

# 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

# Class Index

### 2.1 Class List

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

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## Chapter 3

# Class Documentation

### 3.1 Gui::Errors::AError Class Reference

Base class for custom error types. This class is derived from the [IError](#) interface and provides a common base for custom error types. It contains a protected member `_message` to store the error message.

```
#include <AError.hpp>
```

Inheritance diagram for Gui::Errors::AError:

### 3.2 Gui::Egg Class Reference

#### Public Member Functions

- [Egg](#) (size\_t id, const std::string &team, std::pair< std::size\_t, std::size\_t > position)  
*Construct a new [Egg](#) object.*
- [~Egg](#) ()  
*Destroy the [Egg](#) object.*
- std::size\_t [getId](#) () const  
*Get the *Id* object.*
- std::string [getTeam](#) () const  
*Get the *Team* object.*
- std::pair< std::size\_t, std::size\_t > [getPosition](#) () const  
*Get the *Position* object.*
- void [setId](#) (std::size\_t id)  
*Set the *id* object.*
- void [setTeam](#) (const std::string &team)  
*Set the *team* object.*
- void [setPosition](#) (std::pair< std::size\_t, std::size\_t > position)  
*Set the *position* object.*

#### 3.2.1 Constructor & Destructor Documentation

### 3.2.1.1 Egg()

```
Gui::Egg::Egg (
    size_t id,
    const std::string & team,
    std::pair< std::size_t, std::size_t > position )
```

Construct a new [Egg](#) object.

#### Parameters

<i>id</i>	Id of the egg.
<i>team</i>	<a href="#">Team</a> name of the egg.
<i>position</i>	Position of the egg.

#### Note

The egg is created when a player lays an egg.

The constructor starts the egg animation if implemented.

### 3.2.1.2 ~Egg()

```
Gui::Egg::~~Egg ( )
```

Destroy the [Egg](#) object.

#### Note

The destructor starts the egg animation if implemented.

## 3.2.2 Member Function Documentation

### 3.2.2.1 getId()

```
std::size_t Gui::Egg::getId ( ) const
```

Get the Id object.

#### Returns

std::size\_t Id of the egg.

### 3.2.2.2 getPosition()

```
std::pair< std::size_t, std::size_t > Gui::Egg::getPosition ( ) const
```

Get the Position object.

#### Returns

std::pair<std::size\_t, std::size\_t> Position of the egg.

### 3.2.2.3 getTeam()

```
std::string Gui::Egg::getTeam ( ) const
```

Get the [Team](#) object.

#### Returns

std::string [Team](#) name of the egg.

### 3.2.2.4 setId()

```
void Gui::Egg::setId (
    std::size_t id )
```

Set the id object.

#### Parameters

<i>id</i>	Id of the egg.
-----------	----------------

### 3.2.2.5 setPosition()

```
void Gui::Egg::setPosition (
    std::pair< std::size_t, std::size_t > position )
```

Set the position object.

#### Parameters

<i>position</i>	Position of the egg.
-----------------	----------------------

### 3.2.2.6 setTeam()

```
void Gui::Egg::setTeam (
    const std::string & team )
```

Set the team object.

#### Parameters

<i>team</i>	<a href="#">Team</a> name of the egg.
-------------	---------------------------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/Egg.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/Egg.cpp

## 3.3 Gui::Engine Class Reference

### Public Member Functions

- [Engine](#) ([Network](#) network)  
*Construct a new [Engine](#) object.*
- [~Engine](#) ()=default  
*Destroy the [Engine](#) object.*
- void [run](#) (void)  
*Run the engine loop.*

### 3.3.1 Constructor & Destructor Documentation

#### 3.3.1.1 Engine()

```
Gui::Engine::Engine (
    Network network )
```

Construct a new [Engine](#) object.

#### Parameters

<i>network</i>	<a href="#">Network</a> class.
----------------	--------------------------------

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



- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Engine/Engine.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Engine/Engine.cpp

## 3.4 Gui::Errors::Error Class Reference

Base class for argument-related errors.

```
#include <Error.hpp>
```

Inheritance diagram for Gui::Errors::Error:

Collaboration diagram for Gui::Errors::Error:

### Additional Inherited Members

#### 3.4.1 Detailed Description

Base class for argument-related errors.

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp

## 3.5 Gui::Event Class Reference

### Public Member Functions

- [Event](#) ()  
*Construct a new [Event](#) object.*
- [~Event](#) ()=default  
*Destroy the [Event](#) object.*
- void [listen](#) ()  
*Listen the user's events.*
- void [setRender](#) (std::shared\_ptr< [Render](#) > render)  
*Set the [Render](#) object.*

#### 3.5.1 Member Function Documentation

##### 3.5.1.1 setRender()

```
void Gui::Event::setRender (
    std::shared_ptr< Render > render )
```

Set the [Render](#) object.

## Parameters

<i>render</i>	<a href="#">Render</a> class.
---------------	-------------------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Event/Event.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Event/Event.cpp

