

Irritating Crusader

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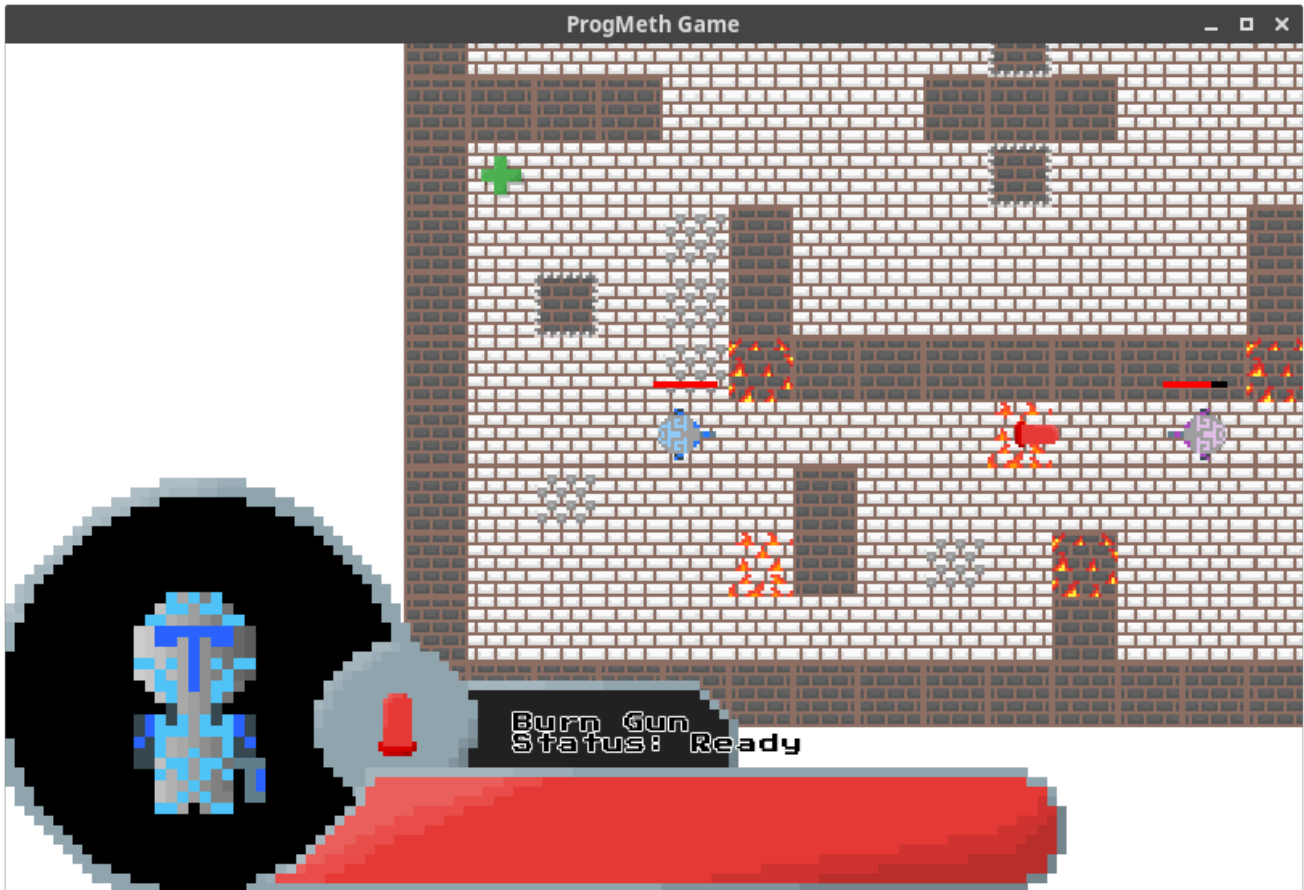
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1 Overview

Quick Note: Jumps to [Game Manual](#) now! if you want to play the game.

Irritating Crusader (“The game”) is a two-player, top-down, shooter game where the player “disrupt” the opponent by shooting the “effect bullets”, eventually causing the other player to “confuse” and get killed by the “traps”.

This report describe the game’s gameplay for the players (“Game Manual”) and also the game’s technical overview for developers (“Technical Description”).

2 Game Manual

2.1 Introduction

Irritating Crusader is a simple game where there’s only one goal, To kill *all* other player.

The best way to get introduced to this game is to actually start playing it. Invite your friend (or find one) and follows **Quick Start** guide.

If you played it and somehow got confused, We also provides documentations on bullets, control, etc. below.

2.2 Quick Start

Setting up

1. Grab `IrritatingCrusader.jar`.
2. Install JRE 11 from [here](#)
3. If your friends aren’t connected to the same local network, Install [Logmein Hamachi](#) and follows their guide on how to setup a local network.



Playing the game

1. Launch `IrritatingCrusader.jar`.

Have one player be the host and

1. Click **Create**
2. Announce his/her IP to every other players.

Have other players who are not the host do

1. Enter the host's IP and press **Join**

Once everyone joined the game.

Press **W**, **A**, **S**, **D**, **Space**, **E** and see what it do.

2.3 Controlling the player

This game is entirely controlled by the keyboard.

Keys	Function
W	Walk north
A	Walk west
S	Walk south
D	Walk east
Space	Shoot
E	Change bullet's type

But don't walk too much though or you would fall into **traps**!

Note: There's one key we didn't mention. The `/` key opens a cheat console. If you somehow opened it, Close it using `ESC` key. Don't cheat!.

2.4 Traps

- **Burning Floor:** Make player who step on this type of floor get **Burn** status effect.
- **Burning Block:** Make player who touch this type of floor get **Burn** status effect.
- **Spike Trap Floor:** It deal little damage to players who step on this type of floor.
- **Spike Trap Block:** It deal little damage to players who touch this type of block.
- **Curing Floor:** It clear player who step on this type of floor their status effects.

So now you know how to avoid them, But wouldn't it be good if you can use them! By shooting **effect bullets** you can cause other player to fall into a trap!.

2.5 Effect Bullets

- **Burn Bullet:** It cause a **Burn** status effect to the target player.
- **Confuse Bullet:** It cause a **Confuse** status effect to the target player.
- **Slow Bullet:** It cause a **Slow** status effect to the target player.
- **Stunt Bullet:** It cause a **Stunt** status effect to the target player.
- **Hook Bullet:** Move target player to user position.
- **Teleport Bullet:** Swap location of user and target player.

2.6 Status Effects

- **Burn:** Gradually deal damage to player who affected by this status effect.
- **Confuse:** Make player who affected by this status effect move to the opposite direction of their intention.
- **Slow:** Make player who affected by this status effect move slower.
- **Stunt:** Make player who affected by this status effect unable to move.

2.7 HUD status

- **HP bar:** Display your health point.
- **Gun label:** Display the gun that you are holding.
- **Bullet label:** Display the bullet from your gun.
- **Character frame:** Display your character model.

3 Technical Description

3.1 Introduction

The game's engine is designed to be a general purpose, multiplayer shooter engine.

The game engine is divided into several components and implemented using external libraries whenever possible.

The following section describes its components and its implementation detail.

3.2 Components

The most complex functionality in the game's engine is the multiplayer client-server functionality. so the source code's structure is built around it.

The game consist of two major component. The server and the client.

The server package: `com.progmethgame.server`

The server is a component that processes the player's input and simulate the game's law including

- Physic law
- Entity interaction rules
- Entity status reporting.

The server then send the resulting calculation (graphic, sound) through the network

The network package: `com.progmethgame.network`

The networking is a component that transparently provides the client-server communication.

It provides

- Transparent networking system
- Interface for event source and sink.
- Data serialization

The networking component then transfer server's data to the client

The client package: `com.progmethgame.client`

The client is a component that

- Render graphic.
- Play the sound and music
- Send user's keyboard input.

The server and the client are both initialized by the launcher

The launcher package: `com.progmethgame.launcher`

The launcher is a component that provides GUI for creation and disposal of the client and the server.

3.3 Implementation

The game engine is implemented using various library.

3.3.1 Graphic, Sound and Controller

LibGDX provides graphic, sound and controller library. We choose this over JavaFX because it

- Provides GL acceleration
- Have many useful utils (eg. Vector arithmetic, Asset management, TMX Map loading)
- Comes with boiler plate (eg. Game-loop, Screen management)

3.3.2 Networking

KryoNet provides object serialization and networking system.

4 API Documentation

Every classes are documented using javadoc. please open `javadoc/index.html` with your browser or if you prefer PDF files please see `refman.pdf`

5 Copyright Material

- **LibGDX** is an Apache2-licensed game engine by Bad Logic Games.
- **KryoNet** is a networking library by Nathan Sweet licensed under BSD-3-Clause.
- **PressStart2P** is a font by CodeMan38 licensed under Open Font License.
- **plain-james** is a scene2d ui skin by Raymond “Raeleus” Buckley licensed under CC BY 4.0
- **TMX Format** is a tiled map data format by mapeditor.org licensed under CC BY-SA 3.0.
- **8-bit Game Over** sound effect by Euphrosyyn via freesound.org CC BY 3.0

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com.progmethgame.server.entities.effects	16
com.progmethgame.server.entities.guns	16

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

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com.progmethgame.server.entities.bullets.BulletConfig	27
com.progmethgame.network.ClientBusListener	38
com.progmethgame.client.ClientRuntime	50
com.progmethgame.server.entities.Player.Color	56
com.progmethgame.common.DisplayType	67
com.progmethgame.server.entities.effects.EffectConfig	73
com.progmethgame.common.EntityData	79
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com.progmethgame.server.ServerStartupError	157
com.progmethgame.common.GameConfig	81
com.progmethgame.common.context.GameContext	82
com.progmethgame.network.event.base.GameEvent< T >	88
com.progmethgame.network.event.base.GameEvent< ClientBusListener >	88
com.progmethgame.network.event.base.ServerEvent	142
com.progmethgame.network.event.server.ServerAddEntityEvent	132
com.progmethgame.network.event.server.ServerPlaySoundEvent	144
com.progmethgame.network.event.server.ServerReadyEvent	146
com.progmethgame.network.event.server.ServerRemoveEntityEvent	147
com.progmethgame.network.event.server.ServerResetEvent	149
com.progmethgame.network.event.server.ServerUpdateEntityEvent	159
com.progmethgame.network.event.base.GameEvent< ServerBusListener >	88
com.progmethgame.network.event.base.ClientEvent	49
com.progmethgame.network.event.client.ClientDebugEvent	42
com.progmethgame.network.event.client.ClientDisconnectEvent	44
com.progmethgame.network.event.client.ClientJoinEvent	49
com.progmethgame.network.event.client.PlayerFireEvent	127
com.progmethgame.network.event.client.PlayerMovementEvent	128
com.progmethgame.network.event.client.PlayerSwapGunEvent	130
com.progmethgame.server.entities.guns.Gun	102
com.progmethgame.server.entities.guns.BurnGun	34
com.progmethgame.server.entities.guns.ConfuseGun	61
com.progmethgame.server.entities.guns.HookGun	110

com.progmethgame.server.entities.guns.SlowGun	163
com.progmethgame.server.entities.guns.StuntGun	183
com.progmethgame.server.entities.guns.TeleportGun	185
com.progmethgame.server.entities.guns.GunConfig	105
com.progmethgame.client.graphic.component.Healthbar	106
com.progmethgame.server.blocks.Interactable	113
com.progmethgame.server.blocks.BurningBlock	35
com.progmethgame.server.blocks.BurnBlock	31
com.progmethgame.server.blocks.BurnFloor	33
com.progmethgame.server.blocks.CooldownBlock	64
com.progmethgame.server.blocks.CureFloor	66
com.progmethgame.server.blocks.SpikeBlock	168
com.progmethgame.server.blocks.SpikeFloor	170
com.progmethgame.network.NetworkPacket< T >	117
com.progmethgame.client.graphic.component.Overlay	118
com.progmethgame.client.graphic.component.BannerWinOverlay	18
com.progmethgame.client.graphic.component.HudOverlay	111
com.progmethgame.client.graphic.component.StatusOverlay	179
Runnable	
com.progmethgame.network.ServerBus	133
com.progmethgame.network.SerializationUtil	131
com.progmethgame.network.ServerBusListener	137
com.progmethgame.server.ServerRuntime	150
com.progmethgame.network.ServerEventBroadcast	143
com.progmethgame.common.SoundType	166
com.progmethgame.server.entities.effects.StatusEffect	176
com.progmethgame.server.entities.effects.Burn	30
com.progmethgame.server.entities.effects.Confuse	58
com.progmethgame.server.entities.effects.Slow	160
com.progmethgame.server.entities.effects.Stunt	181
com.progmethgame.server.entities.Tickable	191
com.progmethgame.server.blocks.Block	21
com.progmethgame.server.blocks.BurningBlock	35
com.progmethgame.server.blocks.CooldownBlock	64
com.progmethgame.server.blocks.SolidBlock	165
com.progmethgame.server.blocks.WalkableBlock	194
com.progmethgame.server.entities.Entity	74
com.progmethgame.server.entities.bullets.Bullet	23
com.progmethgame.server.entities.bullets.BulletTest	28
com.progmethgame.server.entities.bullets.HookBullet	108
com.progmethgame.server.entities.bullets.StatusBullet	174
com.progmethgame.server.entities.bullets.BurnBullet	32
com.progmethgame.server.entities.bullets.ConfuseBullet	60
com.progmethgame.server.entities.bullets.SlowBullet	162
com.progmethgame.server.entities.bullets.StuntBullet	182
com.progmethgame.server.entities.bullets.TeleportBullet	184
com.progmethgame.server.entities.bullets.TestBullet	186
com.progmethgame.server.entities.Player	119
com.progmethgame.server.entities.TestEntity	188
com.progmethgame.server.entities.SmallTestEntity	164
com.progmethgame.server.entities.SpiningEntity	171
com.progmethgame.server.entities.WinningBannerEntity	195
com.progmethgame.server.GameMap	95
com.progmethgame.network.Ticker	192
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com.progmethgame.common.context.ClientContext	40
com.progmethgame.client.ClientRuntime	50
com.progmethgame.common.context.ServerContext	140
com.progmethgame.server.ServerRuntime	150
com.progmethgame.network.ClientBus	36
com.progmethgame.server.ServerRuntime	150
Game	
com.progmethgame.launcher.GameLauncher	91
InputProcessor	
com.progmethgame.client.GameDebugger	84
com.progmethgame.client.GameInputController	88
Listener	
com.progmethgame.network.KyroListener	114
Screen	
com.progmethgame.client.GameScreen	99
com.progmethgame.launcher.screen.StageScreen	172
Serializer	
com.progmethgame.network.UUIDSerializer	193
Sprite	
com.progmethgame.client.ClientEntity	45
Stage	
com.progmethgame.launcher.screen.BaseStage	20
com.progmethgame.launcher.screen.ConnectStage	62
com.progmethgame.launcher.screen.TextStage	190
com.progmethgame.launcher.screen.QuitableTextStage	130
com.progmethgame.launcher.screen.AboutStage	17
com.progmethgame.launcher.screen.HelpStage	107

Chapter 3

Class Index

3.1 Class List

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

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com.progmethgame.client.graphic.component.BannerWinOverlay	18
com.progmethgame.launcher.screen.BaseStage	20
com.progmethgame.server.blocks.Block	21
com.progmethgame.server.blocks.BlockManager	23
com.progmethgame.server.entities.bullets.Bullet	23
com.progmethgame.server.entities.bullets.BulletConfig	27
com.progmethgame.server.entities.bullets.BulletTest	28
com.progmethgame.server.entities.effects.Burn	30
com.progmethgame.server.blocks.BurnBlock	31
com.progmethgame.server.entities.bullets.BurnBullet	32
com.progmethgame.server.blocks.BurnFloor	33
com.progmethgame.server.entities.guns.BurnGun	34
com.progmethgame.server.blocks.BurningBlock	35
com.progmethgame.network.ClientBus	36
com.progmethgame.network.ClientBusListener	38
com.progmethgame.common.context.ClientContext	40
com.progmethgame.network.event.client.ClientDebugEvent	42
com.progmethgame.network.event.client.ClientDisconnectEvent	44
com.progmethgame.client.ClientEntity	45
com.progmethgame.network.event.base.ClientEvent	49
com.progmethgame.network.event.client.ClientJoinEvent	49
com.progmethgame.client.ClientRuntime	50
com.progmethgame.server.entities.Player.Color	56
com.progmethgame.server.entities.effects.Confuse	58
com.progmethgame.server.entities.bullets.ConfuseBullet	60
com.progmethgame.server.entities.guns.ConfuseGun	61
com.progmethgame.launcher.screen.ConnectStage	62
com.progmethgame.server.blocks.CooldownBlock	64
com.progmethgame.server.blocks.CureFloor	66
com.progmethgame.common.DisplayType	67
com.progmethgame.server.entities.effects.EffectConfig	73
com.progmethgame.server.entities.Entity	74
com.progmethgame.common.EntityData	79
com.progmethgame.common.GameConfig	81

com.progmethgame.common.context.GameContext	82
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com.progmethgame.network.event.base.GameEvent< T >	88
com.progmethgame.client.GameInputController	88
com.progmethgame.launcher.GameLauncher	91
com.progmethgame.server.GameMap	95
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com.progmethgame.server.entities.guns.GunConfig	105
com.progmethgame.client.graphic.component.Healthbar	106
com.progmethgame.launcher.screen.HelpStage	107
com.progmethgame.server.entities.bullets.HookBullet	108
com.progmethgame.server.entities.guns.HookGun	110
com.progmethgame.client.graphic.component.HudOverlay	111
com.progmethgame.server.blocks.Interactable	113
com.progmethgame.network.KyroListener	114
com.progmethgame.server.MapParserException	116
com.progmethgame.network.NetworkPacket< T >	117
com.progmethgame.client.graphic.component.Overlay	118
com.progmethgame.server.entities.Player	119
com.progmethgame.network.event.client.PlayerFireEvent	127
com.progmethgame.network.event.client.PlayerMovementEvent	128
com.progmethgame.network.event.client.PlayerSwapGunEvent	130
com.progmethgame.launcher.screen.QuitableTextStage	130
com.progmethgame.network.SerializationUtil	131
com.progmethgame.network.event.server.ServerAddEntityEvent	132
com.progmethgame.network.ServerBus	133
com.progmethgame.network.ServerBusListener	137
com.progmethgame.common.context.ServerContext	140
com.progmethgame.network.event.base.ServerEvent	142
com.progmethgame.network.ServerEventBroadcast	143
com.progmethgame.network.event.server.ServerPlaySoundEvent	144
com.progmethgame.network.event.server.ServerReadyEvent	146
com.progmethgame.network.event.server.ServerRemoveEntityEvent	147
com.progmethgame.network.event.server.ServerResetEvent	149
com.progmethgame.server.ServerRuntime	150
com.progmethgame.server.ServerStartupError	157
com.progmethgame.network.event.server.ServerUpdateEntityEvent	159
com.progmethgame.server.entities.effects.Slow	160
com.progmethgame.server.entities.bullets.SlowBullet	162
com.progmethgame.server.entities.guns.SlowGun	163
com.progmethgame.server.entities.SmallTestEntity	164
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com.progmethgame.common.SoundType	166
com.progmethgame.server.blocks.SpikeBlock	168
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com.progmethgame.server.entities.effects.Stunt	181
com.progmethgame.server.entities.bullets.StuntBullet	182
com.progmethgame.server.entities.guns.StuntGun	183
com.progmethgame.server.entities.bullets.TeleportBullet	184
com.progmethgame.server.entities.guns.TeleportGun	185
com.progmethgame.server.entities.bullets.TestBullet	186
com.progmethgame.server.entities.TestEntity	188

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com.progmethgame.network.Ticker	192
com.progmethgame.network.UUIDSerializer	193
com.progmethgame.server.blocks.WalkableBlock	194
com.progmethgame.server.entities.WinningBannerEntity	195

Chapter 4

Namespace Documentation

4.1 Package com

Packages

- package [progmethgame](#)

4.2 Package com.progmethgame

Packages

- package [client](#)
- package [common](#)
- package [launcher](#)
- package [network](#)
- package [server](#)

4.3 Package com.progmethgame.client

Packages

- package [graphic](#)

Classes

- class [ClientEntity](#)
- class [ClientRuntime](#)
- class [GameDebugger](#)
- class [GameInputController](#)
- class [GameScreen](#)

4.4 Package com.progmethgame.client.graphic

Packages

- package [component](#)

4.5 Package com.progmethgame.client.graphic.component

Classes

- class [BannerWinOverlay](#)
- class [Healthbar](#)
- class [HudOverlay](#)
- class [Overlay](#)
- class [StatusOverlay](#)

4.6 Package com.progmethgame.common

Packages

- package [context](#)

Classes

- enum [DisplayType](#)
- class [EntityData](#)
- class [GameConfig](#)
- enum [SoundType](#)

4.7 Package com.progmethgame.common.context

Classes

- interface [ClientContext](#)
- class [GameContext](#)
- interface [ServerContext](#)

4.8 Package com.progmethgame.launcher

Packages

- package [screen](#)

Classes

- class [GameLauncher](#)

4.9 Package com.progmethgame.launcher.screen

Classes

- class [AboutStage](#)
- class [BaseStage](#)
- class [ConnectStage](#)
- class [HelpStage](#)
- class [QuitableTextStage](#)
- class [StageScreen](#)
- class [TextStage](#)

4.10 Package com.progmethgame.network

Packages

- package [event](#)

Classes

- class [ClientBus](#)
- interface [ClientBusListener](#)
- class [KyroListener](#)
- class [NetworkPacket](#)
- class [SerializationUtil](#)
- class [ServerBus](#)
- interface [ServerBusListener](#)
- class [ServerEventBroadcast](#)
- class [Ticker](#)
- class [UUIDSerializer](#)

4.11 Package com.progmethgame.network.event

Packages

- package [base](#)
- package [client](#)
- package [server](#)

4.12 Package com.progmethgame.network.event.base

Classes

- class [ClientEvent](#)
- class [GameEvent](#)
- class [ServerEvent](#)

4.13 Package com.progmethgame.network.event.client

Classes

- class [ClientDebugEvent](#)
- class [ClientDisconnectEvent](#)
- class [ClientJoinEvent](#)
- class [PlayerFireEvent](#)
- class [PlayerMovementEvent](#)
- class [PlayerSwapGunEvent](#)

4.14 Package com.progmethgame.network.event.server

Classes

- class [ServerAddEntityEvent](#)
- class [ServerPlaySoundEvent](#)
- class [ServerReadyEvent](#)
- class [ServerRemoveEntityEvent](#)
- class [ServerResetEvent](#)
- class [ServerUpdateEntityEvent](#)

4.15 Package com.progmethgame.server

Packages

- package [blocks](#)
- package [entities](#)

Classes

- class [GameMap](#)
- class [MapParserException](#)
- class [ServerRuntime](#)
- class [ServerStartupError](#)

4.16 Package com.progmethgame.server.blocks

Classes

- class [Block](#)
- class [BlockManager](#)
- class [BurnBlock](#)
- class [BurnFloor](#)
- class [BurningBlock](#)
- class [CooldownBlock](#)
- class [CureFloor](#)
- interface [Interactable](#)
- class [SolidBlock](#)
- class [SpikeBlock](#)
- class [SpikeFloor](#)
- class [WalkableBlock](#)

4.17 Package com.progmethgame.server.entities

Packages

- package [bullets](#)
- package [effects](#)
- package [guns](#)

Classes

- class [Entity](#)
- class [Player](#)
- class [SmallTestEntity](#)
- class [SpinningEntity](#)
- class [TestEntity](#)
- interface [Tickable](#)
- class [WinningBannerEntity](#)

4.18 Package com.progmethgame.server.entities.bullets

Classes

- class [Bullet](#)
- class [BulletConfig](#)
- class [BulletTest](#)
- class [BurnBullet](#)
- class [ConfuseBullet](#)
- class [HookBullet](#)
- class [SlowBullet](#)
- class [StatusBullet](#)
- class [StuntBullet](#)
- class [TeleportBullet](#)
- class [TestBullet](#)

4.19 Package com.progmethgame.server.entities.effects

Classes

- class [Burn](#)
- class [Confuse](#)
- class [EffectConfig](#)
- class [Slow](#)
- class [StatusEffect](#)
- class [Stunt](#)

4.20 Package com.progmethgame.server.entities.guns

Classes

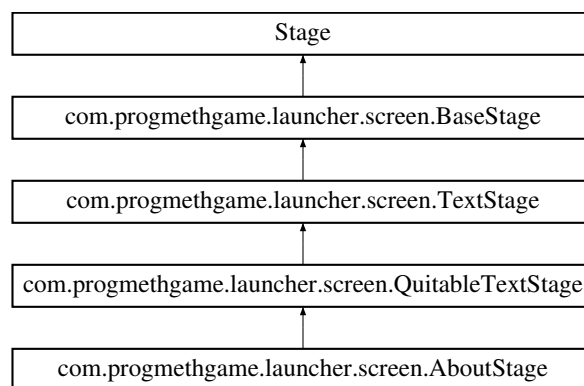
- class [BurnGun](#)
- class [ConfuseGun](#)
- class [Gun](#)
- class [GunConfig](#)
- class [HookGun](#)
- class [SlowGun](#)
- class [StuntGun](#)
- class [TeleportGun](#)

Chapter 5

Class Documentation

5.1 com.progmethgame.launcher.screen.AboutStage Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.AboutStage:



Public Member Functions

- [AboutStage](#) ()

Static Public Attributes

- static final String [ABOUTTEXT](#)

Additional Inherited Members

5.1.1 Detailed Description

Display about menu

Author

pigt

5.1.2 Constructor & Destructor Documentation

5.1.2.1 AboutStage()

```
com.progmethgame.launcher.screen.AboutStage.AboutStage ( )
```

5.1.3 Member Data Documentation

5.1.3.1 ABOUTTEXT

```
final String com.progmethgame.launcher.screen.AboutStage.ABOUTTEXT [static]
```

Initial value:

```
= "Irritating Crusader (\\"The game\\" is a two-player, top-down, shooter game where the player \\"disrupt\\"
  the opponent by shooting the \\"effect bullets\\", eventually causing the other player to \\"confuse\\"
  and get killed by the \\"traps\\"."
  + "\n\n The game is developed by Pipat Saengow and Siri Thammareerakrit"
  + "\n\n Copyrighted Material:" +
  "\n    LibGDX is an Apache2-licensed game engine by Bad Logic Games.\n" +
  "    KryoNet is a networking library by Nathan Sweet licensed under BSD-3-Clause.\n" +
  "    PressStart2P is a font by CodeMan38 licensed under Open Font License.\n" +
  "    plain-james is a scene2d ui skin by Raymond \\"Raeleus\\" Buckley licensed under CC BY 4.0\n"
+
  "    TMX Format is a tiled map data format by mapeditor.org licensed under CC BY-SA 3.0.\n" +
  "    8-bit Game Over sound effect by Euphrosyyn via freesound.org CC BY 3.0\n"
```

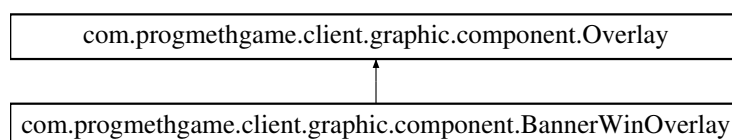
Information Text

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/AboutStage.java

5.2 com.progmethgame.client.graphic.component.BannerWinOverlay Class Reference

Inheritance diagram for com.progmethgame.client.graphic.component.BannerWinOverlay:



Public Member Functions

- [BannerWinOverlay](#) ()
- [BannerWinOverlay](#) (UUID winPlayer)
- void [render](#) (Viewport view, Batch batch, Rectangle rect, [ClientEntity](#) target)

Private Attributes

- UUID [winningPlayer](#)

5.2.1 Detailed Description

[Overlay](#) for Victory or Lose message display

5.2.2 Constructor & Destructor Documentation

5.2.2.1 BannerWinOverlay() [1/2]

```
com.progmethgame.client.graphic.component.BannerWinOverlay.BannerWinOverlay ( )
```

5.2.2.2 BannerWinOverlay() [2/2]

```
com.progmethgame.client.graphic.component.BannerWinOverlay.BannerWinOverlay (
    UUID winPlayer )
```

Create banner which show winPlayer as the winner

Parameters

<i>winPlayer</i>	
------------------	--

5.2.3 Member Function Documentation

5.2.3.1 render()

```
void com.progmethgame.client.graphic.component.BannerWinOverlay.render (
    Viewport view,
```

```
Batch batch,
Rectangle rect,
ClientEntity target )
```

Render this overlay

Parameters

<i>view</i>	Screen's viewport
<i>batch</i>	Screen's batch
<i>rect</i>	The entity's bounding box in screen space.
<i>target</i>	The owner of this overlay

Reimplemented from [com.progmethgame.client.graphic.component.Overlay](#).

