Sticky Base Shooter

Generated by Doxygen 1.9.1

1	Iodo List	1
2	Hierarchical Index	2
	2.1 Class Hierarchy	2
3	Class Index	3
	3.1 Class List	3
4	File Index	5
	4.1 File List	5
5	Class Documentation	7
	5.1 ABaseShooter Class Reference	7
	5.1.1 Constructor & Destructor Documentation	9
	5.1.2 Member Function Documentation	9
	5.1.3 Member Data Documentation	14
	5.2 ABomberman Class Reference	15
	5.2.1 Detailed Description	17
	5.2.2 Constructor & Destructor Documentation	17
	5.2.3 Member Function Documentation	17
	5.2.4 Member Data Documentation	22
	5.3 ario_stickyBomb_UE4 Class Reference	23
	5.3.1 Constructor & Destructor Documentation	23
	5.4 ario_stickyBomb_UE4EditorTarget Class Reference	24
	5.4.1 Constructor & Destructor Documentation	
	5.5 ario_stickyBomb_UE4Target Class Reference	24
	5.5.1 Constructor & Destructor Documentation	
	5.6 AStickyBaseActor Class Reference	
	5.6.1 Detailed Description	
	5.6.2 Constructor & Destructor Documentation	25
	5.6.3 Member Function Documentation	26
	5.7 AStickyGameMode Class Reference	26
	5.7.1 Detailed Description	27
	5.7.2 Constructor & Destructor Documentation	27
	5.7.3 Member Function Documentation	28
	5.7.4 Member Data Documentation	30
	5.8 AStickyGameSession Class Reference	31
	5.8.1 Detailed Description	31
	5.9 AStickyGameState Class Reference	31
	5.9.1 Detailed Description	32
	5.10 AStickyHUD Class Reference	32
	5.10.1 Detailed Description	33
	5.10.2 Constructor & Destructor Documentation	33
		33
	5.10.3 Member Function Documentation	33

5.10.4 Member Data Documentation	 34
5.11 AStickyPickup Class Reference	 35
5.11.1 Detailed Description	 36
5.11.2 Constructor & Destructor Documentation	 36
5.11.3 Member Function Documentation	 36
5.11.4 Member Data Documentation	 37
5.12 AStickyPickupContainer Class Reference	 38
5.12.1 Detailed Description	 39
5.12.2 Constructor & Destructor Documentation	 39
5.12.3 Member Function Documentation	 39
5.12.4 Member Data Documentation	 39
5.13 AStickyPlayerCameraManager Class Reference	 40
5.13.1 Detailed Description	 40
5.13.2 Constructor & Destructor Documentation	 40
5.14 AStickyPlayerController Class Reference	 41
5.14.1 Detailed Description	 41
5.14.2 Constructor & Destructor Documentation	 41
5.15 AStickyPlayerState Class Reference	 42
5.15.1 Detailed Description	 42
5.15.2 Member Function Documentation	 42
5.15.3 Member Data Documentation	 45
5.16 AStickyProjectile Class Reference	 45
5.16.1 Detailed Description	 47
5.16.2 Constructor & Destructor Documentation	 47
5.16.3 Member Function Documentation	 47
5.16.4 Member Data Documentation	 52
5.17 FMaterialGenerator Class Reference	 53
5.17.1 Detailed Description	 53
5.17.2 Member Function Documentation	 53
5.18 FPlayerData Struct Reference	 54
5.18.1 Detailed Description	 55
5.18.2 Constructor & Destructor Documentation	 55
5.18.3 Member Data Documentation	 55
5.19 FStickyFXManager Class Reference	 55
5.19.1 Detailed Description	 55
5.20 IInteractionUOI Class Reference	 56
5.20.1 Detailed Description	 56
5.20.2 Member Function Documentation	 56
5.21 SAmmoWidget Class Reference	 57
5.21.1 Detailed Description	 57
5.21.2 Member Function Documentation	 57
5.22 SInGameOverlay Class Reference	 58

5.22.1 Detailed Description	59
5.22.2 Member Function Documentation	59
5.23 SKillContentContainer Class Reference	59
5.23.1 Detailed Description	60
5.23.2 Member Function Documentation	60
5.23.3 Member Data Documentation	61
5.24 SKillWidget Class Reference	61
5.24.1 Detailed Description	62
5.24.2 Member Function Documentation	62
5.25 SSlideInText Class Reference	63
5.25.1 Detailed Description	64
5.25.2 Member Function Documentation	64
5.25.3 Member Data Documentation	65
5.26 UAmmoComp Class Reference	66
5.26.1 Detailed Description	66
5.27 UHealthComp Class Reference	66
5.27.1 Detailed Description	67
5.28 UInteractionUOI Class Reference	67
5.29 UStickyGunSkeletalComp Class Reference	67
5.29.1 Detailed Description	68
5.29.2 Constructor & Destructor Documentation	69
5.29.3 Member Function Documentation	69
5.29.4 Member Data Documentation	71
5.30 UStickyLinetraceComp Class Reference	72
5.30.1 Detailed Description	73
6 File Documentation	73
6.1 Source/ario_stickyBomb_UE4.Target.cs File Reference	73
6.2 Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.Build.cs File Reference	73
6.3 Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.cpp File Reference	73
6.3.1 Function Documentation	73
6.4 Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.h File Reference	74
6.5 Source/ario_stickyBomb_UE4/Private/Actors/StickyBaseActor.cpp File Reference	74
6.6 Source/ario_stickyBomb_UE4/Private/Actors/StickyPickup.cpp File Reference	74
6.7 Source/ario_stickyBomb_UE4/Private/Actors/StickyPickupContainer.cpp File Reference	74
6.7.1 Detailed Description	74
6.8 Source/ario_stickyBomb_UE4/Private/Actors/StickyProjectile.cpp File Reference	75
6.8.1 Detailed Description	75
6.9 Source/ario_stickyBomb_UE4/Private/Characters/BaseShooter.cpp File Reference	75
6.9.1 Function Documentation	76
6.10 Source/ario_stickyBomb_UE4/Private/Characters/Bomberman.cpp File Reference	76
6.10.1 Function Documentation	76

6.11 Source/ario_stickyBomb_UE4/Private/Components/AmmoComp.cpp File Reference	77
6.11.1 Detailed Description	77
6.12 Source/ario_stickyBomb_UE4/Private/Components/HealthComp.cpp File Reference	77
6.12.1 Detailed Description	77
6.13 Source/ario_stickyBomb_UE4/Private/Components/StickyGunSkeletalComp.cpp File Reference	77
6.13.1 Detailed Description	78
6.14 Source/ario_stickyBomb_UE4/Private/Components/StickyLinetraceComp.cpp File Reference	78
6.15 Source/ario_stickyBomb_UE4/Private/Effects/MaterialGenerator.cpp File Reference	78
6.15.1 Detailed Description	78
6.16 Source/ario_stickyBomb_UE4/Private/Effects/StickyFXManager.cpp File Reference	79
6.16.1 Detailed Description	79
6.17 Source/ario_stickyBomb_UE4/Private/Interfaces/InteractionUOI.cpp File Reference	79
6.17.1 Detailed Description	79
6.18 Source/ario_stickyBomb_UE4/Private/StickyGameMode.cpp File Reference	79
6.18.1 Detailed Description	79
6.19 Source/ario_stickyBomb_UE4/Private/StickyGameSession.cpp File Reference	79
6.19.1 Detailed Description	80
6.20 Source/ario_stickyBomb_UE4/Private/StickyGameState.cpp File Reference	80
6.20.1 Detailed Description	80
6.21 Source/ario_stickyBomb_UE4/Private/StickyPlayerCameraManager.cpp File Reference	80
6.21.1 Detailed Description	80
6.22 Source/ario_stickyBomb_UE4/Private/StickyPlayerController.cpp File Reference	80
6.22.1 Detailed Description	80
6.23 Source/ario_stickyBomb_UE4/Private/StickyPlayerState.cpp File Reference	80
6.23.1 Detailed Description	81
6.24 Source/ario_stickyBomb_UE4/Private/UI/SInGameOverlay.cpp File Reference	81
6.24.1 Detailed Description	81
6.25 Source/ario_stickyBomb_UE4/Private/UI/StickyHUD.cpp File Reference	81
6.25.1 Detailed Description	81
6.26 Source/ario_stickyBomb_UE4/Private/UI/Widgets/SAmmoWidget.cpp File Reference	81
6.26.1 Macro Definition Documentation	82
6.27 Source/ario_stickyBomb_UE4/Private/UI/Widgets/SKillContentContainer.cpp File Reference	82
6.28 Source/ario_stickyBomb_UE4/Private/UI/Widgets/SKillWidget.cpp File Reference	82
6.28.1 Detailed Description	82
6.28.2 Macro Definition Documentation	82
6.29 Source/ario_stickyBomb_UE4/Private/UI/Widgets/SSlideInText.cpp File Reference	83
6.29.1 Detailed Description	83
6.30 Source/ario_stickyBomb_UE4/Public/Actors/StickyBaseActor.h File Reference	83
6.30.1 Detailed Description	83
6.31 Source/ario_stickyBomb_UE4/Public/Actors/StickyPickup.h File Reference	84
6.31.1 Detailed Description	84
6.32 Source/ario_stickyBomb_UE4/Public/Actors/StickyPickupContainer.h File Reference	84

6.32.1 Detailed Description	84
6.33 Source/ario_stickyBomb_UE4/Public/Actors/StickyProjectile.h File Reference	84
6.33.1 Detailed Description	85
6.34 Source/ario_stickyBomb_UE4/Public/Characters/BaseShooter.h File Reference	85
6.35 Source/ario_stickyBomb_UE4/Public/Characters/Bomberman.h File Reference	85
6.36 Source/ario_stickyBomb_UE4/Public/Components/AmmoComp.h File Reference	85
6.36.1 Detailed Description	86
6.36.2 Function Documentation	86
6.37 Source/ario_stickyBomb_UE4/Public/Components/HealthComp.h File Reference	86
6.37.1 Detailed Description	86
6.37.2 Function Documentation	87
6.38 Source/ario_stickyBomb_UE4/Public/Components/StickyGunSkeletalComp.h File Reference	87
6.38.1 Detailed Description	87
6.39 Source/ario_stickyBomb_UE4/Public/Components/StickyLinetraceComp.h File Reference	87
6.40 Source/ario_stickyBomb_UE4/Public/Effects/MaterialGenerator.h File Reference	88
6.40.1 Detailed Description	88
6.41 Source/ario_stickyBomb_UE4/Public/Effects/StickyFXManager.h File Reference	88
6.41.1 Detailed Description	88
6.42 Source/ario_stickyBomb_UE4/Public/Helpers/CollisionChannels.h File Reference	88
6.42.1 Detailed Description	88
6.42.2 Macro Definition Documentation	88
6.43 Source/ario_stickyBomb_UE4/Public/Helpers/ForwardDecls.h File Reference	89
6.43.1 Detailed Description	89
6.44 Source/ario_stickyBomb_UE4/Public/Helpers/Macros.h File Reference	89
6.44.1 Detailed Description	90
6.44.2 Macro Definition Documentation	90
6.45 Source/ario_stickyBomb_UE4/Public/Interfaces/InteractionUOI.h File Reference	91
6.45.1 Detailed Description	92
6.46 Source/ario_stickyBomb_UE4/Public/StickyGameMode.h File Reference	92
6.46.1 Detailed Description	92
6.46.2 Function Documentation	92
6.47 Source/ario_stickyBomb_UE4/Public/StickyGameSession.h File Reference	93
6.47.1 Detailed Description	93
6.48 Source/ario_stickyBomb_UE4/Public/StickyGameState.h File Reference	93
6.48.1 Detailed Description	94
6.49 Source/ario_stickyBomb_UE4/Public/StickyPlayerCameraManager.h File Reference	94
6.49.1 Detailed Description	94
6.50 Source/ario_stickyBomb_UE4/Public/StickyPlayerController.h File Reference	94
6.50.1 Detailed Description	94
6.51 Source/ario_stickyBomb_UE4/Public/StickyPlayerState.h File Reference	95
6.51.1 Detailed Description	95
6.52 Source/ario_stickyBomb_UE4/Public/UI/FPlayerData.h File Reference	95

1 Todo List 1

Index		99
6.59 Source/ario_stickyBomb_UE4Editor.Target.cs File Reference		. 98
6.58.2 Enumeration Type Documentation		. 98
6.58.1 Detailed Description		. 98
6.58 Source/ario_stickyBomb_UE4/Public/UI/Widgets/SSlideInText.h File Reference		. 97
6.57.1 Detailed Description		. 97
6.57 Source/ario_stickyBomb_UE4/Public/UI/Widgets/SKillWidget.h File Reference		. 97
6.56.1 Detailed Description		. 97
6.56 Source/ario_stickyBomb_UE4/Public/UI/Widgets/SKillContentContainer.h File Reference	a	. 97
6.55.1 Detailed Description		. 96
6.55 Source/ario_stickyBomb_UE4/Public/UI/Widgets/SAmmoWidget.h File Reference		. 96
6.54.1 Detailed Description		. 96
6.54 Source/ario_stickyBomb_UE4/Public/UI/StickyHUD.h File Reference		. 96
6.53.1 Detailed Description		. 96
6.53 Source/ario_stickyBomb_UE4/Public/UI/SInGameOverlay.h File Reference		. 95
6.52.1 Detailed Description		. 95

# 1 Todo List

Member ABaseShooter::CreateNewActionMapping (FName DesiredActionName, FKey DesiredActionKey)

Move to a controller class perhaps?

Member ABaseShooter::CreateNewAxisMapping (FName DesiredAxisName, FKey DesiredAxisKey)

Move to a controller class perhaps?

### Class ABomberman

Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan

Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan

Currently this class is fairly bloated.

- 1. Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan.
- 2. Move methods such as those regarding to input setup to the player controller class

Currently this class is fairly bloated.

- 1. Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan.
- 2. Move methods such as those regarding to input setup to the player controller class

#### Class AStickyBaseActor

Pehaps the class needs to be extended to be be able to edit other editor uassets

## Member AStickyGameMode::Tick (float DeltaSeconds) override

Have a timer based delay before resterting Dead players

# Class AStickyGameState

Add gamestate logic

## Class AStickyPlayerController

Move controller and input related code from the ABaseShooter class into here.

Move controller and input related code from ABaseShooter into the player Controller

## Class AStickyPlayerState

Redesign and remove extraneous code

#### **Class FMaterialGenerator**

Extend with many variants of templates, both in regards to expression types but also package types, and opt for selective compilation with 'constexpr if's for efficiency.

### Class FStickyFXManager

Write functions to handle creation and editing of new particle systems through c++

Write functions to handle creation and editing of new particle systems through c++

## Class UAmmoComp

This component could be expaned into something more like an inventory. What would be needed is making a dedicated item\_data class, hold the item\_data in the inventory. Then spawn the items on server-side when brought out of inventory.

# 2 Hierarchical Index

# 2.1 Class Hierarchy

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

**AActor** 

AStickyBaseActor	25
AStickyPickup	35
AStickyPickupContainer	38
AStickyProjectile ACharacter	45
ABaseShooter	7
ABomberman AGameModeBase	15
AStickyGameMode AGameSession	26
AStickyGameSession AGameStateBase	31
AStickyGameState AHUD	31
AStickyHUD APlayerCameraManager	32
AStickyPlayerCameraManager APlayerController	40

3 Class Index 3

AStickyPlayerState 42  FMaterialGenerator 53  FPlayerData 54  FStickyFXManager 55  IInteractionUOI 55  ABaseShooter 7  AStickyBaseActor 7  ModuleRules 25  ario_stickyBomb_UE4  SCompoundWidget 57  SInGameOverlay 58  SKillContentContainer 59  SKillWidget 61  SSideInText 7  TargetRules 37  ario_stickyBomb_UE4EditorTarget 24  ario_stickyBomb_UE4Target 24  uAmmoComp 65  UHeatthComp 10  USkeletalMeshComponent 95  UStickyGunSkeletalComp 67  UStickyGunSkeletalComp 77  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7  ABomborman 1  Inherits from ACharacter & IInteractionUOI 15	AStickyPlayerController APlayerState	41
FPlayerData	AStickyPlayerState	42
FStickyFXManager   55     IInteractionUOI	FMaterialGenerator	53
IInteractionUOI	FPlayerData	54
ABaseShooter 7 AStickyBaseActor 25 ModuleRules 27 AstickyBomb_UE4 27 ScompoundWidget 57 SinGameOverlay 58 SKillContentContainer 59 SKillWidget 61 SSlideInText 7 TargetRules 63 ario_stickyBomb_UE4EditorTarget 24 ario_stickyBomb_UE4Target 24 UAmmoComp 66 UHealthComp 166 UHealthComp 17 UInterface 17 UStickyGunSkeletalComp 67 UStickyGunSkeletalComp 77 UStickyLinetraceComp 77  3 Class Index 78  ABaseShooter 77 ABomberman 77	FStickyFXManager	55
AStickyBaseActor ModuleRules  ario_stickyBomb_UE4 SCompoundWidget  SAmmoWidget  SInGameOverlay  SKillContentContainer  SKillWidget  SSlideInText TargetRules  ario_stickyBomb_UE4EditorTarget  ario_stickyBomb_UE4Target  UAmmoComp  UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  UStickyLinetraceComp  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	IInteractionUOI	56
ModuleRules  ario_stickyBomb_UE4 SCompoundWidget  SAmmoWidget  SInGameOverlay  SKIIIContentContainer  SKIIIWidget  SSlideInText TargetRules  ario_stickyBomb_UE4EditorTarget  ario_stickyBomb_UE4Target  UAmmoComp  UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  UStickyLinetraceComp  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	ABaseShooter	7
SCompoundWidget  SAmmoWidget  SInGameOverlay  SKillContentContainer  SKillWidget  SSlideInText  TargetRules  ario_stickyBomb_UE4EditorTarget  ario_stickyBomb_UE4Target  UAmmoComp  UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  G7  UStickyLinetraceComp  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman		25
SInGameOverlay  SKIIIContentContainer  SKIIIWidget  SSlideInText TargetRules  ario_stickyBomb_UE4EditorTarget  ario_stickyBomb_UE4Target  UAmmoComp  UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  TOUStickyLinetraceComp  Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman		23
SKillContentContainer  SKillWidget  SSlideInText TargetRules  ario_stickyBomb_UE4EditorTarget  ario_stickyBomb_UE4Target  UAmmoComp  UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  UStickyLinetraceComp  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	SAmmoWidget	57
SKIIIWidget SSlideInText TargetRules ario_stickyBomb_UE4EditorTarget 24 ario_stickyBomb_UE4Target 24 UAmmoComp 66 UHealthComp UInterface UInteractionUOI USkeletalMeshComponent UStickyGunSkeletalComp 67 UStickyLinetraceComp 72 3 Class Index  3.1 Class List Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 78 ABomberman	SInGameOverlay	58
SSlideInText TargetRules ario_stickyBomb_UE4EditorTarget 24 ario_stickyBomb_UE4Target 24 UAmmoComp 66 UHealthComp 66 UInteractionUOI 67 USkeletalMeshComponent 97 UStickyGunSkeletalComp 67 UStickyLinetraceComp 72  3 Class Index 3.1 Class List Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7 ABomberman	SKillContentContainer	59
TargetRules  ario_stickyBomb_UE4EditorTarget 24  ario_stickyBomb_UE4Target 24  UAmmoComp 666  UHealthComp 666  UInteractionUOI 67  USkeletalMeshComponent 67  UStickyGunSkeletalComp 67  UStickyLinetraceComp 72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7  ABomberman	SKillWidget	61
ario_stickyBomb_UE4Target 24  UAmmoComp 666  UHealthComp 666  UInteractionUOI 67  USkeletalMeshComponent 67  UStickyGunSkeletalComp 67  UStickyLinetraceComp 72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7  ABomberman		63
UAmmoComp UHealthComp UInterface  UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  G7 UStickyLinetraceComp  72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	ario_stickyBomb_UE4EditorTarget	24
UHealthComp UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  G7  UStickyLinetraceComp  72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	ario_stickyBomb_UE4Target	24
UInterface  UInteractionUOI USkeletalMeshComponent  UStickyGunSkeletalComp  67 UStickyLinetraceComp  72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	UAmmoComp	66
UStickyGunSkeletalComp 67 UStickyLinetraceComp 72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7  ABomberman	•	66
UStickyLinetraceComp 72  3 Class Index  3.1 Class List  Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter 7  ABomberman		67
<ul> <li>3 Class Index</li> <li>3.1 Class List</li> <li>Here are the classes, structs, unions and interfaces with brief descriptions:</li> <li>ABaseShooter</li> <li>ABomberman</li> </ul>	UStickyGunSkeletalComp	67
<ul> <li>3.1 Class List</li> <li>Here are the classes, structs, unions and interfaces with brief descriptions:</li> <li>ABaseShooter</li> <li>ABomberman</li> </ul>	UStickyLinetraceComp	72
Here are the classes, structs, unions and interfaces with brief descriptions:  ABaseShooter  ABomberman	3 Class Index	
ABaseShooter 7 ABomberman	3.1 Class List	
ABomberman	Here are the classes, structs, unions and interfaces with brief descriptions:	
	ABaseShooter	7
		15

ario_stickyBomb_UE4	23
ario_stickyBomb_UE4EditorTarget	24
ario_stickyBomb_UE4Target	24
AStickyBaseActor A simple shell of a class to be expanded upon	25
AStickyGameMode Naive implementation of Gamemode for networked play	26
AStickyGameSession Dummy gamesession class	31
AStickyGameState A simple shell of a class implementation to be expanded upon	31
AStickyHUD A simple HUD class to handle widgets	32
AStickyPickup A simple pickup actor	35
AStickyPickupContainer A simple actor which holds a static mesh container	38
AStickyPlayerCameraManager A simple shell of a class implementation to be expanded upon	40
AStickyPlayerController A simple shell of a class implementation to be expanded upon	41
AStickyPlayerState Networked Player-state implementation	42
AStickyProjectile A projectile moving actor class	45
FMaterialGenerator A WIP utility class for Material creation/editing	53
FPlayerData Simple utility struct to pass data into widgets	54
FStickyFXManager A particle system primer class	55
IInteractionUOI A simple shell of a class to be expanded upon	56
SAmmoWidget Ammo Widget which derives from SCompoundWidget	57
SinGameOverlay  A simple shell of a class to be expanded upon. Right now it only functions as a blank overlay	58
SKillContentContainer A simple shell of a class to be expanded upon	59
SKillWidget  A simple shell of a class to be expanded upon to display current kills	61

