Top Down Gun Pack

Sun Jan 10 2016 19:59:45

# **Contents**

1	Nam	espace	Index				1
	1.1	Packag	jes				 1
2	Hiera	archical	Index				3
	2.1	Class I	Hierarchy	·			 3
3	Clas	s Index					5
	3.1	Class I	_ist				 5
4	Nam	espace	Docume	entation			7
	4.1	TDGP	Namespa	ace Reference			 7
		4.1.1	Enumera	ration Type Documentation			 8
			4.1.1.1	Gun_Type			 8
			4.1.1.2	SPECIAL_DAMAGE_TYPE			 8
	4.2	TDGP.	Demo Nar	mespace Reference			 9
5	Clas	s Docu	mentation	n en			11
	5.1	TDGP.	Animation	nAudio Class Reference			 11
		5.1.1	Detailed	Description			 11
		5.1.2	Member	r Function Documentation			 11
			5.1.2.1	PlaySound()			 11
		5.1.3	Member	r Data Documentation			 12
			5.1.3.1	AudioClips			 12
			5.1.3.2	InversePlayChance			 12
			5.1.3.3	VolumeScale			 12
	5.2	TDGP.	DamageA	AnimationController Class Reference			 12
		5.2.1	Detailed	Description			 12
		5.2.2	Member	r Function Documentation			 13
			5.2.2.1	ApplyDamage(SPECIAL_DAMAGE_TYPE damageType, float dps, float	at tim	ıe)	 13
		5.2.3	Member	r Data Documentation			 13
			5.2.3.1	ChainLightningRange			 13
			5.2.3.2	IceCaseAnimation			 13
			5.2.3.3	LightningAnimation			 13

iv CONTENTS

		5.2.3.4 MaxChainLightningEnemiesHit	. 13
5.3	TDGP.I	estroy Class Reference	. 13
	5.3.1	Detailed Description	. 14
	5.3.2	Member Function Documentation	. 14
		5.3.2.1 Execute()	. 14
5.4	TDGP.	sable Class Reference	. 14
	5.4.1	Detailed Description	. 14
	5.4.2	Member Function Documentation	. 14
		5.4.2.1 Execute()	. 14
5.5	TDGP.	nableParentMovement Class Reference	. 14
	5.5.1	Detailed Description	. 15
	5.5.2	Member Function Documentation	. 15
		5.5.2.1 EnableMovement()	. 15
5.6	TDGP.	nemyMovement Class Reference	. 15
	5.6.1	Detailed Description	. 16
	5.6.2	Member Function Documentation	. 16
		5.6.2.1 SpawnComplete()	. 16
	5.6.3	Member Data Documentation	. 16
		5.6.3.1 MoveSpeed	. 16
	5.6.4	Property Documentation	. 16
		5.6.4.1 CanMove	. 16
5.7	TDGP.I	emo.EnemySpawner Class Reference	. 16
	5.7.1	Detailed Description	. 17
	5.7.2	Member Function Documentation	. 17
		5.7.2.1 EnemyRemoved()	. 17
	5.7.3	Member Data Documentation	. 17
		5.7.3.1 Enemy	. 17
		5.7.3.2 KillCount	. 17
		5.7.3.3 MaxEnemiesOnScreen	. 17
		5.7.3.4 SpawnTime	. 17
5.8	TDGP.I	emo.Environment Class Reference	. 17
	5.8.1	Detailed Description	. 18
5.9	TDGP.I	emo.FollowTarget Class Reference	. 18
	5.9.1	Detailed Description	. 18
5.10	TDGP.0	un Class Reference	. 18
	5.10.1	Detailed Description	. 19
	5.10.2	Member Function Documentation	. 19
		5.10.2.1 OnDrop()	. 19
		5.10.2.2 OnPickup()	. 19
	5.10.3	Member Data Documentation	. 19

CONTENTS

		5.10.3.1 GunType	19
5.11	TDGP.0	GunBarrel Class Reference	19
	5.11.1	Detailed Description	20
	5.11.2	Member Function Documentation	20
		5.11.2.1 OnDrop()	20
		5.11.2.2 OnFire()	20
		5.11.2.3 OnPickup()	20
	5.11.3	Member Data Documentation	21
		5.11.3.1 FireSounds	21
		5.11.3.2 LaunchSpeed	21
		5.11.3.3 VolumeScale	21
5.12	TDGP.0	GunBarrelDelayedFire Class Reference	21
	5.12.1	Detailed Description	21
	5.12.2		22
		5.12.2.1 OnFire()	22
	5.12.3	Member Data Documentation	22
		•	22
		•	22
5.13		•	22
		Detailed Description	23
	5.13.2	Member Function Documentation	23
		• •	23
		5.13.2.2 OnPickup()	23
	5.13.3		23
		5.13.3.1 GunPosition	23
5.14	TDGP.0	GunClip Class Reference	23
	5.14.1	Detailed Description	24
	5.14.2	Member Function Documentation	24
		5.14.2.1 GetBullet()	24
		5.14.2.2 OnDrop()	24
		5.14.2.3 OnPickup()	24
		5.14.2.4 PoolObject(GameObject obj)	24
		5.14.2.5 RequestBullet()	24
	5.14.3	Member Data Documentation	25
		5.14.3.1 BulletsInClip	25
		5.14.3.2 ReloadSpeed	25
		5.14.3.3 SupportReload	25
5.15		GunComponent Class Reference	25
		Detailed Description	26
	5.15.2	Member Function Documentation	26

vi CONTENTS

		5.15.2.1 OnDrop()	26
		5.15.2.2 OnPickup()	26
5.16	TDGP.0	GunLaserSight Class Reference	26
	5.16.1	Detailed Description	27
	5.16.2	Member Function Documentation	27
		5.16.2.1 OnDrop()	27
		5.16.2.2 OnPickup()	27
	5.16.3	Member Data Documentation	27
		5.16.3.1 Range	27
5.17	TDGP.0	GunMuzzle Class Reference	27
	5.17.1	Detailed Description	28
	5.17.2	Member Function Documentation	28
		5.17.2.1 OnDrop()	28
		5.17.2.2 OnPickup()	28
	5.17.3	Member Data Documentation	28
		5.17.3.1 FlashAnimationSpeed	28
5.18	TDGP.0	GunProjectile Class Reference	28
	5.18.1	Detailed Description	29
	5.18.2	Member Function Documentation	29
		• •	29
		5.18.2.2 OnPickup()	29
		, , , , , , , , , , , , , , , , , , , ,	30
		5.18.2.4 Update()	31
	5.18.3		31
			31
		5.18.3.2 MaxTimeAlive	31
	5.18.4	Property Documentation	31
		5.18.4.1 Owner	31
5.19		GunStock Class Reference	31
		Detailed Description	32
	5.19.2	Member Function Documentation	32
		5.19.2.1 OnDrop()	32
		5.19.2.2 OnPickup()	32
	5.19.3	Member Data Documentation	32
		5.19.3.1 KnockBackForce	32
5.20		GunTrigger Class Reference	32
		Detailed Description	33
	5.20.2	Member Function Documentation	33
		5.20.2.1 Awake()	33
		5.20.2.2 HandleClickInput()	33

CONTENTS vii

		5.20.2.3	HandleHoldInput()	33
		5.20.2.4	OnDrop()	34
		5.20.2.5	OnPickup()	34
	5.20.3	Member I	Data Documentation	34
		5.20.3.1	DelayBetweenProjectiles	34
		5.20.3.2	KeyMapping	34
		5.20.3.3	ShootType	34
5.21	TDGP.0	GunTrigge	rBurst Class Reference	34
	5.21.1	Detailed I	Description	35
	5.21.2	Member I	Function Documentation	35
		5.21.2.1	Awake()	35
		5.21.2.2	HandleClickInput()	35
		5.21.2.3	HandleHoldInput()	35
	5.21.3	Member I	Data Documentation	35
		5.21.3.1	BulletsPerBurst	35
		5.21.3.2	TimeBetweenBursts	35
5.22	TDGP.0	GunTrigge	rSingle Class Reference	36
	5.22.1	Detailed I	Description	36
	5.22.2	Member I	Function Documentation	36
		5.22.2.1	Awake()	36
		5.22.2.2	HandleClickInput()	36
		5.22.2.3	HandleHoldInput()	36
		5.22.2.4	OnPickup()	37
5.23	TDGP.I	Health Cla	ass Reference	37
	5.23.1	Detailed I	Description	37
	5.23.2	Member I	Function Documentation	37
		5.23.2.1	ApplyDPS(float dps, float time)	37
		5.23.2.2	OnHit(float damageAmount)	38
	5.23.3	Member I	Data Documentation	38
		5.23.3.1	MaxHealth	38
		5.23.3.2	OnDeadAnimation	38
		5.23.3.3	OnDeadSprites	38
		5.23.3.4	OnHitSounds	38
5.24	TDGP.I	Holster Cla	ass Reference	38
	5.24.1	Detailed I	Description	39
	5.24.2	Member I	Function Documentation	39
		5.24.2.1	OnWeaponPickup(Transform weapon)	39
5.25	TDGP.I	Demo.KillC	Count Class Reference	39
			Description	
5.26	TDGP.I	Demo.Load	dSceneOnCollision Class Reference	39