## 3.6 Gui::GameData Class Reference

### Public Member Functions

- [GameData](#) ()  
*Construct a new [GameData](#) object.*
- [~GameData](#) ()=default  
*Destroy the [GameData](#) object.*
- std::vector< [Gui::Team](#) > & [getTeams](#) ()  
*Get the Teams object.*
- [Gui::Team](#) & [getTeam](#) (const std::string &name)  
*Get a [Team](#) object.*
- void [addTeam](#) (const [Gui::Team](#) &team)  
*Add a team to the game.*
- void [addTeam](#) (const std::string &name, const std::string &playerModelPath, const std::string &eggModelPath)  
*Add a team to the game.*
- void [addPlayerToTeam](#) (const std::string &teamName, const [Gui::Player](#) &player)  
*Add a player to a team.*
- Map< [Gui::Tile](#) > & [getMap](#) ()  
*Get the Map object.*
- void [setMap](#) (const Map< [Gui::Tile](#) > &map)  
*Set the Map object.*
- void [setMapSize](#) (size\_t x, size\_t y)  
*Set the Map Size object.*
- std::pair< size\_t, size\_t > [getMapSize](#) () const  
*Get the Map Size object.*
- [Gui::Tile](#) & [getTile](#) (size\_t x, size\_t y)  
*Get a [Tile](#) object.*
- void [setTile](#) (const [Gui::Tile](#) &tile)  
*Set the [Tile](#) object.*
- void [restartLastTick](#) (void)  
*Restart the last tick clock.*
- void [setServerTick](#) (std::size\_t tick)  
*Set the Server Tick object.*
- clock\_t [getLastTick](#) () const  
*Get the Last Tick object.*
- std::size\_t [getServerTick](#) () const  
*Get the Server Tick object.*
- void [setIsEndGame](#) (bool isEndGame)  
*Set the IsEnd Game object.*
- bool [getIsEndGame](#) () const  
*Get the IsEnd Game object.*

## 3.6.1 Member Function Documentation

### 3.6.1.1 addPlayerToTeam()

```
void Gui::GameData::addPlayerToTeam (
    const std::string & teamName,
    const Gui::Player & player )
```

Add a player to a team.

#### Parameters

<i>teamName</i>	Name of the team.
<i>player</i>	Player to add.

### 3.6.1.2 addTeam() [1/2]

```
void Gui::GameData::addTeam (
    const Gui::Team & team )
```

Add a team to the game.

#### Parameters

<i>team</i>	Team to add.
-------------	--------------

### 3.6.1.3 addTeam() [2/2]

```
void Gui::GameData::addTeam (
    const std::string & name,
    const std::string & playerModelPath,
    const std::string & eggModelPath )
```

Add a team to the game.

#### Parameters

<i>name</i>	Name of the team.
<i>playerModelPath</i>	Path to the asset of the team for players.
<i>eggModelPath</i>	Path to the asset of the team for eggs.

#### 3.6.1.4 getIsEndGame()

```
bool Gui::GameData::getIsEndGame ( ) const
```

Get the IsEnd Game object.

##### Returns

true - The game is finished.

false - The game continue.

#### 3.6.1.5 getLastTick()

```
clock_t Gui::GameData::getLastTick ( ) const
```

Get the Last Tick object.

##### Returns

clock\_t - Last Tick.

#### 3.6.1.6 getMap()

```
Map< Gui::Tile > & Gui::GameData::getMap ( )
```

Get the Map object.

##### Returns

Map<Gui::Tile>& Map of the game.

#### 3.6.1.7 getMapSize()

```
std::pair< size_t, size_t > Gui::GameData::getMapSize ( ) const
```

Get the Map Size object.

##### Returns

std::pair<size\_t, size\_t> Size of the map.

### 3.6.1.8 getServerTick()

```
std::size_t Gui::GameData::getServerTick ( ) const
```

Get the Server Tick object.

#### Returns

std::size\_t - Server Tick.

### 3.6.1.9 getTeam()

```
Gui::Team & Gui::GameData::getTeam (
    const std::string & name )
```

Get a [Team](#) object.

#### Parameters

<i>name</i>	Name of the team.
-------------	-------------------

#### Returns

[Gui::Team](#)& [Team](#) object.

### 3.6.1.10 getTeams()

```
std::vector< Gui::Team > & Gui::GameData::getTeams ( )
```

Get the Teams object.

#### Returns

std::vector<Gui::Team>& Teams of the game.

### 3.6.1.11 getTile()

```
Gui::Tile & Gui::GameData::getTile (
    size_t x,
    size_t y )
```

Get a [Tile](#) object.

**Parameters**

<i>x</i>	X position of the tile.
<i>y</i>	Y position of the tile.

**Returns**

[Gui::Tile](#)& [Tile](#) object.

**3.6.1.12 setIsEndGame()**

```
void Gui::GameData::setIsEndGame (
    bool isEndGame )
```

Set the IsEnd Game object.

**Parameters**

<i>isEndGame</i>	EndGame state.
------------------	----------------

**3.6.1.13 setMap()**

```
void Gui::GameData::setMap (
    const Map< Gui::Tile > & map )
```

Set the Map object.

**Parameters**

<i>map</i>	Map of the game.
------------	------------------

**3.6.1.14 setMapSize()**

```
void Gui::GameData::setMapSize (
    size_t x,
    size_t y )
```

Set the Map Size object.

**Parameters**

<i>x</i>	X size of the map.
<i>y</i>	Y size of the map.

**Note**

This method resizes the map.

**3.6.1.15 setServerTick()**

```
void Gui::GameData::setServerTick (
    std::size_t tick )
```

Set the Server Tick object.

**Parameters**

<i>tick</i>	Tick of the server.
-------------	---------------------

**3.6.1.16 setTile()**

```
void Gui::GameData::setTile (
    const Gui::Tile & tile )
```

Set the [Tile](#) object.

**Parameters**

<i>x</i>	X position of the tile.
<i>y</i>	Y position of the tile.
<i>tile</i>	<a href="#">Tile</a> to set.

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/GameData.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/GameData.cpp

**3.7 Gui::Errors::GuiGameDataException Class Reference**

[Error](#) class for [GameData](#) errors.

```
#include <Error.hpp>
```

Inheritance diagram for Gui::Errors::GuiGameDataException:

Collaboration diagram for Gui::Errors::GuiGameDataException:

## Public Member Functions

- [GuiGameDataException](#) (std::string message)  
*Constructor for [GuiGameDataException](#).*

## Additional Inherited Members

### 3.7.1 Detailed Description

[Error](#) class for [GameData](#) errors.

