Raytracer

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

API.API
Gui::Engine
Gui::Event
Exception
IError.IError
std::exception
Gui::Errors::IError
Gui::Errors::AError
Gui::Errors::Error
Gui::Errors::GuiGameDataException
Gui::Errors::NetworkException
Gui::Errors::ParseCommandLineException
Gui::Errors::ServerParserException
Gui::GameData
Gui::GUIUpdater
Gui::Inventory
Gui::Network
Gui::ParseCommandLine
Gui::Player
Gui::Render
Gui::ServerParser
Gui::Team
Gui::Tile
Gui::UserCamera
IError
APIException.APIException
ArasException.ArasException

2 Hierarchical Index

Chapter 2

Class Index

2.1 Class List

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

Gui:Errors::AError
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
API.API
APIException.APIException
ArgsException.ArgsException
Gui::Engine
Gui::Errors::Error
Base class for argument-related errors
Gui::Event
Gui::GameData
Gui::Errors::GuiGameDataException
Error class for GameData errors
Gui::GUIUpdater
Gui::Errors::IError
IError.IError
Gui::Inventory
Gui::Network
Gui::Errors::NetworkException
Error class for network errors
Gui::ParseCommandLine
Gui::Errors::ParseCommandLineException
Error class for parseCommandLine errors
Gui::Player
Gui::Render
Gui::ServerParser
Gui::Errors::ServerParserException
Error class for network errors
Gui::Team
Gui::Tile
Gui::UserCamera

4 Class Index

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:



Public Member Functions

- ∼AError () override=default
 - Destructor.
- const char * what () const noexcept override

Returns the error message.

Protected Attributes

• std::string _message

3.1.1 Detailed Description

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.

3.1.2 Member Function Documentation

3.1.2.1 what()

```
const char * Gui::Errors::AError::what ( ) const [override], [virtual], [noexcept]
```

Returns the error message.

Returns

A pointer to a constant character string representing the error message.

Implements Gui::Errors::IError.

3.1.3 Member Data Documentation

3.1.3.1 _message

```
std::string Gui::Errors::AError::_message [protected]
```

The error message.

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

- gui/include/Error/AError.hpp
- gui/src/Error/Error.cpp

3.2 API.API Class Reference

Public Member Functions

- def init (self, str host, int port)
- def connect (self)
- def sendData (self, str data, int timeout=None)
- def receiveData (self, int timeout=None)
- def initConnection (self, str teamName)
- def close (self)

3.2.1 Detailed Description

```
API class
A class to communicate with the server
Attributes :
   host : str
       the host of the server
    port : int
       the port of the server
    inputs : list
       the list of inputs
    outputs : list
       the list of outputs
    sock : socket
       the socket to communicate with the server
Methods :
   sendData(data : str, timeout : int = None)
       send data to the server
    receiveData(timeout : int = None)
       receive data from the server
    connect(team_name : str)
       connect to the server
    close()
       close the connection
```

3.2.2 Constructor & Destructor Documentation

3.2.2.1 __init__()

3.2.3 Member Function Documentation

3.2.3.1 close()

```
def API.API.close ( self \ ) Close the connection with the server
```

3.2.3.2 connect()

```
def API.API.connect ( self \;) Connect to the server Add the socket to the inputs and outputs lists
```

3.2.3.3 initConnection()

```
def API.API.initConnection (
                                                                                                                                                                         self,
                                                                                                                                                                     str teamName )
Function to do the first exchange with the server
Send the team name to the server % \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1
Receive the client number and the map size from the server
Print the client number and the map size
Parameters :
                                                  team_name : str
                                                                                                    the name of the team
Returns :
                                                    client_num : int
                                                                                                the client number
                                                    x : int
                                                                                          the x size of the map
                                                    y : int
                                                                                                      the y size of the map
```

3.2.3.4 receiveData()

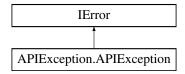
3.2.3.5 sendData()

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

· ai/src/Network/API.py

3.3 APIException.APIException Class Reference

Inheritance diagram for APIException. APIException:



Public Member Functions

• def __init__ (self, message)

3.3.1 Detailed Description

```
APIException class

A class to handle exceptions that can occur in the API
The APIException class inherits from the IError class

Attributes:
    message: str
    the message of the exception
```