5.2.4 Member Data Documentation

5.2.4.1 winningPlayer

UUID `com.progmethgame.client.graphic.component.BannerWinOverlay.winningPlayer` [private]

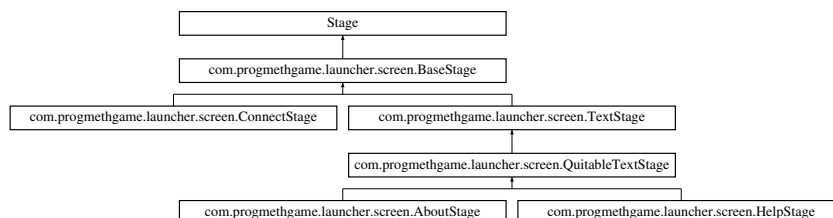
Player to show winning message to

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/graphic/component/BannerWinOverlay.java`

5.3 com.progmethgame.launcher.screen.BaseStage Class Reference

Inheritance diagram for `com.progmethgame.launcher.screen.BaseStage`:



Public Member Functions

- [BaseStage](#) ()

Protected Attributes

- Skin [skin](#)

5.3.1 Detailed Description

Stage with skin loaded

5.3.2 Constructor & Destructor Documentation

5.3.2.1 BaseStage()

```
com.progmethgame.launcher.screen.BaseStage.BaseStage ( )
```

5.3.3 Member Data Documentation

5.3.3.1 skin

Skin `com.progmethgame.launcher.screen.BaseStage.skin` [protected]

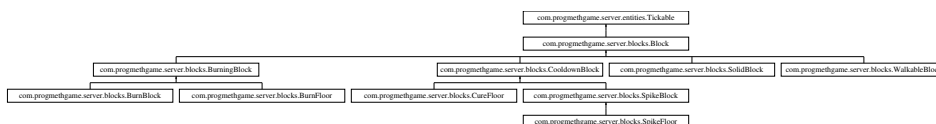
Scene2d skin

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/BaseStage.java`

5.4 com.progmethgame.server.blocks.Block Class Reference

Inheritance diagram for `com.progmethgame.server.blocks.Block`:



Public Member Functions

- abstract boolean [isSolid](#) ()
- void [tick](#) (float delta)

5.4.1 Detailed Description

Represent a tile on a map

Author

pigt

5.4.2 Member Function Documentation

5.4.2.1 isSolid()

```
abstract boolean com.progmethgame.server.blocks.Block.isSolid ( ) [abstract]
```

Can entity pass through this block?

Returns

solidness

Reimplemented in [com.progmethgame.server.blocks.SpikeBlock](#), [com.progmethgame.server.blocks.CureFloor](#), [com.progmethgame.server.blocks.SpikeFloor](#), [com.progmethgame.server.blocks.BurnBlock](#), [com.progmethgame.server.blocks.BurnFloor](#), [com.progmethgame.server.blocks.SolidBlock](#), and [com.progmethgame.server.blocks.WalkableBlock](#).

5.4.2.2 tick()

```
void com.progmethgame.server.blocks.Block.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Implements [com.progmethgame.server.entities.Tickable](#).

Reimplemented in [com.progmethgame.server.blocks.ColdownBlock](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/Block.java](#)↔

5.5 com.progmethgame.server.blocks.BlockManager Class Reference

Static Public Member Functions

- static [Block fromId](#) (int id)

5.5.1 Detailed Description

A Factory to generate a block from an ID

Author

pigt

5.5.2 Member Function Documentation

5.5.2.1 fromId()

```
static Block com.progmethgame.server.blocks.BlockManager.fromId (
    int id ) [static]
```

Create a block object with that id type

Parameters

<i>id</i>	id of the block
-----------	-----------------

Returns

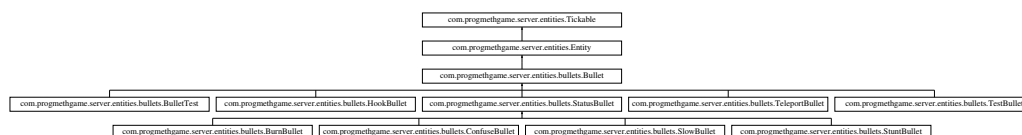
[Block](#) with specified id

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/BlockManager.java

5.6 com.progmethgame.server.entities.bullets.Bullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.Bullet:



Public Member Functions

- [Bullet](#) ([DisplayType](#) type, float [speed](#), [Player](#) owner)
- abstract void [onCollide](#) ([Player](#) hitPlayer)
- void [onCollideSolid](#) ([Block](#) block)
- void [onCollide](#) ([Entity](#) other)
- float [getPhysicalSize](#) ()
- abstract [Bullet](#) [cpy](#) ()
- void [tick](#) (float delta)

Protected Attributes

- float [speed](#)
- [Player](#) owner

5.6.1 Detailed Description

A bullet entity

5.6.2 Constructor & Destructor Documentation

5.6.2.1 [Bullet](#)()

```
com.progmethgame.server.entities.bullets.Bullet.Bullet (
    DisplayType type,
    float speed,
    Player owner )
```

5.6.3 Member Function Documentation

5.6.3.1 [cpy](#)()

```
abstract Bullet com.progmethgame.server.entities.bullets.Bullet.cpy ( ) [abstract]
```

Duplicate this bullet

Reimplemented in [com.progmethgame.server.entities.bullets.HookBullet](#), [com.progmethgame.server.entities.bullets.BulletTest](#), [com.progmethgame.server.entities.bullets.TeleportBullet](#), [com.progmethgame.server.entities.bullets.TestBullet](#), [com.progmethgame.server.entities.bullets.BurnBullet](#), [com.progmethgame.server.entities.bullets.ConfuseBullet](#), [com.progmethgame.server.entities.bullets.SlowBullet](#), and [com.progmethgame.server.entities.bullets.StuntBullet](#).

5.6.3.2 getPhysicalSize()

```
float com.progmethgame.server.entities.bullets.Bullet.getPhysicalSize ( )
```

Return physical size for physic engine's [onCollide\(Entity\)](#) calculation.

Size in this case is the side length of the bounding square. The bounding box has the same center as the default bound.

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.6.3.3 onCollide() [1/2]

```
void com.progmethgame.server.entities.bullets.Bullet.onCollide (
    Entity other )
```

Called when entity touched other.

Parameters

<i>other</i>	the touched entity
--------------	--------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.6.3.4 onCollide() [2/2]

```
abstract void com.progmethgame.server.entities.bullets.Bullet.onCollide (
    Player hitPlayer ) [abstract]
```

Called when the bullet collide a player

Reimplemented in [com.progmethgame.server.entities.bullets.StatusBullet](#), [com.progmethgame.server.entities.bullets.BulletTest](#), [com.progmethgame.server.entities.bullets.HookBullet](#), [com.progmethgame.server.entities.bullets.TestBullet](#), and [com.progmethgame.server.entities.bullets.TeleportBullet](#).

5.6.3.5 onCollideSolid()

```
void com.progmethgame.server.entities.bullets.Bullet.onCollideSolid (
    Block block )
```

Call when entity hit solid block

Parameters

<i>block</i>	the block that this entity collided with
--------------	--

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.6.3.6 tick()

```
void com.progmethgame.server.entities.bullets.Bullet.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.6.4 Member Data Documentation**5.6.4.1 owner**

```
Player com.progmethgame.server.entities.bullets.Bullet.owner [protected]
```

[Player](#) who shot the bullet

5.6.4.2 speed

```
float com.progmethgame.server.entities.bullets.Bullet.speed [protected]
```

[Bullet](#) speed

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/Bullet.java](#)

5.7 com.progmethgame.server.entities.bullets.BulletConfig Class Reference

Static Public Attributes

- static final float [HOOK_BULLET_SPEED](#) = 6.0f
- static final float [HOOK_SPEED](#) = 10f
- static final float [TELEPORT_BULLET_SPEED](#) = 10f
- static final float [BURN_BULLET_SPEED](#) = 7f
- static final float [CONFUSE_BULLET_SPEED](#) = 8f
- static final float [SLOW_BULLET_SPEED](#) = 8f
- static final float [STUNT_BULLET_SPEED](#) = 6.5f

5.7.1 Detailed Description

Store bullet's constant

5.7.2 Member Data Documentation

5.7.2.1 BURN_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.BURN_BULLET_SPEED = 7f [static]
```

Burn bullet speed

5.7.2.2 CONFUSE_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.CONFUSE_BULLET_SPEED = 8f [static]
```

Confuse [Bullet](#) speed

5.7.2.3 HOOK_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.HOOK_BULLET_SPEED = 6.0f [static]
```

Hook [Bullet](#) speed

5.7.2.4 HOOK_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.HOOK_SPEED = 10f [static]
```

Hook [Bullet](#) hook speed

5.7.2.5 SLOW_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.SLOW_BULLET_SPEED = 8f [static]
```

Slow [Bullet](#) speed

5.7.2.6 STUNT_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.STUNT_BULLET_SPEED = 6.5f [static]
```

Stunt [Bullet](#) speed

5.7.2.7 TELEPORT_BULLET_SPEED

```
final float com.progmethgame.server.entities.bullets.BulletConfig.TELEPORT_BULLET_SPEED = 10f [static]
```

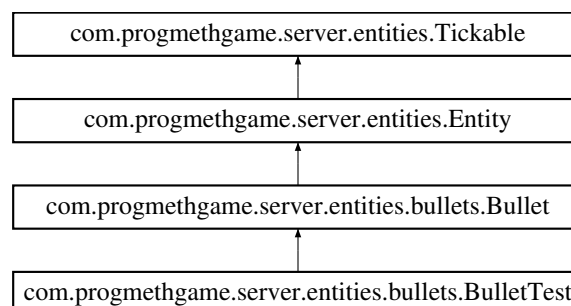
Teleport [Bullet](#) speed

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/BulletConfig.java](#)

5.8 com.progmethgame.server.entities.bullets.BulletTest Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.BulletTest:



Public Member Functions

- [BulletTest](#) ([Player](#) owner)
- void [onCollide](#) ([Player](#) hitPlayer)
- [Bullet](#) cpy ()

Additional Inherited Members

5.8.1 Detailed Description

A demo bullet for testing purpose.

Author

pigt

5.8.2 Constructor & Destructor Documentation

5.8.2.1 BulletTest()

```
com.progmethgame.server.entities.bullets.BulletTest.BulletTest (
    Player owner )
```

5.8.3 Member Function Documentation

5.8.3.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.BulletTest.cpy ( )
```

Duplicate this bullet

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.8.3.2 onCollide()

```
void com.progmethgame.server.entities.bullets.BulletTest.onCollide (
    Player hitPlayer )
```

Called when the bullet collide a player

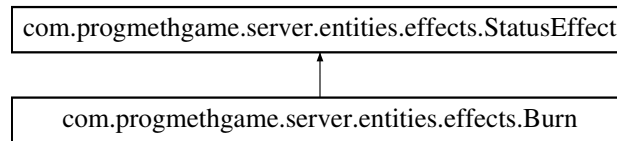
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/BulletTest.java`

5.9 com.progmethgame.server.entities.effects.Burn Class Reference

Inheritance diagram for com.progmethgame.server.entities.effects.Burn:



Public Member Functions

- [Burn](#) ()
- void [getEffect](#) ([Player](#) p)
- void [removeEffect](#) ([Player](#) p)
- [Burn cpy](#) ()

Static Package Attributes

- static final int [dps](#) = [EffectConfig.BURN_DPS](#)

Additional Inherited Members

5.9.1 Detailed Description

An status effect that constantly decrease the player's health

5.9.2 Constructor & Destructor Documentation

5.9.2.1 Burn()

```
com.progmethgame.server.entities.effects.Burn.Burn ( )
```

5.9.3 Member Function Documentation

5.9.3.1 cpy()

```
Burn com.progmethgame.server.entities.effects.Burn.cpy ( )
```

Clone this effect

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.9.3.2 getEffect()

```
void com.progmethgame.server.entities.effects.Burn.getEffect (
    Player p )
```

Apply effect to the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.9.3.3 removeEffect()

```
void com.progmethgame.server.entities.effects.Burn.removeEffect (
    Player p )
```

Remove effect from the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.9.4 Member Data Documentation

5.9.4.1 dps

```
final int com.progmethgame.server.entities.effects.Burn.dps = EffectConfig.BURN_DPS [static],
[package]
```

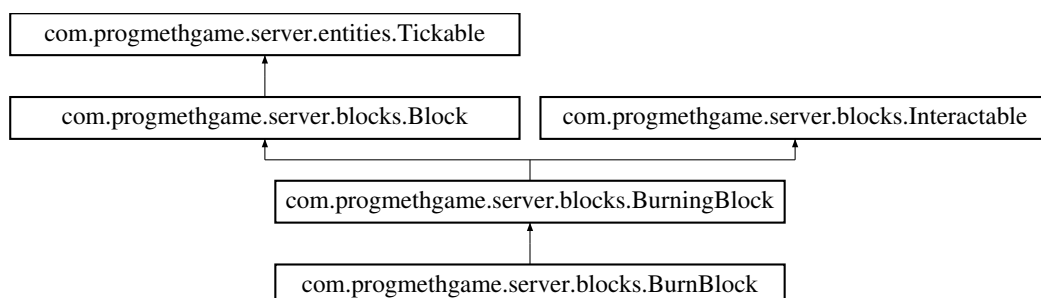
Damage per second after this effect is applied

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/effects/Burn.↔
java

5.10 com.progmethgame.server.blocks.BurnBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.BurnBlock:



Public Member Functions

- boolean [isSolid](#) ()

5.10.1 Detailed Description

A solid block that burn the player when touched

Author

pigt

5.10.2 Member Function Documentation

5.10.2.1 isSolid()

```
boolean com.progmethgame.server.blocks.BurnBlock.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

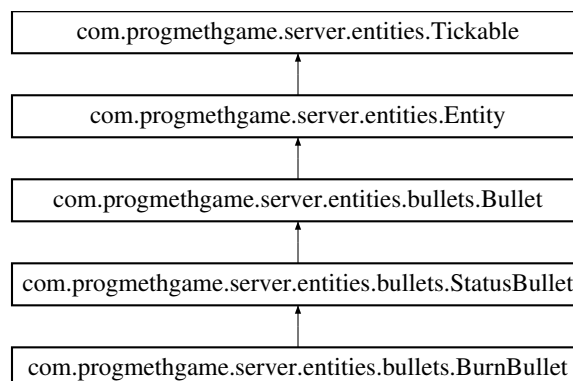
Reimplemented from [com.progmethgame.server.blocks.Block](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/BurnBlock.java](#)

5.11 com.progmethgame.server.entities.bullets.BurnBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.BurnBullet:



Public Member Functions

- [BurnBullet](#) ([Player owner](#))
- [Bullet cpy](#) ()

Additional Inherited Members

5.11.1 Constructor & Destructor Documentation

5.11.1.1 BurnBullet()

```
com.progmethgame.server.entities.bullets.BurnBullet.BurnBullet (
    Player owner )
```

5.11.2 Member Function Documentation

5.11.2.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.BurnBullet.cpy ( )
```

Duplicate this bullet

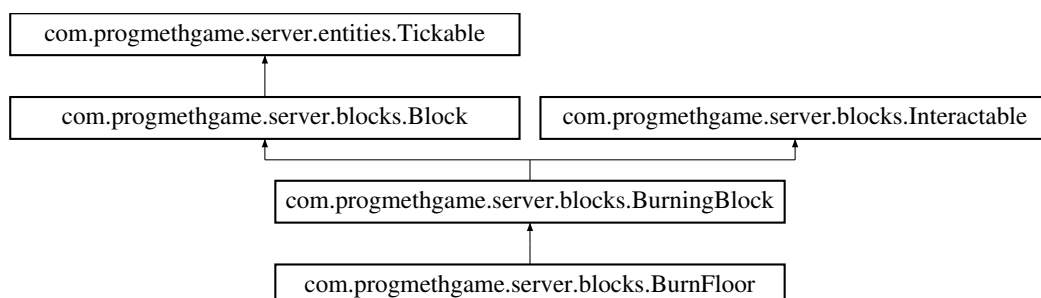
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/BurnBullet.java`

5.12 com.progmethgame.server.blocks.BurnFloor Class Reference

Inheritance diagram for com.progmethgame.server.blocks.BurnFloor:



Public Member Functions

- boolean [isSolid](#) ()

5.12.1 Detailed Description

A floor that burn the player when touched

Author

pigt

5.12.2 Member Function Documentation

5.12.2.1 isSolid()

```
boolean com.progmethgame.server.blocks.BurnFloor.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

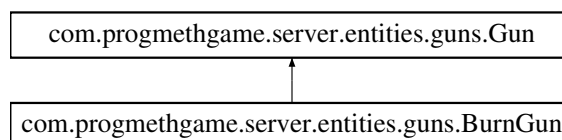
Reimplemented from [com.progmethgame.server.blocks.Block](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/BurnFloor.java](#)

5.13 com.progmethgame.server.entities.guns.BurnGun Class Reference

Inheritance diagram for com.progmethgame.server.entities.guns.BurnGun:



Public Member Functions

- [BurnGun](#) (Player owner)

Additional Inherited Members

5.13.1 Detailed Description

[Gun](#) that spawn burn bullet

5.13.2 Constructor & Destructor Documentation

5.13.2.1 BurnGun()

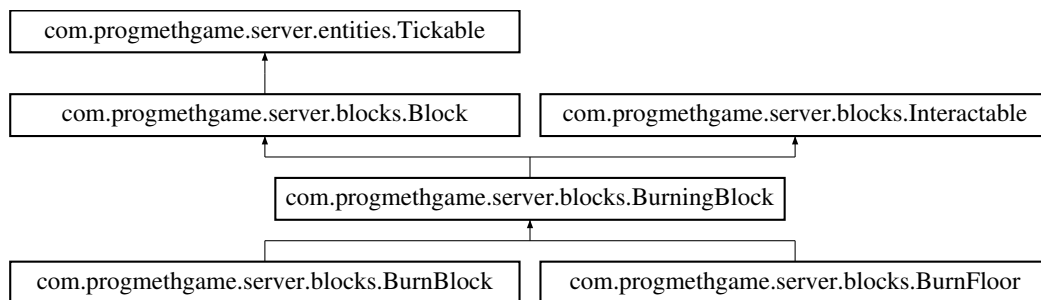
```
com.progmethgame.server.entities.guns.BurnGun.BurnGun (
    Player owner )
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/BurnGun.java](#)

5.14 com.progmethgame.server.blocks.BurningBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.BurningBlock:



Public Member Functions

- void [interact](#) ([Player](#) p)

5.14.1 Detailed Description

A block that will set the player on fire if touched

Author

pigt

5.14.2 Member Function Documentation

5.14.2.1 interact()

```
void com.progmethgame.server.blocks.BurningBlock.interact (
    Player p )
```

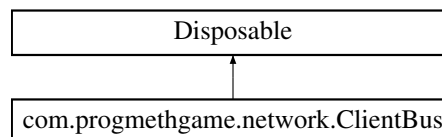
Implements [com.progmethgame.server.blocks.Interactable](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/BurningBlock.java](#)

5.15 com.progmethgame.network.ClientBus Class Reference

Inheritance diagram for com.progmethgame.network.ClientBus:



Public Member Functions

- [ClientBus](#) (String ipaddr, [ClientBusListener](#) listener) throws IOException
- void [sendEvent](#) ([ClientEvent](#) event)
- void [dispose](#) ()

Private Attributes

- final Client [client](#)

5.15.1 Detailed Description

Communication bus for the client

5.15.2 Constructor & Destructor Documentation

5.15.2.1 ClientBus()

```
com.progmethgame.network.ClientBus.ClientBus (
    String ipaddr,
    ClientBusListener listener ) throws IOException
```

Connect to the server.

Constructor might block for few second.

Parameters

<i>ipaddr</i>	server's IP address
<i>listener</i>	bus's event listener

Exceptions

<i>IOException</i>	
--------------------	--

5.15.3 Member Function Documentation

5.15.3.1 dispose()

```
void com.progmethgame.network.ClientBus.dispose ( )
```

5.15.3.2 sendEvent()

```
void com.progmethgame.network.ClientBus.sendEvent (
    ClientEvent event )
```

Send an event to the server

Parameters

<i>event</i>	
--------------	--

5.15.4 Member Data Documentation

5.15.4.1 client

```
final Client com.progmethgame.network.ClientBus.client [private]
```

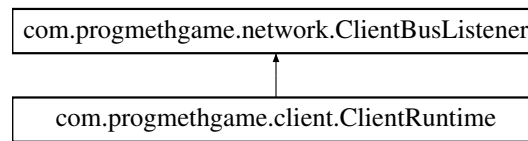
KyroNet client

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/Client↵
Bus.java

5.16 com.progmethgame.network.ClientBusListener Interface Reference

Inheritance diagram for com.progmethgame.network.ClientBusListener:



Public Member Functions

- void [onEntityAdd](#) ([EntityData](#) data)
- void [onEntityRemove](#) (UUID id)
- void [onEntityUpdate](#) ([EntityData](#) data)
- void [onPlaySound](#) ([SoundType](#) sound)
- void [onServerReady](#) (UUID assignedId)
- void [onServerReset](#) ()
- void [onDisconnect](#) ()

5.16.1 Detailed Description

Client bus's event listener

5.16.2 Member Function Documentation

5.16.2.1 onDisconnect()

```
void com.progmethgame.network.ClientBusListener.onDisconnect ( )
```

Called when server disconnect eg. Connection lost, Server closed

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.2 onEntityAdd()

```
void com.progmethgame.network.ClientBusListener.onEntityAdd (
    EntityData data )
```

Server added an entity

Parameters

<i>data</i>	entity's data
-------------	---------------

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.3 onEntityRemove()

```
void com.progmethgame.network.ClientBusListener.onEntityRemove (
    UUID id )
```

Server remove an entity

Parameters

<i>id</i>	entity's id
-----------	-------------

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.4 onEntityUpdate()

```
void com.progmethgame.network.ClientBusListener.onEntityUpdate (
    EntityData data )
```

Server update entity's data

Parameters

<i>data</i>	update data
-------------	-------------

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.5 onPlaySound()

```
void com.progmethgame.network.ClientBusListener.onPlaySound (
    SoundType sound )
```

Server wants to play a sound

Parameters

<i>sound</i>	
--------------	--

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.6 onServerReady()

```
void com.progmethgame.network.ClientBusListener.onServerReady (
    UUID assignedId )
```

Server have initialized the client and is now ready.

Always call after server finished sending entities and ready to display data.

Parameters

<i>assignedId</i>	ID assigned by the server
-------------------	---------------------------

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.16.2.7 onServerReset()

```
void com.progmethgame.network.ClientBusListener.onServerReset ( )
```

Server instruct client to clear all game state.

Always called first when client connect or level reset

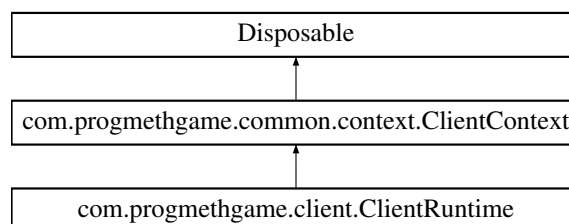
Implemented in [com.progmethgame.client.ClientRuntime](#).

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/ClientBusListener.java

5.17 com.progmethgame.common.context.ClientContext Interface Reference

Inheritance diagram for com.progmethgame.common.context.ClientContext:



Public Member Functions

- AssetManager [getAssetManager](#) ()
- ClientBus [getNetworkBus](#) ()
- void [quit](#) ()
- void [tick](#) (float delta)
- Map< UUID, ClientEntity > [getEntities](#) ()
- UUID [getClientUUID](#) ()

5.17.1 Detailed Description

Client's context. Provides client's data interface and action

5.17.2 Member Function Documentation

5.17.2.1 [getAssetManager\(\)](#)

```
AssetManager com.progmethgame.common.context.ClientContext.getAssetManager ( )
```

Get AssetManager

Returns

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.17.2.2 [getClientUUID\(\)](#)

```
UUID com.progmethgame.common.context.ClientContext.getClientUUID ( )
```

Return the UUID assigned by the server.

Note that Entity with the same UUID represent controllable character.

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.17.2.3 [getEntities\(\)](#)

```
Map<UUID, ClientEntity> com.progmethgame.common.context.ClientContext.getEntities ( )
```

Return unmodifiable list of all entities.

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.17.2.4 `getNetworkBus()`

`ClientBus` `com.progmethgame.common.context.ClientContext.getNetworkBus ()`

Get client-server's communication bus.

Returns

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.17.2.5 `quit()`

`void` `com.progmethgame.common.context.ClientContext.quit ()`

Quit the game and return to main screen.

Implemented in [com.progmethgame.client.ClientRuntime](#).

5.17.2.6 `tick()`

`void` `com.progmethgame.common.context.ClientContext.tick (`
`float delta)`

Apply time step by delta seconds.

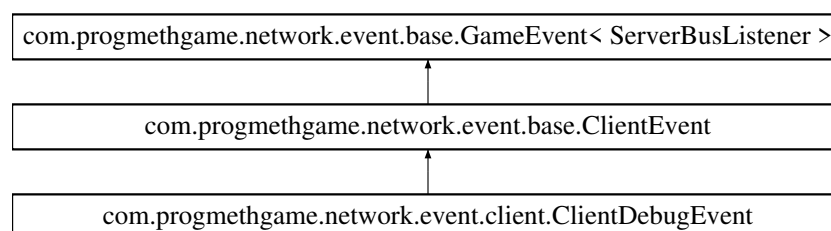
Implemented in [com.progmethgame.client.ClientRuntime](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/context/ClientContext.java`

5.18 `com.progmethgame.network.event.client.ClientDebugEvent` Class Reference

Inheritance diagram for `com.progmethgame.network.event.client.ClientDebugEvent`:



Public Member Functions

- [ClientDebugEvent](#) (String msg)
- void [notifyListener](#) ([ServerBusListener](#) target)

Private Member Functions

- [ClientDebugEvent](#) ()

Private Attributes

- String [debugMsg](#)

Additional Inherited Members

5.18.1 Detailed Description

Client issued debug command event

5.18.2 Constructor & Destructor Documentation

5.18.2.1 ClientDebugEvent() [1/2]

```
com.progmethgame.network.event.client.ClientDebugEvent.ClientDebugEvent ( ) [private]
```

5.18.2.2 ClientDebugEvent() [2/2]

```
com.progmethgame.network.event.client.ClientDebugEvent.ClientDebugEvent (
    String msg )
```

Create new debug event with specified command

Parameters

<i>msg</i>	command
------------	---------

5.18.3 Member Function Documentation

5.18.3.1 notifyListener()

```
void com.progmethgame.network.event.client.ClientDebugEvent.notifyListener (
    ServerBusListener target )
```

5.18.4 Member Data Documentation

5.18.4.1 debugMsg

```
String com.progmethgame.network.event.client.ClientDebugEvent.debugMsg [private]
```

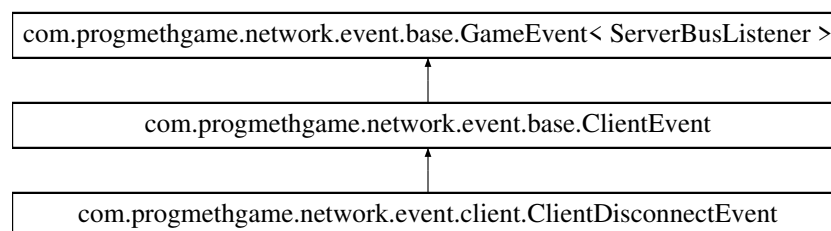
Debug command

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/ClientDebugEvent.java

5.19 com.progmethgame.network.event.client.ClientDisconnectEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.client.ClientDisconnectEvent:



Public Member Functions

- void `notifyListener` (`ServerBusListener` target)

Additional Inherited Members

5.19.1 Detailed Description

Virtual event for when the client disconnect or lose connection to the server

5.19.2 Member Function Documentation

5.19.2.1 notifyListener()

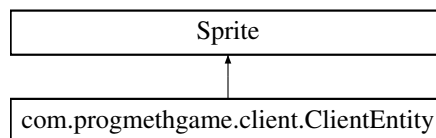
```
void com.progmethgame.network.event.client.ClientDisconnectEvent.notifyListener (
    ServerBusListener target )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/ClientDisconnectEvent.java

5.20 com.progmethgame.client.ClientEntity Class Reference

Inheritance diagram for com.progmethgame.client.ClientEntity:



Public Member Functions

- [ClientEntity](#) ([EntityData](#) data)
- UUID [getGid](#) ()
- [DisplayType](#) [getType](#) ()
- void [update](#) ([EntityData](#) data)
- void [tick](#) (float delta)
- void [drawOverlay](#) (Viewport view, Batch batch, Rectangle rect)

Private Member Functions

- void [applyDisplayType](#) ()

Private Attributes

- UUID [gid](#)
- [DisplayType](#) [type](#)
- Vector2[] [lastPosBuffer](#)
- long[] [lastUpdateTimeBuffer](#)
- List< [Overlay](#) > [overlays](#)
- Vector2[] [lastDirBuffer](#)

5.20.1 Detailed Description

Represent client-side's entity data.

