

zappy\_gui

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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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## Chapter 2

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### 2.1 Class List

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## Chapter 3

# Class Documentation

### 3.1 gui::Argument Class Reference

#### Public Member Functions

- **Argument** (const uint16\_t p, std::string h)

#### Public Attributes

- const uint16\_t **port**
- const std::string **hostName**

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

- include/GUI/Argument.hpp

### 3.2 myLib::Clock Class Reference

#### Public Member Functions

- void **restart** ()
- void **pause** ()
- void **resume** ()
- **Time** **getElapsedTime** () const

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

- lib/static/myLib/include/myLib/Clock/Clock.hpp

### 3.3 gui::Egg Class Reference

#### Public Member Functions

- **Egg** (unsigned int id, int playerId, unsigned int x, unsigned int y)
- unsigned int **getId** () const
- int **getPlayerId** () const
- unsigned int **getX** () const
- unsigned int **getY** () const
- bool **isDead** () const
- void **setDeath** ()

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

- include/GUI/Egg.hpp

### 3.4 gui::Gui Class Reference

#### Public Types

- enum class **RendererMode** { **GAME** , **SETTINGS** , **END** }

#### Public Member Functions

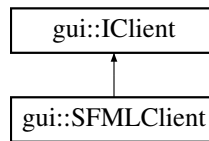
- **Gui** (const [Argument](#) &args)
- std::unique\_ptr< [IRenderer](#) > & **getRenderer** ()
- void **Run** ()
- void **initMap** (const std::pair< unsigned, unsigned > &size)
- void **matureEgg** (const unsigned int &eggId)
- void **eggDeath** (const unsigned int &eggId)
- void **addEgg** (const [Egg](#) &egg)
- [Map](#) & **getMap** ()
- int **getFrequency** () const
- std::vector< std::string > & **getTeamNames** ()
- std::vector< [Player](#) > & **getPlayers** ()
- **RendererMode** **getMode** () const
- std::vector< [Egg](#) > **getEggs** () const
- void **addTeamName** (const std::string &teamName)
- void **addPlayer** (const [Player](#) &player)
- void **removePlayer** (const unsigned int &id)
- void **setMap** (const [Map](#) &map)
- void **setFrequency** (int freq)
- void **setMode** (**RendererMode** mode)

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

- include/GUI/Gui.hpp

## 3.5 gui::IClient Class Reference

Inheritance diagram for gui::IClient:



### Public Member Functions

- virtual bool **connect** (uint16\_t port, const std::string &machineName)=0
- virtual void **disconnect** ()=0
- virtual bool **sendCommand** (const std::string &cmd)=0
- virtual bool **getResponse** (const std::string &cmd)=0
- virtual std::string **getResponse** ()=0
- virtual bool **isConnected** ()=0

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

- include/GUI/Abstraction/IClient.hpp

## 3.6 gui::Inventory Class Reference

### Public Member Functions

- **Inventory** ([Resource](#) food, [Resource](#) linemate, [Resource](#) deraumere, [Resource](#) sibur, [Resource](#) mendiane, [Resource](#) phiras, [Resource](#) thystame)
- **Inventory** (std::vector< [Resource](#) > cresources)
- void **setQuantity** ([Resource::Type](#) type, unsigned int quantity)

### Public Attributes

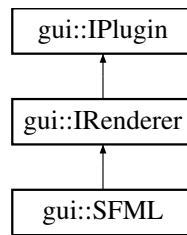
- std::vector< [Resource](#) > **resources**

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

- include/GUI/Inventory/Inventory.hpp

### 3.7 gui::IPlugin Class Reference

Inheritance diagram for gui::IPlugin:



#### Public Member Functions

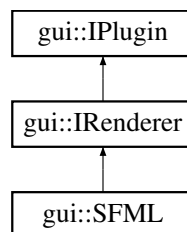
- virtual std::string **getPluginName** () const =0

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

- include/GUI/Abstraction/IPlugin.hpp

### 3.8 gui::IRenderer Class Reference

Inheritance diagram for gui::IRenderer:



#### Public Member Functions

- virtual void **setFPS** (unsigned int FPS)=0
- virtual **IClient** & **getClient** ()=0
- virtual bool **isRunning** ()=0
- virtual void **init** (const std::string &name, std::pair< const unsigned int, const unsigned int > resolution, unsigned int bitsPerPixel)=0
- virtual void **render** (**Map** &map, std::vector< **Egg** > &egg, std::vector< **Player** > &players, std::vector< std::string > &teamNames)=0
- virtual KeyBoard::Key **getEvents** ()=0
- virtual void **close** ()=0

