OpenGui

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barbs-bandits

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

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Here is a list of all files with brief descriptions:

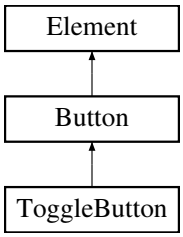
Chapter 5

Class Documentation

5.1 Button Class Reference

`#include <Button.h>`

Inheritance diagram for Button:



Public Member Functions

- Button ()
- Button (unsigned int x, unsigned int y)
- Button (unsigned int x, unsigned int y, unsigned int width, unsigned int height)
- Button (unsigned int x, unsigned int y, unsigned int width, unsigned int height, string txt)
- Button (unsigned int x, unsigned int y, unsigned int width, unsigned int height, ImageElement *img)
- void setBgImg (ImageElement *img)
- void setText (string txt)

Protected Attributes

- TextElement * _textE
- ImageElement * _imageE

5.1.1 Detailed Description

Definition at line 13 of file Button.h.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 Button::Button ( ) [inline]

Definition at line 15 of file Button.h.

5.1.2.2 Button::Button (unsigned int *x*, unsigned int *y*) [inline]

Definition at line 16 of file Button.h.

5.1.2.3 Button::Button (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*) [inline]

Definition at line 18 of file Button.h.

5.1.2.4 Button::Button (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*, string *txt*) [inline]

Definition at line 20 of file Button.h.

5.1.2.5 Button::Button (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*, ImageElement * *img*) [inline]

Definition at line 28 of file Button.h.

5.1.3 Member Function Documentation

5.1.3.1 void Button::setBgImg (ImageElement * *img*) [inline]

Definition at line 34 of file Button.h.

5.1.3.2 void Button::setText (string *txt*) [inline]

Definition at line 36 of file Button.h.

5.1.4 Member Data Documentation

5.1.4.1 ImageElement* Button::_imageE [protected]

Definition at line 40 of file Button.h.

5.1.4.2 TextElement* Button::_textE [protected]

Definition at line 39 of file Button.h.

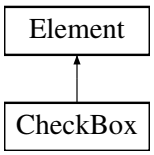
The documentation for this class was generated from the following file:

- button/Button.h

5.2 CheckBox Class Reference

`#include <CheckBox.h>`

Inheritance diagram for CheckBox:



Public Member Functions

- CheckBox ()
- CheckBox (unsigned int x, unsigned int y)

Additional Inherited Members

5.2.1 Detailed Description

Definition at line 12 of file CheckBox.h.

5.2.2 Constructor & Destructor Documentation

5.2.2.1 CheckBox::CheckBox ( ) [inline]

Definition at line 14 of file CheckBox.h.

5.2.2.2 CheckBox::CheckBox (unsigned int *x*, unsigned int *y*) [inline]

Definition at line 15 of file CheckBox.h.

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

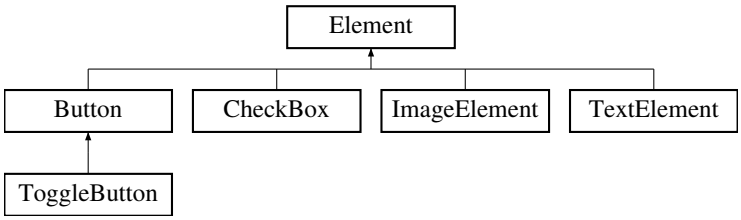
- checkbox/CheckBox.h

5.3 Element Class Reference

The base class that all GUI elements derive from.

`#include <Element.h>`

Inheritance diagram for Element:



Public Member Functions

- Element ()

  Default Constructor.
- Element (int x, int y)

  Construct with position.
- Element (int x, int y, int xs, int ys)

  Construct with position and size.
- virtual ∼Element ()

  Destructor.
- virtual void clearResult ()

  Clears the result image to a color (black is default).
- Image ∗ render ()

  Renders the element and its children recursively.
- void registerCallback (void(∗func)(void ∗))

  Registers a callback function for the element.
- void mouseInput (int x, int y)

  Test if element clicked by mouse.
- void addChild (Element ∗child)

  Add a child element to the current element.
- void setX (unsigned int x)

  Set the x position of the element.
- void setY (unsigned int y)

  Set the y position of the element.
- void setZ (float z)

  Set the z position (z index) of the element.
- unsigned int getId ()

  Retrieve the current element's unique id.
- void setWidth (unsigned int width)

  Set the element's width.
- void setHeight (unsigned int height)

  Set the element's height.
- void setDirty (bool dirty)

  Set the dirty flag. Causes the element re-render.
- bool operator< (const Element &other)

  Less than operator so Element objects may be sorted.