viii CONTENTS

	5.26.1	Detailed Description	40
5.27	TDGP.I	Demo.LookAtMouse Class Reference	40
	5.27.1	Detailed Description	40
5.28	TDGP.	MissileExplosion Class Reference	40
	5.28.1	Detailed Description	41
5.29	TDGP.	MissileTrail Class Reference	41
	5.29.1	Detailed Description	41
	5.29.2	Member Function Documentation	41
		5.29.2.1 OnFire()	41
	5.29.3	Member Data Documentation	42
		5.29.3.1 numOfPoints	42
		5.29.3.2 spread	42
		5.29.3.3 turnSpeed	42
		5.29.3.4 updateSpeed	42
5.30	TDGP.	Demo.PlayerBodyController Class Reference	42
	5.30.1	Detailed Description	42
5.31	TDGP.I	Demo.PlayerMovementHandler Class Reference	43
	5.31.1	Detailed Description	43
5.32	TDGP.	SeekingGunProjectile Class Reference	43
	5.32.1	Detailed Description	44
	5.32.2	Member Function Documentation	44
		5.32.2.1 OnDrop()	44
		5.32.2.2 OnPickup()	44
		5.32.2.3 OnTriggerEnter2D(Collider2D other)	44
		5.32.2.4 Update()	44
	5.32.3	Member Data Documentation	44
		5.32.3.1 Damage	44
		5.32.3.2 DamageAnimation	44
		5.32.3.3 Velocity	45
5.33	TDGP.	SpecialGunProjectile Class Reference	45
	5.33.1	Detailed Description	45
	5.33.2	Member Function Documentation	45
		5.33.2.1 OnTriggerEnter2D(Collider2D other)	45
	5.33.3	Member Data Documentation	46
		5.33.3.1 DamagePerSecond	46
		5.33.3.2 DamageTime	46
		5.33.3.3 DamageType	46
5.34	TDGP.	StandardGunProjectile Class Reference	46
	5.34.1	Detailed Description	47
	5.34.2	Member Function Documentation	47

CONTENTS

	5.36.1	Detailed I	Description					 	 	 	 			48
5.36	TDGP.I	Demo.Wea	nponSpawner	Class Re	ference			 	 	 	 			48
	5.35.1	Detailed I	Description					 	 	 	 			47
5.35	TDGP.I	Demo.Wall	kingAnimatio	Controlle	r Class	Refer	ence	 	 	 	 			47
		5.34.3.2	DamageAni	mation .				 	 	 	 			47
		5.34.3.1	Damage .					 	 	 	 			47
	5.34.3	Member I	Data Docume	entation .				 	 	 	 		-	47
		5.34.2.1	OnTriggerE	nter2D(Co	ollider2D	othe	r)	 	 	 	 			47

# Chapter 1

# Namespace Index

1	.1	Packag	es
		i dondo	

Here are the packages with brief descriptions (if available):	
TDGP	 7
TDGP.Demo	 ç

2 Namespace Index

# **Chapter 2**

# **Hierarchical Index**

# 2.1 Class Hierarchy

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

MonoBehaviour
TDGP.AnimationAudio
TDGP.DamageAnimationController
TDGP.Demo.EnemySpawner
TDGP.Demo.Environment
TDGP.Demo.FollowTarget
TDGP.Demo.KillCount
TDGP.Demo.LoadSceneOnCollision
TDGP.Demo.LookAtMouse
TDGP.Demo.PlayerBodyController
TDGP.Demo.PlayerMovementHandler
TDGP.Demo.WalkingAnimationController
TDGP.Demo.WeaponSpawner
TDGP.Destroy
TDGP.Disable
TDGP.EnableParentMovement
TDGP.EnemyMovement
TDGP.Gun
TDGP.GunComponent
TDGP.GunBarrel
TDGP.GunBarrelDelayedFire
TDGP.GunBody
TDGP.GunClip
TDGP.GunLaserSight
TDGP.GunMuzzle
TDGP.GunProjectile
TDGP.SeekingGunProjectile
TDGP.SpecialGunProjectile
TDGP.StandardGunProjectile
TDGP.GunStock
TDGP.GunTrigger
TDGP.GunTriggerBurst
TDGP.GunTriggerSingle
TDGP.Health
TDGP.Holster
TDGP.MissileExplosion
TDGP Missile Explosion

4 Hierarchical Index

# **Chapter 3**

# **Class Index**

# 3.1 Class List

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

TDGP.AnimationAudio	
Plays Random audio clip contained in AudioClips. Called my animation.	11
TDGP.DamageAnimationController	
Controls animation and damage for special projectiles (currently ice and chain lightning)	12
TDGP.Destroy	
Destroys gameobject.	13
TDGP.Disable	
Disables gameobject	14
TDGP.EnableParentMovement	
Enables zombie movement when finished spawning.	14
TDGP.EnemyMovement	
Moves enemy towards player.	15
TDGP.Demo.EnemySpawner	
Spawns enemies for the example scene	16
TDGP.Demo.Environment	
Generates environment for demo scene	17
TDGP.Demo.FollowTarget	
Demo Script. Moves ENemies towards player	18
TDGP.Gun	
Calls all child GunComponents OnPickup and OnDrop methods when gun is picked up and	
dropped respectively. Stores the guns type i.e. one handed, two handed, dual wield. This is	
used by the Holster script to update the players sprite.	18
TDGP.GunBarrel	
Responsibilities: launching projectiles, playing fire audio, and activating muzzle flash	19
TDGP.GunBarrelDelayedFire	
Gun barrel with delayed fire. Currently used by the chain gun to produce erratic firing	21
TDGP.GunBody	
Responsibility: Updating the weapons relative position based on weapon type	22
TDGP.GunClip	
Responsibilities: act as a object pool for the guns projectiles, provide projectiles when requested	
by the guns barrel, limit the maximum number of bullets fired by the gun, and reload bullets when	
requested by player.	23
TDGP.GunComponent	
The base class for all gun components.	25
TDGP.GunLaserSight	01
Adds a laser sight to a weapon. Responsible for updating the lasers scale	26
TDGP.GunMuzzle	٥-
Handles gun muzzle flash.	27

Class Index

TDGP.GunProjectile	
The abstract base class for all gun projectiles. Responsible for handling collision, applying dam-	
age, and pooling projectile when max time alive has been reached.	28
TDGP.GunStock	
Responsibility: Providing a knock back force when weapon fired.	31
TDGP.GunTrigger	
Abstract base class for all gun triggers. Responsibility: Handling player input.	32
TDGP.GunTriggerBurst	
Provides burst firing.	34
TDGP.GunTriggerSingle	
Provides signle bullet firing on trigger press	36
TDGP.Health	
Enemy health script.	37
TDGP.Holster	
Weapon pickup script, also allows for weapon switching. Used for the demo scene but can be	
adapted for use by your player	38
TDGP.Demo.KillCount	
Shows text on screen for number of enemies killed in demo scene	39
TDGP.Demo.LoadSceneOnCollision	
Reloads scene if enemy touches player in demo scene	39
TDGP.Demo.LookAtMouse	
Demo script. Play looks at mouse	40
TDGP.MissileExplosion	
Missile explosion. Applys knockback force to enemy on explosion.	40
TDGP.MissileTrail	
Missile trail. Uses line renderer to create a trail effect for the missile.	41
TDGP.Demo.PlayerBodyController	
Updates player sprite based on currently held weapon.	42
TDGP.Demo.PlayerMovementHandler	
Demo script. Updates players position based on input.	43
TDGP.SeekingGunProjectile	
A projectile that seeks towards its target	43
TDGP.SpecialGunProjectile	
Projectile of special type i.e. ice or chain lightning.	45
TDGP.StandardGunProjectile	
A standard gun projectile.	46
TDGP.Demo.WalkingAnimationController	
Updates walking animation based on movement speed	47
TDGP.Demo.WeaponSpawner	
Demo Script. Spawns weapon at players location on button press.	48

# **Chapter 4**

# **Namespace Documentation**

# 4.1 TDGP Namespace Reference

# **Namespaces**

namespace Demo

#### **Classes**

· class AnimationAudio

Plays Random audio clip contained in AudioClips. Called my animation.

class DamageAnimationController

Controls animation and damage for special projectiles (currently ice and chain lightning).

· class Destroy

Destroys gameobject.

· class Disable

Disables gameobject.

· class EnableParentMovement

Enables zombie movement when finished spawning.

class EnemyMovement

Moves enemy towards player.

· class Gun

Calls all child GunComponents OnPickup and OnDrop methods when gun is picked up and dropped respectively. Stores the guns type i.e. one handed, two handed, dual wield. This is used by the Holster script to update the players sprite.

· class GunBarrel

Responsibilities: launching projectiles, playing fire audio, and activating muzzle flash.

· class GunBarrelDelayedFire

Gun barrel with delayed fire. Currently used by the chain gun to produce erratic firing.

class GunBody

Responsibility: Updating the weapons relative position based on weapon type.

· class GunClip

Responsibilities: act as a object pool for the guns projectiles, provide projectiles when requested by the guns barrel, limit the maximum number of bullets fired by the gun, and reload bullets when requested by player.

class GunComponent

The base class for all gun components.

· class GunLaserSight

Adds a laser sight to a weapon. Responsible for updating the lasers scale.

· class GunMuzzle

Handles gun muzzle flash.

· class GunProjectile

The abstract base class for all gun projectiles. Responsible for handling collision, applying damage, and pooling projectile when max time alive has been reached.

· class GunStock

Responsibility: Providing a knock back force when weapon fired.

· class GunTrigger

Abstract base class for all gun triggers. Responsibility: Handling player input.

· class GunTriggerBurst

Provides burst firing.

• class GunTriggerSingle

Provides signle bullet firing on trigger press.

· class Health

Enemy health script.

· class Holster

Weapon pickup script, also allows for weapon switching. Used for the demo scene but can be adapted for use by your player.

• class MissileExplosion

Missile explosion. Applys knockback force to enemy on explosion.