3.3.2 Constructor & Destructor Documentation

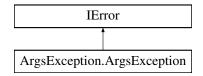
3.3.2.1 __init__()

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

· ai/src/Network/APIException.py

3.4 ArgsException.ArgsException Class Reference

Inheritance diagram for ArgsException.ArgsException:



Public Member Functions

• def __init__ (self, message)

3.4.1 Detailed Description

```
ArgsException class

A class to handle exceptions that can occur in the Args
The ArgsException class inherits from the IError class

Attributes:
    message: str
    the message of the exception
```

3.4.2 Constructor & Destructor Documentation

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

ai/src/Errors/ArgsException.py

3.5 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.

3.5.1 Constructor & Destructor Documentation

3.5.1.1 Engine()

Construct a new Engine object.

Parameters

network Network class.

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

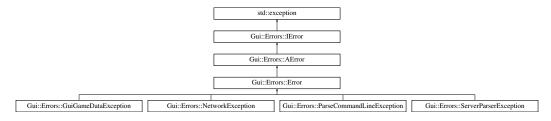
- gui/include/Engine/Engine.hpp
- · gui/src/Engine/Engine.cpp

3.6 Gui::Errors::Error Class Reference

Base class for argument-related errors.

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

Inheritance diagram for Gui::Errors::Error:



Additional Inherited Members

3.6.1 Detailed Description

Base class for argument-related errors.

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

• gui/include/Error/Error.hpp

3.7 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.

3.7.1 Member Function Documentation

3.7.1.1 setRender()

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

Set the Render object.

Parameters

```
render Render class.
```

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

- gui/include/Event/Event.hpp
- gui/src/Event/Event.cpp

3.8 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)

Add a team to the game.

Map < Gui::Tile > & getMap ()

Get the Map object.

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

Set the Map object.

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

Get a Tile object.

3.8.1 Member Function Documentation

3.8.1.1 addTeam() [1/2]

Add a team to the game.

Parameters

```
team Team to add.
```

3.8.1.2 addTeam() [2/2]

Add a team to the game.

Parameters

name Name of the team.

3.8.1.3 getMap()

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

Get the Map object.

Returns

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

3.8.1.4 getTeam()

Get a Team object.

Parameters

name Name of the team.

Returns

Gui::Team& Team object.

3.8.1.5 getTeams()

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

Get the Teams object.

Returns

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

3.8.1.6 getTile()

Get a Tile object.

Parameters

X	X position of the tile.
У	Y position of the tile.

Returns

Gui::Tile& Tile object.

3.8.1.7 setMap()

Set the Map object.

Parameters

тар	Map of the game.
-----	------------------

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

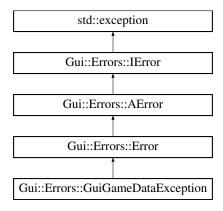
- gui/include/GameDatas/GameData.hpp
- gui/src/GameDatas/GameData.cpp

3.9 Gui::Errors::GuiGameDataException Class Reference

Error class for GameData errors.

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

Inheritance diagram for Gui::Errors::GuiGameDataException:



Public Member Functions

GuiGameDataException (std::string message)
 Constructor for GuiGameDataException.

Additional Inherited Members

3.9.1 Detailed Description

Error class for GameData errors.

3.9.2 Constructor & Destructor Documentation

3.9.2.1 GuiGameDataException()

Constructor for GuiGameDataException.

Parameters

message	The error message.

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

- gui/include/Error/Error.hpp
- gui/src/Error/Error.cpp

3.10 Gui::GUIUpdater Class Reference

Public Member Functions

 $\bullet \ \ GUIUpdater \ (std::shared_ptr < GameData > gameData) \\$

Construct a new GUIUpdater object.

• ∼GUIUpdater ()=default

Destroy the GUIUpdater object.

void update (const std::string &command, const std::string &data)

Update the GUI GameData.

3.10.1 Constructor & Destructor Documentation

3.10.1.1 GUIUpdater()

Construct a new GUIUpdater object.

Parameters

3.10.2 Member Function Documentation

3.10.2.1 update()

Update the GUI GameData.

