

Hole_in_One

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

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QGraphicsView	
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Chapter 2

Class Index

2.1 Class List

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

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Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

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C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵ _hauptprojekt/Game/recyclebingraphics.h	54
C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵ _hauptprojekt/Game/trampoline.cpp	54
C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵ _hauptprojekt/Game/trampoline.h	55
C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵ _hauptprojekt/Game/triangle.cpp	55
C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵ _hauptprojekt/Game/triangle.h	55

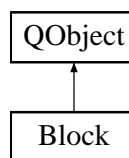
Chapter 4

Class Documentation

4.1 Block Class Reference

```
#include <block.h>
```

Inheritance diagram for Block:



Public Member Functions

- [Block](#) (b2World *world, QGraphicsScene *level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_width, b2BodyType type, qreal friction, QString mode)
[Block::Block.](#)
- void [drawGraphics](#) ()
[Block::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Public Attributes

- qreal [length](#)
- qreal [width](#)
- qreal [angle](#)
- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.1.1 Detailed Description

Definition at line 11 of file block.h.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 [Block::Block](#) (b2World * world, QGraphicsScene * level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_width, b2BodyType type, qreal friction, QString mode)

[Block::Block.](#)

Parameters

<i>world</i>	: Box2D world for physic engine
<i>level</i>	: Scene for the game
<i>center</i>	: is the centerposition of the block
<i>m_angle</i>	angle for the block
<i>m_length</i>	: length bock
<i>m_width</i>	: width block
<i>type</i>	: Box2D type of the Bbock(if it's static or dynamic)
<i>friction</i>	: friction for the Block
<i>mode</i>	: is it a obstacle or a tool

Definition at line 19 of file block.cpp.

4.1.3 Member Function Documentation**4.1.3.1 void Block::drawGraphics ()**

[Block::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Definition at line 76 of file block.cpp.

4.1.4 Member Data Documentation**4.1.4.1 qreal Block::angle**

Definition at line 21 of file block.h.

4.1.4.2 b2Body* Block::body

Definition at line 22 of file block.h.

4.1.4.3 QGraphicsItem* Block::graphics

Definition at line 23 of file block.h.

4.1.4.4 qreal Block::length

Definition at line 19 of file block.h.

4.1.4.5 qreal Block::width

Definition at line 20 of file block.h.

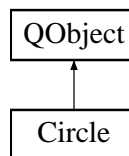
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/block.h
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/block.cpp

4.2 Circle Class Reference

```
#include <circle.h>
```

Inheritance diagram for Circle:



Public Member Functions

- [Circle](#) (b2World *world, QGraphicsScene *level, QPointF position, qreal angle, b2BodyType type, b2CircleShape &circle, QString mode)
- [Circle::Circle.](#)
- void [createCircle](#) (b2World world, QGraphicsScene levelscene, QPointF pos, qreal angle, b2BodyType type, b2CircleShape &circle)
- void [draw](#) ()
- [Circle::draw](#) connects the Graphics to the Box2D-Object.
- bool [drawBall1](#) ()
- [Circle::drawBall1](#) connects the Graphics to the Box2D-Object.
- void [drawGraphics](#) ()
- [Circle::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Public Attributes

- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.2.1 Detailed Description

Definition at line 8 of file circle.h.

4.2.2 Constructor & Destructor Documentation

- 4.2.2.1 [Circle::Circle](#) (b2World * world, QGraphicsScene * level, QPointF position, qreal angle, b2BodyType type, b2CircleShape & circle, QString mode)

[Circle::Circle.](#)

Parameters

<i>world</i>	: Box2D world for physic engine
<i>level</i>	: Scene for the game
<i>position</i>	: left upper corner
<i>angle</i>	: angle for the circle
<i>type</i>	: Box2D type of the circle(if it's static or dynamic)
<i>circle</i>	: Box2D knows that it is a circle
<i>mode</i>	: is it a obstacle or a tool

Definition at line 16 of file circle.cpp.

4.2.3 Member Function Documentation

4.2.3.1 void Circle::createCircle (b2World *world*, QGraphicsScene *levelscene*, QPointF *pos*, qreal *angle*, b2BodyType *type*, b2CircleShape & *circle*)

4.2.3.2 void Circle::draw ()

[Circle::draw](#) connects the Graphics to the Box2D-Object.

Definition at line 54 of file circle.cpp.

4.2.3.3 bool Circle::drawBall1 ()

[Circle::drawBall1](#) connects the Graphics to the Box2D-Object.

Returns

Definition at line 68 of file circle.cpp.

4.2.3.4 void Circle::drawGraphics ()

[Circle::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Definition at line 95 of file circle.cpp.

4.2.4 Member Data Documentation

4.2.4.1 b2Body* Circle::body

Definition at line 17 of file circle.h.

4.2.4.2 QGraphicsItem* Circle::graphics

Definition at line 18 of file circle.h.

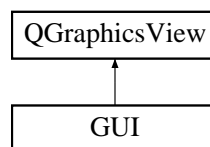
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/circle.h
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/circle.cpp

4.3 GUI Class Reference

```
#include <gui.h>
```

Inheritance diagram for GUI:



Public Slots

- void [levelMenu](#) ()
GUI::levelMenu opens the Levelmenu shows the Levels which can be selected(if they are enabled) opens the selected Level.
- void [highscore](#) ()
GUI::highscore opens the Highscoretable and fill up the table for the level which are finished.
- void [back](#) ()
GUI::back.
- void [showLevel1](#) ()
GUI::showLevel1 starts [Level_1](#) and hide gui.
- void [showLevel2](#) ()
GUI::showLevel2 starts [Level_2](#) and hide gui.
- void [showLevel3](#) ()
GUI::showLevel3 starts [Level_3](#) and hide gui.
- void [showLevel4](#) ()
GUI::showLevel4 starts [Level_4](#) and hide gui.
- void [showGuiagain](#) ()
GUI::showGuiagain reopen [GUI](#) after finish Level or close the level.
- void [help](#) ()
GUI::help opens the Helpmenu.
- void [box](#) ()
GUI::box box=rectangle helpmenu.
- void [circle](#) ()
GUI::circle circle helpmenu.
- void [triangle](#) ()
GUI::triangle triangle helpmenu.
- void [mute](#) ()
GUI::mute enables and disables the backgroundsound.
- void [csnd](#) ()
GUI::csnd paly sound if it is not muted.

Public Member Functions

- [GUI](#) (QWidget *parent=NULL)
[GUI::GUI.](#)
- void [displayGUI](#) ()
[GUI::displayGUI](#) opens the Startmenu creates the needed Buttons and connects them.
- void [checkLevel](#) ()
[GUI::checkLevel](#) read out level.txt and fill the content in levelenab.