· class MissileTrail

Missile trail. Uses line renderer to create a trail effect for the missile.

• class SeekingGunProjectile

A projectile that seeks towards its target.

• class SpecialGunProjectile

Projectile of special type i.e. ice or chain lightning.

· class StandardGunProjectile

A standard gun projectile.

#### **Enumerations**

enum SPECIAL\_DAMAGE\_TYPE { ICE\_CASE, CHAIN\_LIGHTNING }

Special damage types.

enum Gun\_Type { ONE\_HANDED, TWO\_HANDED, DUAL\_WIELD }

The gun type.

# 4.1.1 Enumeration Type Documentation

4.1.1.1 enum TDGP.Gun\_Type [strong]

The gun type.

4.1.1.2 enum TDGP.SPECIAL DAMAGE TYPE [strong]

Special damage types.

# 4.2 TDGP.Demo Namespace Reference

# Classes

• class EnemySpawner

Spawns enemies for the example scene.

class Environment

Generates environment for demo scene.

class FollowTarget

Demo Script. Moves ENemies towards player.

class KillCount

Shows text on screen for number of enemies killed in demo scene.

• class LoadSceneOnCollision

Reloads scene if enemy touches player in demo scene.

· class LookAtMouse

Demo script. Play looks at mouse.

class PlayerBodyController

Updates player sprite based on currently held weapon.

• class PlayerMovementHandler

Demo script. Updates players position based on input.

class WalkingAnimationController

Updates walking animation based on movement speed.

• class WeaponSpawner

Demo Script. Spawns weapon at players location on button press.

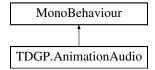
Namespace Doc	cumentatio	n
---------------	------------	---

# **Chapter 5**

# **Class Documentation**

# 5.1 TDGP.AnimationAudio Class Reference

Plays Random audio clip contained in AudioClips. Called my animation. Inheritance diagram for TDGP.AnimationAudio:



# **Public Member Functions**

• void PlaySound ()

Plays random sound. Called by animation.

# **Public Attributes**

AudioClips

The bank of possible audio clips.

• float VolumeScale = 1f

The volume scale.

• float InversePlayChance = 0f

The chance a clip will play. Inverse i.e. a value of 0 will mean the clip will play every time and a value of 1 means the clip will never play.

# 5.1.1 Detailed Description

Plays Random audio clip contained in AudioClips. Called my animation.

# 5.1.2 Member Function Documentation

5.1.2.1 void TDGP.AnimationAudio.PlaySound ( )

Plays random sound. Called by animation.

# 5.1.3 Member Data Documentation

# 5.1.3.1 AudioClip [] TDGP.AnimationAudio.AudioClips

The bank of possible audio clips.

#### 5.1.3.2 float TDGP.AnimationAudio.InversePlayChance = 0f

The chance a clip will play. Inverse i.e. a value of 0 will mean the clip will play every time and a value of 1 means the clip will never play.

#### 5.1.3.3 float TDGP.AnimationAudio.VolumeScale = 1f

The volume scale.

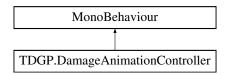
The documentation for this class was generated from the following file:

· AnimationAudio.cs

# 5.2 TDGP.DamageAnimationController Class Reference

Controls animation and damage for special projectiles (currently ice and chain lightning).

Inheritance diagram for TDGP.DamageAnimationController:



# **Public Member Functions**

void ApplyDamage (SPECIAL\_DAMAGE\_TYPE damageType, float dps, float time)
 Applies damage of type.

# **Public Attributes**

GameObject IceCaseAnimation

Ice case animation prefab.

GameObject LightningAnimation

Lightning animation prefab.

• float ChainLightningRange = 3f

The chain lightning range. Enemies within this proximity will also be struck with chain lightning.

• int MaxChainLightningEnemiesHit = 6

The maximum number of enemies that can be hit by chain ligtning.

# 5.2.1 Detailed Description

Controls animation and damage for special projectiles (currently ice and chain lightning).

# 5.2.2 Member Function Documentation

5.2.2.1 void TDGP.DamageAnimationController.ApplyDamage ( SPECIAL\_DAMAGE\_TYPE damageType, float dps, float time )

Applies damage of type.

#### **Parameters**

damageType	Damage type.
dps	Damage per second.
time	Seconds damage occurs.

#### 5.2.3 Member Data Documentation

5.2.3.1 float TDGP.DamageAnimationController.ChainLightningRange = 3f

The chain lightning range. Enemies within this proximity will also be struck with chain lighning.

5.2.3.2 GameObject TDGP.DamageAnimationController.IceCaseAnimation

Ice case animation prefab.

5.2.3.3 GameObject TDGP.DamageAnimationController.LightningAnimation

Lightning animation prefab.

5.2.3.4 int TDGP.DamageAnimationController.MaxChainLightningEnemiesHit = 6

The maximum number of enemies that can be hit by chain ligtning.

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

• DamageAnimationController.cs

# 5.3 TDGP.Destroy Class Reference

Destroys gameobject.

Inheritance diagram for TDGP.Destroy:



#### **Public Member Functions**

• void Execute ()

Executes destroy. Called by animation.

# 5.3.1 Detailed Description

Destroys gameobject.

#### 5.3.2 Member Function Documentation

5.3.2.1 void TDGP.Destroy.Execute ( )

Executes destroy. Called by animation.

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

· Destroy.cs

# 5.4 TDGP.Disable Class Reference

Disables gameobject.

Inheritance diagram for TDGP.Disable:



# **Public Member Functions**

• void Execute ()

Executes disable. Called by animation.

# 5.4.1 Detailed Description

Disables gameobject.

#### 5.4.2 Member Function Documentation

5.4.2.1 void TDGP.Disable.Execute ( )

Executes disable. Called by animation.

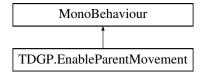
The documentation for this class was generated from the following file:

· Disable.cs

# 5.5 TDGP.EnableParentMovement Class Reference

Enables zombie movement when finished spawning.

 $Inheritance\ diagram\ for\ TDGP. Enable Parent Movement:$ 



# **Public Member Functions**

void EnableMovement ()
 Enables movement. Called by animation.

# 5.5.1 Detailed Description

Enables zombie movement when finished spawning.

#### 5.5.2 Member Function Documentation

5.5.2.1 void TDGP.EnableParentMovement.EnableMovement ( )

Enables movement. Called by animation.

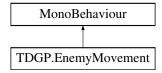
The documentation for this class was generated from the following file:

• EnableParentMovement.cs

# 5.6 TDGP.EnemyMovement Class Reference

Moves enemy towards player.

Inheritance diagram for TDGP.EnemyMovement:



# **Public Member Functions**

void SpawnComplete ()
 Called by animation, tells this instance that spawning has finished.

#### **Public Attributes**

float MoveSpeed

The maximum movement speed.

# **Properties**

• bool CanMove [set]

Sets a value indicating whether this instance can move.

# 5.6.1 Detailed Description

Moves enemy towards player.

# 5.6.2 Member Function Documentation

5.6.2.1 void TDGP.EnemyMovement.SpawnComplete ( )

Called by animation, tells this instance that spawning has finished.

# 5.6.3 Member Data Documentation

5.6.3.1 float TDGP.EnemyMovement.MoveSpeed

The maximum movement speed.

# 5.6.4 Property Documentation

**5.6.4.1** bool TDGP.EnemyMovement.CanMove [set]

Sets a value indicating whether this instance can move.

true if this instance can move; otherwise, false.

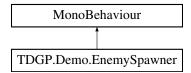
The documentation for this class was generated from the following file:

· EnemyMovement.cs

# 5.7 TDGP.Demo.EnemySpawner Class Reference

Spawns enemies for the example scene.

Inheritance diagram for TDGP.Demo.EnemySpawner:



# **Public Member Functions**

void EnemyRemoved ()
 Updates kill count.

# **Public Attributes**

GameObject Enemy

The enemy prefab.

• float SpawnTime = 0.8f

Time between spawns.

• int MaxEnemiesOnScreen = 10

The maximum number of enemies on screen.

KillCount KillCount

Reference to the kill text.

# 5.7.1 Detailed Description

Spawns enemies for the example scene.

# 5.7.2 Member Function Documentation

5.7.2.1 void TDGP.Demo.EnemySpawner.EnemyRemoved ( )

Updates kill count.

#### 5.7.3 Member Data Documentation

5.7.3.1 GameObject TDGP.Demo.EnemySpawner.Enemy

The enemy prefab.

5.7.3.2 KillCount TDGP.Demo.EnemySpawner.KillCount

Reference to the kill text.

5.7.3.3 int TDGP.Demo.EnemySpawner.MaxEnemiesOnScreen = 10

The maximum number of enemies on screen.

5.7.3.4 float TDGP.Demo.EnemySpawner.SpawnTime = 0.8f

Time between spawns.

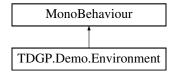
The documentation for this class was generated from the following file:

· EnemySpawner.cs

# 5.8 TDGP.Demo.Environment Class Reference

Generates environment for demo scene.

Inheritance diagram for TDGP.Demo.Environment:



#### **Public Attributes**

- · GameObject Floor
- · GameObject Wall\_N
- · GameObject Wall NE
- · GameObject Wall\_E
- GameObject Wall\_SE
- GameObject Wall\_S
- GameObject Wall SW
- · GameObject Wall\_W
- · GameObject Wall NW
- Vector2 RoomSize = new Vector2 (15, 15)

# 5.8.1 Detailed Description

Generates environment for demo scene.