This is the only entity available to the client. It contains just enough data to render whatever it represent.

5.20.2 Constructor & Destructor Documentation

5.20.2.1 ClientEntity()

```
com.progmethgame.client.ClientEntity.ClientEntity (
    EntityData data )
```

Create new entity from data

Parameters

<i>data</i>	entity's data
-------------	---------------

5.20.3 Member Function Documentation

5.20.3.1 applyDisplayType()

```
void com.progmethgame.client.ClientEntity.applyDisplayType ( ) [private]
```

Update this sprite's texture to match the display type

5.20.3.2 drawOverlay()

```
void com.progmethgame.client.ClientEntity.drawOverlay (
    Viewport view,
    Batch batch,
    Rectangle rect )
```

Draw this entity's overlays

Parameters

<i>view</i>	ScreenViewport
<i>batch</i>	Drawing Batch
<i>rect</i>	Rectangle representing this entity in the viewport

5.20.3.3 `getGid()`

```
UUID com.progmethgame.client.ClientEntity.getGid ( )
```

Returns

This entity's ID

5.20.3.4 `getType()`

```
DisplayType com.progmethgame.client.ClientEntity.getType ( )
```

Returns

This entity's texture

5.20.3.5 `tick()`

```
void com.progmethgame.client.ClientEntity.tick (
    float delta )
```

Animate this entity by specific time-step

Parameters

<i>delta</i>	time duration
--------------	---------------

5.20.3.6 `update()`

```
void com.progmethgame.client.ClientEntity.update (
    EntityData data )
```

Update this entity's state using EntityData

Parameters

<i>data</i>	updated data
-------------	--------------

5.20.4 Member Data Documentation

5.20.4.1 gid

UUID `com.progmethgame.client.ClientEntity.gid` [private]

ID of this entity. This is unique to all entity and is used to communicate with the server

5.20.4.2 lastDirBuffer

Vector2 [] `com.progmethgame.client.ClientEntity.lastDirBuffer` [private]

Facing direction according to the server (storing the last 2) (doesn't interpolate)

5.20.4.3 lastPosBuffer

Vector2 [] `com.progmethgame.client.ClientEntity.lastPosBuffer` [private]

Most recent position of this entity according to the server (for interpolation)

5.20.4.4 lastUpdateTimeBuffer

long [] `com.progmethgame.client.ClientEntity.lastUpdateTimeBuffer` [private]

Most recent time this entity was updated (for interpolation)

5.20.4.5 overlays

List<Overlay> `com.progmethgame.client.ClientEntity.overlays` [private]

Overlays attached to this entity

5.20.4.6 type

DisplayType `com.progmethgame.client.ClientEntity.type` [private]

Texture to display

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/ClientEntity.java`

5.21 com.progmethgame.network.event.base.ClientEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.base.ClientEvent:



Public Attributes

- UUID [clientId](#)

Additional Inherited Members

5.21.1 Detailed Description

Event emitted from the game clients

5.21.2 Member Data Documentation

5.21.2.1 clientId

UUID `com.progmethgame.network.event.base.ClientEvent.clientId`

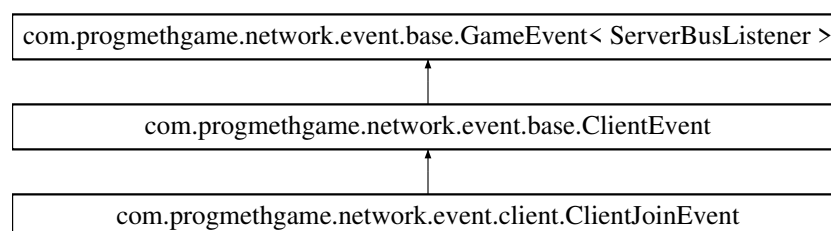
ID of the client connection who emitted this event

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/base/ClientEvent.java`

5.22 com.progmethgame.network.event.client.ClientJoinEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.client.ClientJoinEvent:



Public Member Functions

- void [notifyListener](#) ([ServerBusListener](#) target)

Additional Inherited Members

5.22.1 Detailed Description

Client connect to the server

5.22.2 Member Function Documentation

5.22.2.1 notifyListener()

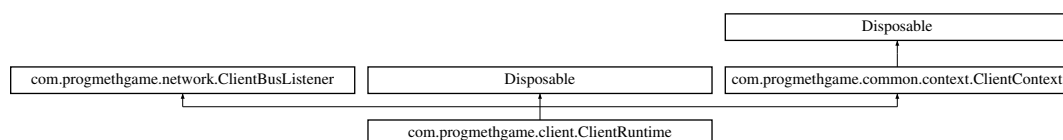
```
void com.progmethgame.network.event.client.ClientJoinEvent.notifyListener (
    ServerBusListener target )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/ClientJoinEvent.java

5.23 com.progmethgame.client.ClientRuntime Class Reference

Inheritance diagram for com.progmethgame.client.ClientRuntime:



Public Member Functions

- [ClientRuntime](#) (String ipaddr)
- Map< UUID, [ClientEntity](#) > [getEntities](#) ()
- AssetManager [getAssetManager](#) ()
- [ClientBus](#) [getNetworkBus](#) ()
- UUID [getClientUUID](#) ()
- void [onEntityAdd](#) ([EntityData](#) data)
- void [onEntityRemove](#) (UUID id)
- void [onEntityUpdate](#) ([EntityData](#) data)
- void [onServerReady](#) (UUID assignedId)
- void [onServerReset](#) ()
- void [tick](#) (float delta)
- void [dispose](#) ()
- void [onDisconnect](#) ()
- void [quit](#) ()
- void [onPlaySound](#) ([SoundType](#) sound)

Private Member Functions

- void [initAssets](#) ()

Private Attributes

- [GameScreen](#) [screen](#)
- UUID [clientId](#)
- [ClientBus](#) [bus](#)
- HashMap< UUID, [ClientEntity](#) > [entities](#)
- AssetManager [assetsMan](#)

5.23.1 Detailed Description

Store and manage the game's state

5.23.2 Constructor & Destructor Documentation

5.23.2.1 ClientRuntime()

```
com.progmethgame.client.ClientRuntime.ClientRuntime (
    String ipaddr )
```

Create new runtime, connect to the server and display the game.

Parameters

<i>ipaddr</i>	server's IP address
---------------	---------------------

5.23.3 Member Function Documentation

5.23.3.1 dispose()

```
void com.progmethgame.client.ClientRuntime.dispose ( )
```

5.23.3.2 `getAssetManager()`

```
AssetManager com.progmethgame.client.ClientRuntime.getAssetManager ( )
```

Get AssetManager

Returns

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.3.3 `getClientUUID()`

```
UUID com.progmethgame.client.ClientRuntime.getClientUUID ( )
```

Return the UUID assigned by the server.

Note that Entity with the same UUID represent controllable character.

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.3.4 `getEntities()`

```
Map<UUID, ClientEntity> com.progmethgame.client.ClientRuntime.getEntities ( )
```

Return unmodifiable list of all entities.

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.3.5 `getNetworkBus()`

```
ClientBus com.progmethgame.client.ClientRuntime.getNetworkBus ( )
```

Get client-server's communication bus.

Returns

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.3.6 initAssets()

```
void com.progmethgame.client.ClientRuntime.initAssets ( ) [private]
```

Initialize all assets required

5.23.3.7 onDisconnect()

```
void com.progmethgame.client.ClientRuntime.onDisconnect ( )
```

Called when server disconnect eg. Connection lost, Server closed

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.8 onEntityAdd()

```
void com.progmethgame.client.ClientRuntime.onEntityAdd (
    EntityData data )
```

Server added an entity

Parameters

<i>data</i>	entity's data
-------------	---------------

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.9 onEntityRemove()

```
void com.progmethgame.client.ClientRuntime.onEntityRemove (
    UUID id )
```

Server remove an entity

Parameters

<i>id</i>	entity's id
-----------	-------------

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.10 onEntityUpdate()

```
void com.progmethgame.client.ClientRuntime.onEntityUpdate (
```

```
EntityData data )
```

Server update entity's data

Parameters

<i>data</i>	update data
-------------	-------------

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.11 onPlaySound()

```
void com.progmethgame.client.ClientRuntime.onPlaySound (
    SoundType sound )
```

Server wants to play a sound

Parameters

<i>sound</i>	
--------------	--

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.12 onServerReady()

```
void com.progmethgame.client.ClientRuntime.onServerReady (
    UUID assignedId )
```

Server have initialized the client and is now ready.

Always call after server finished sending entities and ready to display data.

Parameters

<i>assignedId</i>	ID assigned by the server
-------------------	---------------------------

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.13 onServerReset()

```
void com.progmethgame.client.ClientRuntime.onServerReset ( )
```

Server instruct client to clear all game state.

Always called first when client connect or level reset

Implements [com.progmethgame.network.ClientBusListener](#).

5.23.3.14 quit()

```
void com.progmethgame.client.ClientRuntime.quit ( )
```

Quit the game and return to main screen.

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.3.15 tick()

```
void com.progmethgame.client.ClientRuntime.tick (
    float delta )
```

Apply time step by delta seconds.

Implements [com.progmethgame.common.context.ClientContext](#).

5.23.4 Member Data Documentation

5.23.4.1 assetsMan

```
AssetManager com.progmethgame.client.ClientRuntime.assetsMan [private]
```

Assets loader

5.23.4.2 bus

```
ClientBus com.progmethgame.client.ClientRuntime.bus [private]
```

Communication bus

5.23.4.3 clientId

```
UUID com.progmethgame.client.ClientRuntime.clientId [private]
```

Client id assigned by the server. This is also the controllable player's entity UUID

5.23.4.4 entities

```
HashMap<UUID, ClientEntity> com.progmethgame.client.ClientRuntime.entities [private]
```

Store entities

5.23.4.5 screen

```
GameScreen com.progmethgame.client.ClientRuntime.screen [private]
```

Screen

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/ClientRuntime.java`

5.24 com.progmethgame.server.entities.Player.Color Enum Reference

Public Member Functions

- [DisplayType](#) `getTop ()`
- [DisplayType](#) `getFront ()`

Public Attributes

- [BLUE](#) =([DisplayType.PLAYER_BLUE_ICON](#), [DisplayType.PLAYER_BLUE](#))
- [RED](#) =([DisplayType.PLAYER_RED_ICON](#), [DisplayType.PLAYER_RED](#))
- [GREEN](#) =([DisplayType.PLAYER_GREEN_ICON](#), [DisplayType.PLAYER_GREEN](#))
- [ORANGE](#) =([DisplayType.PLAYER_ORANGE_ICON](#), [DisplayType.PLAYER_ORANGE](#))
- [PURPLE](#) =([DisplayType.PLAYER_PURPLE_ICON](#), [DisplayType.PLAYER_PURPLE](#))
- [YELLOW](#) =([DisplayType.PLAYER_YELLOW_ICON](#), [DisplayType.PLAYER_YELLOW](#))

Private Member Functions

- [Color](#) ([DisplayType front](#), [DisplayType top](#))

Private Attributes

- [DisplayType top](#)
- [DisplayType front](#)

5.24.1 Constructor & Destructor Documentation

5.24.1.1 Color()

```
com.progmethgame.server.entities.Player.Color.Color (
    DisplayType front,
    DisplayType top ) [private]
```

5.24.2 Member Function Documentation

5.24.2.1 getFront()

```
DisplayType com.progmethgame.server.entities.Player.Color.getFront ( )
```

5.24.2.2 getTop()

```
DisplayType com.progmethgame.server.entities.Player.Color.getTop ( )
```

5.24.3 Member Data Documentation

5.24.3.1 BLUE

```
com.progmethgame.server.entities.Player.Color.BLUE =(DisplayType.PLAYER_BLUE_ICON, DisplayType.PLAYER_BLUE)
```

5.24.3.2 front

```
DisplayType com.progmethgame.server.entities.Player.Color.front [private]
```

5.24.3.3 GREEN

```
com.progmethgame.server.entities.Player.Color.GREEN =(DisplayType.PLAYER_GREEN_ICON, DisplayType.PLAYER_GREEN)
```

5.24.3.4 ORANGE

```
com.progmethgame.server.entities.Player.Color.ORANGE = (DisplayType.PLAYER_ORANGE_ICON, DisplayType.PLAYER_ORANGE)
```

5.24.3.5 PURPLE

```
com.progmethgame.server.entities.Player.Color.PURPLE = (DisplayType.PLAYER_PURPLE_ICON, DisplayType.PLAYER_PURPLE)
```

5.24.3.6 RED

```
com.progmethgame.server.entities.Player.Color.RED = (DisplayType.PLAYER_RED_ICON, DisplayType.PLAYER_RED)
```

5.24.3.7 top

```
DisplayType com.progmethgame.server.entities.Player.Color.top [private]
```

5.24.3.8 YELLOW

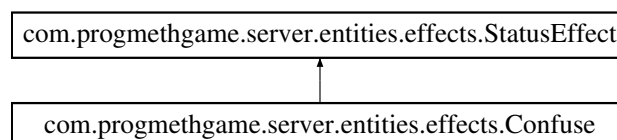
```
com.progmethgame.server.entities.Player.Color.YELLOW = (DisplayType.PLAYER_YELLOW_ICON, DisplayType.PLAYER_YELLOW)
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/Player.↔
java

5.25 com.progmethgame.server.entities.effects.Confuse Class Reference

Inheritance diagram for com.progmethgame.server.entities.effects.Confuse:



Public Member Functions

- [Confuse](#) ()
- void [getEffect](#) ([Player](#) p)
- void [removeEffect](#) ([Player](#) p)
- [Confuse](#) cpy ()

Additional Inherited Members

5.25.1 Detailed Description

An effect that reverse the player's control

5.25.2 Constructor & Destructor Documentation

5.25.2.1 Confuse()

```
com.progmethgame.server.entities.effects.Confuse.Confuse ( )
```

5.25.3 Member Function Documentation

5.25.3.1 cpy()

```
Confuse com.progmethgame.server.entities.effects.Confuse.cpy ( )
```

Clone this effect

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.25.3.2 getEffect()

```
void com.progmethgame.server.entities.effects.Confuse.getEffect (
    Player p )
```

Apply effect to the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.25.3.3 removeEffect()

```
void com.progmethgame.server.entities.effects.Confuse.removeEffect (
    Player p )
```

Remove effect from the player

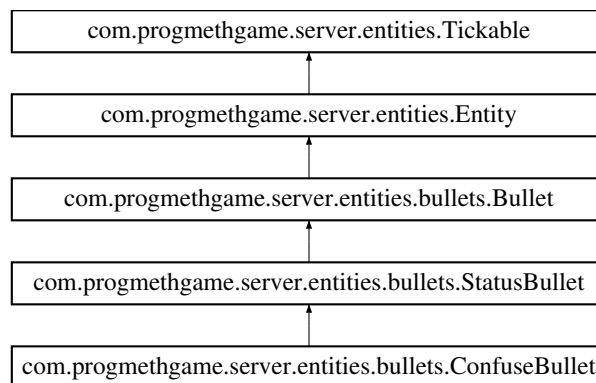
Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/effects/Confuse.java](#)

5.26 com.progmethgame.server.entities.bullets.ConfuseBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.ConfuseBullet:



Public Member Functions

- [ConfuseBullet](#) ([Player](#) owner)
- [Bullet](#) cpy ()

Additional Inherited Members

5.26.1 Constructor & Destructor Documentation

5.26.1.1 ConfuseBullet()

```
com.progmethgame.server.entities.bullets.ConfuseBullet.ConfuseBullet (
    Player owner )
```

5.26.2 Member Function Documentation

5.26.2.1 cpy()

`Bullet` `com.progmethgame.server.entities.bullets.ConfuseBullet.cpy ()`

Duplicate this bullet

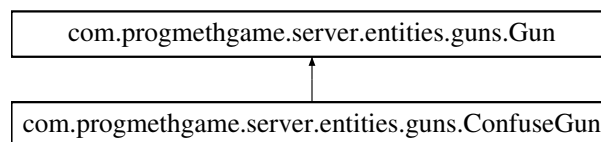
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/ConfuseBullet.java`

5.27 com.progmethgame.server.entities.guns.ConfuseGun Class Reference

Inheritance diagram for `com.progmethgame.server.entities.guns.ConfuseGun`:



Public Member Functions

- [ConfuseGun](#) (Player owner)

Additional Inherited Members

5.27.1 Detailed Description

`Gun` that spawn confuse bullet

5.27.2 Constructor & Destructor Documentation

5.27.2.1 ConfuseGun()

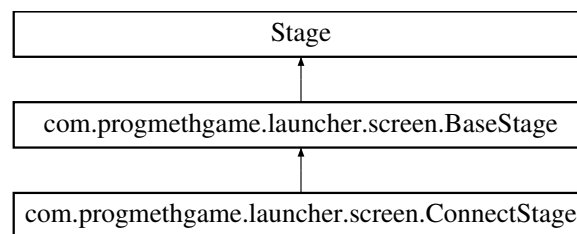
```
com.progmethgame.server.entities.guns.ConfuseGun.ConfuseGun (
    Player owner )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/ConfuseGun.java

5.28 com.progmethgame.launcher.screen.ConnectStage Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.ConnectStage:



Public Member Functions

- [ConnectStage](#) ()
- void [draw](#) ()
- void [dispose](#) ()

Private Attributes

- Texture [background](#)
- Viewport [bgView](#)

Additional Inherited Members

5.28.1 Detailed Description

Display connection and main menu dialog

5.28.2 Constructor & Destructor Documentation

5.28.2.1 ConnectStage()

```
com.progmethgame.launcher.screen.ConnectStage.ConnectStage ( )
```

Create a new connect stage

5.28.3 Member Function Documentation

5.28.3.1 dispose()

```
void com.progmethgame.launcher.screen.ConnectStage.dispose ( )
```

5.28.3.2 draw()

```
void com.progmethgame.launcher.screen.ConnectStage.draw ( )
```

5.28.4 Member Data Documentation

5.28.4.1 background

```
Texture com.progmethgame.launcher.screen.ConnectStage.background [private]
```

Background texture

5.28.4.2 bgView

```
Viewport com.progmethgame.launcher.screen.ConnectStage.bgView [private]
```

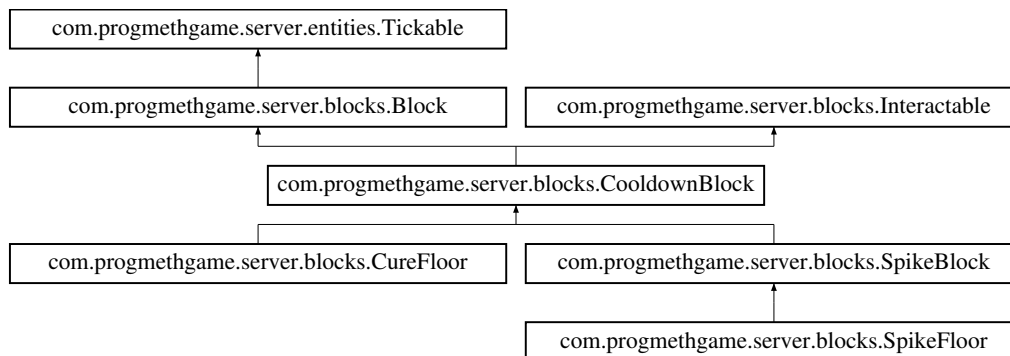
Background's viewport

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/ConnectStage.java`

5.29 com.progmethgame.server.blocks.CooldownBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.CooldownBlock:



Public Member Functions

- [CooldownBlock](#) ()
- void [interact](#) ([Player](#) p)
- void [tick](#) (float delta)

Protected Member Functions

- abstract void [applyEffect](#) ([Player](#) p)

Static Protected Attributes

- static final int [maxCooldown](#) = 5

Private Attributes

- int [cooldown](#)
- int [tickCount](#)

5.29.1 Detailed Description

A block that have "cooldown" on its effect

Author

pigt

5.29.2 Constructor & Destructor Documentation

5.29.2.1 CooldownBlock()

```
com.progmethgame.server.blocks.CooldownBlock.CooldownBlock ( )
```

5.29.3 Member Function Documentation

5.29.3.1 applyEffect()

```
abstract void com.progmethgame.server.blocks.CooldownBlock.applyEffect (
    Player p ) [abstract], [protected]
```

Reimplemented in [com.progmethgame.server.blocks.SpikeBlock](#), and [com.progmethgame.server.blocks.CureFloor](#).

5.29.3.2 interact()

```
void com.progmethgame.server.blocks.CooldownBlock.interact (
    Player p )
```

Implements [com.progmethgame.server.blocks.Interactable](#).

5.29.3.3 tick()

```
void com.progmethgame.server.blocks.CooldownBlock.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Reimplemented from [com.progmethgame.server.blocks.Block](#).

5.29.4 Member Data Documentation

5.29.4.1 cooldown

```
int com.progmethgame.server.blocks.CooldownBlock.cooldown [private]
```

Number of second before block is active again

5.29.4.2 maxCooldown

```
final int com.progmethgame.server.blocks.CooldownBlock.maxCooldown = 5 [static], [protected]
```

Cooldown interval (second)

5.29.4.3 tickCount

```
int com.progmethgame.server.blocks.CooldownBlock.tickCount [private]
```

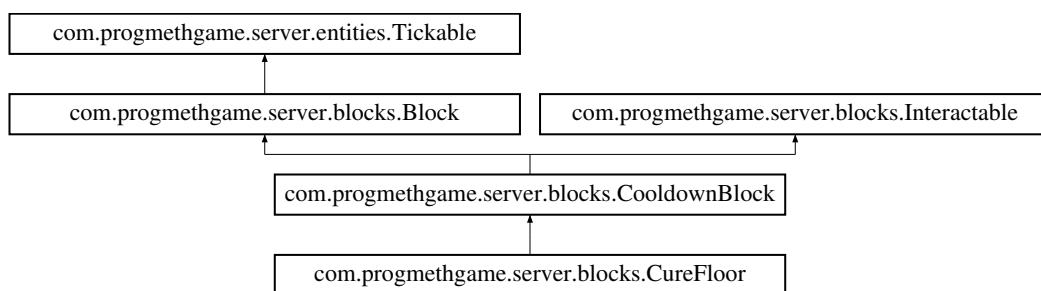
Number of tick after last cooldown decrement

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/CooldownBlock.java`

5.30 com.progmethgame.server.blocks.CureFloor Class Reference

Inheritance diagram for com.progmethgame.server.blocks.CureFloor:



Public Member Functions

- [CureFloor](#) ()
- boolean [isSolid](#) ()

Protected Member Functions

- void [applyEffect](#) ([Player](#) p)

Additional Inherited Members

5.30.1 Detailed Description

A floor block that remove status effect from the player

Author

pigt

5.30.2 Constructor & Destructor Documentation

5.30.2.1 CureFloor()

```
com.progmethgame.server.blocks.CureFloor.CureFloor ( )
```

5.30.3 Member Function Documentation

5.30.3.1 applyEffect()

```
void com.progmethgame.server.blocks.CureFloor.applyEffect (
    Player p ) [protected]
```

Reimplemented from [com.progmethgame.server.blocks.CooldownBlock](#).