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

- include/GUI/Abstraction/IRenderer.hpp

## 3.9 gui::KeyBoard Class Reference

### Public Types

- enum **Key** {  
**NONE** = -1 , **CLOSE** = 0 , **KEY\_LEFT** = 1 , **KEY\_RIGHT** = 2 ,  
**KEY\_UP** = 3 , **KEY\_DOWN** = 4 , **KEY\_SPACE** = 5 , **KEY\_ENTER** = 6 ,  
**KEY\_ESCAPE** = 7 , **COUNT** = 8 }

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

- include/GUI/KeyBoard.hpp

## 3.10 gui::Map Class Reference

### Public Member Functions

- **Map** (unsigned int width, unsigned int height, const std::vector< std::vector< [Tile](#) >> &tiles)
- unsigned int **getWidth** () const
- unsigned int **getHeight** () const
- void **setWidth** (unsigned int width)
- void **setHeight** (unsigned int height)
- void **addTile** (const [Tile](#) &tile)
- std::vector< std::vector< [Tile](#) > > & **getTiles** ()

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

- include/GUI/Map/Map.hpp

## 3.11 gui::Parser Class Reference

### Classes

- class [ParserException](#)

### Static Public Member Functions

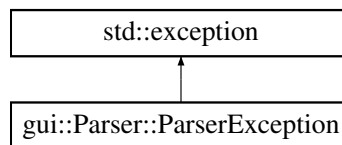
- static [Argument](#) **getOptions** (int argc, char \*const argv[], const std::string &optString)
- static uint16\_t **parsePort** (const char \*port)
- static std::string **parseMachineName** (const char \*machineName)
- static void **processData** (const std::vector< std::string > &data, [Gui](#) &gui)
- static [Tile](#) **parseTileContent** (std::string &tileContent)
- static [Egg](#) **parseEggContent** (const std::vector< std::string > &eggContent)
- static Player::Orientation **parseOrientation** (const std::string &orientation)
- static std::vector< std::string > **getData** (const std::string &data)

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

- include/GUI/Parser.hpp

### 3.12 gui::Parser::ParserException Class Reference

Inheritance diagram for gui::Parser::ParserException:



#### Public Member Functions

- **ParserException** (std::string msg)
- **ParserException** (const [ParserException](#) &)=delete
- [ParserException](#) & **operator=** (const [ParserException](#) &)=delete
- **ParserException** (const [ParserException](#) &&)=delete
- [ParserException](#) & **operator=** (const [ParserException](#) &&)=delete
- const char \* **what** () const noexcept override

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

- include/GUI/Parser.hpp

### 3.13 gui::Player Class Reference

#### Public Types

- enum class **Action** {  
  **MOVE** , **FEED** , **ELEVATE** , **TAKE** ,  
  **DEATH** , **NONE** }
- enum **Orientation** {  
  **NORTH** = 1 , **EAST** = 2 , **SOUTH** = 3 , **WEST** = 4 ,  
  **NONE** = 0 , **NONE** }

#### Public Member Functions

- Action **getAction** () const
- Action **getLastAction** () const
- Orientation **getOrientation** () const
- [Inventory](#) & **getInventory** ()
- [Position](#) & **getPosition** ()
- [Position](#) & **getLastPosition** ()
- unsigned int **getLevel** () const
- unsigned int **getId** () const
- std::string **getTeamName** () const
- Orientation **getMoving** () const
- void **setAction** (const Action action)
- void **setLastAction** (const Action lastAction)
- void **setOrientation** (const Orientation orientation)
- void **setId** (const unsigned int id)
- void **setTeamName** (const std::string &teamName)
- void **setLevel** (const unsigned int level)
- void **setLastPosition** (const [Position](#) &lastPosition)
- void **setMoving** (const Orientation moving)
- void **levelUp** ()

## Public Attributes

- int **player\_frame** = 0
- int **index\_moving** = 0

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

- include/GUI/Player.hpp

## 3.14 gui::PluginLoader Class Reference

### Classes

- class [PluginLoaderException](#)

### Public Types

- using **PluginCreator** = std::unique\_ptr< [IPlugin](#) >(\*)()

### Public Member Functions

- template<typename T >  
std::unique\_ptr< T > **getPlugin** (const std::string &pluginName)
- void **closePlugins** ()

### Static Public Member Functions

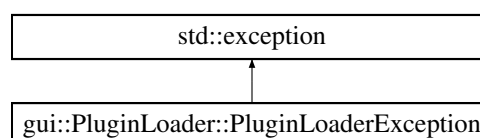
- static [PluginLoader](#) & **getInstance** ()

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

- include/GUI/PluginLoader.hpp

## 3.15 gui::PluginLoader::PluginLoaderException Class Reference

Inheritance diagram for gui::PluginLoader::PluginLoaderException:



## Public Member Functions

- **PluginLoaderException** (std::string msg)
- const char \* **what** () const noexcept override

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

- include/GUI/PluginLoader.hpp

## 3.16 gui::Position Class Reference

### Public Member Functions

- **Position** (unsigned int cx, unsigned int cy)

