

TDP005 spelprojekt

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| | |
|--|-----------|
| 1 Hierarchical Index | 1 |
| 1.1 Class Hierarchy | 1 |
| 2 Class Index | 3 |
| 2.1 Class List | 3 |
| 3 Class Documentation | 5 |
| 3.1 Character Class Reference | 5 |
| 3.2 Door Class Reference | 6 |
| 3.3 Enemy Class Reference | 6 |
| 3.3.1 Detailed Description | 7 |
| 3.4 Exit_State Class Reference | 7 |
| 3.5 Font_Manager Class Reference | 7 |
| 3.6 Game_Object Class Reference | 8 |
| 3.7 Game_Over_State Class Reference | 8 |
| 3.8 Game_State Class Reference | 9 |
| 3.9 Hud Class Reference | 9 |
| 3.10 Menu_State Class Reference | 10 |
| 3.11 Money Class Reference | 10 |
| 3.12 Platform Class Reference | 11 |
| 3.13 Player Class Reference | 11 |
| 3.14 Player_Info Class Reference | 12 |
| 3.15 Projectile Class Reference | 13 |
| 3.16 Sound_Manager Class Reference | 13 |
| 3.17 State Class Reference | 13 |
| 3.18 Texture_Manager Class Reference | 14 |
| 3.19 Textured_Object Class Reference | 14 |
| 3.20 Upgrade Struct Reference | 15 |
| 3.21 Upgrade_Pillar Class Reference | 15 |
| 3.22 Weapon Class Reference | 16 |
| 3.23 World Class Reference | 17 |
| Index | 19 |

Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

| | |
|---------------------------|----|
| enable_shared_from_this | |
| State | 13 |
| Exit_State | 7 |
| Game_Over_State | 8 |
| Game_State | 9 |
| Menu_State | 10 |
| Font_Manager | 7 |
| Game_Object | 8 |
| Textured_Object | 14 |
| Character | 5 |
| Enemy | 6 |
| Player | 11 |
| Door | 6 |
| Money | 10 |
| Platform | 11 |
| Projectile | 13 |
| Upgrade_Pillar | 15 |
| Weapon | 16 |
| Hud | 9 |
| Player_Info | 12 |
| Sound_Manager | 13 |
| Texture_Manager | 14 |
| Upgrade | 15 |
| World | 17 |

Chapter 2

Class Index

2.1 Class List

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

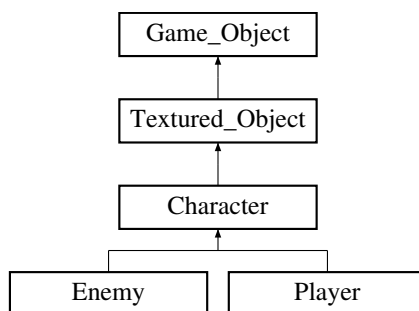
| | |
|-----------------|----|
| Character | 5 |
| Door | 6 |
| Enemy | 6 |
| Exit_State | 7 |
| Font_Manager | 7 |
| Game_Object | 8 |
| Game_Over_State | 8 |
| Game_State | 9 |
| Hud | 9 |
| Menu_State | 10 |
| Money | 10 |
| Platform | 11 |
| Player | 11 |
| Player_Info | 12 |
| Projectile | 13 |
| Sound_Manager | 13 |
| State | 13 |
| Texture_Manager | 14 |
| Textured_Object | 14 |
| Upgrade | 15 |
| Upgrade_Pillar | 15 |
| Weapon | 16 |
| World | 17 |

Chapter 3

Class Documentation

3.1 Character Class Reference

Inheritance diagram for Character:



Public Member Functions

- **Character** (const sf::Vector2f ¢er, std::string const &texture_name, int health, int damage)
- void **take_damage** (int damage_taken)

Public Attributes

- int **health**
- int **damage**
- int **max_health**

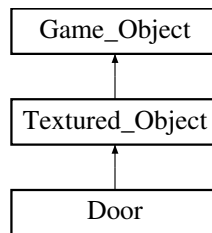
Additional Inherited Members

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

- game_objects/Textured_Object.h
- game_objects/Textured_Object.cpp

3.2 Door Class Reference

Inheritance diagram for Door:



Public Member Functions

- **Door** (const sf::Vector2f ¢er, std::string const &texture_name)
- bool **update** (const sf::Time &delta, [World](#) &world) override

Additional Inherited Members

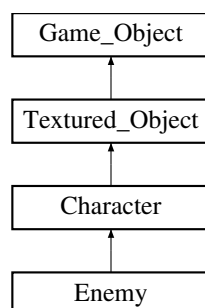
The documentation for this class was generated from the following files:

- game_objects/Door.h
- game_objects/Door.cpp

3.3 Enemy Class Reference

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

Inheritance diagram for Enemy:



