

R-Type

Generated by Doxygen 1.9.1

1 Class Index	1
1.1 Class List	1
2 File Index	3
2.1 File List	3
3 Class Documentation	5
3.1 Rtype Class Reference	5
3.1.1 Constructor & Destructor Documentation	5
3.1.1.1 Rtype()	6
3.1.2 Member Function Documentation	6
3.1.2.1 gameLoop()	6
3.1.2.2 handleEvents()	6
3.1.2.3 mainMenu()	6
3.1.2.4 processServerMessages()	6
3.1.2.5 renderGame()	7
3.1.2.6 run()	7
3.1.2.7 updateGame()	7
3.1.3 Member Data Documentation	7
3.1.3.1 _scenes	7
3.1.3.2 _window	7
4 File Documentation	9
4.1 /home/runner/work/R-Type/R-Type/Client/Interface/Include/mainmenu.hpp File Reference	9
4.1.1 Function Documentation	9
4.1.1.1 MainMenu()	9
4.2 /home/runner/work/R-Type/R-Type/Client/Interface/Include/r_type_client.hpp File Reference	9
4.3 /home/runner/work/R-Type/R-Type/Client/Src/main.cpp File Reference	10
4.3.1 Function Documentation	10
4.3.1.1 main()	10
4.4 /home/runner/work/R-Type/R-Type/Server/Src/main.cpp File Reference	10
4.4.1 Function Documentation	11
4.4.1.1 main()	11
4.5 /home/runner/work/R-Type/R-Type/Client/Src/r_type_client.cpp File Reference	11
4.6 /home/runner/work/R-Type/R-Type/Client/Src/scenes.cpp File Reference	11
4.6.1 Function Documentation	12
4.6.1.1 createDaltonismChoiceButtons()	12
4.6.1.2 createGameModeChoiceButtons()	12
4.6.1.3 createKeyBindingButtons()	12
4.6.1.4 handleEvents()	12
4.6.1.5 waitForKey()	13
4.7 /home/runner/work/R-Type/R-Type/Server/Src/server.cpp File Reference	13
Index	15

Chapter 1

Class Index

1.1 Class List

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

Rtype	5
---------------------------------	---

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

/home/runner/work/R-Type/R-Type/Client/Interface/Include/mainmenu.hpp	9
/home/runner/work/R-Type/R-Type/Client/Interface/Include/r_type_client.hpp	9
/home/runner/work/R-Type/R-Type/Client/Src/main.cpp	10
/home/runner/work/R-Type/R-Type/Client/Src/r-type_client.cpp	11
/home/runner/work/R-Type/R-Type/Client/Src/scenes.cpp	11
/home/runner/work/R-Type/R-Type/Server/Src/main.cpp	10
/home/runner/work/R-Type/R-Type/Server/Src/server.cpp	13

Chapter 3

Class Documentation

3.1 Rtype Class Reference

```
#include <r_type_client.hpp>
```

Public Member Functions

- [Rtype](#) ()
Construct a new [Rtype](#) object This will init the player.
- void [run](#) ()
If `_mainMenu` variable is true, call `mainMenu`.
- void [mainMenu](#) ()
Open window.
- void [gameLoop](#) ()
Open window.
- void [handleEvents](#) ()
This is where I will handle the events for the window & player (key input, etc.).
- void [processServerMessages](#) ()
This is where I will process the info from the server.
- void [updateGame](#) ()
This is where I will update the time, position of sprites, etc.
- void [renderGame](#) ()
This is where I will render the game.

Private Attributes

- Scenes * [_scenes](#)
Set the Game Mode object.
- sf::RenderWindow [_window](#)

3.1.1 Constructor & Destructor Documentation

3.1.1.1 Rtype()

```
Rtype::Rtype ( )
```

Construct a new [Rtype](#) object This will init the player.

Construct a new [Rtype:: Rtype](#) object.

Default easy mode and normal daltonism mode. Ex: `renderSystem.addEntity(player)`, `inputSystem.addEntity(player)`, `collisionSystem.addEntity(player)`, etc.

3.1.2 Member Function Documentation

3.1.2.1 gameLoop()

```
void Rtype::gameLoop ( )
```

Open window.