Public Attributes

- QGraphicsScene * [scene](#)
- [picButton](#) * [mutepicButton](#)
- bool [ismute](#) = false

4.3.1 Detailed Description

Definition at line 10 of file gui.h.

4.3.2 Constructor & Destructor Documentation

4.3.2.1 [GUI::GUI](#) (QWidget * *parent* = NULL)

[GUI::GUI.](#)

Parameters

<i>parent</i>	Create QGraphicsView and enter scene
---------------	--------------------------------------

Screen setup. No scroll bar available

Set Application-Name

Scene setup

ismute false by default

Sound

Definition at line 18 of file gui.cpp.

4.3.3 Member Function Documentation

4.3.3.1 void [GUI::back](#) () [slot]

[GUI::back.](#)

Definition at line 270 of file gui.cpp.

4.3.3.2 void GUI::box () [slot]

[GUI::box](#) box=rectangle helpmenu.

create title text

Definition at line 742 of file gui.cpp.

4.3.3.3 void GUI::checkLevel ()

[GUI::checkLevel](#) read out level.txt and fill the content in levelenab.

Definition at line 950 of file gui.cpp.

4.3.3.4 void GUI::circle () [slot]

[GUI::circle](#) circle helpmenu.

create title text

Definition at line 813 of file gui.cpp.

4.3.3.5 void GUI::csnd () [slot]

[GUI::csnd](#) paly sound if it is not muted.

Definition at line 82 of file gui.cpp.

4.3.3.6 void GUI::displayGUI ()

[GUI::displayGUI](#) opens the Startmenu creates the needed Buttons and connects them.

create title text

create level menu button

create highscore button

create help button

create quit button

create sound button

Definition at line 101 of file gui.cpp.

4.3.3.7 void GUI::help () [slot]

[GUI::help](#) opens the Helpmenu.

create title text

Definition at line 599 of file gui.cpp.

4.3.3.8 void GUI::highscore () [slot]

[GUI::highscore](#) opens the Highscoretable and fill up the table for the level which are finished.

create title text

Definition at line 370 of file gui.cpp.

4.3.3.9 void GUI::levelMenu () [slot]

[GUI::levelMenu](#) opens the Levelmenu shows the Levels which can be selected(if they are enabled) opens the selected Level.

create level menu button

Definition at line 178 of file gui.cpp.

4.3.3.10 void GUI::mute () [slot]

[GUI::mute](#) enables and disables the backgroundsound.

Definition at line 62 of file gui.cpp.

4.3.3.11 void GUI::showGuiagain () [slot]

[GUI::showGuiagain](#) reopen [GUI](#) after finish Level or close the level.

Definition at line 299 of file gui.cpp.

4.3.3.12 void GUI::showLevel1 () [slot]

[GUI::showLevel1](#) starts [Level_1](#) and hide gui.

Definition at line 308 of file gui.cpp.

4.3.3.13 void GUI::showLevel2 () [slot]

[GUI::showLevel2](#) starts [Level_2](#) and hide gui.

Definition at line 323 of file gui.cpp.

4.3.3.14 void GUI::showLevel3 () [slot]

[GUI::showLevel3](#) starts [Level_3](#) and hide gui.

Definition at line 338 of file gui.cpp.

4.3.3.15 void GUI::showLevel4 () [slot]

[GUI::showLevel4](#) starts [Level_4](#) and hide gui.

Definition at line 354 of file gui.cpp.

4.3.3.16 void GUI::triangle () [slot]

[GUI::triangle](#) triangle helpmenu.

create title text

Definition at line 879 of file gui.cpp.

4.3.4 Member Data Documentation

4.3.4.1 bool GUI::ismute = false

Definition at line 23 of file gui.h.

4.3.4.2 picButton* GUI::mutepicButton

Definition at line 21 of file gui.h.

4.3.4.3 QGraphicsScene* GUI::scene

Definition at line 19 of file gui.h.

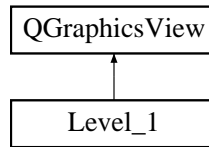
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[gui.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[gui.cpp](#)

4.4 Level_1 Class Reference

```
#include <level_1.h>
```

Inheritance diagram for Level_1:



Public Slots

- void [update](#) ()
Level_1::update update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.
- void [startLevel](#) ()
Level_1::startLevel Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.
- void [pauseLevel](#) ()
Level_1::pauseLevel pauses game when button pause is clicked.
- void [resumeLevel](#) ()
Level_1::resumeLevel resumes game when button resume is clicked.
- void [addRectangle](#) ()
Level_1::addRectangle Create new rectangle and count the rectangle items. limited to number.
- void [addCircle](#) ()
Level_1::addCircle create new circle and count the circle items. limited to number.
- void [reset](#) ()
Level_1::reset Clear scene and load Level again.
- void [closeLevel](#) ()
Level_1::closeLevel if QGraphicsView is closed emit Signal.
- void [rotateLeft](#) ()
Level_1::rotateLeft possibility to rotate objects to the left.
- void [rotateRight](#) ()
Level_1::rotateRight possibility to rotate right.
- void [getTime](#) ()
Level_1::getTime Stop time and convert it to ms.
- void [highscoreCounter](#) ()
Level_1::highscoreCounter Calculate the highscore.

Signals

- void [levelcompleted](#) ()

Public Member Functions

- [Level_1](#) ()
Level_1::Level_1.

Public Attributes

- `std::vector< Block * > vectb`
- `std::vector< Triangle * > vectt`

4.4.1 Detailed Description

Definition at line 28 of file `level_1.h`.

4.4.2 Constructor & Destructor Documentation

4.4.2.1 `Level_1::Level_1 ()`

[Level_1::Level_1](#).

Parameters

<i>parent</i>	Initialize Level1 - Screen/Scene Setup...
---------------	---

Set Application-Name

Definition at line 21 of file `level_1.cpp`.

4.4.3 Member Function Documentation

4.4.3.1 `void Level_1::addCircle () [slot]`

[Level_1::addCircle](#) create new circle and count the circle items. limited to number.

Definition at line 260 of file `level_1.cpp`.

4.4.3.2 `void Level_1::addRectangle () [slot]`

[Level_1::addRectangle](#) Create new rectangle and count the rectangle items. limited to number.

Definition at line 208 of file `level_1.cpp`.

4.4.3.3 `void Level_1::closeLevel () [slot]`

[Level_1::closeLevel](#) if QGraphicsView is closed emit Signal.

Definition at line 91 of file `level_1.cpp`.

4.4.3.4 void Level_1::getTime () [slot]

[Level_1::getTime](#) Stop time and convert it to ms.

Definition at line 324 of file level_1.cpp.

4.4.3.5 void Level_1::highscoreCounter () [slot]

[Level_1::highscoreCounter](#) Calculate the highscore.