4 File Index 5

SSlideInText A simple widget that kan be used to display a recent player kill	63
UAmmoComp Simple ammo component	66
Simple ammo component	00
UHealthComp	
Networked health component	66
UInteractionUOI	67
UStickyGunSkeletalComp	
Networked weapon component	67
UStickyLinetraceComp	
Not much more than a linetracer. Almost a functor,	72

# 4 File Index

# 4.1 File List

Here is a list of all files with brief descriptions:

Source/ario_stickyBomb_UE4.Target.cs	73
Source/ario_stickyBomb_UE4Editor.Target.cs	98
Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.Build.cs	73
Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.cpp	73
Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.h	74
Source/ario_stickyBomb_UE4/Private/StickyGameMode.cpp	79
Source/ario_stickyBomb_UE4/Private/StickyGameSession.cpp	79
Source/ario_stickyBomb_UE4/Private/StickyGameState.cpp	80
Source/ario_stickyBomb_UE4/Private/StickyPlayerCameraManager.cpp	80
Source/ario_stickyBomb_UE4/Private/StickyPlayerController.cpp	80
Source/ario_stickyBomb_UE4/Private/StickyPlayerState.cpp	80
Source/ario_stickyBomb_UE4/Private/Actors/StickyBaseActor.cpp	74
Source/ario_stickyBomb_UE4/Private/Actors/StickyPickup.cpp	74
Source/ario_stickyBomb_UE4/Private/Actors/StickyPickupContainer.cpp	74
Source/ario_stickyBomb_UE4/Private/Actors/StickyProjectile.cpp	75
Source/ario_stickyBomb_UE4/Private/Characters/BaseShooter.cpp	75
Source/ario_stickyBomb_UE4/Private/Characters/Bomberman.cpp	76
Source/ario_stickyBomb_UE4/Private/Components/AmmoComp.cpp	77

Source/ario_stickyBomb_UE4/Private/Components/HealthComp.cpp	//
Source/ario_stickyBomb_UE4/Private/Components/StickyGunSkeletalComp.cpp	77
Source/ario_stickyBomb_UE4/Private/Components/StickyLinetraceComp.cpp	78
Source/ario_stickyBomb_UE4/Private/Effects/MaterialGenerator.cpp	78
Source/ario_stickyBomb_UE4/Private/Effects/StickyFXManager.cpp	79
Source/ario_stickyBomb_UE4/Private/Interfaces/InteractionUOI.cpp	79
Source/ario_stickyBomb_UE4/Private/UI/SInGameOverlay.cpp	81
Source/ario_stickyBomb_UE4/Private/UI/StickyHUD.cpp	81
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SAmmoWidget.cpp	81
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SKillContentContainer.cpp	82
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SKillWidget.cpp	82
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SSlideInText.cpp	83
Source/ario_stickyBomb_UE4/Public/StickyGameMode.h	92
Source/ario_stickyBomb_UE4/Public/StickyGameSession.h	93
Source/ario_stickyBomb_UE4/Public/StickyGameState.h	93
Source/ario_stickyBomb_UE4/Public/StickyPlayerCameraManager.h	94
Source/ario_stickyBomb_UE4/Public/StickyPlayerController.h	94
Source/ario_stickyBomb_UE4/Public/StickyPlayerState.h	95
Source/ario_stickyBomb_UE4/Public/Actors/StickyBaseActor.h	83
Source/ario_stickyBomb_UE4/Public/Actors/StickyPickup.h	84
Source/ario_stickyBomb_UE4/Public/Actors/StickyPickupContainer.h	84
Source/ario_stickyBomb_UE4/Public/Actors/StickyProjectile.h	84
Source/ario_stickyBomb_UE4/Public/Characters/BaseShooter.h	85
Source/ario_stickyBomb_UE4/Public/Characters/Bomberman.h	85
Source/ario_stickyBomb_UE4/Public/Components/AmmoComp.h	85
Source/ario_stickyBomb_UE4/Public/Components/HealthComp.h	86
Source/ario_stickyBomb_UE4/Public/Components/StickyGunSkeletalComp.h	87
Source/ario_stickyBomb_UE4/Public/Components/StickyLinetraceComp.h	87
Source/ario_stickyBomb_UE4/Public/Effects/MaterialGenerator.h	88
Source/ario_stickyBomb_UE4/Public/Effects/StickyFXManager.h	88
Source/ario_stickyBomb_UE4/Public/Helpers/CollisionChannels.h Collision Channels defintions	88

5 Class Documentation 7

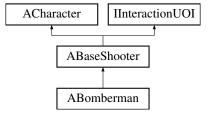
Source/ario_stickyBomb_UE4/Public/Helpers/ForwardDecls.h Forward Declarations	89
Source/ario_stickyBomb_UE4/Public/Helpers/Macros.h Various macros	89
Source/ario_stickyBomb_UE4/Public/Interfaces/InteractionUOI.h	91
Source/ario_stickyBomb_UE4/Public/UI/FPlayerData.h	95
Source/ario_stickyBomb_UE4/Public/UI/SInGameOverlay.h	95
Source/ario_stickyBomb_UE4/Public/UI/StickyHUD.h	96
Source/ario_stickyBomb_UE4/Public/UI/Widgets/SAmmoWidget.h	96
Source/ario_stickyBomb_UE4/Public/UI/Widgets/SKillContentContainer.h	97
Source/ario_stickyBomb_UE4/Public/UI/Widgets/SKillWidget.h	97
Source/ario stickyBomb UE4/Public/UI/Widgets/SSlideInText.h	97

# 5 Class Documentation

## 5.1 ABaseShooter Class Reference

```
#include <BaseShooter.h>
```

Inheritance diagram for ABaseShooter:



# **Public Member Functions**

• ABaseShooter ()

Construct a new ABaseShooter object.

• virtual void TryInteractItem () override

Interact Item, Start.

• virtual void EndInteractItem () override

Interact Item, End.

UStickyGunSkeletalComp \* GetStickyGun ()

Get the Sticky Gun object.

USkeletalMeshComponent \* GetCharMesh ()

Get the Char Mesh object.

• UHealthComp \* GetHealthComp ()

Get the Health Comp object.

UAmmoComp \* GetAmmoComp ()

Get the Ammo Comp object.

UCameraComponent \* GetFirstPersonCameraComponent ()

Get the First Person Camera Component object.

- void TryStartFire ()
- · void ServerTriggerRagdoll ()
- void ServerUndoRagdoll ()
- void TriggerPlayerStateAmmo (int LocalAmmoUpdate)

#### **Public Attributes**

- float BaseTurnRate
- float BaseLookUpRate

#### **Protected Member Functions**

virtual void BeginPlay ()

Triggers BeginPlay.

- virtual void SetupPlayerInputComponent (UInputComponent \*InputComponent) override
- virtual float TakeDamage (float DamageAmount, FDamageEvent const &DamageEvent, AController \*Event
   —
   Instigator, AActor \*DamageCauser) final
- void MulticastUndoRagdoll ()
- void MulticastTriggerRagdoll ()
- void ServerTryInteractItem ()
- void ServerEndInteractItem ()
- void ServerTakeDamage (AActor \*ThisActor, float DamageAmount, const UDamageType \*DamageType, AController \*EventInstigator, AActor \*DamageCauser)
- void InitSkeletalBody ()
- void InitCamera ()
- void InitActorComponents ()
- void SetupStickyGun ()
- void SetupCollision ()
- void MoveRight (float Val)
- void MoveForward (float Val)
- void TurnAtRate (float Rate)

Turn Rate.

void LookUpAtRate (float Rate)

LookUp Rate.

void CreateNewAxisMapping (FName DesiredAxisName, FKey DesiredAxisKey)

Create a New Axis Mapping object.

• void CreateNewActionMapping (FName DesiredActionName, FKey DesiredActionKey)

Create a New Action Mapping object.

#### **Protected Attributes**

- USkeletalMeshComponent \* MeshPtr = nullptr
- UStickyGunSkeletalComp \* StickyGun = nullptr
- UCameraComponent \* FirstPersonCameraComponent = nullptr
- UHealthComp \* HealthComponent = nullptr
- UAmmoComp \* AmmoComp = nullptr
- UStickyLinetraceComp \* LinetraceComp = nullptr
- bool blsRagdoll = false

#### 5.1.1 Constructor & Destructor Documentation

**5.1.1.1 ABaseShooter()** ABaseShooter::ABaseShooter ( )

Construct a new ABaseShooter object.

#### 5.1.2 Member Function Documentation

```
5.1.2.1 BeginPlay() void ABaseShooter::BeginPlay ( ) [protected], [virtual]
```

Triggers BeginPlay.

Inherited Methods: Overrides

Reimplemented in ABomberman.

# **5.1.2.2 CreateNewActionMapping()** void ABaseShooter::CreateNewActionMapping ( FName DesiredActionName,

FKey DesiredActionKey ) [protected]

Create a New Action Mapping object.

**Parameters** 

DesiredActionName	
DesiredActionKey	

Todo Move to a controller class perhaps?

 $\textbf{5.1.2.3} \quad \textbf{CreateNewAxisMapping()} \quad \texttt{void ABaseShooter::} \texttt{CreateNewAxisMapping ()}$ 

```
FName DesiredAxisName,
FKey DesiredAxisKey ) [protected]
```

Create a New Axis Mapping object.

**Parameters** 

DesiredAxisName
DesiredAxisKey

```
Todo Move to a controller class perhaps?
```

```
5.1.2.4 EndInteractItem() void ABaseShooter::EndInteractItem ( ) [override], [virtual]
Interact Item, End.
Implements IInteractionUOI.
5.1.2.5 GetAmmoComp() UAmmoComp * ABaseShooter::GetAmmoComp ( )
Get the Ammo Comp object.
Returns
      UAmmoComp*
\textbf{5.1.2.6} \quad \textbf{GetCharMesh()} \quad \textbf{USkeletalMeshComponent} \, * \, \textbf{ABaseShooter::} \textbf{GetCharMesh} \, \, ( \, \, )
Get the Char Mesh object.
Returns
      USkeletalMeshComponent*
\textbf{5.1.2.7} \quad \textbf{GetFirstPersonCameraComponent()} \quad \textbf{UCameraComponent} \, * \, \textbf{ABaseShooter::} \textbf{GetFirstPerson} \leftarrow \\
CameraComponent ( )
Get the First Person Camera Component object.
Returns
      UCameraComponent*
\textbf{5.1.2.8} \quad \textbf{GetHealthComp()} \quad \textbf{UHealthComp} \, * \, \textbf{ABaseShooter::} \textbf{GetHealthComp} \, \, ( \, \, )
Get the Health Comp object.
Returns
      UHealthComp*
```

```
5.1.2.9 GetStickyGun() UStickyGunSkeletalComp * ABaseShooter::GetStickyGun ( )
Get the Sticky Gun object.
Returns
     UStickyGunSkeletalComp*
5.1.2.10 InitActorComponents() void ABaseShooter::InitActorComponents ( ) [protected]
5.1.2.11 InitCamera() void ABaseShooter::InitCamera ( ) [protected]
5.1.2.12 InitSkeletalBody() void ABaseShooter::InitSkeletalBody ( ) [protected]
5.1.2.13 LookUpAtRate() void ABaseShooter::LookUpAtRate (
             float Rate ) [protected]
LookUp Rate.
Called via input to turn look up/down at a given rate.
Parameters
 Rate
        This is a normalized rate, i.e. 1.0 means 100% of desired turn rate
5.1.2.14 MoveForward() void ABaseShooter::MoveForward (
             float Val ) [protected]
5.1.2.15 MoveRight() void ABaseShooter::MoveRight (
             float Val ) [protected]
5.1.2.16 MulticastTriggerRagdoll() void ABaseShooter::MulticastTriggerRagdoll ( ) [protected]
```

```
5.1.2.17 MulticastUndoRagdoll() void ABaseShooter::MulticastUndoRagdoll ( ) [protected]
In deg/sec. Other scaling may affect final rate.
5.1.2.18 ServerEndInteractItem() void ABaseShooter::ServerEndInteractItem ( ) [protected]
5.1.2.19 ServerTakeDamage() void ABaseShooter::ServerTakeDamage (
             AActor * ThisActor,
             float DamageAmount,
             const UDamageType * DamageType,
             AController * EventInstigator,
             AActor * DamageCauser ) [protected]
5.1.2.20 ServerTriggerRagdoll() void ABaseShooter::ServerTriggerRagdoll ( )
\textbf{5.1.2.21} \quad \textbf{ServerTryInteractItem()} \quad \texttt{void ABaseShooter::ServerTryInteractItem ()} \quad \texttt{[protected]}
5.1.2.22 ServerUndoRagdoll() void ABaseShooter::ServerUndoRagdoll ()
5.1.2.23 SetupCollision() void ABaseShooter::SetupCollision () [protected]
5.1.2.24 SetupPlayerInputComponent() void ABaseShooter::SetupPlayerInputComponent (
             UInputComponent * InputComponent ) [override], [protected], [virtual]
Parameters
 InputComponent
Reimplemented in ABomberman.
5.1.2.25 SetupStickyGun() void ABaseShooter::SetupStickyGun() [protected]
```

#### **Parameters**

DamageAmount	
DamageEvent	
EventInstigator	
DamageCauser	

#### Returns

float

# **5.1.2.27 TriggerPlayerStateAmmo()** void ABaseShooter::TriggerPlayerStateAmmo ( int *LocalAmmoUpdate* )

#### **Parameters**

LocalAmmoUpdate

```
5.1.2.28 TryInteractItem() void ABaseShooter::TryInteractItem ( ) [override], [virtual]
```

Interact Item, Start.

Interface Methods: IInteractionOUI

Implements IInteractionUOI.

```
5.1.2.29 TryStartFire() void ABaseShooter::TryStartFire ( )
```

```
5.1.2.30 TurnAtRate() void ABaseShooter::TurnAtRate ( float Rate ) [protected]
```

Turn Rate.

Called via input to turn at a given rate.

**Parameters** 

Rate This is a normalized rate, i.e. 1.0 means 100% of desired turn rate

#### 5.1.3 Member Data Documentation

**5.1.3.1** AmmoComp UAmmoComp\* ABaseShooter::AmmoComp = nullptr [protected]

Simple health component

**5.1.3.2 BaseLookUpRate** float ABaseShooter::BaseLookUpRate

In deg/sec. Other scaling may affect final turn rate.

**5.1.3.3 BaseTurnRate** float ABaseShooter::BaseTurnRate

**5.1.3.4 bisRagdoll** bool ABaseShooter::bIsRagdoll = false [protected]

Interact detection linetrace comp

**5.1.3.5 FirstPersonCameraComponent** UCameraComponent\* ABaseShooter::FirstPersonCameraComponent = nullptr [protected]

SkelMesh: Skeletal Gun mesh

**5.1.3.6 HealthComponent** UHealthComp\* ABaseShooter::HealthComponent = nullptr [protected]

First person camera

5.1.3.7 LinetraceComp UStickyLinetraceComp\* ABaseShooter::LinetraceComp = nullptr [protected]

Simpole ammo component

**5.1.3.8 MeshPtr** USkeletalMeshComponent\* ABaseShooter::MeshPtr = nullptr [protected]

**5.1.3.9 StickyGun** UStickyGunSkeletalComp\* ABaseShooter::StickyGun = nullptr [protected]

SkelMesh: 1st person view arms Gun mesh: 1st person view (seen only by self)

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

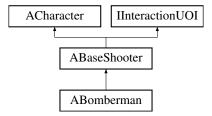
- Source/ario stickyBomb UE4/Public/Characters/BaseShooter.h
- Source/ario\_stickyBomb\_UE4/Private/Characters/BaseShooter.cpp

## 5.2 ABomberman Class Reference

Inherits from ACharacter & IInteractionUOI.

#include <Bomberman.h>

Inheritance diagram for ABomberman:



## **Public Member Functions**

• ABomberman ()

Construct a new ABomberman object.

· virtual void TryInteractItem () override

Interact Item, Start.

• virtual void EndInteractItem () override

Interact Item, End.

UStickyGunSkeletalComp \* GetStickyGun ()

Get the Sticky Gun object.

USkeletalMeshComponent \* GetCharMesh ()

Get the Char Mesh object.

UHealthComp \* GetHealthComp ()

Get the Health Comp object.

UAmmoComp \* GetAmmoComp ()

Get the Ammo Comp object.

UCameraComponent \* GetFirstPersonCameraComponent ()

Get the First Person Camera Component object.

- void TryStartFire ()
- void ServerTriggerRagdoll ()
- void ServerUndoRagdoll ()
- void TriggerPlayerStateAmmo (int LocalAmmoUpdate)

#### **Public Attributes**

- float BaseTurnRate
- · float BaseLookUpRate

#### **Protected Member Functions**

• virtual void BeginPlay ()

Triggers BeginPlay.

- virtual void SetupPlayerInputComponent (UInputComponent \*InputComponent) override
- void MulticastUndoRagdoll ()
- void MulticastTriggerRagdoll ()
- void ServerTryInteractItem ()
- void ServerEndInteractItem ()
- void ServerTakeDamage (AActor \*ThisActor, float DamageAmount, const UDamageType \*DamageType, AController \*EventInstigator, AActor \*DamageCauser)
- void InitSkeletalBody ()
- void InitCamera ()
- void InitActorComponents ()
- void SetupStickyGun ()
- void SetupCollision ()
- void MoveRight (float Val)
- void MoveForward (float Val)
- void TurnAtRate (float Rate)

Turn Rate.

void LookUpAtRate (float Rate)

LookUp Rate.

void CreateNewAxisMapping (FName DesiredAxisName, FKey DesiredAxisKey)

Create a New Axis Mapping object.

· void CreateNewActionMapping (FName DesiredActionName, FKey DesiredActionKey)

Create a New Action Mapping object.

# **Protected Attributes**

- USkeletalMeshComponent \* MeshPtr = nullptr
- UStickyGunSkeletalComp \* StickyGun = nullptr
- UCameraComponent \* FirstPersonCameraComponent = nullptr
- UHealthComp \* HealthComponent = nullptr
- UAmmoComp \* AmmoComp = nullptr
- UStickyLinetraceComp \* LinetraceComp = nullptr
- bool blsRagdoll = false

## 5.2.1 Detailed Description

Inherits from ACharacter & IInteractionUOI.

Inherits from ABaseShooter.

Derived from ACharacter and implements a StickyGunSkeletalComponent, HealthComponent and a Ammo $\leftarrow$  Component

**Todo** Currently this class is fairly bloated.

- 1. Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan.
- 2. Move methods such as those regarding to input setup to the player controller class

Currently it only sets up the key\_bindings

**Todo** Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan

Derived from ACharacter and implements a StickyGunSkeletalComponent, HealthComponent and a Ammo $\hookleftarrow$  Component

Todo Currently this class is fairly bloated.