### 3.7.2 Constructor & Destructor Documentation

#### 3.7.2.1 GuiGameDataException()

```
Gui::Errors::GuiGameDataException::GuiGameDataException (
    std::string message )
```

Constructor for [GuiGameDataException](#).

##### Parameters

<i>message</i>	The error message.
----------------	--------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Error/Error.cpp

## 3.8 Gui::GUIUpdater Class Reference

### Public Member Functions

- [GUIUpdater](#) (std::shared\_ptr< [GameData](#) > gameData)  
*Construct a new [GUIUpdater](#) object.*
- [~GUIUpdater](#) ()=default  
*Destroy the [GUIUpdater](#) object.*
- void [update](#) (const std::string &command, const std::vector< std::string > &data)  
*Update the GUI [GameData](#).*

### 3.8.1 Constructor & Destructor Documentation



### 3.8.1.1 GUIUpdater()

```
Gui::GuiUpdater::GuiUpdater (
    std::shared_ptr< GameData > gameData )
```

Construct a new [GUIUpdater](#) object.

#### Parameters

<i>gameData</i>	The GUI <a href="#">GameData</a> to update.
-----------------	---

## 3.8.2 Member Function Documentation

### 3.8.2.1 update()

```
void Gui::GuiUpdater::update (
    const std::string & command,
    const std::vector< std::string > & data )
```

Update the GUI [GameData](#).

#### Parameters

<i>command</i>	The command to update the GUI <a href="#">GameData</a> .
<i>data</i>	The data to update the GUI <a href="#">GameData</a> .

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

- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GUIUpdater/GUIUpdater.hpp`
- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GUIUpdater/GUIUpdater.cpp`

## 3.9 Gui::Errors::GuiUpdaterException Class Reference

[Error](#) class for [GUIUpdater](#) errors.

```
#include <Error.hpp>
```

Inheritance diagram for Gui::Errors::GuiUpdaterException:

Collaboration diagram for Gui::Errors::GuiUpdaterException:

### Public Member Functions

- [GuiUpdaterException](#) (std::string message)  
*Constructor for [GuiUpdaterException](#).*

## Additional Inherited Members

### 3.9.1 Detailed Description

[Error](#) class for [GuiUpdater](#) errors.

### 3.9.2 Constructor & Destructor Documentation

#### 3.9.2.1 GuiUpdaterException()

```
Gui::Errors::GuiUpdaterException::GuiUpdaterException (
    std::string message )
```

Constructor for [GuiUpdaterException](#).

#### Parameters

<i>message</i>	The error message.
----------------	--------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Error/Error.cpp

## 3.10 Gui::Errors::IError Class Reference

Inheritance diagram for Gui::Errors::IError:

Collaboration diagram for Gui::Errors::IError:

### Public Member Functions

- virtual [~IError](#) ()=default  
*Destructor for [IError](#).*
- virtual const char \* [what](#) () const noexcept=0  
*Returns a C-style string describing the error. This function must be implemented by derived classes to provide a description of the error. The returned string should be null-terminated.*

#### 3.10.1 Member Function Documentation

### 3.10.1.1 what()

```
virtual const char* Gui::Errors::IError::what ( ) const [pure virtual], [noexcept]
```

Returns a C-style string describing the error. This function must be implemented by derived classes to provide a description of the error. The returned string should be null-terminated.

#### Returns

const char\* A C-style string describing the error.

Implemented in [Gui::Errors::AError](#).

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/IError.hpp

## 3.11 Gui::Inventory Class Reference

### Public Types

- using **Ressources** = size\_t[RessourcesNumber]

### Public Member Functions

- [Inventory](#) ()  
*Construct a new [Inventory](#) object.*
- [Inventory](#) (std::size\_t food, std::size\_t linemate, std::size\_t deraumere, std::size\_t sibur, std::size\_t mendiane, std::size\_t phiras, std::size\_t thystame)  
*Construct a new [Inventory](#) object.*
- [~Inventory](#) ()=default  
*Destroy the [Inventory](#) object.*
- void [setFood](#) (std::size\_t food)  
*Set the Food object.*
- void [setLinemate](#) (std::size\_t linemate)  
*Set the Linemate object.*
- void [setDeraumere](#) (std::size\_t deraumere)  
*Set the Deraumere object.*
- void [setSibur](#) (std::size\_t sibur)  
*Set the Sibur object.*
- void [setMendiane](#) (std::size\_t mendiane)  
*Set the Mendiane object.*
- void [setPhiras](#) (std::size\_t phiras)  
*Set the Phiras object.*
- void [setThystame](#) (std::size\_t thystsame)  
*Set the Thystame object.*
- void [setRessources](#) (Ressources ressources)  
*Set the Ressources object.*
- std::size\_t [getFood](#) (void)

- Get the Food object.*

  - `std::size_t` [getLinemate](#) (void)

*Get the Linemate object.*
- `std::size_t` [getDeraumere](#) (void)

*Get the Deraumere object.*
- `std::size_t` [getSibur](#) (void)

*Get the Sibur object.*
- `std::size_t` [getMendiane](#) (void)

*Get the Mendiane object.*
- `std::size_t` [getPhiras](#) (void)

*Get the Phiras object.*
- `std::size_t` [getThystame](#) (void)

*Get the Thystame object.*
- Ressources & [getRessources](#) (void)

*Get the Ressources object.*

### 3.11.1 Constructor & Destructor Documentation

#### 3.11.1.1 Inventory()

```
Gui::Inventory::Inventory (
    std::size_t food,
    std::size_t linemate,
    std::size_t deraumere,
    std::size_t sibur,
    std::size_t mendiane,
    std::size_t phiras,
    std::size_t thystame )
```

Construct a new [Inventory](#) object.

