

Wwise Unity

Wwise Unity Unity Unity Wwise Sound Engine ""Integration Unity C# Wwise SDK API Editor Wwise SDK

Wwise CI

Unity-Wwise Wwise API Wwise C:\Program Files(x86)\Audiokinetic\Wwise [version] \Authoring\Help

- •
- Unity
- Wwise
- Wwise Unity
- Unity
- Wwise Unity DLC
- •
- API
- •
- Wwise Demo Game
- Using Wwise Spatial Audio in Unity
- •





Wwise Unity

Wwise Unity Integration

- Wwise Unity Integration 2017.2.1.6524.980
- Wwise Unity Integration 2017.2.0.6500.947
 - **2017.2**
 - **2017.2**
- Wwise Unity Integration 2017.1.4.6407.845
- Wwise Unity Integration 2017.1.3.6377.812
- Wwise Unity Integration 2017.1.2.6361.791
- Wwise Unity Integration 2017.1.1.6340.770
- Wwise Unity Integration 2017.1.0.6302.726
 - **2017.1**
 - **2017.1**
- Wwise Unity Integration 2016.2.4.6098.531
- Wwise Unity Integration 2016.2.3.6077.504
- Wwise Unity Integration 2016.2.2.6022.430
- Wwise Unity Integration 2016.2.1.5995.409
- Wwise Unity Integration 2016.2.1
- Wwise Unity Integration 2016.2.0
- Wwise Unity Integration 2016.1.3
- Wwise Unity Integration 2016.1.2
- Wwise Unity Integration 2016.2.1
- Wwise Unity Integration 2016.1
- Wwise Unity Integration 2015.1.4
- Wwise Unity Integration 2015.1.3
- Wwise Unity Integration 2016.1.2
- Wwise Unity Integration 2015.1.1
- Wwise Unity Integration 2016.1
- Wwise Unity Integration 2014.1.6
- Wwise Unity Integration 2014.1.5
- Wwise Unity Integration 2014.1.4
- Wwise Unity Integration 2014.1.3
- Wwise Unity Integration 2014.1.2
- Wwise Unity Integration 2014.1.1
- Wwise Unity Integration 2014.1
- Wwise Unity Integration 2013.2.9

- Wwise Unity Integration 2013.2.8
- Wwise Unity Integration 2013.2.5
- Wwise Unity Integration 2013.2.8
- Wwise Unity Integration 2013.1.1
- Wwise Unity Integration 2013.1

Wwise Unity Integration 2017.2.1.6524.980

Wwise 2017.2.1 Wwise SDK

• Wwise SDK2017.2.1

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• UnityUnity 5.5, 5.6, 2017.1, 2017.2, 2017.3 (Personal Pro)

	Wwise Unity Integration	
Android		
iOS		
Linux		
Мас	$U_{\rm pity} 2017 2.0f2$	
PS4	Unity 2017.3.0f3	
tvOS		
Windows		
Xbox One		
UWP (Universal	Unity 2017.3.0p3	
Windows Platform)		
Switch	Unity for Nintendo Switch 3.1.2 (Unity 5.6.4	
SWIICH	with NintendoSDK 3.5.2)	

- **WG-34267**: Placed the members of Wwise_IDs.cs within the AK namespace and prefixed class names with "Ak".
- **WG-35301**: Changed Event selector to automatically display in inspector when AkEventSection is added to Timeline track.
- WG-35609: Made AkRoomPortal inspector update the front and back rooms in real time.
- **WG-36086**: Added public functions to **AkRoomPortal** to update the front and back rooms.
- **WG-36099**: Fixed NullReferenceException when migrating from 2016.2.4.

- WG-36125: Fixed compatibility with Unity 5.5.
- WG-36144: Fully specified System.IO.Path in Wwise C# script to avoid potential conflicts.
- **WG-36219**: Fixed drag and drop from the Wwise Picker under Unity 2017.3.
- WG-36356: Exposed monitoring pool size and queue size in AkInitializer inspector.
- WG-36413: Fixed crash when having more than one portal from one room to the other.

Wwise Unity Integration 2017.2.0.6500.947

Wwise 2017.2.0 Wwise SDK Unity 2017.3

• Wwise SDK: 2017.2.0

2

• UnityUnity 5.5, 5.6, 2017.1, 2017.2, 2017.3 (Personal Pro)

Unity 4

	Wwise Unity Integration
Mac Windows	Unity 2017.3.0f3
Android iOS Linux PS4 tvOS UWP (Universal Windows Platform) Xbox One	Unity 2017.2.0f3
Switch	Unity for Nintendo Switch 3.1.2 (Unity 5.6.4 NintendoSDK 3.5.2)

• 2017.2

• 2017.2

- WG-25994: Made the audio input source plug-in accessible via C# scripting. Using the Audio Input Source Plug-in in Unity.
- WG-27337: Added ability to post MIDI events to the sound engine.

Sending MIDI to Wwise.

- WG-28541 Ak Ak
- WG-33501: Added automatic SoundBank management.
 WG-34446: Reduced memory allocations in AkCallbackManager.

Wwise Unity Integration 2017.1.4.6407.845

• Wwise SDK2017.1.4

Unity 4

• UnityUnity 5.5, 5.6, 2017.1 2017.2 (Personal Pro).

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	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS UWP (Universal Windows Platform) Windows Xbox One	Unity 2017.2.0f3
Switch	Unity for Nintendo Switch 3.1.2 (Unity 5.6.4 NintendoSDK 3.5.2)

- WG-35168: Fixed crash when loading SoundBanks on Switch.
- **WG-35383**: Fixed update of IDs associated with WwiseTypes when used as properties within custom inspectors.
- WG-35384: AkAudioListener, AkInitializer, and AkTerminator NOW implement OnEnable() instead of Awake(), so they are disabled when unchecked in the Editor.
- WG-35513: Added full custom positioning for AkGameObj.
- **WG-35958**: Unity 2017.3 support added. Note the integration has not been thoroughly tested in Unity 2017.3, but it should be compatible.

Wwise Unity Integration 2017.1.3.6377.812

Wwise 2017.1.3 Wwise SDK Unity 2017.1

- Wwise SDK2017.1.3
- UnityUnity 5.5, 5.6, 2017.1 2017.2 (Personal Pro).



	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS UWP (Universal Windows Platform)	Unity 2017.2.0f3
Windows Windows Xbox One	
Switch	Unity for Switch 1.0.1 (Unity 5.5.0p1 Nintendo SDK 1.4.0)

- WG-34855: Added AkSoundEngine.GetCurrentLanguage().
- **WG-35075**: Fixed: Added support for Unity 2017.2 integration in the Wwise Launcher.

Wwise Unity Integration 2017.1.2.6361.791

Wwise 2017.2 Wwise SDK

- Wwise SDK: 2017.1.2
- Unity: Unity 2017.1Personal Pro



	Wwise Unity Integration
Android	
iOS	
Linux	
Мас	
PS4	
PS Vita	Unity 2017.1.1f1
tvOS	
UWP (Universal	
Windows Platform)	
Windows	
Xbox One	
Switch	Unity for Switch 1.0.1 (Unity 5.5.0p1 Nintendo SDK 1.4.0)

Wwise Unity Integration 2017.1.1.6340.770

Wwise 2017.1.1 Wwise SDK Unity 2017.1

- Wwise SDK: 2017.1.1
- Unity: Unity 2017.1Personal Pro



	Wwise Unity Integration
Mac Windows	Unity 2017.1.0f3
Android iOS Linux PS4 PS Vita tvOS UWP (Universal Windows Platform) Xbox One	Unity 5.6.1p1
Switch	Unity for Switch 1.0.1 (Unity 5.5.0p1 Nintendo SDK 1.4.0)

- **WG-33018**: Fixed: No localization folder is created when using the Decode Banks feature.
- **WG-33818**: Fixed bank decoding on iOS and Android.
- WG-34090 WSA Unity Plugin TLS Allocator Error spamming
- WG-34205System.EventHandler
- WG-34205UnityEditor.Menu UnityEditor.MenuItem

Wwise Unity Integration 2017.1.0.6302.726

Wwise 2017.1.0 Wwise SDK Unity 2017.1

- Wwise SDK: 2017.1.0
- Unity: Unity 2017.1Personal Pro



Unity 4

	Wwise Unity Integration
Mac Windows	Unity 2017.1.0f3
Android iOS Linux PS4 PS Vita tvOS UWP (Universal Windows Platform) Xbox One	Unity 5.6.1p1
Switch	Unity for Switch 1.0.1 (Unity 5.5.0p1 Nintendo SDK 1.4.0)

• 2017.1

- Wii U
- GameObject Unity Integration Extensions Wwise Installation and Migration Guide
- AkCallbackManager 2017.1

- WG-27479 AkInitializer
- WG-30791 WwiseTypes
- WG-31155 AkMemSettings
- WG-31735 GameObjects
 Extensions
- WG-32348 SoundBanksInfo XML
- WG-32657 foreach
- WG-33303 AK_MusicPlaylistSelect
- WG-34003

WwiseTypes

AkChannelConfig SoundEngine Unity Integration

Wwise Unity Integration 2016.2.4.6098.531

Wwise 2016.2.4 Wwise SDK

- Wwise SDK: 2016.2.4
- Unity: Unity 5.6Personal Pro

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	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.6.1p1
Switch	Unity for Switch 1.0.1 (Unity 5.5.0p1 NintendoSDK 1.4.0)
Wii U	Unity 5.4.2f2

• WG-33395

Wwise Unity Integration 2016.2.3.6077.504

Wwise 2016.2.3 Wwise SDK

- Wwise SDK: 2016.2.3
- Unity: Unity 5.6Personal Pro



	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.6.0f3
Switch	Unity for Switch 0.6.1
Wii U	Unity 5.4.2f2

- WG-32536 Nintendo Switch
- WG-32623 Android

Wwise Unity Integration 2016.2.2.6022.430

Wwise 2016.2.2 Wwise SDK

- Wwise SDK: 2016.2.2
- Unity: Unity 5.5Personal Pro



Unity 4

	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.5.0p4
Wii U	Unity 5.4.2f2

• WG-31862

Wwise Unity Integration 2016.2.1.5995.409

2016.2.1 Wwise SDK

- Wwise SDK: 2016.2.1
- Unity: Unity 5.5Personal Pro



Unity 4

	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.5.0f3
Wii U	Unity 5.4.2f2

• WG-32006 GameObject "Unknown Game Object ID"

2016.2.1 Wwise SDK

- Wwise SDK: 2016.2.1
- Unity: Unity 5.5Personal Pro



	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.5.0f3
Wii U	Unity 5.4.2f2

- WG-27085 AuxSends
- WG-31127 AK_MusicSyncUserCue
- WG-31650 AkGameObj NullReferenceException
- WG-31651 SetObjectPosition AkGameObj
- WG-31862
- Unity case #861189 Unity Windows Store Launcher

Wwise 2016.2.0 Wwise SDK

- Wwise SDK: 2016.2.0
- Unity: Unity 5.4Personal Pro



	Wwise Unity Integration
Android iOS Linux Mac PS4 PS Vita tvOS Windows Windows Windows Store (Universal Windows Platform) Xbox One	Unity 5.4.1p2
Wii U	Unity 5.2.4f1

- Windows Phone 8.1Windows Store 8.0 8.1 Windows Store Universal Windows Platform (UWP)
- Xbox 360
- PS3
- WG-30571 Library Wwise Unity
- WG-30960 AkGameObj Unity
- WG-31507 MediaID bStreaming duration

Wwise 2016.1.3 Wwise SDK

- Wwise SDK: 2016.1.3
- Unity: Unity 5.4Personal Pro

	Unity 4	Unity 4	Wwise
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	Wwise Unity Integration
Android	
iOS	
Linux	
Мас	
PS3	
PS4	Unity 5.4.0p2
PS Vita	
tvOS	
Windows	
Windows Store	
Xbox One	
Wii U	Unity 5.2.4f1
Xbox 360	Unity 5.0.1f1

Wwise 2016.1.2 Wwise SDK Wwise Unity

- Wwise SDK: 2016.1.2
- Unity: Unity 5.4Personal Pro



	Wwise Unity Integration
Android iOS Linux Mac PS3 PS4 PS Vita tvOS Windows Windows Store Xbox One	Unity 5.4.0p2
Wii U	Unity 5.2.4f1
Xbox 360	Unity 5.0.1f1

- WG-30567 WAV
- SWIG ZIP SWIG SWIG
- Wwise 2014.1.4 2016.1 2015.1.6 2016.1
- Unity Unity 5.4 Wwise 2016.1.2Unity 5.4 Wwise 2016.1.2

Wwise 2016.1.1 Wwise SDK

- Wwise SDK: 2016.1.1
- Unity: Unity 5.3Personal Pro



Unity 4

	Wwise Unity Integration
Android iOS Linux Mac PS3 PS4 PS Vita tvOS Windows Windows Store Xbox One	Unity 5.3.5p6
Wii U	Unity 5.2.4f1
Xbox 360	Unity 5.0.1f1

- WG-30021 SoundBank
- WG-30228 Linux
- WG-30231 tvOS
- WG-30259 GC.Collect AkGameObj

• WG-30128 Vita SoundBank

• WG-30139Vita

Wwise 2016.1 Wwise SDK

- Wwise SDK: 2016.1
- Unity: Unity 5.3Personal Pro



	Wwise Unity Integration
Android iOS Linux Mac PS3 PS4 PS Vita Windows Windows Store Xbox One	Unity 5.3.4p3
Wii U	Unity 5.2.4f1
Xbox 360	Unity 5.0.1f1

- WG-25675 Wwise Picker "Generate SoundBanks" Wwise SoundBank
- WG-27583 Unity assets SoundBank Unity SoundBank
- WG-28175 WwiseGlobal
- WG-26011 Ak Audio Listener Default Unity Audio Listener

- SWIG ZIP SWIG SWIG
- Wwise 2014.1.4 2016.1 2015.1.6 2016.1
- WG-30021 Editor DecodeBanks
- WG-30021DecodeBanks SoundBank DecodedBanks
- WG-30128 Vita SoundBank
- WG-30128 WiiU SoundBank

2015.1.4 Wwise SDK

- Wwise SDK: 2015.1.4
- UnityUnity 4.6 Pro Unity 5.2 (Personal Pro)

	Wwise Unity Integration
Android	
iOS	
Linux	
Mac	
Metro	
PS3	Unity 5.2.2p1
PS4	
PS Vita	
Windows	
Windows Phone	
Xbox One	
Wii U	Unity 4.3.7f1 Wii U add-on 2.2.5
Xbox 360	Unity 5.0.1f1

- WG-28412 AkGameObj
- WG-28723 PS4

Wwise 2015.1.3 Universal Windows Platform Wwise SDK

- Wwise SDK: 2015.1.3
- UnityUnity 4.6 Pro Unity 5.2 (Personal Pro)

	Wwise Unity Integration
Android	
iOS	
Linux	
Мас	
PS3	Lipity 5.2.2p1
PS4	Unity 5.2.2p1
PS Vita	
Windows	
Windows Store Apps	
Xbox One	
Wii U	Unity 4.3.7f1 Wii U add-on 2.2.5
Xbox 360	Unity 5.0.1f1

- Windows Store Apps Universal Windows Platform
- Windows Store Apps SDK 8.1
- Windows Phone 8.0
- Windows Store Apps SDK 8.0
- WG-25945 Wwise Unity WwiseGlobal Unity / Wwise
- WG-26011 Ak Audio Listener Default Unity Audio Listener
- WG-28108
- WG-28175 WwiseGlobal

- WG-28479 Main Camera
- WG-28526 Unity Editor GameObjects
 SoundEngine

Wwise 2015.1.2 Wwise SDK

- Wwise SDK: 2015.1.2
- UnityUnity 4.6.5 Pro Unity 5.1.2p2 (Personal Pro)

:	Wwise Unity Integration
Android iOS Linux Mac Metro PS3 PS4 PS Vita	Unity 5.2.0f3
Windows Windows Phone Xbox One	
Wii U	Unity 4.3.7f1 Wii U add-on 2.2.5
Xbox 360	Unity 5.0.1f1

WG-27029 Unity GameObject AkGameObj

• WG-28200 Everything (0, 0, 0) GameObjects 3D mask L0

Wwise 2015.1.1 Wwise SDK

- Wwise SDK: 2015.1.1
- UnityUnity 4.6.5 Pro Unity 5.1.2p2 (Personal Pro)

:	Wwise Unity Integration
Android	
iOS	
Linux	
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Metro	
PS3	Unity 5.1.2p2
PS4	
PS Vita	
Windows	
Windows Phone	
Xbox One	
Wii U	Unity 4.3.7f1 Wii U add-on 2.2.5
Xbox 360	Unity 5.0.1f1

- WG-27977 Unity
- WG-28030 Wii U/Unity TRC
- WG-28042 Unity Wwise
- WG-28044 UnityWwise
- WG-28046 AkInitializer
- WG-28048 Wwise GameObject

Wwise 2015.1 Wwise SDK

- Wwise SDK: 2015.1
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-27079 WwiseSettings.xml

2014.1.6 Wwise SDK

- Wwise SDK: 2014.1.6
- UnityUnity 4.6.5 Pro, Unity 5.0.2 (Personal Pro)

	Wwise Unity Integration
Android iOS Linux Mac Metro PS3 PS4 PSVita Windows Windows Phone	Unity 5.0.2p3
Xbox 360	Unity 5.0.1f1
Xbox One	Unity 5.0.2p4

- WG-27585 Wwise Picker Wwise
- WG-27624 (PS3) SetListenerPostion PS3

- Xbox OneSoundEngine Unity
- Windows Store Apps in Unity 4 DllNotFoundException
- WG-27585 Wwise Picker Wwise

Wwise 2014.1.5 Wwise SDK

- Wwise SDK: 2014.1.5
- UnityUnity 4.6.5 Pro, Unity 5.0.2 (Personal Pro)

	Wwise Unity Integration
Android	
iOS	
Linux	
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Metro	Unity 5.0.2p3
PS3	011119 0101200
PS4	
PSVita	
Windows	
Windows Phone	
Xbox 360	Unity 5.0.1f1
Xbox One	Unity 5.0.2p4

• WG-25669Wwise Picker Auto Populate Mac Editor

- Xbox OneSoundEngine Unity
- Windows Store Apps in Unity 4 DllNotFoundException

- Android x86
- Windows Store Apps Scripting Define Symbols

- WG-27108 Destroy UnityWG-25733 Windows iOS/Mac
- WG-26875 AkMemBankLoader

Wwise 2014.1.4 Wwise SDK Unity 5

- Wwise SDK: 2014.1.4
- UnityUnity 4 Pro Unity 5Personal Pro
- WG-26780 Wwise Unity
- WG-26837 AkBankManager SoundBank
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac
- Windows Phone 8.1 Metro
- Unity 5 Wwise Unity Integration Plugin Importer API <UNITY_PROJECT_ROOT>/Assets/Plugins

Unity 4 Unity 5

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- 2. Unity 5 Unity 4 Unity
- 3. Unity 5 2014.1.4 Unity
- 4. ""
- 5.
- 6. Unity 5 Wwise Unity Integration

Wwise 2014.1.3 Wwise SDK

- Wwise SDK: 2014.1.3
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac

Wwise 2014.1.2 Wwise SDK

- Wwise SDK: 2014.1.2
- XDK Unity Editor10 XDK Wwise SDK11 XDK Xbox One
- WG-26305 null GameObject 64 GameObject
- WG-26337 Mac 64
- WG-26385 Wwise Android Unity CPU
- WG-26395 MSBUILD Windows Phone 8
- WG-26430 iOS SetBasePath()
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac

Wwise 2014.1.1 Wwise SDK

- Wwise SDK: 2014.1.1
- Unity: 4.x 5.0
- Wii U
- Plug-in Registration
- Unity "Wwise Settings" Wwise Sound Engine
- GeneratedSoundBanks Populate
- WG-26201 C# System
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac

Wwise 2014.1 Wwise SDK Demonstration Wwise Unity Integration 2013.2

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- Wwise Unity Integration 2013.2
- Wwise SDK: 2014.1
- Unity: 4.x
- Android
- iOS
- Linux
 - 32
 - 64
- Mac OS X10.6
- PS3
- PS4
- PS Vita
- Windows
 - 32
 - 64
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Windows Phone 8.0
- Xbox360
- Xbox One

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- Wwise Unity Integration 2013.2
- Wwise Components Wwise Unity Integration UUID
 Wwise Project Unity
- Wwise Events Trigger
- Wwise inspector AkAmbient
- AkSoundEngine
- WwiseGlobal AkListener
- WG-25783 Callback Manager
- WG-25677 Mac
- WG-25669Wwise Picker Auto Populate Mac Editor
- WG-25733 Windows iOS/Mac

Wwise 2013.2.9 Wwise SDK

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- Wwise SDK: 2013.2.9
- Unity: 4.x
- Android
- iOS
- Linux
 - 32
 - 64=
- Mac OS X10.6
- PS3
- PS4
- PS Vita
- Windows
 - 32
 - 64
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Windows Phone 8.0
- Xbox360
- Xbox One
- Windows Phone 8.0

Wwise 2013.2.8 Wwise SDK Wwise-Unity

- Unity
- Wwise Picker Wwise Wwise Picker
- Unity Wwise Unity
- Wwise-Unity Integration Wwise SDK
- Wwise SDK: 2013.2.8
- Unity: 4.x
- Android
- iOS
- Linux*
 - 32
 - 64
- Mac OS X10.6
- PS3
- PS4
- PS Vita
- Windows
 - 32
 - 64
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Windows Phone 8.0
- Xbox360
- Xbox One

- Xbox One
- PS4
- Linux * Unity Integration for Linux is supported in Wwise 2013.2.8 Linux BETA.
- Windows Phone 8.0
- Multi-architecture Windows Metro Unity Scripting Define Symbol
- Unity Editor Integration
- Integration
- Windows IDE Visual Studio 2008 2010
- Windows Metro

Wwise 2013.2.5 Wwise SDK

- Wwise SDK: 2013.2, 2013.2.x
- Unity: 4.x
- Android
- iOS
- Mac OS X10.6
- PS3
- PS4
- PS Vita
- Windows
 - 32
 - 64
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Xbox 360
- Xbox One
- PS4
- PS Vita
- Xbox One
- Android API AddBasePath() I/O POSIX
- WG-24351iOS

Wwise 2013.2.4 Wwise SDK

- Wwise SDK: 2013.2, 2013.2.x
- Unity: 4.x
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Windows
 - 32
 - 64
- Mac OS X10.6
- iOS
- Android
- Xbox360
- PS3
- Wwise > Help Integration
- Version.txt Wwse SDK
- WG-24080 Windows Mac API Android
- Android armeabi

2013.2.1 Wwise SDK overhauled distribution

- Wwise SDK: 2013.2, 2013.2.1
- Unity4.x 3.x
- Windows 8Metro
 - Desktop
 - Intel Windows Store App ARM
- Windows
 - 32
 - 64
- Mac OS X10.6
- iOS
- Android
- Xbox360
- PS3
- Unity Integration Unity Unity Editor
- Unity Editor UI Wwise
 - 0
 - Integration
 - SoundBank ID C++ header C#
- Unity 4 Scripting Define Symbols Windows
- Integration
- IntegrationDemo
- AndroidSoundBank Android Expansion FilesOBB
- WG-23781

- WG-23734 Windows
- WG-23345 Unity Editor
- WG-23436Unity
- WG-23423Unity GameObjects
- WG-22533Unity API
- iOS
- •
- Unity
- BUILD THE APPLICATION FOR A MULTI-ARCHITECTURE
 PLATFORM
- iOS Xcode API iOS
- UI
- Apple
- SWIG 2.0.11Mac pg_compileswig SWIG

Wwise 2013.1.1 Wwise SDK Integration

Wwise 2013.1 Wwise SDK Android

- Wwise SDK: 2012.2.x, 2013.1
- Unity: 3.4.x, 3.5.x, 4.x
- Windows 8
 - Desktop
 - Intel Windows Store App ARM
- Windows32
- Windows64
- Mac OS X10.6
- iOS
- Android
- Xbox360
- PS3
- AndroidSoundBank Android apk LoadBank() API
- Windows 64
- Windows 8
- WG-22948 PS3
- WG-22938 Mac OSX Unity Integration
- WG-22334Music userCue Unity
- WG-22329Unity Integration PostEvent()
- WG-22255Unity Android
- WG-221653D iOS Android
- WG-21933AkCallbackManager.cs UserCue

- WG-21365Unity iOSiOS
- WG-22533 API
- Windows Mac Unity
- •
- •
- Python
- Integration Unity
- Visual Studio 2010 PS3 Integration
- Python 2.6 Python 2.7.x 3.x
- Integration UNITY_PROJECT_ROOTIntegration UNITY_PROJECT_ROOT
- Android PostprocessBuildPlayer Unity
- IntegrationDemo Unity 4

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Wwise Unity »

2017.2

Wwise 2017.1 Unity

- Edit Mode Support
 - Loading and Unloading Banks in Edit Mode
- Additions to WwiseGlobal Game Object
- Wwise Audio Input Plug-in
- MIDI Events
- Automatic SoundBank Management

Edit Mode Support

The Wwise sound engine is now initialized while Unity is in Edit mode. This means Wwise Events can be triggered from the editor without entering Play mode. In order to demonstrate this, the inspectors for **AkEvent** (and **AkAmbient**) have been updated. There are now buttons in the inspector that can be used to play and stop the Events directly from the editor. The Play/Stop button plays and stops individual Events. When multiple objects that have AkEvents are selected, the Play Multiple and Stop Multiple buttons play or stop all currently selected Events. The Stop All button stops all currently playing Events.