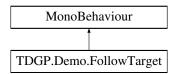
The documentation for this class was generated from the following file:

· Environment.cs

# 5.9 TDGP.Demo.FollowTarget Class Reference

Demo Script. Moves ENemies towards player.

Inheritance diagram for TDGP.Demo.FollowTarget:



# **Public Attributes**

· Transform Target

# 5.9.1 Detailed Description

Demo Script. Moves ENemies towards player.

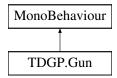
The documentation for this class was generated from the following file:

· FollowTarget.cs

# 5.10 TDGP.Gun Class Reference

Calls all child GunComponents OnPickup and OnDrop methods when gun is picked up and dropped respectively. Stores the guns type i.e. one handed, two handed, dual wield. This is used by the Holster script to update the players sprite.

Inheritance diagram for TDGP.Gun:



#### **Public Member Functions**

• void OnPickup ()

Calls OnPickup in all child componenets.

• void OnDrop ()

Calls OnDrop in all child componenets.

# **Public Attributes**

• Gun\_Type GunType

The type of the gun.

# 5.10.1 Detailed Description

Calls all child GunComponents OnPickup and OnDrop methods when gun is picked up and dropped respectively. Stores the guns type i.e. one handed, two handed, dual wield. This is used by the Holster script to update the players sprite.

#### 5.10.2 Member Function Documentation

5.10.2.1 void TDGP.Gun.OnDrop ( )

Calls OnDrop in all child componenets.

5.10.2.2 void TDGP.Gun.OnPickup ( )

Calls OnPickup in all child componenets.

# 5.10.3 Member Data Documentation

5.10.3.1 Gun\_Type TDGP.Gun.GunType

The type of the gun.

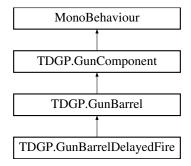
The documentation for this class was generated from the following file:

Gun.cs

# 5.11 TDGP.GunBarrel Class Reference

Responsibilities: launching projectiles, playing fire audio, and activating muzzle flash.

Inheritance diagram for TDGP.GunBarrel:



#### **Public Member Functions**

• virtual void OnFire ()

Requests bullet from gun clip and if returned, fires bullet based on barrels rotation.

• override void OnPickup ()

Called by gun component on parent.

• override void OnDrop ()

Called by gun component on parent. Disables muzzle flashes.

#### **Public Attributes**

· float LaunchSpeed

THe speed at which projecile is launched.

• float VolumeScale = 0.2f

The volume of the audio played when projectile is fired.

AudioClip[] FireSounds

Pool of possible sounds to play on fire.

#### 5.11.1 Detailed Description

Responsibilities: launching projectiles, playing fire audio, and activating muzzle flash.

# 5.11.2 Member Function Documentation

```
5.11.2.1 override void TDGP.GunBarrel.OnDrop() [virtual]
```

Called by gun component on parent. Disables muzzle flashes.

Implements TDGP.GunComponent.

```
5.11.2.2 virtual void TDGP.GunBarrel.OnFire() [virtual]
```

Requests bullet from gun clip and if returned, fires bullet based on barrels rotation.

Reimplemented in TDGP.GunBarrelDelayedFire.

```
5.11.2.3 override void TDGP.GunBarrel.OnPickup() [virtual]
```

Called by gun component on parent.

Implements TDGP.GunComponent.

#### 5.11.3 Member Data Documentation

# 5.11.3.1 AudioClip [] TDGP.GunBarrel.FireSounds

Pool of possible sounds to play on fire.

#### 5.11.3.2 float TDGP.GunBarrel.LaunchSpeed

THe speed at which projecile is launched.

#### 5.11.3.3 float TDGP.GunBarrel.VolumeScale = 0.2f

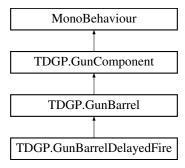
The volume of the audio played when projectile is fired.

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

· GunBarrel.cs

# 5.12 TDGP.GunBarrelDelayedFire Class Reference

Gun barrel with delayed fire. Currently used by the chain gun to produce erratic firing. Inheritance diagram for TDGP.GunBarrelDelayedFire:



#### **Public Member Functions**

• override void OnFire ()

Requests bullet from gun clip and if returned, fires bullet based on barrels rotation and min and max fire delay.

#### **Public Attributes**

• float MinFireDelay = 0.05f

The minimum delay between the fire button pressed and shooting a projecile.

float MaxFireDelay = 0.15f

The maximum delay between the fire button pressed and shooting a projecile.

# 5.12.1 Detailed Description

Gun barrel with delayed fire. Currently used by the chain gun to produce erratic firing.

#### 5.12.2 Member Function Documentation

# **5.12.2.1** override void TDGP.GunBarrelDelayedFire.OnFire() [virtual]

Requests bullet from gun clip and if returned, fires bullet based on barrels rotation and min and max fire delay. Reimplemented from TDGP.GunBarrel.

#### 5.12.3 Member Data Documentation

#### 5.12.3.1 float TDGP.GunBarrelDelayedFire.MaxFireDelay = 0.15f

The maximum delay between the fire button pressed and shooting a projecile.

#### 5.12.3.2 float TDGP.GunBarrelDelayedFire.MinFireDelay = 0.05f

The minimum delay between the fire button pressed and shooting a projecile.

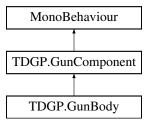
The documentation for this class was generated from the following file:

· GunBarrelDelayedFire.cs

# 5.13 TDGP.GunBody Class Reference

Responsibility: Updating the weapons relative position based on weapon type.

Inheritance diagram for TDGP.GunBody:



# **Public Types**

#### **Public Member Functions**

• override void OnPickup ()

Called by gun component on parent. Sets local position and sprite sorting order.

• override void OnDrop ()

Called by gun component on parent. Resets sprite sorting order.

# **Public Attributes**

• Gun\_Position GunPosition

The guns relative position.

# 5.13.1 Detailed Description

Responsibility: Updating the weapons relative position based on weapon type.

# 5.13.2 Member Function Documentation

**5.13.2.1** override void TDGP.GunBody.OnDrop() [virtual]

Called by gun component on parent. Resets sprite sorting order.

Implements TDGP.GunComponent.

**5.13.2.2** override void TDGP.GunBody.OnPickup() [virtual]

Called by gun component on parent. Sets local position and sprite sorting order.

Implements TDGP.GunComponent.

#### 5.13.3 Member Data Documentation

#### 5.13.3.1 Gun\_Position TDGP.GunBody.GunPosition

The guns relative position.

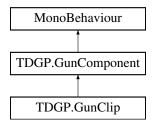
The documentation for this class was generated from the following file:

· GunBody.cs

# 5.14 TDGP.GunClip Class Reference

Responsibilities: act as a object pool for the guns projectiles, provide projectiles when requested by the guns barrel, limit the maximum number of bullets fired by the gun, and reload bullets when requested by player.

Inheritance diagram for TDGP.GunClip:



#### **Public Member Functions**

void PoolObject (GameObject obj)

Pools the object specified. Will not be pooled if there is no prefab of that type.

• GameObject GetBullet ()

Request a bullet. Returns a buller from the pool if present totherwise instantiates and returns new bullet.

• GameObject RequestBullet ()

Requests a bullet. A bullet is only returned if: there are currently bullets in the clip, and the weapon is not currently being reloaded.

override void OnPickup ()

Called by gun component on parent. Resets current bullets in clip.

• override void OnDrop ()

Called by gun component on parent.

#### **Public Attributes**

• int BulletsInClip = 15

The bullets in a clip.

• bool SupportReload = false

If true, this weapon can be reloaded.

• float ReloadSpeed = 0.2f

The time it takes to reload.

# 5.14.1 Detailed Description

Responsibilities: act as a object pool for the guns projectiles, provide projectiles when requested by the guns barrel, limit the maximum number of bullets fired by the gun, and reload bullets when requested by player.

#### 5.14.2 Member Function Documentation

```
5.14.2.1 GameObject TDGP.GunClip.GetBullet ( )
```

Request a bullet. Returns a buller from the pool if present totherwise instantiates and returns new bullet.

Returns

The bullet.

```
5.14.2.2 override void TDGP.GunClip.OnDrop() [virtual]
```

Called by gun component on parent.

Implements TDGP.GunComponent.

```
5.14.2.3 override void TDGP.GunClip.OnPickup() [virtual]
```

Called by gun component on parent. Resets current bullets in clip.

Implements TDGP.GunComponent.

```
5.14.2.4 void TDGP.GunClip.PoolObject ( GameObject obj )
```

Pools the object specified. Will not be pooled if there is no prefab of that type.

**Parameters** 

```
obj Object to be pooled.
```

# 5.14.2.5 GameObject TDGP.GunClip.RequestBullet ( )

Requests a bullet. A bullet is only returned if: there are currently bullets in the clip, and the weapon is not currently being reloaded.

Returns

The bullet.

# 5.14.3 Member Data Documentation

5.14.3.1 int TDGP.GunClip.BulletsInClip = 15

The bullets in a clip.

5.14.3.2 float TDGP.GunClip.ReloadSpeed = 0.2f

The time it takes to reload.

5.14.3.3 bool TDGP.GunClip.SupportReload = false

If true, this weapon can be reloaded.

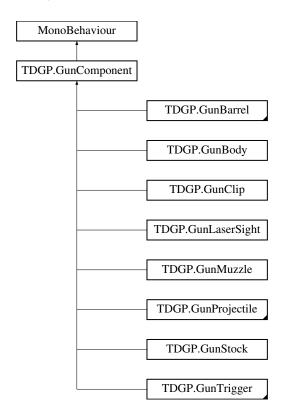
The documentation for this class was generated from the following file:

· GunClip.cs

# 5.15 TDGP.GunComponent Class Reference

The base class for all gun components.