##### Parameters

<i>food</i>	Food to set.
<i>linemate</i>	Linemate to set.
<i>deraumere</i>	Deraumere to set.
<i>sibur</i>	Sibur to set.
<i>mendiane</i>	Mendiane to set.
<i>phiras</i>	Phiras to set.
<i>thystame</i>	Thystame to set.

### 3.11.2 Member Function Documentation

### 3.11.2.1 getDeraumere()

```
std::size_t Gui::Inventory::getDeraumere (
    void )
```

Get the Deraumere object.

#### Returns

std::size\_t - deraumere

### 3.11.2.2 getFood()

```
std::size_t Gui::Inventory::getFood (
    void )
```

Get the Food object.

#### Returns

std::size\_t - food

### 3.11.2.3 getLinemate()

```
std::size_t Gui::Inventory::getLinemate (
    void )
```

Get the Linemate object.

#### Returns

std::size\_t - linemate

### 3.11.2.4 getMendiane()

```
std::size_t Gui::Inventory::getMendiane (
    void )
```

Get the Mendiane object.

#### Returns

std::size\_t - mendiane

### 3.11.2.5 getPhiras()

```
std::size_t Gui::Inventory::getPhiras (
    void )
```

Get the Phiras object.

#### Returns

std::size\_t - phiras

### 3.11.2.6 getRessources()

```
Gui::Inventory::Ressources & Gui::Inventory::getRessources (
    void )
```

Get the Ressources object.

#### Returns

Ressources - ressources

### 3.11.2.7 getSibur()

```
std::size_t Gui::Inventory::getSibur (
    void )
```

Get the Sibur object.

#### Returns

std::size\_t - sibur

### 3.11.2.8 getThystame()

```
std::size_t Gui::Inventory::getThystame (
    void )
```

Get the Thystame object.

#### Returns

std::size\_t - thystame

### 3.11.2.9 setDeraumere()

```
void Gui::Inventory::setDeraumere (
    std::size_t deraumere )
```

Set the Deraumere object.

## Parameters

<i>deraumere</i>	Deraumere to set.
------------------	-------------------

**3.11.2.10 setFood()**

```
void Gui::Inventory::setFood (
    std::size_t food )
```

Set the Food object.

## Parameters

<i>food</i>	Food to set.
-------------	--------------

**3.11.2.11 setLinemate()**

```
void Gui::Inventory::setLinemate (
    std::size_t linemate )
```

Set the Linemate object.

## Parameters

<i>linemate</i>	Linemate to set.
-----------------	------------------

**3.11.2.12 setMendiane()**

```
void Gui::Inventory::setMendiane (
    std::size_t mendiane )
```

Set the Mendiane object.

## Parameters

<i>mendiane</i>	Mendiane to set.
-----------------	------------------

### 3.11.2.13 setPhiras()

```
void Gui::Inventory::setPhiras (
    std::size_t phiras )
```

Set the Phiras object.

#### Parameters

<i>phiras</i>	Phiras to set.
---------------	----------------

### 3.11.2.14 setRessources()

```
void Gui::Inventory::setRessources (
    Ressources ressources )
```

Set the Ressources object.

#### Parameters

<i>ressources</i>	Ressources to set.
-------------------	--------------------

### 3.11.2.15 setSibur()

```
void Gui::Inventory::setSibur (
    std::size_t sibur )
```

Set the Sibur object.

#### Parameters

<i>sibur</i>	Sibur to set.
--------------	---------------

### 3.11.2.16 setThystame()

```
void Gui::Inventory::setThystame (
    std::size_t thytsame )
```

Set the Thystame object.



## Parameters

<i>thystame</i>	Thystame to set.
-----------------	------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/Inventory.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/Inventory.cpp

## 3.12 Gui::Network Class Reference

### Public Member Functions

- [Network](#) (int port, const std::string &hostName)  
*Construct a new [Network](#) object.*
- [~Network](#) ()=default  
*Destroy the [Network](#) object.*
- void [setPort](#) (int port)  
*Set the port object.*
- void [setHostName](#) (const std::string &hostName)  
*Set the host name object.*
- int [getPort](#) () const  
*Get the port object.*
- std::string [getHostName](#) () const  
*Get the host name object.*
- void [connectToServer](#) ()  
*Connect the Gui network with the server.*
- const std::string [listenServer](#) ()  
*Listen the server and return it message.*
- void [sendMessageServer](#) (const std::string &message)  
*Send a message to the Server.*

### 3.12.1 Constructor & Destructor Documentation

#### 3.12.1.1 Network()

```
Gui::Network::Network (
    int port,
    const std::string & hostName )
```

Construct a new [Network](#) object.

## Parameters

<i>port</i>	Port of the server.
<i>hostName</i>	Host of the server.

### 3.12.2 Member Function Documentation

#### 3.12.2.1 `getHostName()`

```
std::string Gui::Network::getHostName ( ) const
```

Get the host name object.

##### Returns

const std::string - Host name of the server.

#### 3.12.2.2 `getPort()`

```
int Gui::Network::getPort ( ) const
```

Get the port object.

##### Returns

const int - Port of the server.

#### 3.12.2.3 `listenServer()`

```
const std::string Gui::Network::listenServer (
    void )
```

Listen the server and return it message.

##### Returns

std::string - Message of the server.

#### 3.12.2.4 `sendMessageServer()`

```
void Gui::Network::sendMessageServer (
    const std::string & message )
```

Send a message to the Server.