Definition at line 333 of file level_1.cpp.

4.4.3.6 void Level_1::levelcompleted () [signal]

4.4.3.7 void Level_1::pauseLevel () [slot]

[Level_1::pauseLevel](#) pauses game when button pause is clicked.

Definition at line 181 of file level_1.cpp.

4.4.3.8 void Level_1::reset () [slot]

[Level_1::reset](#) Clear scene and load Level again.

Definition at line 367 of file level_1.cpp.

4.4.3.9 void Level_1::resumeLevel () [slot]

[Level_1::resumeLevel](#) resumes game when button resume is clicked.

Definition at line 196 of file level_1.cpp.

4.4.3.10 void Level_1::rotateLeft () [slot]

[Level_1::rotateLeft](#) possibility to rotate objects to the left.

Definition at line 596 of file level_1.cpp.

4.4.3.11 void Level_1::rotateRight () [slot]

[Level_1::rotateRight](#) possibility to rotate right.

Definition at line 665 of file level_1.cpp.

4.4.3.12 `void Level_1::startLevel () [slot]`

[Level_1::startLevel](#) Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.

Definition at line 101 of file level_1.cpp.

4.4.3.13 `void Level_1::update () [slot]`

[Level_1::update](#) update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.

Definition at line 53 of file level_1.cpp.

4.4.4 Member Data Documentation

4.4.4.1 `std::vector<Block*> Level_1::vectb`

Definition at line 36 of file level_1.h.

4.4.4.2 `std::vector<Triangle*> Level_1::vectt`

Definition at line 37 of file level_1.h.

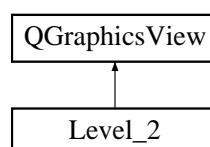
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/[level_1.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/[level_1.cpp](#)

4.5 Level_2 Class Reference

```
#include <level_2.h>
```

Inheritance diagram for Level_2:



Public Slots

- void [update](#) ()
[Level_2::update](#) update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.
- void [startLevel](#) ()
[Level_2::startLevel](#) Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.
- void [pauseLevel](#) ()
[Level_2::pauseLevel](#) pauses game when button pause is clicked.
- void [resumeLevel](#) ()
[Level_2::resumeLevel](#) resumes game when button resume is clicked.
- void [addRectangle](#) ()
[Level_2::addRectangle](#) Create new rectangle and count the rectangle items. limited to number.
- void [addCircle](#) ()
[Level_2::addCircle](#) Create new [Circle](#) and count the circle items. Limited to number.
- void [addTriangle](#) ()
[Level_2::addTriangle](#) Create new [Triangle](#) and count the triangle items. Limited to number.
- void [reset](#) ()
[Level_2::reset](#) Clear scene and load Level again.
- void [closeLevel](#) ()
[Level_2::closeLevel](#) if QGraphicsView is closed emit Signal.
- void [rotateLeft](#) ()
[Level_2::rotateLeft](#) possibility to rotate objects to the left.
- void [rotateRight](#) ()
[Level_2::rotateRight](#) possibility to rotate right.
- void [getTime](#) ()
[Level_2::getTime](#) Stop time and convert it to ms.
- void [highscoreCounter](#) ()
[Level_2::highscoreCounter](#) Calculate the highscore.

Signals

- void [levelcompleted](#) ()

Public Member Functions

- [Level_2](#) ()
[Level_2::Level_2](#) Initialize Level1 - Screen/Scene Setup...

Public Attributes

- std::vector< [Block](#) * > [vectb](#)
- std::vector< [Triangle](#) * > [vectt](#)

4.5.1 Detailed Description

Definition at line 30 of file level_2.h.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 Level_2::Level_2 ()

[Level_2::Level_2](#) Initialize Level1 - Screen/Scene Setup...

Set Application-Name

Definition at line 18 of file level_2.cpp.

4.5.3 Member Function Documentation

4.5.3.1 void Level_2::addCircle () [slot]

[Level_2::addCircle](#) Create new [Circle](#) and count the circle items. Limited to number.

Definition at line 257 of file level_2.cpp.

4.5.3.2 void Level_2::addRectangle () [slot]

[Level_2::addRectangle](#) Create new rectangle and count the rectangle items. limited to number.

Definition at line 205 of file level_2.cpp.

4.5.3.3 void Level_2::addTriangle () [slot]

[Level_2::addTriangle](#) Create new [Triangle](#) and count the triangle items. Limited to number.

Definition at line 314 of file level_2.cpp.

4.5.3.4 void Level_2::closeLevel () [slot]

[Level_2::closeLevel](#) if QGraphicsView is closed emit Signal.

Definition at line 86 of file level_2.cpp.

4.5.3.5 void Level_2::getTime () [slot]

[Level_2::getTime](#) Stop time and convert it to ms.

Definition at line 366 of file level_2.cpp.

4.5.3.6 void Level_2::highscoreCounter () [slot]

[Level_2::highscoreCounter](#) Calculate the highscore.

Definition at line 375 of file level_2.cpp.

4.5.3.7 void Level_2::levelCompleted () [signal]

4.5.3.8 void Level_2::pauseLevel () [slot]

[Level_2::pauseLevel](#) pauses game when button pause is clicked.

Definition at line 175 of file level_2.cpp.

4.5.3.9 void Level_2::reset () [slot]

[Level_2::reset](#) Clear scene and load Level again.

Definition at line 409 of file level_2.cpp.

4.5.3.10 void Level_2::resumeLevel () [slot]

[Level_2::resumeLevel](#) resumes game when button resume is clicked.

Definition at line 192 of file level_2.cpp.

4.5.3.11 void Level_2::rotateLeft () [slot]

[Level_2::rotateLeft](#) possibility to rotate objects to the left.

Definition at line 662 of file level_2.cpp.

4.5.3.12 void Level_2::rotateRight () [slot]

[Level_2::rotateRight](#) possibility to rotate right.

Definition at line 772 of file level_2.cpp.

4.5.3.13 void Level_2::startLevel () [slot]

[Level_2::startLevel](#) Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.

Definition at line 96 of file level_2.cpp.

4.5.3.14 void Level_2::update () [slot]

[Level_2::update](#) update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.

Definition at line 48 of file level_2.cpp.

4.5.4 Member Data Documentation

4.5.4.1 `std::vector<Block*> Level_2::vectb`

Definition at line 38 of file `level_2.h`.

4.5.4.2 `std::vector<Triangle*> Level_2::vectt`

Definition at line 39 of file `level_2.h`.