🗿 🗸 Ak Ambient (Script)	P \$,
Trigger On: AkTriggerButtonPress	
Action On Event:	
Use Callback: 🔽	
Game Object Callback Functic Callback Flags	
SubtitleSig O MarkerCallback Marker +	
Add	
Play	
Stop All	
Position Type: Simple_Mode	
Show Attenuation Sp Dont_Show	
Event Name: PlaySubtitles	

Loading and Unloading Banks in Edit Mode

Note that in order for the edit mode functionality to work correctly, the corresponding **AkBank** components should have their Load On: property set to Awake and their Unload On: property set to Never.

Additions to WwiseGlobal Game Object

The WwiseGlobal game object now has an AkEditorEventPlayer component. This component is editor only, and is used to play WwiseEvents that are associated to **AkEvent** components in Edit mode. The WwiseGlobal object also now has Rigidbody, **AkGameObj**, and **AkAudioListener** components. These are used for interactions between **AkEnvironment**, **AkGameObj**, and **AkRoom** components in Edit mode. **Unity**

Wwise Audio Input Plug-in

The Wwise Audio Input Source Plug-in is now accessible via C#scripting.Using the Audio Input Source Plug-in in Unity.

MIDI Events

MIDI events can now be posted to Wwise via C# scripting. Sending MIDI to Wwise.

Automatic SoundBank Management

Automatic SoundBank management has been added. SoundBanks SoundBank

Spatial Audio Integration

Added spatial audio API to the Unity integration. See Using Wwise Spatial Audio in Unity for a tutorial.

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Wwise Unity »

2017.2

2017.2	2017.2
ErrorCode	AK.Monitor.ErrorCode
ErrorLevel	AK.Monitor.ErrorLevel
DynamicSequenceType	AK.SoundEngine.DynamicSequence.DynamicSequenceTy
MultiPositionType	AK.SoundEngine.MultiPositionType
PreparationType	AK.SoundEngine.PreparationType
RTPCValue_type	AK.SoundEngine.Query.RTPCValue_type

2017.2	2017.2
Iterator	AkIterator
Playlist	AkPlaylist
PlaylistItem	AkPlaylistItem

Generated at Thu Feb 1 09:40:31 2018 for Wwise Unity Integration by



Wwise Unity »

2017.1

Wwise 2017.1 Unity

- •
- WwiseTypes
 Unity Integration Extensions
 3D

[RequireComponent(typeof(AkGameObj))] AkEvent

 AkEnvironment
 AkEnvironmentPortal
 Rigidbody
 Rigidbody

 AkEnvironment
 AkEnvironmentPortal
 Rigidbody

 AkGameObj
 "Environment aware"
 Rigidbody
 Editor

 AkGameObj-AkEnvironment interactions require a Rigidbody
 Component on the object or the environment.
 Rigidbody

Wwise SettingsShow Warning for Missing RigidBody

Wwise Settings	¤× ==			
Wwise v20 Build Settings.				
Wwise Project	Wwise Project			
Wwise Project Path*:	\WwiseProject\WwiseProject.wproj			
Wwise Windows Installation Path				
Wwise Windows Installation Path:	C:\dev\wwise_main			
Asset Management				
SoundBanks Path* (relative to StreamingAssets folder):	Audio\GeneratedSoundBanks			
✓Create WwiseGlobal GameObject				
Automatically add Listener to Main Camera				
In Editor Warnings				
Show Warning for Missing RigidBody				
* Mandatory settings				
	OK Cancel			

WwiseTypes

"WwiseTypes" Wwise Eventgame parameterSwitch State Wwise Picker

🔻 健 🗹 Footsteps (Script)		[🔆 ,
Script	💽 Footsteps	0
Wwise Types		
Foot Step Event	Footstep	
Foot Step Speed	No GameParameter is currently selected	
Under Foot Material	No Switch is currently selected	

```
public class Footsteps : MonoBehaviour
{
    [Header("Wwise Types")]
    public AK.Wwise.Event FootStepEvent = null;
    public AK.Wwise.RTPC SpeedRTPC = null;
    public AK.Wwise.Switch UnderFootMaterialSwitch =
null;
    public AK.Wwise.Bank FootStepBank = null;
    void InitializeSound() { FootStepBank.Load(); }
    void FinalizeSound() { FootStepBank.Unload(); }
    void PlayFootStepSound(float speed)
    {
        SpeedRTPC.SetValue(gameObject, speed);
        UnderFootMaterialSwitch.SetValue(gameObject)
;
        FootStepEvent.Post(gameObject);
    }
}
```

Unity Integration Extensions

AkSoundEngine

Launcher

3D

Wwise 3D	AkGameObj AkAudioListener AkGameObj AkAudioListener	
	▼	
	Ak Game Obj (Script)	
	Initial Listener List Istener Use Default Listeners Listener 0 None (Ak Audio Listener) Image: Comparison of the second sec	

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Wwise Unity »

2017.1

AkCallbackManager

AkCallbackManager.AudioInterruptionCallback()

public delegate AKRESULT AudioInterruptionCallba
ck(bool in_bEnterInterruption, object in_Cookie)
;

• AkCallbackManager.BGMCallback():

```
public delegate AKRESULT BGMCallback(bool in_bOt
herAudioPlaying, object in_Cookie);
```

• AkCallbackManager.EventCallback():

```
public delegate void EventCallback(object in_coo
kie, AkCallbackType in_type, AkCallbackInfo in_i
nfo);
```

- AkCallbackManager AkCallbackInfo C++
- gameObjID ulong IntPtr
- AkCallbackManager.AkMidiEventCallbackInfo AkMIDIEventCallbackInfo "MIDI"
- AkCallbackManager.AkMusicSyncCallbackInfoBase AkMusicSyncCallbackInfo
- AkCallbackManager.AkMusicSyncCallbackInfo.segmentInfo AkMusicSyncCallbackInfo.segmentInfo_*

```
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```



Wwise Unity

Unity

WwiseUnityIntegration UnityPackage Unity Editor Wwise Unity

- •
- Wwise
- Unity
- •
- SoundBank
- •
- / Wwise



Wwise

Unity

	Unity 5.5 (Personal Pro)
iOS	Xcode 7.2 iOS SDK
Linux	libSDL2(Linux)
Windows	DirectX End-User runtime x64 Visual Studio 2013 redistributable
Windows 32- Debug	x86 Visual Studio 2013 redistributable



Wwise

0

Wwise Launcher Wwise Unity

- Unity Launcher
- Wwise UnityUnity check out Unity

Unity Integration Extensions

partial Launcher



Unity

Unity

- Edit > Project Settings > Audio Disable Audio
- "Create WwiseGlobal GameObject" "Wwise Global"
 AkInitializer AkTerminator WwiseThe WwiseGlobal
 object is also given AkEditorEventPlayer, AkAudioListener and
 AkGameObj scripts which are used for previewing AkEvent objects
 in edit mode. A Rigidbody component is added such that interactions
 between AkEnvironment, AkRoom and AkGameObj can also be
 previewed.
- Script Execution Order Wwise AkInitializer AkGameObj AkAudioListener AkBank AkTerminator "Add Ak Listener to Main Camera" Unity Audio Listener Main Camera AkAudioListener.cs Main Camera
- Play in Background Wwise Profiler



Wwise Wwise SoundBank Wwise

- 1. WAV Windows Explorer WAV Project Explorer Audio
- 2. Sound New Event
- 3. SoundBank SoundBanks F7 New
- 4. SoundBank Event Project Explorer SoundBank
- 5. Generate SoundBanks

Unity

- 1. Wwise Picker Window > Wwise Picker Events SoundBanks
- 2. SoundBank
- 3. Event
- 4.

Unity Wwise Unity

- AkAmbient
- AkBank SoundBank
- AkEnvironment
- •

Wwise API

- Integrate Wwise Elements into Your Game
- AK::SoundEngine Namespace Reference



SoundBank

Unity Editor Wwise SoundBank GeneratedSoundBanks

Unity ... SoundBankWwise SoundBankTo avoid packaging the SoundBanks for all platforms with your game, you should enable the automatic generation of SoundBanks or use a BuildPlayerPipeline script. Unity



Wwise Unity SoundBank

- Wwise
- SoundBank
- Unity
- SoundBank StreamingAssets
- •

Unity

- Wwise Compressor
- Wwise Delay
- Wwise Expander
- Wwise Gain
- Wwise Matrix Reverb
- Wwise Meter
- Wwise Parametric EQ
- Wwise Peak Limiter
- Wwise RoomVerb
- Wwise Silence
- Wwise Sine
- Wwise Tone Generator

Wwise Unity

Wwise McDSPiZotopeAuroSoundSeedCrankcase REV Convolution ReverbMotion Wwise



/ Wwise

- Unity Unity
- Unity check-out Unity
- Wwise Unity
- C++ AkSoundEngine C++ Wwise SDK C++ Wwise /

Wwise Unity Wwise Unity Wwise Wwise Launcher Wwise



Wwise Wwise

2 Wwise Unity

Wwise

- 1. Wwise Wwise Unity Wwise
- Wwise
- 1. Wwise "Yes"
- 2. Unity Wwise SoundBank

Unity Wwise

Unity Wwise Wwise Launcher



Wwise Unity

Wwise

Wwise Unity Assets/Wwise Wwise



Wwise Unity

Wwise Unity

AkAmbient Use this component to attach a Wwise Event to any object in a scene. The sound can be started at various moments, dependent on the selected Unity trigger. This component is more useful for ambient sounds (sounds related to scene-bound objects) but could also be used for other purposes. Since AkAmbient has AkEvent as its base class, it features the play/stop, play multiple, stop multiple and stop all buttons for previewing the associated Wwise event. inspector AkAmbient

AkAudioListener

Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's.

• AkBank

Loads and unloads a SoundBank at a specified moment. Vorbis sounds can be decompressed at a specified moment using the decode compressed data option. In that case, the SoundBank will be prepared.

AkEmitterObstructionOcclusion

Obstructs/Occludes the emitter of the current game object from its listeners if at least one object is between them.

AkEnvironment

Use this component to define a reverb zone. This needs to be added to a collider object to work properly. **inspector AkEvironment AkEvironmentPortal**

AkEnvironmentPortal

Use this component to define an area that straddles two different AkEnvironments zones and allow mixing between both zones. **inspector AkEvironment AkEvironmentPortal**

• AkEvent

Wwise Unity

inspector Ak

AkGameObj

This component represents a sound object in your scene tracking its position and other game syncs such as Switches, RTPC and environment values. You can add this to any object that will emit sound, and it will be added to any object that an **AkAudioListener** is attached to. Note that if it is not present, Wwise will add it automatically, with the default values, to any Unity Game Object that is passed to Wwise.

AkRoom

An **AkRoom** is an enclosed environment that can only communicate to the outside/other rooms with AkRoomPortals.

AkRoomPortal

Loads and unloads a SoundBank at a specified moment. Vorbis sounds can be decompressed at a specified moment using the decode compressed data option. In that case, the SoundBank will be prepared.

AkEmitterObstructionOcclusion

Obstructs/Occludes the spatial audio portal of the current game object from the spatial audio listener if at least one object is between them.

AkSpatialAudioEmitter

Add this script on the GameObject which represents an emitter that uses the Spatial Audio API.

AkSpatialAudioListener

Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's.

AkState

This will call AkSoundEngine.SetState() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it.

AkSurfaceReflector

This component will convert the triangles of the GameObject's geometry into sound reflective surfaces.

AkSwitch

This will call AksoundEngine.SetSwitch() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it.

Wwise Picker

:

• AK.Wwise.AuxBus

This type represents an auxiliary send in the Master-Mixer Hierarchy.

- AK.Wwise.Bank
 This type can be used to load/unload SoundBanks.
- AK.Wwise.CallbackFlags This type represents the values of the flags used when posting an Event with a callback.
- AK.Wwise.Event This type can be used to post Events to the sound engine.
- AK.Wwise.RTPC This type can be used to set game parameter values to the sound engine.
- AK.Wwise.State This type can be used to set Wwise States.
- AK.Wwise.Switch This type can be used to set Switch values on gameobjects.
- AK.Wwise.Trigger This type can be used to post triggers to the sound engine.

Wwise Types

2

Wwise

Wwise Picker. Event Wwise Picker Unity Viewer
Inspector Game Object

AkAm

- Add Component AkAmbient AkEvent Unity
 Game Object
- Wwise Types C# AK.Wwise.Event.Post()
- C# AkSoundEngine.PostEvent()

inspector AkAmbient

AkAmbient:

- Trigger On Unity Unity Wwise AkSoundEngine.PostEvent Trigger
- Event Name: Wwise

• Action On Event

Unity Wwise

- Action On Event Type
- Curve Interpolation:
- Fade Time:

• Use Callback:

- Game Object
- Callback Function:

Callback Fur

Game Object **Callback Function** Game Object void FunctionName(AkEventCallbackMsg i

Callback Flags:

Callback Function W٧

AkCallbackType

• Play / Stop:

Can be used to preview the Wwise Event when in Edit mode.

• Stop All:

Stops all currently playing Wwise events.

- Position Type
 - Simple_Mode

Large_Mode Add MultiPosition Mode **AkAmbient** AkAmbient **AkAmbient** Unity **AkAmbient** AkAmbient On Show Attenuation Sphere: Wwise SoundBank Max AttenuationProject->Project Settings->Soundbanks->Max attenuation Dont_Show Current_Event_Only AkSoundEngine.PostEvent Simple_Mode Large_Mode MultiPosition_Mode MultiPosition_Mode

Ak

- AkAmbient
- All_Events

AkAmbient

Using Wwise with Unity Timeline

For Unity's Timeline feature, there are custom Wwise tracks for triggering Wwise events and setting Wwise RTPC values.

Wwise Timeline Integration

:

inspector AkEvironment AkEvironmentPortal

Wwise Reverb ZoneEnvironmentAuxiliary SendsReverb ZoneWwise

AkEnvironment AkEnvironment AkEnvironment

- Wwise Picker AkEnvironment AuxBus Wwise
 Picker Unity Viewer Inspector Game Object
 AkEnvironment
- "Add Component" AkEnvironment Unity Game
 Object Inspector
- C# AkSoundEngine.SetGameObjectAuxSendValues()

portal

• Unity GameObject->Wwise->Environment Portal

environment aware AkGameObj AkEnvironmentPortal AkEnvironment inspector

Wwise 4 4

- 4
 - 4
 - 4 Default Exclude Others
 - Default
 - Exclude Others
- AkEnvironment
 - 4
 - **Priority**:

4 4

- **Default**Default:
- Exclude Others

Exclude Others Exclude Others

- AuxBus Name

 AuxBus AuxBus AuxBus AuxBus
 AuxBus Ok AuxBus Wwise Picker AuxBus
 AuxBus
- AkEnvironmentPortal
 Unity GameObject->Wwise->Environment Portal
 - Environment #1
 - Environment #2
 - Axis

:

- z x z
- AK::SoundEngine::SetGameObjectAuxSendValues

C#

Wwise SDKAkSoundEngineUnity C++AK::SoundEngineAK::MusicEngineSDK APIWwise APIGameObjectGameObject

Event Bank ID

Wwise API ID Wwise C# Wwise_IDs.h Wwise_IDs.cs Assets > Wwise > Convert Wwise SoundBank IDs Python

Sending MIDI to Wwise.

MIDI can be sent to Wwise by filling the AkMIDIPOST members of AkMIDIPOSTArray class and calling any of the following methods:

- AkMIDIPostArray.PostOnEvent()
- AkSoundEngine.PostMIDIOnEvent()
- AK.Wwise.Event.PostMIDI()

The following is a basic script that sends MIDI messages to the sound engine:

```
public class MyMIDIBehaviour : UnityEngine.MonoBehav
iour
{
    public AK.Wwise.Event SynthEvent;
    private void Start()
    {
        AkMIDIPostArray MIDIPostArrayBuffer = new Ak
MIDIPostArray(6);
        AkMIDIPost midiEvent = new AkMIDIPost();
        midiEvent.byType = AkMIDIEventTypes.NOTE_ON;
```

```
midiEvent.byChan = 0;
        midiEvent.byOnOffNote = 56;
        midiEvent.byVelocity = 127;
        midiEvent.uOffset = 0;
        MIDIPostArrayBuffer[0] = midiEvent;
        midiEvent.byOnOffNote = 60;
        MIDIPostArrayBuffer[1] = midiEvent;
        midiEvent.byOnOffNote = 64;
        MIDIPostArrayBuffer[2] = midiEvent;
        midiEvent.byType = AkMIDIEventTypes.NOTE_OFF
;
        midiEvent.byOnOffNote = 56;
        midiEvent.byVelocity = 0;
        midiEvent.uOffset = 48000 * 8;
        MIDIPostArrayBuffer[3] = midiEvent;
        midiEvent.byOnOffNote = 60;
        MIDIPostArrayBuffer[4] = midiEvent;
        midiEvent.byOnOffNote = 64;
        MIDIPostArrayBuffer[5] = midiEvent;
        SynthEvent.PostMIDI(gameObject, MIDIPostArra
yBuffer);
    }
}
```

Using the Audio Input Source Plug-in in Unity.

The audio input source plug-in can be used via C# scripting. See Audio Input Source Plug-in from the Wwise SDK documentation.

The following is a basic script that sends a test tone to the audio input source plug-in:

```
public class MyAudioInputBehaviour : UnityEngine.Mon
oBehaviour
{
    public AK.Wwise.Event AudioInputEvent;
    public uint SampleRate = 48000;
    public uint NumberOfChannels = 1;
    public uint SampleIndex = 0;
    public uint Frequency = 880;
    private bool IsPlaying = true;
    // Callback that fills audio samples - This func
tion is called each frame for every channel.
    bool AudioSamplesDelegate(uint playingID, uint c
hannelIndex, float[] samples)
    ł
        for (uint i = 0; i < samples.Length; ++i)</pre>
            samples[i] = UnityEngine.Mathf.Sin(Frequ
ency * 2 * UnityEngine.Mathf.PI * (i + SampleIndex)
/ SampleRate);
        if (channelIndex == NumberOfChannels - 1)
            SampleIndex = (uint)(SampleIndex + sampl
es.Length) % SampleRate;
        // Return false to indicate that there is no
more data to provide. This will also stop the assoc
iated event.
        return IsPlaying;
    }
    // Callback that sets the audio format - This fu
nction is called once before samples are requested.
    void AudioFormatDelegate(uint playingID, AkAudio
Format audioFormat)
    {
        // Channel configuration and sample rate are
 the main parameters that need to be set.
```

```
audioFormat.channelConfig.uNumChannels = Num
berOfChannels;
        audioFormat.uSampleRate = SampleRate;
    }
    private void Start()
        // The AudioInputEvent event, that is setup
within Wwise to use the Audio Input plug-in, is post
ed on gameObject.
        // AudioFormatDelegate is called once, and A
udioSamplesDelegate is called once per frame until i
t returns false.
        AkAudioInputManager.PostAudioInputEvent(Audi
oInputEvent, gameObject, AudioSamplesDelegate, Audio
FormatDelegate);
    }
    // This method can be called by other scripts to
 stop the callback
    public void StopSound()
    {
        IsPlaying = false;
    }
    private void OnDestroy()
    {
        AudioInputEvent.Stop(gameObject);
    }
}
```

Apply Custom Positioning in Unity

By default, the AkGameObj component is attached to a specific Unity gameObject and uses its transform (with an optional offset) for full positioning. This is usually adequate for many games, such as first-person shooters. However, games with custom camera angles, such as

many third-person games, may find it difficult to accommodate the two aspects of positioning (distance attenuation and spatialization) by simply attaching the audio listener to one game object, such as the main camera in Unity. Other games may want players to experience other custom positioning.

To this end, the AkGameObj component class provides overridable positioning to Unity users. Through the three virtual methods GetPosition(), GetForward(), and GetUpward(), users can derive a subclass from AkGameObj and use that subclass component to customize any number of Unity gameObjects' positioning.

Here is a simple example of how to use a custom component to override the default AkAudioListener behavior. With a third-person project integrated with Wwise, remove the existing AkAudioListener and its associated AkGameObj. Then attach the following script to the MainCamera object, attach AkAudioListener, and finally specify the target Unity gameObject (such as the player avatar) that the audio listener's position will follow. After this, the distance attenuation of all the emitters will rely on the selected target Unity gameObject's position as the listener position (an on-screen distance listener), while the orientation of all the emitters is still based on the main camera orientation as the listener orientation (an off-screen orientation listener).