## Parameters

<i>message</i>	Message to send to the server.
----------------	--------------------------------

### 3.12.2.5 setHostName()

```
void Gui::Network::setHostName (
    const std::string & hostName )
```

Set the host name object.

## Parameters

<i>hostName</i>	Host of the server.
-----------------	---------------------

### 3.12.2.6 setPort()

```
void Gui::Network::setPort (
    int port )
```

Set the port object.

## Parameters

<i>port</i>	Port of the server.
-------------	---------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Network/Network.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Network/Network.cpp

## 3.13 Gui::Errors::NetworkException Class Reference

[Error](#) class for network errors.

```
#include <Error.hpp>
```

Inheritance diagram for Gui::Errors::NetworkException:

Collaboration diagram for Gui::Errors::NetworkException:

## Public Member Functions

- [NetworkException](#) (std::string message)  
*Constructor for [NetworkException](#).*

## Additional Inherited Members

### 3.13.1 Detailed Description

[Error](#) class for network errors.

### 3.13.2 Constructor & Destructor Documentation

#### 3.13.2.1 NetworkException()

```
Gui::Errors::NetworkException::NetworkException (
    std::string message )
```

Constructor for [NetworkException](#).

#### Parameters

<i>message</i>	The error message.
----------------	--------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Error/Error.cpp

## 3.14 Gui::ParseCommandLine Class Reference

### Public Member Functions

- [ParseCommandLine](#) (int argc, char \*\*argv)  
*Construct a new Parse Command Line object.*
- [~ParseCommandLine](#) ()=default  
*Destroy the Parse Command Line object.*
- void [parseFlags](#) (int argc, char \*\*argv)  
*Parse flags in command line.*
- int [getPort](#) (void)  
*Get the port object.*
- std::string [getHostName](#) (void)  
*Get the hostName object.*

## 3.14.1 Constructor & Destructor Documentation

### 3.14.1.1 ParseCommandLine()

```
Gui::ParseCommandLine::ParseCommandLine (
    int argc,
    char ** argv )
```

Construct a new Parse Command Line object.

#### Parameters

<i>argc</i>	Number of arguments in command line.
<i>argv</i>	Array with command line arguments.

## 3.14.2 Member Function Documentation

### 3.14.2.1 getHostName()

```
std::string Gui::ParseCommandLine::getHostName (
    void )
```

Get the hostName object.

#### Returns

std::string - hostName

### 3.14.2.2 getPort()

```
int Gui::ParseCommandLine::getPort (
    void )
```

Get the port object.

#### Returns

int - port

### 3.14.2.3 parseFlags()

```
void Gui::ParseCommandLine::parseFlags (
    int argc,
    char ** argv )
```

Parse flags in command line.

## Parameters

<i>argc</i>	Number of arguments in command line.
<i>argv</i>	Array with command line arguments.

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Parsing/ParseCommandLine.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Parsing/ParseCommandLine.cpp

## 3.15 Gui::Errors::ParseCommandLineException Class Reference

[Error](#) class for parseCommandLine errors.

```
#include <Error.hpp>
```

Inheritance diagram for Gui::Errors::ParseCommandLineException:

Collaboration diagram for Gui::Errors::ParseCommandLineException:

### Public Member Functions

- [ParseCommandLineException](#) (std::string message)  
*Constructor for [ParseCommandLineException](#).*

### Additional Inherited Members

#### 3.15.1 Detailed Description

[Error](#) class for parseCommandLine errors.

#### 3.15.2 Constructor & Destructor Documentation

##### 3.15.2.1 ParseCommandLineException()

```
Gui::Errors::ParseCommandLineException::ParseCommandLineException (
    std::string message )
```

Constructor for [ParseCommandLineException](#).

## Parameters

<i>message</i>	The error message.
----------------	--------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Error/Error.cpp

## 3.16 Gui::Player Class Reference

Collaboration diagram for Gui::Player:

### Public Types

- enum **PlayerState** {  
**IDLE** , **BORN** , **BROADCAST** , **EJECT** ,  
**BEING\_EJECTED** , **WALK** , **INCANTATION** , **FINISHED\_INCANTATION** ,  
**LAY\_EGG** , **DROP** , **COLLECT** }

### Public Member Functions

- [Player](#) (std::size\_t id, const std::string &team, std::pair< std::size\_t, std::size\_t > position, std::size\_t orientation, std::size\_t level=1)  
Construct a new [Player](#) object.
- [~Player](#) ()=default  
Destroy the [Player](#) object.
- void [setPosition](#) (std::pair< std::size\_t, std::size\_t > position)  
Set the *Position* object.
- void [setId](#) (std::size\_t id)  
Set the *Id* object.
- void [setLevel](#) (std::size\_t level)  
Set the *Level* object.
- void [setOrientation](#) (std::size\_t orientation)  
Set the *Orientation* object.
- void [setTeam](#) (const std::string &team)  
Set the *Team* object.
- std::pair< std::size\_t, std::size\_t > [getPosition](#) (void) const  
Get the *Position* object.
- std::size\_t [getId](#) (void) const  
Get the *Id* object.
- std::size\_t [getLevel](#) (void) const  
Get the *Level* object.
- std::size\_t [getOrientation](#) (void) const  
Get the *Orientation* object.
- std::string [getTeam](#) (void) const  
Get the *Team* object.
- void [setState](#) (PlayerState state)  
Set the *State* object.
- PlayerState [getState](#) (void) const  
Get the *State* object.

## Public Attributes

- [Inventory](#) `inventory`  
*Inventory of the player.*

### 3.16.1 Constructor & Destructor Documentation

#### 3.16.1.1 `Player()`

```
Gui::Player::Player (
    std::size_t id,
    const std::string & team,
    std::pair< std::size_t, std::size_t > position,
    std::size_t orientation,
    std::size_t level = 1 )
```

Construct a new [Player](#) object.

