zappy\_gui 0.1.0

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# **Chapter 1**

# **Hierarchical Index**

# 1.1 Class Hierarchy

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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::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::Gui Class Reference

## **Public Types**

enum class RendererMode { GAME , SETTINGS }

#### **Public Member Functions**

- · Gui (const Argument & args)
- std::unique\_ptr< |Renderer > & getRenderer ()
- void Run ()
- void initMap (const std::pair< unsigned, unsigned > &size)
- void initEgg (const unsigned int &eggld, const int &playerId, const std::pair< unsigned int, unsigned int > &pos)
- void matureEgg (const unsigned int &eggld)
- void eggDeath (const unsigned int &eggld)
- Map & getMap ()
- int getFrequency () const
- std::vector< std::string > & getTeamNames ()
- std::vector< Player > & getPlayers ()
- void addTeamName (const std::string &teamName)
- void addPlayer (const Player &player)
- void setMap (const Map &map)
- void **setFrequency** (int freq)

#### **Static Public Member Functions**

static std::vector< std::string > getData (const std::string &data)

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

• include/GUI/Gui.hpp

# 3.4 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

## 3.5 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**

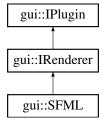
• std::vector< Resource > resources

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

• include/GUI/Inventory/Inventory.hpp

# 3.6 gui::IPlugin Class Reference

Inheritance diagram for gui::IPlugin:



#### **Public Member Functions**

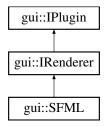
• virtual std::string getPluginName () const =0

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

• include/GUI/Abstraction/IPlugin.hpp

# 3.7 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)=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

## 3.8 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

## 3.9 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 ()
- void countResources ()

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

· include/GUI/Map/Map.hpp

## 3.10 gui::Parser Class Reference

#### Classes

class ParserException

#### **Static Public Member Functions**

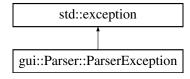
- static Argument getOptions (int argc, char \*const argv[], const std::string &optString)
- static uint16 t parsePort (const char \*port)
- static std::string parseMachineName (const char \*machineName)
- static void processData (const std::vector< std::string > &data, Gui &gui)
- static Tile parseTileContent (std::string &tileContent)

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

• include/GUI/Parser.hpp

# 3.11 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

## 3.12 gui::Player Class Reference

## **Public Types**

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

#### **Public Member Functions**

- · Action getAction () const
- · Orientation getOrientation () const
- Inventory & getInventory ()
- Position & getPosition ()
- unsigned int getLevel () const
- unsigned int **getId** () const
- std::string getTeamName () const
- void setAction (const Action action)
- void **setOrientation** (const Orientation orientation)
- · void setId (const unsigned int id)
- void **setTeamName** (const std::string &teamName)
- void setLevel (const unsigned int level)
- void levelUp ()

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

· include/GUI/Player.hpp

# 3.13 gui::PluginLoader Class Reference

#### **Classes**

· class PluginLoaderException

## **Public Types**

using PluginCreator = std::unique\_ptr< |Plugin >(\*)()

#### **Public Member Functions**

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

#### **Static Public Member Functions**

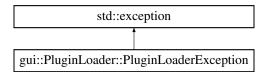
• static PluginLoader & getInstance ()

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

· include/GUI/PluginLoader.hpp

## 3.14 gui::PluginLoader::PluginLoaderException Class Reference

 $Inheritance\ diagram\ for\ gui:: PluginLoader:: PluginLoader Exception:$ 



#### **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

# 3.15 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

## 3.16 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

# 3.17 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

## 3.18 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**

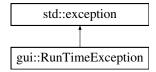
- Type type
- · double density
- · unsigned int quantity

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

• include/GUI/Inventory/Resource.hpp

## 3.19 gui::RunTimeException Class Reference

Inheritance diagram for gui::RunTimeException:



## **Public Member Functions**

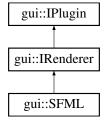
- RunTimeException (std::string msg)
- RunTimeException (const RunTimeException &)=delete
- RunTimeException & operator= (const RunTimeException &)=delete
- RunTimeException (const RunTimeException &&)=delete
- RunTimeException & operator= (const RunTimeException &&)=delete
- const char \* what () const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

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

• include/GUI/RunTimeException.hpp

## 3.20 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) 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)

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

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

## 3.21 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

# 3.22 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

# 3.23 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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