```
#if !(UNITY_DASHBOARD_WIDGET || UNITY_WEBPLAYER || U
NITY_WII || UNITY_WIIU || UNITY_NACL || UNITY_FLASH
|| UNITY_BLACKBERRY) // Disable under unsupported pl
atforms.
//
// Copyright (c) 2017 Audiokinetic Inc. / All Rights
Reserved
//
using UnityEngine;
using System;
using System;
using System.Collections.Generic;
```

```
[AddComponentMenu ("Wwise/AkGameObj3rdPersonCam")]
[ExecuteInEditMode] //ExecuteInEditMode necessary to
maintain proper state of isStaticObject.
public class AkGameObj3rdPersonCam : AkGameObj
{
    public Transform target;
                                        // The posit
ion that this camera will be following. User can spe
cify this to the player character's Unity gameObject
 in the Inspector.
    // Sets the camera position to the player's posi
tion to handle distance attenuation.
    public override Vector3 GetPosition ()
    {
        return target.GetComponent<AkGameObj> ().Get
Position ();
    }
}
#endif // #if !(UNITY_DASHBOARD_WIDGET || UNITY_WEBP
LAYER || UNITY_WII || UNITY_WIIU || UNITY_NACL || UN
ITY_FLASH || UNITY_BLACKBERRY) // Disable under unsu
pported platforms.
```



Wwise Unity » Wwise Unity

Wwise Picker

Wwise PickerWwise EventsSwitches Wwise PickerWwise SettingsEdit > Wwise Settings...Unity

Wwise Wwise Picker Picker Wwise SoundBank XML

Refresh Project Wwise

Wwise Picker Picker

+ -

SoundBank

Generate SoundBanks SoundBank SoundBank Wwise Picker SoundBanks Wwise Unity

SoundBanks generation successful WwiseUnity: SoundBanks generation has warning(s) WwiseUnity: SoundBanks generation error Console SoundBank



Wwise SettingsWwise Windows InstallationPath MacWwise ApplicationUnityGenerateSoundBanks UnityWwiseWwiseGenerate

Picker

Wwise Picker Game Object Inspector

- Event AkAmbient
- SoundBank AkBank
- Switch Value AkSwitch
- State Value AkState
- Aux Bus
 AkEnvironment



Wwise Unity » Wwise Unity

Wwise Types

Wwise Types Wwise SoundBankEventgame parameter State SwitchWwise Types Event

Wwise Types

```
public class WwiseTypesExample : UnityEngine.MonoBeh
aviour
{
    public AK.Wwise.Bank MyBank = null;
    public AK.Wwise.Event MyEvent = null;
    public AK.Wwise.RTPC MyRTPC = null;
    public void Awake()
    {
        MyBank.Load();
    }
    public void Start()
    {
        MyEvent.Post(gameObject);
    }
    private float CalculateMyValue()
    {
        return (float)System.Math.Sin(System.Math.PI
 * UnityEngine.Time.timeSinceLevelLoad);
    }
    public void Update()
    {
        MyRTPC.SetValue(gameObject, CalculateMyValue
());
    }
}
```

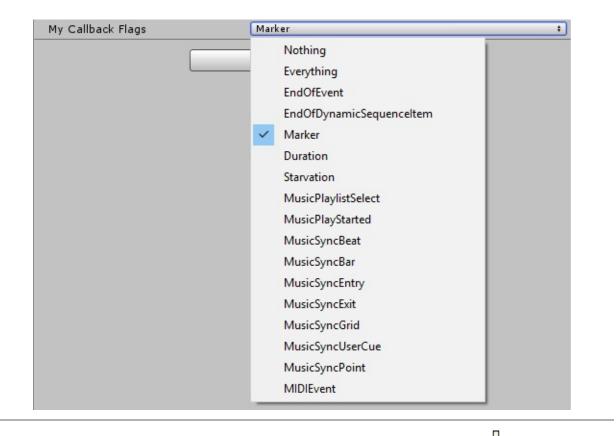
inspector

🔻 健 🗹 Wwise Types Ex	ample (Script)	🛐 🌣,
Script	🕞 WwiseTypesExample	0
My Bank	DigitalBirds	
My Event	Play Digital Bird	
My RTPC	GP Modulation	

marker

WwiseTypesExample

```
public AK.Wwise.CallbackFlags MyCallbackFlags = null
;
public void Start()
{
    MyEvent.Post(gameObject, MyCallbackFlags, EventC
allback);
}
private void EventCallback(object cookie, AkCallback
Type type, AkCallbackInfo info)
{
    if (type == AkCallbackType.AK_Marker)
    {
        var markerInfo = info as AkMarkerCallbackInf
0;
        if (markerInfo != null)
        {
            // ...
        }
    }
}
```





Wwise Unity » Wwise Unity

Wwise Events Trigger

Unity Wwise "Trigger On" Unity / Wwise EventSwitchState Unity

AkTriggerBase C# AkTriggerBase "Trigger On" triggerDelegate(GameObject in_target)""

Wwise ""

GetComponent<YourTriggerClass>
().triggerDelegate(GameObject in_target)



```
public class TriggerOnGunHit : AkTriggerBase
{
    void Hit()
    {
        if(triggerDelegate != null)
        {
            triggerDelegate(null);
        }
    }
}
```

```
if (playerIsShot)
{
    GetComponent<TriggerOnGunHit>().Hit();
}
```

TriggerOnGunHit Wwise

AkSoundEngine.PostEvent("GunHit", gameObject) Wwise SDK



Wwise Unity » Wwise Unity

Wwise Timeline Integration

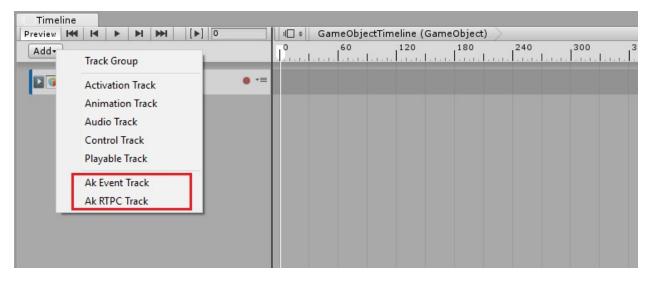
Timeline is Unity's cinematic editting tool. It can be used to create gameplay sequences, audio sequences, and other cinematic content.

For more information on Timeline refer to Timeline Docs.

For instructions on how to create a Timeline Asset and Timeline instance, refer to Timeline Usage.

Wwise Timeline Tracks

The Wwise Unity Integration adds two tracks: the **AkRTPC** track and the **AkEvent** track. The **AkRTPC** track is used to set Game Parameter values, and the **AkEvent** track is used to post Wwise Events. **AkRTPC** tracks and **AkEvent** tracks can be added to a Timeline in Unity using the "Add" dropdown button.



Adding AK tracks to Timeline

Ak Track Object Bindings

AkEvent tracks and **AkRTPC** tracks have object bindings which can be set to any Game Object. If this is left as None, the Event messages or RTPC messages in the track will be triggered on the Game Object that owns the Timeline (this is the Game Object that has a PlayableDirector component, which is used to trigger the Timeline). If the track binding is set to a different Game Object, the messages will be triggered on that Game Object.

The AkRTPC Parameter Property

AkRTPC tracks have one property in their property inspector: **Parameter**. This is the Wwise RTPC parameter that will be set from the various clips in the track.

Inspector		a .≠≡
Ak RTPC Track		[] \$,
Parameter:	CubeAcceleration	

RTPC Track Parameter Property

Wwise Timeline Playable Clips

The **AkEvent** track and the **AkRTPC** tracks each hold corresponding clips: the **AkEventPlayable** clip and the **AkRTPCPlayable** clip. These can be added to a track using the track's menu.

Timeline			
Preview 🚧 🖌 🕨 附 🕪 [▶] 0	↓□ ≠ GameObjectTi	meline (GameObject)	
Add+	0 60	120 180 240 3	00 360
D 🝞 GameObject	=		
	Сору	Ctrl+C	
	Paste	Ctrl+V	
	Paste Into		
	Duplicate	Ctrl+D	
	Delete	Delete	
	Lock	L	
	Mute	M	
	Add Ak Event Playabl	e Clip	

Adding AK clips to AK tracks

Timeline Clip Properties

All clips in Timeline have timing properties that are displayed in the top portion of the inspector. For more information on these properties, refer to Clip Properties.

AkRTPCPlayable Clip Properties

The following properties are accessible from the inspector of an **AkRTPCPlayable** clip:

Ak RTPC Playable		
Set RTPC Globally:		
Override Track Object:		
RTPC Object:	None (Game Object)	0 •
Animated Value:		
RTPC Value	0	

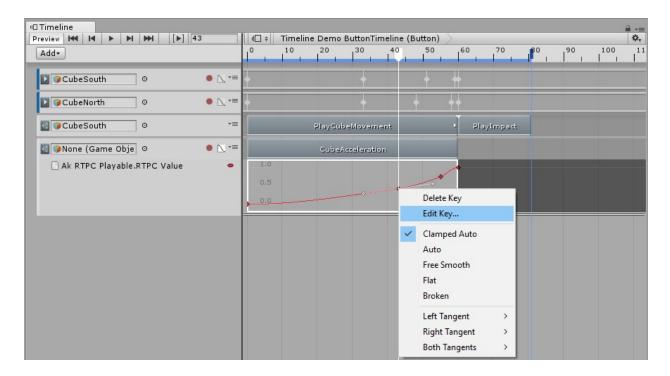
AkRTPCPlayable Clip Properties

- Set RTPC Globally: If this is checked, the RTPC will be set globally for all objects.
- **Override Track Object**: If this is checked, the RTPC will be set for the selected Game Object in the RTPC Object property (only available when **Set RTPC Globally** is unchecked).
- **RTPC Object**: The Game Object for which the RTPC will be updated. If this is set to **None**, the RTPC will be set on the track object (or the Timeline's owner object if the track object is set to **None**). This is only available when **Override Track Object** is checked.
- Animated Value: RTPC Value: This is the value that will be animated by the RTPC track. In order to begin animating this value you need to arm the track for recording, set the playhead to somewhere within the RTPCPlayable clip, and then edit the value from the property inspector.

# Scene	C Game	🛱 Asset Store		-= O Inspector
Shaded	* 2D 🔆		Gizmos * (Q*All	CubeAcceleration 📓
		4	r Persp	Clip Timing Start s 0 f 0 End s 1 f 60 Duration s 1 f 60 Ease In Duration s 0 f 0
			T T	Ease Out Durations 0 f 0 Blend Curves In Auto + Out Auto + • Ak RTPC Playable
				Set RTPC Globally Animated Value: RTPC Value 0.4269494
II Timeline Preview I≪I Add∓	H F H HH	[▶] 43	a a a a a a a a a a a a a a a a a a a	Change the RTPC value
CubeS	South O	● 📐 *≡		
CubeN	North O	• 🔼 *=	+ + +	
Cubes	South © Arm track for reco	+≡	PlaySubeMovemark PlayImpace	
	(Game Obje ⊙	• \ *=	CubaAccalarati <mark>nn</mark>	

Animating RTPC Values from Timeline

Following these steps will insert a keyframe into the RTPC track, below the RTPC clip. You can then use this Unity curve editor to add more keyframes. The keyframes have a context menu that can be used for more precise values.



RTPC Keyframe Context Menu

Image: wide the second seco	3	1 □ \$	Timeline I	Demo Butto	onTime	line (Bu	utton)	>			_		-≡ \$,
Add		0	10	20 30)	40	50	60	70	18 0	90	100	11
CubeSouth ©	• 📐 *=						+	#					
☑	● _ *≡					+							
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Editting RTPC Keyframe Values

AkEventPlayable Clip Properties

The following properties are accessible from the inspector of an **AkEventPlayable** clip:

Override Track Object:		
Emitter Object Ref:	GameObject	0 •
Event:	PlayImpact	

AkEventPlayable Clip Properties

- **Override Track Object**: This can be checked in order to have the Event emitted from a specific Game Object, different to the track binding object. This will also override the Timeline owner object if the track binding is set to None (see **Ak Track Object Bindings**).
- Emitter Object Ref: The Game Object from which the Event should be emitted (only available when **Override Track Object** is checked).
- Event: The Wwise Event that will be triggered from this clip.

Known Issues & Limitations

Currently scrubbing is only supported in Play mode in the Unity editor. This is due to an issue with Unity Playable callbacks in edit mode. Unity are aware of the issue: 953109. This means that "Play from anywhere" behavior is not supported in edit mode either. If you place the playhead somewhere between the beginning and end of a clip and play the timeline, while in edit mode, the event will not be triggered.

Wwise Project Setup

To ensure that Event lengths are properly represented in the AkEvent Tracks, the Wwise project needs to be set up to estimate the duration of its audio Events and JSON metadata must be generated. To enable these project-wide settings, go to the Project Settings' SoundBanks tab. Enable the Estimated duration check box within the Metadata Options group box and enable the Generate JSON Metadata check box within the SoundBank Settings group box, as seen below.

Motion Devices External Sources Network Custom Properties General Source Settings SoundBanks Logs Obstruction/Occlusion SoundBank Settings Generate Bank Content TXT Flies: Generate Metadata File Generate Set SoundBank Metadata Generate Set SoundBank GeneratedSoundBanks/Macid GeneratedSoundBanks/Maci GeneratedSoundBanks/Bons GeneratedSoundBanks/Bons GeneratedSoundBanks/Bons Sota GeneratedSoundBanks/Bons GeneratedSoundBanks/Bons<th>oject Settings</th><th></th><th></th><th></th><th>3</th>	oject Settings				3
General Source Settings SoundBanks Logs Obstruction/Occlusion SoundBank Settings Allow SoundBanks to exceed maximum size Generate Bank Content TXT Files: ANSI Include GUID V Use SoundBank names Generate Preate Metadata File Generate Preate MacMatata File Include GUID Max attenuation Generate header file Generate 2ML Metadata Max attenuation Estimated duration Header file path: GeneratedSoundBanks/Android\ Generate 2ML Metadata Estimated duration SoundBank Paths SoundBanks Vandroid\ GeneratedSoundBanks/VoS\ Estimated duration Jinux GeneratedSoundBanks/Vinux\ GeneratedSoundBanks/Vinux\ Estimated duration PS4 GeneratedSoundBanks/Vinux\ Estimated SoundBanks/Vinux\ Estimated duration Ps4 GeneratedSoundBanks/Vinux\ Estimated duration Estimated duration Ps4 GeneratedSoundBanks/Vinux\ Estimated duration Estimated duration Ps4 GeneratedSoundBanks/Vinux\ Estimated duration Estimated duration Innux Description Command Line Estimated duration Global opening step Android Esti	Motion Devices	External Source	tes	Network	Custom Properties
SoundBank Settings Allow SoundBanks to exceed maximum size Generate Bank Content TXT Files: Generate Metadata File Generate Netadata File Generate Netadata File Generate Metadata File Generate XML Metadata Generate XML Metadata Generate XML Metadata Header file Generate XML Metadata Max attenuation Estimated duration Header file path: Generate SON Metadata Platform SoundBank Folder Include GUID Max attenuation Estimated duration SoundBank Paths Platform SoundBanks Vandroid\ Include GuID Include GuID Max attenuation OS GeneratedSoundBanks\Unixx\ Include GuID Include GuI	General So	urce Settings	SoundBank	s Loas	
Allow SoundBanks to exceed maximum size Use SoundBank names Generate Per Bank Metadata File Generate Per Bank Metadata File Generate Per Bank Metadata File Generate VML Metadata Generate VML Metadata Generate Metadata File Generate VML Metadata Generate VML Metadata Feader file path: CeneratedSoundBanks VMetadata Fatform SoundBank Polder Android GeneratedSoundBanks VMac\ Ps4 GeneratedSoundBanks VBoris\ Pre-Generaton Step Platform Description Command Line Command Line Fatform Description Command Line Command Line Command Line Command Line Command Line Fatform Description Command Line Command Line SoundBank provide Files S(WwiseExePath)(CopyStreamedFiles.e Sound Files	– SoundBank Settings –				
Use SoundBank names Generate PR Bank Metadata File Generate PR Bank Metadata File Generate SON Metadata Max attenuation Estimated duration Header file path: Generate Activation Generate SON Metadata Max attenuation Estimated duration Header file path: GeneratedSoundBanks/Android/ GeneratedSoundBanks/Vandroid/ Generate PresentedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid/ GeneratedSoundBanks/Vandroid			🗹 Genera	te Bank Content TXT F	iles: ANSI 🗡
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Sendedce are needed at Estimated duration We Generate JSON Metadata Estimated duration Header file path: GeneratedSoundBanks\ SoundBank Paths Platform Platform SoundBank Folder Android GeneratedSoundBanks\UOS\ Linux GeneratedSoundBanks\Uinux\ Mac GeneratedSoundBanks\Uinux\ Ps4 GeneratedSoundBanks\Boris\ Pre-Generation Step Platform Platform Description Command Line Image: Command Line Global opening step Image: Command Line Android Image: Command Line Invx Mac Post-Generation Step Streamed Files Platform Description Command Line Image: Command Line Invx Copy Streamed Files IOS Copy Streamed Files IOS Copy Streamed Files Invx Copy Streamed Files Invx Copy Streamed Files Mac Copy Streamed Files Streamed Files S(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed F					
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IOS GeneratedSoundBanks\OS\ Linux GeneratedSoundBanks\Inux\ Mac GeneratedSoundBanks\Mac\ PS4 GeneratedSoundBanks\Poris\ Pre-Generation Step Platform Description Command Line Image: Command Line Global opening step Image: Command Line Android IOS IoS Image: Command Line Post-Generation Step Image: Command Line Platform Description Command Line Image: Command Line Inux Image: Command Line Post-Generation Step Image: Command Line Android Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e IOS Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e Inux Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e Mac Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e PS4 Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e PS4 Copy Streamed Files *\${WwiseExePath}\CopyStreamedFiles.e	Platform	SoundBank Folder			
Linux GeneratedSoundBanks\Linux\ Mac GeneratedSoundBanks\Mac\ PS4 GeneratedSoundBanks\Boris\ Pre-Generation Step Platform Description Command Line Image: Command Line Global opening step Image: Command Line Android Image: Command Line Inux Image: Command Line Mac Image: Command Line Post-Generation Step Image: Command Line Platform Description Command Line Image: Command Line Post-Generation Step Image: Command Line Platform Description Copy Streamed Files \${(WwiseExePath)\CopyStreamedFiles.e IOS Copy Streamed Files \${(WwiseExePath)\CopyStreamedFiles.e Inux Copy Streamed Files \${(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files \${(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files \${(WwiseExePath)\CopyStreamedFiles.e	Android	GeneratedSoundBanks	\Android\		
Mac GeneratedSoundBanks\Mac\ PS4 GeneratedSoundBanks\Boris\ Pre-Generation Step Platform Description Global opening step Android iOS Linux Mac Post-Generation Step Platform Description Command Line Global opening step Android iOS Linux Mac Post-Generation Step Platform Description Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e iOS Copy Streamed Files ViswiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files \$(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files \$(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files	iOS	GeneratedSoundBanks	\ios\		
P54 GeneratedSoundBanks\Boris\ Pre-Generation Step Platform Description Command Line Global opening step	Linux	GeneratedSoundBanks	\Linux\		
Pre-Generation Step Platform Description Command Line Global opening step	Mac	GeneratedSoundBanks	\Mac\		
Platform Description Command Line Global opening step	PS4	GeneratedSoundBanks	\Boris \		
Global opening step Android iOS Linux Mac Post-Generation Step Platform Description Command Line Android Copy Streamed Files iOS Copy Streamed Files Linux Copy Streamed Files iOS Copy Streamed Files Linux Copy Streamed Files Mac Copy Streamed Files S(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files PS4 Copy Streamed Files		Description	Co	mmand Line	
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iOS Inux Mac Image: Command Line Platform Description Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e iOS Copy Streamed Files Linux Copy Streamed Files Mac Copy Streamed Files Platform Description Mac Copy Streamed Files INUX Copy Streamed Files Mac Copy Streamed Files PS4 Copy Streamed Files Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e INUX Copy Streamed Files PS4 Copy Streamed Files					
Linux Image: Comparison of the second step Post-Generation Step Platform Description Android Copy Streamed Files Android Copy Streamed Files IOS Copy Streamed Files Linux Copy Streamed Files Mac Copy Streamed Files PS4 Copy Streamed Files Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e WaseExePath)\CopyStreamedFiles.e Image: Streamed Files Mac Copy Streamed Files PS4 Copy Streamed Files Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Image: Streamed Files Image: StreamedFiles.e Mac Copy Streamed Files PS4 Copy Streamed Files					
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Platform Description Command Line Android Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e iOS Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Linux Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e					
Android Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e iOS Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Linux Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e	- Post-Generation Step -				
iOS Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Linux Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e Mac Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e	Platform	Description	Co	mmand Line	
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Mac Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e PS4 Copy Streamed Files *\$(WwiseExePath)\CopyStreamedFiles.e	iOS	Copy Streamed Files	"\$((WwiseExePath)\CopyS	StreamedFiles.e 🛄
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OK					
					OK Cancel

Required Project Settings for AkEvent Tracks



Wwise Unity

Unity

Unity Unity SoundBank **Settings...** /

Edit > Wwise

Wwise Settings	× ¤
Wwise Project	
Wwise Project Path*:	\WwiseProject\WwiseProject.wproj
Wwise Windows Installation Path	
Wwise Windows Installation Path:	C:\dev\wwise_main
Asset Management	
SoundBanks Path* (relative to StreamingAssets folder):	Audio\GeneratedSoundBanks
Enable copying of soundbanks at pre-Build step	
Enable soundbank generation at pre-Build step	
☑Create WwiseGlobal GameObject	
Automatically add Listener to Main Camera	
In Editor Warnings	
Show Warning for Missing RigidBody	
* Mandatory settings	
	OK Cancel

Wwise

Unity Wwise Profile Wwise Assets > Wwise > Activate Plugins Wwise Release



Debug Audiokinetic

- :
- Android
- iOS
- Linux
- Unity Wwise

StreamingAssets

Unity Unity Assets StreamingAssets Unity <UNITY_PROJECT_ROOT>\Assets\StreamingAssetsUnity Unity StreamingAssets

SoundBanks Audio\GeneratedSoundBanks StreamingAssets
Unity Wwise Platform Manager
<UNITY_PROJECT_ROOT>\Assets\StreamingAssets\Audio\GeneratedSoundBank
<>



AkInitializer::basePath SoundBank

Unity SoundBanks Wwise GeneratedSoundBank Wwise Project Settings Windows Mac bank

SoundBanks

SoundBankStreamingAssetsWwiseSoundBankStreamingAssetsSoundBankWwise SettingsSoundBankSoundBankSoundBank

SoundBank

SoundBank SoundBank

StreamingAssets SoundBank

Wwise iOS iPad iPhone

Unity Wwise

SoundBank

Wwise SoundBank TXT XML SoundBank StreamingAssets



Wwise Unity » Unity

Android

APK Android SoundBank LoadBank() API Unity StreamingAssets SoundBank APK Assets Low-Level IO APK SoundBank

Low-Level IO Android SoundBank SD AkSoundEngine.AddBasePath() APK APK APK DLC



Wwise Unity » Unity

iOS

iOS Unity Unity Editor Unity Xcode Build Build Run Unity

UNITY_PROJECT_ROOT/Assets/Plugins/iOS

Unity thumb Xcode thumb

Wwise Integration **Other Settings**

libAkSoundEngine.aiOSPlayer
Stripping Level 12 MB

Settings



Wwise Unity » Unity

Linux

Linux Unity . Unity Editor Build Build Run Unity Linux .x8632 .x86 6464

Wwise Unity Integration libSDL2"DLLNotFoundException"

Ubuntu 12.04 libSDL2

- sudo apt-get install build-essential libasound2-dev
- wget http://www.libsdl.org/release/SDL2-2.0.3.tar.gz
- tar -zxvf SDL2-2.0.3.tar.gz
- cd SDL2-2.0.3
- ./configure
- make
- sudo make install
- sudo ldconfig



libsdl.org



Wwise Unity » Unity

Unity Wwise

Wwise Unity Wwise C#



SoundBank

GetPlatformName SoundBank

UNITY_PROJECT_ROOT/Assets/Wwise/Deployment/Components/AkBasePathGett GetPlatformName() partial

iOS ipod iphone ipad