- 1. Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan.
- 2. Move methods such as those regarding to input setup to the player controller class

**Todo** Move some of the functions of ABaseShooter into Bomberman, or rather rewrite some as virtual and implement them in child classes such as ABomberMan

#### 5.2.2 Constructor & Destructor Documentation

```
5.2.2.1 ABomberman() ABomberman::ABomberman ()
```

Construct a new ABomberman object.

#### 5.2.3 Member Function Documentation

```
5.2.3.1 BeginPlay() void ABomberman::BeginPlay () [protected], [virtual]
```

Triggers BeginPlay.

Inherited Methods: Overrides

Reimplemented from ABaseShooter.

```
5.2.3.2 CreateNewActionMapping() void ABaseShooter::CreateNewActionMapping ( FName DesiredActionName,
```

```
FKey DesiredActionKey ) [protected], [inherited]
```

Create a New Action Mapping object.

Do					
Pа	ra	m	eı	re.	rs

DesiredActionName	
DesiredActionKey	

Todo Move to a controller class perhaps?

```
5.2.3.3 CreateNewAxisMapping() void ABaseShooter::CreateNewAxisMapping (
FName DesiredAxisName,
FKey DesiredAxisKey ) [protected], [inherited]
```

Create a New Axis Mapping object.

## **Parameters**

DesiredAxisName	
DesiredAxisKey	

Todo Move to a controller class perhaps?

```
5.2.3.4 EndInteractItem() void ABaseShooter::EndInteractItem ( ) [override], [virtual], [inherited] Interact Item, End.
```

Implements IInteractionUOI.

```
\textbf{5.2.3.5} \quad \textbf{GetAmmoComp()} \quad \texttt{UAmmoComp} \, * \, \texttt{ABaseShooter::GetAmmoComp} \, \, ( \, \, ) \quad \texttt{[inherited]}
```

Get the Ammo Comp object.

Returns

UAmmoComp\*

```
5.2.3.6 GetCharMesh() USkeletalMeshComponent * ABaseShooter::GetCharMesh ( ) [inherited]
```

Get the Char Mesh object.

Returns

USkeletalMeshComponent\*

```
5.2.3.7 GetFirstPersonCameraComponent() UCameraComponent * ABaseShooter::GetFirstPerson←
CameraComponent ( ) [inherited]
Get the First Person Camera Component object.
Returns
      UCameraComponent*
\textbf{5.2.3.8} \quad \textbf{GetHealthComp()} \quad \texttt{UHealthComp} \, * \, \texttt{ABaseShooter::} \texttt{GetHealthComp} \, \, ( \, \, ) \quad \texttt{[inherited]}
Get the Health Comp object.
Returns
     UHealthComp*
\textbf{5.2.3.9} \quad \textbf{GetStickyGun()} \quad \texttt{UStickyGunSkeletalComp} \, * \, \texttt{ABaseShooter::GetStickyGun ( )} \quad \texttt{[inherited]}
Get the Sticky Gun object.
Returns
      UStickyGunSkeletalComp*
5.2.3.10 InitActorComponents() void ABaseShooter::InitActorComponents ( ) [protected], [inherited]
5.2.3.11 InitCamera() void ABaseShooter::InitCamera () [protected], [inherited]
5.2.3.12 InitSkeletalBody() void ABaseShooter::InitSkeletalBody ( ) [protected], [inherited]
5.2.3.13 LookUpAtRate() void ABaseShooter::LookUpAtRate (
               float Rate ) [protected], [inherited]
LookUp Rate.
Called via input to turn look up/down at a given rate.
```

#### **Parameters**

Rate This is a normalized rate, i.e. 1.0 means 100% of desired turn rate

```
\textbf{5.2.3.14} \quad \textbf{MoveForward()} \quad \texttt{void ABaseShooter::} \\ \texttt{MoveForward ()}
              float Val ) [protected], [inherited]
5.2.3.15 MoveRight() void ABaseShooter::MoveRight (
             float Val ) [protected], [inherited]
5.2.3.16 MulticastTriggerRagdoll() void ABaseShooter::MulticastTriggerRagdoll ( ) [protected],
[inherited]
5.2.3.17 MulticastUndoRagdoll() void ABaseShooter::MulticastUndoRagdoll ( ) [protected], [inherited]
In deg/sec. Other scaling may affect final rate.
5.2.3.18 ServerEndInteractItem() void ABaseShooter::ServerEndInteractItem ( ) [protected],
[inherited]
5.2.3.19 ServerTakeDamage() void ABaseShooter::ServerTakeDamage (
             AActor * ThisActor,
             float DamageAmount,
             const UDamageType * DamageType,
             AController * EventInstigator,
             AActor * DamageCauser ) [protected], [inherited]
5.2.3.20 ServerTriggerRagdoll() void ABaseShooter::ServerTriggerRagdoll () [inherited]
5.2.3.21 ServerTryInteractItem() void ABaseShooter::ServerTryInteractItem ( ) [protected], [inherited]
5.2.3.22 ServerUndoRagdoll() void ABaseShooter::ServerUndoRagdoll ( ) [inherited]
5.2.3.23 SetupCollision() void ABaseShooter::SetupCollision () [protected], [inherited]
5.2.3.24 SetupPlayerInputComponent() void ABomberman::SetupPlayerInputComponent (
             UInputComponent * InputComponent ) [override], [protected], [virtual]
```

#### **Parameters**

```
InputComponent
```

Reimplemented from ABaseShooter.

**5.2.3.25 SetupStickyGun()** void ABaseShooter::SetupStickyGun ( ) [protected], [inherited]

```
5.2.3.26 TakeDamage() float ABaseShooter::TakeDamage ( float DamageAmount,
```

```
FDamageEvent const & DamageEvent,
AController * EventInstigator,
AActor * DamageCauser ) [final], [protected], [virtual], [inherited]
```

#### **Parameters**

DamageAmount	
DamageEvent	
EventInstigator	
DamageCauser	

#### Returns

float

**5.2.3.27 TriggerPlayerStateAmmo()** void ABaseShooter::TriggerPlayerStateAmmo ( int *LocalAmmoUpdate* ) [inherited]

# Parameters

LocalAmmoUpdate

**5.2.3.28 TryInteractItem()** void ABaseShooter::TryInteractItem ( ) [override], [virtual], [inherited]

Interact Item, Start.

Interface Methods: IInteractionOUI

Implements IInteractionUOI.

```
5.2.3.29 TryStartFire() void ABaseShooter::TryStartFire ( ) [inherited]
```

Turn Rate.

Called via input to turn at a given rate.

**Parameters** 

Rate This is a normalized rate, i.e. 1.0 means 100% of desired turn rate

#### 5.2.4 Member Data Documentation

```
5.2.4.1 AmmoComp UAmmoComp* ABaseShooter::AmmoComp = nullptr [protected], [inherited]
```

Simple health component

**5.2.4.2 BaseLookUpRate** float ABaseShooter::BaseLookUpRate [inherited]

In deg/sec. Other scaling may affect final turn rate.

**5.2.4.3 BaseTurnRate** float ABaseShooter::BaseTurnRate [inherited]

**5.2.4.4 blsRagdoll** bool ABaseShooter::bIsRagdoll = false [protected], [inherited]

Interact detection linetrace comp

**5.2.4.5 FirstPersonCameraComponent** UCameraComponent\* ABaseShooter::FirstPersonCameraComponent = nullptr [protected], [inherited]

SkelMesh: Skeletal Gun mesh

**5.2.4.6 HealthComponent** UHealthComp\* ABaseShooter::HealthComponent = nullptr [protected], [inherited]

First person camera

**5.2.4.7 LinetraceComp** UStickyLinetraceComp\* ABaseShooter::LinetraceComp = nullptr [protected], [inherited]

Simpole ammo component

**5.2.4.8 MeshPtr** USkeletalMeshComponent\* ABaseShooter::MeshPtr = nullptr [protected], [inherited]

**5.2.4.9 StickyGun** UStickyGunSkeletalComp\* ABaseShooter::StickyGun = nullptr [protected], [inherited]

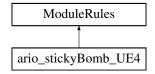
SkelMesh: 1st person view arms Gun mesh: 1st person view (seen only by self)

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

- Source/ario stickyBomb UE4/Public/Characters/Bomberman.h
- Source/ario\_stickyBomb\_UE4/Private/Characters/Bomberman.cpp

# 5.3 ario\_stickyBomb\_UE4 Class Reference

Inheritance diagram for ario\_stickyBomb\_UE4:



## **Public Member Functions**

• ario\_stickyBomb\_UE4 (ReadOnlyTargetRules Target)

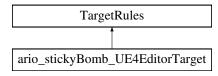
#### 5.3.1 Constructor & Destructor Documentation

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

Source/ario\_stickyBomb\_UE4/ario\_stickyBomb\_UE4.Build.cs

# 5.4 ario\_stickyBomb\_UE4EditorTarget Class Reference

Inheritance diagram for ario\_stickyBomb\_UE4EditorTarget:



#### **Public Member Functions**

ario\_stickyBomb\_UE4EditorTarget (TargetInfo Target)

#### 5.4.1 Constructor & Destructor Documentation

```
5.4.1.1 ario_stickyBomb_UE4EditorTarget() ario_stickyBomb_UE4EditorTarget.ario_stickyBomb_UE4← EditorTarget (

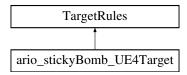
TargetInfo Target ) [inline]
```

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

• Source/ario\_stickyBomb\_UE4Editor.Target.cs

# 5.5 ario\_stickyBomb\_UE4Target Class Reference

Inheritance diagram for ario\_stickyBomb\_UE4Target:



#### **Public Member Functions**

ario\_stickyBomb\_UE4Target (TargetInfo Target)

## 5.5.1 Constructor & Destructor Documentation

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

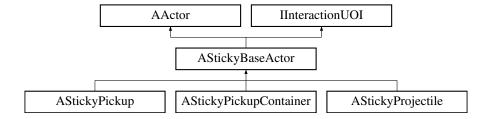
• Source/ario\_stickyBomb\_UE4.Target.cs

# 5.6 AStickyBaseActor Class Reference

A simple shell of a class to be expanded upon.

#include <StickyBaseActor.h>

Inheritance diagram for AStickyBaseActor:



## **Public Member Functions**

AStickyBaseActor ()

Construct a new AStickyBaseActor object.

· virtual void TryInteractItem () override

Interact Item, End.

• virtual void EndInteractItem () override

Interact Item, Start.

## 5.6.1 Detailed Description

A simple shell of a class to be expanded upon.

A simple shell of a class implementation to be expanded upon.

A simple utility class for generating and editing materialgraphs in code.

**Todo** Pehaps the class needs to be extended to be be able to edit other editor uassets

## 5.6.2 Constructor & Destructor Documentation

#### **5.6.2.1 AStickyBaseActor()** AStickyBaseActor::AStickyBaseActor ()

Construct a new AStickyBaseActor object.

#### 5.6.3 Member Function Documentation

## 5.6.3.1 EndInteractItem() void AStickyBaseActor::EndInteractItem () [override], [virtual]

Interact Item, Start.

Implements IInteractionUOI.

Reimplemented in AStickyPickupContainer, AStickyPickup, and AStickyProjectile.

## **5.6.3.2 TryInteractItem()** void AStickyBaseActor::TryInteractItem ( ) [override], [virtual]

Interact Item, End.

Interface Methods: Interaction

Implements IInteractionUOI.

Reimplemented in AStickyPickupContainer, AStickyPickup, and AStickyProjectile.

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

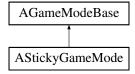
- Source/ario stickyBomb UE4/Public/Actors/StickyBaseActor.h
- $\bullet \ \, Source/ario\_stickyBomb\_UE4/Private/Actors/StickyBaseActor.cpp$

# 5.7 AStickyGameMode Class Reference

Naive implementation of Gamemode for networked play.

```
#include <StickyGameMode.h>
```

Inheritance diagram for AStickyGameMode:



#### **Public Member Functions**

• AStickyGameMode ()

Construct a new AStickyGameMode object.

- virtual void StartPlay () override
- virtual void BeginPlay () override
- · virtual void Tick (float DeltaSeconds) override
- virtual void PostLogin (APlayerController \*NewPlayer) override
- virtual void Logout (AController \*ExitingPlayer) override
- ABaseShooter \* FindPlayer (int32 LocalPlayerId)

#### **Public Attributes**

FOnActorKilled OnActorKilled

OnActorKilled delegate, multicasts when a player has been killed.

FOnTargetHitEvent OnHitEvent

OnHitEvent Delegate, multicasts when a hit has occured.

#### **Protected Member Functions**

- void RegisterNewPlayer (ABaseShooter \*NewPlayer)
- void DeregisterExitingPlayer (ABaseShooter \*ExitingPlayer)
- void CheckAnyPlayerAlive ()
- · bool HasPlayerWon () const
- void RestartDeadPlayers ()
- void PlayerKilled (AActor \*DamageCauser, AActor \*DamagedActor, AController \*InstigatorController)
- void GameOver ()

## **Protected Attributes**

- bool blsGameOver
- · bool bHasGameStarted
- bool bTriggerOnce = false
- FMaterialGenerator \* MatGen

#### 5.7.1 Detailed Description

Naive implementation of Gamemode for networked play.

Simple GameMode which has beend designed to work with ABaseShooter derived classes.

Implements barebone player checks which could be expanded on.

#### 5.7.2 Constructor & Destructor Documentation

```
5.7.2.1 AStickyGameMode() AStickyGameMode::AStickyGameMode ()
Construct a new AStickyGameMode object.
5.7.3 Member Function Documentation
5.7.3.1 BeginPlay() void AStickyGameMode::BeginPlay ( ) [override], [virtual]
5.7.3.2 CheckAnyPlayerAlive() void AStickyGameMode::CheckAnyPlayerAlive ( ) [protected]
5.7.3.3 DeregisterExitingPlayer() void AStickyGameMode::DeregisterExitingPlayer (
             ABaseShooter * ExitingPlayer ) [protected]
Parameters
 ExitingPlayer
5.7.3.4 FindPlayer() ABaseShooter * AStickyGameMode::FindPlayer (
             int32 LocalPlayerId )
Parameters
 Local←
 PlayerId
Returns
    ABaseShooter*
5.7.3.5 GameOver() void AStickyGameMode::GameOver ( ) [protected]
```

#### 5.7.3.6 HasPlayerWon() bool AStickyGameMode::HasPlayerWon ( ) const [protected]

Returns

true

false

**Parameters** 

ExitingPlayer

#### **Parameters**

DamageCauser	
DamagedActor	
InstigatorController	

```
5.7.3.9 PostLogin() void AStickyGameMode::PostLogin (

APlayerController * NewPlayer) [override], [virtual]
```

**Parameters** 

NewPlayer

```
5.7.3.10 RegisterNewPlayer() void AStickyGameMode::RegisterNewPlayer (

ABaseShooter * NewPlayer ) [protected]
```

**Parameters** 

NewPlayer

```
5.7.3.11 RestartDeadPlayers() void AStickyGameMode::RestartDeadPlayers ( ) [protected]
5.7.3.12 StartPlay() void AStickyGameMode::StartPlay ( ) [override], [virtual]
Inherited Methods: Overrides
5.7.3.13 Tick() void AStickyGameMode::Tick (
             float DeltaSeconds ) [override], [virtual]
Parameters
 DeltaSeconds
Todo Have a timer based delay before resterting Dead players
5.7.4 Member Data Documentation
5.7.4.1 bHasGameStarted bool AStickyGameMode::bHasGameStarted [protected]
5.7.4.2 blsGameOver bool AStickyGameMode::blsGameOver [protected]
5.7.4.3 bTriggerOnce bool AStickyGameMode::bTriggerOnce = false [protected]
5.7.4.4 MatGen FMaterialGenerator* AStickyGameMode::MatGen [protected]
5.7.4.5 OnActorKilled FOnActorKilled AStickyGameMode::OnActorKilled
```

OnActorKilled delegate, multicasts when a player has been killed.

5.7.4.6 OnHitEvent FOnTargetHitEvent AStickyGameMode::OnHitEvent

OnHitEvent Delegate, multicasts when a hit has occured.

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

- Source/ario\_stickyBomb\_UE4/Public/StickyGameMode.h
- Source/ario\_stickyBomb\_UE4/Private/StickyGameMode.cpp

# 5.8 AStickyGameSession Class Reference

Dummy gamesession class.

#include <StickyGameSession.h>

Inheritance diagram for AStickyGameSession:



### 5.8.1 Detailed Description

Dummy gamesession class.

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

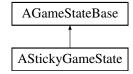
• Source/ario\_stickyBomb\_UE4/Public/StickyGameSession.h

## 5.9 AStickyGameState Class Reference

A simple shell of a class implementation to be expanded upon.

#include <StickyGameState.h>

Inheritance diagram for AStickyGameState:



## 5.9.1 Detailed Description

A simple shell of a class implementation to be expanded upon.

Dummy Gamestate, derives from AGameStateBase.

Todo Add gamestate logic

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

• Source/ario\_stickyBomb\_UE4/Public/StickyGameState.h

# 5.10 AStickyHUD Class Reference

A simple HUD class to handle widgets.

```
#include <StickyHUD.h>
```

Inheritance diagram for AStickyHUD:



## **Public Member Functions**

• AStickyHUD ()

Construct a new AStickyHUD object.

- virtual void Tick (float DeltaTime) final
- virtual void DrawHUD () final
- void UpdateTotalKills ()
- void UpdateAmmo ()

Reflect value to textbox.

- void ToggleGameMenu ()
- void AddKillToWidget (FString Kill)

## **Protected Member Functions**

- virtual void PostInitializeComponents () override
- virtual void BeginPlay () final
- void InitializeKillOverlayWidget ()
- void InitializeTotalKillsWidget ()
- void InitializeAmmoWidget ()

### **Protected Attributes**

- TSharedPtr< SKillWidget > TotalKillsWidget
- TSharedPtr< SAmmoWidget > AmmoWidget
- TSharedPtr< SSlideInText > OverlayMenu
- TSharedPtr< SKillContentContainer > KillList
- TSharedPtr< AStickyHUD > StickyHUD
- · bool blsTitleVisible
- bool blsKillWidgetInitialized
- bool blsAmmoWidgetInitialized
- bool blsOverlayMenuVisible

## 5.10.1 Detailed Description

A simple HUD class to handle widgets.

Main HUD class for ABaseShooter, derives from AHUD.

Simple HUD class to load the widgets in UI/Widgets/ and set up display

#### 5.10.2 Constructor & Destructor Documentation

```
5.10.2.1 AStickyHUD() AStickyHUD::AStickyHUD ( )
```

Construct a new AStickyHUD object.

### 5.10.3 Member Function Documentation

```
5.10.3.1 AddKillToWidget() void AStickyHUD::AddKillToWidget ( FString Kill )
```

**Parameters** 

Kill

5.10.3.2 BeginPlay() void AStickyHUD::BeginPlay ( ) [final], [protected], [virtual]

5.10.3.3 DrawHUD() void AStickyHUD::DrawHUD ( ) [final], [virtual]

```
5.10.3.4 InitializeAmmoWidget() void AStickyHUD::InitializeAmmoWidget ( ) [protected]
5.10.3.5 InitializeKillOverlayWidget() void AStickyHUD::InitializeKillOverlayWidget ( ) [protected]
5.10.3.6 InitializeTotalKillsWidget() void AStickyHUD::InitializeTotalKillsWidget ( ) [protected]
5.10.3.7 PostInitializeComponents() void AStickyHUD::PostInitializeComponents () [override],
[protected], [virtual]
Inherited Methods: Overrides
5.10.3.8 Tick() void AStickyHUD::Tick (
              float DeltaTime ) [final], [virtual]
Parameters
 DeltaTime
5.10.3.9 ToggleGameMenu() void AStickyHUD::ToggleGameMenu ()
\textbf{5.10.3.10} \quad \textbf{UpdateAmmo()} \quad \texttt{void AStickyHUD::UpdateAmmo ()}
Reflect value to textbox.
Reflects value from ABaseShooter->StickyGun->AmmoComp->GetAmmoCount(),e
\textbf{5.10.3.11} \quad \textbf{UpdateTotalKills()} \quad \texttt{void AStickyHUD::UpdateTotalKills ()}
5.10.4 Member Data Documentation
5.10.4.1 AmmoWidget TSharedPtr<SAmmoWidget> AStickyHUD::AmmoWidget [protected]
```

**5.10.4.2 blsAmmoWidgetInitialized** bool AStickyHUD::blsAmmoWidgetInitialized [protected]

**5.10.4.3 blsKillWidgetInitialized** bool AStickyHUD::blsKillWidgetInitialized [protected]

**5.10.4.4 blsOverlayMenuVisible** bool AStickyHUD::blsOverlayMenuVisible [protected]

**5.10.4.5 blsTitleVisible** bool AStickyHUD::bIsTitleVisible [protected]

5.10.4.6 KillList TSharedPtr<SKillContentContainer> AStickyHUD::KillList [protected]

**5.10.4.7 OverlayMenu** TSharedPtr<SSlideInText> AStickyHUD::OverlayMenu [protected]

**5.10.4.8 StickyHUD** TSharedPtr<AStickyHUD> AStickyHUD::StickyHUD [protected]

**5.10.4.9 TotalKillsWidget** TSharedPtr<SKillWidget> AStickyHUD::TotalKillsWidget [protected]

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

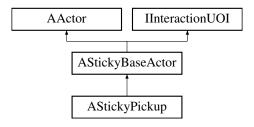
- Source/ario\_stickyBomb\_UE4/Public/UI/StickyHUD.h
- Source/ario\_stickyBomb\_UE4/Private/UI/StickyHUD.cpp

## 5.11 AStickyPickup Class Reference

A simple pickup actor.