Protected Attributes

- unsigned int _xCoord
- unsigned int _yCoord
- unsigned int _width
- unsigned int _height
- Image * _result

5.3.1 Detailed Description

The base class that all GUI elements derive from.

This class provides a standard interface that is required for element traversal, rendering, and events.

Definition at line 22 of file Element.h.

5.3.2 Constructor & Destructor Documentation

5.3.2.1 Element::Element ( )

Default Constructor.

Creates an element positioned at (0,0) with dimensions (0,0).

Definition at line 10 of file Element.cpp.

5.3.2.2 Element::Element (int *x*, int *y*)

Construct with position.

Creates an element positioned at (x,y) with dimensions (0,0).

Definition at line 24 of file Element.cpp.

5.3.2.3 Element::Element (int *x*, int *y*, int *xs*, int *ys*)

Construct with position and size.

Creates an element positioned at (x, y) with dimensions (xs, ys).

Definition at line 39 of file Element.cpp.

5.3.2.4 Element::~Element ( ) [virtual]

Destructor.

Deletes the pointers for the result image and the clear image (background).

Definition at line 54 of file Element.cpp.

5.3.3 Member Function Documentation

5.3.3.1 void Element::addChild (Element * *child*)

Add a child element to the current element.

Add a child element to the set of children elements. The function accepts a pointer to an Element, which must remain in scope as long as the parent. Calls STL sort on the children, organizing by z-index (z position).

Definition at line 95 of file Element.cpp.

5.3.3.2 void Element::clearResult ( ) [virtual]

Clears the result image to a color (black is default).

Renders the background of the element, namely element contents. For generic Elements, it blits a solid color (black) image to the element's result image. For content elements (TextElement and ImageElement) it will blit the stored image (for image elements) or resulting image from rendering the text (for text elements) before rendering the children.

Reimplemented in ImageElement, and TextElement.

Definition at line 65 of file Element.cpp.

5.3.3.3 unsigned int Element::getId ( ) [inline]

Retrieve the current element's unique id.

Definition at line 46 of file Element.h.

5.3.3.4 void Element::mouseInput (int *x*, int *y*)

Test if element clicked by mouse.

Tests if the mouse click at (x, y) is within the element.

Definition at line 70 of file Element.cpp.

5.3.3.5 bool Element::operator< (const Element & *other*)

Less than operator so Element objects may be sorted.

Less than operator which compares two elements based solely on their z-index (z position).

Definition at line 136 of file Element.cpp.

5.3.3.6 void Element::registerCallback (void(*)(void *) *func*)

Registers a callback function for the element.

Register a callback function, accepts a function pointer to a function which takes one argument of void*.

Definition at line 87 of file Element.cpp.

5.3.3.7 Image * Element::render ( )

Renders the element and its children recursively.

Clears the result image of past renders with clearResult(), filling it with either a color or the element's content, then renders each child in order of z-index (z position). Once all of the children have been rendered, it is blitted to the result image. After all children are rendered and blitted, the result image is returned.

Definition at line 110 of file Element.cpp.

5.3.3.8 void Element::setDirty (bool *dirty*) [inline]

Set the dirty flag. Causes the element re-render.

Definition at line 52 of file Element.h.

5.3.3.9 void Element::setHeight (unsigned int *height*) [inline]

Set the element's height.

Definition at line 50 of file Element.h.

5.3.3.10 void Element::setWidth (unsigned int *width*) [inline]

Set the element's width.

Definition at line 48 of file Element.h.

5.3.3.11 void Element::setX (unsigned int *x*) [inline]

Set the x position of the element.

Definition at line 40 of file Element.h.

5.3.3.12 void Element::setY (unsigned int *y*) [inline]

Set the y position of the element.

Definition at line 42 of file Element.h.