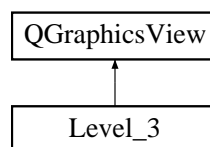
The documentation for this class was generated from the following files:

- `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_2.h`
- `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_2.cpp`

4.6 Level_3 Class Reference

```
#include <level_3.h>
```

Inheritance diagram for `Level_3`:



Public Slots

- void `update` ()
Level_3::update update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.
- void `startLevel` ()
Level_3::startLevel Set the flag of the `QGraphicsItem`, after start was clicked. draw the graphics if the body was moved before start was clicked.
- void `pauseLevel` ()
Level_3::pauseLevel pauses game when button pause is clicked.
- void `resumeLevel` ()
Level_3::resumeLevel resumes game when button resume is clicked.
- void `addRectangle` ()
Level_3::addRectangle Create new rectangle and count the rectangle items. limited to number.
- void `addCircle` ()
Level_3::addCircle Create new `Circle` and count the circle items. Limited to number.
- void `addTriangle` ()
Level_3::addTriangle Create new `Triangle` and count the triangle items. Limited to number.
- void `reset` ()

- [Level_3::reset](#) *Clear scene and load Level again.*
- void [closeLevel](#) ()
[Level_3::closeLevel](#) if QGraphicsView is closed emit Signal.
- void [rotateLeft](#) ()
[Level_3::rotateLeft](#) possibility to rotate objects to the left.
- void [rotateRight](#) ()
[Level_3::rotateRight](#) possibility to rotate right.
- void [getTime](#) ()
[Level_3::getTime](#) Stop time and convert it to ms.
- void [highscoreCounter](#) ()
[Level_3::highscoreCounter](#) Calculate the highscore.

Signals

- void [levelcompleted](#) ()

Public Member Functions

- [Level_3](#) ()
[Level_3::Level_3](#) Initialize Level1 - Screen/Scene Setup...

Public Attributes

- std::vector< [Block](#) * > [vectb](#)
- std::vector< [Triangle](#) * > [vectt](#)

4.6.1 Detailed Description

Definition at line 30 of file level_3.h.

4.6.2 Constructor & Destructor Documentation

4.6.2.1 [Level_3::Level_3](#) ()

[Level_3::Level_3](#) Initialize Level1 - Screen/Scene Setup...

Set Application-Name

Definition at line 18 of file level_3.cpp.

4.6.3 Member Function Documentation

4.6.3.1 void [Level_3::addCircle](#) () [slot]

[Level_3::addCircle](#) Create new [Circle](#) and count the circle items. Limited to number.

Definition at line 260 of file level_3.cpp.

4.6.3.2 void Level_3::addRectangle () [slot]

[Level_3::addRectangle](#) Create new rectangle and count the rectangle items. limited to number.

Definition at line 208 of file level_3.cpp.

4.6.3.3 void Level_3::addTriangle () [slot]

[Level_3::addTriangle](#) Create new [Triangle](#) and count the triangle items. Limited to number.

Definition at line 319 of file level_3.cpp.

4.6.3.4 void Level_3::closeLevel () [slot]

[Level_3::closeLevel](#) if QGraphicsView is closed emit Signal.

Definition at line 86 of file level_3.cpp.

4.6.3.5 void Level_3::getTime () [slot]

[Level_3::getTime](#) Stop time and convert it to ms.

Definition at line 370 of file level_3.cpp.

4.6.3.6 void Level_3::highscoreCounter () [slot]

[Level_3::highscoreCounter](#) Calculate the highscore.

Definition at line 379 of file level_3.cpp.

4.6.3.7 void Level_3::levelcompleted () [signal]

4.6.3.8 void Level_3::pauseLevel () [slot]

[Level_3::pauseLevel](#) pauses game when button pause is clicked.

Definition at line 175 of file level_3.cpp.

4.6.3.9 void Level_3::reset () [slot]

[Level_3::reset](#) Clear scene and load Level again.

Definition at line 413 of file level_3.cpp.

4.6.3.10 void Level_3::resumeLevel () [slot]

[Level_3::resumeLevel](#) resumes game when button resume is clicked.

Definition at line 195 of file level_3.cpp.

4.6.3.11 void Level_3::rotateLeft () [slot]

[Level_3::rotateLeft](#) possibility to rotate objects to the left.

Definition at line 642 of file level_3.cpp.

4.6.3.12 void Level_3::rotateRight () [slot]

[Level_3::rotateRight](#) possibility to rotate right.

Definition at line 753 of file level_3.cpp.

4.6.3.13 void Level_3::startLevel () [slot]

[Level_3::startLevel](#) Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.

Definition at line 96 of file level_3.cpp.

4.6.3.14 void Level_3::update () [slot]

[Level_3::update](#) update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.

Definition at line 48 of file level_3.cpp.

4.6.4 Member Data Documentation

4.6.4.1 std::vector<Block*> Level_3::vectb

Definition at line 38 of file level_3.h.

4.6.4.2 std::vector<Triangle*> Level_3::vectt

Definition at line 39 of file level_3.h.

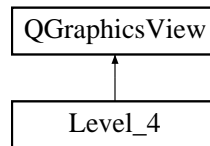
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[level_3.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[level_3.cpp](#)

4.7 Level_4 Class Reference

```
#include <level_4.h>
```

Inheritance diagram for Level_4:



Public Slots

- void [update](#) ()
Level_4::update update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.
- void [startLevel](#) ()
Level_4::startLevel Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.
- void [pauseLevel](#) ()
Level_4::pauseLevel pauses game when button pause is clicked.
- void [resumeLevel](#) ()
Level_4::resumeLevel resumes game when button resume is clicked.
- void [addRectangle](#) ()
Level_4::addRectangle Create new rectangle and count the rectangle items. limited to number.
- void [addCircle](#) ()
Level_4::addCircle Create new [Circle](#) and count the circle items. Limited to number.
- void [addTriangle](#) ()
Level_4::addTriangle Create new [Triangle](#) and count the triangle items. Limited to number.
- void [reset](#) ()
Level_4::reset Clear scene and load Level again.
- void [closeLevel](#) ()
Level_4::closeLevel if QGraphicsView is closed emit Signal.
- void [rotateLeft](#) ()
Level_4::rotateLeft possibility to rotate objects to the left.
- void [rotateRight](#) ()
Level_4::rotateRight possibility to rotate right.
- void [getTime](#) ()
Level_4::getTime Stop time and convert it to ms.
- void [highscoreCounter](#) ()
Level_4::highscoreCounter Calculate the highscore.

Signals

- void [levelcompleted](#) ()

Public Member Functions

- [Level_4](#) ()
[Level_4::Level_4](#) Initialize Level1 - Screen/Scene Setup...

Public Attributes

- `std::vector< Block * >` [vectb](#)
- `std::vector< Triangle * >` [vectt](#)

4.7.1 Detailed Description

Definition at line 30 of file [level_4.h](#).

4.7.2 Constructor & Destructor Documentation

4.7.2.1 [Level_4::Level_4](#) ()

[Level_4::Level_4](#) Initialize Level1 - Screen/Scene Setup...