#include <StickyPickup.h>

Inheritance diagram for AStickyPickup:



## **Public Member Functions**

• AStickyPickup ()

Construct a new AStickyPickup object.

- virtual void EndInteractItem () override
  - Interact Item, End.
- virtual void TryInteractItem () override

Interact Item, Start.

- bool DidPickup (AActor \*OtherActor)
- USphereComponent \* GetCollisionComp () const

Get the Collision Comp object.

### **Protected Member Functions**

- · virtual void Tick (float DeltaTime) final
- virtual void BeginPlay () final

## **Protected Attributes**

- USphereComponent \* CollisionComp = nullptr
- UStaticMeshComponent \* MeshComponentPtr = nullptr

### 5.11.1 Detailed Description

A simple pickup actor.

Has rudimentary pickup logic which sends it to the players ammo component

# 5.11.2 Constructor & Destructor Documentation

```
5.11.2.1 AStickyPickup() AStickyPickup::AStickyPickup ()
```

Construct a new AStickyPickup object.

### 5.11.3 Member Function Documentation

```
5.11.3.1 BeginPlay() void AStickyPickup::BeginPlay ( ) [final], [protected], [virtual]
```

```
5.11.3.2 DidPickup() bool AStickyPickup::DidPickup ( AActor * OtherActor )
```

```
Parameters
 OtherActor
Returns
      true
      false
5.11.3.3 EndInteractItem() void AStickyPickup::EndInteractItem ( ) [override], [virtual]
Interact Item, End.
Interface Methods: Interaction
Reimplemented from AStickyBaseActor.
\textbf{5.11.3.4} \quad \textbf{GetCollisionComp()} \quad \textbf{USphereComponent} \, * \, \textbf{AStickyPickup::} \textbf{GetCollisionComp()} \quad \textbf{()} \quad \textbf{const.}
Get the Collision Comp object.
Returns
      USphereComponent*
5.11.3.5 Tick() void AStickyPickup::Tick (
                float DeltaTime ) [final], [protected], [virtual]
Inherited Methods: Overrides
5.11.3.6 TryInteractItem() void AStickyPickup::TryInteractItem ( ) [override], [virtual]
Interact Item, Start.
```

## 5.11.4 Member Data Documentation

Reimplemented from AStickyBaseActor.

5.11.4.1 CollisionComp USphereComponent\* AStickyPickup::CollisionComp = nullptr [protected]

**5.11.4.2 MeshComponentPtr** UStaticMeshComponent\* AStickyPickup::MeshComponentPtr = nullptr [protected]

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

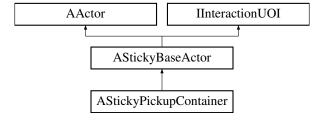
- Source/ario\_stickyBomb\_UE4/Public/Actors/StickyPickup.h
- Source/ario\_stickyBomb\_UE4/Private/Actors/StickyPickup.cpp

# 5.12 AStickyPickupContainer Class Reference

A simple actor which holds a static mesh container.

#include <StickyPickupContainer.h>

Inheritance diagram for AStickyPickupContainer:



### **Public Member Functions**

• AStickyPickupContainer ()

Construct a new AStickyPickupContainer object.

• virtual void EndInteractItem () override

Interact Item, End.

· virtual void TryInteractItem () override

Interact Item, Start.

## **Protected Member Functions**

- · virtual void Tick (float DeltaTime) final
- virtual void BeginPlay () final

# **Protected Attributes**

UStaticMeshComponent \* MeshComponentPtr = nullptr

### 5.12.1 Detailed Description

A simple actor which holds a static mesh container.

### 5.12.2 Constructor & Destructor Documentation

```
5.12.2.1 AStickyPickupContainer() AStickyPickupContainer::AStickyPickupContainer ()
```

Construct a new AStickyPickupContainer object.

#### 5.12.3 Member Function Documentation

```
5.12.3.1 BeginPlay() void AStickyPickupContainer::BeginPlay ( ) [final], [protected], [virtual]
```

# **5.12.3.2 EndInteractItem()** void AStickyPickupContainer::EndInteractItem ( ) [override], [virtual]

Interact Item, End.

Interface Methods: Interaction

Reimplemented from AStickyBaseActor.

Inherited Methods: Overrides

**5.12.3.4 TryInteractItem()** void AStickyPickupContainer::TryInteractItem ( ) [override], [virtual]

Interact Item, Start.

Reimplemented from AStickyBaseActor.

### 5.12.4 Member Data Documentation

**5.12.4.1 MeshComponentPtr** UStaticMeshComponent\* AStickyPickupContainer::MeshComponentPtr = nullptr [protected]

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

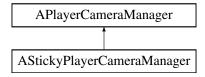
- Source/ario\_stickyBomb\_UE4/Public/Actors/StickyPickupContainer.h
- Source/ario\_stickyBomb\_UE4/Private/Actors/StickyPickupContainer.cpp

## 5.13 AStickyPlayerCameraManager Class Reference

A simple shell of a class implementation to be expanded upon.

#include <StickyPlayerCameraManager.h>

 $Inheritance\ diagram\ for\ AStickyPlayer Camera Manager:$ 



#### **Public Member Functions**

AStickyPlayerCameraManager ()
 Construct a new AStickyPlayerCameraManager object.

# 5.13.1 Detailed Description

A simple shell of a class implementation to be expanded upon.

Dummy Camera Manager, derives from APlayerCameraManager.

Only used to force 'bShouldSendClientSideCameraUpdate' to be true, as the default camera in the FPS example is not controlled by a Camera Manager, and thus doesn't have builtin support for replicating camera pitch.

Only used to set pitch to replicate thought the camera manager, instead of forcing replication of pitch on the tick of the player

### 5.13.2 Constructor & Destructor Documentation

```
5.13.2.1 AStickyPlayerCameraManager() AStickyPlayerCameraManager::AStickyPlayerCameraManager ()
```

Construct a new AStickyPlayerCameraManager object.

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

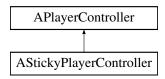
- · Source/ario stickyBomb UE4/Public/StickyPlayerCameraManager.h
- Source/ario\_stickyBomb\_UE4/Private/StickyPlayerCameraManager.cpp

# 5.14 AStickyPlayerController Class Reference

A simple shell of a class implementation to be expanded upon.

#include <StickyPlayerController.h>

Inheritance diagram for AStickyPlayerController:



#### **Public Member Functions**

AStickyPlayerController ()
 Construct a new AStickyPlayerController object.

## 5.14.1 Detailed Description

A simple shell of a class implementation to be expanded upon.

Dummy Player Controller, derives from APlayerController.

Todo Move controller and input related code from the ABaseShooter class into here.

This class is currently only used to explicitly set some default values

Todo Move controller and input related code from ABaseShooter into the player Controller

### 5.14.2 Constructor & Destructor Documentation

### **5.14.2.1 AStickyPlayerController()** AstickyPlayerController::AstickyPlayerController ()

Construct a new AStickyPlayerController object.

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

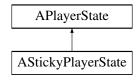
- Source/ario\_stickyBomb\_UE4/Public/StickyPlayerController.h
- Source/ario\_stickyBomb\_UE4/Private/StickyPlayerController.cpp

# 5.15 AStickyPlayerState Class Reference

Networked Player-state implementation.

#include <StickyPlayerState.h>

Inheritance diagram for AStickyPlayerState:



#### **Public Member Functions**

- void AddUserScore (float DeltaScore)
- float GetUserScore () const

Get the User Score value.

- · void AddKill (int32 KillCount)
- int32 GetKills () const

Get the Kills value.

void SetAmmo (int32 AmmoCount)

Set the Ammo count.

• int32 GetAmmo () const

Get the Ammo count.

#### **Protected Member Functions**

• void OnRep\_Kills ()

On replication, Kills.

void OnRep\_Ammo ()

OnReplication, Ammo.

#### **Protected Attributes**

- int32 Kills
- int32 Ammo

### 5.15.1 Detailed Description

Networked Player-state implementation.

Networked Player-state definition, derives from AStickyPlayerState.

Keeps track of the state of the player, in regards to kills and ammo.

Todo Redesign and remove extraneous code

Keeps track of the state of the player, in regards to kills and ammo. Shares data to the server through the gamemode->gamestate

## 5.15.2 Member Function Documentation

```
5.15.2.1 AddKill() void AStickyPlayerState::AddKill ( int32 KillCount )
```

Parameters
KillCount
54500 4184 0 0 0
<b>5.15.2.2</b> AddUserScore() void AStickyPlayerState::AddUserScore ( float DeltaScore )
Parameters
DeltaScore
5.15.2.3 GetAmmo() int32 AStickyPlayerState::GetAmmo ( ) const
Get the Ammo count.
Returns
int32
5.15.2.4 GetKills() int32 AStickyPlayerState::GetKills ( ) const
Get the Kills value.
Returns
int32
INOL
5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const
<pre>5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const Get the User Score value.</pre>
5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const  Get the User Score value.  Returns
<pre>5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const Get the User Score value.</pre>
5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const  Get the User Score value.  Returns
5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const  Get the User Score value.  Returns
5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const  Get the User Score value.  Returns
<pre>5.15.2.5 GetUserScore() float AStickyPlayerState::GetUserScore ( ) const Get the User Score value. Returns float</pre>

```
5.15.2.7 OnRep_Kills() void AStickyPlayerState::OnRep_Kills ( ) [protected]
```

On replication, Kills.

**5.15.2.8 SetAmmo()** void AStickyPlayerState::SetAmmo ( int32 AmmoCount )

Set the Ammo count.

**Parameters** 

AmmoCount

#### 5.15.3 Member Data Documentation

**5.15.3.1 Ammo** int32 AStickyPlayerState::Ammo [protected]

**5.15.3.2 Kills** int32 AStickyPlayerState::Kills [protected]

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

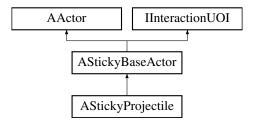
- Source/ario\_stickyBomb\_UE4/Public/StickyPlayerState.h
- Source/ario\_stickyBomb\_UE4/Private/StickyPlayerState.cpp

# 5.16 AStickyProjectile Class Reference

A projectile moving actor class.

#include <StickyProjectile.h>

Inheritance diagram for AStickyProjectile:



## **Public Member Functions**

AStickyProjectile ()

Construct a new AStickyProjectile object.

- virtual void TryInteractItem () final
- virtual void EndInteractItem () final

Interact Item, Start.

• float GetMaxLifetime () const

Get the Max Lifetime object.

• USphereComponent \* GetCollisionComp () const

Get the Collision Comp object.

UProjectileMovementComponent \* GetProjectileMovement () const

Get the Projectile Movement object.

UTimelineComponent \* GetTimelineComp () const

Get the Timeline Comp object.

TArray< UActorComponent \* > & GetReplicatedComponents ()

Get the Replicated Components object.

• float GetDamageRadius () const

Get the Damage Radius object.

• float GetDamageAmount () const

Get the Damage Amount object.

· void SetDamageRadius (float InRadius)

Set the Damage Radius object.

void SetDamageAmount (float InDamage)

Set the Damage Amount object.

void SetMaxPossibleLifetime (float MaxLifetime)

Set the Max Possible Lifetime object.

void SetCurve (UCurveFloat \*InCurve)

Set the Curve object.

UCurveFloat \* GetCurve ()

Get the Curve object.

bool DidPickup (AActor \*OtherActor)

#### **Protected Member Functions**

- virtual void Tick (float DeltaTime) final
- · virtual void BeginPlay () final
- virtual void LifeSpanExpired () final
- void OnHit (UPrimitiveComponent \*HitComp, AActor \*OtherActor, UPrimitiveComponent \*OtherComp, FVector NormalImpulse, const FHitResult &Hit)
- void OnExplode ()
- void OnPickup (ABaseShooter \*CallerBaseShooterActor)
- void ModulateColor (const float InterpValue)

Multicasted timeline callback.

- void TriggerExplosionFX ()
- void ServerTriggerExplosionFX ()
- void MultiCastTriggerExplosionFX ()

Multicast effects to all clients.

### **Protected Attributes**

- USphereComponent \* CollisionComp = nullptr
- UProjectileMovementComponent \* ProjectileMovement = nullptr
- UStaticMeshComponent \* MeshComponentPtr = nullptr
- UTimelineComponent \* StickyTimelineComp = nullptr
- UParticleSystemComponent \* ParticleSystemComp = nullptr
- UParticleSystem \* ParticleFX = nullptr
- UCurveFloat \* StickyTimelineCurve = nullptr
- FOnTimelineEvent TimelineFinishedEvent
- FOnTimelineFloat InterpTimelineEvent
- TEnumAsByte < ETimelineDirection::Type > TimelineDirection = ETimelineDirection::Type::Forward

## 5.16.1 Detailed Description

A projectile moving actor class.

A projectile actor which acts as a sticky bomb. Networked, but only naively implemented.

### 5.16.2 Constructor & Destructor Documentation

```
5.16.2.1 AStickyProjectile() AStickyProjectile::AStickyProjectile ( )
```

Construct a new AStickyProjectile object.

## 5.16.3 Member Function Documentation

```
5.16.3.1 BeginPlay() void AStickyProjectile::BeginPlay ( ) [final], [protected], [virtual]
```

```
5.16.3.2 DidPickup() bool AStickyProjectile::DidPickup ( AActor * OtherActor )
```

### **Parameters**

OtherActor

Returns

true

false

**5.16.3.3 EndInteractItem()** void AStickyProjectile::EndInteractItem ( ) [final], [virtual]

Interact Item, Start.

Reimplemented from AStickyBaseActor.

<b>5.16.3.4 GetCollisionComp()</b> USphereComponent * AStickyProjectile::GetCollisionComp ( ) const
Get the Collision Comp object.
Returns
USphereComponent*
5.16.3.5 GetCurve() UCurveFloat * AStickyProjectile::GetCurve ( )
Get the Curve object.
Returns
UCurveFloat*
5.16.3.6 GetDamageAmount() float AStickyProjectile::GetDamageAmount ( ) const
Get the Damage Amount object.
Returns
float
<b>5.16.3.7 GetDamageRadius()</b> float AStickyProjectile::GetDamageRadius ( ) const
Get the Damage Radius object.
Returns
float
5.16.3.8 <b>GetMaxLifetime()</b> float AStickyProjectile::GetMaxLifetime ( ) const
Get the Max Lifetime object.
Returns
float

<b>5.16.3.9 GetProjectileMovement()</b> UProjectileMovementComponent * AStickyProjectile::GetProjectile← Movement ( ) const
Get the Projectile Movement object.
Returns  UProjectileMovementComponent*
<pre>5.16.3.10 GetReplicatedComponents() TArray&lt; UActorComponent * &gt; &amp; AStickyProjectile::Get← ReplicatedComponents ( )</pre>
Get the Replicated Components object.
Returns  TArray < UActorComponent *> &
5.16.3.11 GetTimelineComp() UTimelineComponent * AStickyProjectile::GetTimelineComp ( ) const
Get the Timeline Comp object.
Returns  UTimelineComponent*
5.16.3.12 LifeSpanExpired() void AStickyProjectile::LifeSpanExpired ( ) [final], [protected], [virtual]
5.16.3.13 ModulateColor() void AStickyProjectile::ModulateColor (
Multicasted timeline callback.
Parameters  InterpValue

```
5.16.3.14 MultiCastTriggerExplosionFX() void AStickyProjectile::MultiCastTriggerExplosionFX ( ) [protected]
```

Multicast effects to all clients.

**5.16.3.15 OnExplode()** void AStickyProjectile::OnExplode ( ) [protected]

#### **Parameters**

HitComp	
OtherActor	
OtherComp	
Normallmpulse	
Hit	

```
5.16.3.17 OnPickup() void AStickyProjectile::OnPickup (

ABaseShooter * CallerBaseShooterActor ) [protected]
```

## **Parameters**

CallerBaseShooterActor

**5.16.3.18 ServerTriggerExplosionFX()** void AStickyProjectile::ServerTriggerExplosionFX ( ) [protected]

```
5.16.3.19 SetCurve() void AStickyProjectile::SetCurve ( UCurveFloat * InCurve )
```

Set the Curve object.

### **Parameters**

InCurve

```
5.16.3.20 SetDamageAmount() void AStickyProjectile::SetDamageAmount (
              float InDamage )
Set the Damage Amount object.
Parameters
 InDamage
\textbf{5.16.3.21} \quad \textbf{SetDamageRadius()} \quad \texttt{void AStickyProjectile::SetDamageRadius ()}
              float InRadius )
Set the Damage Radius object.
Parameters
 InRadius
5.16.3.22 SetMaxPossibleLifetime() void AStickyProjectile::SetMaxPossibleLifetime (
              float MaxLifetime )
Set the Max Possible Lifetime object.
Parameters
 MaxLifetime
5.16.3.23 Tick() void AStickyProjectile::Tick (
              float DeltaTime ) [final], [protected], [virtual]
Inherited Methods: Overrides
5.16.3.24 TriggerExplosionFX() void AStickyProjectile::TriggerExplosionFX ( ) [protected]
5.16.3.25 TryInteractItem() void AStickyProjectile::TryInteractItem ( ) [final], [virtual]
```

Interface Methods: Interaction

Reimplemented from AStickyBaseActor.

5.16.4.1	CollisionComp Usph	nereComponent* AStickyProjectile::CollisionComp = nullp	r [protected]
5.16.4.2	InterpTimelineEvent	FOnTimelineFloat AStickyProjectile::InterpTimelineEver	nt [protected]
<b>5.16.4.3</b> [protect	-	UStaticMeshComponent* AStickyProjectile::MeshComponent	Ptr = nullptr
5.16.4.4	ParticleFX UParticl	eSystem* AStickyProjectile::ParticleFX = nullptr [prot	ected]
	ParticleSystemComp [protected]	UParticleSystemComponent* AStickyProjectile::Particle	SystemComp =
	ProjectileMovement r [protected]	<pre>UProjectileMovementComponent* AStickyProjectile::Proje</pre>	ctileMovement
<b>5.16.4.7</b> [protect		UTimelineComponent* AStickyProjectile::StickyTimeline	Comp = nullptr
<b>5.16.4.8</b> [protect	-	<pre>UCurveFloat* AStickyProjectile::StickyTimelineCurve =</pre>	nullptr

**5.16.4.9 TimelineDirection** TEnumAsByte<ETimelineDirection::Type> AStickyProjectile::Timeline← Direction = ETimelineDirection::Type::Forward [protected]

**5.16.4.10 TimelineFinishedEvent** FOnTimelineEvent AStickyProjectile::TimelineFinishedEvent [protected]

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

- Source/ario stickyBomb UE4/Public/Actors/StickyProjectile.h
- Source/ario stickyBomb UE4/Private/Actors/StickyProjectile.cpp

### 5.17 FMaterialGenerator Class Reference

A WIP utility class for Material creation/editing.

```
#include <MaterialGenerator.h>
```

#### **Public Member Functions**

 void CreateBasicMaterial (FString MaterialBaseName="M\_Material", FString PackageName="/Game/Gen← Materials/")

Create a Basic Material object.

 void CreateCelShadedExplosionMat (FString MaterialBaseName=FString("M\_CelExplosionMat"), FString PackageName=FString("/Game/GenMaterials/"))

Create a Cel Shaded Explosion Mat object.