This is where I will call the `handleEvents`, `updateGame`, `processCommands`, and `render` functions.

3.1.2.2 handleEvents()

```
void Rtype::handleEvents ( )
```

This is where I will handle the events for the window & player (key input, etc.).

When key is pressed, move player, and send new player info to server.

3.1.2.3 mainMenu()

```
void Rtype::mainMenu ( )
```

Open window.

(`handleEvents`). Display the main menu with start, help, daltonic mode, and speed selection buttons. On start, set `_mainMenu` to false, close window, and return. When active, `daltonic_mode` will be set to true, and draw a color filter over the screen until deactivated. Can set keybindings as well, either default or customized

3.1.2.4 processServerMessages()

```
void Rtype::processServerMessages ( )
```

This is where I will process the info from the server.

3.1.2.5 renderGame()

```
void Rtype::renderGame ( )
```

This is where I will render the game.

Ex: window.clear(), window.draw(background), renderSystem.render(window), window.display, etc.

3.1.2.6 run()

```
void Rtype::run ( )
```

If `_mainMenu` variable is true, call `mainMenu`.

While `_mainMenu` is false, call `gameLoop`.

3.1.2.7 updateGame()

```
void Rtype::updateGame ( )
```

This is where I will update the time, position of sprites, etc.

Ex: `inputSystem.update(deltaTime.asSeconds())`, `renderSystem.update(deltaTime.asSeconds())`, etc.

3.1.3 Member Data Documentation

3.1.3.1 _scenes

```
Scenes* Rtype::_scenes [private]
```

Set the Game Mode object.

Parameters

<i>mode</i>	
-------------	--

3.1.3.2 _window

```
sf::RenderWindow Rtype::_window [private]
```

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

- [/home/runner/work/R-Type/R-Type/Client/Interface/Include/r_type_client.hpp](#)
- [/home/runner/work/R-Type/R-Type/Client/Src/r-type_client.cpp](#)

Chapter 4

File Documentation

4.1 /home/runner/work/R-Type/R-Type/Client/Interface/↵ Include/mainmenu.hpp File Reference

```
#include <SFML/Graphics.hpp>
#include <r_type_client.hpp>
```

Functions

- int [MainMenu](#) (sf::RenderWindow *window, [Rtype](#) *rtype)

4.1.1 Function Documentation

4.1.1.1 MainMenu()

```
int MainMenu (
    sf::RenderWindow * window,
    Rtype * rtype )
```

4.2 /home/runner/work/R-Type/R-Type/Client/Interface/Include/r_type_↵ client.hpp File Reference

```
#include "error_handling.hpp"
#include "scenes.hpp"
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
```

Classes

- class [Rtype](#)

4.3 /home/runner/work/R-Type/R-Type/Client/Src/main.cpp File Reference

```
#include <r_type_client.hpp>
```

Functions

- int [main](#) ()
The entry point of the program.

4.3.1 Function Documentation

4.3.1.1 main()

```
int main ( )
```

The entry point of the program.

This function initializes the [Rtype](#) object and runs the game.

Returns

0 indicating successful program execution.

int

4.4 /home/runner/work/R-Type/R-Type/Server/Src/main.cpp File Reference

```
#include <Net/server.hpp>  
#include <iostream>
```

Functions

- int [main](#) ()

4.4.1 Function Documentation

4.4.1.1 main()

```
int main ( )
```

4.5 /home/runner/work/R-Type/R-Type/Client/Src/r-type_client.cpp File Reference

```
#include <Components/component_manager.hpp>
#include <Entities/entity_factory.hpp>
#include <Entities/entity_manager.hpp>
#include <Systems/systems.hpp>
#include <iostream>
#include <r_type_client.hpp>
#include <texture_manager.hpp>
```

4.6 /home/runner/work/R-Type/R-Type/Client/Src/scenes.cpp File Reference

```
#include <Components/component_manager.hpp>
#include <Components/components.hpp>
#include <Entities/entity_factory.hpp>
#include <Entities/entity_manager.hpp>
#include <Net/client.hpp>
#include <Systems/systems.hpp>
#include <creatable_client_object.hpp>
#include <functional>
#include <iostream>
#include <r_type_client.hpp>
#include <scenes.hpp>
#include <texture_manager.hpp>
```