Set Application-Name

Definition at line 18 of file [level_4.cpp](#).

4.7.3 Member Function Documentation

4.7.3.1 `void Level_4::addCircle ()` [[slot](#)]

[Level_4::addCircle](#) Create new [Circle](#) and count the circle items. Limited to number.

Definition at line 251 of file [level_4.cpp](#).

4.7.3.2 `void Level_4::addRectangle ()` [[slot](#)]

[Level_4::addRectangle](#) Create new rectangle and count the rectangle items. limited to number.

Definition at line 199 of file [level_4.cpp](#).

4.7.3.3 `void Level_4::addTriangle ()` [[slot](#)]

[Level_4::addTriangle](#) Create new [Triangle](#) and count the triangle items. Limited to number.

Definition at line 310 of file [level_4.cpp](#).

4.7.3.4 void Level_4::closeLevel () [slot]

[Level_4::closeLevel](#) if QGraphicsView is closed emit Signal.

Definition at line 86 of file level_4.cpp.

4.7.3.5 void Level_4::getTime () [slot]

[Level_4::getTime](#) Stop time and convert it to ms.

Definition at line 362 of file level_4.cpp.

4.7.3.6 void Level_4::highscoreCounter () [slot]

[Level_4::highscoreCounter](#) Calculate the highscore.

Definition at line 371 of file level_4.cpp.

4.7.3.7 void Level_4::levelcompleted () [signal]

4.7.3.8 void Level_4::pauseLevel () [slot]

[Level_4::pauseLevel](#) pauses game when button pause is clicked.

Definition at line 169 of file level_4.cpp.

4.7.3.9 void Level_4::reset () [slot]

[Level_4::reset](#) Clear scene and load Level again.

Definition at line 405 of file level_4.cpp.

4.7.3.10 void Level_4::resumeLevel () [slot]

[Level_4::resumeLevel](#) resumes game when button resume is clicked.

Definition at line 186 of file level_4.cpp.

4.7.3.11 void Level_4::rotateLeft () [slot]

[Level_4::rotateLeft](#) possibility to rotate objects to the left.

Definition at line 622 of file level_4.cpp.

4.7.3.12 `void Level_4::rotateRight () [slot]`

[Level_4::rotateRight](#) possibility to rotate right.

Definition at line 733 of file `level_4.cpp`.

4.7.3.13 `void Level_4::startLevel () [slot]`

[Level_4::startLevel](#) Set the flag of the QGraphicsItem, after start was clicked. draw the graphics if the body was moved before start was clicked.

Definition at line 96 of file `level_4.cpp`.

4.7.3.14 `void Level_4::update () [slot]`

[Level_4::update](#) update function for moveable objects like our ball - sets the graphics of the ball to the position of the box2D body.

Definition at line 48 of file `level_4.cpp`.

4.7.4 Member Data Documentation

4.7.4.1 `std::vector<Block*> Level_4::vectb`

Definition at line 38 of file `level_4.h`.

4.7.4.2 `std::vector<Triangle*> Level_4::vectt`

Definition at line 39 of file `level_4.h`.

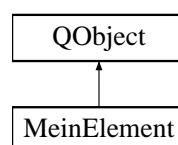
The documentation for this class was generated from the following files:

- `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_4.h`
- `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_4.cpp`

4.8 MeinElement Class Reference

```
#include <meinelement.h>
```

Inheritance diagram for MeinElement:



Public Member Functions

- [MeinElement](#) (b2World *world, QGraphicsScene *level, b2Vec2 center, qreal length, qreal width, b2BodyType type, qreal friction)
- [MeinElement](#) (b2World *world, QGraphicsScene *level, QPointF a, QPointF b, QPointF c, qreal angle, b2BodyType type, qreal friction)
- [MeinElement](#) (QGraphicsScene *level, QPointF center, qreal length, qreal width)
- void [drawBottom](#) ()

Public Attributes

- b2Body * [body](#)
- QGraphicsItem * [graphics](#)
- QGraphicsItem * [white](#)
- QMediaPlayer * [applause](#)

4.8.1 Detailed Description

Definition at line 10 of file meinelement.h.

4.8.2 Constructor & Destructor Documentation

4.8.2.1 `MeinElement::MeinElement (b2World * world, QGraphicsScene * level, b2Vec2 center, qreal length, qreal width, b2BodyType type, qreal friction)`

Definition at line 40 of file meinelement.cpp.

4.8.2.2 `MeinElement::MeinElement (b2World * world, QGraphicsScene * level, QPointF a, QPointF b, QPointF c, qreal angle, b2BodyType type, qreal friction)`

Definition at line 70 of file meinelement.cpp.

4.8.2.3 `MeinElement::MeinElement (QGraphicsScene * level, QPointF center, qreal length, qreal width)`

Definition at line 99 of file meinelement.cpp.

4.8.3 Member Function Documentation

4.8.3.1 `void MeinElement::drawBottom ()`

Definition at line 121 of file meinelement.cpp.

4.8.4 Member Data Documentation

4.8.4.1 QMediaPlayer* MeinElement::aplause

Definition at line 25 of file meinelement.h.

4.8.4.2 b2Body* MeinElement::body

Definition at line 22 of file meinelement.h.

4.8.4.3 QGraphicsItem* MeinElement::graphics

Definition at line 23 of file meinelement.h.

4.8.4.4 QGraphicsItem* MeinElement::white

Definition at line 24 of file meinelement.h.

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

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[meinelement.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[meinelement.cpp](#)

4.9 Mover Class Reference

```
#include <mover.h>
```

Public Member Functions

- [Mover](#) (b2World *world, QGraphicsScene *level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_↔width, qreal friction, QString mode)
[Mover::Mover.](#)

Public Attributes

- qreal [length](#)
- qreal [width](#)
- qreal [angle](#)
- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.9.1 Detailed Description

Definition at line 8 of file mover.h.

4.9.2 Constructor & Destructor Documentation

- ##### 4.9.2.1 Mover::Mover (b2World * world, QGraphicsScene * level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_width, qreal friction, QString mode)

[Mover::Mover.](#)

Parameters

<i>world</i>	
<i>level</i>	
<i>center</i>	
<i>m_angle</i>	
<i>m_length</i>	
<i>m_width</i>	
<i>type</i>	
<i>friction</i>	
<i>mode</i>	

Definition at line 19 of file mover.cpp.

4.9.3 Member Data Documentation

4.9.3.1 qreal Mover::angle

Definition at line 17 of file mover.h.

4.9.3.2 b2Body* Mover::body

Definition at line 18 of file mover.h.

4.9.3.3 QGraphicsItem* Mover::graphics

Definition at line 19 of file mover.h.

4.9.3.4 qreal Mover::length

Definition at line 15 of file mover.h.