### **Static Public Member Functions**

static FMaterialGenerator \* CreateObject ()
 Create a FMaterialGenerator object.

## 5.17.1 Detailed Description

A WIP utility class for Material creation/editing.

This class lets you create new packages, design them through code and save them to your content\_browser (Currently only Materials). End result is a uasset primed for used in the editor, it can therefor be used to create templates.

The Actual idea with this class was to be able to create an explosion material during BeginPlaym which would have been used in the actual explosion effects of the StickyProjectile.

**Todo** Extend with many variants of templates, both in regards to expression types but also package types, and opt for selective compilation with 'constexpr if's for efficiency.

#### 5.17.2 Member Function Documentation

Create a Basic Material object.

#### **Parameters**

MaterialBaseName	
PackageName	

# 

Create a Cel Shaded Explosion Mat object.

### **Parameters**

MaterialBaseName	
PackageName	

# **5.17.2.3 CreateObject()** FMaterialGenerator \* FMaterialGenerator::CreateObject ( ) [static]

Create a FMaterialGenerator object.

# Returns

FMaterialGenerator\*

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

- Source/ario\_stickyBomb\_UE4/Public/Effects/MaterialGenerator.h
- Source/ario\_stickyBomb\_UE4/Private/Effects/MaterialGenerator.cpp

# 5.18 FPlayerData Struct Reference

Simple utility struct to pass data into widgets.

```
#include <FPlayerData.h>
```

## **Public Member Functions**

FPlayerData (float score=0.0f, FString name=FString("No Player Name"))
 Construct a new FPlayerData object.

## **Public Attributes**

- float Score
- FString Name

### 5.18.1 Detailed Description

Simple utility struct to pass data into widgets.

### 5.18.2 Constructor & Destructor Documentation

Construct a new FPlayerData object.

#### **Parameters**

score	
name	

### 5.18.3 Member Data Documentation

#### **5.18.3.1 Name** FString FPlayerData::Name

```
5.18.3.2 Score float FPlayerData::Score
```

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

Source/ario\_stickyBomb\_UE4/Public/UI/FPlayerData.h

## 5.19 FStickyFXManager Class Reference

A particle system primer class.

```
#include <StickyFXManager.h>
```

### 5.19.1 Detailed Description

A particle system primer class.

Todo Write functions to handle creation and editing of new particle systems through c++

Todo Write functions to handle creation and editing of new particle systems through c++

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

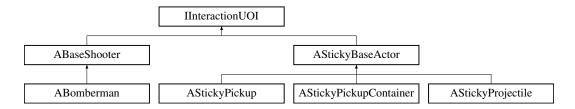
• Source/ario\_stickyBomb\_UE4/Private/Effects/StickyFXManager.cpp

## 5.20 IInteractionUOI Class Reference

A simple shell of a class to be expanded upon.

#include <InteractionUOI.h>

Inheritance diagram for IInteractionUOI:



### **Public Member Functions**

- virtual void TryInteractItem ()=0
  - Pure virtual, implement in child-classes.
- virtual void EndInteractItem ()=0

Pure virtual, implement in child-classes.

## 5.20.1 Detailed Description

A simple shell of a class to be expanded upon.

Interaction Interface.

Simple Interaction Interface for managing pickups, could be more fleshed out if needed.

### 5.20.2 Member Function Documentation

## **5.20.2.1 EndInteractItem()** virtual void IInteractionUOI::EndInteractItem () [pure virtual]

Pure virtual, implement in child-classes.

Implemented in ABaseShooter, AStickyPickupContainer, AStickyPickup, AStickyBaseActor, and AStickyProjectile.

# **5.20.2.2 TryInteractItem()** virtual void IInteractionUOI::TryInteractItem ( ) [pure virtual]

Pure virtual, implement in child-classes.

Implemented in ABaseShooter, AStickyPickupContainer, AStickyPickup, AStickyBaseActor, and AStickyProjectile.

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

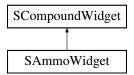
• Source/ario\_stickyBomb\_UE4/Public/Interfaces/InteractionUOI.h

# 5.21 SAmmoWidget Class Reference

Ammo Widget which derives from SCompoundWidget.

```
#include <SAmmoWidget.h>
```

Inheritance diagram for SAmmoWidget:



#### **Public Member Functions**

- SLATE\_BEGIN\_ARGS (SAmmoWidget)
- SLATE\_ARGUMENT (TWeakObjectPtr< AStickyHUD >, OwnerHud)
- void Construct (const FArguments &InArgs)
- void SetAmmoText (FText Ammo)

Set the Ammo Text object.

• FText GetAmmoText () const

Get the Ammo Text object.

## 5.21.1 Detailed Description

Ammo Widget which derives from SCompoundWidget.

Simple widget to display the ammo count of the ammo component

### 5.21.2 Member Function Documentation

```
5.21.2.1 Construct() void SAmmoWidget::Construct ( const FArguments & InArgs )
```

**Parameters** 

InArgs

## **5.21.2.2 GetAmmoText()** FText SAmmoWidget::GetAmmoText ( ) const

Get the Ammo Text object.

Returns

**FText** 

```
5.21.2.3 SetAmmoText() void SAmmoWidget::SetAmmoText ( FText Ammo )
```

Set the Ammo Text object.

**Parameters** 

Ammo

```
5.21.2.5 SLATE_BEGIN_ARGS() SAmmoWidget::SLATE_BEGIN_ARGS ( SAmmoWidget ) [inline]
```

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

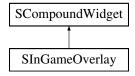
- Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SAmmoWidget.h
- Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SAmmoWidget.cpp

# 5.22 SInGameOverlay Class Reference

A simple shell of a class to be expanded upon. Right now it only funcitons as a blank overlay.

```
#include <SInGameOverlay.h>
```

Inheritance diagram for SInGameOverlay:



### **Public Member Functions**

- SLATE\_BEGIN\_ARGS (SInGameOverlay)
- void Construct (const FArguments &InArgs)

## 5.22.1 Detailed Description

A simple shell of a class to be expanded upon. Right now it only funcitons as a blank overlay.

Game Overlay widget, derives from SCompoundWidget.

Simple widget to use a in game overlay.

#### 5.22.2 Member Function Documentation

```
5.22.2.1 Construct() BEGIN_SLATE_FUNCTION_BUILD_OPTIMIZATION void SInGameOverlay::Construct ( const FArguments & InArgs )
```

#### **Parameters**

InArgs

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

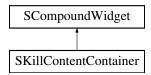
- Source/ario\_stickyBomb\_UE4/Public/UI/SInGameOverlay.h
- Source/ario\_stickyBomb\_UE4/Private/UI/SInGameOverlay.cpp

# 5.23 SKillContentContainer Class Reference

A simple shell of a class to be expanded upon.

```
#include <SKillContentContainer.h>
```

Inheritance diagram for SKillContentContainer:



# **Public Member Functions**

- SLATE\_BEGIN\_ARGS (SKillContentContainer)
- void Construct (const FArguments &InArgs)
- void AddSlot (FString Value)

### **Protected Member Functions**

TSharedRef< ITableRow > OnGenerateRowForList (TSharedPtr< FString > NewItem, const TSharedRef
 STableViewBase > &OwnerTable)

#### **Protected Attributes**

- AStickyHUD \* OwnerHud
- TArray< TSharedPtr< FString > > Items
- TSharedPtr< SListView< TSharedPtr< FString >> > ListViewWidget
- FSlateFontInfo FontForKills

### 5.23.1 Detailed Description

A simple shell of a class to be expanded upon.

Kill Container widget, derives from SCompoundWidget.

Simple widget to display the kills in a cornered box.

### 5.23.2 Member Function Documentation

```
5.23.2.1 AddSlot() void SKillContentContainer::AddSlot ( FString Value )
```

# **Parameters**

Value

```
5.23.2.2 Construct() BEGIN_SLATE_FUNCTION_BUILD_OPTIMIZATION void SKillContentContainer:: \leftarrow Construct ( const FArguments & InArgs )
```

## **Parameters**

InArgs

#### **Parameters**

NewItem	
OwnerTable	

#### Returns

TSharedRef<ITableRow>

**5.23.2.4 SLATE\_BEGIN\_ARGS()** SKillContentContainer::SLATE\_BEGIN\_ARGS (
SKillContentContainer ) [inline]

## 5.23.3 Member Data Documentation

**5.23.3.1 FontForKills** FSlateFontInfo SKillContentContainer::FontForKills [protected]

**5.23.3.2 Items** TArray<TSharedPtr<FString> > SKillContentContainer::Items [protected]

**5.23.3.3 ListViewWidget** TSharedPtr<SListView<TSharedPtr<FString> > SKillContentContainer ← ::ListViewWidget [protected]

**5.23.3.4 OwnerHud** AStickyHUD\* SKillContentContainer::OwnerHud [protected]

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

- Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SKillContentContainer.h
- Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SKillContentContainer.cpp

# 5.24 SKillWidget Class Reference

A simple shell of a class to be expanded upon to display current kills.

#include <SKillWidget.h>

Inheritance diagram for SKillWidget:



## **Public Member Functions**

- SLATE\_BEGIN\_ARGS (SKillWidget)
- SLATE\_ARGUMENT (TWeakObjectPtr< class AStickyHUD >, OwnerHud)
- void Construct (const FArguments &InArgs)
- void SetScoreText (FText Score)

Set the Score Text object.

• FText GetScoreText () const

Get the Score Text object.

# 5.24.1 Detailed Description

A simple shell of a class to be expanded upon to display current kills.

Kill Count widget, derives from SCompoundWidget.

Simple widget to display the kill count.

### 5.24.2 Member Function Documentation

```
5.24.2.1 Construct() void SKillWidget::Construct ( const FArguments & InArgs )
```

**Parameters** 

InArgs

```
5.24.2.2 GetScoreText() FText SKillWidget::GetScoreText ( ) const
```

Get the Score Text object.

Returns

**FText** 

```
5.24.2.3 SetScoreText() void SKillWidget::SetScoreText ( FText Score )
```

Set the Score Text object.

### **Parameters**

Score

```
5.24.2.5 SLATE_BEGIN_ARGS() SKillWidget::SLATE_BEGIN_ARGS (

SKillWidget ) [inline]
```

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

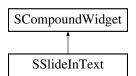
- Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SKillWidget.h
- Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SKillWidget.cpp

# 5.25 SSlideInText Class Reference

A simple widget that kan be used to display a recent player kill.

```
#include <SSlideInText.h>
```

Inheritance diagram for SSlideInText:



## **Public Member Functions**

- SLATE BEGIN ARGS (SSlideInText)
- void Construct (const FArguments &InArgs)
- void TransitionIn ()
- void TransitionOut ()

#### **Public Attributes**

FText TextToShow

### **Protected Member Functions**

• FLinearColor GetColor () const

Get the Color object.

• FVector2D GetItemScale () const

Get the Item Scale object.

### **Protected Attributes**

- EVisibleState CurrentState
- FCurveSequence VisibleAnimation
- FCurveHandle ScaleCurveX
- FCurveHandle ScaleCurveY
- FCurveSequence FadeAnimation
- FCurveHandle FadeValue

# 5.25.1 Detailed Description

A simple widget that kan be used to display a recent player kill.

Slide In Text widget, derives from SCompoundWidget.

Simple widget to slide in text upon a player kill.

## 5.25.2 Member Function Documentation

```
5.25.2.1 Construct() BEGIN_SLATE_FUNCTION_BUILD_OPTIMIZATION void SSlideInText::Construct ( const FArguments & InArgs )
```

### **Parameters**

InArgs

**5.25.2.2 GetColor()** FLinearColor SSlideInText::GetColor ( ) const [protected]

Get the Color object.

Returns

FLinearColor

```
5.25.2.3 GetItemScale() FVector2D SSlideInText::GetItemScale ( ) const [protected]
Get the Item Scale object.
Returns
    FVector2D
5.25.2.4 SLATE_BEGIN_ARGS() SSlideInText::SLATE_BEGIN_ARGS (
            SSlideInText ) [inline]
5.25.2.5 TransitionIn() END_SLATE_FUNCTION_BUILD_OPTIMIZATION void SSlideInText::TransitionIn (
5.25.2.6 TransitionOut() void SSlideInText::TransitionOut ()
5.25.3 Member Data Documentation
5.25.3.1 CurrentState EVisibleState SSlideInText::CurrentState [protected]
5.25.3.2 FadeAnimation FCurveSequence SSlideInText::FadeAnimation [protected]
5.25.3.3 FadeValue FCurveHandle SSlideInText::FadeValue [protected]
5.25.3.4 ScaleCurveX FCurveHandle SSlideInText::ScaleCurveX [protected]
5.25.3.5 ScaleCurveY FCurveHandle SSlideInText::ScaleCurveY [protected]
```

#### **5.25.3.6 TextToShow** FText SSlideInText::TextToShow

### **5.25.3.7 VisibleAnimation** FCurveSequence SSlideInText::VisibleAnimation [protected]

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

- Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SSlideInText.h
- Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SSlideInText.cpp

# 5.26 UAmmoComp Class Reference

Simple ammo component.

```
#include <AmmoComp.h>
```

## 5.26.1 Detailed Description

Simple ammo component.

Networked ammo component.

A simple but networked ammo component.

**Todo** This component could be expaned into something more like an inventory. What would be needed is making a dedicated item\_data class, hold the item\_data in the inventory. Then spawn the items on server-side when brought out of inventory.

Simple networked Ammo Component to be used for ABaseShooter derived actors

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

• Source/ario\_stickyBomb\_UE4/Private/Components/AmmoComp.cpp

# 5.27 UHealthComp Class Reference

Networked health component.

```
#include <HealthComp.h>
```

#### 5.27.1 Detailed Description

Networked health component.

Simple networked health component implementation, to be used with ABaseShooter derived characters, but could be retrofitted for other character types if it is rewritten as a templated class

Simple networked health component, to be used with ABaseShooter derived characters, but could be retrofitted for other character types if it is rewritten as a templated class

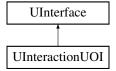
The documentation for this class was generated from the following file:

• Source/ario\_stickyBomb\_UE4/Private/Components/HealthComp.cpp

#### 5.28 UInteractionUOI Class Reference

```
#include <InteractionUOI.h>
```

Inheritance diagram for UInteractionUOI:



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

• Source/ario stickyBomb UE4/Public/Interfaces/InteractionUOI.h

# 5.29 UStickyGunSkeletalComp Class Reference

Networked weapon component.

```
#include <StickyGunSkeletalComp.h>
```

Inheritance diagram for UStickyGunSkeletalComp:



#### **Public Member Functions**

UStickyGunSkeletalComp ()

Construct a new UStickyGunSkeletalComp object.

- void InitStickyGun (ABaseShooter \*Caller, FVector GunOffset, USceneComponent \*MuzzlePlacementComp)
  - Called after constructing StickyGunSkeletalComp as a subobject.
- void TryStartFire ()
- UAmmoComp \* GetAmmoComp ()

Get the Ammo Comp object.

ABaseShooter \* GetOwningCharacter ()

Get the Owning Character object.

USoundBase \* GetFireSound ()

Get the Fire Sound object.

UAnimMontage \* GetFireAnimMontage ()

Get the Fire Anim Montage object.

void MulticastFireGunEffects (AStickyProjectile \*LocalProjectileActorPtr)

Multicasted VFX/SFX trigger.

#### **Protected Member Functions**

• void SuccessFireEffects ()

Succeeded with fire effcts.

• void FailFireEffects ()

Failed with fire effcts.

- void ServerOnFire ()
- void OnFire ()
- void PrepDeferredSpawnProjectile (AStickyProjectile \*LocalProjectileActorPtr)
- bool FinishSpawnProjectile (AStickyProjectile \*LocalProjectileActorPtr, FTransform const &SpawnTransform)
- void GenerateCurve ()

#### **Protected Attributes**

- USkeletalMesh \* MeshPtr = nullptr
- FVector GunOffset
- TSubclassOf< AStickyProjectile > ProjectileClass
- USoundBase \* FireSound
- UAnimMontage \* FireAnimation
- USceneComponent \* PlacementComp
- UAmmoComp \* AmmoComp
- ABaseShooter \* OwningCharacter
- UCurveFloat \* FloatCurve = nullptr
- FRichCurve \* GeneratedRichCurve

#### 5.29.1 Detailed Description

Networked weapon component.

Derived from USkeletalMeshComponent, Designed to be used with ABaseShooter derived classes

#### 5.29.2 Constructor & Destructor Documentation

 $\textbf{5.29.2.1} \quad \textbf{UStickyGunSkeletalComp()} \quad \textbf{UStickyGunSkeletalComp::} \\ \textbf{UStickyGunSkeletalComp()} \quad \textbf{UStickyGunSkeletalComp()} \\ \textbf{UStickyGunSkeletal$ 

Construct a new UStickyGunSkeletalComp object.

#### 5.29.3 Member Function Documentation

5.29.3.1 FailFireEffects() void UStickyGunSkeletalComp::FailFireEffects ( ) [protected]

Failed with fire effcts.

#### **Parameters**

LocalProjectileActorPtr SpawnTransform

**Returns** 

true

false

**5.29.3.3 GenerateCurve()** void UStickyGunSkeletalComp::GenerateCurve ( ) [protected]

5.29.3.4 GetAmmoComp() UAmmoComp \* UStickyGunSkeletalComp::GetAmmoComp ( )

Get the Ammo Comp object.

Returns

UAmmoComp\*

```
5.29.3.5 GetFireAnimMontage() UAnimMontage * UStickyGunSkeletalComp::GetFireAnimMontage ()
Get the Fire Anim Montage object.
Returns
                         UAnimMontage*
5.29.3.6 GetFireSound() USoundBase * UStickyGunSkeletalComp::GetFireSound ( )
Get the Fire Sound object.
Returns
                        USoundBase*
\textbf{5.29.3.7} \quad \textbf{GetOwningCharacter()} \quad \texttt{ABaseShooter} \, * \, \texttt{UStickyGunSkeletalComp::} \\ \texttt{GetOwningCharacter} \, \, ( \ ) \\ \\ \textbf{ABaseShooter} \, * \, \texttt{UStickyGunSkeletalComp::} \\ \textbf{ABaseShooter} \, * \, \texttt{UStickyGunSkeletalCo
Get the Owning Character object.
Returns
                         ABaseShooter*
5.29.3.8 InitStickyGun() void UStickyGunSkeletalComp::InitStickyGun (
                                                                ABaseShooter * Caller,
                                                                FVector GunOffset,
                                                                USceneComponent * MuzzlePlacementComp )
Called after constructing StickyGunSkeletalComp as a subobject.
 Parameters
       Caller
       GunOffset
       MuzzlePlacementComp
```

```
  \textbf{5.29.3.9} \quad \textbf{MulticastFireGunEffects()} \quad \text{void UStickyGunSkeletalComp::} \\ \textbf{MulticastFireGunEffects (} \\ \textbf{AStickyProjectile} * LocalProjectileActorPtr )
```

Multicasted VFX/SFX trigger.

```
Parameters
```

LocalProjectileActorPtr

**5.29.3.10 OnFire()** void UStickyGunSkeletalComp::OnFire ( ) [protected]

 $\textbf{5.29.3.11} \quad \textbf{PrepDeferredSpawnProjectile()} \quad \textbf{void UStickyGunSkeletalComp::} \textbf{PrepDeferredSpawnProjectile} \ ($ 

AStickyProjectile \* LocalProjectileActorPtr ) [protected]

**Parameters** 

LocalProjectileActorPtr

 $\textbf{5.29.3.12} \quad \textbf{ServerOnFire()} \quad \texttt{void UStickyGunSkeletalComp::} \\ \textbf{ServerOnFire ()} \quad \texttt{[protected]}$ 

**5.29.3.13 SuccessFireEffects()** void UStickyGunSkeletalComp::SuccessFireEffects ( ) [protected]

Succeeded with fire effcts.