5.30.3.2 isSolid()

```
boolean com.progmethgame.server.blocks.CureFloor.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

Reimplemented from [com.progmethgame.server.blocks.Block](#).

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/Cure↵
Floor.java

5.31 com.progmethgame.common.DisplayType Enum Reference

Public Member Functions

- String [filename](#) ()

Public Attributes

- [PLAYER](#) = ("player.png")
- [BULLET_BURN](#) = ("bullets/burnbullet.png")
- [BULLET_SLOW](#) = ("bullets/slowbullet.png")
- [BULLET_CONFUSE](#) = ("bullets/confusebullet.png")
- [BULLET_STUNT](#) = ("bullets/stuntbullet.png")
- [BULLET_HOOK](#) = ("bullets/hookbullet.png")
- [BULLET_TELEPORT](#) = ("bullets/teleportbullet.png")
- [RICK](#) = ("rick.png")
- [TEST](#) = ("test.png")
- [POTION](#) = ("potion.png")
- [SMALLCUBE](#) = ("smallcube.png")
- [SMALLCUBEEX](#) = ("smallcubeexcited.png")
- [EFFECT_BURN](#) = ("effects/burn.png")
- [EFFECT_CONFUSE](#) = ("effects/confuse.png")
- [EFFECT_SLOW](#) = ("effects/slow.png")
- [EFFECT_STUNT](#) = ("effects/stunt.png")
- [PLAYER_RED](#) = ("players/TopRed.png")
- [PLAYER_RED_ICON](#) = ("players/Red.png")
- [PLAYER_BLUE](#) = ("players/TopBlue.png")
- [PLAYER_BLUE_ICON](#) = ("players/Blue.png")
- [PLAYER_GREEN](#) = ("players/TopGreen.png")
- [PLAYER_GREEN_ICON](#) = ("players/Green.png")
- [PLAYER_ORANGE](#) = ("players/TopOrange.png")
- [PLAYER_ORANGE_ICON](#) = ("players/Orange.png")
- [PLAYER_PURPLE](#) = ("players/TopPurple.png")
- [PLAYER_PURPLE_ICON](#) = ("players/Purple.png")
- [PLAYER_YELLOW](#) = ("players/TopYellow.png")
- [PLAYER_YELLOW_ICON](#) = ("players/Yellow.png")

Private Member Functions

- [DisplayType](#) (String [filename](#))

Private Attributes

- final String [filename](#)

5.31.1 Detailed Description

Represent textures available on the client.

5.31.2 Constructor & Destructor Documentation

5.31.2.1 DisplayType()

```
com.progmethgame.common.DisplayType.DisplayType (
    String filename ) [private]
```

Create new [DisplayType](#)

Parameters

<i>filename</i>	path to texture's file
-----------------	------------------------

5.31.3 Member Function Documentation

5.31.3.1 filename()

```
String com.progmethgame.common.DisplayType.filename ( )
```

Get texture's file path.

Returns

5.31.4 Member Data Documentation

5.31.4.1 BULLET_BURN

```
com.progmethgame.common.DisplayType.BULLET_BURN = ("bullets/burnbullet.png")
```

5.31.4.2 BULLET_CONFUSE

```
com.progmethgame.common.DisplayType.BULLET_CONFUSE = ("bullets/confusebullet.png")
```

5.31.4.3 BULLET_HOOK

```
com.progmethgame.common.DisplayType.BULLET_HOOK = ("bullets/hookbullet.png")
```

5.31.4.4 BULLET_SLOW

```
com.progmethgame.common.DisplayType.BULLET_SLOW = ("bullets/slowbullet.png")
```

5.31.4.5 BULLET_STUNT

```
com.progmethgame.common.DisplayType.BULLET_STUNT = ("bullets/stuntbullet.png")
```

5.31.4.6 BULLET_TELEPORT

```
com.progmethgame.common.DisplayType.BULLET_TELEPORT = ("bullets/teleportbullet.png")
```

5.31.4.7 EFFECT_BURN

```
com.progmethgame.common.DisplayType.EFFECT_BURN = ("effects/burn.png")
```

5.31.4.8 EFFECT_CONFUSE

```
com.progmethgame.common.DisplayType.EFFECT_CONFUSE = ("effects/confuse.png")
```

5.31.4.9 EFFECT_SLOW

```
com.progmethgame.common.DisplayType.EFFECT_SLOW = ("effects/slow.png")
```

5.31.4.10 EFFECT_STUNT

```
com.progmethgame.common.DisplayType.EFFECT_STUNT = ("effects/stunt.png")
```

5.31.4.11 filename

```
final String com.progmethgame.common.DisplayType.filename [private]
```

Location of the file associated with this [DisplayType](#)

5.31.4.12 PLAYER

```
com.progmethgame.common.DisplayType.PLAYER = ("player.png")
```

5.31.4.13 PLAYER_BLUE

```
com.progmethgame.common.DisplayType.PLAYER_BLUE = ("players/TopBlue.png")
```

5.31.4.14 PLAYER_BLUE_ICON

```
com.progmethgame.common.DisplayType.PLAYER_BLUE_ICON = ("players/Blue.png")
```

5.31.4.15 PLAYER_GREEN

```
com.progmethgame.common.DisplayType.PLAYER_GREEN = ("players/TopGreen.png")
```

5.31.4.16 PLAYER_GREEN_ICON

```
com.progmethgame.common.DisplayType.PLAYER_GREEN_ICON = ("players/Green.png")
```

5.31.4.17 PLAYER_ORANGE

```
com.progmethgame.common.DisplayType.PLAYER_ORANGE = ("players/TopOrange.png")
```

5.31.4.18 PLAYER_ORANGE_ICON

```
com.progmethgame.common.DisplayType.PLAYER_ORANGE_ICON = ("players/Orange.png")
```

5.31.4.19 PLAYER_PURPLE

```
com.progmethgame.common.DisplayType.PLAYER_PURPLE = ("players/TopPurple.png")
```

5.31.4.20 PLAYER_PURPLE_ICON

```
com.progmethgame.common.DisplayType.PLAYER_PURPLE_ICON = ("players/Purple.png")
```


5.31.4.21 PLAYER_RED

```
com.progmethgame.common.DisplayType.PLAYER_RED = ("players/TopRed.png")
```

5.31.4.22 PLAYER_RED_ICON

```
com.progmethgame.common.DisplayType.PLAYER_RED_ICON = ("players/Red.png")
```

5.31.4.23 PLAYER_YELLOW

```
com.progmethgame.common.DisplayType.PLAYER_YELLOW = ("players/TopYellow.png")
```

5.31.4.24 PLAYER_YELLOW_ICON

```
com.progmethgame.common.DisplayType.PLAYER_YELLOW_ICON = ("players/Yellow.png")
```

5.31.4.25 POTION

```
com.progmethgame.common.DisplayType.POTION = ("potion.png")
```

5.31.4.26 RICK

```
com.progmethgame.common.DisplayType.RICK = ("rick.png")
```

5.31.4.27 SMALLCUBE

```
com.progmethgame.common.DisplayType.SMALLCUBE = ("smallcube.png")
```

5.31.4.28 SMALLCUBEEX

```
com.progmethgame.common.DisplayType.SMALLCUBEEX = ("smallcubeexcited.png")
```

5.31.4.29 TEST

```
com.progmethgame.common.DisplayType.TEST = ("test.png")
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/DisplayType.java

5.32 com.progmethgame.server.entities.effects.EffectConfig Class Reference

Static Public Attributes

- static final int [BURN_MAX_DURATION](#) = 4
- static final int [BURN_DPS](#) = 2
- static final int [CONFUSE_MAX_DURATION](#) = 3
- static final int [SLOW_MAX_DURATION](#) = 5
- static final float [SLOW_RATE](#) = 0.5f
- static final int [STUNT_MAX_DURATION](#) = 1

5.32.1 Detailed Description

A class storing effect's config

5.32.2 Member Data Documentation

5.32.2.1 BURN_DPS

```
final int com.progmethgame.server.entities.effects.EffectConfig.BURN_DPS = 2 [static]
```

[Burn](#) damage per second

5.32.2.2 BURN_MAX_DURATION

```
final int com.progmethgame.server.entities.effects.EffectConfig.BURN_MAX_DURATION = 4 [static]
```

[Burn](#) duration

5.32.2.3 CONFUSE_MAX_DURATION

```
final int com.progmethgame.server.entities.effects.EffectConfig.CONFUSE_MAX_DURATION = 3 [static]
```

[Confuse](#) duration

Protected Attributes

- Vector2 [position](#)
- Vector2 [velocity](#)
- [DisplayType](#) [type](#)
- final UUID [gid](#)
- ArrayList< [Overlay](#) > [overlays](#)
- Vector2 [facingDirection](#)

5.33.1 Detailed Description

Represent a logical entity on the server

5.33.2 Constructor & Destructor Documentation

5.33.2.1 Entity() [1/2]

```
com.progmethgame.server.entities.Entity.Entity (
    UUID gid,
    DisplayType type )
```

Create a new entity with specified ID and type

Parameters

<i>gid</i>	
<i>type</i>	

5.33.2.2 Entity() [2/2]

```
com.progmethgame.server.entities.Entity.Entity (
    DisplayType type )
```

Create a new entity with specified type and a random id

Parameters

<i>type</i>	
-------------	--

5.33.3 Member Function Documentation

5.33.3.1 equals()

```
boolean com.progmethgame.server.entities.Entity.equals (
    Object obj )
```

5.33.3.2 getData()

```
EntityData com.progmethgame.server.entities.Entity.getData ( )
```

Parse the graphical rendering data for sending accross the network

Returns

EntityData

5.33.3.3 getGid()

```
UUID com.progmethgame.server.entities.Entity.getGid ( )
```

Get the entity's id

5.33.3.4 getPhysicalSize()

```
float com.progmethgame.server.entities.Entity.getPhysicalSize ( )
```

Return physical size for physic engine's [onCollide\(Entity\)](#) calculation.

Size in this case is the side length of the bounding square. The bounding box has the same center as the default bound.

Reimplemented in [com.progmethgame.server.entities.bullets.Bullet](#), and [com.progmethgame.server.entities.SmallTestEntity](#).

5.33.3.5 getPosition()

```
Vector2 com.progmethgame.server.entities.Entity.getPosition ( )
```

Get the position

5.33.3.6 getType()

```
DisplayType com.progmethgame.server.entities.Entity.getType ( )
```

Get the display type

5.33.3.7 getVelocity()

```
Vector2 com.progmethgame.server.entities.Entity.getVelocity ( )
```

Get the velocity

Returns

5.33.3.8 hashCode()

```
int com.progmethgame.server.entities.Entity.hashCode ( )
```

5.33.3.9 onCollide()

```
void com.progmethgame.server.entities.Entity.onCollide (
    Entity other )
```

Called when entity touched other.

Parameters

<i>other</i>	the touched entity
--------------	--------------------

Reimplemented in [com.progmethgame.server.entities.bullets.Bullet](#), and [com.progmethgame.server.entities.TestEntity](#).

5.33.3.10 onCollideSolid()

```
void com.progmethgame.server.entities.Entity.onCollideSolid (
    Block block )
```

Call when entity hit solid block

Parameters

<i>block</i>	the block that this entity collided with
--------------	--

Reimplemented in [com.progmethgame.server.entities.Player](#), and [com.progmethgame.server.entities.bullets.Bullet](#).

5.33.3.11 onWalkOn()

```
void com.progmethgame.server.entities.Entity.onWalkOn (
    Block block )
```

Called when walked on the block

Parameters

<i>block</i>	the block that got walked on
--------------	------------------------------

Reimplemented in [com.progmethgame.server.entities.Player](#).

5.33.3.12 setDisplay()

```
void com.progmethgame.server.entities.Entity.setDisplay (
    DisplayType t )
```

Change the display type

Parameters

<i>t</i>	
----------	--

5.33.3.13 tick()

```
void com.progmethgame.server.entities.Entity.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Implements [com.progmethgame.server.entities.Tickable](#).

Reimplemented in [com.progmethgame.server.entities.Player](#), [com.progmethgame.server.entities.bullets.Bullet](#), [com.progmethgame.server.entities.TestEntity](#), and [com.progmethgame.server.entities.SpinningEntity](#).

5.33.4 Member Data Documentation

5.33.4.1 facingDirection

`Vector2 com.progmethgame.server.entities.Entity.facingDirection` [protected]

Facing direction

5.33.4.2 gid

`final UUID com.progmethgame.server.entities.Entity.gid` [protected]

ID

5.33.4.3 overlays

`ArrayList<Overlay> com.progmethgame.server.entities.Entity.overlays` [protected]

Overlays attached

5.33.4.4 position

`Vector2 com.progmethgame.server.entities.Entity.position` [protected]

Position

5.33.4.5 type

`DisplayType com.progmethgame.server.entities.Entity.type` [protected]

Displayed type

5.33.4.6 velocity

`Vector2 com.progmethgame.server.entities.Entity.velocity` [protected]

Velocity

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/Entity.java` ↩

5.34 com.progmethgame.common.EntityData Class Reference

Public Attributes

- UUID `id`
- `DisplayType` `dispType`
- `Vector2` `position`
- `Vector2` `facingDirection`
- `ArrayList< Overlay >` `overlays`

5.34.1 Detailed Description

Data structure representing networked entity.

5.34.2 Member Data Documentation

5.34.2.1 dispType

`DisplayType` `com.progmethgame.common.EntityData.dispType`

5.34.2.2 facingDirection

`Vector2` `com.progmethgame.common.EntityData.facingDirection`

5.34.2.3 id

`UUID` `com.progmethgame.common.EntityData.id`

5.34.2.4 overlays

`ArrayList<Overlay>` `com.progmethgame.common.EntityData.overlays`

5.34.2.5 position

`Vector2` `com.progmethgame.common.EntityData.position`

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/Entity↔Data.java`

5.35 com.progmethgame.common.GameConfig Class Reference

Static Public Attributes

- static float [SERVER_TICK_RATE](#) = 1/30f
- static int [CLIENT_ENTITY_INTERPOLATION_TIME_MILLIS](#) = (int) ([SERVER_TICK_RATE](#) *1000)
- static int [SERVER_MAX_PACKET](#) = 20
- static float [AUDIO_VOLUME](#) = 0.50f
- static int [CLIENT_MAP_VIEWPORT_SIZE](#) = 20
- static String [MAP_FILEPATH](#) = "map/map.tmx"
- static int [SERVER_GAMEOVER_TIMER](#) = (int) (5/[SERVER_TICK_RATE](#))

5.35.1 Detailed Description

Game's configuration and constants.

5.35.2 Member Data Documentation

5.35.2.1 [AUDIO_VOLUME](#)

```
float com.progmethgame.common.GameConfig.AUDIO_VOLUME = 0.50f [static]
```

Music and Sound's volume

5.35.2.2 [CLIENT_ENTITY_INTERPOLATION_TIME_MILLIS](#)

```
int com.progmethgame.common.GameConfig.CLIENT_ENTITY_INTERPOLATION_TIME_MILLIS = (int) (SERVER\_TICK\_RATE *1000) [static]
```

Delay duration for entity interpolation

5.35.2.3 [CLIENT_MAP_VIEWPORT_SIZE](#)

```
int com.progmethgame.common.GameConfig.CLIENT_MAP_VIEWPORT_SIZE = 20 [static]
```

Width and Height of client's map viewport

5.35.2.4 [MAP_FILEPATH](#)

```
String com.progmethgame.common.GameConfig.MAP_FILEPATH = "map/map.tmx" [static]
```

Map file's location

5.35.2.5 SERVER_GAMEOVER_TIMER

```
int com.progmethgame.common.GameConfig.SERVER_GAMEOVER_TIMER = (int) (5/SERVER\_TICK\_RATE)  
[static]
```

5.35.2.6 SERVER_MAX_PACKET

```
int com.progmethgame.common.GameConfig.SERVER_MAX_PACKET = 20 [static]
```

Max event to send in a single packet

5.35.2.7 SERVER_TICK_RATE

```
float com.progmethgame.common.GameConfig.SERVER_TICK_RATE = 1/30f [static]
```

Server update rate (Hz)

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/GameConfig.java](#)

5.36 com.progmethgame.common.context.GameContext Class Reference

Static Public Member Functions

- static void [setServerContext](#) ([ServerContext](#) ctx)
- static void [setClientContext](#) ([ClientContext](#) ctx)
- static [ServerContext](#) [getServerContext](#) ()
- static [ClientContext](#) [getClientContext](#) ()

Private Member Functions

- [GameContext](#) ()

Static Private Attributes

- static [ServerContext](#) [serverCtx](#)
- static [ClientContext](#) [clientCtx](#)

5.36.1 Detailed Description

Store global game context ie. [ServerContext](#) and [ClientContext](#)

5.36.2 Constructor & Destructor Documentation

5.36.2.1 GameContext()

```
com.progmethgame.common.context.GameContext.GameContext ( ) [private]
```

5.36.3 Member Function Documentation

5.36.3.1 getClientContext()

```
static ClientContext com.progmethgame.common.context.GameContext.getClientContext ( ) [static]
```

Get current client context

Returns

5.36.3.2 getServerContext()

```
static ServerContext com.progmethgame.common.context.GameContext.getServerContext ( ) [static]
```

Get current server context

Returns

5.36.3.3 setClientContext()

```
static void com.progmethgame.common.context.GameContext.setClientContext (
    ClientContext ctx ) [static]
```

Set the global client context.

Parameters

<i>ctx</i>	
------------	--

5.36.3.4 setServerContext()

```
static void com.progmethgame.common.context.GameContext.setServerContext (
    ServerContext ctx ) [static]
```

Set the global server context.

Parameters

<i>ctx</i>	
------------	--

5.36.4 Member Data Documentation

5.36.4.1 clientCtx

```
ClientContext com.progmethgame.common.context.GameContext.clientCtx [static], [private]
```

Client context

5.36.4.2 serverCtx

```
ServerContext com.progmethgame.common.context.GameContext.serverCtx [static], [private]
```

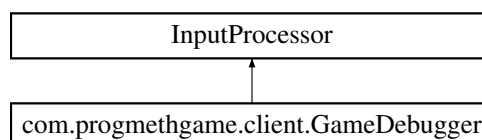
Server context

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/context/GameContext.java`

5.37 com.progmethgame.client.GameDebugger Class Reference

Inheritance diagram for com.progmethgame.client.GameDebugger:



Public Member Functions

- void [render](#) (Batch batch, Viewport hudViewport)
- boolean [keyDown](#) (int keycode)
- boolean [keyUp](#) (int keycode)
- boolean [keyTyped](#) (char character)
- boolean [touchDown](#) (int screenX, int screenY, int pointer, int button)
- boolean [touchUp](#) (int screenX, int screenY, int pointer, int button)
- boolean [touchDragged](#) (int screenX, int screenY, int pointer)
- boolean [mouseMoved](#) (int screenX, int screenY)
- boolean [scrolled](#) (int amount)

Private Member Functions

- void [sendDebug](#) ()

Private Attributes

- boolean [activated](#) = false
- String [command](#) = ""
- ArrayList< String > [history](#) = new ArrayList<String>()
- int [histPtr](#)

5.37.1 Detailed Description

Debugging Interface. Provides debugging command line's rendering, input, and networking component.

5.37.2 Member Function Documentation

5.37.2.1 [keyDown\(\)](#)

```
boolean com.progmethgame.client.GameDebugger.keyDown (  
    int keycode )
```

5.37.2.2 [keyTyped\(\)](#)

```
boolean com.progmethgame.client.GameDebugger.keyTyped (  
    char character )
```

5.37.2.3 keyUp()

```
boolean com.progmethgame.client.GameDebugger.keyUp (
    int keycode )
```

5.37.2.4 mouseMoved()

```
boolean com.progmethgame.client.GameDebugger.mouseMoved (
    int screenX,
    int screenY )
```

5.37.2.5 render()

```
void com.progmethgame.client.GameDebugger.render (
    Batch batch,
    Viewport hudViewport )
```

Render the debugger's UI

Parameters

<i>batch</i>	screen's batch
<i>hudViewport</i>	screen's viewport

5.37.2.6 scrolled()

```
boolean com.progmethgame.client.GameDebugger.scrolled (
    int amount )
```

5.37.2.7 sendDebug()

```
void com.progmethgame.client.GameDebugger.sendDebug ( ) [private]
```

Send current command to the server

5.37.2.8 touchDown()

```
boolean com.progmethgame.client.GameDebugger.touchDown (
    int screenX,
    int screenY,
    int pointer,
    int button )
```

5.37.2.9 touchDragged()

```
boolean com.progmethgame.client.GameDebugger.touchDragged (
    int screenX,
    int screenY,
    int pointer )
```

5.37.2.10 touchUp()

```
boolean com.progmethgame.client.GameDebugger.touchUp (
    int screenX,
    int screenY,
    int pointer,
    int button )
```

5.37.3 Member Data Documentation

5.37.3.1 activated

```
boolean com.progmethgame.client.GameDebugger.activated = false [private]
```

Debugger is activated by user?

5.37.3.2 command

```
String com.progmethgame.client.GameDebugger.command = "" [private]
```

Current command text field

5.37.3.3 history

```
ArrayList<String> com.progmethgame.client.GameDebugger.history = new ArrayList<String>()
[private]
```

Command history

5.37.3.4 histPtr

```
int com.progmethgame.client.GameDebugger.histPtr [private]
```

Index of command selected by the user relative to the rear

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/GameDebugger.java`

5.38 com.progmethgame.network.event.base.GameEvent< T > Class Template Reference

Public Member Functions

- abstract void [notifyListener](#) (T target)

5.38.1 Detailed Description

Game's network event

5.38.2 Member Function Documentation

5.38.2.1 notifyListener()

```
abstract void com.progmethgame.network.event.base.GameEvent< T >.notifyListener (
    T target ) [abstract]
```

Notify the listener of this event

Parameters

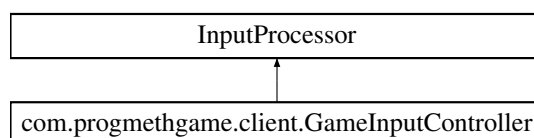
<i>target</i>	The listener who listen to this event.
---------------	--

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/base/GameEvent.java

5.39 com.progmethgame.client.GameInputController Class Reference

Inheritance diagram for com.progmethgame.client.GameInputController:



Public Member Functions

- [GameInputController](#) ()
- boolean [keyDown](#) (int keycode)
- boolean [keyUp](#) (int keycode)
- boolean [keyTyped](#) (char character)
- boolean [touchDown](#) (int screenX, int screenY, int pointer, int button)
- boolean [touchUp](#) (int screenX, int screenY, int pointer, int button)
- boolean [touchDragged](#) (int screenX, int screenY, int pointer)
- boolean [mouseMoved](#) (int screenX, int screenY)
- boolean [scrolled](#) (int amount)

Private Member Functions

- void [notifyMovement](#) ()

Private Attributes

- final Vector2 [movementVec](#)

5.39.1 Detailed Description

Game's input device processor

5.39.2 Constructor & Destructor Documentation

5.39.2.1 GameInputController()

```
com.progmethgame.client.GameInputController.GameInputController ( )
```

Initialize controller

5.39.3 Member Function Documentation

5.39.3.1 keyDown()

```
boolean com.progmethgame.client.GameInputController.keyDown (
    int keycode )
```

5.39.3.2 keyTyped()

```
boolean com.progmethgame.client.GameInputController.keyTyped (
    char character )
```

5.39.3.3 keyUp()

```
boolean com.progmethgame.client.GameInputController.keyUp (
    int keycode )
```

5.39.3.4 mouseMoved()

```
boolean com.progmethgame.client.GameInputController.mouseMoved (
    int screenX,
    int screenY )
```

5.39.3.5 notifyMovement()

```
void com.progmethgame.client.GameInputController.notifyMovement ( ) [private]
```

Notify direction vector changes to the server

5.39.3.6 scrolled()

```
boolean com.progmethgame.client.GameInputController.scrolled (
    int amount )
```

5.39.3.7 touchDown()

```
boolean com.progmethgame.client.GameInputController.touchDown (
    int screenX,
    int screenY,
    int pointer,
    int button )
```

5.39.3.8 touchDragged()

```
boolean com.progmethgame.client.GameInputController.touchDragged (
    int screenX,
    int screenY,
    int pointer )
```

5.39.3.9 touchUp()

```
boolean com.progmethgame.client.GameInputController.touchUp (
    int screenX,
    int screenY,
    int pointer,
    int button )
```

5.39.4 Member Data Documentation

5.39.4.1 movementVec

```
final Vector2 com.progmethgame.client.GameInputController.movementVec [private]
```

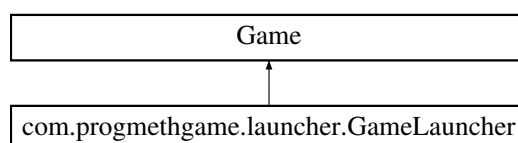
Player's movement direction vector

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/GameInputController.java

5.40 com.progmethgame.launcher.GameLauncher Class Reference

Inheritance diagram for com.progmethgame.launcher.GameLauncher:



Public Member Functions

- void [create](#) ()
- void [connect](#) (String ipaddr)
- void [displayStage](#) (Stage stage)
- void [displayMessage](#) (String message)
- void [displayMessageQuitable](#) (String message)
- void [displayError](#) (Throwable error)
- void [displayWelcomeScreen](#) ()
- void [dispose](#) ()

Static Public Member Functions

- static [GameLauncher](#) [getLauncher](#) ()

Private Member Functions

- void [cleanUpContext](#) ()

Private Attributes

- [StageScreen](#) [stageScreen](#)

Static Private Attributes

- static [GameLauncher](#) [launcher](#)

5.40.1 Detailed Description

Provides user interface for creation and termination of the game.

Note: There's only *one* launcher.

5.40.2 Member Function Documentation

5.40.2.1 [cleanUpContext\(\)](#)

```
void com.progmethgame.launcher.GameLauncher.cleanUpContext ( ) [private]
```

Cleanup all the context created.

5.40.2.2 [connect\(\)](#)

```
void com.progmethgame.launcher.GameLauncher.connect (
    String ipaddr )
```

Connect to the server and start the game

Parameters

<i>ipaddr</i>	IP address of the server. if null then local server will be started
---------------	---

5.40.2.3 create()

```
void com.progmethgame.launcher.GameLauncher.create ( )
```

5.40.2.4 displayError()

```
void com.progmethgame.launcher.GameLauncher.displayError (
    Throwable error )
```

Display error message

Parameters

<i>error</i>	
--------------	--

5.40.2.5 displayMessage()

```
void com.progmethgame.launcher.GameLauncher.displayMessage (
    String message )
```

Display message

Parameters

<i>message</i>	
----------------	--

5.40.2.6 displayMessageQuitable()

```
void com.progmethgame.launcher.GameLauncher.displayMessageQuitable (
    String message )
```

Display message with with a button to go back to the launcher screen

Parameters

<i>message</i>	
----------------	--

5.40.2.7 displayStage()

```
void com.progmethgame.launcher.GameLauncher.displayStage (
    Stage stage )
```

Display scene2d stage

5.40.2.8 displayWelcomeScreen()

```
void com.progmethgame.launcher.GameLauncher.displayWelcomeScreen ( )
```

Display connect screen

5.40.2.9 dispose()

```
void com.progmethgame.launcher.GameLauncher.dispose ( )
```

5.40.2.10 getLauncher()

```
static GameLauncher com.progmethgame.launcher.GameLauncher.getLauncher ( ) [static]
```

Get the global game launcher

5.40.3 Member Data Documentation**5.40.3.1 launcher**

```
GameLauncher com.progmethgame.launcher.GameLauncher.launcher [static], [private]
```

Global game launcher

5.40.3.2 stageScreen

`StageScreen` `com.progmethgame.launcher.GameLauncher.stageScreen` [private]

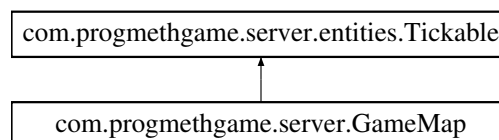
Current UI stage (if applied)

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/GameLauncher.java`

5.41 com.progmethgame.server.GameMap Class Reference

Inheritance diagram for `com.progmethgame.server.GameMap`:



Public Member Functions

- `GameMap ()` throws `ServerStartupError`
- `Block getBlock (int x, int y)`
- `void onPlayerEnter (Player player)`
- `int getWidth ()`
- `int getHeight ()`
- `void reset ()`
- `void tick (float delta)`
- `void checkWinCondition ()`

Private Member Functions

- `void parseMap ()` throws `MapParserException`

Private Attributes

- `int map [][]`
- `Block blocks [][]`
- `int mapWidth`
- `int mapHeight`
- `final Vector2[] spawnPoints = {new Vector2(2, 2), new Vector2(18, 18)}`
- `int spawnPointsIdx = 0`
- `int resetTimer = -1`

5.41.1 Detailed Description

Store map's state and managed entity's interaction with the map

5.41.2 Constructor & Destructor Documentation

5.41.2.1 GameMap()

```
com.progmethgame.server.GameMap.GameMap ( ) throws ServerStartupError
```

Read and initialize the map

Exceptions

ServerStartupError	
------------------------------------	--

5.41.3 Member Function Documentation

5.41.3.1 checkWinCondition()

```
void com.progmethgame.server.GameMap.checkWinCondition ( )
```

Check and handle win condition

5.41.3.2 getBlock()

```
Block com.progmethgame.server.GameMap.getBlock (
    int x,
    int y )
```

Retrieval the block at specified position

Parameters

<i>x</i>	
<i>y</i>	

Returns

Block at that location or null if there's no block there

5.41.3.3 getHeight()

```
int com.progmethgame.server.GameMap.getHeight ( )
```

Returns

Map's height

5.41.3.4 getWidth()

```
int com.progmethgame.server.GameMap.getWidth ( )
```

Returns

Map's width

5.41.3.5 onPlayerEnter()

```
void com.progmethgame.server.GameMap.onPlayerEnter (
    Player player )
```

Initialize the player's state

Parameters

<i>player</i>	
---------------	--

5.41.3.6 parseMap()

```
void com.progmethgame.server.GameMap.parseMap ( ) throws MapParserException [private]
```

Parse the map file into 2d block id array.

Exceptions

MapParserException	
------------------------------------	--

5.41.3.7 reset()

```
void com.progmethgame.server.GameMap.reset ( )
```

Reset the map

5.41.3.8 tick()

```
void com.progmethgame.server.GameMap.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Implements [com.progmethgame.server.entities.Tickable](#).