Inheritance diagram for TDGP.GunComponent:



#### **Public Member Functions**

• abstract void OnPickup ()

Raised when weapon picked up.

• abstract void OnDrop ()

Raised when weapon dropped.

# 5.15.1 Detailed Description

The base class for all gun components.

#### 5.15.2 Member Function Documentation

**5.15.2.1** abstract void TDGP.GunComponent.OnDrop() [pure virtual]

Raised when weapon dropped.

Implemented in TDGP.GunClip, TDGP.SeekingGunProjectile, TDGP.GunProjectile, TDGP.GunBarrel, TDGP.GunBerrel, TDGP.GunBody, TDGP.GunBuzzle, and TDGP.GunStock.

```
5.15.2.2 abstract void TDGP.GunComponent.OnPickup() [pure virtual]
```

Raised when weapon picked up.

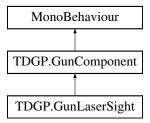
The documentation for this class was generated from the following file:

· GunComponent.cs

# 5.16 TDGP.GunLaserSight Class Reference

Adds a laser sight to a weapon. Responsible for updating the lasers scale.

Inheritance diagram for TDGP.GunLaserSight:



# **Public Member Functions**

- · void Awake ()
- override void OnPickup ()

Raised when weapon picked up. Enables line renderer.

• override void OnDrop ()

Raised when weapon dropped. Disables line renderer.

## **Public Attributes**

• float Range = 5f

Total range of laser when no obstructions present.

#### 5.16.1 Detailed Description

Adds a laser sight to a weapon. Responsible for updating the lasers scale.

#### 5.16.2 Member Function Documentation

**5.16.2.1** override void TDGP.GunLaserSight.OnDrop() [virtual]

Raised when weapon dropped. Disables line renderer.

Implements TDGP.GunComponent.

**5.16.2.2** override void TDGP.GunLaserSight.OnPickup() [virtual]

Raised when weapon picked up. Enables line renderer.

Implements TDGP.GunComponent.

#### 5.16.3 Member Data Documentation

5.16.3.1 float TDGP.GunLaserSight.Range = 5f

Total range of laser when no obstructions present.

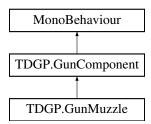
The documentation for this class was generated from the following file:

· GunLaserSight.cs

## 5.17 TDGP.GunMuzzle Class Reference

Handles gun muzzle flash.

Inheritance diagram for TDGP.GunMuzzle:



## **Public Member Functions**

• override void OnPickup ()

Raised when weapon picked up.

• override void OnDrop ()

Raised when weapon dropped. Disables gameobject.

#### **Public Attributes**

• float FlashAnimationSpeed = 1f

The flash animation speed.

### 5.17.1 Detailed Description

Handles gun muzzle flash.

#### 5.17.2 Member Function Documentation

**5.17.2.1** override void TDGP.GunMuzzle.OnDrop() [virtual]

Raised when weapon dropped. Disables gameobject.

Implements TDGP.GunComponent.

**5.17.2.2** override void TDGP.GunMuzzle.OnPickup() [virtual]

Raised when weapon picked up.

Implements TDGP.GunComponent.

## 5.17.3 Member Data Documentation

5.17.3.1 float TDGP.GunMuzzle.FlashAnimationSpeed = 1f

The flash animation speed.

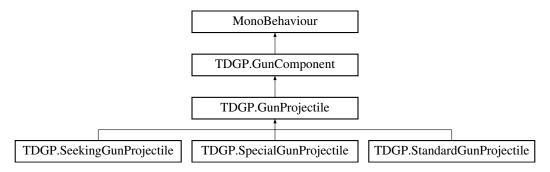
The documentation for this class was generated from the following file:

· GunMuzzle.cs

## 5.18 TDGP.GunProjectile Class Reference

The abstract base class for all gun projectiles. Responsible for handling collision, applying damage, and pooling projectile when max time alive has been reached.

Inheritance diagram for TDGP.GunProjectile:



#### **Public Member Functions**

- virtual void Awake ()
- virtual void Update ()

Returns the projectile when/if maximum tile alive is reached.

virtual void OnTriggerEnter2D (Collider2D other)

Returns projectile if it hits wall.

• override void OnPickup ()

Raised when weapon picked up.

• override void OnDrop ()

Raised when weapon dropped.

#### **Public Attributes**

float MaxTimeAlive = 2f

The maximum time projectile can be alive. The projectile is pooled when this time has been reached.

bool DestroyOnEnemyImpact = true

If true, the projectile will be pooled when a collision with an enemy occurs.

## **Protected Member Functions**

- void ApplyDamage (Collider2D other, float damage)
- void InitDamageAnimation (Collider2D other, GameObject animation)
- void ReturnProjectile ()

## **Properties**

• GunClip Owner [set]

The owner of this projectile.

## 5.18.1 Detailed Description

The abstract base class for all gun projectiles. Responsible for handling collision, applying damage, and pooling projectile when max time alive has been reached.

## 5.18.2 Member Function Documentation

```
5.18.2.1 override void TDGP.GunProjectile.OnDrop() [virtual]
```

Raised when weapon dropped.

Implements TDGP.GunComponent.

Reimplemented in TDGP.SeekingGunProjectile.

```
5.18.2.2 override void TDGP.GunProjectile.OnPickup() [virtual]
```

Raised when weapon picked up.

Implements TDGP.GunComponent.

Reimplemented in TDGP.SeekingGunProjectile.

**5.18.2.3** virtual void TDGP.GunProjectile.OnTriggerEnter2D ( Collider2D other ) [virtual]

Returns projectile if it hits wall.

#### **Parameters**

other	Other.
-------	--------

Reimplemented in TDGP.SeekingGunProjectile, TDGP.StandardGunProjectile, and TDGP.SpecialGunProjectile.

5.18.2.4 virtual void TDGP.GunProjectile.Update() [virtual]

Returns the projectile when/if maximum tile alive is reached.

Reimplemented in TDGP.SeekingGunProjectile.

## 5.18.3 Member Data Documentation

5.18.3.1 bool TDGP.GunProjectile.DestroyOnEnemyImpact = true

If true, the projectile will be pooled when a collision with an enemy occurs.

5.18.3.2 float TDGP.GunProjectile.MaxTimeAlive = 2f

The maximum time projectile can be alive. The projectile is pooled when this time has been reached.

## 5.18.4 Property Documentation

**5.18.4.1 GunClip TDGP.GunProjectile.Owner** [set]

The owner of this projectile.

The owner.

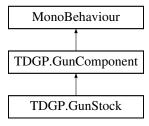
The documentation for this class was generated from the following file:

· GunProjectile.cs

## 5.19 TDGP.GunStock Class Reference

Responsibility: Providing a knock back force when weapon fired.

Inheritance diagram for TDGP.GunStock:



## **Public Member Functions**

• override void OnPickup ()

Raised when weapon picked up.

• override void OnDrop ()

Raised when weapon dropped.

#### **Public Attributes**

• float KnockBackForce = 50f

The knock back force applied to the player on weapon fire.

## 5.19.1 Detailed Description

Responsibility: Providing a knock back force when weapon fired.

#### 5.19.2 Member Function Documentation

**5.19.2.1** override void TDGP.GunStock.OnDrop() [virtual]

Raised when weapon dropped.

Implements TDGP.GunComponent.

**5.19.2.2** override void TDGP.GunStock.OnPickup() [virtual]

Raised when weapon picked up.

Implements TDGP.GunComponent.

#### 5.19.3 Member Data Documentation

5.19.3.1 float TDGP.GunStock.KnockBackForce = 50f

The knock back force applied to the player on weapon fire.

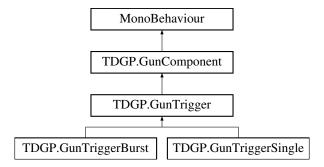
The documentation for this class was generated from the following file:

· GunStock.cs

## 5.20 TDGP.GunTrigger Class Reference

Abstract base class for all gun triggers. Responsibility: Handling player input.

Inheritance diagram for TDGP.GunTrigger:



## **Public Types**

- enum TRIGGER\_KEY\_MAPPING { PRIMARY, SECONDARY }
- enum SHOOT\_TYPE { CLICK, HOLD }

#### **Public Member Functions**

• virtual void Awake ()

Sets button mapping and retrieves list of barrels attached to gun.

abstract void HandleClickInput ()

Handles the click input.

abstract void HandleHoldInput ()

Handles the hold input.

• override void OnPickup ()

Called by gun component on parent. Sets in use to true i.e. start listening for player input.

• override void OnDrop ()

Called by gun component on parent. Sets in use to false i.e. stop listening for player input.

#### **Public Attributes**

• TRIGGER\_KEY\_MAPPING KeyMapping

The key mapping. Primary = right mouse click, secondary = left mouse click.

SHOOT\_TYPE ShootType

The shoot type i.e. click (the player has to keep clicking to shoot) or hold (the player can hold the mouse button down to continue to fire)

float DelayBetweenProjectiles = 0.1f

The delay between projectiles.

#### **Protected Attributes**

- · string buttonMapping
- bool inUse = false
- List< GunBarrel > barrels

## 5.20.1 Detailed Description

Abstract base class for all gun triggers. Responsibility: Handling player input.

### 5.20.2 Member Function Documentation

```
5.20.2.1 virtual void TDGP.GunTrigger.Awake() [virtual]
```

Sets button mapping and retrieves list of barrels attached to gun.