5.3.3.13 void Element::setZ (float *z*) [inline]

Set the z position (z index) of the element.

Definition at line 44 of file Element.h.

5.3.4 Member Data Documentation

5.3.4.1 unsigned int Element::_height [protected]

The element's height.

Definition at line 65 of file Element.h.

5.3.4.2 Image* Element::_result [protected]

The resulting image for the element to be blitted to a parent element or rendered on a surface

Definition at line 69 of file Element.h.

5.3.4.3 unsigned int Element::_width [protected]

The element's width.

Definition at line 63 of file Element.h.

5.3.4.4 unsigned int Element::_xCoord [protected]

The x position of the element in the parent.

Definition at line 59 of file Element.h.

5.3.4.5 unsigned int Element::_yCoord [protected]

The y position of the element in the parent.

Definition at line 61 of file Element.h.

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

- element/Element.h
- element/Element.cpp

5.4 Image Class Reference

`#include <Image.h>`

Public Member Functions

- Image ()
- Image (unsigned int width, unsigned int height)
- Image (unsigned int width, unsigned int height, const Pixel &p)
- Image (unsigned int width, unsigned int height, unsigned char *data)
- Image (Image &img)
- ~Image ()
- unsigned int width () const
- unsigned int height () const
- void set (unsigned int x, unsigned int y, const Pixel &color)
- void set (unsigned int x, unsigned int y, unsigned int width, unsigned int height, const Pixel &color)
- const Pixel & get (unsigned int x, unsigned int y) const
- Pixel * getPixels ()
- void blit (Image &dest, unsigned int xSource, unsigned int ySource, unsigned int xDest, unsigned int yDest, unsigned int width, unsigned int height) const

Friends

- std::ostream & operator<< (std::ostream &out, const Image &img)

5.4.1 Detailed Description

Definition at line 8 of file Image.h.

5.4.2 Constructor & Destructor Documentation

5.4.2.1 Image::Image ( )

Definition at line 8 of file Image.cpp.

5.4.2.2 Image::Image (unsigned int *width*, unsigned int *height*)

Definition at line 14 of file Image.cpp.

5.4.2.3 Image::Image (unsigned int *width*, unsigned int *height*, const Pixel & *p*)

Definition at line 22 of file Image.cpp.

5.4.2.4 Image::Image (unsigned int *width*, unsigned int *height*, unsigned char * *data*)

Definition at line 41 of file Image.cpp.

5.4.2.5 Image::Image (Image & *img*)

Definition at line 31 of file Image.cpp.

5.4.2.6 Image::~Image ( )

Definition at line 54 of file Image.cpp.

5.4.3 Member Function Documentation

5.4.3.1 void Image::blit (Image & *dest*, unsigned int *xSource*, unsigned int *ySource*, unsigned int *xDest*, unsigned int *yDest*, unsigned int *width*, unsigned int *height*) const

Definition at line 115 of file Image.cpp.

5.4.3.2 const Pixel & Image::get (unsigned int *x*, unsigned int *y*) const

Definition at line 102 of file Image.cpp.

5.4.3.3 Pixel* Image::getPixels ( ) [inline]

Definition at line 22 of file Image.h.

5.4.3.4 unsigned int Image::height ( ) const

Definition at line 63 of file Image.cpp.

5.4.3.5 void Image::set (unsigned int *x*, unsigned int *y*, const Pixel & *color*)

Definition at line 66 of file Image.cpp.

5.4.3.6 void Image::set (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*, const Pixel & *color*)

Definition at line 80 of file Image.cpp.

5.4.3.7 unsigned int Image::width ( ) const

Definition at line 60 of file Image.cpp.

5.4.4 Friends And Related Function Documentation

5.4.4.1 std::ostream& operator<< (std::ostream & *out*, const Image & *img*) [friend]

Definition at line 147 of file Image.cpp.

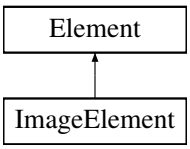
The documentation for this class was generated from the following files:

- image/Image.h
- image/Image.cpp

5.5 ImageElement Class Reference

`#include <ImageElement.h>`

Inheritance diagram for ImageElement:



Public Member Functions

- ImageElement ()
- ImageElement (Image &img)

- ImageElement (unsigned int x, unsigned int y)
- ImageElement (unsigned int x, unsigned int y, unsigned int width, unsigned int height)
- ImageElement (unsigned int x, unsigned int y, unsigned int width, unsigned int height, Image &img)
- void clearResult ()

  Clears the result image to a color (black is default).