5.41.4 Member Data Documentation

5.41.4.1 blocks

```
Block com.progmethgame.server.GameMap.blocks[ ][ ] [private]
```

2d array of map's block object

5.41.4.2 map

```
int com.progmethgame.server.GameMap.map[ ][ ] [private]
```

2d array of map's block id

5.41.4.3 mapHeight

```
int com.progmethgame.server.GameMap.mapHeight [private]
```

height of the map

5.41.4.4 mapWidth

```
int com.progmethgame.server.GameMap.mapWidth [private]
```

width of the map

5.41.4.5 resetTimer

```
int com.progmethgame.server.GameMap.resetTimer = -1 [private]
```

Number of tick until the server reset itself

5.41.4.6 spawnPoints

```
final Vector2 [] com.progmethgame.server.GameMap.spawnPoints = {new Vector2(2, 2), new Vector2(18, 18)} [private]
```

List of available spawn location

5.41.4.7 spawnPointsIdx

```
int com.progmethgame.server.GameMap.spawnPointsIdx = 0 [private]
```

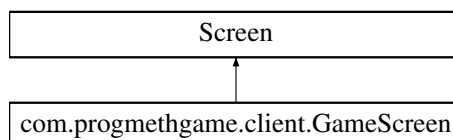
Index of the next spawn location

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/GameMap.java

5.42 com.progmethgame.client.GameScreen Class Reference

Inheritance diagram for com.progmethgame.client.GameScreen:



Public Member Functions

- [GameScreen](#) ()
- void [show](#) ()
- void [render](#) (float delta)
- void [resize](#) (int width, int height)
- void [pause](#) ()
- void [resume](#) ()
- void [hide](#) ()
- void [dispose](#) ()

Private Member Functions

- void [setupInput](#) ()

Private Attributes

- TiledMap [map](#)
- TiledMapRenderer [mapRenderer](#)
- OrthographicCamera [camera](#)
- Viewport [viewport](#)
- Batch [batch](#)
- Viewport [hudViewport](#)
- [GameDebugger](#) [debugger](#)

5.42.1 Detailed Description

Handle rendering of the game

5.42.2 Constructor & Destructor Documentation

5.42.2.1 GameScreen()

```
com.progmethgame.client.GameScreen.GameScreen ( )
```

5.42.3 Member Function Documentation

5.42.3.1 dispose()

```
void com.progmethgame.client.GameScreen.dispose ( )
```

5.42.3.2 hide()

```
void com.progmethgame.client.GameScreen.hide ( )
```

5.42.3.3 pause()

```
void com.progmethgame.client.GameScreen.pause ( )
```

5.42.3.4 render()

```
void com.progmethgame.client.GameScreen.render (
    float delta )
```

5.42.3.5 resize()

```
void com.progmethgame.client.GameScreen.resize (
    int width,
    int height )
```

5.42.3.6 resume()

```
void com.progmethgame.client.GameScreen.resume ( )
```

5.42.3.7 setupInput()

```
void com.progmethgame.client.GameScreen.setupInput ( ) [private]
```

Setup input controller

5.42.3.8 show()

```
void com.progmethgame.client.GameScreen.show ( )
```

5.42.4 Member Data Documentation

5.42.4.1 batch

```
Batch com.progmethgame.client.GameScreen.batch [private]
```

Rendering Batch

5.42.4.2 camera

```
OrthographicCamera com.progmethgame.client.GameScreen.camera [private]
```

Game's camera

5.42.4.3 debugger

`GameDebugger` `com.progmethgame.client.GameScreen.debugger` [private]

Debugger UI

5.42.4.4 hudViewport

`Viewport` `com.progmethgame.client.GameScreen.hudViewport` [private]

Screen's viewport

5.42.4.5 map

`TiledMap` `com.progmethgame.client.GameScreen.map` [private]

Game's map

5.42.4.6 mapRenderer

`TiledMapRenderer` `com.progmethgame.client.GameScreen.mapRenderer` [private]

Map's renderer

5.42.4.7 viewport

`Viewport` `com.progmethgame.client.GameScreen.viewport` [private]

Game's viewport

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/GameScreen.java`

5.43 com.progmethgame.server.entities.guns.Gun Class Reference

Inheritance diagram for `com.progmethgame.server.entities.guns.Gun`:



Public Member Functions

- [Gun](#) (String [name](#), float [maxCooldown](#), [Player](#) [owner](#))
- void [shoot](#) ()
- void [recharge](#) (float [tickRate](#))
- String [getName](#) ()
- [Bullet](#) [getBullet](#) ()
- String [getStatus](#) ()

Public Attributes

- String [name](#)

Protected Attributes

- [Bullet](#) [bullet](#)
- float [cooldown](#)
- float [maxCooldown](#)
- [Player](#) [owner](#)

5.43.1 Constructor & Destructor Documentation

5.43.1.1 Gun()

```
com.progmethgame.server.entities.guns.Gun.Gun (
    String name,
    float maxCooldown,
    Player owner )
```

5.43.2 Member Function Documentation

5.43.2.1 getBullet()

```
Bullet com.progmethgame.server.entities.guns.Gun.getBullet ( )
```

Bullet spawned

5.43.2.2 getName()

```
String com.progmethgame.server.entities.guns.Gun.getName ( )
```

Name of the gun

5.43.2.3 getStatus()

```
String com.progmethgame.server.entities.guns.Gun.getStatus ( )
```

Text displaying status of the gun

5.43.2.4 recharge()

```
void com.progmethgame.server.entities.guns.Gun.recharge (
    float tickRate )
```

Reduce cooldown count

5.43.2.5 shoot()

```
void com.progmethgame.server.entities.guns.Gun.shoot ( )
```

Spawn bullet from this gun

5.43.3 Member Data Documentation

5.43.3.1 bullet

```
Bullet com.progmethgame.server.entities.guns.Gun.bullet [protected]
```

Bullet expelled by this gun

5.43.3.2 cooldown

```
float com.progmethgame.server.entities.guns.Gun.cooldown [protected]
```

Gun's current cooldown interval

5.43.3.3 maxCooldown

```
float com.progmethgame.server.entities.guns.Gun.maxCooldown [protected]
```

Gun's cooldown interval

5.43.3.4 name

```
String com.progmethgame.server.entities.guns.Gun.name
```

Gun's name

5.43.3.5 owner

`Player` com.progmethgame.server.entities.guns.Gun.owner [protected]

`Player` who owned the gun

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/Gun.↵
java

5.44 com.progmethgame.server.entities.guns.GunConfig Class Reference

Static Public Attributes

- static float `BURN_GUN_MAX_COOLDOWN` = 0.3f
- static float `CONFUSE_GUN_MAX_COOLDOWN` = 0.5f
- static float `SLOW_GUN_MAX_COOLDOWN` = 1f
- static float `STUNT_GUN_MAX_COOLDOWN` = 2f
- static float `HOOK_GUN_MAX_COOLDOWN` = 3f
- static float `TELEPORT_GUN_MAX_COOLDOWN` = 0.2f

5.44.1 Detailed Description

`Gun`'s configuration constants

5.44.2 Member Data Documentation

5.44.2.1 BURN_GUN_MAX_COOLDOWN

float com.progmethgame.server.entities.guns.GunConfig.BURN_GUN_MAX_COOLDOWN = 0.3f [static]

cooldown for burn gun

5.44.2.2 CONFUSE_GUN_MAX_COOLDOWN

float com.progmethgame.server.entities.guns.GunConfig.CONFUSE_GUN_MAX_COOLDOWN = 0.5f [static]

cooldown for confuse gun

5.44.2.3 HOOK_GUN_MAX_COOLDOWN

`float com.progmethgame.server.entities.guns.GunConfig.HOOK_GUN_MAX_COOLDOWN = 3f [static]`
 cooldown for hook gun

5.44.2.4 SLOW_GUN_MAX_COOLDOWN

`float com.progmethgame.server.entities.guns.GunConfig.SLOW_GUN_MAX_COOLDOWN = 1f [static]`
 cooldown for slow gun

5.44.2.5 STUNT_GUN_MAX_COOLDOWN

`float com.progmethgame.server.entities.guns.GunConfig.STUNT_GUN_MAX_COOLDOWN = 2f [static]`
 cooldown for stunt gun

5.44.2.6 TELEPORT_GUN_MAX_COOLDOWN

`float com.progmethgame.server.entities.guns.GunConfig.TELEPORT_GUN_MAX_COOLDOWN = 0.2f [static]`
 cooldown for teleport gun

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/GunConfig.java`

5.45 com.progmethgame.client.graphic.component.Healthbar Class Reference

Static Public Member Functions

- static void [render](#) (Batch batch, int x, int y, int width, int height, float health, String healthtex, String healthfilltex)

5.45.1 Detailed Description

Utility for drawing health bar

5.45.2 Member Function Documentation

5.45.2.1 render()

```
static void com.progmethgame.client.graphic.component.Healthbar.render (
    Batch batch,
    int x,
    int y,
    int width,
    int height,
    float health,
    String healthtex,
    String healthfilltex ) [static]
```

Render the health bar

Parameters

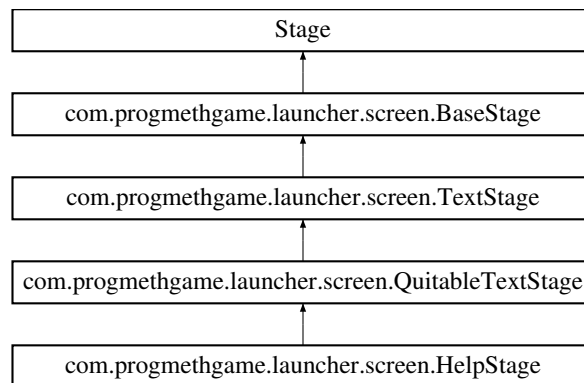
<i>batch</i>	Screen batch
<i>x</i>	
<i>y</i>	
<i>width</i>	
<i>height</i>	
<i>health</i>	Value between 0 and 1 indicating health
<i>healthtex</i>	Path to empty healthbar's texture
<i>healthfilltex</i>	Path to full healthbar's texture

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/graphic/component/Healthbar.java

5.46 com.progmethgame.launcher.screen.HelpStage Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.HelpStage:



Public Member Functions

- [HelpStage](#) ()

Static Public Attributes

- static final String [HELPTTEXT](#)

Additional Inherited Members

5.46.1 Detailed Description

Display Help information

Author

pigt

5.46.2 Constructor & Destructor Documentation

5.46.2.1 HelpStage()

```
com.progmethgame.launcher.screen.HelpStage.HelpStage ( )
```

5.46.3 Member Data Documentation

5.46.3.1 HELPTTEXT

```
final String com.progmethgame.launcher.screen.HelpStage.HELPTTEXT [static]
```

Initial value:

```
= "WASD to move"
  + "\nE to change weapon"
  + "\nSPACE to shoot"
  + "\n See game manual for more information."
```

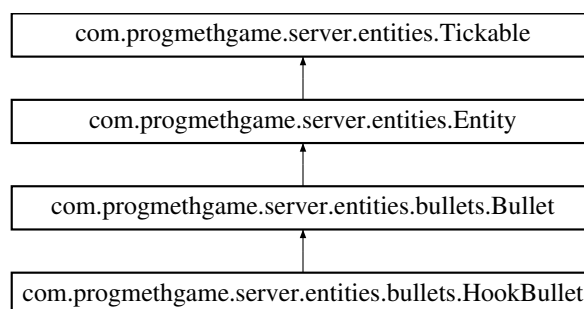
Help Information

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/HelpStage.java

5.47 com.progmethgame.server.entities.bullets.HookBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.HookBullet:



Public Member Functions

- [HookBullet](#) (Player owner)
- void [onCollide](#) (Player hitPlayer)
- [Bullet cpy](#) ()

Static Public Attributes

- static final float [hookSpeed](#) = [BulletConfig.HOOK_SPEED](#)

Additional Inherited Members

5.47.1 Constructor & Destructor Documentation

5.47.1.1 HookBullet()

```
com.progmethgame.server.entities.bullets.HookBullet.HookBullet (
    Player owner )
```

5.47.2 Member Function Documentation

5.47.2.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.HookBullet.cpy ( )
```

Duplicate this bullet

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.47.2.2 onCollide()

```
void com.progmethgame.server.entities.bullets.HookBullet.onCollide (
    Player hitPlayer )
```

Called when the bullet collide a player

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.47.3 Member Data Documentation

5.47.3.1 hookSpeed

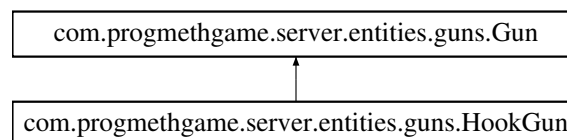
```
final float com.progmethgame.server.entities.bullets.HookBullet.hookSpeed = BulletConfig.HOOK_SPEED  
[static]
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/HookBullet.java](#)

5.48 com.progmethgame.server.entities.guns.HookGun Class Reference

Inheritance diagram for com.progmethgame.server.entities.guns.HookGun:



Public Member Functions

- [HookGun](#) ([Player owner](#))

Additional Inherited Members

5.48.1 Detailed Description

[Gun](#) that spawn hook bullet

5.48.2 Constructor & Destructor Documentation

5.48.2.1 HookGun()

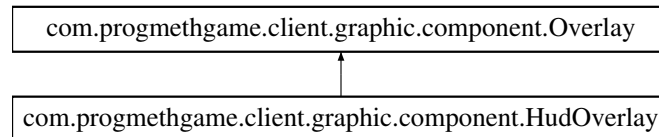
```
com.progmethgame.server.entities.guns.HookGun.HookGun (  
    Player owner )
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/HookGun.java](#)

5.49 com.progmethgame.client.graphic.component.HudOverlay Class Reference

Inheritance diagram for com.progmethgame.client.graphic.component.HudOverlay:



Public Member Functions

- [HudOverlay](#) ()
- void [render](#) (Viewport view, Batch batch, Rectangle rect, [ClientEntity](#) target)
- void [setHealth](#) (float health)
- void [setWeaponName](#) (String weaponName)
- void [setGunIcon](#) (DisplayType gunIcon)
- void [setPlayerIcon](#) (DisplayType playerIcon)

Private Attributes

- float health
- String weaponName
- DisplayType gunIcon
- DisplayType playerIcon

5.49.1 Detailed Description

HUD for displaying player's status

5.49.2 Constructor & Destructor Documentation

5.49.2.1 HudOverlay()

```
com.progmethgame.client.graphic.component.HudOverlay.HudOverlay ( )
```

5.49.3 Member Function Documentation

5.49.3.1 render()

```
void com.progmethgame.client.graphic.component.HudOverlay.render (
    Viewport view,
    Batch batch,
    Rectangle rect,
    ClientEntity target )
```

Render this overlay

Parameters

<i>view</i>	Screen's viewport
<i>batch</i>	Screen's batch
<i>rect</i>	The entity's bounding box in screen space.
<i>target</i>	The owner of this overlay

Reimplemented from [com.progmethgame.client.graphic.component.Overlay](#).

5.49.3.2 setGunIcon()

```
void com.progmethgame.client.graphic.component.HudOverlay.setGunIcon (
    DisplayType gunIcon )
```

5.49.3.3 setHealth()

```
void com.progmethgame.client.graphic.component.HudOverlay.setHealth (
    float health )
```

5.49.3.4 setPlayerIcon()

```
void com.progmethgame.client.graphic.component.HudOverlay.setPlayerIcon (
    DisplayType playerIcon )
```

5.49.3.5 setWeaponName()

```
void com.progmethgame.client.graphic.component.HudOverlay.setWeaponName (
    String weaponName )
```

5.49.4 Member Data Documentation**5.49.4.1 gunIcon**

[DisplayType](#) com.progmethgame.client.graphic.component.HudOverlay.gunIcon [private]

Current gun's icon

5.49.4.2 health

```
float com.progmethgame.client.graphic.component.HudOverlay.health [private]
```

Current health portion

5.49.4.3 playerIcon

```
DisplayType com.progmethgame.client.graphic.component.HudOverlay.playerIcon [private]
```

Current player's icon

5.49.4.4 weaponName

```
String com.progmethgame.client.graphic.component.HudOverlay.weaponName [private]
```

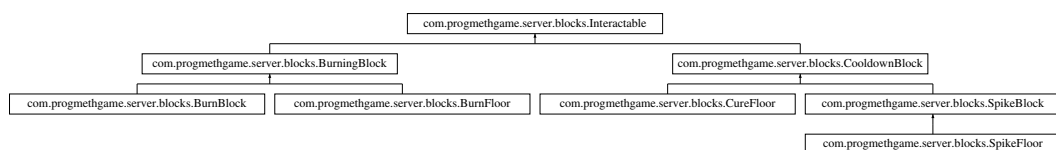
Weapon's name

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/graphic/component/HudOverlay.java

5.50 com.progmethgame.server.blocks.Interactable Interface Reference

Inheritance diagram for com.progmethgame.server.blocks.Interactable:



Public Member Functions

- void [interact](#) ([Player](#) p)

5.50.1 Detailed Description

[Block](#) that can interact with a player

Author

pigt

5.50.2 Member Function Documentation

5.50.2.1 interact()

```
void com.progmethgame.server.blocks.Interactable.interact (
    Player p )
```

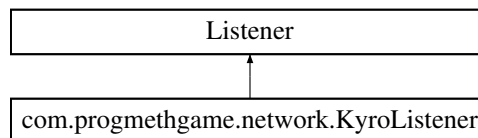
Implemented in [com.progmethgame.server.blocks.CooldownBlock](#), and [com.progmethgame.server.blocks.BurningBlock](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/Interactable.java](#)

5.51 com.progmethgame.network.KyroListener Class Reference

Inheritance diagram for com.progmethgame.network.KyroListener:



Public Member Functions

- [KyroListener](#) (Queue< [ClientEvent](#) > [queue](#), Map< Connection, UUID > [con](#))
- void [connected](#) (Connection connection)
- void [received](#) (Connection connection, Object object)
- void [disconnected](#) (Connection connection)

Private Attributes

- final Queue< [ClientEvent](#) > [queue](#)
- final Map< Connection, UUID > [con](#)

5.51.1 Detailed Description

Custom KyroNet listener for the server bus

5.51.2 Constructor & Destructor Documentation

5.51.2.1 KyroListener()

```
com.progmethgame.network.KyroListener.KyroListener (
    Queue< ClientEvent > queue,
    Map< Connection, UUID > con )
```

Create new listener which push message to the queue and register client connection to the con

Queue is assume to be thread-safe con will always be lock when there's an operation

Parameters

<i>queue</i>	client message storage queue
<i>con</i>	client UUID mapping storage

5.51.3 Member Function Documentation

5.51.3.1 connected()

```
void com.progmethgame.network.KyroListener.connected (
    Connection connection )
```

5.51.3.2 disconnected()

```
void com.progmethgame.network.KyroListener.disconnected (
    Connection connection )
```

5.51.3.3 received()

```
void com.progmethgame.network.KyroListener.received (
    Connection connection,
    Object object )
```

5.51.4 Member Data Documentation

5.51.4.1 con

```
final Map<Connection, UUID> com.progmethgame.network.KyroListener.con [private]
```

Client connection UUID mapping

5.51.4.2 queue

```
final Queue<ClientEvent> com.progmethgame.network.KyroListener.queue [private]
```

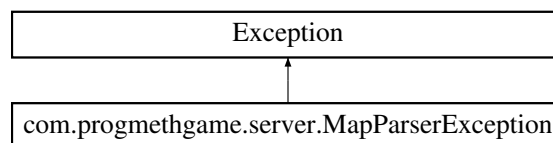
Queue of message received

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/Server↔Bus.java

5.52 com.progmethgame.server.MapParserException Class Reference

Inheritance diagram for com.progmethgame.server.MapParserException:



Public Member Functions

- [MapParserException](#) (String message)
- [MapParserException](#) (String message, Throwable e)

Static Private Attributes

- static final long [serialVersionUID](#) = -644306957292892482L

5.52.1 Detailed Description

the Map is malformed or not found

5.52.2 Constructor & Destructor Documentation

5.52.2.1 MapParserException() [1/2]

```
com.progmethgame.server.MapParserException.MapParserException (
    String message )
```

5.52.2.2 MapParserException() [2/2]

```
com.progmethgame.server.MapParserException.MapParserException (
    String message,
    Throwable e )
```

5.52.3 Member Data Documentation

5.52.3.1 serialVersionUID

```
final long com.progmethgame.server.MapParserException.serialVersionUID = -644306957292892482L
[static], [private]
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/MapParserException.java

5.53 com.progmethgame.network.NetworkPacket< T > Class Template Reference

Public Member Functions

- [NetworkPacket](#) ()

Public Attributes

- [ArrayList](#)< T > [eventsList](#)

5.53.1 Constructor & Destructor Documentation

5.53.1.1 NetworkPacket()

```
com.progmethgame.network.NetworkPacket< T >.NetworkPacket ( )
```

5.53.2 Member Data Documentation

5.53.2.1 eventsList

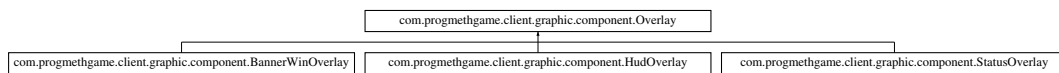
```
ArrayList<T> com.progmethgame.network.NetworkPacket< T >.eventsList
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/NetworkPacket.java

5.54 com.progmethgame.client.graphic.component.Overlay Class Reference

Inheritance diagram for com.progmethgame.client.graphic.component.Overlay:



Public Member Functions

- abstract void [render](#) (Viewport view, Batch batch, Rectangle rect, [ClientEntity](#) target)

5.54.1 Detailed Description

A data structure representing a graphical widget attached to an entity.

It renders on top of the game in the screen space. This is a synchronized data structure. Don't put any context or state data here.

5.54.2 Member Function Documentation

5.54.2.1 render()

```
abstract void com.progmethgame.client.graphic.component.Overlay.render (
    Viewport view,
    Batch batch,
    Rectangle rect,
    ClientEntity target ) [abstract]
```

Render this overlay

Parameters

<i>view</i>	Screen's viewport
<i>batch</i>	Screen's batch
<i>rect</i>	The entity's bounding box in screen space.
<i>target</i>	The owner of this overlay

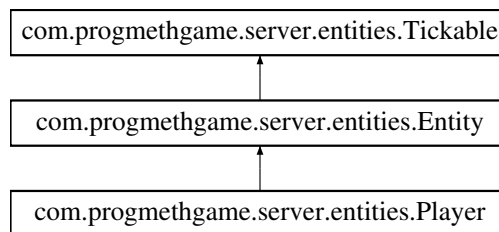
Reimplemented in [com.progmethgame.client.graphic.component.HudOverlay](#), [com.progmethgame.client.graphic.component.BannerOverlay](#) and [com.progmethgame.client.graphic.component.StatusOverlay](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/graphic/component/Overlay.java`

5.55 com.progmethgame.server.entities.Player Class Reference

Inheritance diagram for com.progmethgame.server.entities.Player:



Classes

- enum [Color](#)

Public Member Functions

- [Player](#) (UUID [gid](#))
- void [setColor](#) ([Color](#) c)
- void [setMovable](#) (boolean [movable](#))
- void [setConfuse](#) (boolean [confuse](#))
- float [getSpeed](#) ()
- void [setSpeed](#) (float [speed](#))
- int [getDps](#) ()
- void [setDps](#) (int [dps](#))
- [StatusEffect](#) [getEffect](#) ()
- void [setEffect](#) ([StatusEffect](#) effect)
- int [dealDamage](#) (int damage)
- void [tick](#) (float delta)
- void [setWalkDirection](#) ([Vector2](#) dir)
- [Vector2](#) [getFaceDirection](#) ()
- boolean [isAlive](#) ()
- void [fire](#) ()
- void [swapGun](#) ()
- void [onWalkOn](#) ([Block](#) block)
- void [onCollideSolid](#) ([Block](#) block)

Package Attributes

- [HudOverlay](#) hud
- [StatusOverlay](#) healthOv

Private Attributes

- boolean [alive](#)
- int [dps](#)
- int [hp](#)
- [StatusEffect](#) [effect](#)
- int [tickCount](#)
- [Gun](#)[] [gunSlot](#)
- [Gun](#) [holdedGun](#)
- int [gunIndex](#)
- float [speed](#)
- [Vector2](#) [walkDirection](#)
- boolean [movable](#)
- boolean [confuse](#)
- boolean [shootable](#)

Additional Inherited Members

5.55.1 Detailed Description

Game player

5.55.2 Constructor & Destructor Documentation

5.55.2.1 Player()