 $Reimplemented \ in \ TDGP. Gun Trigger Burst, \ and \ TDGP. Gun Trigger Single.$ 

```
\textbf{5.20.2.2} \quad \textbf{abstract void TDGP.GunTrigger.HandleClickInput ( )} \quad [\texttt{pure virtual}]
```

Handles the click input.

Implemented in TDGP.GunTriggerSingle, and TDGP.GunTriggerBurst.

```
5.20.2.3 abstract void TDGP.GunTrigger.HandleHoldInput() [pure virtual]
```

Handles the hold input.

 $Implemented \ in \ TDGP. Gun Trigger Single, \ and \ TDGP. Gun Trigger Burst.$ 

**5.20.2.4** override void TDGP.GunTrigger.OnDrop() [virtual]

Called by gun component on parent. Sets in use to false i.e. stop listening for player input.

Implements TDGP.GunComponent.

**5.20.2.5** override void TDGP.GunTrigger.OnPickup() [virtual]

Called by gun component on parent. Sets in use to true i.e. start listening for player input.

Implements TDGP.GunComponent.

Reimplemented in TDGP.GunTriggerSingle.

#### 5.20.3 Member Data Documentation

5.20.3.1 float TDGP.GunTrigger.DelayBetweenProjectiles = 0.1f

The delay between projectiles.

5.20.3.2 TRIGGER\_KEY\_MAPPING TDGP.GunTrigger.KeyMapping

The key mapping. Primary = right mouse click, secondary = left mouse click.

5.20.3.3 SHOOT\_TYPE TDGP.GunTrigger.ShootType

The shoot type i.e. click (the player has to keep clicking to shoot) or hold (the player can hold the mouse button down to continue to fire)

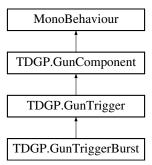
The documentation for this class was generated from the following file:

· GunTrigger.cs

## 5.21 TDGP.GunTriggerBurst Class Reference

Provides burst firing.

Inheritance diagram for TDGP.GunTriggerBurst:



### **Public Member Functions**

• override void Awake ()

Sets button mapping and retrieves list of barrels attached to gun.

• override void HandleClickInput ()

If not already firing burst, a burst of projectiles will be fired.

• override void HandleHoldInput ()

If not already firing burst, a burst of projectiles will be fired.

## **Public Attributes**

• float TimeBetweenBursts = 0.3f

The time between bursts of projectiles.

• int BulletsPerBurst = 3

The bullets per burst.

#### **Additional Inherited Members**

## 5.21.1 Detailed Description

Provides burst firing.

#### 5.21.2 Member Function Documentation

```
5.21.2.1 override void TDGP.GunTriggerBurst.Awake( ) [virtual]
```

Sets button mapping and retrieves list of barrels attached to gun.

Reimplemented from TDGP.GunTrigger.

```
5.21.2.2 override void TDGP.GunTriggerBurst.HandleClickInput() [virtual]
```

If not already firing burst, a burst of projectiles will be fired.

Implements TDGP.GunTrigger.

```
5.21.2.3 override void TDGP.GunTriggerBurst.HandleHoldInput() [virtual]
```

If not already firing burst, a burst of projectiles will be fired.

Implements TDGP.GunTrigger.

## 5.21.3 Member Data Documentation

## 5.21.3.1 int TDGP.GunTriggerBurst.BulletsPerBurst = 3

The bullets per burst.

## 5.21.3.2 float TDGP.GunTriggerBurst.TimeBetweenBursts = 0.3f

The time between bursts of projectiles.

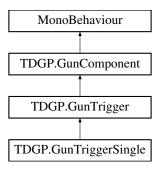
The documentation for this class was generated from the following file:

• GunTriggerBurst.cs

## 5.22 TDGP.GunTriggerSingle Class Reference

Provides signle bullet firing on trigger press.

Inheritance diagram for TDGP.GunTriggerSingle:



### **Public Member Functions**

• override void Awake ()

Sets button mapping and retrieves list of barrels attached to gun.

• override void HandleClickInput ()

Tells each barrel attached to the gun to fire.

• override void HandleHoldInput ()

Tells each barrel attached to the gun to fire.

• override void OnPickup ()

Called by gun component on parent. Resets current shoot speed.

## **Additional Inherited Members**

## 5.22.1 Detailed Description

Provides signle bullet firing on trigger press.

#### 5.22.2 Member Function Documentation

```
5.22.2.1 override void TDGP.GunTriggerSingle.Awake() [virtual]
```

Sets button mapping and retrieves list of barrels attached to gun.

Reimplemented from TDGP.GunTrigger.

```
5.22.2.2 override void TDGP.GunTriggerSingle.HandleClickInput() [virtual]
```

Tells each barrel attached to the gun to fire.

Implements TDGP.GunTrigger.

**5.22.2.3 override void TDGP.GunTriggerSingle.HandleHoldInput()** [virtual]

Tells each barrel attached to the gun to fire.

Implements TDGP.GunTrigger.

**5.22.2.4 override void TDGP.GunTriggerSingle.OnPickup()** [virtual]

Called by gun component on parent. Resets current shoot speed.

Reimplemented from TDGP.GunTrigger.

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

· GunTriggerSingle.cs

## 5.23 TDGP.Health Class Reference

Enemy health script.

Inheritance diagram for TDGP.Health:



#### **Public Member Functions**

void OnHit (float damageAmount)

Reduces health, plays hit sound, and kills enemy if health less than or equal to zero.

void ApplyDPS (float dps, float time)

Applies damage per second.

## **Public Attributes**

• float MaxHealth = 10f

The starting health of enemies in the demo scene.

• AudioClip[] OnHitSounds

Sound pool of possible sounds to play when hit.

• GameObject OnDeadAnimation

Animation to play when enemy killed.

• GameObject[] OnDeadSprites

Pool of sprites to place when enemy killed.

## 5.23.1 Detailed Description

Enemy health script.

#### 5.23.2 Member Function Documentation

5.23.2.1 void TDGP.Health.ApplyDPS (float dps, float time)

Applies damage per second.

#### **Parameters**

dps	Damage per second.
time	Time.

### 5.23.2.2 void TDGP.Health.OnHit (float damageAmount)

Reduces health, plays hit sound, and kills enemy if health less than or equal to zero.

### **Parameters**

damageAmount	Damage amount.

## 5.23.3 Member Data Documentation

#### 5.23.3.1 float TDGP.Health.MaxHealth = 10f

The starting health of enemies in the demo scene.

## 5.23.3.2 GameObject TDGP.Health.OnDeadAnimation

Animation to play when enemy killed.

## 5.23.3.3 GameObject [] TDGP.Health.OnDeadSprites

Pool of sprites to place when enemy killed.

## 5.23.3.4 AudioClip [] TDGP.Health.OnHitSounds

Sound pool of possible sounds to play when hit.

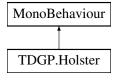
The documentation for this class was generated from the following file:

· Health.cs

## 5.24 TDGP.Holster Class Reference

Weapon pickup script, also allows for weapon switching. Used for the demo scene but can be adapted for use by your player.

Inheritance diagram for TDGP.Holster:



## **Public Member Functions**

void OnWeaponPickup (Transform weapon)

Called when a weapon is picked up. Attaches weapon to player in a hoster slot. If the holster is full it destroys the weapon in the current slot.

## 5.24.1 Detailed Description

Weapon pickup script, also allows for weapon switching. Used for the demo scene but can be adapted for use by your player.

#### 5.24.2 Member Function Documentation

## 5.24.2.1 void TDGP.Holster.OnWeaponPickup ( Transform weapon )

Called when a weapon is picked up. Attaches weapon to player in a hoster slot. If the holster is full it destroys the weapon in the current slot.

**Parameters** 

weapon Weapon.

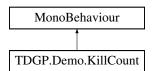
The documentation for this class was generated from the following file:

· Holster.cs

## 5.25 TDGP.Demo.KillCount Class Reference

Shows text on screen for number of enemies killed in demo scene.

Inheritance diagram for TDGP.Demo.KillCount:



**Public Member Functions** 

void EnemyKilled ()

### 5.25.1 Detailed Description

Shows text on screen for number of enemies killed in demo scene.

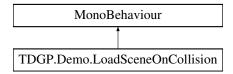
The documentation for this class was generated from the following file:

KillCount.cs

## 5.26 TDGP.Demo.LoadSceneOnCollision Class Reference

Reloads scene if enemy touches player in demo scene.

Inheritance diagram for TDGP.Demo.LoadSceneOnCollision:



## **Public Attributes**

• int SceneNumber = 0

## 5.26.1 Detailed Description

Reloads scene if enemy touches player in demo scene.

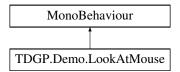
The documentation for this class was generated from the following file:

· LoadSceneOnCollision.cs

## 5.27 TDGP.Demo.LookAtMouse Class Reference

Demo script. Play looks at mouse.

Inheritance diagram for TDGP.Demo.LookAtMouse:



## 5.27.1 Detailed Description

Demo script. Play looks at mouse.

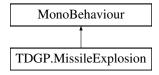
The documentation for this class was generated from the following file:

· LookAtMouse.cs

## 5.28 TDGP.MissileExplosion Class Reference

Missile explosion. Applys knockback force to enemy on explosion.

Inheritance diagram for TDGP.MissileExplosion:



## **Public Attributes**

• float PushBackForce = 10f

## 5.28.1 Detailed Description

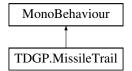
Missile explosion. Applys knockback force to enemy on explosion.