Functions

- void [handleEvents](#) (sf::Event event, ComponentManager &componentManager, sf::RenderWindow *_↵ window, std::vector< Entity * > buttons, Scenes *scenes)
- void [createDaltonismChoiceButtons](#) (std::vector< Entity * > *buttons, ComponentManager &component↵ Manager, EntityManager &entityManager, TextureManager &textureManager, EntityFactory &entityFactory)
- void [createGameModeChoiceButtons](#) (std::vector< Entity * > *buttons, ComponentManager &component↵ Manager, EntityManager &entityManager, TextureManager &textureManager, EntityFactory &entityFactory)
- sf::Keyboard::Key [waitForKey](#) (sf::RenderWindow *_window)
- void [createKeyBindingButtons](#) (std::vector< Entity * > *buttons, ComponentManager &componentManager,↵ EntityManager &entityManager, TextureManager &textureManager, EntityFactory &entityFactory)

4.6.1 Function Documentation

4.6.1.1 createDaltonismChoiceButtons()

```
void createDaltonismChoiceButtons (
    std::vector< Entity * > * buttons,
    ComponentManager & componentManager,
    EntityManager & entityManager,
    TextureManager & textureManager,
    EntityFactory & entityFactory )
```

4.6.1.2 createGameModeChoiceButtons()

```
void createGameModeChoiceButtons (
    std::vector< Entity * > * buttons,
    ComponentManager & componentManager,
    EntityManager & entityManager,
    TextureManager & textureManager,
    EntityFactory & entityFactory )
```

4.6.1.3 createKeyBindingButtons()

```
void createKeyBindingButtons (
    std::vector< Entity * > * buttons,
    ComponentManager & componentManager,
    EntityManager & entityManager,
    TextureManager & textureManager,
    EntityFactory & entityFactory )
```

4.6.1.4 handleEvents()

```
void handleEvents (
    sf::Event event,
    ComponentManager & componentManager,
    sf::RenderWindow * _window,
    std::vector< Entity * > buttons,
    Scenes * scenes )
```


4.6.1.5 waitForKey()

```
sf::Keyboard::Key waitForKey (
    sf::RenderWindow * _window )
```

4.7 /home/runner/work/R-Type/R-Type/Server/Src/server.cpp File Reference

```
#include <Net/server.hpp>
#include <creatable_client_object.hpp>
```


Index

/home/runner/work/R-Type/R-Type/Client/Interface/Include/main_window.hpp, 7
9
gameLoop, 6
/home/runner/work/R-Type/R-Type/Client/Interface/Include/r_type_client.hpp, 6
9
handleEvents, 6
mainMenu, 6
/home/runner/work/R-Type/R-Type/Client/Src/main.cpp, 10
processServerMessages, 6
renderGame, 6
/home/runner/work/R-Type/R-Type/Client/Src/r-type_client.cpp, 11
Rtype, 5
run, 7
/home/runner/work/R-Type/R-Type/Client/Src/scenes.cpp, 11
updateGame, 7
run
/home/runner/work/R-Type/R-Type/Server/Src/main.cpp, 10
Rtype, 7
/home/runner/work/R-Type/R-Type/Server/Src/server.cpp, 13
scenes.cpp
createDaltonismChoiceButtons, 12
createGameModeChoiceButtons, 12
createKeyBindingButtons, 12
_scenes
Rtype, 7
_window
handleEvents, 12
Rtype, 7
waitForKey, 12
createDaltonismChoiceButtons
scenes.cpp, 12
createGameModeChoiceButtons
scenes.cpp, 12
createKeyBindingButtons
scenes.cpp, 12
updateGame
Rtype, 7
waitForKey
scenes.cpp, 12
gameLoop
Rtype, 6
handleEvents
Rtype, 6
scenes.cpp, 12
main
main.cpp, 10, 11
main.cpp
main, 10, 11
MainMenu
mainmenu.hpp, 9
mainMenu
Rtype, 6
mainmenu.hpp
MainMenu, 9
processServerMessages
Rtype, 6
renderGame
Rtype, 6
Rtype, 5
_scenes, 7