**5.29.3.14 TryStartFire()** void UStickyGunSkeletalComp::TryStartFire ()

5.29.4 Member Data Documentation

**5.29.4.1 AmmoComp** UAmmoComp\* UStickyGunSkeletalComp::AmmoComp [protected]

Spawn-point for projectiles

**5.29.4.2 FireAnimation** UAnimMontage\* UStickyGunSkeletalComp::FireAnimation [protected]

Sound to play each time we fire

**5.29.4.3 FireSound** USoundBase\* UStickyGunSkeletalComp::FireSound [protected]

Projectile class to spawn

**5.29.4.4 FloatCurve** UCurveFloat\* UStickyGunSkeletalComp::FloatCurve = nullptr [protected]

**5.29.4.5 GeneratedRichCurve** FRichCurve\* UStickyGunSkeletalComp::GeneratedRichCurve [protected]

**5.29.4.6 GunOffset** FVector UStickyGunSkeletalComp::GunOffset [protected]

Actual Skeletal Mesh asset

**5.29.4.7 MeshPtr** USkeletalMesh\* UStickyGunSkeletalComp::MeshPtr = nullptr [protected]

**5.29.4.8 OwningCharacter** ABaseShooter\* UStickyGunSkeletalComp::OwningCharacter [protected]

**5.29.4.9 PlacementComp** USceneComponent\* UStickyGunSkeletalComp::PlacementComp [protected]

AnimMontage to play each time we fire

**5.29.4.10 ProjectileClass** TSubclassOf<AStickyProjectile> UStickyGunSkeletalComp::Projectile← Class [protected]

Gun muzzle's offset from the characters location

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

- Source/ario\_stickyBomb\_UE4/Public/Components/StickyGunSkeletalComp.h
- Source/ario\_stickyBomb\_UE4/Private/Components/StickyGunSkeletalComp.cpp

# 5.30 UStickyLinetraceComp Class Reference

Not much more than a linetracer. Almost a functor,.

#include <StickyLinetraceComp.h>

6 File Documentation 73

#### 5.30.1 Detailed Description

Not much more than a linetracer. Almost a functor,.

It is not quite a functor, but it is very small and serves only one function, the tick-component function. It runs a tick on 0.2 second period, in which it shoots a linetrace about 2.5 meters adjusted from Unreal Units. It is designed in a way that it is attached to the camera of ABaseShooter (and derived) actors and will activate the component by pressing the designated key for it,

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

Source/ario\_stickyBomb\_UE4/Private/Components/StickyLinetraceComp.cpp

#### 6 File Documentation

# 6.1 Source/ario\_stickyBomb\_UE4.Target.cs File Reference

#### Classes

· class ario stickyBomb UE4Target

# 6.2 Source/ario\_stickyBomb\_UE4/ario\_stickyBomb\_UE4.Build.cs File Reference

#### **Classes**

· class ario\_stickyBomb\_UE4

# 6.3 Source/ario\_stickyBomb\_UE4/ario\_stickyBomb\_UE4.cpp File Reference

```
#include "ario_stickyBomb_UE4.h"
#include "Modules/ModuleManager.h"
```

#### **Functions**

IMPLEMENT\_PRIMARY\_GAME\_MODULE (FDefaultGameModuleImpl, ario\_stickyBomb\_UE4, "ario\_
stickyBomb\_UE4")

#### 6.3.1 Function Documentation

```
6.3.1.1 IMPLEMENT_PRIMARY_GAME_MODULE() IMPLEMENT_PRIMARY_GAME_MODULE (
FDefaultGameModuleImpl ,
ario_stickyBomb_UE4 ,
"ario_stickyBomb_UE4" )
```

# 6.4 Source/ario\_stickyBomb\_UE4/ario\_stickyBomb\_UE4.h File Reference

```
#include "CoreMinimal.h"
```

# 6.5 Source/ario\_stickyBomb\_UE4/Private/Actors/StickyBaseActor.cpp File Reference

```
#include "Actors/StickyBaseActor.h"
```

#### 6.6 Source/ario stickyBomb UE4/Private/Actors/StickyPickup.cpp File Reference

```
#include "Actors/StickyPickup.h"
#include "Characters/BaseShooter.h"
#include "Interfaces/InteractionUOI.h"
#include "Components/AmmoComp.h"
#include "Components/StickyGunSkeletalComp.h"
#include "Helpers/CollisionChannels.h"
#include "Helpers/Macros.h"
#include <Kismet/KismetSystemLibrary.h>
#include <Net/UnrealNetwork.h>
#include <UObject/ConstructorHelpers.h>
#include <Components/SphereComponent.h>
#include <Materials/MaterialInstanceDynamic.h>
```

# 6.7 Source/ario\_stickyBomb\_UE4/Private/Actors/StickyPickupContainer.cpp File Reference

```
#include "Actors/StickyPickupContainer.h"
#include "Helpers/CollisionChannels.h"
#include "Helpers/Macros.h"

**include <Kismet/KismetSystemLibrary.h>
#include <Net/UnrealNetwork.h>
#include <UObject/ConstructorHelpers.h>
#include <Materials/MaterialInstanceDynamic.h>
```

#### 6.7.1 Detailed Description

**Author** 

Ario Amin

# 6.8 Source/ario\_stickyBomb\_UE4/Private/Actors/StickyProjectile.cpp File Reference

```
#include "Actors/StickyProjectile.h"
#include "Characters/BaseShooter.h"
#include "Interfaces/InteractionUOI.h"
#include "StickyGameMode.h"
#include "StickyPlayerState.h"
#include "Components/AmmoComp.h"
#include "Components/HealthComp.h"
#include "Components/StickyGunSkeletalComp.h"
#include "Helpers/CollisionChannels.h"
#include "Helpers/Macros.h"
#include <Kismet/GameplayStatics.h>
#include <Kismet/KismetSystemLibrary.h>
#include <Net/UnrealNetwork.h>
#include <UObject/ConstructorHelpers.h>
#include <Components/SphereComponent.h>
#include <GameFramework/ProjectileMovementComponent.h>
#include <Particles/ParticleSystemComponent.h>
#include <GameFramework/DamageType.h>
#include <Materials/MaterialInstanceDynamic.h>
#include <Sound/SoundBase.h>
```

#### 6.8.1 Detailed Description

**Author** 

Ario Amin

#### 6.9 Source/ario stickyBomb UE4/Private/Characters/BaseShooter.cpp File Reference

```
#include "Characters/BaseShooter.h"
#include "Actors/StickyProjectile.h"
#include "Helpers/CollisionChannels.h"
#include "StickyPlayerState.h"
#include "Components/AmmoComp.h"
#include "Components/HealthComp.h"
#include "Components/StickyGunSkeletalComp.h"
#include "Components/StickyLinetraceComp.h"
#include <Camera/CameraComponent.h>
#include <Components/CapsuleComponent.h>
#include <Components/InputComponent.h>
#include <GameFramework/CharacterMovementComponent.h>
#include <MotionControllerComponent.h>
#include <Animation/AnimInstance.h>
#include <GameFramework/DamageType.h>
#include <GameFramework/InputSettings.h>
#include <Net/UnrealNetwork.h>
#include <Animation/AnimBlueprint.h>
#include <Kismet/GameplayStatics.h>
#include <UObject/ConstructorHelpers.h>
#include <HeadMountedDisplayFunctionLibrary.h>
#include <XRMotionControllerBase.h>
```

#### **Functions**

• DEFINE\_LOG\_CATEGORY\_STATIC (LogFPChar, Warning, All)

#### 6.9.1 Function Documentation

```
6.9.1.1 DEFINE_LOG_CATEGORY_STATIC() DEFINE_LOG_CATEGORY_STATIC (

LogFPChar ,

Warning ,

All )
```

#### 6.10 Source/ario stickyBomb UE4/Private/Characters/Bomberman.cpp File Reference

```
#include "Characters/Bomberman.h"
#include "Components/StickyGunSkeletalComp.h"
#include "Interfaces/InteractionUOI.h"
#include <Camera/CameraComponent.h>
#include <Components/CapsuleComponent.h>
#include <Components/InputComponent.h>
#include <MotionControllerComponent.h>
#include <Animation/AnimInstance.h>
#include <GameFramework/InputSettings.h>
#include <GameFramework/PlayerInput.h>
#include <HeadMountedDisplayFunctionLibrary.h>
#include <XRMotionControllerBase.h>
#include <Kismet/GameplayStatics.h>
#include <UObject/UObjectGlobals.h>
```

#### **Functions**

• DEFINE\_LOG\_CATEGORY\_STATIC (LogFPChar, Warning, All)

#### 6.10.1 Function Documentation

# 6.11 Source/ario\_stickyBomb\_UE4/Private/Components/AmmoComp.cpp File Reference

```
#include "Components/AmmoComp.h"
#include "Characters/BaseShooter.h"
#include "StickyGameMode.h"
#include "Helpers/Macros.h"
#include <Net/UnrealNetwork.h>
```

#### 6.11.1 Detailed Description

**Author** 

Ario Amin

# 6.12 Source/ario\_stickyBomb\_UE4/Private/Components/HealthComp.cpp File Reference

```
#include "Components/HealthComp.h"
#include "StickyGameMode.h"
#include "Helpers/Macros.h"
#include <GameFramework/Actor.h>
#include <Math/UnrealMathUtility.h>
#include <Net/UnrealNetwork.h>
```

#### 6.12.1 Detailed Description

**Author** 

Ario Amin

# 6.13 Source/ario\_stickyBomb\_UE4/Private/Components/StickyGunSkeletalComp.cpp File Reference

```
#include "Components/StickyGunSkeletalComp.h"
#include "Actors/StickyProjectile.h"
#include "Components/AmmoComp.h"
#include "Helpers/CollisionChannels.h"

#include <Components/SkeletalMeshComponent.h>
#include <Kismet/GameplayStatics.h>
#include <Net/UnrealNetwork.h>
#include <UObject/ConstructorHelpers.h>
#include <Animation/AnimInstance.h>
#include <Sound/SoundBase.h>
```

#### 6.13.1 Detailed Description

**Author** 

Ario Amin

# 6.14 Source/ario\_stickyBomb\_UE4/Private/Components/StickyLinetraceComp.cpp File Reference

```
#include "Components/StickyLinetraceComp.h"
#include "Actors/StickyBaseActor.h"
#include "Characters/BaseShooter.h"
#include "Components/AmmoComp.h"
#include "Interfaces/InteractionUOI.h"
#include <Kismet/KismetSystemLibrary.h>
```

# 6.15 Source/ario\_stickyBomb\_UE4/Private/Effects/MaterialGenerator.cpp File Reference

```
#include "Effects/MaterialGenerator.h"
#include <AssetRegistry/AssetRegistryModule.h>
#include <Factories/MaterialFactoryNew.h>
#include <Materials/MaterialExpressionAppendVector.h>
#include <MaterialExpressionIO.h>
#include <Materials/MaterialExpressionAdd.h>
#include <Materials/MaterialExpressionCeil.h>
#include <Materials/MaterialExpressionComponentMask.h>
#include <Materials/MaterialExpressionConstant.h>
#include <Materials/MaterialExpressionConstant3Vector.h>
#include <Materials/MaterialExpressionDotProduct.h>
#include <Materials/MaterialExpressionDynamicParameter.h>
#include <Materials/MaterialExpressionLinearInterpolate.h>
#include <Materials/MaterialExpressionMultiply.h>
#include <Materials/MaterialExpressionOneMinus.h>
#include <Materials/MaterialExpressionPanner.h>
#include <Materials/MaterialExpressionSaturate.h>
#include <Materials/MaterialExpressionScalarParameter.h>
#include <Materials/MaterialExpressionSubtract.h>
#include <Materials/MaterialExpressionTextureCoordinate.h>
#include <Materials/MaterialExpressionTextureSample.h>
#include <Materials/MaterialExpressionVectorParameter.h>
#include <Materials/MaterialExpressionVertexNormalWS.h>
```

#### 6.15.1 Detailed Description

**Author** 

Ario Amin

# 6.16 Source/ario\_stickyBomb\_UE4/Private/Effects/StickyFXManager.cpp File Reference

#### 6.16.1 Detailed Description

**Author** 

Ario Amin

# 6.17 Source/ario\_stickyBomb\_UE4/Private/Interfaces/InteractionUOI.cpp File Reference

```
#include "Interfaces/InteractionUOI.h"
```

#### 6.17.1 Detailed Description

**Author** 

Ario Amin

# 6.18 Source/ario\_stickyBomb\_UE4/Private/StickyGameMode.cpp File Reference

```
#include "StickyGameMode.h"
#include "Characters/Bomberman.h"
#include "StickyGameState.h"
#include "StickyPlayerController.h"
#include "StickyPlayerState.h"
#include "Components/AmmoComp.h"
#include "Components/HealthComp.h"
#include "UI/StickyHUD.h"
#include "Effects/MaterialGenerator.h"
#include <Engine/World.h>
#include <EngineUtils.h>
#include <GameFramework/Actor.h>
#include <TimerManager.h>
#include <UObject/ConstructorHelpers.h>
#include <Widgets/DeclarativeSyntaxSupport.h>
```

#### 6.18.1 Detailed Description

**Author** 

Ario Amin

# 6.19 Source/ario\_stickyBomb\_UE4/Private/StickyGameSession.cpp File Reference

```
#include "StickyGameSession.h"
```

#### 6.19.1 Detailed Description

**Author** 

Ario Amin

# 6.20 Source/ario\_stickyBomb\_UE4/Private/StickyGameState.cpp File Reference

```
#include "StickyGameState.h"
```

#### 6.20.1 Detailed Description

**Author** 

Ario Amin

# 6.21 Source/ario\_stickyBomb\_UE4/Private/StickyPlayerCameraManager.cpp File Reference

```
#include "StickyPlayerCameraManager.h"
```

#### 6.21.1 Detailed Description

**Author** 

Ario Amin

# 6.22 Source/ario\_stickyBomb\_UE4/Private/StickyPlayerController.cpp File Reference

```
#include "StickyPlayerController.h"
#include "StickyPlayerCameraManager.h"
```

# 6.22.1 Detailed Description

Author

Ario Amin

# 6.23 Source/ario\_stickyBomb\_UE4/Private/StickyPlayerState.cpp File Reference

```
#include "StickyPlayerState.h"
#include "StickyGameMode.h"
#include "UI/StickyHUD.h"
#include <Engine/Engine.h>
#include <Kismet/GameplayStatics.h>
#include <Net/UnrealNetwork.h>
```

#### 6.23.1 Detailed Description

Author

Ario Amin

# 6.24 Source/ario\_stickyBomb\_UE4/Private/UI/SInGameOverlay.cpp File Reference

```
#include "UI/SInGameOverlay.h"
#include "SlateOptMacros.h"
```

#### 6.24.1 Detailed Description

**Author** 

Ario Amin

# 6.25 Source/ario\_stickyBomb\_UE4/Private/UI/StickyHUD.cpp File Reference

```
#include "UI/StickyHUD.h"
#include "StickyGameMode.h"
#include "StickyPlayerState.h"
#include "Helpers/Macros.h"
#include "UI/Widgets/SAmmoWidget.h"
#include "UI/Widgets/SKillContentContainer.h"
#include "UI/Widgets/SKillWidget.h"
#include "UI/Widgets/SSlideInText.h"
#include <Engine/Engine.h>
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/SWeakWidget.h>
```

#### 6.25.1 Detailed Description

**Author** 

Ario Amin

# 6.26 Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SAmmoWidget.cpp File Reference

```
#include "UI/Widgets/SAmmoWidget.h"
#include "Helpers/Macros.h"
#include "SlateOptMacros.h"

#include <Internationalization/Internationalization.h>
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/SOverlay.h>
#include <Widgets/Text/STextBlock.h>
```

#### Macros

#define LOCTEXT\_NAMESPACE "SAmmoWidget"

#### 6.26.1 Macro Definition Documentation

```
6.26.1.1 LOCTEXT_NAMESPACE #define LOCTEXT_NAMESPACE "SAmmoWidget"
```

# 6.27 Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SKillContentContainer.cpp File Reference

```
#include "UI/Widgets/SKillContentContainer.h"
#include "SlateOptMacros.h"
#include "UI/Widgets/SSlideInText.h"
#include <Engine/World.h>
#include <Containers/UnrealString.h>
#include <Templates/SharedPointer.h>
#include <Widgets/Input/SButton.h>
#include <Widgets/Layout/SWrapBox.h>
#include <Widgets/SCompoundWidget.h>
#include <Widgets/Views/SListView.h>
#include <Widgets/Views/STableRow.h>
```

# 6.28 Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SKillWidget.cpp File Reference

```
#include "UI/Widgets/SKillWidget.h"
#include "SlateOptMacros.h"
#include <Internationalization/Internationalization.h>
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/SOverlay.h>
#include <Widgets/Text/STextBlock.h>
```

#### Macros

• #define LOCTEXT NAMESPACE "SScoreWidget"

#### 6.28.1 Detailed Description

Author

Ario Amin

#### 6.28.2 Macro Definition Documentation

**6.28.2.1 LOCTEXT\_NAMESPACE** #define LOCTEXT\_NAMESPACE "SScoreWidget"

# 6.29 Source/ario\_stickyBomb\_UE4/Private/UI/Widgets/SSlideInText.cpp File Reference

```
#include "UI/Widgets/SSlideInText.h"
#include "SlateOptMacros.h"
#include <Animation/CurveHandle.h>
#include <Animation/CurveSequence.h>
#include <Engine/World.h>
#include <Engine/EngineTypes.h>
#include <Fonts/SlateFontInfo.h>
#include <Misc/Paths.h>
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/Layout/SBorder.h>
#include <Widgets/Layout/SConstraintCanvas.h>
#include <Widgets/SCanvas.h>
#include <Widgets/SCompoundWidget.h>
#include <Widgets/SOverlay.h>
```

#### 6.29.1 Detailed Description

Author

Ario Amin

# 6.30 Source/ario\_stickyBomb\_UE4/Public/Actors/StickyBaseActor.h File Reference

```
#include "CoreMinimal.h"
#include "Interfaces/InteractionUOI.h"
#include <GameFramework/Actor.h>
#include "StickyBaseActor.generated.h"
```

# Classes

· class AStickyBaseActor

A simple shell of a class to be expanded upon.

#### 6.30.1 Detailed Description

**Author** 

Ario Amin

# 6.31 Source/ario\_stickyBomb\_UE4/Public/Actors/StickyPickup.h File Reference

```
#include "Actors/StickyBaseActor.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Interfaces/InteractionUOI.h"
#include <Templates/SharedPointer.h>
#include "StickyPickup.generated.h"
```

# Classes

· class AStickyPickup

A simple pickup actor.

#### 6.31.1 Detailed Description

**Author** 

Ario Amin

# 6.32 Source/ario\_stickyBomb\_UE4/Public/Actors/StickyPickupContainer.h File Reference

```
#include "Actors/StickyBaseActor.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Interfaces/InteractionUOI.h"
#include <Templates/SharedPointer.h>
#include "StickyPickupContainer.generated.h"
```

### Classes

· class AStickyPickupContainer

A simple actor which holds a static mesh container.

# 6.32.1 Detailed Description

**Author** 

Ario Amin

# 6.33 Source/ario\_stickyBomb\_UE4/Public/Actors/StickyProjectile.h File Reference

```
#include "Actors/StickyBaseActor.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Components/TimelineComponent.h>
#include "StickyProjectile.generated.h"
```

#### **Classes**

· class AStickyProjectile

A projectile moving actor class.

# 6.33.1 Detailed Description

**Author** 

Ario Amin

# 6.34 Source/ario stickyBomb UE4/Public/Characters/BaseShooter.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Interfaces/InteractionUOI.h"
#include <Delegates/Delegate.h>
#include <GameFramework/Character.h>
#include "BaseShooter.generated.h"
```

#### Classes

· class ABaseShooter

# 6.35 Source/ario\_stickyBomb\_UE4/Public/Characters/Bomberman.h File Reference

```
#include "Characters/BaseShooter.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Bomberman.generated.h"
```

#### Classes

• class ABomberman

Inherits from ACharacter & IInteractionUOI.

#### 6.36 Source/ario\_stickyBomb\_UE4/Public/Components/AmmoComp.h File Reference

```
#include "Components/ActorComponent.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Helpers/Macros.h"
#include <Engine/EngineTypes.h>
#include "AmmoComp.generated.h"
```

#### **Functions**

• DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_FourParams (FOnAmmoChangedSignature, UAmmoComp \*, OwningAmmoComp, int, Ammo, int, AmmoDelta, AController \*, InstigatedBy)

#### 6.36.1 Detailed Description

**Author** 

Ario Amin

#### 6.36.2 Function Documentation

#### 6.36.2.1 DECLARE DYNAMIC MULTICAST DELEGATE FourParams() DECLARE\_DYNAMIC\_MULTICAST\_←

# 6.37 Source/ario\_stickyBomb\_UE4/Public/Components/HealthComp.h File Reference

```
#include "Components/ActorComponent.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Engine/EngineTypes.h>
#include "HealthComp.generated.h"
```

#### **Functions**

• DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_SixParams (FOnHealthChangedSignature, UHealthComp \*, OwningHealthComp, float, Health, float, HealthDelta, const UDamageType \*, DamageType, AController \*, InstigatedBy, AActor \*, DamageCauser)

# 6.37.1 Detailed Description

**Author** 

Ario Amin

#### 6.37.2 Function Documentation

# 6.37.2.1 DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_SixParams() DECLARE\_DYNAMIC\_MULTICAST\_ DELEGATE\_SixParams ( FOnHealthChangedSignature , UHealthComp \* ,

```
OwningHealthComp ,
float ,
Health ,
float ,
HealthDelta ,
const UDamageType * ,
DamageType ,
AController * ,
InstigatedBy ,
AActor * ,
```

DamageCauser )

# 6.38 Source/ario\_stickyBomb\_UE4/Public/Components/StickyGunSkeletalComp.h File Reference

```
#include "Characters/BaseShooter.h"
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Components/SkeletalMeshComponent.h>
#include "StickyGunSkeletalComp.generated.h"
```

#### Classes

class UStickyGunSkeletalComp

Networked weapon component.

#### 6.38.1 Detailed Description

**Author** 

Ario Amin

# 6.39 Source/ario\_stickyBomb\_UE4/Public/Components/StickyLinetraceComp.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Helpers/Macros.h"
#include <Components/SceneComponent.h>
#include "StickyLinetraceComp.generated.h"
```

6.40	Source/ario	stickvBomb	UE4/Public/Effects/MaterialGenerator.h File Reference
------	-------------	------------	---

#include "CoreMinimal.h"

#### Classes

· class FMaterialGenerator

A WIP utility class for Material creation/editing.