4.9.3.5 qreal Mover::width

Definition at line 16 of file mover.h.

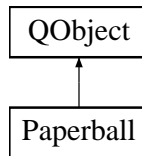
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/[mover.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/[mover.cpp](#)

4.10 Paperball Class Reference

```
#include <paperball.h>
```

Inheritance diagram for Paperball:



Public Member Functions

- [Paperball](#) (b2World *world, QGraphicsScene *level, QPointF position, qreal angle, b2BodyType type, b2CircleShape &circle)
[Paperball::Paperball](#).
- void [createPaper](#) (b2World world, QGraphicsScene levelscene, QPointF pos, qreal angle, b2BodyType type, b2CircleShape &circle)
- bool [drawBall1](#) ()
[Paperball::drawBall1](#) connects the Graphics to the Box2D-Object checkout if paperball fell into the recyclebin.

Public Attributes

- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.10.1 Detailed Description

Definition at line 9 of file paperball.h.

4.10.2 Constructor & Destructor Documentation

- 4.10.2.1 [Paperball::Paperball](#) (b2World * *world*, QGraphicsScene * *level*, QPointF *position*, qreal *angle*, b2BodyType *type*, b2CircleShape & *circle*)

[Paperball::Paperball](#).

Parameters

<i>world</i>	
<i>level</i>	
<i>position</i>	
<i>angle</i>	
<i>type</i>	
<i>circle</i>	

Definition at line 14 of file paperball.cpp.

4.10.3 Member Function Documentation

4.10.3.1 void Paperball::createPaper (b2World *world*, QGraphicsScene *levelscene*, QPointF *pos*, qreal *angle*, b2BodyType *type*, b2CircleShape & *circle*)

4.10.3.2 bool Paperball::drawBall1 ()

[Paperball::drawBall1](#) connects the Graphics to the Box2D-Object checkout if paperball fell into the recyclebin.

Returns

Definition at line 47 of file paperball.cpp.

4.10.4 Member Data Documentation

4.10.4.1 b2Body* Paperball::body

Definition at line 18 of file paperball.h.

4.10.4.2 QGraphicsItem* Paperball::graphics

Definition at line 19 of file paperball.h.

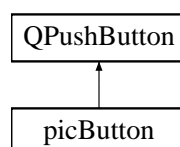
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/[paperball.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/[paperball.cpp](#)

4.11 picButton Class Reference

```
#include <picbutton.h>
```

Inheritance diagram for picButton:



Public Member Functions

- [picButton](#) (QPixmap _defaultpic, QPixmap _hoverpic)
picButton::picButton
- [picButton](#) (QPixmap _defaultpic, QPixmap _hoverpic, bool [hover](#))
- void [enterEvent](#) (QEvent *event)
- void [leaveEvent](#) (QEvent *event)
- void [setdefaultpic](#) (QPixmap [defaultpic](#))
- void [sethoverpic](#) (QPixmap [hoverpic](#))

Public Attributes

- QPixmap [defaultpic](#)
- QPixmap [hoverpic](#)
- bool [hover](#)

4.11.1 Detailed Description

Definition at line 12 of file picbutton.h.

4.11.2 Constructor & Destructor Documentation

4.11.2.1 [picButton::picButton](#) (QPixmap *_defaultpic*, QPixmap *_hoverpic*)

[picButton::picButton](#)

Parameters

<i>_defaultpic</i>	
<i>_hoverpic</i>	

Hovering mouse

Definition at line 8 of file picbutton.cpp.

4.11.2.2 [picButton::picButton](#) (QPixmap *_defaultpic*, QPixmap *_hoverpic*, bool *hover*)

Hovering mouse

Definition at line 26 of file picbutton.cpp.

4.11.3 Member Function Documentation

4.11.3.1 void [picButton::enterEvent](#) (QEvent * *event*)

when hovering -> change pic

Definition at line 44 of file picbutton.cpp.

4.11.3.2 void picButton::leaveEvent (QEvent * event)

Change pic back

Definition at line 55 of file picbutton.cpp.

4.11.3.3 void picButton::setdefaultpic (QPixmap defaultpic)

Definition at line 66 of file picbutton.cpp.

4.11.3.4 void picButton::sethoverpic (QPixmap hoverpic)

Definition at line 72 of file picbutton.cpp.

4.11.4 Member Data Documentation

4.11.4.1 QPixmap picButton::defaultpic

Definition at line 18 of file picbutton.h.

4.11.4.2 bool picButton::hover

Definition at line 21 of file picbutton.h.

4.11.4.3 QPixmap picButton::hoverpic

Definition at line 19 of file picbutton.h.

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

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/picbutton.h
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/picbutton.cpp

4.12 RecycleBin Class Reference

```
#include <recyclebin.h>
```

Public Member Functions

- [RecycleBin](#) (b2World *world, QGraphicsScene *level, QPointF a, QPointF b, QPointF c, QPointF d, qreal angle, b2BodyType type)
[RecycleBin::RecycleBin.](#)
- void [drawGraphics](#) ()
[RecycleBin::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Public Attributes

- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.12.1 Detailed Description

Definition at line 9 of file recyclebin.h.

4.12.2 Constructor & Destructor Documentation

4.12.2.1 RecycleBin::RecycleBin (b2World * *world*, QGraphicsScene * *level*, QPointF *a*, QPointF *b*, QPointF *c*, QPointF *d*, qreal *angle*, b2BodyType *type*)

[RecycleBin::RecycleBin.](#)

Parameters

<i>world</i>	
<i>level</i>	
<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>angle</i>	
<i>type</i>	

Definition at line 18 of file recyclebin.cpp.

4.12.3 Member Function Documentation

4.12.3.1 void RecycleBin::drawGraphics ()

[RecycleBin::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Definition at line 60 of file recyclebin.cpp.

4.12.4 Member Data Documentation

4.12.4.1 b2Body* RecycleBin::body

Definition at line 16 of file recyclebin.h.

4.12.4.2 QGraphicsItem* RecycleBin::graphics

Definition at line 17 of file recyclebin.h.

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

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/recyclebin.h
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/recyclebin.cpp

4.13 RecycleBinGraphics Class Reference

```
#include <recyclebingraphics.h>
```

Public Member Functions

- [RecycleBinGraphics](#) (QGraphicsScene *level)
[RecycleBinGraphics::RecycleBinGraphics.](#)

Public Attributes

- QGraphicsItem * [graphics](#)

4.13.1 Detailed Description

Definition at line 9 of file recyclebingraphics.h.

4.13.2 Constructor & Destructor Documentation

4.13.2.1 RecycleBinGraphics::RecycleBinGraphics (QGraphicsScene * level)

[RecycleBinGraphics::RecycleBinGraphics.](#)

Parameters

<i>level</i>	
--------------	--

Definition at line 11 of file recyclebingraphics.cpp.