```
com.progmethgame.server.entities.Player.Player (
    UUID gid )
```

5.55.3 Member Function Documentation

5.55.3.1 dealDamge()

```
int com.progmethgame.server.entities.Player.dealDamge (
    int damage )
```

deal damage to player

Parameters

<i>damage</i>	
---------------	--

Returns

amount of damage that deal to player

5.55.3.2 fire()

```
void com.progmethgame.server.entities.Player.fire ( )
```

shoot gun

5.55.3.3 getDps()

```
int com.progmethgame.server.entities.Player.getDps ( )
```

get player damage per second

Returns**5.55.3.4 getEffect()**

```
StatusEffect com.progmethgame.server.entities.Player.getEffect ( )
```

Returns

player's status effect

5.55.3.5 getFaceDirection()

```
Vector2 com.progmethgame.server.entities.Player.getFaceDirection ( )
```

Returns

player's face direction

5.55.3.6 `getSpeed()`

```
float com.progmethgame.server.entities.Player.getSpeed ( )
```

Returns

player's speed

5.55.3.7 `isAlive()`

```
boolean com.progmethgame.server.entities.Player.isAlive ( )
```

Returns

alive

5.55.3.8 `onCollideSolid()`

```
void com.progmethgame.server.entities.Player.onCollideSolid (
    Block block )
```

Call when entity hit solid block

Parameters

<i>block</i>	the block that this entity collided with
--------------	--

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.55.3.9 `onWalkOn()`

```
void com.progmethgame.server.entities.Player.onWalkOn (
    Block block )
```

Called when walked on the block

Parameters

<i>block</i>	the block that got walked on
--------------	------------------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.55.3.10 setColor()

```
void com.progmethgame.server.entities.Player.setColor (
    Color c )
```

set color of player

Parameters

<i>color</i>	
--------------	--

5.55.3.11 setConfuse()

```
void com.progmethgame.server.entities.Player.setConfuse (
    boolean confuse )
```

set player confuse status

Parameters

<i>confuse</i>	
----------------	--

5.55.3.12 setDps()

```
void com.progmethgame.server.entities.Player.setDps (
    int dps )
```

set damage per second

Parameters

<i>damage</i>	per second
---------------	------------

5.55.3.13 setEffect()

```
void com.progmethgame.server.entities.Player.setEffect (
    StatusEffect effect )
```

set player's effect

Parameters

<i>effect</i>	
---------------	--

5.55.3.14 setMovable()

```
void com.progmethgame.server.entities.Player.setMovable (
    boolean movable )
```

set player movable status

Parameters

<i>movable</i>	
----------------	--

5.55.3.15 setSpeed()

```
void com.progmethgame.server.entities.Player.setSpeed (
    float speed )
```

set player speed

Parameters

<i>speed</i>	
--------------	--

5.55.3.16 setWalkDirection()

```
void com.progmethgame.server.entities.Player.setWalkDirection (
    Vector2 dir )
```

set player walk direction

Parameters

<i>dir</i>	
------------	--

5.55.3.17 swapGun()

```
void com.progmethgame.server.entities.Player.swapGun ( )
```

swap player's holded gun

5.55.3.18 tick()

```
void com.progmethgame.server.entities.Player.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.55.4 Member Data Documentation

5.55.4.1 alive

```
boolean com.progmethgame.server.entities.Player.alive [private]
```

Status if the player is alive

5.55.4.2 confuse

```
boolean com.progmethgame.server.entities.Player.confuse [private]
```

Status if player confuse

5.55.4.3 dps

```
int com.progmethgame.server.entities.Player.dps [private]
```

Damage dealing to player per second

5.55.4.4 effect

```
StatusEffect com.progmethgame.server.entities.Player.effect [private]
```

Effect that affect player

5.55.4.5 gunIndex

```
int com.progmethgame.server.entities.Player.gunIndex [private]
```

Index of the gun that player is holding

5.55.4.6 gunSlot

```
Gun [] com.progmethgame.server.entities.Player.gunSlot [private]
```

Gun Slot for player

5.55.4.7 healthOv

```
StatusOverlay com.progmethgame.server.entities.Player.healthOv [package]
```

health bar on player

5.55.4.8 holdedGun

```
Gun com.progmethgame.server.entities.Player.holdedGun [private]
```

The gun that player is holding

5.55.4.9 hp

```
int com.progmethgame.server.entities.Player.hp [private]
```

Health point

5.55.4.10 hud

```
HudOverlay com.progmethgame.server.entities.Player.hud [package]
```

HUD for [Player](#)

5.55.4.11 movable

```
boolean com.progmethgame.server.entities.Player.movable [private]
```

Status if player can move

5.55.4.12 shootable

```
boolean com.progmethgame.server.entities.Player.shootable [private]
```

Status if player can shoot

5.55.4.13 speed

```
float com.progmethgame.server.entities.Player.speed [private]
```

Speed of move

5.55.4.14 tickCount

```
int com.progmethgame.server.entities.Player.tickCount [private]
```

integer for tick method

5.55.4.15 walkDirection

```
Vector2 com.progmethgame.server.entities.Player.walkDirection [private]
```

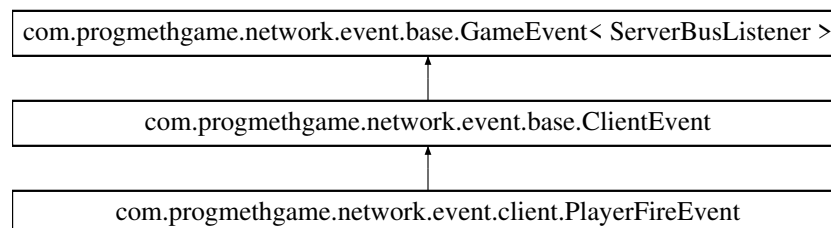
Walk direction

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/Player.↔
java

5.56 com.progmethgame.network.event.client.PlayerFireEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.client.PlayerFireEvent:

**Public Member Functions**

- void [notifyListener](#) ([ServerBusListener](#) target)

Additional Inherited Members**5.56.1 Detailed Description**

Client press fire button

5.56.2 Member Function Documentation

5.56.2.1 notifyListener()

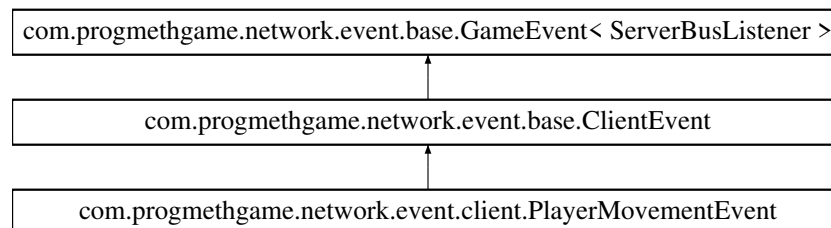
```
void com.progmethgame.network.event.client.PlayerFireEvent.notifyListener (
    ServerBusListener target )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/PlayerFireEvent.java

5.57 com.progmethgame.network.event.client.PlayerMovementEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.client.PlayerMovementEvent:



Public Member Functions

- [PlayerMovementEvent](#) (Vector2 [movementVec](#))
- void [notifyListener](#) ([ServerBusListener](#) target)

Private Member Functions

- [PlayerMovementEvent](#) ()

Private Attributes

- Vector2 [movementVec](#)

Additional Inherited Members

5.57.1 Detailed Description

Movement vector update

5.57.2 Constructor & Destructor Documentation

5.57.2.1 PlayerMovementEvent() [1/2]

```
com.progmethgame.network.event.client.PlayerMovementEvent.PlayerMovementEvent ( ) [private]
```

5.57.2.2 PlayerMovementEvent() [2/2]

```
com.progmethgame.network.event.client.PlayerMovementEvent.PlayerMovementEvent (
    Vector2 movementVec )
```

5.57.3 Member Function Documentation

5.57.3.1 notifyListener()

```
void com.progmethgame.network.event.client.PlayerMovementEvent.notifyListener (
    ServerBusListener target )
```

5.57.4 Member Data Documentation

5.57.4.1 movementVec

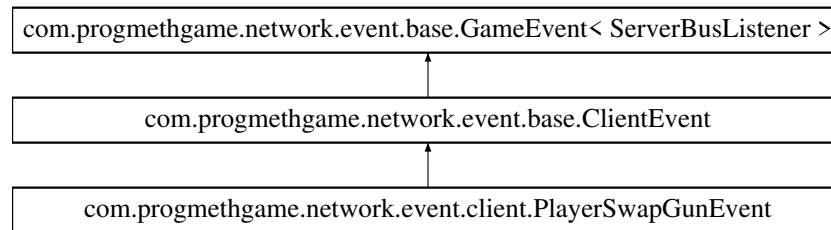
```
Vector2 com.progmethgame.network.event.client.PlayerMovementEvent.movementVec [private]
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/PlayerMovementEvent.java

5.58 com.progmethgame.network.event.client.PlayerSwapGunEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.client.PlayerSwapGunEvent:



Public Member Functions

- void [notifyListener](#) ([ServerBusListener](#) target)

Additional Inherited Members

5.58.1 Detailed Description

Player request gun swap

5.58.2 Member Function Documentation

5.58.2.1 notifyListener()

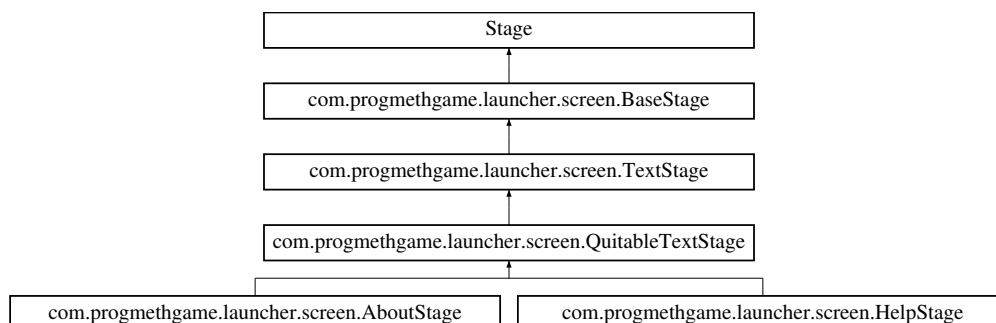
```
void com.progmethgame.network.event.client.PlayerSwapGunEvent.notifyListener (
    ServerBusListener target )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/client/PlayerSwapGunEvent.java

5.59 com.progmethgame.launcher.screen.QuitableTextStage Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.QuitableTextStage:



Public Member Functions

- [QuitableViewStage](#) (String text)

Additional Inherited Members

5.59.1 Detailed Description

Display a message with quit button

Author

pigt

5.59.2 Constructor & Destructor Documentation

5.59.2.1 QuitableViewStage()

```
com.progmethgame.launcher.screen.QuitableViewStage.QuitableViewStage (
    String text )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/QuitableViewStage.java

5.60 com.progmethgame.network.SerializationUtil Class Reference

Static Public Member Functions

- static void [registerKryo](#) (Kryo k)

5.60.1 Detailed Description

Utility class for configuring a kryo serializer.

Author

pigt

5.60.2 Member Function Documentation

5.60.2.1 registerKryo()

```
static void com.progmethgame.network.SerializationUtil.registerKryo (
    Kryo k ) [static]
```

Set up kryo serializer

Parameters

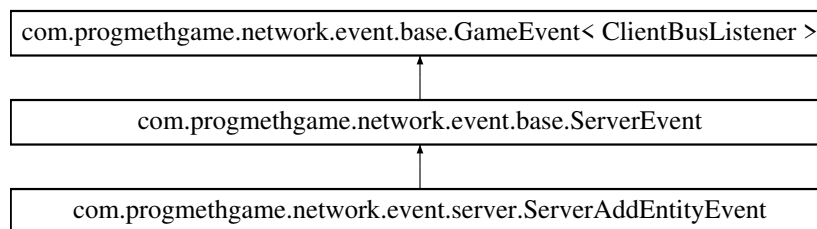
<i>k</i>	kyro
----------	------

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/SerializationUtil.java](#)

5.61 com.progmethgame.network.event.server.ServerAddEntityEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.server.ServerAddEntityEvent:



Public Member Functions

- [ServerAddEntityEvent](#) ([EntityData](#) data)
- void [notifyListener](#) ([ClientBusListener](#) target)

Private Member Functions

- [ServerAddEntityEvent](#) ()

Private Attributes

- [EntityData](#) data

5.61.1 Detailed Description

Server added an entity

5.61.2 Constructor & Destructor Documentation

5.61.2.1 ServerAddEntityEvent() [1/2]

```
com.progmethgame.network.event.server.ServerAddEntityEvent.ServerAddEntityEvent (
    EntityData data )
```

5.61.2.2 ServerAddEntityEvent() [2/2]

```
com.progmethgame.network.event.server.ServerAddEntityEvent.ServerAddEntityEvent ( ) [private]
```

5.61.3 Member Function Documentation**5.61.3.1 notifyListener()**

```
void com.progmethgame.network.event.server.ServerAddEntityEvent.notifyListener (
    ClientBusListener target )
```

5.61.4 Member Data Documentation**5.61.4.1 data**

```
EntityData com.progmethgame.network.event.server.ServerAddEntityEvent.data [private]
```

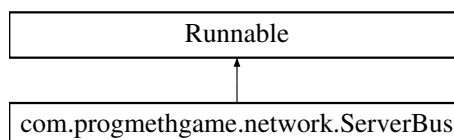
data of the added entity

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerAddEntityEvent.java

5.62 com.progmethgame.network.ServerBus Class Reference

Inheritance diagram for com.progmethgame.network.ServerBus:



Public Member Functions

- [ServerBus](#) ([ServerBusListener](#) listener) throws IOException
- void [terminate](#) ()
- void [run](#) ()
- void [sendEvent](#) (UUID clientId, [ServerEvent](#) event)
- List< UUID > [getConnectionUUIDs](#) ()

Private Member Functions

- void [processInputEvent](#) ()
- void [processOutputEvent](#) ()
- void [log](#) (String m)

Private Attributes

- volatile boolean [running](#)
- final Server [kryoServer](#)
- final ConcurrentLinkedQueue< [ClientEvent](#) > [inputEventQueue](#)
- final ArrayList< [ServerEventBroadcast](#) > [outputEventQueue](#)
- final HashMap< Connection, UUID > [clientConnections](#)
- final [ServerBusListener](#) listener
- final [Ticker](#) ticker

5.62.1 Detailed Description

Server's communication bus.

Provides communication (event source and event bus) to multiple clients. event should be handled by this bus's thread.

5.62.2 Constructor & Destructor Documentation

5.62.2.1 ServerBus()

```
com.progmethgame.network.ServerBus.ServerBus (
    ServerBusListener listener ) throws IOException
```

Initialize and spin-off a separate server bus thread

Parameters

<i>listener</i>	Event Listener
-----------------	----------------

Exceptions

<i>IOException</i>	
--------------------	--

5.62.3 Member Function Documentation

5.62.3.1 getConnectionUUIDs()

```
List<UUID> com.progmethgame.network.ServerBus.getConnectionUUIDs ( )
```

Get all client's uuid connected to the server

Returns

5.62.3.2 log()

```
void com.progmethgame.network.ServerBus.log (
    String m ) [private]
```

Log message to stderr

Parameters

<i>m</i>	message
----------	---------

5.62.3.3 processInputEvent()

```
void com.progmethgame.network.ServerBus.processInputEvent ( ) [private]
```

Process event received from the clients

5.62.3.4 processOutputEvent()

```
void com.progmethgame.network.ServerBus.processOutputEvent ( ) [private]
```

Send event from the server

5.62.3.5 run()

```
void com.progmethgame.network.ServerBus.run ( )
```

5.62.3.6 sendEvent()

```
void com.progmethgame.network.ServerBus.sendEvent (
    UUID clientId,
    ServerEvent event )
```

Send a server event to the client(s).

Parameters

<i>clientId</i>	Target client (if clientId == null then all clients will received the event)
<i>event</i>	

5.62.3.7 terminate()

```
void com.progmethgame.network.ServerBus.terminate ( )
```

Stop the bus's thread and cleanup all the resources.

5.62.4 Member Data Documentation

5.62.4.1 clientConnections

```
final HashMap<Connection, UUID> com.progmethgame.network.ServerBus.clientConnections [private]
```

Map from Kryo connection to UUID

5.62.4.2 inputEventQueue

```
final ConcurrentLinkedQueue<ClientEvent> com.progmethgame.network.ServerBus.inputEventQueue
[private]
```

Client's event waiting to be processed

5.62.4.3 kryoServer

```
final Server com.progmethgame.network.ServerBus.kryoServer [private]
```

Kryonet server

5.62.4.4 listener

```
final ServerBusListener com.progmethgame.network.ServerBus.listener [private]
```

ServerBus's event listener

5.62.4.5 outputEventQueue

```
final ArrayList<ServerEventBroadcast> com.progmethgame.network.ServerBus.outputEventQueue  
[private]
```

Server's event waiting to be send

5.62.4.6 running

```
volatile boolean com.progmethgame.network.ServerBus.running [private]
```

Server is running

5.62.4.7 ticker

```
final Ticker com.progmethgame.network.ServerBus.ticker [private]
```

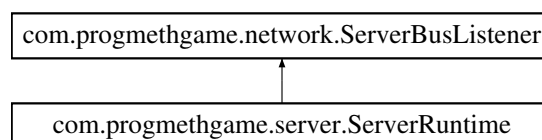
Server Tick rate governor

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/ServerBus.java

5.63 com.progmethgame.network.ServerBusListener Interface Reference

Inheritance diagram for com.progmethgame.network.ServerBusListener:



Public Member Functions

- void [onTick](#) (float delta)
- void [onClientJoin](#) (UUID id)
- void [onClientDisconnect](#) (UUID id)
- void [onPlayerMove](#) (UUID id, Vector2 direction)
- void [onPlayerFire](#) (UUID id)
- void [onDebug](#) (UUID id, String debugMsg)
- void [onPlayerSwapGun](#) (UUID id)

5.63.1 Detailed Description

Event listener for the server bus

5.63.2 Member Function Documentation

5.63.2.1 [onClientDisconnect\(\)](#)

```
void com.progmethgame.network.ServerBusListener.onClientDisconnect (
    UUID id )
```

Client disconnected from the server

Parameters

<i>id</i>	client's id
-----------	-------------

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.2 [onClientJoin\(\)](#)

```
void com.progmethgame.network.ServerBusListener.onClientJoin (
    UUID id )
```

Client connected to the server

Parameters

<i>id</i>	client's id
-----------	-------------

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.3 onDebug()

```
void com.progmethgame.network.ServerBusListener.onDebug (
    UUID id,
    String debugMsg )
```

Client issue debug command to the server

Parameters

<i>id</i>	client's id
<i>debugMsg</i>	debug command

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.4 onPlayerFire()

```
void com.progmethgame.network.ServerBusListener.onPlayerFire (
    UUID id )
```

Client request gun fire action.

Parameters

<i>id</i>	client's id
-----------	-------------

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.5 onPlayerMove()

```
void com.progmethgame.network.ServerBusListener.onPlayerMove (
    UUID id,
    Vector2 direction )
```

Client's controller request vector changes.

Parameters

<i>id</i>	client's id
<i>direction</i>	new movement vector

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.6 onPlayerSwapGun()

```
void com.progmethgame.network.ServerBusListener.onPlayerSwapGun (
    UUID id )
```

Client request gun change.

Parameters

<i>id</i>	client's id
-----------	-------------

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.63.2.7 onTick()

```
void com.progmethgame.network.ServerBusListener.onTick (
    float delta )
```

Bus finished processing the event.

Parameters

<i>delta</i>	time since last onTick
--------------	------------------------

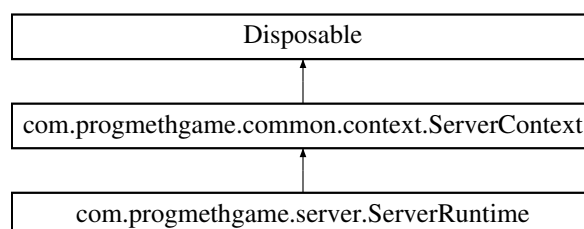
Implemented in [com.progmethgame.server.ServerRuntime](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/ServerBusListener.java](#)

5.64 com.progmethgame.common.context.ServerContext Interface Reference

Inheritance diagram for com.progmethgame.common.context.ServerContext:



Public Member Functions

- void [addEntity](#) ([Entity](#) e)
- void [removeEntity](#) ([Entity](#) e)
- void [playSound](#) ([SoundType](#) s)
- void [reset](#) ()
- Map< UUID, [Player](#) > [getPlayers](#) ()

5.64.1 Detailed Description

Provides methods for interacting with server runtime

5.64.2 Member Function Documentation

5.64.2.1 addEntity()

```
void com.progmethgame.common.context.ServerContext.addEntity (  
    Entity e )
```

Add new entity

Parameters

<i>e</i>	Entity to be added
----------	--------------------

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.64.2.2 getPlayers()

```
Map<UUID, Player> com.progmethgame.common.context.ServerContext.getPlayers ( )
```

Get all players

Returns

Map of UUID to Player

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.64.2.3 playSound()

```
void com.progmethgame.common.context.ServerContext.playSound (  
    SoundType s )
```

Play sound effect on all clients

Parameters

<i>s</i>	
----------	--

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.64.2.4 removeEntity()

```
void com.progmethgame.common.context.ServerContext.removeEntity (
    Entity e )
```

Remove the entity

Parameters

<i>e</i>	
----------	--

Implemented in [com.progmethgame.server.ServerRuntime](#).

5.64.2.5 reset()

```
void com.progmethgame.common.context.ServerContext.reset ( )
```

Reset and start a new game

Implemented in [com.progmethgame.server.ServerRuntime](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/context/ServerContext.java](#)

5.65 com.progmethgame.network.event.base.ServerEvent Class Reference

Inheritance diagram for [com.progmethgame.network.event.base.ServerEvent](#):



Additional Inherited Members

5.65.1 Detailed Description

Event emitted from a game server.