```
1. Wwise Platform Manager"iPod""iPhone"
  "iPad" Wwise Platform Manager
                                               Wwise Help
  >
2. Unity C#
                    AkBasePathGetter
   public partial class AkBasePathGetter
   {
   #if UNTIY IOS
       static partial void GetCustomPlatformName(re
   f string platformName)
       {
           switch(UnityEngine.iOS.Device.generation
   )
           {
                case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouch1Gen:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouch2Gen:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouch3Gen:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouch4Gen:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouch5Gen:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPodTouchUnknown:
                    platformName = "iPod";
                    break;
                case UnityEngine.iOS.DeviceGeneratio
   n.iPad1Gen:
                case UnityEngine.iOS.DeviceGeneratio
   n.iPad2Gen:
```

```
case UnityEngine.iOS.DeviceGeneratio
n.iPad3Gen:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadMini1Gen:
            case UnityEngine.iOS.DeviceGeneratio
n.iPad4Gen:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadAir1:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadMini2Gen:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadMini3Gen:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadAir2:
            case UnityEngine.iOS.DeviceGeneratio
n.iPadUnknown:
                platformName = "iPad";
                break;
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone3G:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone3GS:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone4:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone4S:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone5:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone5C:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone5S:
            case UnityEngine.iOS.DeviceGeneratio
n.iPhone6:
```

```
case UnityEngine.iOS.DeviceGeneratio
   n.iPhone6Plus:
               case UnityEngine.iOS.DeviceGeneratio
   n.iPhoneUnknown:
               default:
                    platformName = "iPhone";
                    break;
           }
   #endif
   }
          platformName Unity
3. a C#
               AkBuildPreprocessorb C#
  AkBuildPreprocessor
   public class WwiseIOSBuildPreprocessor : IPrepro
   cessBuild, IPostprocessBuild
   {
       public int callbackOrder { get { return 0; }
    }
       string iPodDestinationSoundBankFolder = stri
   ng.Empty;
       string iPadDestinationSoundBankFolder = stri
   ng.Empty;
       string iPhoneDestinationSoundBankFolder = st
   ring.Empty;
       public void OnPreprocessBuild(BuildTarget ta
   rget, string path)
       {
           if (target == BuildTarget.iOS)
           {
               AkBuildPreprocessor.CopySoundbanks(t
   rue, "iPod",
                   iPodDestinationSoundBankFolder);
               AkBuildPreprocessor.CopySoundbanks(t
   rue, "iPad", iPadDestinationSoundBankFolder);
```

```
AkBuildPreprocessor.CopySoundbanks(t
     "iPhone", iPhoneDestinationSoundBankFolder)
rue,
;
        }
    }
    public void OnPostprocessBuild(BuildTarget t
arget, string path)
    {
        DeleteSoundbanks(iPodDestinationSoundBan
kFolder);
        DeleteSoundbanks(iPadDestinationSoundBan
kFolder);
        DeleteSoundbanks(iPhoneDestinationSoundB
ankFolder);
    }
}
```

- 4. Wwise "iPhone""iPod" "iPad" SoundBank UNITY_PROJECT_ROOT/Assets/StreamingAssets/Audio/GeneratedSoundBa
- 5. Unity iOS
- 6. SoundBank



Wwise Unity

Wwise Unity DLC

Wwise File Package

Wwise DLC AuthoringWwise Help > > FilePackage > DLCBNK WEM DLC Wwise / UnityLow-Level IO

Unity Base Path bank AkSoundEngine.LoadFilePackage()Wwise

AkInitializer

Base Path iOS Android

Android iOS AkSoundEngine.LoadFilePackage()
AkSoundEngine.AddBasePath()