Parameters

command	The command to update the GUI GameData
data	The data to update the GUI GameData

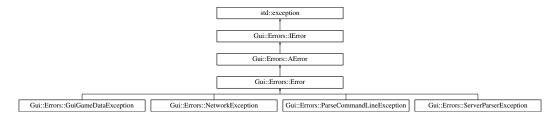
The documentation for this class was generated from the following files:

• gui/include/GUIUpdater/GUIUpdater.hpp

• gui/src/GUIUpdater/GUIUpdater.cpp

3.11 Gui::Errors::IError Class Reference

Inheritance diagram for Gui::Errors::IError:



Public Member Functions

- virtual \sim 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.

3.11.1 Member Function Documentation

3.11.1.1 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:

• gui/include/Error/IError.hpp

3.12 IError.IError Class Reference

Inheritance diagram for IError. IError:



Public Member Functions

```
def __init__ (self, message)def __str__ (self)def __repr__ (self)
```

Public Attributes

· message

3.12.1 Detailed Description

```
IError class
A class to handle errors that can occur in the project
Attributes :
    message : str
        the message of the error
------
Methods :
    __str__()
        return the message of the error
__repr__()
        return the message of the error
```

3.12.2 Constructor & Destructor Documentation

3.12.2.1 __init__()

3.12.3 Member Function Documentation

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

• ai/src/Errors/IError.py

3.13 Gui::Inventory Class Reference

Public Member Functions

• Inventory ()

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 thytsame)

Set the Thystame 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.

3.13.1 Member Function Documentation

3.13.1.1 getDeraumere()

Get the Deraumere object.

Returns

std::size_t - deraumere

3.13.1.2 getFood()

Get the Food object.

Returns

std::size_t - food

3.13.1.3 getLinemate()

Get the Linemate object.

Returns

std::size_t - linemate

3.13.1.4 getMendiane()

Get the Mendiane object.

Returns

std::size_t - mendiane

3.13.1.5 getPhiras()

Get the Phiras object.

Returns

std::size_t - phiras

3.13.1.6 getSibur()

Get the Sibur object.

Returns

std::size_t - sibur

3.13.1.7 getThystame()

Get the Thystame object.

Returns

std::size_t - thystame

3.13.1.8 setDeraumere()

Set the Deraumere object.

Parameters

deraumere Deraumere to set.

3.13.1.9 setFood()

Set the Food object.

Parameters

food Food to set.

3.13.1.10 setLinemate()

Set the Linemate object.

Parameters

linemate | Linemate to set.

3.13.1.11 setMendiane()

Set the Mendiane object.

Parameters

mendiane | Mendiane to set.

3.13.1.12 setPhiras()

Set the Phiras object.

Parameters

phiras Phiras to set.

3.13.1.13 setSibur()

Set the Sibur object.

Parameters

sibur Sibur to set.

3.13.1.14 setThystame()

Set the Thystame object.

Parameters

thystame	Thystame to set.
----------	------------------

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

- gui/include/GameDatas/Inventory.hpp
- gui/src/GameDatas/Inventory.cpp

3.14 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.

3.14.1 Constructor & Destructor Documentation

3.14.1.1 Network()

Construct a new Network object.

Parameters

port	of the server
hostName	of the server

3.14.2 Member Function Documentation

3.14.2.1 getHostName()

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

Get the host name object.

Returns

const std::string - host name of the server

3.14.2.2 getPort()

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

Get the port object.

Returns

const int - port of the server

3.14.2.3 listenServer()

Listen the server and return it message.

Returns

std::string - message of the server.

3.14.2.4 setHostName()

Set the host name object.

Parameters

hostName of the ser

3.14.2.5 setPort()

Set the port object.

Parameters

port of the server

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

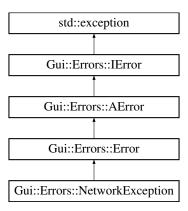
- gui/include/Network/Network.hpp
- gui/src/Network/Network.cpp

3.15 Gui::Errors::NetworkException Class Reference

Error class for network errors.

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

Inheritance diagram for Gui::Errors::NetworkException:



Public Member Functions

• NetworkException (std::string message)

Constructor for NetworkException.

Additional Inherited Members

3.15.1 Detailed Description

Error class for network errors.

3.15.2 Constructor & Destructor Documentation

3.15.2.1 NetworkException()

Constructor for NetworkException.