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/base/ServerEvent.java

5.66 com.progmethgame.network.ServerEventBroadcast Class Reference

Public Member Functions

- [ServerEventBroadcast](#) (UUID [target](#), [ServerEvent](#) [event](#))

Package Attributes

- UUID [target](#)
- [ServerEvent](#) [event](#)

5.66.1 Detailed Description

Data structure for storing server event sending request

Author

pigt

5.66.2 Constructor & Destructor Documentation

5.66.2.1 ServerEventBroadcast()

```
com.progmethgame.network.ServerEventBroadcast.ServerEventBroadcast (
    UUID target,
    ServerEvent event )
```

Create new broadcast to target with event

5.66.3 Member Data Documentation

5.66.3.1 event

`ServerEvent` `com.progmethgame.network.ServerEventBroadcast.event` [package]

The event

5.66.3.2 target

`UUID` `com.progmethgame.network.ServerEventBroadcast.target` [package]

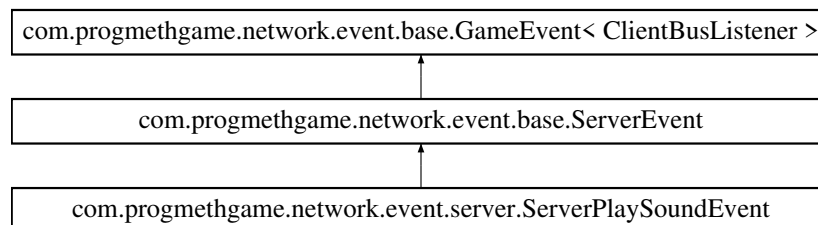
Target client. null if ALL clients

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/ServerBus.java`

5.67 com.progmethgame.network.event.server.ServerPlaySoundEvent Class Reference

Inheritance diagram for `com.progmethgame.network.event.server.ServerPlaySoundEvent`:



Public Member Functions

- `ServerPlaySoundEvent` (`SoundType` s)
- `void notifyListener` (`ClientBusListener` target)

Private Member Functions

- `ServerPlaySoundEvent` ()

Private Attributes

- `SoundType` sound

5.67.1 Detailed Description

Request client to play a sound

5.67.2 Constructor & Destructor Documentation

5.67.2.1 ServerPlaySoundEvent() [1/2]

```
com.progmethgame.network.event.server.ServerPlaySoundEvent.ServerPlaySoundEvent ( ) [private]
```

5.67.2.2 ServerPlaySoundEvent() [2/2]

```
com.progmethgame.network.event.server.ServerPlaySoundEvent.ServerPlaySoundEvent (
    SoundType s )
```

Create new event to play the specified sound

Parameters

s	sound to play
---	---------------

5.67.3 Member Function Documentation

5.67.3.1 notifyListener()

```
void com.progmethgame.network.event.server.ServerPlaySoundEvent.notifyListener (
    ClientBusListener target )
```

5.67.4 Member Data Documentation

5.67.4.1 sound

```
SoundType com.progmethgame.network.event.server.ServerPlaySoundEvent.sound [private]
```

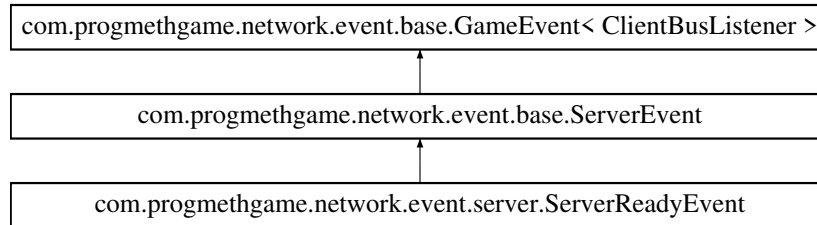
Sound requested

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerPlaySoundEvent.java

5.68 com.progmethgame.network.event.server.ServerReadyEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.server.ServerReadyEvent:



Public Member Functions

- [ServerReadyEvent](#) (UUID [assignedId](#))
- void [notifyListener](#) ([ClientBusListener](#) target)

Public Attributes

- UUID [assignedId](#)

Private Member Functions

- [ServerReadyEvent](#) ()

5.68.1 Detailed Description

Signal that client should display the game now

Author

pigt

5.68.2 Constructor & Destructor Documentation

5.68.2.1 ServerReadyEvent() [1/2]

```
com.progmethgame.network.event.server.ServerReadyEvent.ServerReadyEvent ( ) [private]
```

5.68.2.2 ServerReadyEvent() [2/2]

```
com.progmethgame.network.event.server.ServerReadyEvent.ServerReadyEvent (
    UUID assignedId )
```

5.68.3 Member Function Documentation

5.68.3.1 notifyListener()

```
void com.progmethgame.network.event.server.ServerReadyEvent.notifyListener (
    ClientBusListener target )
```

5.68.4 Member Data Documentation

5.68.4.1 assignedId

```
UUID com.progmethgame.network.event.server.ServerReadyEvent.assignedId
```

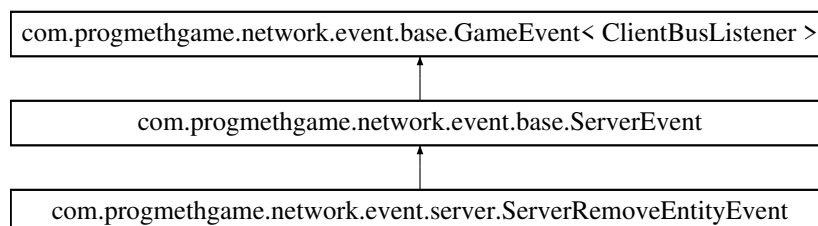
ID that the server assigned to this client

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerReadyEvent.java

5.69 com.progmethgame.network.event.server.ServerRemoveEntityEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.server.ServerRemoveEntityEvent:



Public Member Functions

- [ServerRemoveEntityEvent](#) (UUID [entityId](#))
- void [notifyListener](#) ([ClientBusListener](#) target)

Private Member Functions

- [ServerRemoveEntityEvent](#) ()

Private Attributes

- UUID [entityId](#)

5.69.1 Detailed Description

Server remove an entity

5.69.2 Constructor & Destructor Documentation

5.69.2.1 [ServerRemoveEntityEvent](#)() [1/2]

```
com.progmethgame.network.event.server.ServerRemoveEntityEvent.ServerRemoveEntityEvent ( )  
[private]
```

5.69.2.2 [ServerRemoveEntityEvent](#)() [2/2]

```
com.progmethgame.network.event.server.ServerRemoveEntityEvent.ServerRemoveEntityEvent (   
    UUID entityId )
```

5.69.3 Member Function Documentation

5.69.3.1 [notifyListener](#)()

```
void com.progmethgame.network.event.server.ServerRemoveEntityEvent.notifyListener (   
    ClientBusListener target )
```

5.69.4 Member Data Documentation

5.69.4.1 entityId

UUID com.progmethgame.network.event.server.ServerRemoveEntityEvent.entityId [private]

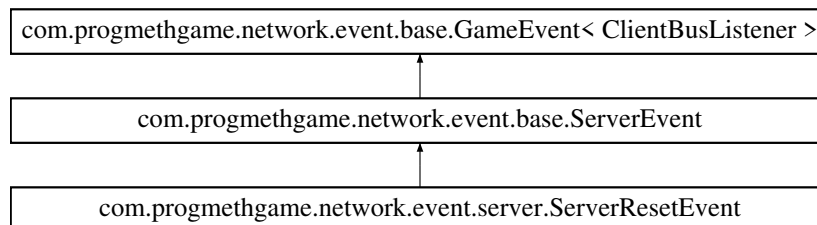
ID of the entity removed

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerRemoveEntityEvent.java

5.70 com.progmethgame.network.event.server.ServerResetEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.server.ServerResetEvent:



Public Member Functions

- void [notifyListener](#) ([ClientBusListener](#) target)

5.70.1 Detailed Description

Server request client to reset its world state

5.70.2 Member Function Documentation

5.70.2.1 notifyListener()

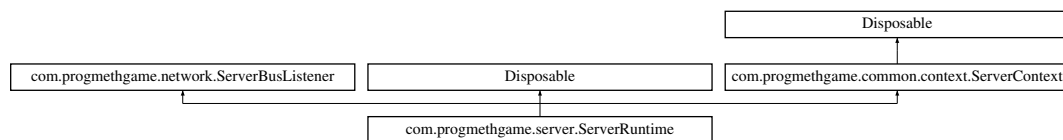
```
void com.progmethgame.network.event.server.ServerResetEvent.notifyListener (
    ClientBusListener target )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerResetEvent.java

5.71 com.progmethgame.server.ServerRuntime Class Reference

Inheritance diagram for com.progmethgame.server.ServerRuntime:



Public Member Functions

- [ServerRuntime](#) () throws `ServerStartupError`
- void [addEntity](#) ([Entity](#) e)
- void [removeEntity](#) ([Entity](#) e)
- void [onTick](#) (float delta)
- void [onClientJoin](#) (UUID id)
- void [onClientDisconnect](#) (UUID id)
- void [onPlayerMove](#) (UUID id, `Vector2` direction)
- void [dispose](#) ()
- void [onPlayerFire](#) (UUID id)
- void [onDebug](#) (UUID id, `String` debugMsg)
- void [onPlayerSwapGun](#) (UUID id)
- void [playSound](#) ([SoundType](#) s)
- void [reset](#) ()
- `Map< UUID, Player >` [getPlayers](#) ()

Package Attributes

- [ServerBus](#) bus
- Random [rand](#)

Private Member Functions

- void [simulatePhysic](#) (float delta)

Private Attributes

- [GameMap](#) map
- [HashMap](#)< [UUID](#), [Entity](#) > entities
- [HashMap](#)< [UUID](#), [Player](#) > players
- final [Queue](#)< [Entity](#) > entitiesAddQueue
- final [Queue](#)< [Entity](#) > entitiesRemovalQueue

5.71.1 Detailed Description

Manage the game state.

This class processes the client's event, manage the entities, calculate the physic.

5.71.2 Constructor & Destructor Documentation

5.71.2.1 ServerRuntime()

`com.progmethgame.server.ServerRuntime.ServerRuntime ()` throws [ServerStartupError](#)

Create a server and aquire the port

Exceptions

ServerStartupError	
------------------------------------	--

5.71.3 Member Function Documentation

5.71.3.1 addEntity()

```
void com.progmethgame.server.ServerRuntime.addEntity (  
    Entity e )
```

Add new entity

Parameters

e	Entity to be added
---	--------------------

Implements [com.progmethgame.common.context.ServerContext](#).

5.71.3.2 dispose()

```
void com.progmethgame.server.ServerRuntime.dispose ( )
```

5.71.3.3 getPlayers()

```
Map<UUID, Player> com.progmethgame.server.ServerRuntime.getPlayers ( )
```

Get all players

Returns

Map of UUID to Player

Implements [com.progmethgame.common.context.ServerContext](#).

5.71.3.4 onClientDisconnect()

```
void com.progmethgame.server.ServerRuntime.onClientDisconnect (
    UUID id )
```

Client disconnected from the server

Parameters

<i>id</i>	client's id
-----------	-------------

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.5 onClientJoin()

```
void com.progmethgame.server.ServerRuntime.onClientJoin (
    UUID id )
```

Client connected to the server

Parameters

<i>id</i>	client's id
-----------	-------------

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.6 onDebug()

```
void com.progmethgame.server.ServerRuntime.onDebug (
    UUID id,
    String debugMsg )
```

Client issue debug command to the server

Parameters

<i>id</i>	client's id
<i>debugMsg</i>	debug command

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.7 onPlayerFire()

```
void com.progmethgame.server.ServerRuntime.onPlayerFire (
    UUID id )
```

Client request gun fire action.

Parameters

<i>id</i>	client's id
-----------	-------------

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.8 onPlayerMove()

```
void com.progmethgame.server.ServerRuntime.onPlayerMove (
    UUID id,
    Vector2 direction )
```

Client's controller request vector changes.

Parameters

<i>id</i>	client's id
<i>direction</i>	new movement vector

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.9 onPlayerSwapGun()

```
void com.progmethgame.server.ServerRuntime.onPlayerSwapGun (
    UUID id )
```

Client request gun change.

Parameters

<i>id</i>	client's id
-----------	-------------

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.10 onTick()

```
void com.progmethgame.server.ServerRuntime.onTick (
    float delta )
```

Bus finished processing the event.

Parameters

<i>delta</i>	time since last onTick
--------------	------------------------

Implements [com.progmethgame.network.ServerBusListener](#).

5.71.3.11 playSound()

```
void com.progmethgame.server.ServerRuntime.playSound (
    SoundType s )
```

Play sound effect on all clients

Parameters

<i>s</i>	
----------	--

Implements [com.progmethgame.common.context.ServerContext](#).

5.71.3.12 removeEntity()

```
void com.progmethgame.server.ServerRuntime.removeEntity (
    Entity e )
```

Remove the entity

Parameters

<i>e</i>	
----------	--

Implements [com.progmethgame.common.context.ServerContext](#).

5.71.3.13 reset()

```
void com.progmethgame.server.ServerRuntime.reset ( )
```

Reset and start a new game

Implements [com.progmethgame.common.context.ServerContext](#).

5.71.3.14 simulatePhysic()

```
void com.progmethgame.server.ServerRuntime.simulatePhysic (
    float delta ) [private]
```

Perform physic simulation on entities

Parameters

<i>delta</i>	time-step
--------------	-----------

5.71.4 Member Data Documentation**5.71.4.1 bus**

```
ServerBus com.progmethgame.server.ServerRuntime.bus [package]
```

Communication bus

5.71.4.2 entities

```
HashMap<UUID, Entity> com.progmethgame.server.ServerRuntime.entities [private]
```

List of entities

5.71.4.3 entitiesAddQueue

```
final Queue<Entity> com.progmethgame.server.ServerRuntime.entitiesAddQueue [private]
```

Queue for entities to be added

5.71.4.4 entitiesRemovalQueue

```
final Queue<Entity> com.progmethgame.server.ServerRuntime.entitiesRemovalQueue [private]
```

Queue for entities to be removed

5.71.4.5 map

```
GameMap com.progmethgame.server.ServerRuntime.map [private]
```

Current game's map

5.71.4.6 players

```
HashMap<UUID, Player> com.progmethgame.server.ServerRuntime.players [private]
```

List of players

5.71.4.7 rand

```
Random com.progmethgame.server.ServerRuntime.rand [package]
```

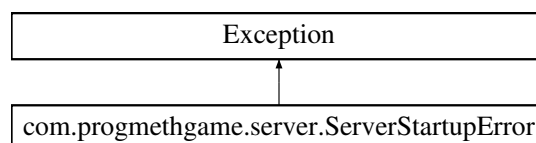
Random number generator

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/ServerRuntime.java↵

5.72 com.progmethgame.server.ServerStartupError Class Reference

Inheritance diagram for com.progmethgame.server.ServerStartupError:



Public Member Functions

- [ServerStartupError](#) (String message, Throwable error)

Static Private Attributes

- static final long [serialVersionUID](#) = -1353788442300311372L

5.72.1 Detailed Description

Fatal error during the startup of the server

5.72.2 Constructor & Destructor Documentation

5.72.2.1 ServerStartupError()

```
com.progmethgame.server.ServerStartupError.ServerStartupError (
    String message,
    Throwable error )
```

Create an startup error

Parameters

<i>message</i>	Causes
<i>error</i>	Reason

5.72.3 Member Data Documentation

5.72.3.1 serialVersionUID

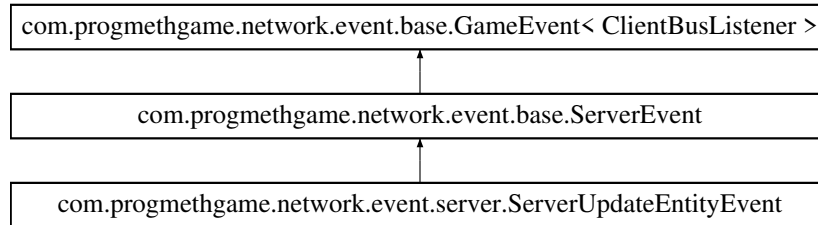
```
final long com.progmethgame.server.ServerStartupError.serialVersionUID = -1353788442300311372L
[static], [private]
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/ServerStartupError.java

5.73 com.progmethgame.network.event.server.ServerUpdateEntityEvent Class Reference

Inheritance diagram for com.progmethgame.network.event.server.ServerUpdateEntityEvent:



Public Member Functions

- [ServerUpdateEntityEvent](#) ([EntityData](#) data)
- void [notifyListener](#) ([ClientBusListener](#) target)

Private Member Functions

- [ServerUpdateEntityEvent](#) ()

Private Attributes

- [EntityData](#) data

5.73.1 Detailed Description

Entity's data got updated

Author

pigt

5.73.2 Constructor & Destructor Documentation

5.73.2.1 ServerUpdateEntityEvent() [1/2]

```
com.progmethgame.network.event.server.ServerUpdateEntityEvent.ServerUpdateEntityEvent ( )
[private]
```


5.73.2.2 ServerUpdateEntityEvent() [2/2]

```
com.progmethgame.network.event.server.ServerUpdateEntityEvent.ServerUpdateEntityEvent (
    EntityData data )
```

5.73.3 Member Function Documentation

5.73.3.1 notifyListener()

```
void com.progmethgame.network.event.server.ServerUpdateEntityEvent.notifyListener (
    ClientBusListener target )
```

5.73.4 Member Data Documentation

5.73.4.1 data

```
EntityData com.progmethgame.network.event.server.ServerUpdateEntityEvent.data [private]
```

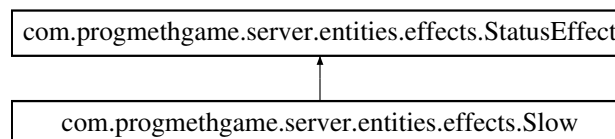
Updated data

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/event/server/ServerUpdateEntityEvent.java

5.74 com.progmethgame.server.entities.effects.Slow Class Reference

Inheritance diagram for com.progmethgame.server.entities.effects.Slow:



Public Member Functions

- [Slow](#) ()
- void [getEffect](#) ([Player](#) p)
- void [removeEffect](#) ([Player](#) p)
- [Slow cpy](#) ()

Static Package Attributes

- static final float [slowrate](#) = [EffectConfig.SLOW_RATE](#)

Additional Inherited Members

5.74.1 Detailed Description

Effect that slow down the play's walk speed

5.74.2 Constructor & Destructor Documentation

5.74.2.1 Slow()

```
com.progmethgame.server.entities.effects.Slow.Slow ( )
```

5.74.3 Member Function Documentation

5.74.3.1 cpy()

```
Slow com.progmethgame.server.entities.effects.Slow.cpy ( )
```

Clone this effect

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.74.3.2 getEffect()

```
void com.progmethgame.server.entities.effects.Slow.getEffect (
    Player p )
```

Apply effect to the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.74.3.3 removeEffect()

```
void com.progmethgame.server.entities.effects.Slow.removeEffect (
    Player p )
```

Remove effect from the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.74.4 Member Data Documentation

5.74.4.1 slowrate

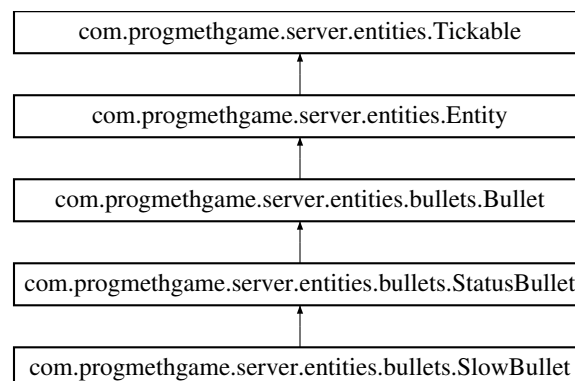
```
final float com.progmethgame.server.entities.effects.Slow.slowrate = EffectConfig.SLOW_RATE
[static], [package]
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/effects/Slow.java](#)

5.75 com.progmethgame.server.entities.bullets.SlowBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.SlowBullet:



Public Member Functions

- [SlowBullet \(Player owner\)](#)
- [Bullet cpy \(\)](#)

Additional Inherited Members

5.75.1 Constructor & Destructor Documentation

5.75.1.1 SlowBullet()

```
com.progmethgame.server.entities.bullets.SlowBullet.SlowBullet (
    Player owner )
```

5.75.2 Member Function Documentation

5.75.2.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.SlowBullet.cpy ( )
```

Duplicate this bullet

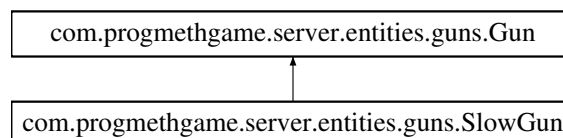
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/SlowBullet.java](#)

5.76 com.progmethgame.server.entities.guns.SlowGun Class Reference

Inheritance diagram for com.progmethgame.server.entities.guns.SlowGun:



Public Member Functions

- [SlowGun](#) ([Player](#) owner)

Additional Inherited Members

5.76.1 Detailed Description

[Gun](#) that spawn slow bullet

5.76.2 Constructor & Destructor Documentation

5.76.2.1 SlowGun()

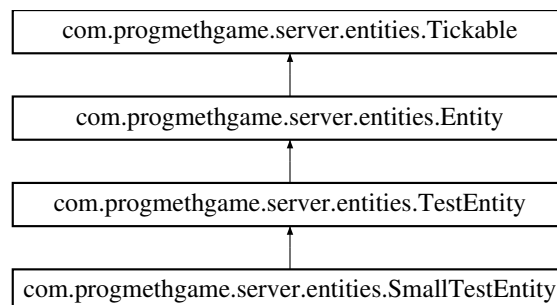
```
com.progmethgame.server.entities.guns.SlowGun.SlowGun (
    Player owner )
```

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/SlowGun.java`

5.77 `com.progmethgame.server.entities.SmallTestEntity` Class Reference

Inheritance diagram for `com.progmethgame.server.entities.SmallTestEntity`:



Public Member Functions

- `SmallTestEntity ()`
- `float getPhysicalSize ()`

Additional Inherited Members

5.77.1 Constructor & Destructor Documentation

5.77.1.1 SmallTestEntity()

```
com.progmethgame.server.entities.SmallTestEntity.SmallTestEntity ( )
```

5.77.2 Member Function Documentation

5.77.2.1 getPhysicalSize()

```
float com.progmethgame.server.entities.SmallTestEntity.getPhysicalSize ( )
```

Return physical size for physic engine's [onCollide\(Entity\)](#) calculation.

Size in this case is the side length of the bounding square. The bounding box has the same center as the default bound.

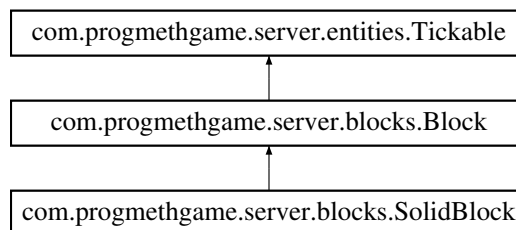
Reimplemented from [com.progmethgame.server.entities.Entity](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/SmallTestEntity.java](#)

5.78 com.progmethgame.server.blocks.SolidBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.SolidBlock:



Public Member Functions

- boolean [isSolid](#) ()

5.78.1 Detailed Description

A block that is solid

Author

pigt

5.78.2 Member Function Documentation

5.78.2.1 isSolid()

```
boolean com.progmethgame.server.blocks.SolidBlock.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

Reimplemented from [com.progmethgame.server.blocks.Block](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/SolidBlock.java](#)

5.79 com.progmethgame.common.SoundType Enum Reference

Public Member Functions

- String [getFilepath](#) ()

Public Attributes

- [PEW](#) =("pew.wav")
- [END](#) =("end.ogg")

Private Member Functions

- [SoundType](#) (String [filename](#))

Private Attributes

- String [filename](#)

5.79.1 Detailed Description

Sound effect available on the client

5.79.2 Constructor & Destructor Documentation

5.79.2.1 SoundType()

```
com.progmethgame.common.SoundType.SoundType (
    String filename ) [private]
```

Create new sound with given file

5.79.3 Member Function Documentation

5.79.3.1 getFilepath()

```
String com.progmethgame.common.SoundType.getFilepath ( )
```

Get this sound's file path

5.79.4 Member Data Documentation

5.79.4.1 END

```
com.progmethgame.common.SoundType.END = ("end.ogg")
```

5.79.4.2 filename

```
String com.progmethgame.common.SoundType.filename [private]
```

File path to the sound

5.79.4.3 PEW

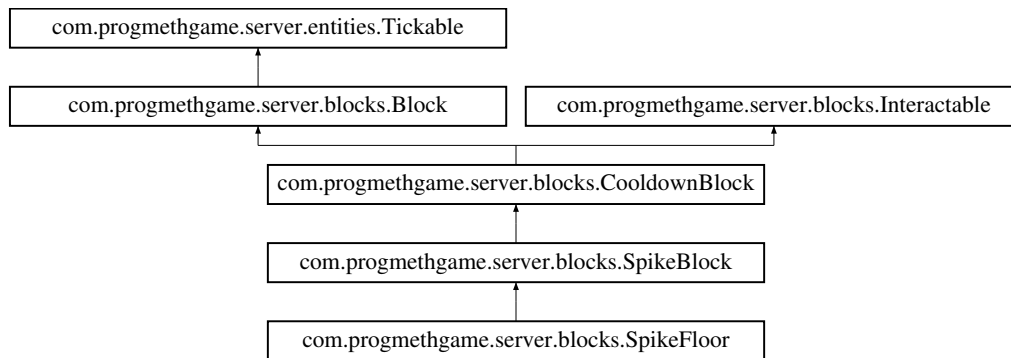
```
com.progmethgame.common.SoundType.PEW = ("pew.wav")
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/common/SoundType.java

5.80 com.progmethgame.server.blocks.SpikeBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.SpikeBlock:



Public Member Functions

- [SpikeBlock](#) ()
- boolean [isSolid](#) ()

Protected Member Functions

- void [applyEffect](#) ([Player](#) p)

Protected Attributes

- int [damage](#) = 7

Additional Inherited Members

5.80.1 Detailed Description

A block that damage the player when touched

Author

pigt

5.80.2 Constructor & Destructor Documentation

5.80.2.1 SpikeBlock()

```
com.progmethgame.server.blocks.SpikeBlock.SpikeBlock ( )
```

5.80.3 Member Function Documentation

5.80.3.1 applyEffect()

```
void com.progmethgame.server.blocks.SpikeBlock.applyEffect (
    Player p ) [protected]
```

Reimplemented from [com.progmethgame.server.blocks.CooldownBlock](#).

5.80.3.2 isSolid()

```
boolean com.progmethgame.server.blocks.SpikeBlock.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

Reimplemented from [com.progmethgame.server.blocks.Block](#).

Reimplemented in [com.progmethgame.server.blocks.SpikeFloor](#).

5.80.4 Member Data Documentation

5.80.4.1 damage

```
int com.progmethgame.server.blocks.SpikeBlock.damage = 7 [protected]
```

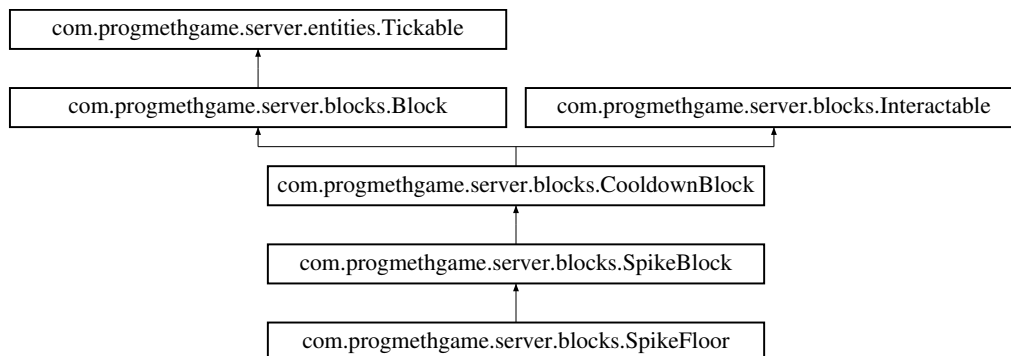
Damage dealt

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/SpikeBlock.java](#)

5.81 com.progmethgame.server.blocks.SpikeFloor Class Reference

Inheritance diagram for com.progmethgame.server.blocks.SpikeFloor:



Public Member Functions

- [SpikeFloor](#) ()
- boolean [isSolid](#) ()

Additional Inherited Members

5.81.1 Detailed Description

A block that damage the player when walked on

Author

pigt

5.81.2 Constructor & Destructor Documentation

5.81.2.1 SpikeFloor()

```
com.progmethgame.server.blocks.SpikeFloor.SpikeFloor ( )
```

5.81.3 Member Function Documentation

5.81.3.1 isSolid()

```
boolean com.progmethgame.server.blocks.SpikeFloor.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

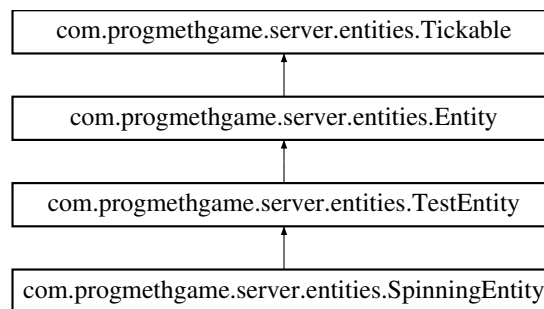
Reimplemented from [com.progmethgame.server.blocks.SpikeBlock](#).