##### Parameters

<i>id</i>	Id of the player.
<i>team</i>	<a href="#">Team</a> name of the player.
<i>position</i>	Position of the <a href="#">Player</a> .

### 3.16.2 Member Function Documentation

#### 3.16.2.1 `getId()`

```
std::size_t Gui::Player::getId (
    void ) const
```

Get the Id object.

##### Returns

`std::size_t` - id



### 3.16.2.2 getLevel()

```
std::size_t Gui::Player::getLevel (
    void ) const
```

Get the Level object.

#### Returns

std::size\_t - level

### 3.16.2.3 getOrientation()

```
std::size_t Gui::Player::getOrientation (
    void ) const
```

Get the Orientation object.

#### Returns

std::size\_t - orientation

### 3.16.2.4 getPosition()

```
std::pair< std::size_t, std::size_t > Gui::Player::getPosition (
    void ) const
```

Get the Position object.

#### Returns

std::pair<std::size\_t, std::size\_t> - position

### 3.16.2.5 getState()

```
Gui::Player::PlayerState Gui::Player::getState (
    void ) const
```

Get the State object.

#### Returns

PlayerState - [Player](#) state.

### 3.16.2.6 getTeam()

```
std::string Gui::Player::getTeam (
    void ) const
```

Get the [Team](#) object.

#### Returns

std::string - team name

### 3.16.2.7 setId()

```
void Gui::Player::setId (
    std::size_t id )
```

Set the Id object.

#### Parameters

<i>id</i>	Id of the player.
-----------	-------------------

### 3.16.2.8 setLevel()

```
void Gui::Player::setLevel (
    std::size_t level )
```

Set the Level object.

#### Parameters

<i>level</i>	Level of the player.
--------------	----------------------

### 3.16.2.9 setOrientation()

```
void Gui::Player::setOrientation (
    std::size_t orientation )
```

Set the Orientation object.

## Parameters

<i>orientation</i>	Orientation of the player.
--------------------	----------------------------

**3.16.2.10 setPosition()**

```
void Gui::Player::setPosition (
    std::pair< std::size_t, std::size_t > position )
```

Set the Position object.

## Parameters

<i>position</i>	Position of the player
-----------------	------------------------

**3.16.2.11 setState()**

```
void Gui::Player::setState (
    PlayerState state )
```

Set the State object.

## Parameters

<i>state</i>	New player state.
--------------	-------------------

**3.16.2.12 setTeam()**

```
void Gui::Player::setTeam (
    const std::string & team )
```

Set the [Team](#) object.

## Parameters

<i>team</i>	<a href="#">Team</a> name of the player.
-------------	--

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/Player.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/Player.cpp

## 3.17 Gui::Render Class Reference

### Public Member Functions

- [Render](#) (std::shared\_ptr< [GameData](#) > gameData)  
*Construct a new [Render](#) object.*
- [~Render](#) ()  
*Destroy the [Render](#) object.*
- bool [isOpen](#) ()  
*Check if the window is open.*
- void [draw](#) ()  
*Draw the scene.*
- std::shared\_ptr< Camera > [getCamera](#) ()  
*Get the Camera object.*
- void [setIsDebug](#) (bool isDebug)  
*Set the Is Debug object.*
- bool [getIsDebug](#) (void)  
*Get the Is Debug object.*

### 3.17.1 Member Function Documentation

#### 3.17.1.1 getCamera()

```
std::shared_ptr< Camera > Gui::Render::getCamera ( )
```

Get the Camera object.

#### Returns

std::shared\_ptr<Camera> - camera

#### 3.17.1.2 getIsDebug()

```
bool Gui::Render::getIsDebug (
    void )
```

Get the Is Debug object.

#### Returns

true - diplay debug  
false - do not display debug

### 3.17.1.3 isOpen()

```
bool Gui::Render::isOpen ( )
```

Check if the window is open.

#### Returns

true - the window is open  
false - the window is closed

### 3.17.1.4 setIsDebug()

```
void Gui::Render::setIsDebug (
    bool isDebug )
```

Set the Is Debug object.

#### Parameters

<i>isDebug</i>	New Is Debug value to set.
----------------	----------------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Render/Render.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Render/Render.cpp

## 3.18 Gui::ServerParser Class Reference

### Public Types

- enum [ParseType](#) { [INT](#) , [STRING](#) , [MESSAGE](#) , [LIST\\_INT](#) }  
*Enum of types to parse.*

### Public Member Functions

- [ServerParser](#) ()=default  
*Construct a new Server Parser object.*
- [~ServerParser](#) ()=default  
*Destroy the Server Parser object.*
- std::vector< std::string > [parse](#) (const std::string &command)  
*Parse the command server.*

### 3.18.1 Member Function Documentation

#### 3.18.1.1 `parse()`

```
std::vector< std::string > Gui::ServerParser::parse (
    const std::string & command )
```

Parse the command server.

##### Parameters

<i>command</i>	Command to parse.
----------------	-------------------

##### Returns

`std::vector<std::string>` - arguments parsed

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

- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Parsing/ServerParser.hpp`
- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Parsing/ServerParser.cpp`

## 3.19 `Gui::Errors::ServerParserException` Class Reference

[Error](#) class for network errors.

```
#include <Error.hpp>
```

Inheritance diagram for `Gui::Errors::ServerParserException`:

Collaboration diagram for `Gui::Errors::ServerParserException`:

### Public Member Functions

- [ServerParserException](#) (`std::string` message)  
*Constructor for [ServerParserException](#).*

### Additional Inherited Members

#### 3.19.1 Detailed Description

[Error](#) class for network errors.