```
#if UNITY_IPHONE
   string fileNameBase = Application.dataPath.Subst
ring(0, Application.dataPath.LastIndexOf('/'));
   fileName = fileNameBase.Substring(0, fileNameBas
e.LastIndexOf('/')) + "/Documents/" + FILE_NAME;
#elif UNITY_ANDROID
   fileName = Application.persistentDataPath + "/"
+ FILE_NAME ;
#else
   fileName = Application.dataPath + "/" + FILE_NAM
E;
#endif
```

Android SD

:

OBB Android

Unity WWW

Unity WWW DLC bank AkMemBankLoader.cs bank bank bankWwise IO



Wwise Unity

Wwise-Unity C# Wwise API C++ C++

- 1. Wwise Launcher Wwise SDK
- 2. Windows Mac Wwise Launcher Unity _Src.zip 3. Windows Mac
- 1.
- Unity 2.
- 3. Integrated Development Environment (IDE)
- Deployment API 4.

•

	 Unity 5 (Personal Pro) Wwise SDK SDK Wwise SDK Python 2.7.x 3.xPython
Android	 Cygwin (Windows) Android SDK 32 API 9 64 API 21 Android NDK r10e. Apache Ant 1.8.4. Wwise SDK Unity CYGWIN_HOME Cygwin (Windows) ANDROID_HOME Android SDK ANDROID_NDK_ROOT Android NDK ANT_HOME Apache Ant
iOS	• Xcode 7.2 • iOS Wwise SDK WWISESDK
Linux	 (sudo apt-get install build-essential) SDL2 (Linux SDL2) Linux Wwise SDK WWISESDK
Мас	• Xcode 7.2 • Mac Wwise SDK wwisesdk

PS4	Visual Studio 2012
Windows	Visual Studio 2013
Windows Store	Visual Studio 2015.
Xbox One	Visual Studio 2012

Wwise SDK Unity Assets Wwise Unity .unitypackage Assets

- StreamingAssets SoundBank
- Wwise
 - **Deployment**
 - APIC++ C# Wwise SDK
 - Dependencies Unity
 - Components Unity
 - Plug-ins/b> Unity

Platform

- Architecture
 - Debug Wwise
 - Profile Wwise
 - Release Wwise
 - DSPWwise

•

- EditorWwiseUnityIntegratio Inspector
- Tools

- Wwise
 - AkSoundEngine IDE
 - Common
 - Platform IDE
 - Integration/Assets/Wwise/Deployment
 - **API**API
 - Generated SWIG API
 - Handwritten API
 - Components Unity
 - Plugins Wwise AkSoundEngine
 - addressed =
 - <architecture>

Wwise\AkSoundEngine\Common\BuildWwiseUnityIntegration.py

python BuildWwiseUnityIntegration.py -h

Integrated Development Environment (IDE)

Wwise Unity Integration

WwiseUnityIntegration_version_platform_Src.zip\Wwise
\AkSoundEngine\YourPlatform

Xcode IDE

Xcode Mac iOS

WWISESDK Xcode\$WWISESDK -w Xcode IDEWWISESDK Mac iOS XcodeAkSoundEngine{platform} Build SettingsUser-DefinedWWISESDK ex: /Users/myUser/Wwise/SDK

Linux

Linux

- cd <Integration source location>/AkSoundEngine/Common
- ./premake4 --akplatform=Linux gmake
- make -f AkSoundEngineLinux.make config=<config>

<config> debug32profile32release32debug64 profile64
release64 <Integration source location>/Deployment/Plugins/Linux

Wwise\Deployment\Plugins\[Platform] Assets\Wwise Assets

SWIG Wwise SDK Unity API SWIG Unity Wwise Wwise for Unity API SWIG C++

- 1. Wwise SDK Unity Windows .dll Mac OS X .bundle iOS .a Android .so Deployment Unity
 - • • C++ Wwise /

:



Wwise Unity »

Unity Editor

UNITY_PROJECT_ROOT\Assets\Wwise\Logs\BuildWwiseUnity Integration.log

:: ()::

2013-09-26 09:29:56,490: INFO: BuildWwiseUnityIntegr ation.py (WindowsBuilder): 91: Building: Windows (Wi n32, Debug) ...

Wwise Unity

BuildUtil.CreateLogger()

WwiseUnityIntegration_version_platform_Src.zip\Wwise
\AkSoundEngine\Common\AkSoundEngine\Common\BuildUtil
.py

Python logging.handlers

IDE Visual Studio

IDE



Wwise Unity »

C++ Wwise /

- Unity Unity
- Unity check-out Unity
- Wwise Unity

Wwise Unity Wwise Unity Wwise Launcher Wwise



Wwise Wwise

3 Wwise Unity

Unity Wwise

Wwise Launcher Unity Wwise

Wwise

- 1. Wwise Unity Wwise
- Wwise
- 1. Wwise "Yes"
- 2. Unity Wwise SoundBank
- 3. SoundBank Unity StreamingAssets

C++

- 1. Wwise SDK
- 2. Unity Unity
- 3. Unity
- 4. Unity
- 5.



Wwise Unity

API

Wwise SDK Unity

- UnloadBank()
- iOS API
 - AK::SoundEngine::iOS::ListenToAudioSessionInterruption()
- Windows GetGameObjectFromPlayingID() Windows 32 64 32 GameObjectID
- PostEvent() GameObject API null GameObject
- PostEvent()
- AK::Monitoring::SetLocalOutput()
 AkCallbackManager.SetMonitoringCallback()
- AK::SoundEngine::SetPosition()
 AkSoundEngine.SetObjectPosition()
- PostEvent()
- •
- AK::SoundEngine::DynamicSequence API Unity API SWIG API
 - AK::SoundEngine::DynamicSequence::Open()
 AkSoundEngine.Open() API

AkSoundEngine.DynamicSequenceOpen()

- C++ Unity AkArray::operator[] AkPlaylistArray.ItemAtIndex(uint uiIndex) SWIG C++
- API
 - iOS API
 - AkSpeakerVolumeMatrixCallbackInfo
 - AkSpeakerVolumeMatrixBusCallbackInfo
 - AkBusCallbackFunc
 - o AK::SoundEngine::RegisterBusVolumeCallback
 - AK::SoundEngine::RegisterCodec
 - AK::SoundEngine::RegisterGlobalCallback
 - AK::SoundEngine::RegisterPlugin
 - o AK::SoundEngine::Query::AkGameObjectsList
 - o AK::SoundEngine::Query::GetActiveGameObjects()
 - AK::SoundEngine::Query::GameObjDst
 - o AK::SoundEngine::Query::AkRadiusList

 AK::SoundEngine::Query::GetMaxRadius(AkRadiusList& io_RadiusList)

:

• Event AK::SoundEngine::DynamicDialogue::ResolveDialogueEvent



Wwise Unity

Android

- Android
- Android
- OBB Android
- Wwise Unity DLC

iOS

- iOS
- iOS
- Wwise Unity DLC

Linux

• Linux

Windows Store Apps

• Windows Store Apps



Wwise Unity »

Android

AkSoundEngine.Suspend() AkInitializer AkSoundEngine.WakeupFromSuspend()



Wwise Unity »

OBB Android

OBB Wwise IO

Android UnityPlayer Settings > Publishing Settings >Split Application BinaryAPK Expansion Files .obb zipStreamingAssetsSoundBank Android SoundBankSoundBankAPK OBB

OBB AkSoundEngine.SetBasePath OBB OBB I/O OBB CPU

SoundBank

in-memory bank AkMemBankLoader.cs SoundBank

- 1. SoundBank
- 2. Inspector SoundBank < b>Bank name
- 3. Inspector SoundBank Is Localized Bank AkInitializer.cs
- 4. SoundBank

AkMemBankLoader.LoadNonLocalizedBank()AkMemBankLoaderSoundBankLoadLocalizedBank()

- in-memory SoundBank low-level IO zip SoundBank streamingmanager_lowlevel
- SoundBank SoundBank
- in-memory SoundBank-loading API API



Wwise Unity »

iOS

Unity Integration

- AkAudioSessionCategorySoloAmbientiPhone Ring/Silent
- AkAudioSessionCategoryAmbient: AmbientSound Music BGM UI AkCallbackManager.SetBGMCallback()

SoloAmbient BGM Ambient BGM BGM



iOS Suspend WakeupFromSuspend



Wwise Unity »

Windows Store Apps

Universal Windows Platform Windows SoundBank SDK
 SoundBank



Wwise Unity

Wwise Demo Game

Demonstration scenes, containing the Wwise Unity Integration, are available to download from the Wwise Launcher Unity page under the contextual menu in the "Recent Unity Projects" title. Unity The Wwise Demo Game is a standalone project. Wwise Launcher Wwise Launcher Wwise Unity

- The generated SoundBanks are included in the package.
- 2
- You can find the Wwise Project associated with the scenes under <DEMO_SCENE_ROOT>/WwiseProject. Leaving the Wwise project in the game's Assets folder is not recommended, but it was necessary in this Demo for packaging purposes.

The Wwise Demo Game is intended as a way to preview and show how the Wwise Unity Integration can be used in the Unity Editor.

To deploy one of the Wwise Demo Game scenes to a game console or mobile device, follow these steps:

- Within the Launcher's Unity tab, select the Modify Wwise in Project... option from your Wwise Demo Game Unity Project.
 Launcher Unity
- 2. Deployment Platforms Modify
- 3. Unity
- 4. SoundBank
- 5. Copy the Generated SoundBanks folder to the StreamingAssets/Audio folder.
- 6. Unity

First-Person 3D ""For each station, there is a small description on a sign next to the station.

Wwise Random container Switch Container Footstep Footstep_material

Box Collider Switch Value Wwise Picker Window Box Collider Footstep_Material First Person Controller "AkTriggerEnter" Ak Switch "Use Other Object" Inspector Window

0.3 Footstep First Person Controller Wwise SoundEngine

Unity

AkTriggerButtonPress AkTriggerBase triggerDelegate AkTriggerBase Wwise Component Inspector "" Ak Ambient

WAV marker marker Ak Ambient inspector "Use Callback" GameObject SubtitleSign SubtitleDemo.cs "Game Object" Callback Function MarkerCallback Callback Flag "Marker" SubtitleDemo Callback MarkerCallback uIdentifier inspector AkAmbient EnvironmentZone Box Collider AuxBus Wwise Picker

Wwise Auxiliary Bus Little Sequence "Use gamedefined Auxiliary sends"

Wwise EnvironmentZone AuxBus

Environment Portal Environment Portal Auxiliary Bus

Box Collider Ak Environment "z" Ak Environment Portal

Environments Environment Portal AkEvironment AkEvironmentPortal inspector

Timeline Demo

This station demonstrates the use of an AkEventTrack and an AkRTPCTrack within a Timeline in Unity. There are two cubes, which, when the button is pressed, are animated towards each other and stopped when they reach impact.

In order to inspect the Timeline, select Window->Timeline. Then in the Hierarchy, expand the TimelineDemo object, and then expand the Timeline Demo Button object. Then select the Button object. The Timeline editor will now show the Timeline that controls the animation and Wwise Events for the cubes. The Timeline is controlled by the Playable Director component of the Button object.

The Timeline contains two animation tracks, one for each cube. These tracks are used to animate the z position of each cube over time. The Timeline also contains an AkEventTrack and an AkRTPCTrack, marked by a white and red tab, respectively. The AkEventTrack contains two AkEventPlayable clips: the first triggers the PlayCubeMovement Wwise Event, and the next triggers the PlayImpact Wwise Event. The names of these Wwise Events are displayed in the clips. You may need to increase the size of the Timeline editor view and zoom in in order for the name to

be displayed correctly. The PlayCubeMovement Wwise Event plays a sine wave source, which has an RTPC affecting its pitch. The name of this RTPC is CubeAcceleration. The AkRTPCTrack increases this RTPC over time as the cubes move towards each other. This causes the pitch of the sine wave to increase, producing a simple sound effect to indicate the acceleration of each cube towards the other.

This station also demonstrates the Motion feature. Note that there is a game object called "Motion listener" in the player hierarchy. This game object set up the output for the Motion device on supported platforms. Any output needs a set of listeners to receive data. That is why the Motion listener also have a Ak Game Object and a Ak Audio Listener. To enable the Motion effect on the cube impact, two important things needs to be done. First, the impact sound needs to be routed to an output bus using the Wwise Motion ShareSet in the Wwise project. Second, the listener used for the Motion output needs to be added to the listeners of the emitter posting the impact event. Inspect the AkMotionListener script for an example on how to add an output.

To support the Motion feature on android, the manifest of the application must include the vibration permission. Unity generates automatically the manifest based on the content of the application. Adding a call to Handheld.Vibrate() will add the desired permission in the manifest.

For more information on the Timeline integration, see **Wwise Timeline** Integration.

Spatial Audio Scene

This scene is the final product of the **Spatial Audio Tutorial**.



Wwise Unity » Wwise Demo Game

Using Wwise Spatial Audio in Unity

This chapter gives an overview of how to use the Spatial Audio features of the Unity integration. It is broken down into:

- A preparation page you need to follow before going to the tutorials:
 Preparation for the Spatial Audio Tutorials
 - 1. Create a Unity Project
 - 2. Wwise Project Preparation
 - 3. Unity Project Preparation
- Two independent tutorials:
 - Surface Reflectors Tutorial
 - Rooms and Portals Tutorial
- And a supplementary page addressing the use of obstruction and occlusion:
 - Obstruction and Occlusion

Completion of sections using the Wwise Reflect plug-in require the appropriate license.



Preparation for the Spatial Audio Tutorials

The following steps must be followed beforehand to successfully complete the **Surface Reflectors Tutorial** and the **Rooms and Portals Tutorial** :

- 1. Create a Unity Project
- 2. Wwise Project Preparation
- 3. Unity Project Preparation
 - 3.A. Environment
 - 3.B. Character Listener
 - 3.C. Third-Person Emitters
 - 3.D. Scene

1. Create a Unity Project

Using the latest version of Wwise and Unity, follow the steps below in order to build your working environment.

- 1. Launch Unity and create a new project.
- 2. Close Unity.
- 3. Start the Wwise Launcher and integrate Wwise into your Unity project.

2. Wwise Project Preparation

For the tutorials, you will need a Sound SFX, an Event to play it, and a SoundBank.

- 1. From the Launcher, open your project in Wwise.
- 2. Add a Sound SFX under the Actor Mixer Hierarchy's **Default Work Unit**. In the integration Wwise Project, we added a dialogue.
 - 1. Import a sound into it.
 - 2. In the Sound Property Editor's
 - 1. General Settings tab, enable Use game-defined auxiliary sends.

Dialogue - Sound	d Property Editor	12 12 2 X
Inclusion	M S Notes	0
General Settings	Source Settings Effects Positioning RTPC States Advanced Settings +	
	Output Bus Initial Delay Override parent Imitial Delay Imitial Delay Imitial Delay Imitial Delay<	2 \$
Volume Pitch Low-pass filter High-pass filter	Volume 0 User-Defined Auxiliary Sends Override parent ID Auxiliary Bus Volume 0 1 2 3 ID ID Auxiliary Bus Volume 0 1 2 3 ID ID Auxiliary Bus Volume 0 1 ID ID Auxiliary Bus Volume ID ID <td>∄0</td>	∄ 0

Sound Property Editor General Settings tab

2. Positioning tab, enable positioning and choose **3D**. Optionally, add an Attenuation.

Dialogue - Sound Property Editor		12 V2 : X
	M S Notes	0
Inclusion Name Dialogue General Settings Source Settings Override parent Output Center % III 0 ✓ Enable Positioning: III 3D 2D Enable Panner Edit	M S Notes Effects Positioning RTPC States Advanced Settings + 3D Attenuation Solution (Custom) Edit Mode Define custom Position Source	<
	 User-defined Edit ✓ Follow Listener Orientation Game-defined ✓ Update at each frame Spatialization Mode Position + Orientation 	

Sound Property Editor Positioning tab

3. Right-click on the Sound SFX within the Actor-Mixer Hierarchy, then select **New Event > Play**.

					234102996
n Inclusion Type	Target	Scope Delay	Name	Value	
🖻 🖯 🗹 🛛 Play	🗡 👫 Dialogue	Game Object 💙 💽 🛛 🔤	Inclusion		
					~
				💦 Dialogue	
				© 0	
				100	
				e 0	
					~

Event Editor

4. Go to the SoundBank layout (shortcut F7) and add a new SoundBank. Drag the Event into the new SoundBank. Here's how the SoundBank Manager should look in the integration Wwise Project:

undBank Manager									?
oundBanks									
Tree list 💙 🛛 New	User Settings	Generate	Show Log						
SoundBanks	Data Size Decoded	Size Max Size	= Type	Date Updated	Platforms	٩	Languages		٩
🖻 🗹 🚺 Default Work Unit					Android	6	🗹 English(
Environments		V.			iOS				
Footsteps		146 Infinite			- Mac				
🖌 🔂 SpatialAudio	159 815 420 159 815	420 Infinite	- SFX	2017-10-23 7:16:5	_ D PS4				
Subtitles		254 Infinite	- SFX		Switch				
					VitaHW				
					VitaSW				
					Windows				
					0	0			
Select All Select None						Select All Select None	Select All	Select Nor	ne
SpatialAudio - SoundBank Editor									?
Name									~
									\sim
Add Game Syncs Edit Details									
Hierarchy Inclusion						Events	Structures	Media	Q
■ \Events\Default Work Unit\Play	yDialogue*					V		V	0
New York Street Water Control of								Remov	

SoundBank Manager and Editor

5. Save your project.

3. Unity Project Preparation

In this section we will create our game area and the objects in it. We will need a listener, emitters, and two rooms. From the Launcher, open your project in Unity. Open the Wwise Picker (Windows > Wwise Picker), Refresh Project, and Generate SoundBanks.

🖻 Project 🛛 🛛	Console	Wwise Picker		
🗹 Auto populate	Refr	esh Project	Generate SoundBanks	
Q				0
WwiseProje	; inks Busses			

Wwise Picker

3.A. Environment

1. Create a floor, walls, and ceilings using cubes: **GameObject > 3D Object > Cube**.

		Scale
), 0, 0)	(0, 0, 0)	(50, 0.5, 50)
4.5, 3, -10)	(0, 0, 0)	(7, 6, 0.5)
), 5, -10)	(0, 0, 0)	(2, 2, 0.5)
2.5, 3, -10)	(0, 0, 0)	(3, 6, 0.5)
2	4.5, 3, -10) , 5, -10)	4.5, 3, -10)(0, 0, 0), 5, -10)(0, 0, 0)

Wall Left Small	(-7.75, 3, -6)	(0, 0, 0)	(0.5, 6, 8)
Wall Back Small	(-2, 3, -2)	(0, 0, 0)	(12, 6, 0.5)
Ceiling Small	(-2, 5.75, -6)	(0, 0, 0)	(12, 0.5, 8)
Wall Right Small	(3.75, 3, -8)	(0, 0, 0)	(0.5, 6, 3.5)
Wall Front Large	(11.5, 3, -7.5)	(0, 0, 0)	(16, 6, 0.5)
Wall Right Large	(19.25, 3, 3.25)	(0, 0, 0)	(0.5, 6, 21.5)
Wall Middle	(3.75, 5, -4.5)	(0, 0, 0)	(0.5, 2, 3.5)
Wall Left Large	(3.75, 3, 5.625)	(0, 0, 0)	(0.5, 6, 16.75)
Wall Back Large	(11.5, 3, 14)	(0, 0, 0)	(16, 6, 0.5)
Ceiling Large	(11.5, 5.75, 3.25)	(0, 0, 0)	(16, 0.5, 22)
Barrier	(-4.5, 3, -17)	(0, 0, 0)	(7, 6, 0.5)

2. Add spotlights inside rooms (GameObject > Light > Spotlight).

Object Name	Position	Rotation	Scale
Spotlight Small Room	(-3, 5.75, -6)	(0, 0, 0)	(1, 1, 1)
Spotlight Large Room	(11.5, 5.75, 5)	(0, 0, 0)	(1, 1, 1)

- 1. In the Light component, change:
 - 1. Range to 30.
 - 2. **Spot Angle** to 179.

3.B. Character Listener

1. Create a character with the method of your choice.

Object Name	Position	Rotation	Scale
MainCharacter	(0, 1.3, -20)	(0, 0, 0)	(1, 1, 1)

- 1. Remove any Unity Audio Source.
- 2. Add an Ak Audio Listener component to the camera.

Ak Audio Listener component

3. Add an Ak Spatial Audio Listener component to the camera.



Ak Spatial Audio Listener component

3.C. Third-Person Emitters

Create buttons using cylinders (GameObject > 3D Object > Cylinder).

Object Name	Position	Rotation	Scale
Button Outside	(-3, 0.75, -15)	(0, 0, 0)	(0.15, 0.5, 0.15)
Button Small Room	(-3, 0.75, -5)	(0, 0, 0)	(0.15, 0.5, 0.15)
Button Large Room	(7.5, 0.75, 5)	(0, 0, 0)	(0.15, 0.5, 0.15)

2. Add an Ak Spatial Audio Emitter component.

🔻 🕒 🗹 Ak Spatial Audio Emitter	(Script)	🔯 🌣,
Script	☑ AkSpatialAudioEmitter	0
Early Reflections		
Reflect Aux Bus	No AuxBus is currently selected	
Reflections Order	0	1
Reflections Aux Bus Gain		01
Reflection Max Path Length	1000	
Rooms		
Room Reverb Aux Bus Gain		-01
Debug Draw		
Draw First Order Reflections		
Draw Second Order Reflections		
Draw Higher Order Reflections		
Draw Sound Propagation		

Ak Spatial Audio Emitter component

- 3. In the Ak Game Obj component:
 - 1. Enable the Environment Aware option.
 - 2. Enable the Use Default Listener option.

X	
eObj and AkEnvironment or AkRoom require a object or the environment/room.	
Add Rigidbody	
✓ Use Default Listeners	
Add Listener	
	object or the environment/room. Add Rigidbody SUse Default Listeners

Ak Game Obj component

4. Add an Ak Ambient component:

- 1. Choose your preferred way to start the sound in **Trigger On**.
- 2. Choose the Play sound Event in **Event Name**.

🕼 🗹 Ak Ambient (Script)		💽 🌣,
Trigger On:	AkTriggerButtonPress	\$
Action On Event:		
Use Callback:		
	Play	
	Stop All	
Position Type:	Simple_Mode	+
Show Attenuation Sphere:	Dont_Show	*)
Event Name:	PlayDialogue	

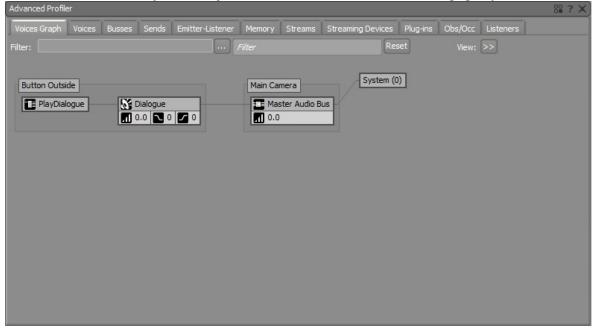
Ak Ambient component

- 5. Add an Ak Bank component:
 - 1. Add the SoundBank created in **2. Wwise Project Preparation** to **Bank Name**.

🕞 🗹 Ak Bank (Script)		ې 🛐
Load On:	Start	*)
Unload On:	Destroy	*
Asynchronous:		
Decode compressed data:		
Bank Name:	SpatialAudio	

Ak Bank component

- 6. Start the game, connect it to Wwise, and open the Profiler layout (shortcut F6).
- 7. Play the sound from a button. You should hear the sound you imported in the Wwise project.
- 8. In the Voices Graph tab, you should see the following graph.



Button Outside Voice Graph with no Effect

3.D. Scene

- 1. Save your Scene to a convenient place.
- 2. The final look of the scene is shown in the following image. This scene is available with the Unity integration package. Colors were added to elements of the scene for convenience. A mobile first-person controller was also added.



Tutorial Unity Scene



Surface Reflectors Tutorial

In the following steps, this tutorial will show you how to use the new Reflect plug-in with Spatial Audio. You will need a Reflect plug-in license to make the project work.

- A. Wwise Project
- B. Spatial Audio Emitter
- C. Surface Reflector Component
 - C.1. Use Existing Meshes
 - C.2. Alternative: Create a New Volume

Note: This tutorial presumes that you have completed the **Preparation for the Spatial Audio Tutorials**. However, it does not consider if the **Rooms and Portals Tutorial** was done; both tutorials are independent.

A. Wwise Project

We need to update our wwise project with an Auxiliary Bus with the Reflect plug-in and Acoustic Textures.

- 1. Add an Auxiliary Bus under the Master Audio Bus.
 - 1. In the Auxiliary Bus Property Editor,
 - 1. Under the **Effects** tab, add the Wwise Reflect effect.

ThirdPerson	- Auxiliary Bus Property Editor							?
lame ThirdPe								
General Setting	gs Effects Positioning RTF	PC States +						
8 Effects -								
ID	Effect	Name	Prev.	Next		Bypass	Edit	9
>> 0	Wwise Reflect	ThirdPerson 🗡	<	\geq	Use ShareSets 🗡			
>> 1								
>> 2								
>> 3								~
	ts\Default Work Unit\ThirdPersor	-	_	_		_	_	4
PA (Effec	ts perault work unit (InitoPersor	1						
]]] 🗌 🗆 Bypas	ss All							
199 								

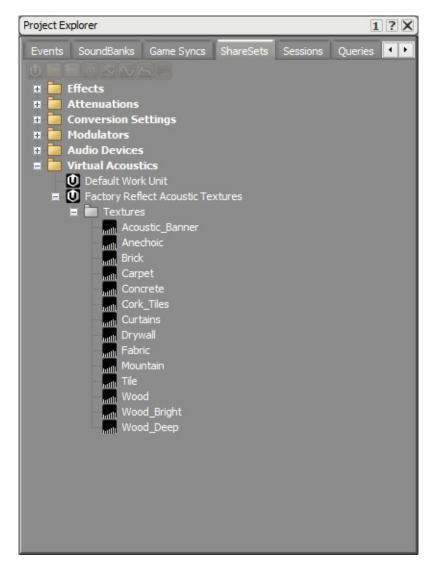
Auxiliary Bus Property Editor Effects tab for Reflect

2. Under the **Positioning** tab, enable positioning and choose 2D.

ThirdPerson - Auxiliary Bus Property	Editor	? X
Name ThirdPerson General Settings Effects Positionin	M S Notes	< >
Center % 1 100 M Enable Positioning: 2 V 2D Enable Panner Edit	Attenuation Attenuation None Edit Mode Use ShareSets	
	Position Source User-defined Edit Follow Listener Orientation Game-defined Update at each frame Spatialization Mode Position + Orientation	

Auxiliary Bus Property Editor Positioning tab for Reflect

- 2. Import Reflect Acoustic Textures from: Project > Import Factory Assets...
 - 1. They will be added to the **Virtual Acoustics** folder in the **ShareSets** tab of the **Project Explorer** view.



Factory Reflect Acoustic Textures in the Project Explorer ShareSets tab

- 2. (optional) You can add custom Acoustic Textures in the Virtual Acoustics folder under Default Work Unit.
- 3. Save your project.

B. Spatial Audio Emitter

We need to modify the spatial audio emitter to use our newly created reflect aux bus.

- 1. Refresh your Wwise project in the Wwise Picker: Windows > Wwise Picker
 - 1. Generate SoundBanks

🗇 Project 🛛 🛛	Console	Wwise Picker	T
🗹 Auto populate	Refre	sh Project	Generate SoundBanks
Q			8
WwiseProje	anks Busses		

Wwise Picker

- 2. Modify the Ak Spatial Audio Emitter component of each button.
 - 1. Pick the Reflect Auxiliary Bus for **Reflect Aux Bus**.
 - 2. Choose 2 for the **Reflections Order**.
 - 3. Choose 1 for the **Reflections Aux Bus Gain**.
 - 4. Choose 100000 for the **Reflection Max Path Length**.
 - 5. Check the Draw First Order Reflections and Draw Second Order Reflections under Debug Draw.

🔻 📴 🗹 Ak Spatial Audio Emitte	er (Script)	2.
Script	☑ AkSpatialAudioEmitter	0
Early Reflections		
Reflect Aux Bus	ThirdPerson	
Reflections Order	2	
Reflections Aux Bus Gain	01	