Additional Inherited Members

5.5.1 Detailed Description

Definition at line 9 of file ImageElement.h.

5.5.2 Constructor & Destructor Documentation

5.5.2.1 ImageElement::ImageElement ( ) [inline]

Definition at line 12 of file ImageElement.h.

5.5.2.2 ImageElement::ImageElement (Image & *img*) [inline]

Definition at line 13 of file ImageElement.h.

5.5.2.3 ImageElement::ImageElement (unsigned int *x,* unsigned int *y*) [inline]

Definition at line 14 of file ImageElement.h.

5.5.2.4 ImageElement::ImageElement (unsigned int *x,* unsigned int *y,* unsigned int *width,* unsigned int *height*) [inline]

Definition at line 17 of file ImageElement.h.

5.5.2.5 ImageElement::ImageElement (unsigned int *x,* unsigned int *y,* unsigned int *width,* unsigned int *height,* Image & *img*) [inline]

Definition at line 19 of file ImageElement.h.

5.5.3 Member Function Documentation

5.5.3.1 void ImageElement::clearResult ( ) [inline], [virtual]

Clears the result image to a color (black is default).

Renders the background of the element, namely element contents. For generic Elements, it blits a solid color (black) image to the element's result image. For content elements (TextElement and ImageElement) it will blit the stored image (for image elements) or resulting image from rendering the text (for text elements) before rendering the children.

Reimplemented from Element.

Definition at line 22 of file ImageElement.h.

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

- image/ImageElement.h

5.6 Pixel Class Reference

`#include <Pixel.h>`

Public Member Functions

- Pixel ()
- Pixel (int R, int G, int B)
- Pixel (int R, int G, int B, int A)
- Pixel (Pixel &p)
- void setRGB (int R, int G, int B)
- void setRGBA (int R, int G, int B, int A)
- int getR () const
- int getG () const
- int getB () const
- int getA () const

Friends

- std::ostream & operator<< (std::ostream &out, const Pixel &p)

5.6.1 Detailed Description

Definition at line 6 of file Pixel.h.

5.6.2 Constructor & Destructor Documentation

5.6.2.1 Pixel::Pixel ( )

Definition at line 3 of file Pixel.cpp.

5.6.2.2 Pixel::Pixel (int *R*, int *G*, int *B*)

Definition at line 4 of file Pixel.cpp.

5.6.2.3 Pixel::Pixel (int *R*, int *G*, int *B*, int *A*)

Definition at line 7 of file Pixel.cpp.

5.6.2.4 Pixel::Pixel (Pixel & *p*)

Definition at line 11 of file Pixel.cpp.

5.6.3 Member Function Documentation

5.6.3.1 int Pixel::getA ( ) const

Definition at line 34 of file Pixel.cpp.

5.6.3.2 int Pixel::getB ( ) const

Definition at line 31 of file Pixel.cpp.

5.6.3.3 int Pixel::getG ( ) const

Definition at line 28 of file Pixel.cpp.

5.6.3.4 int Pixel::getR ( ) const

Definition at line 25 of file Pixel.cpp.

5.6.3.5 void Pixel::setRGB (int *R*, int *G*, int *B*)

Definition at line 19 of file Pixel.cpp.

5.6.3.6 void Pixel::setRGBA (int *R*, int *G*, int *B*, int *A*)

Definition at line 22 of file Pixel.cpp.

5.6.4 Friends And Related Function Documentation

5.6.4.1 std::ostream& operator<< (std::ostream & *out*, const Pixel & *p*) [friend]

Definition at line 37 of file Pixel.cpp.

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

- image/Pixel.h
- image/Pixel.cpp

5.7 Text Class Reference

`#include <Text.h>`

Public Member Functions

- Text ()
- Text (Text &txt)
- Text (int w, int h, int size)
- Text (int w, int h, int size, string c)

- ~Text ()
- void setText (string c)
- Image * getImage ()
- string getText (void)

5.7.1 Detailed Description

Definition at line 12 of file Text.h.

