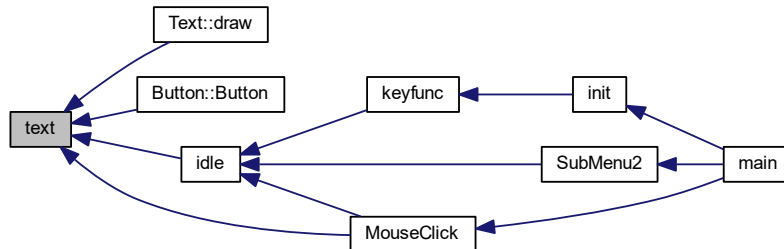
5.14.1.16 void Start ()

Here is the caller graph for this function:



5.14.1.17 void text ()

Here is the caller graph for this function:



5.14.2 Variable Documentation

5.14.2.1 const int windowHeight = 768

5.14.2.2 const char* windowTitle = "Final C Task: Tower Defense by: Martyn van Dijke"

5.14.2.3 const int windowHeight = 1024

5.15 OpenGLSkeleton/resource.h File Reference

Macros

- `#define IDI_ICON1 101`

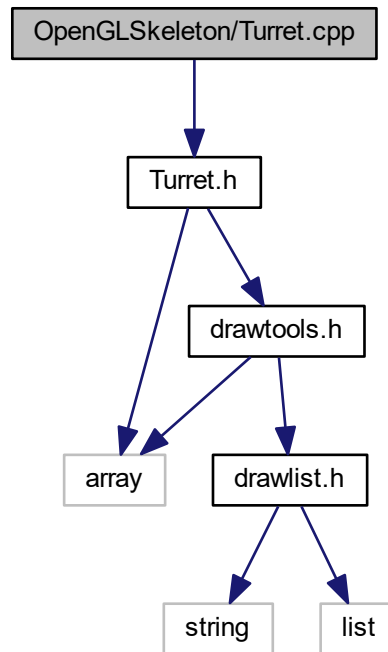
5.15.1 Macro Definition Documentation

5.15.1.1 #define IDI_ICON1 101

5.16 OpenGLSkeleton/Turret.cpp File Reference

```
#include "Turret.h"
```

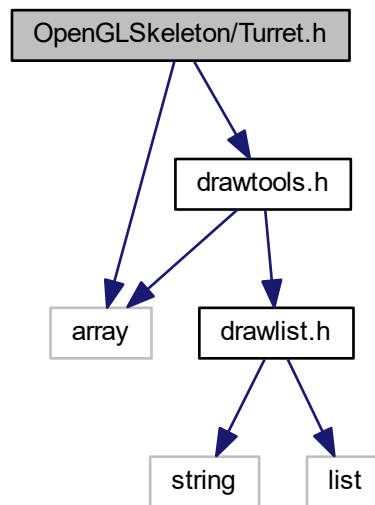
Include dependency graph for Turret.cpp:



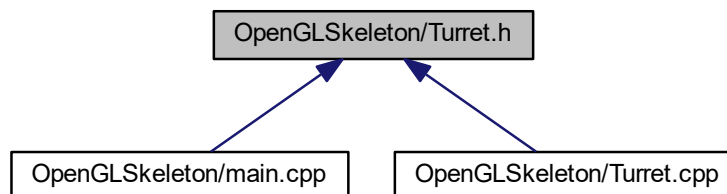
5.17 OpenGLSkeleton/Turret.h File Reference

```
#include <array>
#include "drawtools.h"
```

Include dependency graph for Turret.h:



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



Classes

- class [Turret](#)

5.18 OpenGLSkeleton/zooi.cpp File Reference

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