### Public Attributes

- unsigned int **x**
- unsigned int **y**

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

- include/GUI/Position.hpp

## 3.17 gui::Protocol Class Reference

### Static Public Member Functions

- static std::vector< std::string > **parseCommand** (const std::string &data)

### Static Public Attributes

- static const std::unordered\_map< std::string, std::function< void(gui::Gui &, std::string)> > **ProtocolMap**

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

- include/GUI/Protocol.hpp



## 3.18 myLib::Random Class Reference

### Static Public Member Functions

- static int **randomInt** (int min, int max)
- static int **randomInt** ()
- static float **randomFloat** (float min, float max)
- static float **randomFloat** ()

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

- lib/static/myLib/include/myLib/Random.hpp

## 3.19 gui::Resource Class Reference

### Public Types

- enum **Type** {  
**FOOD** = 0 , **LINEMATE** = 1 , **DERAUMERE** = 2 , **SIBUR** = 3 ,  
**MENDIANE** = 4 , **PHIRAS** = 5 , **THYSTAME** = 6 , **NONE** = 7 }

### Public Member Functions

- **Resource** (Type type, unsigned int quantity)
- bool **operator==** (const [Resource](#) &resource) const

### Public Attributes

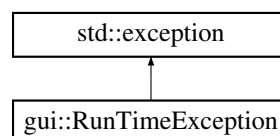
- Type **type**
- double **density**
- unsigned int **quantity**

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

- include/GUI/Inventory/Resource.hpp

## 3.20 gui::RunTimeException Class Reference

Inheritance diagram for gui::RunTimeException:



## Public Member Functions

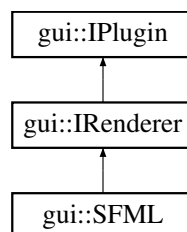
- **RunTimeException** (std::string msg)
- **RunTimeException** (const [RunTimeException](#) &)=delete
- [RunTimeException](#) & **operator=** (const [RunTimeException](#) &)=delete
- **RunTimeException** (const [RunTimeException](#) &&)=delete
- [RunTimeException](#) & **operator=** (const [RunTimeException](#) &&)=delete
- const char \* **what** () const noexcept override

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

- include/GUI/RunTimeException.hpp

## 3.21 gui::SFML Class Reference

Inheritance diagram for gui::SFML:



## Public Member Functions

- void **setFPS** (const unsigned int FPS) override
- std::string **getPluginName** () const override
- [IClient](#) & **getClient** () override
- KeyBoard::Key **getEvents** () override
- bool **isRunning** () override
- void **init** (const std::string &name, std::pair< const unsigned int, const unsigned int > resolution, unsigned int bitsPerPixel) override
- void **close** () override
- void **render** ([Map](#) &map, std::vector< [Egg](#) > &egg, std::vector< [Player](#) > &players, std::vector< std::string > &teamNames) override
- bool **checkConnection** (sf::Clock clock)
- std::vector< std::pair< sf::Sprite, std::string > > & **getSprites** ()
- std::vector< std::pair< sf::Texture, std::string > > & **getTextures** ()
- void **addSprite** (const sf::Sprite &sprite, const std::string &name)
- void **addTexture** (const sf::Texture &texture, const std::string &name)

## Static Public Member Functions

- static KeyBoard::Key **getKeyboardEvent** (const sf::Event &event)

## Public Attributes

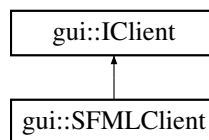
- sf::Clock **playerClock**
- int **playerframe** = 0
- sf::Clock **movingClock**
- int **movingFrame** = 0

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

- lib/shared/Renderer/SFML/include/GUI/SFML.hpp

## 3.22 gui::SFMLClient Class Reference

Inheritance diagram for gui::SFMLClient:



## Public Member Functions

- bool **connect** (uint16\_t port, const std::string &machineName) override
- void **disconnect** () override
- bool **sendCommand** (const std::string &cmd) override
- bool **getResponse** (const std::string &cmd) override
- std::string **getResponse** () override
- bool **isConnected** () override

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

- lib/shared/Renderer/SFML/include/GUI/SFMLClient.hpp

## 3.23 gui::Tile Class Reference

## Public Member Functions

- **Tile** ([Inventory](#) inventory, const [Position](#) &position)
- **Tile** (const [Tile](#) &tile)=default
- [Inventory](#) **getInventory** () const
- void **setInventory** ([Inventory](#) inventory)
- [Position](#) **getPosition** () const
- void **setPosition** ([Position](#) position)

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

- include/GUI/Map/Tile.hpp

## 3.24 myLib::Time Class Reference

### Public Member Functions

- **Time** (const double seconds)
- int **asSeconds** () const
- int **asMilliseconds** () const
- int **asMicroseconds** () const

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

- lib/static/myLib/include/myLib/Clock/Time.hpp

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