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

· MissileExplosion.cs

## 5.29 TDGP.MissileTrail Class Reference

Missile trail. Uses line renderer to create a trail effect for the missile. Inheritance diagram for TDGP.MissileTrail:



## **Public Member Functions**

• void OnFire ()

Updates line based on projectiles movement.

## **Public Attributes**

• int numOfPoints = 10

The number of points on line.

• float updateSpeed = 0.25f

The update speed.

• float turnSpeed = 0.25f

The turn speed.

• float spread = 0.2f

The spread of the line.

## 5.29.1 Detailed Description

Missile trail. Uses line renderer to create a trail effect for the missile.

## 5.29.2 Member Function Documentation

5.29.2.1 void TDGP.MissileTrail.OnFire ( )

Updates line based on projectiles movement.

## 5.29.3 Member Data Documentation

5.29.3.1 int TDGP.MissileTrail.numOfPoints = 10

The number of points on line.

5.29.3.2 float TDGP.MissileTrail.spread = 0.2f

The spread of the line.

5.29.3.3 float TDGP.MissileTrail.turnSpeed = 0.25f

The turn speed.

5.29.3.4 float TDGP.MissileTrail.updateSpeed = 0.25f

The update speed.

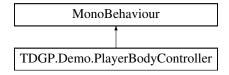
The documentation for this class was generated from the following file:

· MissileTrail.cs

## 5.30 TDGP.Demo.PlayerBodyController Class Reference

Updates player sprite based on currently held weapon.

Inheritance diagram for TDGP.Demo.PlayerBodyController:



## **Public Member Functions**

- void PickedUpOneHanded ()
- void PickedUpTwoHandedWeapon ()
- void PickedUpDualWieldWeapon ()

#### **Public Attributes**

- Sprite OneHandedWeaponBody
- Sprite TwoHandedWeaponBody
- Sprite DualWieldWeaponBody

## 5.30.1 Detailed Description

Updates player sprite based on currently held weapon.

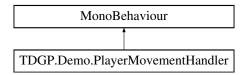
The documentation for this class was generated from the following file:

PlayerBodyController.cs

## 5.31 TDGP.Demo.PlayerMovementHandler Class Reference

Demo script. Updates players position based on input.

Inheritance diagram for TDGP.Demo.PlayerMovementHandler:



#### **Public Attributes**

• float MoveSpeed = 2.5f

## 5.31.1 Detailed Description

Demo script. Updates players position based on input.

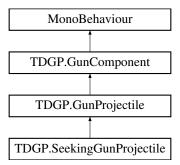
The documentation for this class was generated from the following file:

· PlayerMovementHandler.cs

## 5.32 TDGP.SeekingGunProjectile Class Reference

A projectile that seeks towards its target.

Inheritance diagram for TDGP.SeekingGunProjectile:



## **Public Member Functions**

- override void Awake ()
- override void OnTriggerEnter2D (Collider2D other)

Returns projectile if it hits wall or enemy. Instantiates damage animation and damages object (if enemy).

• override void Update ()

Rotates towards closest target.

- · Vector2 GetForce ()
- override void OnPickup ()

Raised when weapon picked up.

• override void OnDrop ()

Raised when weapon dropped.

#### **Public Attributes**

```
    float Damage = 10f
```

Damage on collision.

• float Velocity = 40f

Projectiles velocity.

GameObject DamageAnimation

Animation on collision with enemy.

#### **Additional Inherited Members**

### 5.32.1 Detailed Description

A projectile that seeks towards its target.

#### 5.32.2 Member Function Documentation

```
5.32.2.1 override void TDGP.SeekingGunProjectile.OnDrop() [virtual]
```

Raised when weapon dropped.

Reimplemented from TDGP.GunProjectile.

```
5.32.2.2 override void TDGP.SeekingGunProjectile.OnPickup() [virtual]
```

Raised when weapon picked up.

Reimplemented from TDGP.GunProjectile.

```
5.32.2.3 override void TDGP.SeekingGunProjectile.OnTriggerEnter2D ( Collider2D other ) [virtual]
```

Returns projectile if it hits wall or enemy. Instantiates damage animation and damages object (if enemy).

**Parameters** 

```
other Other.
```

Reimplemented from TDGP.GunProjectile.

**5.32.2.4 override void TDGP.SeekingGunProjectile.Update( )** [virtual]

Rotates towards closest target.

Reimplemented from TDGP.GunProjectile.

## 5.32.3 Member Data Documentation

5.32.3.1 float TDGP.SeekingGunProjectile.Damage = 10f

Damage on collision.

5.32.3.2 GameObject TDGP.SeekingGunProjectile.DamageAnimation

Animation on collision with enemy.

### 5.32.3.3 float TDGP.SeekingGunProjectile.Velocity = 40f

Projectiles velocity.

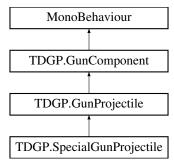
The documentation for this class was generated from the following file:

SeekingGunProjectile.cs

## 5.33 TDGP.SpecialGunProjectile Class Reference

Projectile of special type i.e. ice or chain lightning.

Inheritance diagram for TDGP.SpecialGunProjectile:



#### **Public Member Functions**

override void OnTriggerEnter2D (Collider2D other)
 Returns projectile if it hits wall. Applies special damage if hits enemy.

## **Public Attributes**

• float DamagePerSecond = 0.5f

The damage per second.

• float DamageTime = 1f

The damage time.

• SPECIAL\_DAMAGE\_TYPE DamageType

The type of damage to apply.

#### **Additional Inherited Members**

## 5.33.1 Detailed Description

Projectile of special type i.e. ice or chain lightning.

## 5.33.2 Member Function Documentation

5.33.2.1 override void TDGP.SpecialGunProjectile.OnTriggerEnter2D ( Collider2D other ) [virtual]

Returns projectile if it hits wall. Applies special damage if hits enemy.

#### **Parameters**

other	Other.
-------	--------

Reimplemented from TDGP.GunProjectile.

#### 5.33.3 Member Data Documentation

5.33.3.1 float TDGP.SpecialGunProjectile.DamagePerSecond = 0.5f

The damage per second.

5.33.3.2 float TDGP.SpecialGunProjectile.DamageTime = 1f

The damage time.

5.33.3.3 SPECIAL DAMAGE TYPE TDGP.SpecialGunProjectile.DamageType

The type of damage to apply.

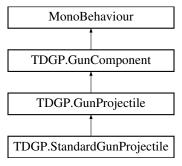
The documentation for this class was generated from the following file:

· SpecialGunProjectile.cs

## 5.34 TDGP.StandardGunProjectile Class Reference

A standard gun projectile.

Inheritance diagram for TDGP.StandardGunProjectile:



## **Public Member Functions**

- override void Awake ()
- override void OnTriggerEnter2D (Collider2D other)

Returns projectile if it hits wall. Applys damage if hits enemy.

## **Public Attributes**

float Damage

Damage on projectile hit.

• GameObject DamageAnimation

The damage animation prefab.

**Additional Inherited Members** 

## 5.34.1 Detailed Description

A standard gun projectile.

### 5.34.2 Member Function Documentation

**5.34.2.1** override void TDGP.StandardGunProjectile.OnTriggerEnter2D ( Collider2D other ) [virtual]

Returns projectile if it hits wall. Applys damage if hits enemy.

**Parameters** 

other	Other.

Reimplemented from TDGP.GunProjectile.

#### 5.34.3 Member Data Documentation

5.34.3.1 float TDGP.StandardGunProjectile.Damage

Damage on projectile hit.

## 5.34.3.2 GameObject TDGP.StandardGunProjectile.DamageAnimation

The damage animation prefab.

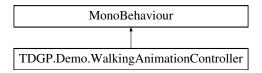
The documentation for this class was generated from the following file:

• StandardGunProjectile.cs

## 5.35 TDGP.Demo.WalkingAnimationController Class Reference

Updates walking animation based on movement speed.

Inheritance diagram for TDGP.Demo.WalkingAnimationController:



## 5.35.1 Detailed Description

Updates walking animation based on movement speed.

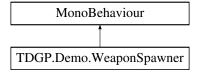
The documentation for this class was generated from the following file:

WalkingAnimationController.cs

## 5.36 TDGP.Demo.WeaponSpawner Class Reference

Demo Script. Spawns weapon at players location on button press.

Inheritance diagram for TDGP.Demo.WeaponSpawner:



## **Public Attributes**

- · Transform Player
- GameObject[] WeaponPrefabs

## 5.36.1 Detailed Description

Demo Script. Spawns weapon at players location on button press.