Parameters

message	The error message.
---------	--------------------

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

- gui/include/Error/Error.hpp
- gui/src/Error/Error.cpp

3.16 Gui::ParseCommandLine Class Reference

Public Member Functions

• ParseCommandLine (int argc, char **argv)

Construct a new Parse Command Line object.

 $\bullet \quad \sim \! \mathsf{ParseCommandLine} \; () \! = \! \mathsf{default}$

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.

3.16.1 Constructor & Destructor Documentation

3.16.1.1 ParseCommandLine()

Construct a new Parse Command Line object.

Parameters

argc	Number of arguments in command line.
argv	Array with command line arguments.

3.16.2 Member Function Documentation

3.16.2.1 getHostName()

Get the hostName object.

Returns

std::string - hostName

3.16.2.2 getPort()

Get the port object.

Returns

int - port

3.16.2.3 parseFlags()

Parse flags in command line.

Parameters

argc	Number of arguments in command line.
argv	Array with command line arguments.

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

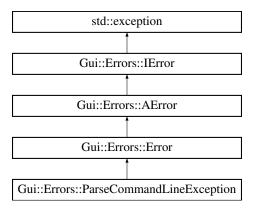
- gui/include/Parsing/ParseCommandLine.hpp
- gui/src/Parsing/ParseCommandLine.cpp

3.17 Gui::Errors::ParseCommandLineException Class Reference

Error class for parseCommandLine errors.

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

Inheritance diagram for Gui::Errors::ParseCommandLineException:



Public Member Functions

ParseCommandLineException (std::string message)
 Constructor for ParseCommandLineException.

Additional Inherited Members

3.17.1 Detailed Description

Error class for parseCommandLine errors.

3.17.2 Constructor & Destructor Documentation

3.17.2.1 ParseCommandLineException()

Constructor for ParseCommandLineException.

Parameters

message	The error message.
---------	--------------------

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

- gui/include/Error/Error.hpp
- gui/src/Error/Error.cpp

3.18 Gui::Player Class Reference

Public Member Functions

```
    Player (std::size_t id, const std::string &team, std::pair < std::size_t, std::size_t > position)
    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 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::string getTeam (void) const

Get the Team object.

Public Attributes

Inventory _inventory
 Inventory of the player.

3.18.1 Constructor & Destructor Documentation

3.18.1.1 Player()

Construct a new Player object.

Parameters

id	ld of the player.
team	Team name of the player.
position	Position of the Player.

3.18.2 Member Function Documentation

3.18.2.1 getId()

Get the Id object.

Returns

std::size_t - id

3.18.2.2 getLevel()

Get the Level object.

Returns

std::size_t - level

3.18.2.3 getPosition()

Get the Position object.

Returns

 $std::pair{<}std::size_t, std::size_t{>} - position$

3.18.2.4 getTeam()

Get the Team object.

Returns

std::string - team name

3.18.2.5 setId()

Set the Id object.

Parameters

id Id of the player.

3.18.2.6 setLevel()

Set the Level object.

Parameters

level Level of the player.

3.18.2.7 setPosition()

Set the Position object.

Parameters

ition Position of the player	position
------------------------------	----------

3.18.2.8 setTeam()

Set the Team object.

Parameters

team Team name of the player.

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

- · gui/include/GameDatas/Player.hpp
- · gui/src/GameDatas/Player.cpp

3.19 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.

3.19.1 Member Function Documentation

3.19.1.1 getCamera()

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

Get the Camera object.

Returns

std::shared_ptr<Camera> - camera

3.19.1.2 getIsDebug()

Get the Is Debug object.

Returns