Reflection Max Path Length	100000	
Rooms		
Room Reverb Aux Bus Gain	01	
Debug Draw		
Draw First Order Reflections		
Draw Second Order Reflections		
Draw Higher Order Reflections		
Draw Sound Propagation		

Ak Spatial Audio Emitter for Surface Reflector

C. Surface Reflector Component

You can simulate early reflections with the **Ak Surface Reflector** component. One way to have surface reflectors is to use existing meshes of the game. If the shape is too complex, you may want to add a new object as a surface reflector.

C.1. Use Existing Meshes

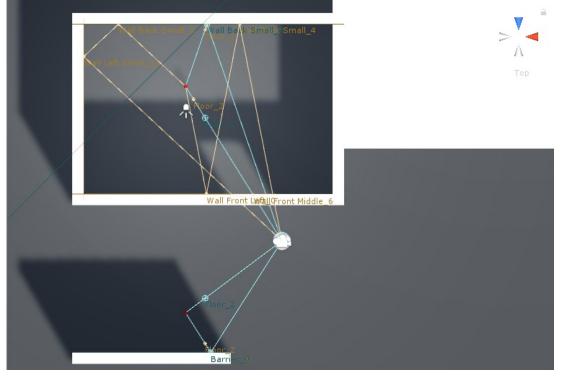
The advantages of using the existing meshes are that you don't need to create new objects and each mesh can have a different acoustic texture. The disadvantages are that if you have a complex figure, you may send too much triangles to the Spatial Audio API and this could slow down your game. Also, another disadvantage is that each mesh only gets assigned one texture. In the case of the this tutorial, this means that it is not possible to have a different acoustic texture on the outside than on the inside of the rooms. In the scene provided by the unity integration, this is the method used for surface reflectors.

- 1. Select all the walls, ceiling and floor from section **3.A. Environment** and add an **Ak Surface Reflector** component.
 - 1. In the **Acoustic Texture** parameter, choose an acoustic texture or leave it at **None** to have an unfiltered reflection.



Ak Surface Reflector component

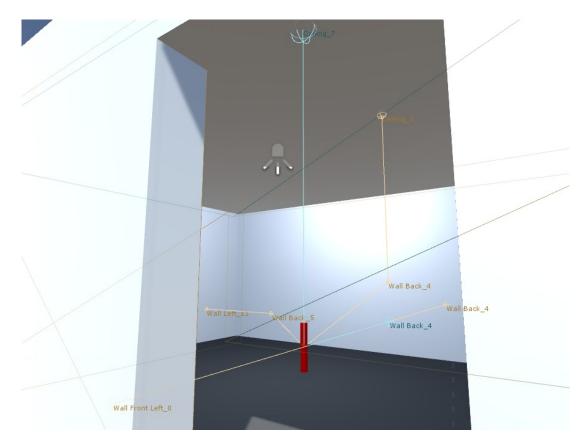
- 2. Start the game.
 - 1. Since we have enabled the drawing of reflections under **Debug Draw** in section , you should see rays going from the emitter to the listener in the **Scene** window. (The ceiling was removed in the following image to see the rays clearly) The blue rays are first order reflections, i.e. they reflect from one surface before reaching the listener, and the yellow rays are second order reflections. The name of the triangles are displayed at the reflection point. A name is made up of the game object's name



and the triangle's number. A cube has 12 triangles, two per face.

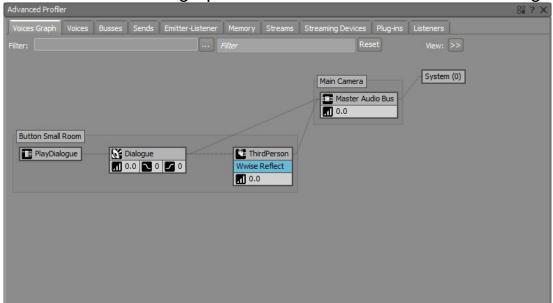
Top view of early reflection drawings for existing mesh surface reflectors

2. You can see the rays in the **Game** window by enabling **Gizmos**; as we can see in the next image. From this point of view, we can also see that the **Debug Draw** option draws the triangles of the surfaces that are being reflected on. Leaving the ceiling in this view, we can see that the sound will also reflect from the ceiling on triangles 7 and 6.



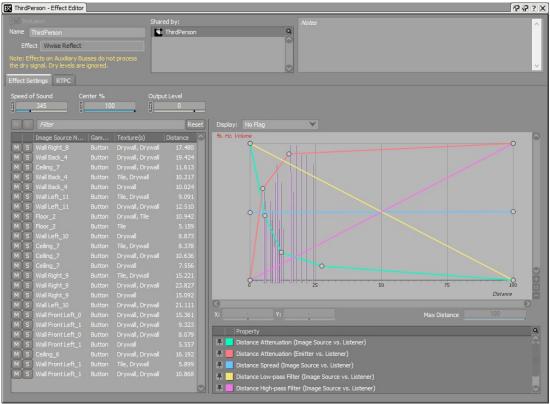
First person view of early reflection drawings for existing mesh surface reflectors

3. Connect the game in Wwise and go to the Profiler Layout. You should see a similar graph when Button Small Room is emitting.



Button Small Room Voice Graph with Reflect Effect

4. Double click on the Auxiliary Bus with the Reflect Effect in the graph. Navigate to the Effects tab and double click on the Reflect Effect. When playing the sound, you should see the current reflections in the graph and the list of the Reflect Effect Editor. In thw following image, there is a Drywall acoustic texture for all the walls and the ceiling and a Tile acoustic texture for the floor. When there are two textures in the list, it means that the reflection is a second order one.



Reflect Effect Editor View

C.2. Alternative: Create a New Volume

Creating a new game object with no mesh renderer can simplify a complex shape. In this optional section, we will show you how to have a surface reflector volume for the interior of the small room. You can also mix solutions by having some meshes be Surface Reflectors and having an object with no mesh renderer as well. Having each mesh be a surface reflector to have different texture per wall inside of the house and adding and exterior volume to have a completly different texture on the outside of the house. It is also possible to use **Quads** instead of cubes to have a different texture wherever desired. But be careful with intersections when using quads; you don't want your sound to get out of your shape.

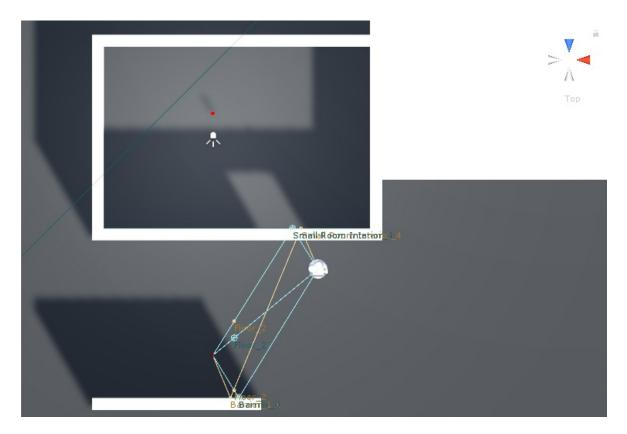
 Create a simpler unrendered mesh using a cube: GameObject > 3D Object > Cube

Object Name	Position	Rotation	Scale
Small Room Interior	(-2, 2.875, -6)	(0, 0, 0)	(11, 5.25, 7.5)

- 1. Remove the **Mesh Renderer** component
- 2. Check the Is Trigger in the Box Collider component
- 3. add an Ak Surface Reflector.

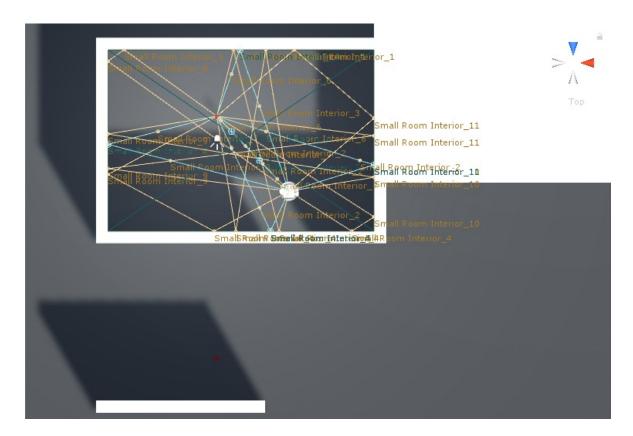
Start the game.

1. Since we simplified the shape of our room, the door is now part of the reflective surface. We don't have any reflections from Button Small Room if we are standing outside. We even get a reflection from Button Outside on the door opening. You may have noticed the name of the reflection point is now referencing to Small Room Interior.



Top view of early reflection drawings for a new surface reflector volume when the emitter is outside

2. Entering the small room, Button Small Room's debug drawings appear and the ones for Button Outside disappear.



Top view of early reflection drawings for a new surface reflector volume when the emitter is inside

Generated at Thu Feb 1 09:40:31 2018 for Wwise Unity Integration by



Rooms and Portals Tutorial

This tutorial will show you how to use Rooms and Portals with Spatial Audio. The following sections detail each step in the tutorial:

- A. Wwise Project
- B. Spatial Audio Emitter
- C. Rooms
- D. Portals
- E. Portals and Reverb
- F. Surface Reflectors and Reverb

Note: This tutorial presumes that you have completed the **Preparation for the Spatial Audio Tutorials**. However, it does not consider if the **Surface Reflectors Tutorial** was done; both tutorials are independent. If you did the **Surface Reflectors Tutorial** and wish to continue with this tutorial, you can do so without changing anything to your scene except for the optional step of **C.2. Alternative: Create a New Volume**, which should be reverted. If you wish to start anew, and you've done the **Surface Reflectors Tutorial**, you can still keep the same scene and just remove any **Ak Surface Reflector** components.

A. Wwise Project

For the rooms and portals tutorial, we will need to add Reverb Effects and modify Obstruction curves to hear diffraction through a portal when loosing sight of an emitter.

- 1. Add two Auxiliary Busses under the **Master Audio Bus** called SmallRoom and LargeRoom. In the **Auxiliary Bus Property Editor**,
 - 1. Under the **Effects** tab, add the Wwise RoomVerb effect. I chose two different factory presets: Rooms/Room_Medium for SmallRoom and Cathedrals/Medium for LargeRoom.

M S Notes Name LargeRoom General Settings Effects Positioning RTPC States + Effects ID Effect Name Prev. Next Mode Bypass Edit
TD Effect Name Drav Next Mode Bypacs Edit
AD Effect Invarine Invarine
Bypass All

Auxiliary Bus Property Editor Effects tab for rooms

2. Under the **Positioning** tab, enable positioning and choose 3D.

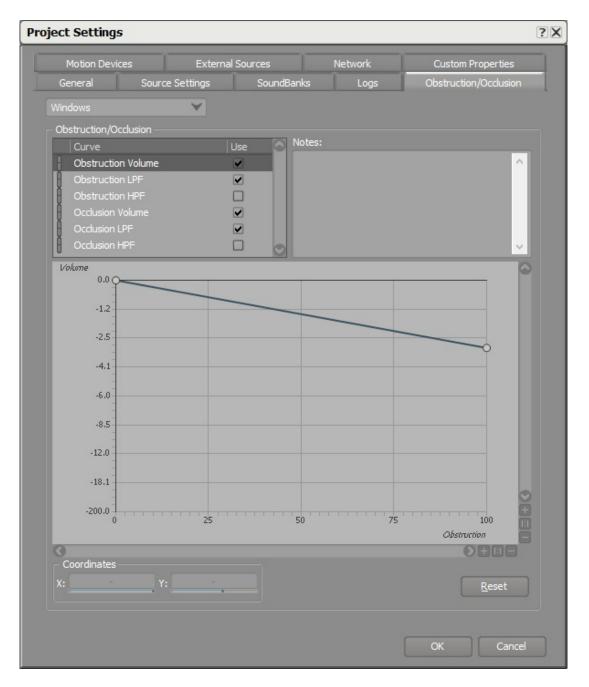
🗮 LargeRoom - Auxiliary Bus Property Ed	ditor	? X)
Name LargeRoom General Settings Effects Positionin	M S Notes	< <u>></u>
Center % 🗍 🚺 100		
Enable Panner Edit	3D Attenuation >> None Edit Mode Use ShareSets Find	
	Position Source User-defined Edit Follow Listener Orientation Game-defined Update at each frame	
	Spatialization Mode Position + Orientation	

Auxiliary Bus Property Editor Positioning tab for rooms

- 2. Project > Project Settings > Obstruction/Occlusion
 - 1. Change the curves:

Curve		Point 1	
	Х	Y	
Obstruction Volume	0	0	
Obstruction LPF	0	0	

2. Here's how the Obstruction Volume curve looks like:



Obstruction/Occlusion curves in the Wwise Project Settings

3. Save your project.

B. Spatial Audio Emitter

We need to modify the spatial audio emitter to use our newly created reflect aux bus.

- 1. Refresh your Wwise project in the Wwise Picker: Windows > Wwise Picker
 - 1. Generate SoundBanks

🗅 Project 🛛	E Console	Wwise Picker			
🗹 Auto populate	Refre	esh Project	Generate SoundBanks		
Q					
WwiseProje	anks Busses				

Wwise Picker

- 2. Modify the Ak Spatial Audio Emitter component of each button.
 - 1. Apply a gain of 1 for the **Room Reverb Aux Bus Gain** parameter.
 - 2. Check **Draw Sound Propagation** under **Debug Draw** and uncheck all the others.

🔻 健 🗹 Ak Spatial Audio Emitt	er (Script)	🔯 🌣,
Script	C AkSpatialAudioEmitter	0
Early Reflections		
Reflect Aux Bus	No AuxBus is currently selected	
Reflections Order	0	1
Reflections Aux Bus Gain		01
Reflection Max Path Length	100000	
Rooms		
Room Reverb Aux Bus Gain		0 1
Debug Draw		
Draw First Order Reflections		
Draw Second Order Reflections		
Draw Higher Order Reflections		
Draw Sound Propagation		

Ak Spatial Audio Emitter for Rooms and Portals

- 3. We will use rooms in the next section, so we need to add a Rigidbody component to our emitter; as explained in the warning message on the Ak Game Obj component.
 - 1. Click on Add Rigidbody

🛡 📴 🗹 Ak Game Obj (Scrip	t)	(
Apply Position Offset:		
Environment Aware:	✓	
	neObj and AkEnvironment or AkRoom require a e object or the environment/room.	
	Add Rigidbody	
Initial Listener List	✓Use Default Listeners	
	Add Listener	

Ak Game Obj component

C. Rooms

Each of the rooms will have their own room reverb. To do so, we will use the Ak Room component.

 Create unrendered meshes using cubes: GameObject > 3D Object > Cube

Object Name	Position	Rotation
Small Room Interior	(-2, 2.875, -6)	(0, 0, 0)
Large Room Interior	(11.5, 2.875, 3.25)	(0, 0, 0)

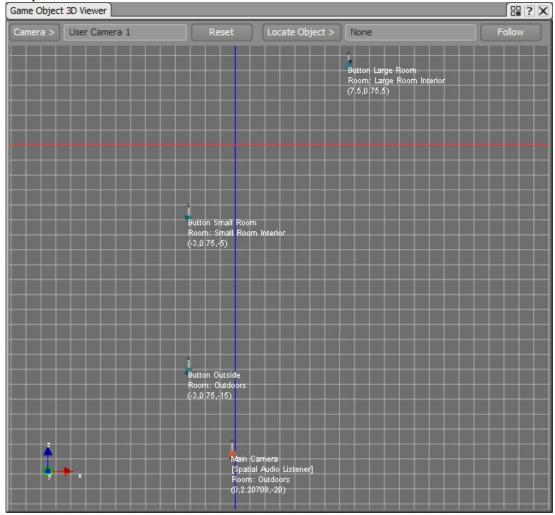
- 1. Remove the **Mesh Renderer** component.
- 2. Check the **Is Trigger** in the **Box Collider** component.
- 3. Add an **Ak Room** component to the Small and Large Room Interior Volumes.
 - 1. Pick the corresponding SmallRoom or LargeRoom Auxiliary Busses for **Reverb Aux Bus**.
 - 2. If you added a **Rigidbody** to your emitters, you don't need one here. If not, click on Add Rigidbody.

	V	
🕼 🗹 Ak Room (Script)		Q \$
Reverb Aux Bus Reverb Level Wall Occlusion	SmallRoom	
Priority	0	
	GameObj and AkEnvironment or AkRoom require a the object or the environment/room.	
	Add Rigidbody	

Ak Room component

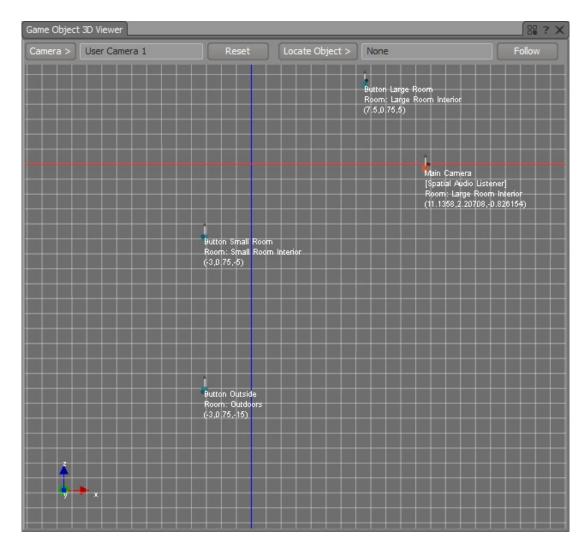
- 2. Start the game, connect to Wwise and go to the Game Object Profiler layout
 - 1. Watch all the emitters and the listener.
 - 2. Open a Game Object 3D Viewer view. You should see each emitter in their respective rooms. The next image is a top view of the scene. The listener and Button Outside are not in a room, so they are put by default in the "Outdoors" room. If everything is in the Outdoors room instead of their respective rooms, it means spatial audio is disabled. You must have forgotten to add

an Ak Spatial Audio Listener component to the listener. Follow step 3.B.



Emitters in their respective rooms and the Listener Outdoors

3. Move the listener to a room and see the room name change under your listener game object in the Game Object 3d Viewer. In the following image, the listener is in the large room.



Emitters in their respective rooms and the Listener in the Large Room Interior

- 3. Press the button in one of the rooms to hear the reverb.
 - 1. In the small room, the voice graph should look like this:

Advanced Profiler			88 ? X
Voices Graph Voices Busses	Sends Emitter-Listener Memory Strea	ms Streaming Devices Plug-ins (Dbs/Occ Listeners
Filter:	Filter	Reset	View: >>
Button Small Room	Dialogue 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		System (0)

Button Small Room Voice Graph with Reverb

2. When a listener is in a different room than the emitter, the sound is completely occluded. You will need to add portals to hear the sound coming from rooms through desired openings.

To add a reverb outside, add a Room around the entire area. Make sure that the Room has a lower priority than the Small Room Interior and Large Room Interior.

D. Portals

Each Room needs a Portal to be connected to another area. We need two Portals: one on the door between the outside area and the small Room and one between both Rooms.

1. Create two Ak Room Portal components: GameObject > Wwise > Room Portal

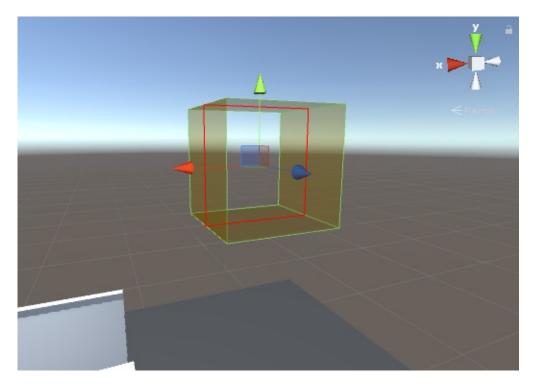
Object Name	Position	Rotation
Outside Portal	(0, 2, -10)	(0, 0, 0)
Inside Portal	(3.75, 2, -4.5)	(0, 90, 0)

- 2. In the Ak Room Portal component:
 - 1. Open On Start.
 - 2. Close On Nothing.
 - 3. Make sure that the Back Room and Front Room display the right **Ak Room** components.
- 3. This is how the Inside Portal Ak Room Portal component will look like:

🕼 🗹 Ak Room P	ortal (Script)	2
Open On:	Start	+
Close On:	Nothing	+
Back Room		+
Front Room	1. Small Room Interior	+

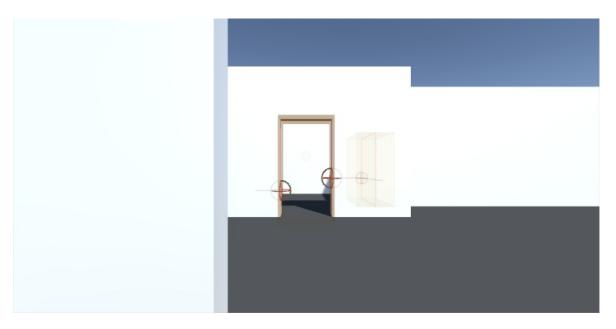
Ak Room Portal component

4. In the **Scene** window, a Portal is represented with a yellow ribbon around it indicating its size and the orientation in which it should be placed. The red line shows the separation between front and back areas of the Portal. The front is in the same direction as the local z axis.



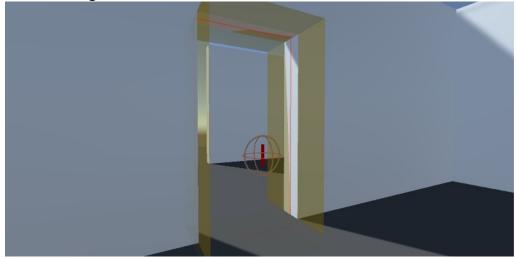
Ak Room Portal in the Scene window

5. Start the game. You should already see the Draw Sound Propagation drawings indicating where the sound will be coming from through the portal. The sphere on the left comes from the small room emitter and the one on the right from the large room emitter. You can see the latter is actually coming from the Portal connecting the small and large Rooms. The sound propagation is represented by red and blue spheres that change in size depending on the wet and dry diffraction angles respectively.



Game window at Start

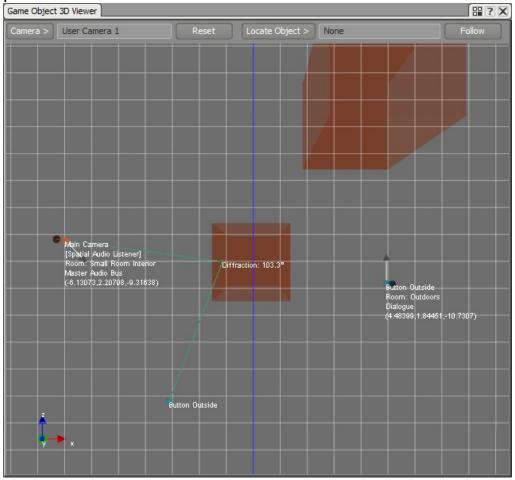
- 1. Connect to Wwise.
- 2. Play the button outside and go inside the small room.
 - 1. You should see the same sound propagation drawings coming from the outside emitter through the portal connecting with the outside.



Sound Propagation drawings from Button Outside when the listener is inside Small Room Interior

2. Move in and out of sight to hear the diffraction applied on the sound. You will hear more or less diffraction depending

on the angle of the listener vs. the portal. In the next image, we are watching the listener and Button Outside. You can see a top view of the scene in the Game Object 3D Viewer. In dark red, we can see the portals. The one in the middle is the Outside Portal, the area on top of the Portal is the Small Room Interior and the area on the bottom is the outside. The Listener is in the Small Room Interior and the playing emitter is Button Outside. On the image, you can see the sound propagation in green between the listener and the emitter. The Diffraction angle is 103.3. Also, you can see the virtual position of the Button Outside emitter on the right. That's where the sound you hear will go through the portal.



Portal diffraction angle on Game Object 3D Viewer

Note: At this point, if you change the position of the rooms

or multi-edit portals, the front and back rooms will not update, unless you open each individual **AkRoomPortal** inspector. In a scene with a lot of portals, this is not convenient, so you can use the **AkRoomPortal** Baker window we added as an example in this tutorial. Open the window from the menu: Wwise > **AkRoomPortal** Baker... Click the bake button to update the front and back rooms of all the portals in the scene.

E. Portals and Reverb

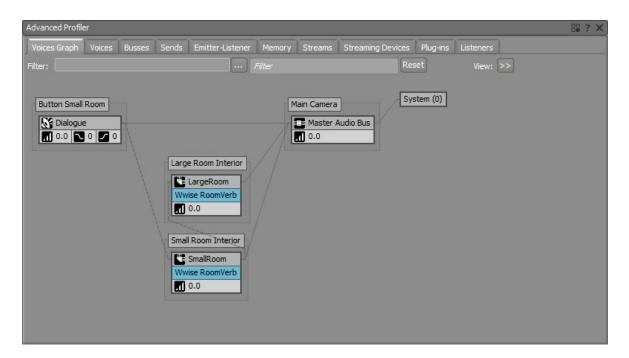
Sound emitted through Portals can also use the reverb from the current Room the listener is in.

1. Open the SmallRoom Auxiliary Bus Property Editor and check **Use** game-defined auxiliary sends in the General Settings tab. This will send the small Room reverb to other reverbs in the scene.

SmallRoom - Auxiliary Bus Property Editor		? X)
Name SmallRoom	M S Notes	<
General Settings Effects Positioning RTPC Sta	ates +	
Bus	Output Bus Volume Low-pass filter High-pass filter Game-Defined Auxiliary Sends Volume 0 User-Defined Auxiliary Sends User-Defined Auxiliary Sends D Auxiliary Bus Volume 0 1 2 3 	

Auxiliary Bus Property Editor General Settings tab to send room reverb to other reverbs

2. When playing the small room emitter, and going into the large room, you will see the small room's reverb feeding into the large room's reverb.



Button Small Room reverb sending to Large Room Interior room's reverb on the Voices Graph

F. Surface Reflectors and Reverb

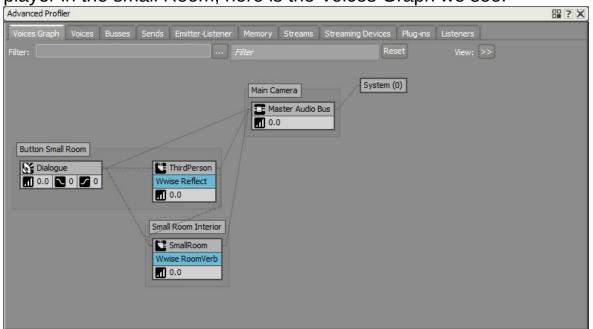
It is also possible to feed early reflections into the reverb of a Room. Let's add surface reflectors in our scene.

- 1. Following section Surface Reflectors Tutorial,
 - 1. Add an Auxiliary Bus with the Reflect Effect.
 - 2. Link each **Ak Spatial Audio Emitter** to the new Reflect Auxiliary Bus.
 - 3. Add **Ak Surface Reflector** components on all the walls and the floor.
- 2. In the Wwise project, open the Auxiliary Bus with the Reflect Effect applied to it.
 - 1. In the General Settings tab, check **Use game-defined auxiliary** sends.

ThirdPerson - Auxiliar	ry Bus Property Editor		? X)
Name ThirdPerson	М	S Notes	< >
General Settings Eff	Positioning RTPC State Meter 6 0 6 0 -6 -12 -18 -24 -30 -36 42 48 L R	es + Output Bus Volume Low-pass filter High-pass filter Game-Defined Auxiliary Sends Volume User-Defined Auxiliary Sends User-Defined Auxiliary Sends ID Auxiliary Bus Volume 0 1 2 3	

Auxiliary Bus Property Editor General Settings tab to send early reflection to the room reverb

3. Play the scene and press the button in the small Room. With the



player in the small Room, here is the Voices Graph we see:

Early reflections in the small room are sent to the small room's reverb in the Voices Graph





Obstruction and Occlusion

It is possible to obstruct or occlude sounds in Unity. See the following sections for details:

- A. Emitter Obstruction/Occlusion
- B. Portal Obstruction

A. Emitter Obstruction/Occlusion

An emitter can be obstructed or occluded in Unity when the **Ak Emitter Obstruction Occlusion** component is added to its GameObject. When your map doesn't use spatial audio, that is it doesn't have any **Ak Room** components, the **Ak Emitter Obstruction Occlusion** component will only use occlusion. In a spatial audio scene, this same component will use obstruction with the spatial audio listener only; the GameObject with the **Ak Spatial Audio Listener** component. Emitter obstruction is applied to emitters that are in the same room as the spatial audio listener.

- 1. Add an **Ak Emitter Obstruction Occlusion** component to Button Outside.
 - In Layer Mask, select layers that would block audio. In the SpatialAudioTutorial scene provided with the integration, we have put the first person character on a user created layer called "Player" and the GameObjects with AkRoom or AkRoomPortal components on a user created layer called "Ignore Audio Raycast". These layers are not selected in the Layer Mask option.

🔻 💽 🗹 Ak Emitter Obstr	uction Occlusion (Script)	🚺 🌣,
Script	AkEmitterObstructionOcclusion	0
Layer Mask	Mixed	+
Refresh Interval	1	
Fade Time	0.5	
Max Distance	-1	

Ak Emitter Obstruction Occlusion component

🖲 🗹 Ak Bank (Script)		Nothing	[] *,
Load On:		Everything	÷
Unload On:	~	Default	÷
Asynchronous:	~	TransparentFX	
Decode compressed data:	~	Ignore Raycast	
Bank Name:	~	Water	
	~	UI	
Ak Emitter Obstruction Script	~	Audio Rooms	sion o
Layer Mask		Player	*
Refresh Interval	1		
Fade Time	0.5		
Max Distance	-1		

Layer Mask options for the Ak Emitter Obstruction Occlusion component

- 2. Play the scene.
 - 1. Play Button Outside.
 - 2. Go behind the Barrier GameObject to hear it occluded or obstructed depending on the presence of any GameObjects with the **Ak Room** component in your scene.

B. Portal Obstruction

Sound emitted through portals can also be obstructed. Use the **Ak Room Portal Obstruction** component on a game object with an **Ak Room Portal** component to do so. See section **Rooms and Portals Tutorial** to add rooms and portals to your scene, if not done already.

- 1. Add an Ak Room Portal Obstruction component to Outside Portal.
 - In Layer Mask, select layers that would block audio. In the SpatialAudioTutorial scene provided with the integration, we have put the the GameObjects with AkRoom components on a user created layer called "Ignore Audio Raycast". This layer is not selected in the Layer Mask option.

▼ @ ☑ Ak Room Portal Obstruction (Script)		🔯 🌣,
Script	AkRoomPortalObstruction	0
Layer Mask	Mixed	\$
Refresh Interval	1	
Fade Time	0.5	
Max Distance	-1	

Ak Room Portal Obstruction component



Layer Mask options for the Ak Room Portal Obstruction component

- 2. Play the scene.
 - 1. Play Button Small Room.

2. Go behind the Barrier GameObject to obstruct the portal.





Wwise Unity

- •
- Unity DIINotFoundException
- Wwise Profiler
- — Unity
- Mac Wwise SoundBank Wwise_IDs.h
- Mac Unity Console ""Xbox One ""

Wwise 2013.2.8

UNITY_PROJECT_ROOT\Assets\Wwise\Deployment\Examples Components Examples

UnityPackage

Unity DIINotFoundException

Windows Unity AkSoundEngine DllNotFoundException

- DirectX
- Wwise-Unity Integration Debug config Microsoft Visual Studio 2010 Debug Redistributables Debug config Profile

- Windows Mac Editor
- SoundBank Unity Wwise Generated SoundBanks SoundBank StreamingAssets Wwise SoundBank
- Sound Engine Sound Engine Script Execution
 Ordermenu Edit > Project Settings > Script Execution Order
 AkInitializer AkTerminator
- Unity
- Wwise Profiler Wwise F7 Capture Log
- Wwise Profiler SoundBank Profiling SettingsAlt-G SoundBank
- Wwise Profiler Capture Log Event SoundBank Event AkEventAkAmbient AkSoundEngine.PostEvent

Wwise Profiler

Windows

- Unity background Run menu File > Build Settings > Player Settings
- 24024 Wwise
- Wwise-Unity Plug-in Debug Profile
- Task Manager "adb.exe" Android TCP
 Android Android Google
- Wwise Remote Connection IP

Connect To IP

• 24024 traffic

— Unity

Unity Wwise: Error during installation: Access to the path is denied

- Assets > Wwise > Install Plugins Debug Profile Release Wwise Setup Unity Integration
 - Unity Editor Scene
- Unity Plug-in Debug Profile Release unity_wwiseids_error Mac Wwise SoundBank —— Wwise_IDs.h Mac Wwise SoundBank Wwise_IDs.h
- Wwise
- SoundBanks
- Header file path SoundBank

Wwise AkSoundEngine

Mac Unity Console ""

Mac Unity Integration Unity Console

Multiple plug-ins with the same name 'aksoundengine' (found at 'Assets/Wwise/Deployment/Plugins/Mac/Release/AkSoundEngine.bu and

'Assets/Wwise/Deployment/Plugins/Mac/Debug/AkSoundEngine.bun Editor Editor

Xbox One ""

Xbox One Unity Wwise Assets > Project Settings > Audio "Disable audio"

Unity 5.0.2 "Disable audio" AkInitializer.cs

AkPlatformInitSettings platformSettings = new Ak
PlatformInitSettings();

AkSoundEngine.GetDefaultPlatformInitSettings(pla
tformSettings);

platformSettings.uLEngineDefaultPoolSize = (uint
)lowerPoolSize * 1024;

platformSettings.fLEngineDefaultPoolRatioThresho ld = memoryCutoffThreshold;

