Thesis Project - OpenFrameworks Part

Generated by Doxygen 1.8.2

Fri Sep 21 2012 01:26:53

Contents

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Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

File Index

3.1 File List

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

Chapter 4

Class Documentation

4.1 Calculations Class Reference

Public Member Functions

- float **convertDegreestoRadians** (float val)
- float **convertRadianstoDegrees** (float val)
- float **calculateHaversineDistance** (float dlat, float dlong, float lat1_rad, float lat2_rad)
- void **Calculate2dCoordinates** (float lat1, float long1, float lat2, float long2)
- void **check_intersection** (float yaw, vector< POIs > &scenes)
- bool **ray_sphere_intersect** (ofVec3f p1, ofVec3f p2, ofVec3f sc, double r)

Public Attributes

- float **lat1**
- float **lat2**
- float **long1**
- float **long2**
- float **lat1_rad**
- float **lat2_rad**
- float **long1_rad**
- float **long2_rad**
- float **dlong**
- float **dlat**
- float **bearing**
- float **bearing_correction**
- float **xpos**
- float **ypos**
- float **x_temp_poi**
- float **y_temp_poi**
- float **Hdistance**
- int **selected_model**
- int **selected_note**
- float **intersection_pt1**
- float **intersection_pt2**
- ofVec3f **test**
- ofVec3f **origin**
- ofVec3f **Bbay**
- ofVec3f **receiver**

- ofVec3f **destination1**
- ofVec3f **friend_loc**

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

- src/Calculations.h

4.2 GUIStuff Class Reference

Public Member Functions

- void **drawAxes** ()
- void **drawPlane** ()
- void **drawAugmentedPlane** (float xPosition, float yPosition, ofColor textColor, ofColor bgColor, int i, string note_heading, string note_text)

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

- src/GUIStuff.h

4.3 Models Class Reference

Public Member Functions

- void **ModelsDraw** ()

Public Attributes

- float **y**

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

- src/Models.h

4.4 NoteInformation Class Reference

Public Member Functions

- **NoteInformation** (string textheading, string notetext, ofColor tcolor, ofColor bgcolor)

Public Attributes

- string **note_heading**
- string **note_text**
- ofColor **text_color**
- ofColor **bg_color**

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

- src/NoteInformation.h

4.5 POIs Class Reference

Public Member Functions

- **POIs** (float a, float b)

Public Attributes

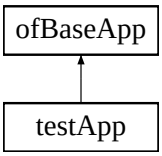
- float **x**
- float **y**

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

- src/POIS.h

4.6 testApp Class Reference

Inheritance diagram for testApp:



Public Member Functions

- void setup ()

  Setups this object.
- void **update** ()
- void draw ()
- void keyPressed (int key)
- void **keyReleased** (int key)
- void **mouseMoved** (int x, int y)
- void **mouseDragged** (int x, int y, int button)
- void mousePressed (int x, int y, int button)

  Mouse pressed.
- void mouseReleased (int x, int y, int button)

  Mouse released.
- void **windowResized** (int w, int h)
- void UpdateTracking ()
- void **setupTracker** ()
- void setupModels ()
- void drawModels ()
- void drawAxes ()
- void drawPlane ()

  Draw plane.
- void UDPReceive ()
- void addObjecttoScene (string)
- ofColor **Returncolor** (string)
- void drawAugmentedPlane (float, float, ofColor, ofColor, int, string, string)

  Draw augmented plane.

Public Attributes

- ofxUDPManager **udpConnection**
- ofTrueTypeFont **mono**
- ofTrueTypeFont monosm

  The monosm.
- ofxAssimpModelLoader **bb_model**
- ofxAssimpModelLoader **cr_model**
- ofxAssimpModelLoader **lr_model**
- ofxAssimpModelLoader **ls_model**
- ofxAssimpModelLoader **pgn_model**
- ofxAssimpModelLoader pgy_model

  Gets the tbox model.
- ofxAssimpModelLoader **pog_model**
- ofxAssimpModelLoader **rc_model**
- ofxAssimpModelLoader **sr_model**
- ofxAssimpModelLoader **tbox_model**
- ofxAssimpModelLoader squirrelModel

  The squirrel model.

4.6.1 Member Function Documentation

4.6.1.1 void testApp::addObjecttoScene (string *message*)

4.6.1.2 void testApp::draw ( )

Constructor.

Author

Rahul

Date

9/21/2012

Parameters

parameter1	The first parameter.

4.6.1.3 void testApp::drawAugmentedPlane (float *xPosition,* float *yPosition,* ofColor *textColor,* ofColor *bgColor,* int *i,* string *note_heading,* string *note_text*)

Draw augmented plane.

Author

Rahul

Date

9/21/2012

Parameters

xPosition	The position.
yPosition	The position.
textColor	The text color.
bgColor	The background color.
i	Zero-based index of the.
note_heading	The note heading.
note_text	The note text.

4.6.1.4 void testApp::drawAxes ( )

Constructor.

Author

Rahul

Date

9/21/2012

Parameters

parameter1	The first parameter.
parameter2	The second parameter.
parameter3	The third parameter.

4.6.1.5 void testApp::drawModels ( )

Constructor.

Author

Rahul

Date

9/21/2012

Parameters

parameter1	The first parameter.
parameter2	The second parameter.

4.6.1.6 void testApp::drawPlane ( )

Draw plane.