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

· WeaponSpawner.cs

# Index

ApplyDPS	TDGP::GunMuzzle, 28
TDGP::Health, 37	
ApplyDamage	GetBullet
TDGP::DamageAnimationController, 13	TDGP::GunClip, 24
AudioClips	Gun_Type
TDGP::AnimationAudio, 12	TDGP, 8
Awake	GunPosition
TDGP::GunTrigger, 33	TDGP::GunBody, 23
TDGP::GunTriggerBurst, 35	GunType
TDGP::GunTriggerSingle, 36	TDGP::Gun, 19
1 Datdairmiggoromgio, oo	, and the second
BulletsInClip	HandleClickInput
TDGP::GunClip, 25	TDGP::GunTrigger, 33
BulletsPerBurst	TDGP::GunTriggerBurst, 35
TDGP::GunTriggerBurst, 35	TDGP::GunTriggerSingle, 36
391 1 19	HandleHoldInput
CanMove	TDGP::GunTrigger, 33
TDGP::EnemyMovement, 16	TDGP::GunTriggerBurst, 35
ChainLightningRange	TDGP::GunTriggerSingle, 36
TDGP::DamageAnimationController, 13	
,	IceCaseAnimation
Damage	TDGP::DamageAnimationController, 13
TDGP::SeekingGunProjectile, 44	InversePlayChance
TDGP::StandardGunProjectile, 47	TDGP::AnimationAudio, 12
DamageAnimation	
TDGP::SeekingGunProjectile, 44	KeyMapping
TDGP::StandardGunProjectile, 47	TDGP::GunTrigger, 34
DamagePerSecond	KillCount
TDGP::SpecialGunProjectile, 46	TDGP::Demo::EnemySpawner, 17
DamageTime	KnockBackForce
TDGP::SpecialGunProjectile, 46	TDGP::GunStock, 32
DamageType	. 2 3. 113.01.0001, 02
TDGP::SpecialGunProjectile, 46	LaunchSpeed
DelayBetweenProjectiles	TDGP::GunBarrel, 21
TDGP::GunTrigger, 34	LightningAnimation
	TDGP::DamageAnimationController, 13
DestroyOnEnemyImpact	
TDGP::GunProjectile, 31	MaxChainLightningEnemiesHit
EnableMovement	TDGP::DamageAnimationController, 13
TDGP::EnableParentMovement, 15	MaxEnemiesOnScreen
Enemy	TDGP::Demo::EnemySpawner, 17
TDGP::Demo::EnemySpawner, 17	MaxFireDelay
	TDGP::GunBarrelDelayedFire, 22
EnemyRemoved	MaxHealth
TDGP::Demo::EnemySpawner, 17	TDGP::Health, 38
Execute	MaxTimeAlive
TDGP::Destroy, 14	TDGP::GunProjectile, 31
TDGP::Disable, 14	MinFireDelay
FireSounds	•
	TDGP::GunBarrelDelayedFire, 22
TDGP::GunBarrel, 21	MoveSpeed
FlashAnimationSpeed	TDGP::EnemyMovement, 16

50 INDEX

numOfPoints	RequestBullet
TDGP::MissileTrail, 42	TDGP::GunClip, 24
OnDeadAnimation	SPECIAL_DAMAGE_TYPE
TDGP::Health, 38	TDGP, 8
OnDeadSprites	ShootType
TDGP::Health, 38	TDGP::GunTrigger, 34
OnDrop	SpawnComplete
TDGP::Gun, 19	TDGP::EnemyMovement, 16
TDGP::GunBarrel, 20	SpawnTime
TDGP::GunBody, 23	TDGP::Demo::EnemySpawner, 17
TDGP::GunClip, 24	spread
TDGP::GunComponent, 26	TDGP::MissileTrail, 42
TDGP::GunLaserSight, 27	SupportReload
TDGP::GunMuzzle, 28	TDGP::GunClip, 25
TDGP::GunProjectile, 29	
TDGP::GunStock, 32	TDGP, 7
TDGP::GunTrigger, 33	Gun_Type, 8
TDGP::SeekingGunProjectile, 44	SPECIAL_DAMAGE_TYPE, 8
OnFire	TDGP.AnimationAudio, 11
TDGP::GunBarrel, 20	TDGP.DamageAnimationController, 12
TDGP::GunBarrelDelayedFire, 22	TDGP.Demo, 9
TDGP::MissileTrail, 41	TDGP.Demo.EnemySpawner, 16
OnHit	TDGP.Demo.Environment, 17
	TDGP.Demo.FollowTarget, 18
TDGP::Health, 38	TDGP.Demo.KillCount, 39
OnHitSounds	TDGP.Demo.LoadSceneOnCollision, 39
TDGP::Health, 38	TDGP.Demo.LookAtMouse, 40
OnPickup	TDGP.Demo.PlayerBodyController, 42
TDGP::Gun, 19	TDGP.Demo.PlayerMovementHandler, 43
TDGP::GunBarrel, 20	TDGP.Demo.WalkingAnimationController, 47
TDGP::GunBody, 23	TDGP.Demo.WeaponSpawner, 48
TDGP::GunClip, 24	
TDGP::GunComponent, 26	TDGP.Destroy, 13
TDGP::GunLaserSight, 27	TDGP.Disable, 14
TDGP::GunMuzzle, 28	TDGP.EnableParentMovement, 14
TDGP::GunProjectile, 29	TDGP.EnemyMovement, 15
TDGP::GunStock, 32	TDGP.Gun, 18
TDGP::GunTrigger, 34	TDGP.GunBarrel, 19
TDGP::GunTriggerSingle, 36	TDGP.GunBarrelDelayedFire, 21
TDGP::SeekingGunProjectile, 44	TDGP.GunBody, 22
OnTriggerEnter2D	TDGP.GunClip, 23
TDGP::GunProjectile, 29	TDGP.GunComponent, 25
TDGP::SeekingGunProjectile, 44	TDGP.GunLaserSight, 26
TDGP::SpecialGunProjectile, 45	TDGP.GunMuzzle, 27
TDGP::StandardGunProjectile, 47	TDGP.GunProjectile, 28
OnWeaponPickup	TDGP.GunStock, 31
TDGP::Holster, 39	TDGP.GunTrigger, 32
Owner	TDGP.GunTriggerBurst, 34
TDGP::GunProjectile, 31	TDGP.GunTriggerSingle, 36
	TDGP.Health, 37
PlaySound	TDGP.Holster, 38
TDGP::AnimationAudio, 11	TDGP.MissileExplosion, 40
PoolObject	TDGP.MissileTrail, 41
TDGP::GunClip, 24	TDGP.SeekingGunProjectile, 43
• *	TDGP.SpecialGunProjectile, 45
Range	TDGP.StandardGunProjectile, 46
TDGP::GunLaserSight, 27	TDGP::AnimationAudio
ReloadSpeed	AudioClips, 12
TDGP::GunClip, 25	InversePlayChance, 12

INDEX 51

PlaySound, 11	Range, 27
VolumeScale, 12	TDGP::GunMuzzle
TDGP::DamageAnimationController	FlashAnimationSpeed, 28
ApplyDamage, 13	OnDrop, 28
ChainLightningRange, 13	OnPickup, 28
IceCaseAnimation, 13	TDGP::GunProjectile
LightningAnimation, 13	DestroyOnEnemyImpact, 31
MaxChainLightningEnemiesHit, 13	MaxTimeAlive, 31
TDGP::Demo::EnemySpawner	OnDrop, 29
Enemy, 17	OnPickup, 29
EnemyRemoved, 17	OnTriggerEnter2D, 29
KillCount, 17	Owner, 31
MaxEnemiesOnScreen, 17	Update, 31
SpawnTime, 17	TDGP::GunStock
TDGP::Destroy	KnockBackForce, 32
Execute, 14	OnDrop, 32
TDGP::Disable	OnPickup, 32
Execute, 14	TDGP::GunTrigger
TDGP::EnableParentMovement	Awake, 33
EnableMovement, 15	DelayBetweenProjectiles, 34
TDGP::EnemyMovement	HandleClickInput, 33
CanMove, 16	HandleHoldInput, 33
MoveSpeed, 16	KeyMapping, 34
SpawnComplete, 16	OnDrop, 33
TDGP::Gun	OnPickup, 34
GunType, 19	ShootType, 34
OnDrop, 19	TDGP::GunTriggerBurst
OnPickup, 19	Awake, 35
TDGP::GunBarrel	BulletsPerBurst, 35
FireSounds, 21	HandleClickInput, 35
LaunchSpeed, 21	HandleHoldInput, 35
OnDrop, 20	TimeBetweenBursts, 35
OnFire, 20	TDGP::GunTriggerSingle
OnPickup, 20	Awake, 36
VolumeScale, 21	HandleClickInput, 36
TDGP::GunBarrelDelayedFire	HandleHoldInput, 36
MaxFireDelay, 22	OnPickup, 36
MinFireDelay, 22	TDGP::Health
OnFire, 22	ApplyDPS, 37
TDGP::GunBody	MaxHealth, 38
GunPosition, 23	OnDeadAnimation, 38
OnDrop, 23	OnDeadSprites, 38
OnPickup, 23	OnHit, 38
TDGP::GunClip	OnHitSounds, 38
BulletsInClip, 25	TDGP::Holster
GetBullet, 24	OnWeaponPickup, 39
OnDrop, 24	TDGP::MissileTrail
OnPickup, 24	numOfPoints, 42
PoolObject, 24	OnFire, 41
ReloadSpeed, 25	spread, 42
RequestBullet, 24	turnSpeed, 42
SupportReload, 25	updateSpeed, 42
TDGP::GunComponent	TDGP::SeekingGunProjectile
OnDrop, 26	Damage, 44
OnPickup, 26	DamageAnimation, 44
TDGP::GunLaserSight	OnDrop, 44
OnDrop, 27	OnPickup, 44
OnPickup, 27	OnTriggerEnter2D, 44

52 INDEX

```
Update, 44
    Velocity, 44
TDGP::SpecialGunProjectile
    DamagePerSecond, 46
    DamageTime, 46
    DamageType, 46
    OnTriggerEnter2D, 45
TDGP::StandardGunProjectile
    Damage, 47
    DamageAnimation, 47
    OnTriggerEnter2D, 47
TimeBetweenBursts
    TDGP::GunTriggerBurst, 35
turnSpeed
    TDGP::MissileTrail, 42
Update
    TDGP::GunProjectile, 31
    TDGP::SeekingGunProjectile, 44
updateSpeed
    TDGP::MissileTrail, 42
Velocity
    TDGP::SeekingGunProjectile, 44
VolumeScale
    TDGP::AnimationAudio, 12
    TDGP::GunBarrel, 21
```