Public Member Functions

- **Enemy** (const sf::Vector2f ¢er, std::string const &texture_name, int health, int damage, std::shared_ptr<[Game_Object](#)> player_ptr)
- bool **update** (const sf::Time &delta, [World](#) &world) override

Additional Inherited Members

3.3.1 Detailed Description

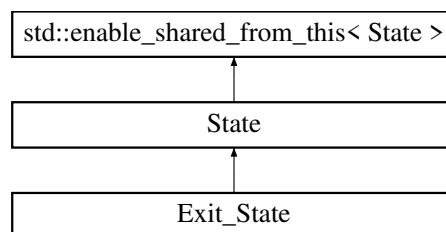
This is the class that handles enemies in the game.

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

- game_objects/Enemy.h
- game_objects/Enemy.cpp

3.4 Exit_State Class Reference

Inheritance diagram for Exit_State:



Public Member Functions

- std::shared_ptr< [State](#) > **tick** (sf::Time) override
- void **render** (sf::RenderWindow &window) override

Additional Inherited Members

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

- states/State.h
- states/State.cpp

3.5 Font_Manager Class Reference

Static Public Member Functions

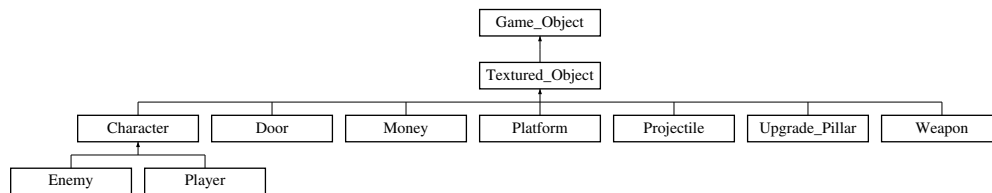
- static sf::Font & **get_font** (std::string const &name)

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

- managers/Texture_Manager.h
- managers/Texture_Manager.cpp

3.6 Game_Object Class Reference

Inheritance diagram for Game_Object:



Public Member Functions

- **Game_Object** (const sf::Vector2f ¢er, const sf::Vector2f &hitbox)
- virtual bool **update** (const sf::Time &delta, [World](#) &world)=0
- virtual void **render** (sf::RenderWindow &window)=0
- float **get_right** () const
- float **get_left** () const
- float **get_top** () const
- float **get_bottom** () const

Public Attributes

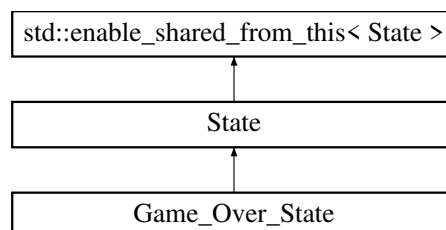
- sf::Vector2f **center**
- sf::Vector2f **hitbox**

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

- game_objects/Game_Object.h
- game_objects/Game_Object.cpp

3.7 Game_Over_State Class Reference

Inheritance diagram for Game_Over_State:



Public Member Functions

- **Game_Over_State** (sf::RenderWindow &window, int score, int level)

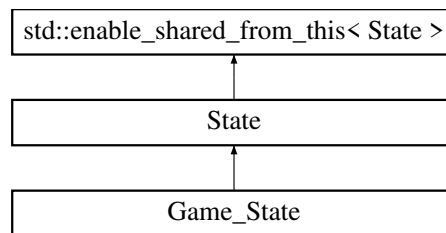
Additional Inherited Members

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

- states/Game_State.h
- states/Game_State.cpp

3.8 Game_State Class Reference

Inheritance diagram for Game_State:



Public Member Functions

- **Game_State** (sf::RenderWindow &>window)
- std::shared_ptr< [State](#) > **tick** (sf::Time delta) override
- void **render** (sf::RenderWindow &>window) override
- void **spawn_lvl_end_stuff** ()
- void **spawn_enemy** ()
- void **reset_world** ()

Additional Inherited Members

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

- states/Game_State.h
- states/Game_State.cpp

3.9 Hud Class Reference

Public Member Functions

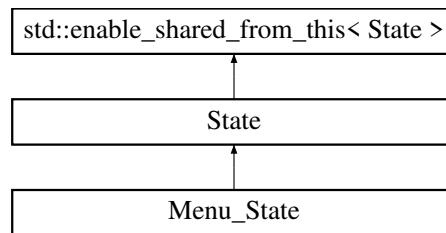
- void **draw_hud** (sf::RenderWindow &>window)
- void **set_money** (int)
- void **set_health** (int, int)
- void **set_score** (int)

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

- game_objects/Hud.h
- game_objects/Hud.cpp

3.10 Menu_State Class Reference

Inheritance diagram for Menu_State:



Public Member Functions

- **Menu_State** (sf::RenderWindow &>window, std::shared_ptr< [State](#) > resume=nullptr)
- void **on_key_press** (sf::Keyboard::Key key) override
- void **on_key_release** (sf::Keyboard::Key key) override
- std::shared_ptr< [State](#) > **tick** (sf::Time time) override
- void **render** (sf::RenderWindow &>window) override

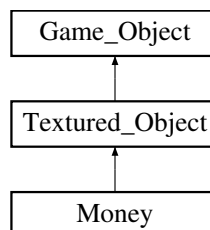
Additional Inherited Members

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

- states/Menu_State.h
- states/Menu_State.cpp

3.11 Money Class Reference

Inheritance diagram for Money:



Public Member Functions

- **Money** (const sf::Vector2f ¢er, std::string const &texture_name)
- bool **update** (sf::Time const &delta, [World](#) &world) override

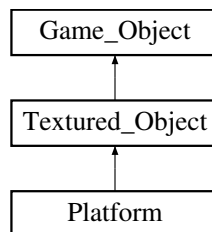
Additional Inherited Members

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

- game_objects/Money.h
- game_objects/Money.cpp

3.12 Platform Class Reference

Inheritance diagram for Platform:



Public Member Functions

- **Platform** (const sf::Vector2f ¢er, std::string const &texture_name)
- bool **update** (const sf::Time &delta, [World](#) &world) override

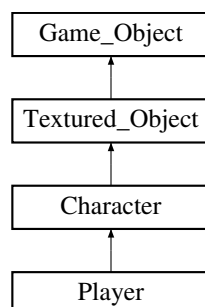
Additional Inherited Members

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

- game_objects/Textured_Object.h
- game_objects/Textured_Object.cpp

3.13 Player Class Reference

Inheritance diagram for Player:



Public Member Functions

- **Player** (sf::Vector2f center, [Player_Info](#) &player_info)
- bool **update** (const sf::Time &delta, [World](#) &world) override
- void **render** (sf::RenderWindow &window) override

Public Attributes

- [Player_Info](#) & **player_info**

Additional Inherited Members

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

- game_objects/Player.h
- game_objects/Player.cpp

3.14 Player_Info Class Reference

Public Member Functions

- int **get_money** () const
- int **get_score** () const
- int **get_enemies_killed** () const
- std::vector< [Upgrade](#) > **get_upgrades** ()
- void **add_upgrade** ([Upgrade](#) const &upgrade)
- void **add_money** (int change)
- void **add_score** (int change)
- void **add_enemies_killed** (int change)

Public Attributes

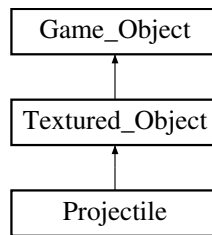
- bool **exited_level**
- bool **is_alive**
- std::vector< std::string > **bought_upgrades**

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

- containers/Player_Info.h
- containers/Player_Info.cpp

3.15 Projectile Class Reference

Inheritance diagram for Projectile:



Public Member Functions

- **Projectile** (sf::Vector2f center, std::string const &texture_name, int damage, float direction)
- bool **update** (sf::Time const &delta, [World](#) &world) override
- bool **handle_collision** ([World](#) &world)
- void **handle_movement** (sf::Time const &delta, [World](#) &world)

Additional Inherited Members

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

- game_objects/Projectile.h
- game_objects/Projectile.cpp

3.16 Sound_Manager Class Reference

Static Public Member Functions

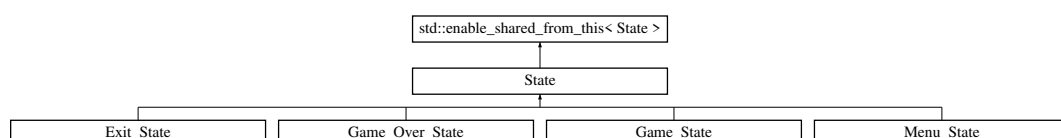
- static sf::SoundBuffer * **get_sound** (std::string const &name)
- static void **play_sound** (std::string const &name)

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

- managers/Sound_Manager.h
- managers/Sound_Manager.cpp

3.17 State Class Reference

Inheritance diagram for State:



Public Member Functions

- virtual void **on_key_press** (sf::Keyboard::Key key)
- virtual void **on_key_release** (sf::Keyboard::Key key)
- virtual std::shared_ptr< [State](#) > **tick** (sf::Time time)=0
- virtual void **render** (sf::RenderWindow &window)=0

Static Public Member Functions

- static void **run** (sf::RenderWindow &window, std::shared_ptr< [State](#) > state)