```
AkPlatformInitSettings platformSettings = new Ak
PlatformInitSettings();
    AkSoundEngine.GetDefaultPlatformInitSettings(pla
tformSettings);
    platformSettings.uLEngineDefaultPoolSize = (uint
)lowerPoolSize * 1024;
    platformSettings.fLEngineDefaultPoolRatioThresho
ld = memoryCutoffThreshold;
#if UNITY_XBOXONE && !UNITY_EDITOR
    platformSettings.uMaxXMAVoices = 0;
#endif
```

XMA

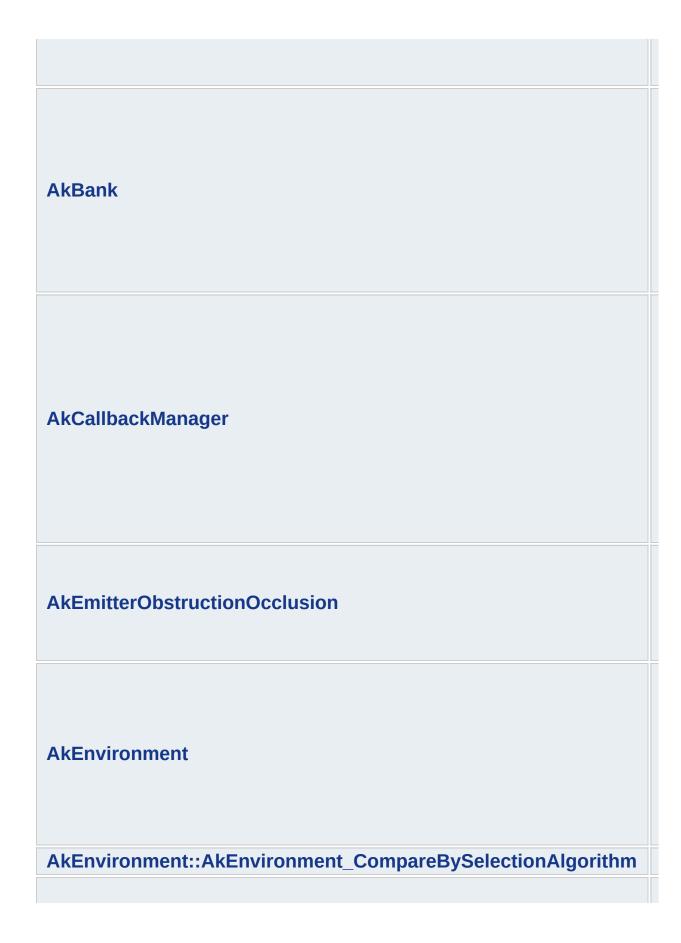


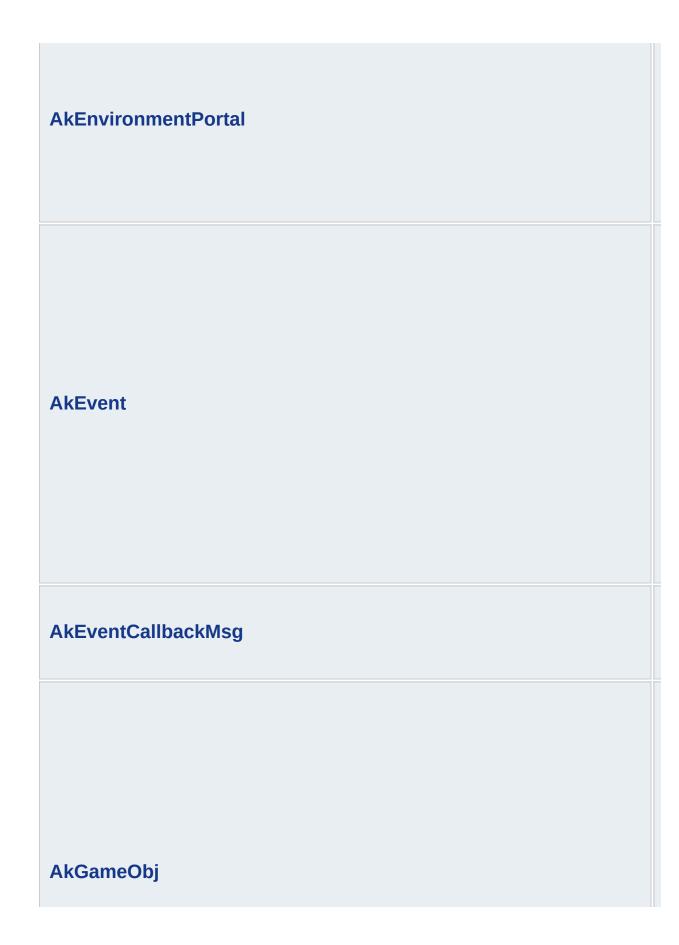
AK::Wwise::AcousticTexture
AK::Wwise::AuxBus
AK::Wwise::Bank
AK::Wwise::BaseGroupType
AK::Wwise::BaseType
AK::Wwise::CallbackFlags
AK::Wwise::Event
AK::Wwise::RTPC
AK::Wwise::State
AK::Wwise::Switch

AK::Wwise::Trigger

AkAmbient

AkAudioListener





AkInitializer

AkMemBankLoader

AkRoom

AkRoomPortal

AkRoomPortalObstruction

AkSpatialAudioEmitter

AkSpatialAudioListener

AkState	
AkSurfaceReflector	
AkSwitch	
AkTerminator	
AkTriggerBase	

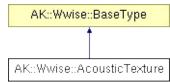


AK::Wwise::AcousticTexture

AK::Wwise::AcousticTexture

This type represents an Acoustic Texture. ...

AK::Wwise::AcousticTexture



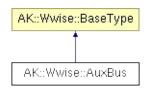
This type represents an Acoustic Texture.



AK::Wwise::AuxBus

This type represents an auxiliary send in the Master-Mixer Hierarchy. ...

AK::Wwise::AuxBus



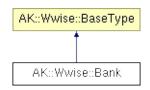
This type represents an auxiliary send in the Master-Mixer Hierarchy.



AK::Wwise::Bank

This type can be used to load/unload SoundBanks. ...

AK::Wwise::Bank



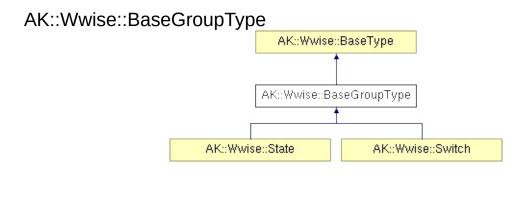
This type can be used to load/unload SoundBanks.



AK::Wwise::BaseGroupType

AK::Wwise::BaseGroupType

This type represents the base for all Wwise Types that also require a group GUID, such as **State** and **Switch**. ...



This type represents the base for all Wwise Types that also require a group GUID, such as **State** and **Switch**.



AK::Wwise::BaseType

AK::Wwise::BaseType

This type represents the base for all Wwise Types that require a GUID. \ldots

AK::Wwise::BaseType		
	AK::Wwise::BaseType	
	†	
AK::Wwise::AcousticTexture AK::Wwise::AuxBus AK	K::Wwise::Bank AK::Wwise::BaseGroupType AK::Wwise::Event	AK::Wwise::RTPC AK::Wwise::Trigger
	AK::Wwise::State AK::Wwise::Switch	

This type represents the base for all Wwise Types that require a GUID.



AK::Wwise::CallbackFlags

AK::Wwise::CallbackFlags

This type represents the values of the flags used when posting an $\ensuremath{\text{Event}}$ with a callback. ...

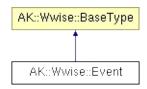
This type represents the values of the flags used when posting an **Event** with a callback.



AK::Wwise::Event

This type can be used to post Events to the sound engine. ...

AK::Wwise::Event



	Poet (CamaObject comeObject)
unt	Post (GameObject gameObject)
	Posts this Event on a GameObject.
uint	Post (GameObject gameObject, CallbackFlags flags, AkCallbackManager.EventCallback callback, object cookie=null)
	Posts this Event on a GameObject.
uint	Post (GameObject gameObject, uint flags, AkCallbackManager.EventCallback callback, object cookie=null)
	Posts this Event on a GameObject.
void	ExecuteAction (GameObject gameObject, AkActionOnEventType actionOnEventType, int transitionDuration, AkCurveInterpolation curveInterpolation)
	Executes various actions on this event associated with a GameObject.
void	PostMIDI (GameObject gameObject, AkMIDIPostArray array)
	Posts MIDI Events on this Event associated with a GameObject.
void	PostMIDI (GameObject gameObject, AkMIDIPostArray array, int count)
	Posts MIDI Events on this Event associated with a GameObject.
void	StopMIDI (GameObject gameObject)
	Stops MIDI Events on this Event associated with a GameObject.
void	StopMIDI ()
	Stops all MIDI Events on this Event .

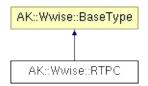
This type can be used to post Events to the sound engine.



AK::Wwise::RTPC

This type can be used to set game parameter values to the sound engine. ...

AK::Wwise::RTPC



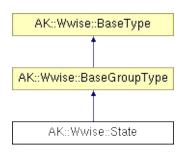
This type can be used to set game parameter values to the sound engine.



AK::Wwise::State

This type can be used to set Wwise States. ...

AK::Wwise::State



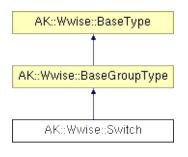
This type can be used to set Wwise States.



AK::Wwise::Switch

This type can be used to set Switch values on gameobjects. ...

AK::Wwise::Switch



This type can be used to set **Switch** values on gameobjects.

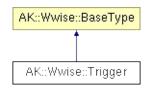


AK::Wwise::Trigger

AK::Wwise::Trigger

This type can be used to post triggers to the sound engine. ...

AK::Wwise::Trigger



This type can be used to post triggers to the sound engine.



AkAmbient

Use this component to attach a Wwise Event to any object in a scene. The sound can be started at various moments, dependent on the selected Unity trigger. This component is more useful for ambient sounds (sounds related to scene-bound objects) but could also be used for other purposes. Since **AkAmbient** has **AkEvent** as its base class, it features the play/stop, play multiple, stop multiple and stop all buttons for previewing the associated Wwise event. ...

AkAmbient

AkE	vent
AkAn	nbient

int	eventID = 0
	ID of the Event as found in the WwiseID.cs file.
GameObject	soundEmitterObject = null
	Game object onto which the Event will be posted By default, when empty, it is posted on the same object on which the component was added.
bool	enableActionOnEvent = false
	Enables additional options to reuse existing events. Use it to transform a Play event into a St event without having to define one in the Wwise Project.
AkActionOnEventType	<pre>actionOnEventType = AkActionOnEventType.AkActionOnEventType_S</pre>
	Replacement action. See
	AK::SoundEngine::ExecuteEventOnAction().
AkCurveInterpolation	curveInterpolation = AkCurveInterpolation.AkCurveInterpolation_Line Fade curve to use with the new Action. See AK::SoundEngine::ExecuteEventOnAction().
float	transitionDuration = 0.0f
	Duration of the fade. See
	AK::SoundEngine::ExecuteEventOnAction().
const int	MAX_NB_TRIGGERS = 32
	Since our mask is a 32 bits integer, we can't hav more than 32 triggers.
List< int >	<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
	List containing the enabled triggers.
bool	useOtherObject = false
	This property is usefull only when used with colliders. When enabled, the target of the action

will be the other colliding object. When disabled, will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

Use this component to attach a Wwise Event to any object in a scene. The sound can be started at various moments, dependent on the selected Unity trigger. This component is more useful for ambient sounds (sounds related to scene-bound objects) but could also be used for other purposes. Since **AkAmbient** has **AkEvent** as its base class, it features the play/stop, play multiple, stop multiple and stop all buttons for previewing the associated Wwise event.

- :
- inspector AkAmbient
- AkGameObj
- AkEvent
- Integration Details Events (Note: This is described in the Wwise SDK documentation.)



AkAudioListener

Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's. ... Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's.

2

• Integrating Listeners (Note: This is described in the Wwise SDK documentation.)



AkBank

Loads and unloads a SoundBank at a specified moment. Vorbis sounds can be decompressed at a specified moment using the decode compressed data option. In that case, the SoundBank will be prepared.

AkUnityEventHandler

override void	HandleEvent (GameObject in_gameObject)
	Loads the SoundBank.
void	UnloadBank (GameObject in_gameObject)

string	bankName = ""
	Name of the SoundBank, as specified in the Wwise project.
bool	loadAsynchronous = false
	Check this to load the SoundBank in the background. Be careful, if Events are triggered and the SoundBank hasn't finished loading, you'll have "Event not found" errors.
bool	decodeBank = false
	Decode this SoundBank upon load.
bool	saveDecodedBank = false
	Save the decoded SoundBank to disk for faster loads in the future.
List< int >	<pre>unloadTriggerList = new List<int>() {AkUnityEventHandler.DESTROY_TRIGGER_ID }</int></pre>
	Reserved.
const int	MAX_NB_TRIGGERS = 32
	Since our mask is a 32 bits integer, we can't have more than 32 triggers.
List< int >	<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
	List containing the enabled triggers.
bool	useOtherObject = false
	This property is usefull only when used with colliders. When enabled, the target of the action will be the other colliding object. When disabled, it will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

Loads and unloads a SoundBank at a specified moment. Vorbis sounds can be decompressed at a specified moment using the decode compressed data option. In that case, the SoundBank will be prepared.



AkCallbackManager

This class manages the callback queue. All callbacks from the native Wwise SDK go through this queue. The queue needs to be driven by regular calls to **PostCallbacks()**. This is currently done in AkInitializer.cs, in LateUpdate(). ...

static void	SetMonitoringCallback (AkMonitorErrorLevel in_Level, MonitoringCallback in_CB)
	Call this to set a function to call whenever Wwise prints a message (warnings or errors).
static void	SetBGMCallback (BGMCallback in_CB, object in_cookie)
static int	PostCallbacks ()

This class manages the callback queue. All callbacks from the native Wwise SDK go through this queue. The queue needs to be driven by regular calls to **PostCallbacks()**. This is currently done in AkInitializer.cs, in LateUpdate().





AkEmitterObstructionOcclusion

Obstructs/Occludes the emitter of the current game object from its listeners if at least one object is between them. ...

AkObstructionOcclusion

LayerMask	LayerMask = -1
	Indicates which layers act as obstructers/occluders.
float	refreshInterval = 1
	The number of seconds between obstruction/occlusion checks.
float	fadeTime = 0.5f
	The number of seconds for fade ins and fade outs.
float	maxDistance = -1.0f
	The maximum distance at which to perform obstruction/occlusion. A negative value will be interpreted as inifinite distance.

Obstructs/Occludes the emitter of the current game object from its listeners if at least one object is between them.

The current implementation does not support occlusion.



AkEnvironment

Use this component to define a reverb zone. This needs to be added to a collider object to work properly. inspector AkEvironment AkEvironmentPortal

class AkEnvironment_CompareBySelectionAlgorithm

Use this component to define a reverb zone. This needs to be added to a collider object to work properly. **inspector AkEvironment AkEvironmentPortal**

This component can be attached to any collider. You can specify a roll-off to fade-in/out of the reverb. The reverb parameters will be defined in the Wwise project, by the sound designer. All **AkGameObj** that are "environment"-aware will receive a send value when entering the attached collider.

:

- inspector AkEvironment AkEvironmentPortal
- Integrating Environments and Game-defined Auxiliary Sends (Note: This is described in the Wwise SDK documentation.)
- AK::SoundEngine::SetGameObjectAuxSendValues (Note: This is described in the Wwise SDK documentation.)



AkEnvironment::AkEnvironment_CompareBySel

AkEnvironment::AkEnvironment_CompareByPriority

The selection algorithm is as follow:

- 1. Environments have priorities.
- 2. Environments have a "Default" flag. This flag effectively says that this environment will be bumped out if any other is present.
- 3. Environments have an "Exclude Other" flag. This flag will tell that this env is not overlappable with others. So, only one (the highest priority) should be selected.



AkEnvironmentPortal

. . . .

Use this component to define an area that straddles two different AkEnvironments zones and allow mixing between both zones. **inspector AkEvironment AkEvironmentPortal**

float GetAuxSendValueForPosition (Vector3 in_position, int index) The axis used to find the contribution of each environment. Vector3 **axis** = new Vector3(1,0,0)

Use this component to define an area that straddles two different AkEnvironments zones and allow mixing between both zones. inspector AkEvironment AkEvironmentPortal

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.



AkEvent

Helper class that knows a Wwise Event and when to trigger it in Unity. As of 2017.2.0, the **AkEvent** inspector has buttons for play/stop, play multiple, stop multiple, and stop all. Play/Stop will play or stop the event such that it can be previewed both in edit mode and play mode. When multiple objects are selected, Play Multiple and Stop Multiple will play or stop the associated **AkEvent** for each object. ...

AkEvent



int	eventID = 0
	ID of the Event as found in the WwiseID.cs file.
GameObject	soundEmitterObject = null
	Game object onto which the Event will be posted By default, when empty, it is posted on the same object on which the component was added.
bool	enableActionOnEvent = false
	Enables additional options to reuse existing events. Use it to transform a Play event into a St event without having to define one in the Wwise Project.
AkActionOnEventType	<pre>actionOnEventType = AkActionOnEventType.AkActionOnEventType_S</pre>
	Replacement action. See
	AK::SoundEngine::ExecuteEventOnAction().
AkCurveInterpolation	curveInterpolation = AkCurveInterpolation.AkCurveInterpolation_Line Fade curve to use with the new Action. See AK::SoundEngine::ExecuteEventOnAction().
float	transitionDuration = 0.0f
	Duration of the fade. See
	AK::SoundEngine::ExecuteEventOnAction().
const int	MAX_NB_TRIGGERS = 32
	Since our mask is a 32 bits integer, we can't hav more than 32 triggers.
List< int >	<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
	List containing the enabled triggers.
bool	useOtherObject = false
	This property is usefull only when used with colliders. When enabled, the target of the action

will be the other colliding object. When disabled, will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

Helper class that knows a Wwise Event and when to trigger it in Unity. As of 2017.2.0, the **AkEvent** inspector has buttons for play/stop, play multiple, stop multiple, and stop all. Play/Stop will play or stop the event such that it can be previewed both in edit mode and play mode. When multiple objects are selected, Play Multiple and Stop Multiple will play or stop the associated **AkEvent** for each object.

:

- Edit Mode Support
- inspector AkAmbient
- Integration Details Events (Note: This is described in the Wwise SDK documentation.)



AkEventCallbackMsg

Event callback information. Event callback functions can receive this structure as a parameter. ...

GameObject	sender
	AkSoundEngine.PostEvent callback flags. See the AkCallbackType enumeration for a list of all callbacks.
AkCallbackInfo	info
	GameObject from whom the callback function was called.

Event callback information. Event callback functions can receive this structure as a parameter.



AkGameObj

This component represents a sound object in your scene tracking its position and other game syncs such as Switches, RTPC and environment values. You can add this to any object that will emit sound, and it will be added to any object that an **AkAudioListener** is attached to. Note that if it is not present, Wwise will add it automatically, with the default values, to any Unity Game Object that is passed to Wwise. ...

bool	AddListener (AkAudioListener listener)
	Adds an AkAudioListener to the container of listeners listening to this gameobject.
bool	RemoveListener (AkAudioListener listener)
	Removes an AkAudioListener from the container of listeners listening to this gameobject.
virtual Vector3	GetPosition ()
virtual Vector3	GetForward ()
virtual Vector3	GetUpward ()

AkGameObjPositionOffsetData	m_positionOffsetData = null
	When not set to null, the position will be offset relative to the Game Object position by the Position Offset.
bool	isEnvironmentAware = true
	Is this object affected by Environment changes? Set to false if not affected in order to save some useless calls. Default is true.

This component represents a sound object in your scene tracking its position and other game syncs such as Switches, RTPC and environment values. You can add this to any object that will emit sound, and it will be added to any object that an **AkAudioListener** is attached to. Note that if it is not present, Wwise will add it automatically, with the default values, to any Unity Game Object that is passed to Wwise.

:

- Integration Details Game Objects (Note: This is described in the Wwise SDK documentation.)
- Integration Details Events (Note: This is described in the Wwise SDK documentation.)
- Integrating Listeners (Note: This is described in the Wwise SDK documentation.)
- Integration Details Switches (Note: This is described in the Wwise SDK documentation.)
- Integration Details States (Note: This is described in the Wwise SDK documentation.)
- Integration Details Environments and Game-defined Auxiliary Sends (Note: This is described in the Wwise SDK documentation.)



AkInitializer

string basePath = AkSoundEngineController.s_DefaultBas Path for the soundbanks. This must contain one sub per platform, with the same as in the Wwise project. string language = AkSoundEngineController.s_Language Language sub-folder. defaultPoolSize = AkSoundEngineController.s_DefaultPoolSize Default Pool size. This contains the meta data for yo project. Default Pool size is 4 MB, but you should adjust fn needs. int lowerPoolSize = AkSoundEngineController.s_Lowe Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a for your needs. int streamingPoolSize = AkSoundEngineController.s_StreamingPoolSize Streaming Pool size. This contains the streaming bu Default size is 1 MB, but you should adjust for your n Default size is 1 MB, but you should adjust for your n preparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs. float memoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThresholk This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed. int monitorPoolSize = <th></th> <th></th>		
Language sub-folder. int defaultPoolSize = AkSoundEngineController.s_DefaultPoolSize Default Pool size. This contains the meta data for yo project. Default size is 4 MB, but you should adjust fr needs. int lowerPoolSize = AkSoundEngineController.s_Lowe Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a for your needs. int streamingPoolSize = AkSoundEngineController.s_StreamingPoolSize Streaming Pool size. This contains the streaming bu Default size is 1 MB, but you should adjust for your r Default size is 1 MB, but you should adjust for your r int preparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Defis 0 MB, but you should adjust for your needs. float memoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThresholt This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed. int monitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the	string	Path for the soundbanks. This must contain one sub
IntAkSoundEngineController.s_DefaultPoolSizeDefault Pool size. This contains the meta data for yo project. Default size is 4 MB, but you should adjust fr needs.intIowerPoolSize = AkSoundEngineController.s_Lowe Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a for your needs.intstreamingPoolSize = AkSoundEngineController.s_StreamingPoolSize Streaming Pool size. This contains the streaming bu Default size is 1 MB, but you should adjust for your r Default size is 1 MB, but you should adjust for your rintpreparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThresholk This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	string	
project. Default size is 4 MB, but you should adjust fr needs.intlowerPoolSize = AkSoundEngineController.s_Lowe Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a for your needs.intstreamingPoolSize = AkSoundEngineController.s_StreamingPoolSize Streaming Pool size. This contains the streaming bu Default size is 1 MB, but you should adjust for your r Default size is 1 MB, but you should adjust for your r PreparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThresholt This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	int	AkSoundEngineController.s_DefaultPoolSize
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Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a for your needs.intstreamingPoolSize = AkSoundEngineController.s_StreamingPoolSize Streaming Pool size. This contains the streaming bur Default size is 1 MB, but you should adjust for your rintpreparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThreshold This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	int	IowerPoolSize = AkSoundEngineController.s Lowe
IIIIAkSoundEngineController.s_StreamingPoolSizeStreaming Pool size. This contains the streaming bu Default size is 1 MB, but you should adjust for your rintpreparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThresholt This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte		Lower Pool size. This contains the audio processing and DSP data. Default size is 2 MB, but you should a
Default size is 1 MB, but you should adjust for your rintpreparePoolSize = AkSoundEngineController.s_PreparePoolSize Prepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Defis 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThreshold This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	int	