5.7.2 Constructor & Destructor Documentation

5.7.2.1 Text::Text ( )

Definition at line 14 of file Text.cpp.

5.7.2.2 Text::Text (Text & *txt*)

Definition at line 41 of file Text.cpp.

5.7.2.3 Text::Text (int *w*, int *h*, int *size*)

Definition at line 19 of file Text.cpp.

5.7.2.4 Text::Text (int *w*, int *h*, int *size*, string *c*)

Definition at line 24 of file Text.cpp.

5.7.2.5 Text::~Text ( )

Definition at line 46 of file Text.cpp.

5.7.3 Member Function Documentation

5.7.3.1 Image * Text::getImage ( )

Definition at line 62 of file Text.cpp.

5.7.3.2 string Text::getText (void) [inline]

Definition at line 22 of file Text.h.

5.7.3.3 void Text::setText (string *c*)

Definition at line 56 of file Text.cpp.

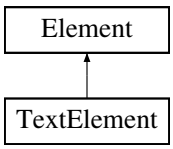
The documentation for this class was generated from the following files:

- text/Text.h
- text/Text.cpp

5.8 TextElement Class Reference

`#include <TextElement.h>`

Inheritance diagram for TextElement:



Public Member Functions

- TextElement (unsigned int x, unsigned int y)
- TextElement (unsigned int x, unsigned int y, unsigned int width, unsigned int height)
- TextElement (unsigned int x, unsigned int y, unsigned int width, unsigned int height, int size, string txt)
- ~TextElement ()
- void setText (string txt)
- void clearResult ()

  Clears the result image to a color (black is default).

Additional Inherited Members

5.8.1 Detailed Description

Definition at line 9 of file TextElement.h.

5.8.2 Constructor & Destructor Documentation

5.8.2.1 TextElement::TextElement (unsigned int *x*, unsigned int *y*)

Definition at line 10 of file TextElement.cpp.

5.8.2.2 TextElement::TextElement (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*)

Definition at line 15 of file TextElement.cpp.

5.8.2.3 TextElement::TextElement (unsigned int *x*, unsigned int *y*, unsigned int *width*, unsigned int *height*, int *size*, string *txt*)

Definition at line 20 of file TextElement.cpp.

5.8.2.4 TextElement::~TextElement ( )

Definition at line 28 of file TextElement.cpp.

5.8.3 Member Function Documentation

5.8.3.1 void TextElement::clearResult ( ) [virtual]

Clears the result image to a color (black is default).

Renders the background of the element, namely element contents. For generic Elements, it blits a solid color (black) image to the element's result image. For content elements (TextElement and ImageElement) it will blit the stored image (for image elements) or resulting image from rendering the text (for text elements) before rendering the children.

Reimplemented from Element.

Definition at line 40 of file TextElement.cpp.

5.8.3.2 void TextElement::setText (string *txt*)

Definition at line 35 of file TextElement.cpp.

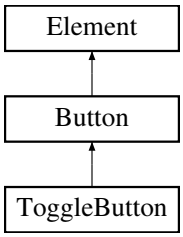
The documentation for this class was generated from the following files:

- text/TextElement.h
- text/TextElement.cpp

5.9 ToggleButton Class Reference

`#include <ToggleButton.h>`

Inheritance diagram for ToggleButton:



Public Member Functions

- ToggleButton ()
- ToggleButton (int x, int y)
- ToggleButton (int x, int y, int w, int h)
- ToggleButton (int x, int y, int w, int h, string txt)
- ToggleButton (int x, int y, int w, int h, string content, int size, ImageElement *i)

Additional Inherited Members

5.9.1 Detailed Description

Definition at line 12 of file ToggleButton.h.

5.9.2 Constructor & Destructor Documentation

5.9.2.1 ToggleButton::ToggleButton ( ) [inline]

Definition at line 14 of file ToggleButton.h.

5.9.2.2 ToggleButton::ToggleButton (int *x*, int *y*) [inline]

Definition at line 15 of file ToggleButton.h.

5.9.2.3 ToggleButton::ToggleButton (int *x*, int *y*, int *w*, int *h*) [inline]

Definition at line 16 of file ToggleButton.h.