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

- states/State.h
- states/State.cpp

3.18 Texture_Manager Class Reference

Static Public Member Functions

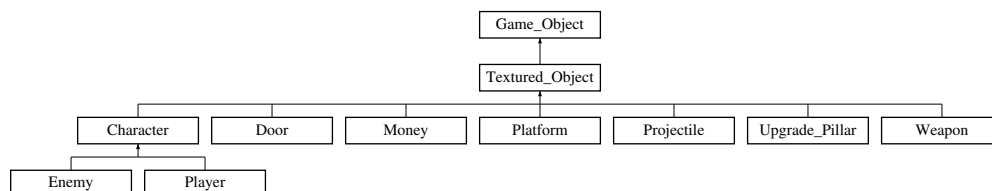
- static sf::Texture * **get_texture** (std::string const &name)

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

- managers/Texture_Manager.h
- managers/Texture_Manager.cpp

3.19 Textured_Object Class Reference

Inheritance diagram for Textured_Object:



Public Member Functions

- **Textured_Object** (sf::Vector2f const ¢er, std::string const &texture_name)
- virtual void **render** (sf::RenderWindow &window) override
- sf::Vector2f **get_position** ()
- sf::Vector2f **get_size** ()
- void **set_position** (sf::Vector2f)

Protected Attributes

- `sf::RectangleShape` **shape**

Additional Inherited Members

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

- `game_objects/Textured_Object.h`
- `game_objects/Textured_Object.cpp`

3.20 Upgrade Struct Reference

Public Member Functions

- **Upgrade** (`std::string` const &name)

Public Attributes

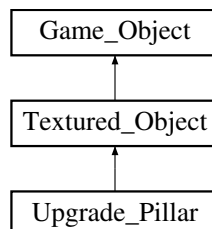
- `std::string` **name**
- `std::string` **description**
- `int` **price**
- `std::map< std::string, float >` **number_changes**

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

- `containers/Upgrade.h`
- `containers/Upgrade.cpp`

3.21 Upgrade_Pillar Class Reference

Inheritance diagram for Upgrade_Pillar:



Public Member Functions

- **Upgrade_Pillar** (`const sf::Vector2f` ¢er, `std::string` const &texture_name, [Upgrade](#) const &upgrade)
- `bool` **update** (`const sf::Time` &delta, [World](#) &world) override
- `void` **render** (`sf::RenderWindow` &window) override
- `bool` **is_bought** ()

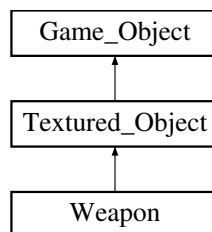
Additional Inherited Members

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

- game_objects/Upgrade_Pillar.h
- game_objects/Upgrade_Pillar.cpp

3.22 Weapon Class Reference

Inheritance diagram for Weapon:



Public Types

- enum **texture_state** { **right** , **left** }

Public Member Functions

- **Weapon** (sf::Vector2f center, std::string const &texture_name)
- void **shoot** (const sf::Time &delta, [World](#) &world)
- bool **update** (sf::Time const &delta, [World](#) &world) override
- void **calc_barrel_pos** (float const direction)
- void **set_texture_state** (texture_state state)

Public Attributes

- float **fire_rate**
- int **damage**

Additional Inherited Members

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

- game_objects/Weapon.h
- game_objects/Weapon.cpp

3.23 World Class Reference

Public Member Functions

- **World** (sf::RenderWindow &window)
- void **tick** (sf::Time)
- void **render** (sf::RenderWindow &window)
- void **clear_level** ()
- void **add_front** (std::shared_ptr< [Game_Object](#) > const &game_object)
- void **add_back** (std::shared_ptr< [Game_Object](#) > const &game_object)
- void **insert_at** (std::shared_ptr< [Game_Object](#) > const &game_object, int const index)
- bool **collides** ([Game_Object](#) const &a, [Game_Object](#) const &b) const
- std::vector< std::shared_ptr< [Game_Object](#) > > **collides_with** ([Game_Object](#) &me) const

Public Attributes

- sf::RenderWindow & **stored_window**

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

- managers/World.h
- managers/World.cpp

Index

Character, [5](#)

Door, [6](#)

Enemy, [6](#)

Exit_State, [7](#)

Font_Manager, [7](#)

Game_Object, [8](#)

Game_Over_State, [8](#)

Game_State, [9](#)

Hud, [9](#)

Menu_State, [10](#)

Money, [10](#)

Platform, [11](#)

Player, [11](#)

Player_Info, [12](#)

Projectile, [13](#)

Sound_Manager, [13](#)

State, [13](#)

Texture_Manager, [14](#)

Textured_Object, [14](#)

Upgrade, [15](#)

Upgrade_Pillar, [15](#)

Weapon, [16](#)

World, [17](#)