## 3.19.2 Constructor & Destructor Documentation

### 3.19.2.1 ServerParserException()

```
Gui::Errors::ServerParserException::ServerParserException (
    std::string message )
```

Constructor for [ServerParserException](#).

## Parameters

<i>message</i>	The error message.
----------------	--------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Error/Error.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Error/Error.cpp

## 3.20 Gui::Team Class Reference

### Public Member Functions

- [Team](#) (const std::string &name, const std::string &playerModelPath, const std::string &eggModelPath)  
*Construct a new [Team](#) object.*
- [~Team](#) ()  
*Destroy the [Team](#) object.*
- const std::string & [getName](#) () const  
*Get the Name object.*
- std::vector< [Gui::Player](#) > & [getPlayers](#) ()  
*Get the Players object.*
- std::vector< [Gui::Egg](#) > & [getEggs](#) ()  
*Get the Eggs object.*
- void [setName](#) (const std::string &name)  
*Set the Name object.*
- void [addPlayer](#) (const [Gui::Player](#) &player)  
*Add a player to the team.*
- void [addEgg](#) (const [Gui::Egg](#) &egg)  
*Add an egg to the team.*
- bool [removePlayer](#) (std::size\_t id)  
*Remove a player from the team.*
- bool [removeEgg](#) (std::size\_t id)  
*Remove an egg from the team.*
- std::shared\_ptr< [Gui::Player](#) > [getPlayer](#) (std::size\_t id)  
*Get the [Player](#) object.*
- Model [getPlayerModel](#) () const  
*Get the Model object.*
- void [setPlayerModelPath](#) (const std::string &playerModelPath)  
*Set the Model object.*
- std::shared\_ptr< [Gui::Egg](#) > [getEgg](#) (std::size\_t id)  
*Get the [Egg](#) object.*
- Model [getEggModel](#) () const  
*Get the [Egg](#) Model Path object.*
- void [setEggModelPath](#) (const std::string &eggModelPath)  
*Set the [Egg](#) Model Path object.*



## 3.20.1 Constructor & Destructor Documentation

### 3.20.1.1 Team()

```
Gui::Team::Team (
    const std::string & name,
    const std::string & playerModelPath,
    const std::string & eggModelPath )
```

Construct a new [Team](#) object.

#### Parameters

<i>name</i>	Name of the team.
<i>playerModelPath</i>	Path to the team model asset for players.
<i>eggSkinPath</i>	Path to the skin of the team.

## 3.20.2 Member Function Documentation

### 3.20.2.1 addEgg()

```
void Gui::Team::addEgg (
    const Gui::Egg & egg )
```

Add an egg to the team.

#### Parameters

<i>egg</i>	<a href="#">Egg</a> to add.
------------	-----------------------------

### 3.20.2.2 addPlayer()

```
void Gui::Team::addPlayer (
    const Gui::Player & player )
```

Add a player to the team.

#### Parameters

<i>player</i>	<a href="#">Player</a> to add.
---------------	--------------------------------

### 3.20.2.3 getEgg()

```
std::shared_ptr< Gui::Egg > Gui::Team::getEgg (
    std::size_t id )
```

Get the [Egg](#) object.

#### Parameters

<i>id</i>	Id of the egg.
-----------	----------------

#### Returns

std::shared\_ptr<Gui::Egg> [Egg](#).

### 3.20.2.4 getEggModel()

```
Model Gui::Team::getEggModel ( ) const
```

Get the [Egg](#) Model Path object.

#### Returns

const std::string& Path to the eggs Model of the team.

### 3.20.2.5 getEggs()

```
std::vector< Gui::Egg > & Gui::Team::getEggs ( )
```

Get the Eggs object.

#### Returns

std::vector<Gui::Egg>& Eggs of the team.

### 3.20.2.6 getName()

```
const std::string & Gui::Team::getName ( ) const
```

Get the Name object.

#### Returns

const std::string& Name of the team.

### 3.20.2.7 getPlayer()

```
std::shared_ptr< Gui::Player > Gui::Team::getPlayer (
    std::size_t id )
```

Get the [Player](#) object.

#### Parameters

<i>id</i>	Id of the player.
-----------	-------------------

#### Returns

std::shared\_ptr<Gui::Player> [Player](#).

### 3.20.2.8 getPlayerModel()

```
Model Gui::Team::getPlayerModel (
    void ) const
```

Get the Model object.

#### Returns

Model - Model asset of the [Team](#).

### 3.20.2.9 getPlayers()

```
std::vector< Gui::Player > & Gui::Team::getPlayers ( )
```

Get the Players object.

#### Returns

std::vector<Gui::Player>& Players of the team.

### 3.20.2.10 removeEgg()

```
bool Gui::Team::removeEgg (
    std::size_t id )
```

Remove an egg from the team.

#### Parameters

<i>id</i>	Id of the egg to remove.
-----------	--------------------------

#### Returns

true If the egg has been removed.

false If the egg has not been removed.

### 3.20.2.11 removePlayer()

```
bool Gui::Team::removePlayer (
    std::size_t id )
```

Remove a player from the team.

#### Parameters

<i>id</i>	Id of the player to remove.
-----------	-----------------------------

#### Returns

true If the player has been removed.

false If the player has not been removed.

### 3.20.2.12 setEggModelPath()

```
void Gui::Team::setEggModelPath (
    const std::string & eggModelPath )
```

Set the [Egg](#) Model Path object.

#### Parameters

<i>eggSkinPath</i>	Path to the eggs Model of the team.
--------------------	-------------------------------------

### 3.20.2.13 setName()

```
void Gui::Team::setName (
    const std::string & name )
```

Set the Name object.