5.9.2.4 ToggleButton::ToggleButton (int *x*, int *y*, int *w*, int *h*, string *txt*) [inline]

Definition at line 19 of file ToggleButton.h.

5.9.2.5 ToggleButton::ToggleButton (int *x*, int *y*, int *w*, int *h*, string *content*, int *size*, ImageElement * *i*) [inline]

Definition at line 23 of file ToggleButton.h.

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

- togglebutton/ToggleButton.h

Chapter 6

File Documentation

6.1 button/Button.h File Reference

```
#include <string>
#include "../image/Image.h"
#include "../text/Text.h"
#include "../element/Element.h"
#include "../image/ImageElement.h"
#include "../text/TextElement.h"
```

Classes

- class Button

6.2 button/main.cpp File Reference

```
#include <string>
#include "../image/Image.h"
#include "../image/Pixel.h"
#include "../text/Text.h"
#include "Button.h"
```

Functions

- int main ()

6.2.1 Function Documentation

6.2.1.1 int main ( )

Definition at line 9 of file main.cpp.

6.3 main.cpp File Reference

```
#include <GL/glfw.h>
#include <FreeImage.h>
#include <stdlib.h>
#include <stdio.h>
#include <iostream>
#include "main.h"
#include "element/Element.h"
#include "text/TextElement.h"
#include "image/ImageElement.h"
#include "togglebutton/ToggleButton.h"
#include "button/Button.h"
```

Functions

- int main ()
- int loadGuiTexture (string textureString)
- void shutDown (int returnCode)
- int closeWindow (void)
- void init (void)
- void mainLoop (void)
- void draw (void)
- void GLFWCALL windowResize (int width, int height)
- void GLFWCALL mouseClicked (int mButton, int clicked)
- void buttonClicked (void *e)

Variables

- GLuint texture

6.3.1 Function Documentation

6.3.1.1 void buttonClicked (void * *e*)

Definition at line 209 of file main.cpp.

6.3.1.2 int closeWindow (void)

Definition at line 110 of file main.cpp.

6.3.1.3 void draw (void)

Definition at line 169 of file main.cpp.

6.3.1.4 void init (void)

Initializes a glfw window for use in the demo

Definition at line 115 of file main.cpp.

6.3.1.5 int loadGuiTexture (string *textureString*)

Definition at line 30 of file main.cpp.

6.3.1.6 int main ( )

Definition at line 23 of file main.cpp.

6.3.1.7 void mainLoop (void)

the main event loop for the demo

Definition at line 153 of file main.cpp.

6.3.1.8 void GLFWCALL mouseClicked (int *mButton,* int *clicked*)

Definition at line 198 of file main.cpp.

6.3.1.9 void shutDown (int *returnCode*)

shuts down glfw and exits the program with a return code

Definition at line 101 of file main.cpp.

6.3.1.10 void GLFWCALL windowResize (int *width,* int *height*)

Definition at line 193 of file main.cpp.

6.3.2 Variable Documentation

6.3.2.1 GLuint texture

Definition at line 19 of file main.cpp.

6.4 text/main.cpp File Reference

```
#include <iostream>
#include <string>
#include "Text.h"
#include "../image/Image.h"
```

Functions

- int main ()

6.4.1 Function Documentation

6.4.1.1 int main ( )

Definition at line 7 of file main.cpp.

6.5 checkbox/CheckBox.h File Reference

```
#include "Element.h"
#include "Text.h"
#include "Image.h"
#include "ImageElement.h"
#include "TextElement.h"
```

Classes

- class CheckBox

6.6 element/Element.cpp File Reference

```
#include "Element.h"
#include <iostream>
#include <algorithm>
#include <stdio.h>
#include "../image/Image.h"
```

6.7 element/Element.h File Reference

```
#include <vector>
#include <algorithm>
#include "../image/Image.h"
```

Classes

- class Element

  The base class that all GUI elements derive from.

6.7.1 Detailed Description

This file contains the Element class.

Definition in file Element.h.

6.8 element/Main.cpp File Reference

```
#include <iostream>
#include <vector>
#include "Element.h"
```

Functions

- int main ()

6.8.1 Function Documentation

6.8.1.1 int main ( )

Definition at line 6 of file Main.cpp.