4.13.3 Member Data Documentation

4.13.3.1 QGraphicsItem* RecycleBinGraphics::graphics

Definition at line 14 of file recyclebingraphics.h.

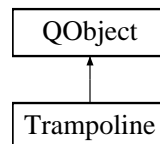
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/recyclebingraphics.h
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/recyclebingraphics.cpp

4.14 Trampoline Class Reference

```
#include <trampoline.h>
```

Inheritance diagram for Trampoline:



Public Member Functions

- [Trampoline](#) (b2World *world, QGraphicsScene *level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_width, b2BodyType type, qreal friction, QString mode)
Trampoline::Trampoline.

Public Attributes

- qreal [length](#)
- qreal [width](#)
- qreal [angle](#)
- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.14.1 Detailed Description

Definition at line 10 of file trampoline.h.

4.14.2 Constructor & Destructor Documentation

- 4.14.2.1 [Trampoline::Trampoline](#) (b2World * world, QGraphicsScene * level, b2Vec2 center, qreal m_angle, qreal m_length, qreal m_width, b2BodyType type, qreal friction, QString mode)

[Trampoline::Trampoline.](#)

Parameters

<i>world</i>	
<i>level</i>	
<i>center</i>	
<i>m_angle</i>	
<i>m_length</i>	
<i>m_width</i>	
<i>type</i>	
<i>friction</i>	
<i>mode</i>	

Definition at line 19 of file trampoline.cpp.

4.14.3 Member Data Documentation

4.14.3.1 qreal Trampoline::angle

Definition at line 19 of file trampoline.h.

4.14.3.2 b2Body* Trampoline::body

Definition at line 20 of file trampoline.h.

4.14.3.3 QGraphicsItem* Trampoline::graphics

Definition at line 21 of file trampoline.h.

4.14.3.4 qreal Trampoline::length

Definition at line 17 of file trampoline.h.

4.14.3.5 qreal Trampoline::width

Definition at line 18 of file trampoline.h.

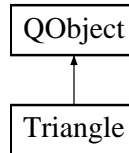
The documentation for this class was generated from the following files:

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[trampoline.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↔_hauptprojekt/Game/[trampoline.cpp](#)

4.15 Triangle Class Reference

```
#include <triangle.h>
```

Inheritance diagram for Triangle:



Public Member Functions

- [Triangle](#) (b2World *world, QGraphicsScene *level, QPointF a, QPointF b, QPointF c, qreal angle, b2BodyType type, qreal friction, QString mode)
[Triangle::Triangle.](#)
- void [drawGraphics](#) ()
[Triangle::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Public Attributes

- b2Body * [body](#)
- QGraphicsItem * [graphics](#)

4.15.1 Detailed Description

Definition at line 11 of file triangle.h.

4.15.2 Constructor & Destructor Documentation

4.15.2.1 [Triangle::Triangle](#) (b2World * *world*, QGraphicsScene * *level*, QPointF *a*, QPointF *b*, QPointF *c*, qreal *angle*, b2BodyType *type*, qreal *friction*, QString *mode*)

[Triangle::Triangle.](#)

Parameters

<i>world</i>	
<i>level</i>	
<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>angle</i>	
<i>type</i>	
<i>friction</i>	

Definition at line 18 of file triangle.cpp.

4.15.3 Member Function Documentation

4.15.3.1 void Triangle::drawGraphics ()

[Triangle::drawGraphics](#) connects the Box2D-Object to the Graphics after relocation.

Definition at line 145 of file triangle.cpp.

4.15.4 Member Data Documentation

4.15.4.1 b2Body* Triangle::body

Definition at line 21 of file triangle.h.

4.15.4.2 QGraphicsItem* Triangle::graphics

Definition at line 22 of file triangle.h.

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

- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/[triangle.h](#)
- C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4↵_hauptprojekt/Game/[triangle.cpp](#)

Chapter 5

File Documentation

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```
#include "block.h"  
#include <QGraphicsScene>  
#include <QPoint>  
#include <QSize>  
#include <qdebug.h>
```

5.2 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/block.h File Reference

```
#include "Box2D/Box2D.h"  
#include "QGraphicsItem"  
#include <QPointF>  
#include "meinelement.h"
```

Classes

- class [Block](#)

5.3 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/circle.cpp File Reference

```
#include "circle.h"  
#include "Box2D/Box2D.h"  
#include <QGraphicsScene>  
#include <QDebug>
```

5.4 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/circle.h File Reference

```
#include "Box2D/Box2D.h"  
#include "QGraphicsItem"  
#include <QPointF>  
#include "meinelement.h"
```

Classes

- class [Circle](#)

5.5 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/gui.cpp File Reference

```
#include "gui.h"  
#include <QFile>  
#include <QGraphicsItem>  
#include <QPushButton>  
#include <QSound>  
#include <QRect>  
#include "level_1.h"  
#include "level_2.h"  
#include "level_3.h"  
#include "level_4.h"  
#include "qdebug.h"
```

5.6 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/gui.h File Reference

```
#include <QGraphicsScene>  
#include <QGraphicsView>  
#include <QMediaPlayer>  
#include <QMediaPlaylist>  
#include <picbutton.h>
```

Classes

- class [GUI](#)

5.7 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_1.cpp File Reference

```
#include "level_1.h"
#include <iostream>
#include <QTime>
#include <QTimer>
#include <QElapsedTimer>
#include <qdebug.h>
#include <QFile>
#include <QTextStream>
#include "string"
#include "gui.h"
#include <QtWidgets>
```

5.8 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_1.h File Reference

```
#include "Box2D/Box2D.h"
#include <QMainWindow>
#include <QGraphicsScene>
#include <QGraphicsView>
#include <QTimer>
#include "meinelement.h"
#include "triangle.h"
#include <QPushButton>
#include <QGraphicsSceneMouseEvent>
#include <QElapsedTimer>
#include <QTime>
#include "recyclebin.h"
#include "recyclebingraphics.h"
#include "circle.h"
#include "gui.h"
#include <QItemSelection>
#include "paperball.h"
#include <QMediaPlayer>
#include "block.h"
```

Classes

- class [Level_1](#)

Macros

- #define [framerate](#) 1.0/35.0

5.8.1 Macro Definition Documentation

5.8.1.1 #define framerate 1.0/35.0

Definition at line 26 of file level_1.h.

5.9 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/level_2.cpp File Reference

```
#include "level_2.h"  
#include <iostream>  
#include <QTime>  
#include <QTimer>  
#include <QElapsedTimer>  
#include <qdebug.h>  
#include <QFile>  
#include <QTextStream>  
#include "string"  
#include "trampoline.h"
```

5.10 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/level_2.h File Reference