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/SpikeFloor.java`

5.82 com.progmethgame.server.entities.SpinningEntity Class Reference

Inheritance diagram for com.progmethgame.server.entities.SpinningEntity:



Public Member Functions

- void [tick](#) (float delta)

Additional Inherited Members

5.82.1 Member Function Documentation

5.82.1.1 tick()

```
void com.progmethgame.server.entities.SpinningEntity.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

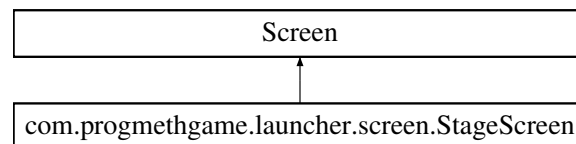
Reimplemented from [com.progmethgame.server.entities.TestEntity](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/SpinningEntity.java](#)

5.83 com.progmethgame.launcher.screen.StageScreen Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.StageScreen:



Public Member Functions

- void [setStage](#) (Stage [stage](#))
- void [show](#) ()
- void [render](#) (float delta)
- void [resize](#) (int width, int height)
- void [pause](#) ()
- void [resume](#) ()
- void [hide](#) ()
- void [dispose](#) ()

Private Attributes

- Stage [stage](#)

5.83.1 Detailed Description

A screen that display a stage

5.83.2 Member Function Documentation

5.83.2.1 dispose()

```
void com.progmethgame.launcher.screen.StageScreen.dispose ( )
```

5.83.2.2 hide()

```
void com.progmethgame.launcher.screen.StageScreen.hide ( )
```

5.83.2.3 pause()

```
void com.progmethgame.launcher.screen.StageScreen.pause ( )
```

5.83.2.4 render()

```
void com.progmethgame.launcher.screen.StageScreen.render (
    float delta )
```

5.83.2.5 resize()

```
void com.progmethgame.launcher.screen.StageScreen.resize (
    int width,
    int height )
```

5.83.2.6 resume()

```
void com.progmethgame.launcher.screen.StageScreen.resume ( )
```

5.83.2.7 setStage()

```
void com.progmethgame.launcher.screen.StageScreen.setStage (
    Stage stage )
```

Set a current stage

Parameters

<i>stage</i>	stage to show
--------------	---------------

5.83.2.8 show()

```
void com.progmethgame.launcher.screen.StageScreen.show ( )
```

5.83.3 Member Data Documentation

5.83.3.1 stage

```
Stage com.progmethgame.launcher.screen.StageScreen.stage [private]
```

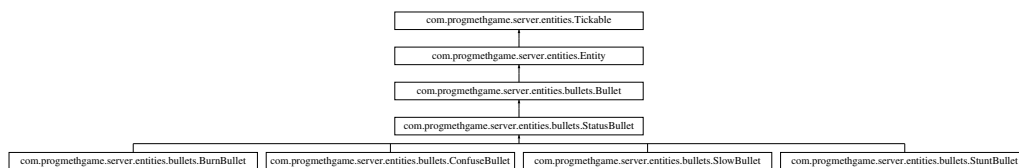
Current stage

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/StageScreen.java](#)

5.84 com.progmethgame.server.entities.bullets.StatusBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.StatusBullet:



Public Member Functions

- [StatusBullet](#) ([DisplayType](#) type, float [speed](#), [Player](#) owner)
- void [onCollide](#) ([Player](#) hitPlayer)

Protected Attributes

- [StatusEffect](#) effect

5.84.1 Detailed Description

A bullet that will apply effect to the player

Author

pigt

5.84.2 Constructor & Destructor Documentation

5.84.2.1 StatusBullet()

```
com.progmethgame.server.entities.bullets.StatusBullet.StatusBullet (
    DisplayType type,
    float speed,
    Player owner )
```

5.84.3 Member Function Documentation

5.84.3.1 onCollide()

```
void com.progmethgame.server.entities.bullets.StatusBullet.onCollide (
    Player hitPlayer )
```

Called when the bullet collide a player

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.84.4 Member Data Documentation

5.84.4.1 effect

```
StatusEffect com.progmethgame.server.entities.bullets.StatusBullet.effect [protected]
```

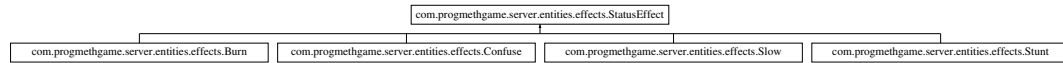
Effect to be applied to the player

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/StatusBullet.java](#)

5.85 com.progmethgame.server.entities.effects.StatusEffect Class Reference

Inheritance diagram for com.progmethgame.server.entities.effects.StatusEffect:



Public Member Functions

- [StatusEffect](#) ([DisplayType](#) dispType)
- [DisplayType](#) getDisplayType ()
- int getMaxDuration ()
- abstract void getEffect ([Player](#) p)
- abstract void removeEffect ([Player](#) p)
- int getDuration ()
- boolean decreaseDuration ()
- void resetDuration ()
- abstract [StatusEffect](#) cpy ()

Protected Attributes

- int duration
- int maxDuration
- [DisplayType](#) dispType

5.85.1 Detailed Description

Represent an "effect" that can be attached to the player

Author

pigt

5.85.2 Constructor & Destructor Documentation

5.85.2.1 StatusEffect()

```
com.progmethgame.server.entities.effects.StatusEffect.StatusEffect (
    DisplayType dispType )
```

5.85.3 Member Function Documentation

5.85.3.1 cpy()

```
abstract StatusEffect com.progmethgame.server.entities.effects.StatusEffect.cpy ( ) [abstract]
```

Clone this effect

Reimplemented in [com.progmethgame.server.entities.effects.Burn](#), [com.progmethgame.server.entities.effects.Slow](#), [com.progmethgame.server.entities.effects.Stunt](#), and [com.progmethgame.server.entities.effects.Confuse](#).

5.85.3.2 decreaseDuration()

```
boolean com.progmethgame.server.entities.effects.StatusEffect.decreaseDuration ( )
```

Decrease the effect's duration

5.85.3.3 getDisplayType()

```
DisplayType com.progmethgame.server.entities.effects.StatusEffect.getDisplayType ( )
```

Getter for status effect's icon

5.85.3.4 getDuration()

```
int com.progmethgame.server.entities.effects.StatusEffect.getDuration ( )
```

Duration left

5.85.3.5 getEffect()

```
abstract void com.progmethgame.server.entities.effects.StatusEffect.getEffect (   
    Player p ) [abstract]
```

Apply effect to the player

Reimplemented in [com.progmethgame.server.entities.effects.Burn](#), [com.progmethgame.server.entities.effects.Slow](#), [com.progmethgame.server.entities.effects.Confuse](#), and [com.progmethgame.server.entities.effects.Stunt](#).

5.85.3.6 getMaxDuration()

```
int com.progmethgame.server.entities.effects.StatusEffect.getMaxDuration ( )
```

Max duration

5.85.3.7 removeEffect()

```
abstract void com.progmethgame.server.entities.effects.StatusEffect.removeEffect (
    Player p ) [abstract]
```

Remove effect from the player

Reimplemented in [com.progmethgame.server.entities.effects.Burn](#), [com.progmethgame.server.entities.effects.Slow](#), [com.progmethgame.server.entities.effects.Stunt](#), and [com.progmethgame.server.entities.effects.Confuse](#).

5.85.3.8 resetDuration()

```
void com.progmethgame.server.entities.effects.StatusEffect.resetDuration ( )
```

Reset the effect's duration

5.85.4 Member Data Documentation

5.85.4.1 dispType

```
DisplayType com.progmethgame.server.entities.effects.StatusEffect.dispType [protected]
```

5.85.4.2 duration

```
int com.progmethgame.server.entities.effects.StatusEffect.duration [protected]
```

5.85.4.3 maxDuration

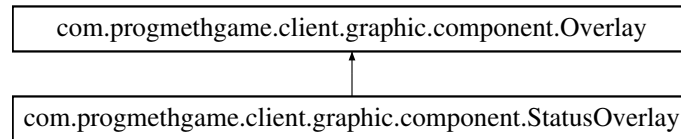
```
int com.progmethgame.server.entities.effects.StatusEffect.maxDuration [protected]
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/effects/StatusEffect.java](#)

5.86 com.progmethgame.client.graphic.component.StatusOverlay Class Reference

Inheritance diagram for com.progmethgame.client.graphic.component.StatusOverlay:



Public Member Functions

- [StatusOverlay](#) ()
- void [render](#) (Viewport view, Batch batch, Rectangle rect, [ClientEntity](#) target)
- void [setHealth](#) (float [health](#))
- void [setEffectIcon](#) ([DisplayType](#) effectIcon)

Private Attributes

- float [health](#)
- [DisplayType](#) effectIcon

5.86.1 Detailed Description

Displays status on top of the player's character

5.86.2 Constructor & Destructor Documentation

5.86.2.1 StatusOverlay()

```
com.progmethgame.client.graphic.component.StatusOverlay.StatusOverlay ( )
```

5.86.3 Member Function Documentation

5.86.3.1 render()

```
void com.progmethgame.client.graphic.component.StatusOverlay.render (
    Viewport view,
    Batch batch,
    Rectangle rect,
    ClientEntity target )
```

Render this overlay

Parameters

<i>view</i>	Screen's viewport
<i>batch</i>	Screen's batch
<i>rect</i>	The entity's bounding box in screen space.
<i>target</i>	The owner of this overlay

Reimplemented from [com.progmethgame.client.graphic.component.Overlay](#).

5.86.3.2 setEffectIcon()

```
void com.progmethgame.client.graphic.component.StatusOverlay.setEffectIcon (
    DisplayType effectIcon )
```

5.86.3.3 setHealth()

```
void com.progmethgame.client.graphic.component.StatusOverlay.setHealth (
    float health )
```

5.86.4 Member Data Documentation

5.86.4.1 effectIcon

```
DisplayType com.progmethgame.client.graphic.component.StatusOverlay.effectIcon [private]
```

Effect applied to the player

5.86.4.2 health

```
float com.progmethgame.client.graphic.component.StatusOverlay.health [private]
```

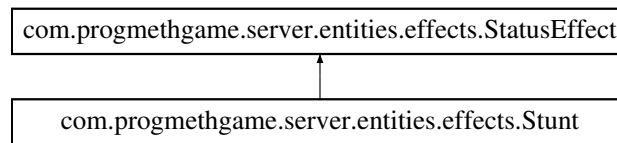
Player's health

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

- `/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/client/graphic/component/StatusOverlay.java`

5.87 com.progmethgame.server.entities.effects.Stunt Class Reference

Inheritance diagram for com.progmethgame.server.entities.effects.Stunt:



Public Member Functions

- [Stunt](#) ()
- void [getEffect](#) ([Player](#) p)
- void [removeEffect](#) ([Player](#) p)
- [Stunt cpy](#) ()

Additional Inherited Members

5.87.1 Detailed Description

An effect that caused player to stop moving

5.87.2 Constructor & Destructor Documentation

5.87.2.1 Stunt()

```
com.progmethgame.server.entities.effects.Stunt.Stunt ( )
```

5.87.3 Member Function Documentation

5.87.3.1 cpy()

```
Stunt com.progmethgame.server.entities.effects.Stunt.cpy ( )
```

Clone this effect

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.87.3.2 `getEffect()`

```
void com.progmethgame.server.entities.effects.Stunt.getEffect (
    Player p )
```

Apply effect to the player

Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

5.87.3.3 `removeEffect()`

```
void com.progmethgame.server.entities.effects.Stunt.removeEffect (
    Player p )
```

Remove effect from the player

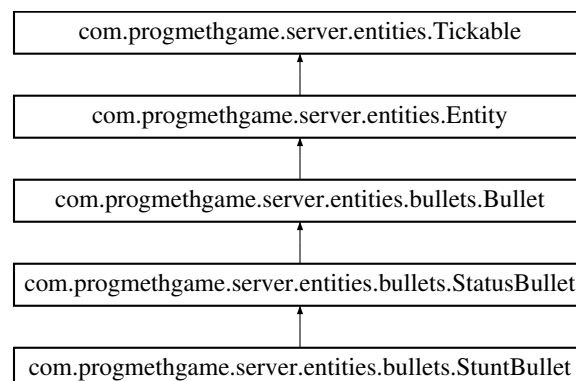
Reimplemented from [com.progmethgame.server.entities.effects.StatusEffect](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/effects/Stunt.java](#) ↩

5.88 `com.progmethgame.server.entities.bullets.StuntBullet` Class Reference

Inheritance diagram for `com.progmethgame.server.entities.bullets.StuntBullet`:



Public Member Functions

- [StuntBullet \(Player owner\)](#)
- [Bullet cpy \(\)](#)

Additional Inherited Members

5.88.1 Detailed Description

A bullet that will temporary stop the player

5.88.2 Constructor & Destructor Documentation

5.88.2.1 StuntBullet()

```
com.progmethgame.server.entities.bullets.StuntBullet.StuntBullet (
    Player owner )
```

5.88.3 Member Function Documentation

5.88.3.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.StuntBullet.cpy ( )
```

Duplicate this bullet

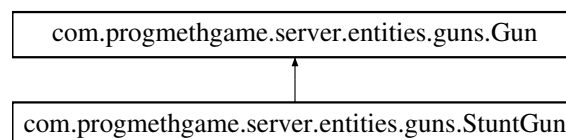
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/StuntBullet.java](#)

5.89 com.progmethgame.server.entities.guns.StuntGun Class Reference

Inheritance diagram for com.progmethgame.server.entities.guns.StuntGun:



Public Member Functions

- [StuntGun](#) ([Player](#) owner)

Additional Inherited Members

5.89.1 Detailed Description

[Gun](#) that spawn stunt bullet

5.89.2 Constructor & Destructor Documentation

5.89.2.1 StuntGun()

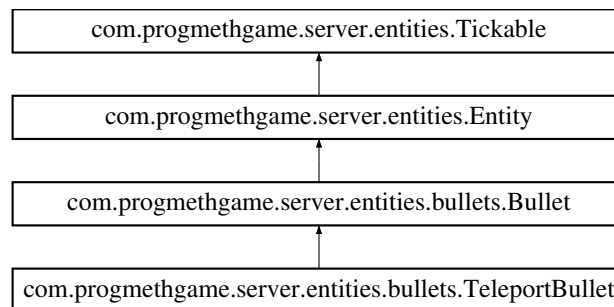
```
com.progmethgame.server.entities.guns.StuntGun.StuntGun (
    Player owner )
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/StuntGun.java](#)

5.90 com.progmethgame.server.entities.bullets.TeleportBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.TeleportBullet:



Public Member Functions

- [TeleportBullet](#) ([Player](#) owner)
- void [onCollide](#) ([Player](#) hitPlayer)
- [Bullet](#) cpy ()

Additional Inherited Members

5.90.1 Detailed Description

A bullet that will swap the owner and the victim's position

5.90.2 Constructor & Destructor Documentation

5.90.2.1 TeleportBullet()

```
com.progmethgame.server.entities.bullets.TeleportBullet.TeleportBullet (
    Player owner )
```

5.90.3 Member Function Documentation

5.90.3.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.TeleportBullet.cpy ( )
```

Duplicate this bullet

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.90.3.2 onCollide()

```
void com.progmethgame.server.entities.bullets.TeleportBullet.onCollide (
    Player hitPlayer )
```

Called when the bullet collide a player

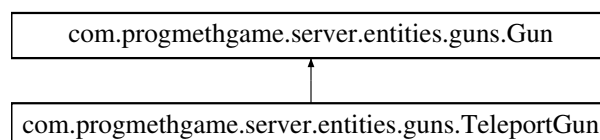
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/TeleportBullet.java

5.91 com.progmethgame.server.entities.guns.TeleportGun Class Reference

Inheritance diagram for com.progmethgame.server.entities.guns.TeleportGun:



Public Member Functions

- [TeleportGun](#) ([Player](#) owner)

Additional Inherited Members

5.91.1 Detailed Description

[Gun](#) that spawn teleport bullet

5.91.2 Constructor & Destructor Documentation

5.91.2.1 TeleportGun()

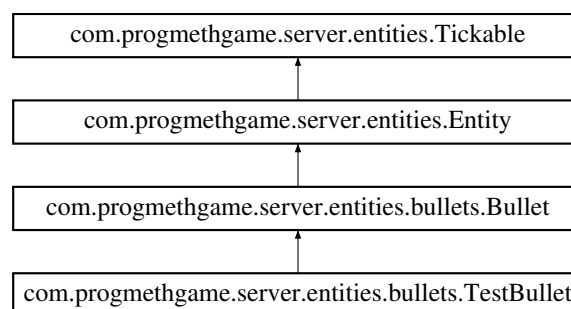
```
com.progmethgame.server.entities.guns.TeleportGun.TeleportGun (
    Player owner )
```

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/guns/TeleportGun.java](#)

5.92 com.progmethgame.server.entities.bullets.TestBullet Class Reference

Inheritance diagram for com.progmethgame.server.entities.bullets.TestBullet:



Public Member Functions

- [TestBullet](#) ([Player](#) owner)
- void [onCollide](#) ([Player](#) hitPlayer)
- [Bullet cpy](#) ()

Additional Inherited Members

5.92.1 Detailed Description

[Bullet](#) for testing purpose

5.92.2 Constructor & Destructor Documentation

5.92.2.1 TestBullet()

```
com.progmethgame.server.entities.bullets.TestBullet.TestBullet (
    Player owner )
```

5.92.3 Member Function Documentation

5.92.3.1 cpy()

```
Bullet com.progmethgame.server.entities.bullets.TestBullet.cpy ( )
```

Duplicate this bullet

Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

5.92.3.2 onCollide()

```
void com.progmethgame.server.entities.bullets.TestBullet.onCollide (
    Player hitPlayer )
```

Called when the bullet collide a player

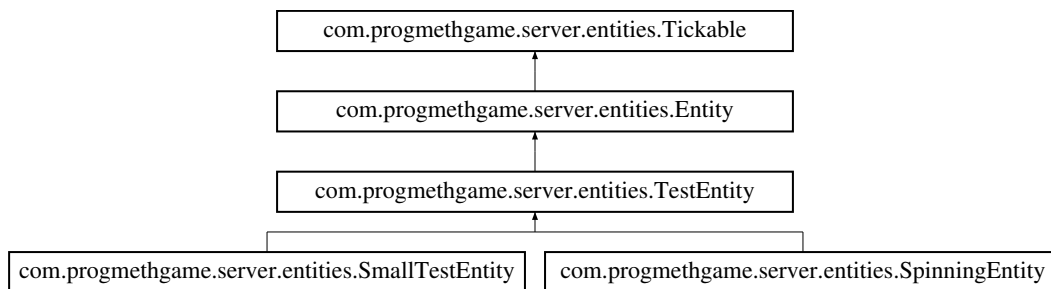
Reimplemented from [com.progmethgame.server.entities.bullets.Bullet](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/bullets/TestBullet.java](#)

5.93 com.progmethgame.server.entities.TestEntity Class Reference

Inheritance diagram for com.progmethgame.server.entities.TestEntity:



Public Member Functions

- [TestEntity](#) ()
- void [onCollide](#) ([Entity](#) other)
- void [tick](#) (float delta)

Protected Attributes

- [DisplayType](#) cool = [DisplayType](#).TEST
- [DisplayType](#) hot = [DisplayType](#).RICK

Private Attributes

- int [cooldown](#) = 0

5.93.1 Constructor & Destructor Documentation

5.93.1.1 TestEntity()

```
com.progmethgame.server.entities.TestEntity.TestEntity ( )
```

5.93.2 Member Function Documentation

5.93.2.1 onCollide()

```
void com.progmethgame.server.entities.TestEntity.onCollide (
    Entity other )
```

Called when entity touched other.

Parameters

<i>other</i>	the touched entity
--------------	--------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

5.93.2.2 tick()

```
void com.progmethgame.server.entities.TestEntity.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Reimplemented from [com.progmethgame.server.entities.Entity](#).

Reimplemented in [com.progmethgame.server.entities.SpinningEntity](#).

5.93.3 Member Data Documentation**5.93.3.1 cool**

```
DisplayType com.progmethgame.server.entities.TestEntity.cool = DisplayType.TEST [protected]
```

5.93.3.2 cooldown

```
int com.progmethgame.server.entities.TestEntity.cooldown = 0 [private]
```

5.93.3.3 hot

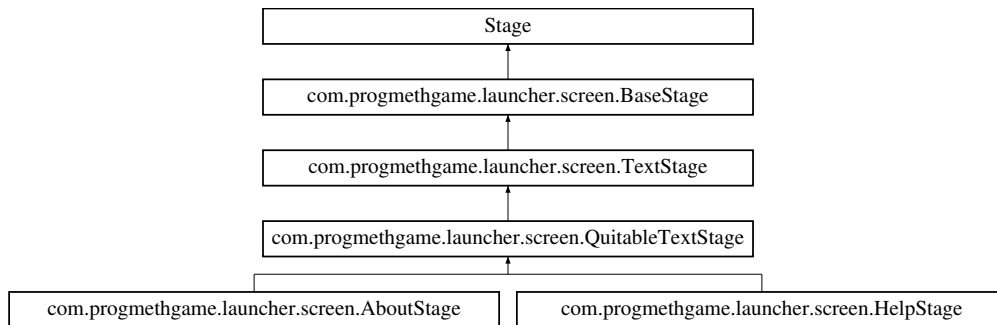
```
DisplayType com.progmethgame.server.entities.TestEntity.hot = DisplayType.RICK [protected]
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/TestEntity.java

5.94 com.progmethgame.launcher.screen.TextStage Class Reference

Inheritance diagram for com.progmethgame.launcher.screen.TextStage:



Public Member Functions

- [TextStage](#) (String text)

Protected Attributes

- Label [textLabel](#)

5.94.1 Detailed Description

Display a message

5.94.2 Constructor & Destructor Documentation

5.94.2.1 TextStage()

```
com.progmethgame.launcher.screen.TextStage.TextStage (
    String text )
```

Create new text stage with specified message

Parameters

<i>text</i>	a message to display
-------------	----------------------

5.94.3 Member Data Documentation

5.94.3.1 textLabel

Label com.progmethgame.launcher.screen.TextStage.textLabel [protected]

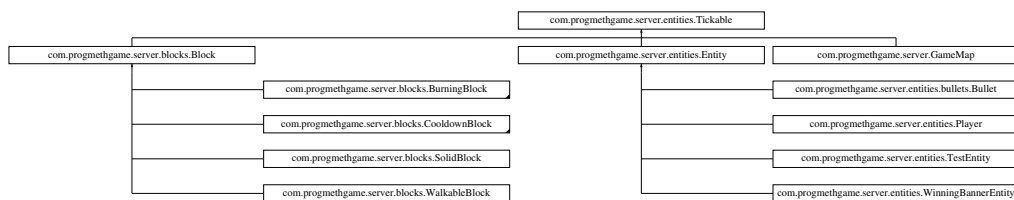
Text label displayed

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/launcher/screen/TextStage.java

5.95 com.progmethgame.server.entities.Tickable Interface Reference

Inheritance diagram for com.progmethgame.server.entities.Tickable:



Public Member Functions

- void [tick](#) (float delta)

5.95.1 Detailed Description

Interface on the a component that update with time.

Author

pigt

5.95.2 Member Function Documentation

5.95.2.1 tick()

```
void com.progmethgame.server.entities.Tickable.tick (
    float delta )
```

Advance this component by delta second

Parameters

<i>delta</i>	no. of second to advance
--------------	--------------------------

Implemented in [com.progmethgame.server.entities.Player](#), [com.progmethgame.server.GameMap](#), [com.progmethgame.server.entities.com.progmethgame.server.entities.bullets.Bullet](#), [com.progmethgame.server.blocks.CooldownBlock](#), [com.progmethgame.server.entities.com.progmethgame.server.blocks.Block](#), and [com.progmethgame.server.entities.SpinningEntity](#).

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

- [/home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/Tickable.java](#)↔

5.96 com.progmethgame.network.Ticker Class Reference

Public Member Functions

- [Ticker](#) (float [tickRate](#))
- void [tick](#) () throws InterruptedException
- long [getLastDeltaMillis](#) ()

Private Attributes

- final float [tickRate](#)
- long [lastTickMillis](#)
- long [lastTickDuration](#) = 0

5.96.1 Detailed Description

Tick governor

5.96.2 Constructor & Destructor Documentation

5.96.2.1 Ticker()

```
com.progmethgame.network.Ticker.Ticker (
    float tickRate )
```

5.96.3 Member Function Documentation

5.96.3.1 getLastDeltaMillis()

```
long com.progmethgame.network.Ticker.getLastDeltaMillis ( )
```

5.96.3.2 tick()

```
void com.progmethgame.network.Ticker.tick ( ) throws InterruptedException
```

5.96.4 Member Data Documentation

5.96.4.1 lastTickDuration

```
long com.progmethgame.network.Ticker.lastTickDuration = 0 [private]
```

Duration between the last tick and this tick

5.96.4.2 lastTickMillis

```
long com.progmethgame.network.Ticker.lastTickMillis [private]
```

timestamp of the last tick

5.96.4.3 tickRate

```
final float com.progmethgame.network.Ticker.tickRate [private]
```

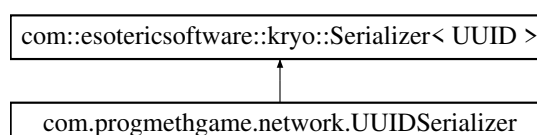
Target tick rate

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/Server↔
Bus.java

5.97 com.progmethgame.network.UUIDSerializer Class Reference

Inheritance diagram for com.progmethgame.network.UUIDSerializer:



Public Member Functions

- void [write](#) (Kryo kryo, Output output, UUID object)
- UUID [read](#) (Kryo kryo, Input input, Class< UUID > type)

5.97.1 Detailed Description

UUID Serializer

5.97.2 Member Function Documentation

5.97.2.1 read()

```
UUID com.progmethgame.network.UUIDSerializer.read (  
    Kryo kryo,  
    Input input,  
    Class< UUID > type )
```

5.97.2.2 write()

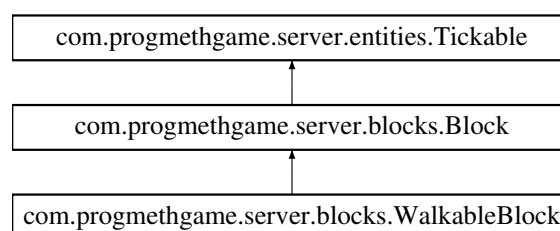
```
void com.progmethgame.network.UUIDSerializer.write (  
    Kryo kryo,  
    Output output,  
    UUID object )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/network/SerializationUtil.java↔

5.98 com.progmethgame.server.blocks.WalkableBlock Class Reference

Inheritance diagram for com.progmethgame.server.blocks.WalkableBlock:



Public Member Functions

- boolean [isSolid](#) ()

5.98.1 Member Function Documentation

5.98.1.1 isSolid()

```
boolean com.progmethgame.server.blocks.WalkableBlock.isSolid ( )
```

Can entity pass through this block?

Returns

solidness

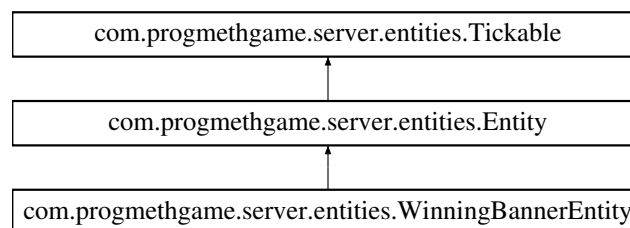
Reimplemented from [com.progmethgame.server.blocks.Block](#).

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/blocks/Walkable↔Block.java

5.99 com.progmethgame.server.entities.WinningBannerEntity Class Reference

Inheritance diagram for com.progmethgame.server.entities.WinningBannerEntity:



Public Member Functions

- [WinningBannerEntity](#) (UUID winPlayer)

Additional Inherited Members

5.99.1 Constructor & Destructor Documentation

5.99.1.1 WinningBannerEntity()

```
com.progmethgame.server.entities.WinningBannerEntity.WinningBannerEntity (
    UUID winPlayer )
```

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

- /home/pigt/Workspace/project-2019-2-progmeth-myfirstgame/core/src/com/progmethgame/server/entities/Winning↔BannerEntity.java

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