6.9 image/Main.cpp File Reference

```
#include <iostream>
#include "Image.h"
```

Functions

- int main ()

6.9.1 Function Documentation

6.9.1.1 int main ( )

Definition at line 5 of file Main.cpp.

6.10 togglebutton/Main.cpp File Reference

```
#include <string>
#include "../image/Image.h"
#include "../image/Pixel.h"
#include "../text/Text.h"
#include "Button.h"
```

Functions

- int main ()

6.10.1 Function Documentation

6.10.1.1 int main ( )

Definition at line 9 of file Main.cpp.

6.11 image/Image.cpp File Reference

```
#include "Image.h"
#include <algorithm>
```

Functions

- std::ostream & operator<< (std::ostream &out, const Image &img)

Variables

- Pixel ERRORPIXEL

6.11.1 Function Documentation

6.11.1.1 std::ostream& operator<< (std::ostream & *out,* const Image & *img*)

Definition at line 147 of file Image.cpp.

6.11.2 Variable Documentation

6.11.2.1 Pixel ERRORPIXEL

Definition at line 101 of file Image.cpp.

6.12 image/Image.h File Reference

```
#include <iostream>
#include "Pixel.h"
#include "Image.h"
```

Classes

- class Image

6.13 image/ImageElement.h File Reference

```
#include <iostream>
#include "Pixel.h"
#include "Image.h"
#include "../element/Element.h"
```

Classes

- class ImageElement

6.14 image/Pixel.cpp File Reference

```
#include "Pixel.h"
```

Functions

- std::ostream & operator<< (std::ostream &out, const Pixel &p)

6.14.1 Function Documentation

6.14.1.1 std::ostream& operator<< (std::ostream & *out*, const Pixel & *p*)

Definition at line 37 of file Pixel.cpp.

6.15 image/Pixel.h File Reference

```
#include <iostream>
```

Classes

- class Pixel

6.16 main.h File Reference

```
#include "element/Element.h"
```

Functions

- void shutDown (int returnCode)
- void init (void)
- void mainLoop (void)
- void draw (void)
- void GLFWCALL windowResize (int width, int height)
- int loadGuiTexture (string texture)
- void GLFWCALL mouseClicked (int mButton, int clicked)
- void buttonClicked (void *e)

6.16.1 Function Documentation

6.16.1.1 void buttonClicked (void * *e*)

Definition at line 209 of file main.cpp.

6.16.1.2 void draw (void)

Definition at line 169 of file main.cpp.

6.16.1.3 void init (void)

Initializes a glfw window for use in the demo

Definition at line 115 of file main.cpp.

6.16.1.4 int loadGuiTexture (string *texture*)

Definition at line 30 of file main.cpp.

6.16.1.5 void mainLoop (void)

the main event loop for the demo

Definition at line 153 of file main.cpp.

6.16.1.6 void GLFWCALL mouseClicked (int *mButton,* int *clicked*)

Definition at line 198 of file main.cpp.

6.16.1.7 void shutDown (int *returnCode*)

shuts down glfw and exits the program with a return code

Definition at line 101 of file main.cpp.

6.16.1.8 void GLFWCALL windowResize (int *width,* int *height*)

Definition at line 193 of file main.cpp.

6.17 README.md File Reference

6.18 text/Text.cpp File Reference

```
#include "Text.h"
#include <string>
#include <ft2build.h>
#include <iostream>
#include "../image/Image.h"
#include "../image/Pixel.h"
#include <stdio.h>
#include <math.h>
```

6.19 text/Text.h File Reference

```
#include <string>
#include <ft2build.h>
#include "../image/Image.h"
```

Classes

- class Text

6.20 text/TextElement.cpp File Reference

```
#include <string>
#include "Text.h"
#include "TextElement.h"
#include "../image/Image.h"
#include "../element/Element.h"
```

6.21 text/TextElement.h File Reference

```
#include <string>
#include "Text.h"
#include "../image/Image.h"
#include "../element/Element.h"
```

Classes

- class TextElement

6.22 togglebutton/ToggleButton.h File Reference

```
#include <string>
#include "../image/ImageElement.h"
#include "../text/TextElement.h"
#include "../text/Text.h"
#include "../button/Button.h"
```

Classes

- class ToggleButton

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