#### 6.40.1 Detailed Description

Author

Ario Amin

# 6.41 Source/ario\_stickyBomb\_UE4/Public/Effects/StickyFXManager.h File Reference

#### 6.41.1 Detailed Description

Author

Ario Amin

# 6.42 Source/ario\_stickyBomb\_UE4/Public/Helpers/CollisionChannels.h File Reference

Collision Channels defintions.

#### Macros

- #define ECC\_StickyProjectile ECollisionChannel::ECC\_GameTraceChannel3
- #define ECC\_StickyGun ECollisionChannel::ECC\_GameTraceChannel4
- #define ECC\_CharacterMesh ECollisionChannel::ECC\_GameTraceChannel5

#### 6.42.1 Detailed Description

Collision Channels defintions.

**Author** 

Ario Amin

#### 6.42.2 Macro Definition Documentation

**6.42.2.1 ECC\_CharacterMesh** #define ECC\_CharacterMesh ECollisionChannel::ECC\_GameTrace← Channel5

**6.42.2.2 ECC\_StickyGun** #define ECC\_StickyGun ECollisionChannel::ECC\_GameTraceChannel4

**6.42.2.3 ECC\_StickyProjectile** #define ECC\_StickyProjectile ECollisionChannel::ECC\_GameTrace← Channel3

# 6.43 Source/ario\_stickyBomb\_UE4/Public/Helpers/ForwardDecls.h File Reference

Forward Declarations.

#### 6.43.1 Detailed Description

Forward Declarations.

**Author** 

Ario Amin

Not pretty, but makes the actual headers look a bit cleaner

#### 6.44 Source/ario\_stickyBomb\_UE4/Public/Helpers/Macros.h File Reference

Various macros.

#### **Macros**

- #define STICKY DEBUG
- #define LL\_IF(A, B, CondA) (A \* (CondA)) + (B \* !(CondA))

Branchless Numeric If.

• #define LL\_IFELSE(A, B, CondA, CondB) (A \* (CondA)) + (B \* (CondB))

Branchless Numeric 'If-Else'.

#define LL\_CLAMP(Value, Min, Max) (0 \* (Value < Min)) + (Max \* (Value > Max)) + (Value \* (Value >= Min && Value <= Max))</li>

Branchless Arithmetic Clamp.

• #define DEBUG\_PRINT\_LOC(Position) UE\_LOG(LogTemp, Warning, TEXT("git commit -S -m \"LOCATION: {%f,%f,%f}\\""), Position.X, Position.Y, Position.Z);

Print Location.

- #define DEFAULT\_STICKY\_GUN\_MAX 3
- #define MAKETEXT(InString) Text(FText::FromString(InString))

Regarding Slate SWidget based classes prefix with . when using these during create using SNew()

- #define MAKETEXTBOUND(Function) Text(this, &Function)
- #define MAKEROBOTO(FontSize) Font(FSlateFontInfo(FPaths::EngineContentDir() / TEXT("Slate/Fonts/Roboto-Bold.ttf"), FontSize))
- #define MAKECOLOR(FLinearColorA, FLinearColorB) ShadowColorAndOpacity(FLinearColorA).Color
   — AndOpacity(FLinearColorB)
- #define MAKESHADOW\_OFFSET(OffsetMin, OffsetMax) ShadowOffset(FIntPoint(OffsetMin, OffsetMax))

#### 6.44.1 Detailed Description

Various macros.

Author

Ario Amin

Some arithmetic if statements for efficieny and some shorthands for nasty Slate function calls

#### 6.44.2 Macro Definition Documentation

Print Location.

```
6.44.2.2 DEFAULT_STICKY_GUN_MAX #define DEFAULT_STICKY_GUN_MAX 3
```

Branchless Arithmetic Clamp.

Branchless Numeric If.

Branchless Numeric 'If-Else'.

```
6.44.2.6 MAKECOLOR #define MAKECOLOR(
```

```
FLinearColorA, \\ FLinearColorB \;) \; \; ShadowColorAndOpacity (FLinearColorA) \;. ColorAndOpacity (FLinear \leftarrow ColorB)
```

```
6.44.2.7 MAKEROBOTO #define MAKEROBOTO(
```

```
FontSize \ ) \ \ Font (FSlateFontInfo(FPaths::EngineContentDir() \ / \ TEXT("Slate/Fonts/Roboto-Bold. \leftarrow ttf"), \ FontSize))
```

```
6.44.2.8 MAKESHADOW_OFFSET #define MAKESHADOW_OFFSET(
```

```
OffsetMin,
OffsetMax ) ShadowOffset(FIntPoint(OffsetMin, OffsetMax))
```

```
6.44.2.9 MAKETEXT #define MAKETEXT(

InString) Text(FText::FromString(InString))
```

Regarding Slate SWidget based classes prefix with . when using these during create using SNew()

```
6.44.2.10 MAKETEXTBOUND #define MAKETEXTBOUND(
```

```
Function ) Text(this, &Function)
```

**6.44.2.11 STICKY\_DEBUG** #define STICKY\_DEBUG

# 6.45 Source/ario\_stickyBomb\_UE4/Public/Interfaces/InteractionUOI.h File Reference

```
#include "CoreMinimal.h"
#include <UObject/Interface.h>
#include "InteractionUOI.generated.h"
```

#### **Classes**

- · class UInteractionUOI
- class IInteractionUOI

A simple shell of a class to be expanded upon.

#### 6.45.1 Detailed Description

**Author** 

Ario Amin

# 6.46 Source/ario stickyBomb UE4/Public/StickyGameMode.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Delegates/Delegate.h>
#include <GameFramework/GameModeBase.h>
#include "StickyGameMode.generated.h"
```

#### Classes

• class AStickyGameMode

Naive implementation of Gamemode for networked play.

#### **Functions**

 DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_ThreeParams (FOnActorKilled, AActor \*, VictimActor, AActor \*, KillerActor, AController \*, KillerController)

Declare a new dynamic multicast delegate with three parameters.

• DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_FourParams (FOnTargetHitEvent, FVector, HitLocation, FVector, ShotDirection, float, HitValue, AActor \*, HitOwner)

Declare a new dynamic multicast delegate with four parameters.

#### 6.46.1 Detailed Description

**Author** 

Ario Amin

#### 6.46.2 Function Documentation

#### 6.46.2.1 DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_FourParams() DECLARE\_DYNAMIC\_MULTICAST\_←

Declare a new dynamic multicast delegate with four parameters.

## 6.46.2.2 DECLARE\_DYNAMIC\_MULTICAST\_DELEGATE\_ThreeParams() DECLARE\_DYNAMIC\_MULTICAST\_←

Declare a new dynamic multicast delegate with three parameters.

# 6.47 Source/ario\_stickyBomb\_UE4/Public/StickyGameSession.h File Reference

```
#include "CoreMinimal.h"
#include "GameFramework/GameSession.h"
#include "StickyGameSession.generated.h"
```

## Classes

• class AStickyGameSession

Dummy gamesession class.

## 6.47.1 Detailed Description

**Author** 

Ario Amin

# 6.48 Source/ario\_stickyBomb\_UE4/Public/StickyGameState.h File Reference

```
#include "CoreMinimal.h"
#include "GameFramework/GameStateBase.h"
#include "StickyGameState.generated.h"
```

#### Classes

• class AStickyGameState

A simple shell of a class implementation to be expanded upon.

#### 6.48.1 Detailed Description

**Author** 

Ario Amin

# 6.49 Source/ario\_stickyBomb\_UE4/Public/StickyPlayerCameraManager.h File Reference

```
#include "Camera/PlayerCameraManager.h"
#include "CoreMinimal.h"
#include "StickyPlayerCameraManager.generated.h"
```

#### Classes

· class AStickyPlayerCameraManager

A simple shell of a class implementation to be expanded upon.

# 6.49.1 Detailed Description

**Author** 

Ario Amin

# 6.50 Source/ario\_stickyBomb\_UE4/Public/StickyPlayerController.h File Reference

```
#include "CoreMinimal.h"
#include "GameFramework/PlayerController.h"
#include "StickyPlayerController.generated.h"
```

#### Classes

class AStickyPlayerController

A simple shell of a class implementation to be expanded upon.

#### 6.50.1 Detailed Description

Author

Ario Amin

# 6.51 Source/ario\_stickyBomb\_UE4/Public/StickyPlayerState.h File Reference

```
#include "CoreMinimal.h"
#include "StickyGameMode.h"
#include <GameFramework/PlayerState.h>
#include "StickyPlayerState.generated.h"
```

#### Classes

• class AStickyPlayerState

Networked Player-state implementation.

#### 6.51.1 Detailed Description

**Author** 

Ario Amin

# 6.52 Source/ario\_stickyBomb\_UE4/Public/UI/FPlayerData.h File Reference

```
#include "CoreMinimal.h"
#include "FPlayerData.generated.h"
```

#### Classes

struct FPlayerData

Simple utility struct to pass data into widgets.

## 6.52.1 Detailed Description

Author

Ario Amin

#### 6.53 Source/ario stickyBomb UE4/Public/UI/SInGameOverlay.h File Reference

```
#include "CoreMinimal.h"
#include <Widgets/SCompoundWidget.h>
```

#### Classes

class SInGameOverlay

A simple shell of a class to be expanded upon. Right now it only funcitons as a blank overlay.

#### 6.53.1 Detailed Description

**Author** 

Ario Amin

# 6.54 Source/ario\_stickyBomb\_UE4/Public/UI/StickyHUD.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include "Helpers/Macros.h"
#include <Components/WidgetComponent.h>
#include <GameFramework/HUD.h>
#include "StickyHUD.generated.h"
```

#### **Classes**

• class AStickyHUD

A simple HUD class to handle widgets.

### 6.54.1 Detailed Description

**Author** 

Ario Amin

# 6.55 Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SAmmoWidget.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/SCompoundWidget.h>
```

#### Classes

class SAmmoWidget

Ammo Widget which derives from SCompoundWidget.

# 6.55.1 Detailed Description

Author

Ario Amin

# 6.56 Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SKillContentContainer.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
```

#### Classes

· class SKillContentContainer

A simple shell of a class to be expanded upon.

#### 6.56.1 Detailed Description

**Author** 

Ario Amin

# 6.57 Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SKillWidget.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
#include <Widgets/DeclarativeSyntaxSupport.h>
#include <Widgets/SCompoundWidget.h>
```

#### Classes

· class SKillWidget

A simple shell of a class to be expanded upon to display current kills.

# 6.57.1 Detailed Description

**Author** 

Ario Amin

# 6.58 Source/ario\_stickyBomb\_UE4/Public/UI/Widgets/SSlideInText.h File Reference