```
true - diplay debug
false - do not display debug
```

3.19.1.3 isOpen()

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

Check if the window is open.

Returns

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

3.19.1.4 setIsDebug()

Set the Is Debug object.

Parameters

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

- gui/include/Render/Render.hpp
- gui/src/Render/Render.cpp

3.20 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.

• \sim ServerParser ()=default

Destroy the Server Parser object.

• std::vector< std::string > parse (const std::string &command)

Parse the command server.

3.20.1 Member Function Documentation

3.20.1.1 parse()

Parse the command server.

Parameters

command	Command to parse.

Returns

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

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

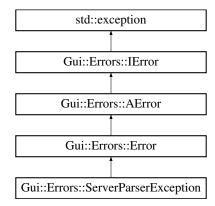
- gui/include/Parsing/ServerParser.hpp
- gui/src/Parsing/ServerParser.cpp

3.21 Gui::Errors::ServerParserException Class Reference

Error class for network errors.

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

Inheritance diagram for Gui::Errors::ServerParserException:



Public Member Functions

ServerParserException (std::string message)
 Constructor for ServerParserException.

Additional Inherited Members

3.21.1 Detailed Description

Error class for network errors.

3.21.2 Constructor & Destructor Documentation

3.21.2.1 ServerParserException()

Constructor for ServerParserException.

Parameters

message	The error message.
---------	--------------------

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

- gui/include/Error/Error.hpp
- gui/src/Error/Error.cpp

3.22 Gui::Team Class Reference

Public Member Functions

• Team (const std::string &name)

Construct a new Team object.

• ∼Team ()=default

Destroy the Team object.

• const std::string & getName () const

Get the Name object.

• std::vector< Gui::Player > & getPlayers ()

Get the Players object.

• void setName (const std::string &name)

Set the Name object.

void addPlayer (const Gui::Player &player)

Add a player to the team.

• bool removePlayer (std::size_t id)

Remove a player from the team.

 $\bullet \ \ \mathsf{std} :: \mathsf{shared_ptr} < \mathsf{Gui} :: \mathsf{Player} > \mathsf{getPlayer} \ (\mathsf{std} :: \mathsf{size_t} \ \mathsf{id}) \\$

Get the Player object.

3.22.1 Constructor & Destructor Documentation

3.22.1.1 Team()

Construct a new Team object.

Parameters

name Name of the team.

3.22.2 Member Function Documentation

3.22.2.1 addPlayer()

Add a player to the team.

Parameters

player Player to add.

3.22.2.2 getName()

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

Get the Name object.

Returns

const std::string& Name of the team.

3.22.2.3 getPlayer()

Get the Player object.

Parameters

id Id of the player.

Returns

std::shared_ptr<Gui::Player> Player.

3.22.2.4 getPlayers()

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

Get the Players object.

Returns

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

3.22.2.5 removePlayer()

Remove a player from the team.

Parameters

id Id of the player to remove.

Returns

true If the player has been removed.

false If the player has not been removed.

3.22.2.6 setName()

Set the Name object.

Parameters

name Name of the team.

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

- · gui/include/GameDatas/Team.hpp
- gui/src/GameDatas/Team.cpp

3.23 Gui::Tile Class Reference

Public Member Functions

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

3.23.1 Constructor & Destructor Documentation

3.23.1.1 Tile()

Construct a new Tile object.

Parameters

position | Set the position of the tile.

3.23.2 Member Function Documentation

3.23.2.1 getPosition()

Get the Position object.

Returns

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

3.23.2.2 getPositionIn3DSpace()

Get the Position In Space object.

Returns

Vector3 - Position in space.

3.23.2.3 setPosition()

Set the Position object.

Parameters

position New position of the tile.

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

- gui/include/GameDatas/Tile.hpp
- gui/src/GameDatas/Tile.cpp

3.24 Gui::UserCamera Class Reference

Public Member Functions

• UserCamera ()

Construct a new User Camera object.

• \sim 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.

3.24.1 Member Function Documentation

3.24.1.1 getCamera()

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

Get the Camera object.

Returns

Camera - camera

3.24.1.2 getFovy()

Get the Fovy object.

Returns

float - fovy

3.24.1.3 getPosition()

Get the Position object.

Returns

Vector3 - position

3.24.1.4 getTarget()

Get the Target object.

Returns

Vector3 - target

3.24.1.5 getUp()

Get the Up object.

Returns

Vector3 - up

3.24.1.6 setFovy()

Set the Fovy object.

Parameters

fovv	New camera fovv.
1000	i new camera lovy.

3.24.1.7 setPosition()

Set the Position object.

Parameters

position | New camera position.

3.24.1.8 setTarget()

Set the Target object.

Parameters

target New camera target.

3.24.1.9 setUp()

Set the Up object.

Parameters

up New camera up vector.

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

- gui/include/Render/UserCamera.hpp
- gui/src/Render/UserCamera.cpp

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