#### Parameters

<i>name</i>	Name of the team.
-------------	-------------------

### 3.20.2.14 setPlayerModelPath()

```
void Gui::Team::setPlayerModelPath (
    const std::string & playerModelPath )
```

Set the Model object.

#### Parameters

<i>playerModelPath</i>	Path to the team model asset for players.
------------------------	---

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/Team.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/Team.cpp

## 3.21 Gui::Tile Class Reference

Collaboration diagram for Gui::Tile:

### Public Member Functions

- [Tile](#) (std::pair< std::size\_t, std::size\_t > position)  
*Construct a new [Tile](#) object.*
- [Tile](#) (std::pair< std::size\_t, std::size\_t > position, [Inventory inventory](#))  
*Construct a new [Tile](#) object.*
- [~Tile](#) ()=default  
*Destroy the [Tile](#) object.*
- void [setPosition](#) (std::pair< std::size\_t, std::size\_t > position)  
*Set the Position object.*
- std::pair< std::size\_t, std::size\_t > [getPosition](#) (void) const  
*Get the Position object.*
- Vector3 [getPositionIn3DSpace](#) (void)  
*Get the Position In Space object.*

## Public Attributes

- [Inventory inventory](#)  
*Inventory of the tile.*

### 3.21.1 Constructor & Destructor Documentation

#### 3.21.1.1 Tile() [1/2]

```
Gui::Tile::Tile (
    std::pair< std::size_t, std::size_t > position )
```

Construct a new [Tile](#) object.

##### Parameters

<i>position</i>	Set the position of the tile.
-----------------	-------------------------------

#### 3.21.1.2 Tile() [2/2]

```
Gui::Tile::Tile (
    std::pair< std::size_t, std::size_t > position,
    Inventory inventory )
```

Construct a new [Tile](#) object.

##### Parameters

<i>position</i>	Set the position of the tile.
<i>inventory</i>	Set the inventory of the tile.

### 3.21.2 Member Function Documentation

#### 3.21.2.1 getPosition()

```
std::pair< std::size_t, std::size_t > Gui::Tile::getPosition (
    void ) const
```

Get the Position object.

**Returns**

`std::pair<std::size_t, std::size_t>` - position x y

**3.21.2.2 getPositionIn3DSpace()**

```
Vector3 Gui::Tile::getPositionIn3DSpace (
    void )
```

Get the Position In Space object.

**Returns**

Vector3 - Position in space.

**3.21.2.3 setPosition()**

```
void Gui::Tile::setPosition (
    std::pair< std::size_t, std::size_t > position )
```

Set the Position object.

**Parameters**

<i>position</i>	New position of the tile.
-----------------	---------------------------

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

- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/GameDatas/Tile.hpp`
- `/home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/GameDatas/Tile.cpp`

**3.22 Gui::UserCamera Class Reference****Public Member Functions**

- [UserCamera](#) ()  
*Construct a new User Camera object.*
- [~UserCamera](#) ()=default  
*Destroy the User Camera object.*
- void [setPosition](#) (Vector3 position)  
*Set the Position object.*
- void [setTarget](#) (Vector3 target)  
*Set the Target object.*

- void [setUp](#) (Vector3 up)  
*Set the Up object.*
- void [setFovy](#) (float fovy)  
*Set the Fovy object.*
- Vector3 [getPosition](#) (void) const  
*Get the Position object.*
- Vector3 [getTarget](#) (void) const  
*Get the Target object.*
- Vector3 [getUp](#) (void) const  
*Get the Up object.*
- float [getFovy](#) (void) const  
*Get the Fovy object.*
- std::shared\_ptr< Camera > [getCamera](#) ()  
*Get the Camera object.*

## 3.22.1 Member Function Documentation

### 3.22.1.1 [getCamera\(\)](#)

```
std::shared_ptr< Camera > Gui::UserCamera::getCamera ( )
```

Get the Camera object.

#### Returns

Camera - camera

### 3.22.1.2 [getFovy\(\)](#)

```
float Gui::UserCamera::getFovy (
    void ) const
```

Get the Fovy object.

#### Returns

float - fovy



### 3.22.1.3 getPosition()

```
Vector3 Gui::UserCamera::getPosition (
    void ) const
```

Get the Position object.

#### Returns

Vector3 - position

### 3.22.1.4 getTarget()

```
Vector3 Gui::UserCamera::getTarget (
    void ) const
```

Get the Target object.

#### Returns

Vector3 - target

### 3.22.1.5 getUp()

```
Vector3 Gui::UserCamera::getUp (
    void ) const
```

Get the Up object.

#### Returns

Vector3 - up

### 3.22.1.6 setFovy()

```
void Gui::UserCamera::setFovy (
    float fovy )
```

Set the Fovy object.

#### Parameters

<i>fovy</i>	New camera fovy.
-------------	------------------

### 3.22.1.7 setPosition()

```
void Gui::UserCamera::setPosition (
    Vector3 position )
```

Set the Position object.

#### Parameters

<i>position</i>	New camera position.
-----------------	----------------------

### 3.22.1.8 setTarget()

```
void Gui::UserCamera::setTarget (
    Vector3 target )
```

Set the Target object.

#### Parameters

<i>target</i>	New camera target.
---------------	--------------------

### 3.22.1.9 setUp()

```
void Gui::UserCamera::setUp (
    Vector3 up )
```

Set the Up object.

#### Parameters

<i>up</i>	New camera up vector.
-----------	-----------------------

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

- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/include/Render/UserCamera.hpp
- /home/tjerome-rocher/Desktop/Tek2/Zappy/gui/src/Render/UserCamera.cpp

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