```
#include "CoreMinimal.h"
#include "Helpers/ForwardDecls.h"
```

# Classes

class SSlideInText

A simple widget that kan be used to display a recent player kill.

#### **Enumerations**

enum class EVisibleState: uint8 { VS\_Animating\_To\_Show, VS\_Animating\_To\_Hide, VS\_Visible, VS\_Hidden}

# 6.58.1 Detailed Description

Author

Ario Amin

# 6.58.2 Enumeration Type Documentation

#### **6.58.2.1 EVisibleState** enum EVisibleState : uint8 [strong]

# Enumerator

VS_Animating_To_Show	
VS_Animating_To_Hide	
VS_Visible	
VS_Hidden	

# 6.59 Source/ario\_stickyBomb\_UE4Editor.Target.cs File Reference

# Classes

• class ario\_stickyBomb\_UE4EditorTarget

# Index

ABaseShooter, 7	GetHealthComp, 19
ABaseShooter, 9	GetStickyGun, 19
AmmoComp, 14	HealthComponent, 22
BaseLookUpRate, 14	InitActorComponents, 19
BaseTurnRate, 14	InitCamera, 19
BeginPlay, 9	InitSkeletalBody, 19
blsRagdoll, 14	LinetraceComp, 22
CreateNewActionMapping, 9	LookUpAtRate, 19
CreateNewAxisMapping, 9	MeshPtr, 23
EndInteractItem, 10	MoveForward, 20
FirstPersonCameraComponent, 14	MoveRight, 20
GetAmmoComp, 10	MulticastTriggerRagdoll, 20
GetCharMesh, 10	MulticastUndoRagdoll, 20
GetFirstPersonCameraComponent, 10	ServerEndInteractItem, 20
GetHealthComp, 10	ServerTakeDamage, 20
GetStickyGun, 10	ServerTriggerRagdoll, 20
HealthComponent, 14	ServerTryInteractItem, 20
InitActorComponents, 11	ServerUndoRagdoll, 20
InitCamera, 11	SetupCollision, 20
InitSkeletalBody, 11	SetupPlayerInputComponent, 20
LinetraceComp, 14	SetupStickyGun, 21
LookUpAtRate, 11	StickyGun, 23
MeshPtr, 14	TakeDamage, 21
	<b>3</b> /
MoveForward, 11	TriggerPlayerStateAmmo, 21
MoveRight, 11	TryInteractItem, 21
MulticastTriggerRagdoll, 11	TryStartFire, 21
MulticastUndoRagdoll, 11	TurnAtRate, 22
ServerEndInteractItem, 12	AddKill
ServerTakeDamage, 12	AStickyPlayerState, 42
ServerTriggerRagdoll, 12	AddKillToWidget
ServerTryInteractItem, 12	AStickyHUD, 33
ServerUndoRagdoll, 12	AddSlot
SetupCollision, 12	SKillContentContainer, 60
SetupPlayerInputComponent, 12	AddUserScore
SetupStickyGun, 12	AStickyPlayerState, 43
StickyGun, 14	Ammo
TakeDamage, 12	AStickyPlayerState, 45
TriggerPlayerStateAmmo, 13	AmmoComp
TryInteractItem, 13	ABaseShooter, 14
TryStartFire, 13	ABomberman, 22
TurnAtRate, 13	UStickyGunSkeletalComp, 71
ABomberman, 15	AmmoComp.h
ABomberman, 17	DECLARE_DYNAMIC_MULTICAST_DELEGATE_FourParams
AmmoComp, 22	86
BaseLookUpRate, 22	AmmoWidget
BaseTurnRate, 22	AStickyHUD, 34
BeginPlay, 17	ario_stickyBomb_UE4, 23
blsRagdoll, 22	ario_stickyBomb_UE4, 23
CreateNewActionMapping, 17	ario_stickyBomb_UE4.cpp
CreateNewAxisMapping, 18	IMPLEMENT_PRIMARY_GAME_MODULE, 73
EndInteractItem, 18	ario_stickyBomb_UE4EditorTarget, 24
FirstPersonCameraComponent, 22	ario_stickyBomb_UE4EditorTarget, 24
GetAmmoComp, 18	ario_stickyBomb_UE4Target, 24
GetCharMesh, 18	ario_stickyBomb_UE4Target, 24
GetFirstPersonCameraComponent, 18	AStickyBaseActor, 25

AStickyBaseActor, 25	AStickyPickupContainer, 38
EndInteractItem, 26	AStickyPickupContainer, 39
TryInteractItem, 26	BeginPlay, 39
AStickyGameMode, 26	EndInteractItem, 39
AStickyGameMode, 27	MeshComponentPtr, 39
BeginPlay, 28	Tick, 39
bHasGameStarted, 30	TryInteractItem, 39
blsGameOver, 30	AStickyPlayerCameraManager, 40
bTriggerOnce, 30	AStickyPlayerCameraManager, 40
CheckAnyPlayerAlive, 28	AStickyPlayerController, 41
DeregisterExitingPlayer, 28	AStickyPlayerController, 41
FindPlayer, 28	AStickyPlayerState, 42
GameOver, 28	AddKill, 42
HasPlayerWon, 28	AddUserScore, 43
Logout, 29	Ammo, 45
MatGen, 30	GetAmmo, 43
OnActorKilled, 30	GetKills, 43
OnHitEvent, 30	GetUserScore, 43
PlayerKilled, 29	Kills, 45
-	,
PostLogin, 29	OnRep_Ammo, 43
RegisterNewPlayer, 29	OnRep_Kills, 43
RestartDeadPlayers, 30	SetAmmo, 44
StartPlay, 30	AStickyProjectile, 45
Tick, 30	AStickyProjectile, 47
AStickyGameSession, 31	BeginPlay, 47
AStickyGameState, 31	CollisionComp, 52
AStickyHUD, 32	DidPickup, 47
AddKillToWidget, 33	EndInteractItem, 47
AmmoWidget, 34	GetCollisionComp, 47
AStickyHUD, 33	GetCurve, 48
BeginPlay, 33	GetDamageAmount, 48
blsAmmoWidgetInitialized, 34	GetDamageRadius, 48
blsKillWidgetInitialized, 35	GetMaxLifetime, 48
blsOverlayMenuVisible, 35	GetProjectileMovement, 48
blsTitleVisible, 35	GetReplicatedComponents, 49
DrawHUD, 33	GetTimelineComp, 49
InitializeAmmoWidget, 33	InterpTimelineEvent, 52
InitializeKillOverlayWidget, 34	LifeSpanExpired, 49
InitializeTotalKillsWidget, 34	MeshComponentPtr, 52
KillList, 35	ModulateColor, 49
OverlayMenu, 35	MultiCastTriggerExplosionFX, 49
PostInitializeComponents, 34	OnExplode, 50
StickyHUD, 35	OnHit, 50
Tick, 34	OnPickup, 50
ToggleGameMenu, 34	ParticleFX, 52
TotalKillsWidget, 35	ParticleSystemComp, 52
UpdateAmmo, 34	ProjectileMovement, 52
UpdateTotalKills, 34	ServerTriggerExplosionFX, 50
AStickyPickup, 35	
	SetCurve, 50
AStickyPickup, 36	SetDamageAmount, 51
BeginPlay, 36	SetDamageRadius, 51
CollisionComp, 37	SetMaxPossibleLifetime, 51
DidPickup, 36	StickyTimelineComp, 52
EndInteractItem, 37	StickyTimelineCurve, 52
GetCollisionComp, 37	Tick, 51
MeshComponentPtr, 38	TimelineDirection, 52
Tick, 37	TimelineFinishedEvent, 52
TryInteractItem, 37	TriggerExplosionFX, 51

TryInteractItem, 51	ABomberman, 17
	CreateNewAxisMapping
BaseLookUpRate	ABaseShooter, 9
ABaseShooter, 14	ABomberman, 18
ABomberman, 22	CreateObject
BaseShooter.cpp	FMaterialGenerator, 54
DEFINE_LOG_CATEGORY_STATIC, 76	CurrentState
BaseTurnRate	SSlideInText, 65
ABaseShooter, 14	DEDUG DDINT LOG
ABomberman, 22	DEBUG_PRINT_LOC
BeginPlay	Macros.h, 90
ABaseShooter, 9	DECLARE_DYNAMIC_MULTICAST_DELEGATE_FourParams
ABomberman, 17	AmmoComp.h, 86
AStickyGameMode, 28	StickyGameMode.h, 92
AStickyHUD, 33	DECLARE_DYNAMIC_MULTICAST_DELEGATE_SixParams
AStickyPickup, 36	HealthComp.h, 87
AStickyPickupContainer, 39	DECLARE_DYNAMIC_MULTICAST_DELEGATE_ThreeParams
AStickyProjectile, 47	StickyGameMode.h, 93
bHasGameStarted	DEFAULT_STICKY_GUN_MAX
AStickyGameMode, 30	Macros.h, 90
blsAmmoWidgetInitialized	DEFINE_LOG_CATEGORY_STATIC
AStickyHUD, 34	BaseShooter.cpp, 76
blsGameOver	Bomberman.cpp, 76
AStickyGameMode, 30	DeregisterExitingPlayer
blsKillWidgetInitialized	AStickyGameMode, 28
AStickyHUD, 35	DidPickup
blsOverlayMenuVisible	AStickyPickup, 36
AStickyHUD, 35	AStickyProjectile, 47
blsRagdoll	DrawHUD
ABaseShooter, 14	AStickyHUD, 33
ABomberman, 22	ECC_CharacterMesh
blsTitleVisible	CollisionChannels.h, 88
AStickyHUD, 35	ECC_StickyGun
Bomberman.cpp	CollisionChannels.h, 89
DEFINE_LOG_CATEGORY_STATIC, 76	ECC_StickyProjectile
bTriggerOnce	CollisionChannels.h, 89
AStickyGameMode, 30	EndInteractitem
CheckAnyPlayerAlive	ABaseShooter, 10
AStickyGameMode, 28	ABomberman, 18
CollisionChannels.h	AStickyBaseActor, 26
ECC_CharacterMesh, 88	AStickyPickup, 37
ECC StickyGun, 89	AStickyPickupContainer, 39
ECC_StickyProjectile, 89	AStickyProjectile, 47
CollisionComp	IInteractionUOI, 56
AStickyPickup, 37	EVisibleState
AStickyProjectile, 52	SSlideInText.h, 98
Construct	
SAmmoWidget, 57	FadeAnimation
SInGameOverlay, 59	SSlideInText, 65
SKillContentContainer, 60	FadeValue
SKillWidget, 62	SSlideInText, 65
SSlideInText, 64	FailFireEffects
CreateBasicMaterial	UStickyGunSkeletalComp, 69
FMaterialGenerator, 53	FindPlayer
CreateCelShadedExplosionMat	AStickyGameMode, 28
FMaterialGenerator, 54	FinishSpawnProjectile
CreateNewActionMapping	UStickyGunSkeletalComp, 69
ABaseShooter 9	FireAnimation

UStickyGunSkeletalComp, 71	SSlideInText, 64
FireSound	GetKills
UStickyGunSkeletalComp, 71	AStickyPlayerState, 43
FirstPersonCameraComponent	GetMaxLifetime
ABaseShooter, 14	AStickyProjectile, 48
ABomberman, 22	GetOwningCharacter
FloatCurve	UStickyGunSkeletalComp, 70
UStickyGunSkeletalComp, 72	GetProjectileMovement
FMaterialGenerator, 53	AStickyProjectile, 48
CreateBasicMaterial, 53	GetReplicatedComponents
CreateCelShadedExplosionMat, 54	AStickyProjectile, 49
CreateObject, 54	GetScoreText
FontForKills	SKillWidget, 62
SKillContentContainer, 61	GetStickyGun
	•
FPlayerData, 54	ABaseShooter, 10
FPlayerData, 55	ABomberman, 19
Name, 55	GetTimelineComp
Score, 55	AStickyProjectile, 49
FStickyFXManager, 55	GetUserScore
00	AStickyPlayerState, 43
GameOver	GunOffset
AStickyGameMode, 28	UStickyGunSkeletalComp, 72
GenerateCurve	
UStickyGunSkeletalComp, 69	HasPlayerWon
GeneratedRichCurve	AStickyGameMode, 28
UStickyGunSkeletalComp, 72	HealthComp.h
GetAmmo	DECLARE_DYNAMIC_MULTICAST_DELEGATE_SixParams,
AStickyPlayerState, 43	87
GetAmmoComp	HealthComponent
ABaseShooter, 10	ABaseShooter, 14
ABomberman, 18	ABomberman, 22
UStickyGunSkeletalComp, 69	,
GetAmmoText	IInteractionUOI, 56
SAmmoWidget, 57	EndInteractItem, 56
GetCharMesh	TryInteractItem, 56
ABaseShooter, 10	IMPLEMENT PRIMARY GAME MODULE
ABomberman, 18	ario_stickyBomb_UE4.cpp, 73
GetCollisionComp	InitActorComponents
AStickyPickup, 37	ABaseShooter, 11
AStickyProjectile, 47	ABomberman, 19
GetColor	InitCamera
SSlideInText, 64	ABaseShooter, 11
	ABomberman, 19
GetCurve	
AStickyProjectile, 48	InitializeAmmoWidget
GetDamageAmount	AStickyHUD, 33
AStickyProjectile, 48	InitializeKillOverlayWidget
GetDamageRadius	AStickyHUD, 34
AStickyProjectile, 48	InitializeTotalKillsWidget
GetFireAnimMontage	AStickyHUD, 34
UStickyGunSkeletalComp, 69	InitSkeletalBody
GetFireSound	ABaseShooter, 11
UStickyGunSkeletalComp, 70	ABomberman, 19
GetFirstPersonCameraComponent	InitStickyGun
ABaseShooter, 10	UStickyGunSkeletalComp, 70
ABomberman, 18	InterpTimelineEvent
GetHealthComp	AStickyProjectile, 52
ABaseShooter, 10	Items
ABomberman, 19	SKillContentContainer, 61
GetItemScale	

17001.1.	
KillList	ModulateColor
AStickyHUD, 35	AStickyProjectile, 49
Kills	MoveForward
AStickyPlayerState, 45	ABaseShooter, 11
• •	ABomberman, 20
LifeSpanExpired	MoveRight
AStickyProjectile, 49	ABaseShooter, 11
LinetraceComp	ABomberman, 20
ABaseShooter, 14	MulticastFireGunEffects
ABomberman, 22	
ListViewWidget	UStickyGunSkeletalComp, 70
•	MultiCastTriggerExplosionFX
SKillContentContainer, 61	AStickyProjectile, 49
LL_CLAMP	MulticastTriggerRagdoll
Macros.h, 90	ABaseShooter, 11
LL_IF	ABomberman, 20
Macros.h, 90	MulticastUndoRagdoll
LL_IFELSE	ABaseShooter, 11
Macros.h, 90	ABomberman, 20
LOCTEXT_NAMESPACE	ŕ
SAmmoWidget.cpp, 82	Name
SKillWidget.cpp, 82	FPlayerData, 55
Logout	•
AStickyGameMode, 29	OnActorKilled
LookUpAtRate	AStickyGameMode, 30
ABaseShooter, 11	OnExplode
ABomberman, 19	AStickyProjectile, 50
Abombernan, 19	OnFire
Macros.h	UStickyGunSkeletalComp, 71
DEBUG_PRINT_LOC, 90	OnGenerateRowForList
DEFAULT_STICKY_GUN_MAX, 90	SKillContentContainer, 60
LL_CLAMP, 90	OnHit
LL_IF, 90	AStickyProjectile, 50
LL_IFELSE, 90	OnHitEvent
MAKECOLOR, 91	AStickyGameMode, 30
MAKEROBOTO, 91	OnPickup
MAKESHADOW_OFFSET, 91	AStickyProjectile, 50
MAKETEXT, 91	OnRep_Ammo
,	Onnep_Ammo
MAKETEXTBOUND, 91	AStickyPlayerState, 43
	• —
MAKETEXTBOUND, 91	AStickyPlayerState, 43
MAKETEXTBOUND, 91 STICKY_DEBUG, 91 MAKECOLOR	AStickyPlayerState, 43 OnRep_Kills AStickyPlayerState, 43
MAKETEXTBOUND, 91 STICKY_DEBUG, 91 MAKECOLOR Macros.h, 91	AStickyPlayerState, 43 OnRep_Kills AStickyPlayerState, 43 OverlayMenu
MAKETEXTBOUND, 91 STICKY_DEBUG, 91 MAKECOLOR Macros.h, 91 MAKEROBOTO	AStickyPlayerState, 43 OnRep_Kills AStickyPlayerState, 43 OverlayMenu AStickyHUD, 35
MAKETEXTBOUND, 91 STICKY_DEBUG, 91 MAKECOLOR Macros.h, 91 MAKEROBOTO Macros.h, 91	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud
MAKETEXTBOUND, 91 STICKY_DEBUG, 91 MAKECOLOR Macros.h, 91 MAKEROBOTO Macros.h, 91 MAKESHADOW_OFFSET	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT MAKETEXTBOUND	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72 ParticleFX
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  Maketextbound Macros.h, 91  Maketextbound Macros.h, 91  Maketextbound	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr AStickyPickup, 38	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled     AStickyGameMode, 29
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr AStickyPickup, 38 AStickyPickupContainer, 39	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr AStickyPickup, 38 AStickyPickupContainer, 39 AStickyProjectile, 52  MeshPtr	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled     AStickyGameMode, 29
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr AStickyPickup, 38 AStickyPickupContainer, 39 AStickyProjectile, 52  MeshPtr ABaseShooter, 14	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled     AStickyGameMode, 29 PostInitializeComponents
MAKETEXTBOUND, 91 STICKY_DEBUG, 91  MAKECOLOR Macros.h, 91  MAKEROBOTO Macros.h, 91  MAKESHADOW_OFFSET Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXT Macros.h, 91  MAKETEXTBOUND Macros.h, 91  MatGen AStickyGameMode, 30  MeshComponentPtr AStickyPickup, 38 AStickyPickupContainer, 39 AStickyProjectile, 52  MeshPtr	AStickyPlayerState, 43 OnRep_Kills     AStickyPlayerState, 43 OverlayMenu     AStickyHUD, 35 OwnerHud     SKillContentContainer, 61 OwningCharacter     UStickyGunSkeletalComp, 72  ParticleFX     AStickyProjectile, 52 ParticleSystemComp     AStickyProjectile, 52 PlacementComp     UStickyGunSkeletalComp, 72  PlayerKilled     AStickyGameMode, 29 PostInitializeComponents     AStickyHUD, 34

PrepDeferredSpawnProjectile	SetupCollision
UStickyGunSkeletalComp, 71	ABaseShooter, 12
ProjectileClass	ABomberman, 20
UStickyGunSkeletalComp, 72	SetupPlayerInputComponent
ProjectileMovement	ABaseShooter, 12
AStickyProjectile, 52	ABomberman, 20
	SetupStickyGun
RegisterNewPlayer	ABaseShooter, 12
AStickyGameMode, 29	ABomberman, 21
RestartDeadPlayers	SInGameOverlay, 58
AStickyGameMode, 30	Construct, 59
	SLATE_BEGIN_ARGS, 59
SAmmoWidget, 57	SKillContentContainer, 59
Construct, 57	AddSlot, 60
GetAmmoText, 57	Construct, 60
SetAmmoText, 58	FontForKills, 61
SLATE_ARGUMENT, 58	Items, 61
SLATE BEGIN ARGS, 58	ListViewWidget, 61
SAmmoWidget.cpp	
LOCTEXT_NAMESPACE, 82	OnGenerateRowForList, 60
ScaleCurveX	OwnerHud, 61
SSlideInText, 65	SLATE_BEGIN_ARGS, 61
ScaleCurveY	SKillWidget, 61
SSlideInText, 65	Construct, 62
Score	GetScoreText, 62
FPlayerData, 55	SetScoreText, 62
ServerEndInteractItem	SLATE_ARGUMENT, 63
ABaseShooter, 12	SLATE_BEGIN_ARGS, 63
ABomberman, 20	SKillWidget.cpp
ServerOnFire	LOCTEXT_NAMESPACE, 82
UStickyGunSkeletalComp, 71	SLATE_ARGUMENT
ServerTakeDamage	SAmmoWidget, 58
ABaseShooter, 12	SKillWidget, 63
ABomberman, 20	SLATE_BEGIN_ARGS
ServerTriggerExplosionFX	SAmmoWidget, 58
AStickyProjectile, 50	SInGameOverlay, 59
ServerTriggerRagdoll	SKillContentContainer, 61
	SKillWidget, 63
ABaseShooter, 12	SSlideInText, 65
ABomberman, 20	Source/ario_stickyBomb_UE4.Target.cs, 73
ServerTryInteractItem ABaseShooter, 12	Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.Build.cs,
ABaseShooter, 12 ABomberman, 20	73
·	Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.cpp,
ServerUndoRagdoll ABaseShooter, 12	73
	Source/ario_stickyBomb_UE4/ario_stickyBomb_UE4.h,
ABomberman, 20	74
SetAmmo	Source/ario_stickyBomb_UE4/Private/Actors/StickyBaseActor.cpp,
AStickyPlayerState, 44 SetAmmoText	74
	Source/ario_stickyBomb_UE4/Private/Actors/StickyPickup.cpp,
SAmmoWidget, 58	74
SetCurve A Sticky Projectile FO	Source/ario_stickyBomb_UE4/Private/Actors/StickyPickupContainer.cpp,
AStickyProjectile, 50	74
SetDamageAmount	Source/ario_stickyBomb_UE4/Private/Actors/StickyProjectile.cpp,
AStickyProjectile, 51	75
SetDamageRadius	Source/ario_stickyBomb_UE4/Private/Characters/BaseShooter.cpp,
AStickyProjectile, 51 SetMaxPossibleLifetime	75
	Source/ario_stickyBomb_UE4/Private/Characters/Bomberman.cpp,
AStickyProjectile, 51 SetScoreText	76
SKillWidget, 62	
Jimiyinget, 02	

```
Source/ario_stickyBomb_UE4/Private/Components/AmmoSomp@papio_stickyBomb_UE4/Public/Effects/MaterialGenerator.h,
Source/ario stickyBomb UE4/Private/Components/HealthSompenanio stickyBomb UE4/Public/Effects/StickyFXManager.h,
Source/ario_stickyBomb_UE4/Private/Components/Sticky@如路keletad@stickyAppnb_UE4/Public/Helpers/CollisionChannels.h,
Source/ario stickyBomb UE4/Private/Components/StickyLStrate@omstickypBomb UE4/Public/Helpers/ForwardDecls.h,
Source/ario stickyBomb UE4/Private/Effects/MaterialGen@atuce@pio stickyBomb UE4/Public/Helpers/Macros.h,
                                                            89
Source/ario_stickyBomb_UE4/Private/Effects/StickyFXMar@gencepario_stickyBomb_UE4/Public/Interfaces/InteractionUOI.h,
        79
                                                            91
Source/ario_stickyBomb_UE4/Private/Interfaces/Interactionsdoutcomprio_stickyBomb_UE4/Public/StickyGameMode.h,
                                                            92
Source/ario_stickyBomb_UE4/Private/StickyGameMode.cppqurce/ario_stickyBomb_UE4/Public/StickyGameSession.h,
Source/ario stickyBomb UE4/Private/StickyGameSessionSproce/ario stickyBomb UE4/Public/StickyGameState.h,
Source/ario_stickyBomb_UE4/Private/StickyGameState.cp\( p\)ource/ario_stickyBomb_UE4/Public/StickyPlayerCameraManager.h,
Source/ario stickyBomb UE4/Private/StickyPlayerCamera starage ariopstickyBomb UE4/Public/StickyPlayerController.h,
Source/ario_stickyBomb_UE4/Private/StickyPlayerControll@occppe/ario_stickyBomb_UE4/Public/StickyPlayerState.h,
Source/ario stickyBomb UE4/Private/StickyPlayerState.cpsource/ario stickyBomb UE4/Public/UI/FPlayerData.h,
                                                            95
Source/ario_stickyBomb_UE4/Private/UI/SInGameOverlay.hpprce/ario_stickyBomb_UE4/Public/UI/SInGameOverlay.h,
                                                            95
Source/ario stickyBomb UE4/Private/UI/StickyHUD.cpp, Source/ario stickyBomb UE4/Public/UI/StickyHUD.h,
                                                            96
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SAmmoWidget.h,
Source/ario stickyBomb UE4/Private/UI/Widgets/SKillConstantContainer.h,
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SKillWidgetah,ario_stickyBomb_UE4/Public/UI/Widgets/SKillWidget.h,
Source/ario_stickyBomb_UE4/Private/UI/Widgets/SSlideInText.h,
                                                            97
Source/ario_stickyBomb_UE4/Public/Actors/StickyBaseActSoutree/ario_stickyBomb_UE4Editor.Target.cs, 98
                                                   SSlideInText, 63
Source/ario stickyBomb UE4/Public/Actors/StickyPickup.h,
                                                        Construct, 64
        84
                                                        CurrentState, 65
Source/ario stickyBomb UE4/Public/Actors/StickyPickupContaiFadeAnimation, 65
                                                        FadeValue, 65
Source/ario stickyBomb UE4/Public/Actors/StickyProjectile.h,
                                                       GetColor, 64
                                                        GetItemScale, 64
Source/ario_stickyBomb_UE4/Public/Characters/BaseShooter.h$caleCurveX, 65
                                                        ScaleCurveY, 65
Source/ario stickyBomb UE4/Public/Characters/Bomberman.hSLATE BEGIN ARGS, 65
                                                        TextToShow, 65
Source/ario_stickyBomb_UE4/Public/Components/AmmoComp.TransitionIn, 65
                                                        TransitionOut, 65
Source/ario stickyBomb UE4/Public/Components/HealthComp. Visible Animation, 66
                                                   SSlideInText.h
Source/ario_stickyBomb_UE4/Public/Components/StickyGunSkeleisil@etalpte, 98
                                                        VS_Animating_To_Hide, 98
Source/ario_stickyBomb_UE4/Public/Components/StickyLinetrat/SCAmipnlating_To_Show, 98
        87
                                                       VS_Hidden, 98
```

VS_Visible, 98	ABaseShooter, 13
StartPlay	ABomberman, 21
AStickyGameMode, 30	UStickyGunSkeletalComp, 71
STICKY_DEBUG	TurnAtRate
Macros.h, 91	ABaseShooter, 13
StickyGameMode.h	ABomberman, 22
DECLARE_DYNAMIC_MULTICAST_DELEGATE_Fo	
92	UAmmoComp, 66
DECLARE_DYNAMIC_MULTICAST_DELEGATE_Th	ndelpalth figmp, 66
93	UInteractionUOI, 67
StickyGun	UpdateAmmo
ABaseShooter, 14	AStickyHUD, 34
ABomberman, 23	UpdateTotalKills
StickyHUD	AStickyHUD, 34
AStickyHUD, 35	UStickyGunSkeletalComp, 67
StickyTimelineComp	AmmoComp, 71
AStickyProjectile, 52	FailFireEffects, 69
StickyTimelineCurve	FinishSpawnProjectile, 69
AStickyProjectile, 52	FireAnimation, 71
SuccessFireEffects	FireSound, 71
UStickyGunSkeletalComp, 71	FloatCurve, 72
TakaDamaga	GenerateCurve, 69
TakeDamage	GeneratedRichCurve, 72
ABaseShooter, 12	GetAmmoComp, 69
ABomberman, 21 TextToShow	GetFireAnimMontage, 69
SSlideInText, 65	GetFireSound, 70
Tick	GetOwningCharacter, 70
AStickyGameMode, 30	GunOffset, 72
AStickyGalfielillode, 30 AStickyHUD, 34	InitStickyGun, 70 MeshPtr, 72
AStickyPickup, 37	
AStickyPickupContainer, 39	MulticastFireGunEffects, 70
AStickyProjectile, 51	OnFire, 71 OwningCharacter, 72
TimelineDirection	PlacementComp, 72
AStickyProjectile, 52	PrepDeferredSpawnProjectile, 71
TimelineFinishedEvent	ProjectileClass, 72
AStickyProjectile, 52	ServerOnFire, 71
ToggleGameMenu	SuccessFireEffects, 71
AStickyHUD, 34	TryStartFire, 71
TotalKillsWidget	UStickyGunSkeletalComp, 69
AStickyHUD, 35	UStickyLinetraceComp, 72
TransitionIn	County Emotrace Comp, 72
SSlideInText, 65	VisibleAnimation
TransitionOut	SSlideInText, 66
SSlideInText, 65	VS_Animating_To_Hide
TriggerExplosionFX	SSlideInText.h, 98
AStickyProjectile, 51	VS_Animating_To_Show
TriggerPlayerStateAmmo	SSlideInText.h, 98
ABaseShooter, 13	VS_Hidden
ABomberman, 21	SSlideInText.h, 98
TryInteractItem	VS_Visible
ABaseShooter, 13	SSlideInText.h, 98
ABomberman, 21	
AStickyBaseActor, 26	
AStickyPickup, 37	
AStickyPickupContainer, 39	
AStickyProjectile, 51	
IInteractionUOI, 56	
TryStartFire	