```
#include "Box2D/Box2D.h"  
#include <QMainWindow>  
#include <QGraphicsScene>  
#include <QGraphicsView>  
#include <QTimer>  
#include "meinelement.h"  
#include "triangle.h"  
#include <QPushButton>  
#include <QGraphicsSceneMouseEvent>  
#include <QElapsedTimer>  
#include <QTime>  
#include "recyclebin.h"  
#include "recyclebingraphics.h"  
#include "circle.h"  
#include "gui.h"  
#include <QItemSelection>  
#include <paperball.h>  
#include "picbutton.h"  
#include "block.h"  
#include "trampoline.h"
```

Classes

- class [Level_2](#)

Macros

- #define framerate 1.0/35.0

5.10.1 Macro Definition Documentation

5.10.1.1 #define framerate 1.0/35.0

Definition at line 28 of file level_2.h.

5.11 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_3.cpp File Reference

```
#include "level_3.h"
#include <iostream>
#include <QTime>
#include <QTimer>
#include <QElapsedTimer>
#include <qdebug.h>
#include <QFile>
#include <QTextStream>
#include "string"
```

5.12 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_3.h File Reference

```
#include "Box2D/Box2D.h"
#include <QMainWindow>
#include <QGraphicsScene>
#include <QGraphicsView>
#include <QTimer>
#include "meinelement.h"
#include "triangle.h"
#include <QPushButton>
#include <QGraphicsSceneMouseEvent>
#include <QElapsedTimer>
#include <QTime>
#include "recyclebin.h"
#include "recyclebingraphics.h"
#include "circle.h"
#include "gui.h"
#include <QItemSelection>
#include <paperball.h>
#include "picbutton.h"
#include "trampoline.h"
#include "block.h"
```

Classes

- class [Level_3](#)

Macros

- `#define framerate 1.0/35.0`

5.12.1 Macro Definition Documentation

5.12.1.1 `#define framerate 1.0/35.0`

Definition at line 28 of file `level_3.h`.

5.13 `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_4.cpp` File Reference

```
#include "level_4.h"
#include <iostream>
#include <QTime>
#include <QTimer>
#include <QElapsedTimer>
#include <qdebug.h>
#include <QFile>
#include <QTextStream>
#include "string"
```

5.14 `C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/level_4.h` File Reference

```
#include "Box2D/Box2D.h"
#include <QMainWindow>
#include <QGraphicsScene>
#include <QGraphicsView>
#include <QTimer>
#include "meinelement.h"
#include "triangle.h"
#include <QPushButton>
#include <QGraphicsSceneMouseEvent>
#include <QElapsedTimer>
#include <QTime>
#include "recyclebin.h"
#include "recyclebingraphics.h"
#include "circle.h"
#include "gui.h"
#include <QItemSelection>
#include <paperball.h>
#include "picbutton.h"
#include "trampoline.h"
#include "block.h"
```

Classes

- class [Level_4](#)

Macros

- #define [framerate](#) 1.0/35.0

5.14.1 Macro Definition Documentation

5.14.1.1 #define framerate 1.0/35.0

Definition at line 28 of file level_4.h.

5.15 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/main.cpp File Reference

```
#include <QApplication>
#include "gui.h"
```

Functions

- int [main](#) (int argc, char *argv[])

5.15.1 Function Documentation

5.15.1.1 int main (int argc, char * argv[])

Definition at line 6 of file main.cpp.

5.16 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/meinelement.cpp File Reference

```
#include "meinelement.h"
#include <QGraphicsScene>
#include <QPoint>
#include <QSize>
#include <qdebug.h>
```

5.17 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/meinelement.h File Reference

```
#include "Box2D/Box2D.h"
#include "QGraphicsItem"
#include <QMediaPlayer>
#include <QPointF>
```

Classes

- class [MeinElement](#)

5.18 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/mover.cpp File Reference

```
#include "mover.h"
#include <QGraphicsScene>
#include <QPoint>
#include <QSize>
#include <qdebug.h>
```

5.19 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/mover.h File Reference

```
#include "Box2D/Box2D.h"
#include "QGraphicsItem"
#include <QPointF>
#include "meinelement.h"
```

Classes

- class [Mover](#)

5.20 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/paperball.cpp File Reference

```
#include "paperball.h"
#include "Box2D/Box2D.h"
#include <QGraphicsScene>
```


5.21 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/paperball.h File Reference

```
#include "Box2D/Box2D.h"  
#include "QGraphicsItem"  
#include <QPointF>  
#include "meinelement.h"
```

Classes

- class [Paperball](#)

5.22 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/picbutton.cpp File Reference

```
#include "picbutton.h"
```

5.23 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/picbutton.h File Reference

```
#include <QObject>  
#include <QPushButton>  
#include <QGraphicsItem>  
#include <QPixmap>  
#include <QGraphicsSceneMouseEvent>
```

Classes

- class [picButton](#)

5.24 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/recyclebin.cpp File Reference

```
#include "recyclebin.h"  
#include <QGraphicsScene>  
#include <QPoint>  
#include <QSize>  
#include <qdebug.h>
```

5.25 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/recyclebin.h File Reference

```
#include "Box2D/Box2D.h"  
#include "QGraphicsItem"  
#include <QPointF>
```

Classes

- class [RecycleBin](#)

5.26 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/recyclebingraphics.cpp File Reference

```
#include "recyclebingraphics.h"  
#include <QGraphicsScene>  
#include <QPoint>  
#include <QSize>  
#include <qdebug.h>
```

5.27 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/recyclebingraphics.h File Reference

```
#include "Box2D/Box2D.h"  
#include "QGraphicsItem"  
#include <QPointF>
```

Classes

- class [RecycleBinGraphics](#)

5.28 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_↵ _hauptprojekt/gruppe4_hauptprojekt/Game/trampoline.cpp File Reference

```
#include "trampoline.h"  
#include <QGraphicsScene>  
#include <QPoint>  
#include <QSize>  
#include <qdebug.h>
```

5.29 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/trampoline.h File Reference

```
#include "Box2D/Box2D.h"
#include "QGraphicsItem"
#include <QPointF>
#include "meinelement.h"
```

Classes

- class [Trampoline](#)

5.30 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/triangle.cpp File Reference

```
#include "triangle.h"
#include <QGraphicsScene>
#include <QPoint>
#include <QSize>
#include <qdebug.h>
```

5.31 C:/Users/Maximilian/Desktop/TUM/6.Semester/Grundkurs C++/Hauptprojekt/gruppe4_hauptprojekt/gruppe4_hauptprojekt/Game/triangle.h File Reference

```
#include "Box2D/Box2D.h"
#include "QGraphicsItem"
#include <QPointF>
#include "meinelement.h"
```

Classes

- class [Triangle](#)

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