Author

Rahul

Date

9/21/2012

4.6.1.7 void testApp::keyPressed (int *key*)

Key released.

Author

Rahul

Date

9/21/2012

Parameters

key	The key.

4.6.1.8 void testApp::mousePressed (int *x*, int *y*, int *button*)

Mouse pressed.

This function will be called when the mouse is pressed

Author

Rahul

Date

9/21/2012

Parameters

x	The x coordinate.
y	The y coordinate.
button	The button.

4.6.1.9 void testApp::mouseReleased (int *x*, int *y*, int *button*)

Mouse released.

Author

Rahul

Date

9/21/2012

Parameters

x	The x coordinate.
y	The y coordinate.
button	The button.

4.6.1.10 void testApp::setup ( )

Setups this object.

Author

Rahul

Date

9/21/2012

Constructor.

Author

Rahul

Date

9/21/2012

Parameters

parameter1	The first parameter.

4.6.1.11 void testApp::setupModels ( )

Constructor.

Author

Rahul

Date

9/21/2012

Parameters

parameter1	The first parameter.
parameter2	The second parameter.
parameter3	The third parameter.

4.6.1.12 void testApp::UDPReceive ( )

Default constructor.

Author

Rahul

Date

9/21/2012

4.6.1.13 void testApp::UpdateTracking ( )

Gets the.

.

4.6.2 Member Data Documentation

4.6.2.1 ofxAssimpModelLoader bb_model cr_model lr_model ls_model pgn_model testApp::pgy_model

Gets the tbox model.

pog_model,rc_model,sr_model,tbox_model

Returns

The tbox model.

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

- src/testApp.h
- src/testApp.cpp

Chapter 5

File Documentation

5.1 src/testApp.cpp File Reference

Implements the test application class.

```
#include "testApp.h"
#include "stdafx.h"
#include "IWRsdk.h"
#include <stdio.h>
#include <fcntl.h>
#include <io.h>
#include <sys\stat.h>
#include <iostream>
```

Macros

- #define IWR_OK 0

  Vuzix Trackers Macros .
- #define **IWR_NO_TRACKER** 1
- #define **IWR_OFFLINE** 2
- #define **IWR_TRACKER_CORRUPT** 3
- #define **IWR_NOTRACKER_INSTANCE** 4
- #define **IWR_NO_STEREO** 5
- #define **IWR_STEREO_CORRUPT** 6

Enumerations

- enum { **NO_FILTER** =0, **APPLICATION_FILTER**, **INTERNAL_FILTER** }

Functions

- void IWRFilterTracking (long *yaw, long *pitch, long *roll)

  The Filtered tracking output.

Variables

- bool **g_tracking** = false
- float g_fYaw = 0.0f

The roll.

- float **g_fPitch** = 0.0f
- float **g_fRoll** = 0.0f
- long iwr_status

  The iwr status.

- int g_Filtering = 0

  The filtering.

- int **Pid** = 0
- HMODULE **hMod**
- ofCamera **cam**
- float yaw =0

  – Processing ...

- float **roll** =0
- vector< POIs > scenes

  The scenes.

- vector< NoteInformation > **Notes**
- float **rotX**
- float rotY

  Gets the rot y coordinate.

- float rotAngle =0

  The rot angle.

- ofImage crosshair

  The crosshair.

- float initialyaw =0

  The initialyaw.

- int **i**
- Calculations **calc**
- vector< string > result

- ofColor white =ofColor::fromHex(0xffffff)

  The white.

- ofColor **green** = ofColor::fromHex(0x00ff00)
- ofColor blue =ofColor::fromHex(0x0000ff)

  The blue.

- ofColor **yellow** =ofColor::fromHex(0xffff00)
- ofColor red =ofColor::fromHex(0xff0000)

  The red.

- ofColor **black** =ofColor::fromHex(0x000000)
- ofTrueTypeFont Serif_15

  The fifth serif 1.

- ofTrueTypeFont **Serif_10**

5.1.1 Detailed Description

Implements the test application class.

5.1.2 Macro Definition Documentation

5.1.2.1 #define IWR_OK 0

Vuzix Trackers Macros .

Author

Rahul

Date

9/21/2012

5.1.3 Function Documentation

5.1.3.1 IWRFilterTracking (long * *yaw,* long * *pitch,* long * *roll*)

The Filtered tracking output.

Author

Rahul

Date

9/21/2012

Parameters

in,out	*yaw*	the yaw.
in,out	*pitch*	the pitch.
in,out	*roll*	the roll.

5.1.4 Variable Documentation

5.1.4.1 float rotX rotY

Gets the rot y coordinate.

Returns

The rot y coordinate.

5.1.4.2 vector<POIs> scenes

The scenes.

This Vector stores the Scene Information

5.1.4.3 float yaw =0

– Processing ...

The roll.

5.2 src/testApp.h File Reference

Declares the test application class.

```
#include "ofMain.h"
#include "ofxNetwork.h"
#include "ofVec3f.h"
#include "ofxAssimpModelLoader.h"
#include "ofCamera.h"
#include "Calculations.h"
#include "NoteInformation.h"
```

Classes

- class testApp

Macros

- #define _TEST_APP

  A macro that defines test application.

5.2.1 Detailed Description

Declares the test application class.

5.2.2 Macro Definition Documentation

5.2.2.1 #define _TEST_APP

A macro that defines test application.

Author

Rahul

Date

9/21/2012

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