IntAkSoundEngineController.s_PreparePoolSizePrepare Pool size. This contains the banks loaded u PrepareBank (Banks decoded on load use this). Def is 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThreshold This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte		
PrepareBank (Banks decoded on load use this). Defis 0 MB, but you should adjust for your needs.floatmemoryCutoffThreshold = AkSoundEngineController.s_MemoryCutoffThreshold This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed.intmonitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	int	
Itoat AkSoundEngineController.s_MemoryCutoffThreshold This setting will trigger the killing of sounds when the memory is reaching 95% of capacity. Lowest priority are killed. int monitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte		PrepareBank (Banks decoded on load use this). Def
memory is reaching 95% of capacity. Lowest priority are killed. int monitorPoolSize = AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte	float	
AkSoundEngineController.s_MonitorPoolSize Monitor Pool size. Size of the monitoring pool, in byte		memory is reaching 95% of capacity. Lowest priority
	int	AkSoundEngineController.s_MonitorPoolSize

int	<pre>monitorQueuePoolSize = AkSoundEngineController.s_MonitorQueuePoolSize Monitor Queue Pool size. Size of the monitoring que in bytes. This parameter is not used in Release build</pre>
int	callbackManagerBufferSize = AkSoundEngineController.s_CallbackManagerBuffer CallbackManager buffer size. The size of the buffer u per-frame to transfer callback data. Default size is 4
	you should increase this, if required.
int	<pre>spatialAudioPoolSize = AkSoundEngineController.s_SpatialAudioPoolSize</pre>
	Spatial Audio Lower Pool size. Default size is 4 MB, should adjust for your needs.
uint	<pre>maxSoundPropagationDepth = AkSoundEngine.AK_MAX_SOUND_PROPAGATION</pre>
	Spatial Audio Max Sound Propagation Depth. Maxim number of rooms that sound can propagate through; less than or equal to AK_MAX_SOUND_PROPAGATION_DEPTH.
AkDiffractionFlags	number of rooms that sound can propagate through; less than or equal to AK_MAX_SOUND_PROPAGATION_DEPTH. diffractionFlags = AkDiffractionFlags.DefaultDiffract
AkDiffractionFlags	number of rooms that sound can propagate through; less than or equal to AK_MAX_SOUND_PROPAGATION_DEPTH.
AkDiffractionFlags bool	number of rooms that sound can propagate through; less than or equal to AK_MAX_SOUND_PROPAGATION_DEPTH. diffractionFlags = AkDiffractionFlags.DefaultDiffract Enable or disable specific diffraction features. See

This script deals with initialization, and frame updates of the Wwise audio engine. It is marked as DontDestroyOnLoad so it stays active for the life of the game, not only one scene. You can, and probably should, modify this script to change the initialization parameters for the sound engine. A few are already exposed in the property inspector. It must be present on one Game Object at the beginning of the game to initialize the audio properly. It must be executed BEFORE any other MonoBehaviors that use AkSoundEngine.

- Initialize the Different Modules of the Sound Engine (Note: This is described in the Wwise SDK documentation.)
- AK::SoundEngine::Init() (Note: This is described in the Wwise SDK documentation.)
- AK::SoundEngine::Term() (Note: This is described in the Wwise SDK documentation.)
- AkCallbackManager



AkMemBankLoader

- void LoadNonLocalizedBank (string in_bankFilename) Load a sound bank from WWW object.
- void LoadLocalizedBank (string in_bankFilename) Load a language-specific bank from WWW object.

string	bankName = ""
	Name of the bank to load.
bool	isLocalizedBank = false
	Is the bank localized (situated in the language specific folders).

This class is an example of how to load banks in Wwise, if the bank data was preloaded in memory. This would be useful for situations where you use the WWW class



AkRoom

An **AkRoom** is an enclosed environment that can only communicate to the outside/other rooms with AkRoomPortals. ...

ulong	GetID ()
	Access the room's ID.

AK.Wwise.AuxBus	reverbAuxBus
	The reverb auxiliary bus.
float	reverbLevel = 1
	The reverb control value for the send to the reverb aux bus.
float	wallOcclusion = 1
	Occlusion level modeling transmission through walls.
int	priority = 0

An **AkRoom** is an enclosed environment that can only communicate to the outside/other rooms with AkRoomPortals.



AkRoomPortal

An AkRoomPortal can connect two AkRoom components together. ...

AkUnityEventHandler

ulong	GetID ()
	Access the portal's ID.
override void	HandleEvent (GameObject in_gameObject)
	Opens the portal on trigger event.
void	ClosePortal (GameObject in_gameObject)
	Closes the portal on trigger event.

MAX_ROOMS_PER_PORTAL = 2
AkRoomPortals can only connect a maximum of 2 rooms.
rooms = new AkRoom[MAX_ROOMS_PER_PORTAL]
MAX_NB_TRIGGERS = 32
Since our mask is a 32 bits integer, we can't have more than 32 triggers.
<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
List containing the enabled triggers.
useOtherObject = false
This property is usefull only when used with colliders. When enabled, the target of the action will be the other colliding object. When disabled, it will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

An AkRoomPortal can connect two AkRoom components together.



AkRoomPortalObstruction

Obstructs/Occludes the spatial audio portal of the current game object from the spatial audio listener if at least one object is between them. ...

AkObstructionOcclusion

LayerMask	LayerMask = -1
	Indicates which layers act as obstructers/occluders.
float	refreshInterval = 1
	The number of seconds between obstruction/occlusion checks.
float	fadeTime = 0.5f
	The number of seconds for fade ins and fade outs.
float	maxDistance = -1.0f
	The maximum distance at which to perform obstruction/occlusion. A negative value will be interpreted as inifinite distance.

Obstructs/Occludes the spatial audio portal of the current game object from the spatial audio listener if at least one object is between them.

If no spatial audio listener has been registered, there will be no obstruction.

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AkSpatialAudioEmitter

Add this script on the GameObject which represents an emitter that uses the Spatial Audio API. ...

AkSpatialAudioBase

	vofloot A. w. Duo
AK.Wwise.AuxBus	reflectAuxBus
	The Auxiliary Bus with a Reflect plug-in Effect
	applied.
	• •
unt	reflectionsOrder = 1
float	reflectionsAuxBusGain = 1
	The gain [0, 1] applied to the reflect auxiliary bus.
float	reflectionMaxPathLength = 1000
	A heuristic to stop the computation of reflections.
	Should be no longer (and possibly shorter for
	less CPU usage) than the maximum attenuation
	of the sound emitter.
float	roomReverbAuxBusGain = 1
	Send gain (0.f-1.f) that is applied when sending
	to the aux bus associated with the room that the
	emitter is in.

Add this script on the GameObject which represents an emitter that uses the Spatial Audio API.



AkSpatialAudioListener

Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's. ...

AkSpatialAudioBase

Add this script on the game object that represent a listener. This is normally added to the Camera object or the Player object, but can be added to any game object when implementing 3D busses. isDefaultListener determines whether the game object will be considered a default listener - a listener that automatically listens to all game objects that do not have listeners attached to their AkGameObjListenerList's.

2

• Integrating Listeners (Note: This is described in the Wwise SDK documentation.)



AkState

This will call AksoundEngine.SetState() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it. ...

AkUnityEventHandler

int	groupID
	State Group ID, as defined in WwiseID.cs.
int	valueID
	State Value ID, as defined in WwiseID.cs.
const int	MAX_NB_TRIGGERS = 32
	Since our mask is a 32 bits integer, we can't have more than 32 triggers.
List< int >	<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
	List containing the enabled triggers.
bool	useOtherObject = false
	This property is usefull only when used with colliders. When enabled, the target of the action will be the other colliding object. When disabled, it will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

This will call AkSoundEngine.SetState() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it.

- :
- Integration Details States (Note: This is described in the Wwise SDK documentation.)



AkSurfaceReflector

This component will convert the triangles of the GameObject's geometry into sound reflective surfaces. ...

static void	AddGeometrySet (AK.Wwise.AcousticTexture acousticTexture, MeshFilter meshFilter)
	Sends the mesh filter's triangles and their acoustic texture to Spatial Audio.
static void	RemoveGeometrySet (MeshFilter meshFilter)
	Remove the corresponding mesh filter's geometry from

AK.Wwise.AcousticTexture	AcousticTexture
	All triangles of the component's mesh will be applied with this texture. The texture will change the filter parameters of the sound reflected from this component.

This component will convert the triangles of the GameObject's geometry into sound reflective surfaces.

This component requires a Mesh Filter component. The triangles of the mesh will be sent to the Spatial Audio wrapper by calling SpatialAudio::AddGeometrySet(). The triangles will reflect the sound emitted from AkSpatialAudioEmitter components.

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AkSwitch

This will call AkSoundEngine.SetSwitch() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it. ...

AkUnityEventHandler

int	groupID
	Switch Group ID, as defined in WwiseID.cs.
int	valueID
	Switch Value ID, as defined in WwiseID.cs.
const int	MAX_NB_TRIGGERS = 32
	Since our mask is a 32 bits integer, we can't have more than 32 triggers.
List< int >	<pre>triggerList = new List<int>() { START_TRIGGER_ID }</int></pre>
	List containing the enabled triggers.
bool	useOtherObject = false
	This property is usefull only when used with colliders. When enabled, the target of the action will be the other colliding object. When disabled, it will be the current object.

static Dictionary< uint, string >	triggerTypes = AkTriggerBase.GetAllDerivedTypes ()
	Will contain the types of all the triggers derived from AkTriggerBase at runtime.

This will call AksoundEngine.SetSwitch() whenever the selected Unity event is triggered. For example this component could be set on a Unity collider to trigger when an object enters it.

:

• Integration Details - Switches (Note: This is described in the Wwise SDK documentation.)



AkTerminator

This script deals with termination of the Wwise audio engine. It must be present on one Game Object that gets destroyed last in the game. It must be executed AFTER any other monoBehaviors that use AkSoundEngine.

:

- Terminate the Different Modules of the Sound Engine (Note: This is described in the Wwise SDK documentation.)
- AK::SoundEngine::Term() (Note: This is described in the Wwise SDK documentation.)



AkTriggerBase

AkTriggerCollisionEnterAkTriggerCollisionExitAkTriggerDisable AkTriggerEnableAkTriggerEnterAkTriggerExit AkTriggerMouseDownAkTriggerMouseEnterAkTriggerMouseExit AkTriggerMouseUp.

delegate void	Trigger (GameObject in_gameObject)		
	Delegate declaration for all Wwise Triggers.		

Trigger triggerDelegate = null

All components reacting to the trigger will be registered in this delegate.

Base class for the generic triggering mechanism for Wwise Integration. All Wwise components will use this mechanism to drive their behavior. Derive from this class to add your own triggering condition, as decribed in **Wwise Events Trigger**



- AK::Wwise::BaseType
 - AK::Wwise::AcousticTexture
 - AK::Wwise::AuxBus
 - AK::Wwise::Bank
 - AK::Wwise::BaseGroupType
 - AK::Wwise::State
 - AK::Wwise::Switch
 - AK::Wwise::Event
 - AK::Wwise::RTPC
 - AK::Wwise::Trigger
- AK::Wwise::CallbackFlags
- AkAudioListener
- AkBank
- AkCallbackManager
- AkEmitterObstructionOcclusion
- AkEnvironment
- AkEnvironment::AkEnvironment_CompareBySelectionAlgorithm
- AkEnvironmentPortal
- AkEvent
 - AkAmbient
- AkEventCallbackMsg
- AkGameObj
- AkInitializer
- AkMemBankLoader
- AkRoom
- AkRoomPortal
- AkRoomPortalObstruction
- AkSpatialAudioEmitter
- AkSpatialAudioListener
- AkState
- AkSurfaceReflector
- AkSwitch
- AkTerminator
- AkTriggerBase





- a -

- AcousticTexture : AkSurfaceReflector
- actionOnEventType : AkEvent
- AddGeometrySet() : AkSurfaceReflector
- AddListener() : AkGameObj
- axis : AkEnvironmentPortal

- b -

- bankName : AkBank , AkMemBankLoader
- basePath : AkInitializer

- C -

- callbackManagerBufferSize : AkInitializer
- ClosePortal() : AkRoomPortal
- curveInterpolation : AkEvent

- d -

- decodeBank : AkBank
- defaultPoolSize : AkInitializer
- diffractionFlags : AkInitializer

- e -

- enableActionOnEvent : AkEvent
- engineLogging : AkInitializer
- eventID : AkEvent

• ExecuteAction() : AK::Wwise::Event

- g -

- GetAuxSendValueForPosition() : AkEnvironmentPortal
- GetForward() : AkGameObj
- GetID() : AkRoomPortal , AkRoom
- GetPosition(): AkGameObj
- GetUpward() : AkGameObj
- groupID : AkSwitch , AkState

- h -

• HandleEvent() : AkBank , AkRoomPortal

- İ -

- info : AkEventCallbackMsg
- isEnvironmentAware : AkGameObj
- isLocalizedBank : AkMemBankLoader

- / -

- language : AkInitializer
- loadAsynchronous : AkBank
- LoadLocalizedBank() : AkMemBankLoader
- LoadNonLocalizedBank() : AkMemBankLoader
- lowerPoolSize : AkInitializer

- *m* -

- m_positionOffsetData : AkGameObj
- MAX_ROOMS_PER_PORTAL : AkRoomPortal
- maxSoundPropagationDepth : AkInitializer
- memoryCutoffThreshold : AkInitializer
- monitorPoolSize : AkInitializer
- monitorQueuePoolSize : AkInitializer

- *p* -

- Post(): AK::Wwise::Event
- PostCallbacks(): AkCallbackManager
- PostMIDI() : AK::Wwise::Event
- preparePoolSize : AkInitializer
- priority : AkRoom

- r -

- reflectAuxBus : AkSpatialAudioEmitter
- reflectionMaxPathLength : AkSpatialAudioEmitter
- reflectionsAuxBusGain : AkSpatialAudioEmitter
- reflectionsOrder : AkSpatialAudioEmitter
- RemoveGeometrySet() : AkSurfaceReflector
- RemoveListener(): AkGameObj
- reverbAuxBus : AkRoom
- reverbLevel : AkRoom
- roomReverbAuxBusGain : AkSpatialAudioEmitter
- rooms : AkRoomPortal

- S -

- saveDecodedBank : AkBank
- sender : AkEventCallbackMsg
- SetBGMCallback(): AkCallbackManager
- SetMonitoringCallback() : AkCallbackManager
- soundEmitterObject : AkEvent
- spatialAudioPoolSize : AkInitializer
- StopMIDI(): AK::Wwise::Event
- streamingPoolSize : AkInitializer

- *t* -

- transitionDuration : AkEvent
- Trigger() : AkTriggerBase
- triggerDelegate : AkTriggerBase

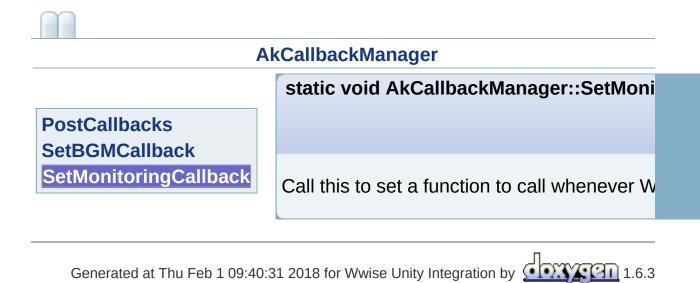
- U -

- UnloadBank() : AkBank
- unloadTriggerList : AkBank
- V -
 - valueID : AkState , AkSwitch
- W -
 - wallOcclusion : AkRoom

AK::Wwise::Event				
ExecuteAction	uint AK::Wwise::Event::Post (GameObject game			
Post	Posts this Event on a GameObject.			
Post				
Post				
PostMIDI	gameObject The GameObject			
PostMIDI	:			
StopMIDI	Returns the playing ID.			
StopMIDI				

AK::Wwise::Event				
ExecuteAction Post	void AK::Wwise::Event::PostMIDI (GameObject AkMIDIPostAr)			
Post Post PostMIDI	Posts MIDI Events on this Event associated with a G			
PostMIDI StopMIDI StopMIDI	: gameObject The GameObject array The array of AkMIDIPost that are p			

AkInitializer					
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize	string AkInitializer::basePath = Ak Path for the soundbanks. This must co same as in the Wwise project.				
streamingPoolSize					



AkMemBankLoader bankName isLocalizedBank LoadLocalizedBank LoadNonLocalizedBank





A|B|C|E|R|S|T

Α

Δ



Α

AcousticTexture (AK::Wwise)

AkAmbient

AkAudioListener

AkBank

AkCallbackManager

AkEmitterObstructionOcclusion

AkEnvironment

AkEnvironment::AkEnvironment_CompareBySelectionAlgorithm

A | B | C | E | R | S | T





AK::Wwise::AcousticTexture

AK::Wwise::AcousticTexture



AK::Wwise::AuxBus

AK::Wwise::AuxBus



AK::Wwise::Bank

AK::Wwise::Bank



AK::Wwise::BaseGroupType

AK::Wwise::BaseGroupType



AK::Wwise::BaseType

AK::Wwise::BaseType



AK::Wwise::CallbackFlags

AK::Wwise::CallbackFlags



AK::Wwise::Event

AK::Wwise::Event	
ExecuteAction (GameObject gameObject, AkActionOnEventType actionOnEventType, int transitionDuration, AkCurveInterpolation curveInterpolation)	AK::Wwise::Event [inline]
Post(GameObject gameObject)	AK::Wwise::Event [inline]
Post (GameObject gameObject, CallbackFlags flags, AkCallbackManager.EventCallback callback, object cookie=null)	AK::Wwise::Event [inline]
Post (GameObject gameObject, uint flags, AkCallbackManager.EventCallback callback, object cookie=null)	AK::Wwise::Event [inline]
PostMIDI(GameObject gameObject, AkMIDIPostArray array)	AK::Wwise::Event [inline]
PostMIDI (GameObject gameObject, AkMIDIPostArray array, int count)	AK::Wwise::Event [inline]
StopMIDI(GameObject gameObject)	AK::Wwise::Event [inline]
StopMIDI()	AK::Wwise::Event [inline]

AK::Wwise::Event		
	uint AK::Wwise::Event::Post (GameObject CallbackFlags AkCallbackManage object	
ExecuteAction Post Post PostMIDI PostMIDI StopMIDI StopMIDI	Posts this Event on a GameObject. : gameObject The GameObject flags callback cookie Optional cookie received by the ca : Returns the playing ID.	
	Returns the playing ID.	

AK::Wwise::Event		
ExecuteAction	uint AK::Wwise::Event::Post (GameObject uint AkCallbackManage object)	
ExecuteAction Post Post PostMIDI PostMIDI StopMIDI StopMIDI	Posts this Event on a GameObject. : gameObject The GameObject flags callback cookie Optional cookie received by the ca : Returns the playing ID.	

AK::Wwise::Event		
ExecuteAction	void AK::Wwise::Event::ExecuteAction (GameOk AkAction int AkCurve	
Post Post Post PostMIDI PostMIDI StopMIDI StopMIDI) Executes various actions on this event associated with : gameObject The GameObject actionOnEventType transitionDuration curveInterpolation	

	AK::Wwise::Event		
ExecuteAction Post	void AK::Wwise::Event::PostMIDI (GameObject AkMIDIPostAr int)		
Post Post PostMIDI PostMIDI StopMIDI StopMIDI	Posts MIDI Events on this Event associated with a G : gameObject The GameObject array The array of AkMIDIPost that are p count The number of elements from the a		

	AK::Wwise::Event		
ExecuteAction Post	void AK::Wwise::Event::StopMIDI (GameObject (
Post	Stops MIDI Events on this Event associated with a G		
PostMIDI PostMIDI	:		
StopMIDI	gameObject The GameObject		
StopMIDI			

AK::Wwise::Event		
ExecuteAction		
Post		
Post	<pre>void AK::Wwise::Event::StopMIDI() [inline]</pre>	
Post		
PostMIDI	Stops all MIDI Events on this Event .	
PostMIDI		
StopMIDI		
StopMIDI		



AK::Wwise::RTPC

AK::Wwise::RTPC



AK::Wwise::State

AK::Wwise::State



AK::Wwise::Switch

AK::Wwise::Switch



AK::Wwise::Trigger

AK::Wwise::Trigger



AkAmbient

AkAmbient	
actionOnEventType	AkEvent
curveInterpolation	AkEvent
enableActionOnEvent	AkEvent
eventID	AkEvent
soundEmitterObject	AkEvent
transitionDuration	AkEvent

AkEvent	
actionOnEventType curveInterpolation enableActionOnEvent eventID soundEmitterObject transitionDuration	int AkEvent::eventID = 0 ID of the Event as found in the WwiseID.cs file.

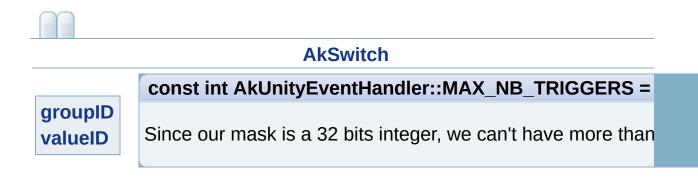
AkEvent	
actionOnEventType curveInterpolation	GameObject AkEvent::soundEmitterObjec
enableActionOnEvent eventID soundEmitterObject	Game object onto which the Event will be pos default, when empty, it is posted on the same on which the component was added.
transitionDuration	

	AkEvent	
actionOnEventType	bool AkEvent::enableActionOnEvent = fal	
curveInterpolation enableActionOnEvent	Enables additional options to reuse existing events. Use it to transform a Play event into ϵ	
eventID soundEmitterObject transitionDuration	Stop event without having to define one in the Wwise Project.	

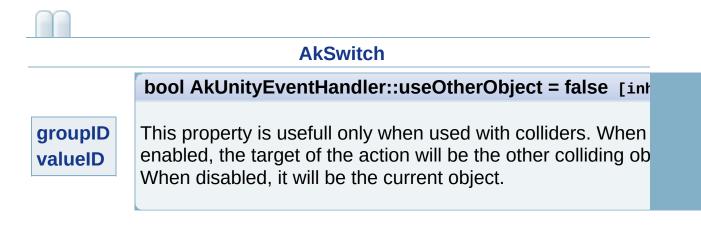
AkEvent	
actionOnEventType	
curveInterpolation	AkActionOnEventType AkEvent::actionOr
enableActionOnEvent eventID	Replacement action. See AK::SoundEngine::
soundEmitterObject	
transitionDuration	

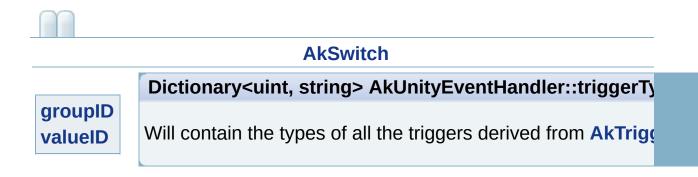
AkEvent		
actionOnEventType		
curveInterpolation	AkCurveInterpolation AkEvent::curveInter	
enableActionOnEvent eventID soundEmitterObject	Fade curve to use with the new Action. See A	
transitionDuration		

AkEvent		











AkAudioListener

AkAudioListener



AkBank

bankName AkBank decodeBank AkBank
decodeBank AkBank
HandleEvent(GameObject in_gameObject) AkBank [inline]
loadAsynchronous AkBank
saveDecodedBank AkBank
UnloadBank(GameObject in_gameObject) AkBank [inline]
unloadTriggerList AkBank

	AkBank
bankName decodeBank	
HandleEvent	override void AkBank::HandleEvent (GameO
loadAsynchronous saveDecodedBank	Loads the SoundBank.
UnloadBank unloadTriggerList	

	AkBank
bankName decodeBank	
HandleEvent	void AkBank::UnloadBank (GameObject in_
loadAsynchronous saveDecodedBank	Unloads a SoundBank.
UnloadBank unloadTriggerList	

AkBank	
bankName decodeBank HandleEvent loadAsynchronous saveDecodedBank UnloadBank unloadTriggerList	string AkBank::bankName = "" Name of the SoundBank, as specified in the Wwise project.

AkBank

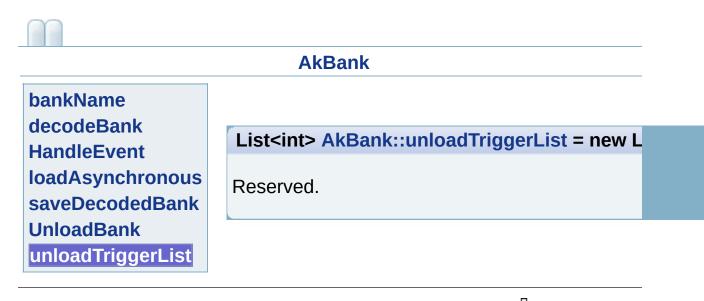
bankName decodeBank HandleEvent loadAsynchronous saveDecodedBank UnloadBank unloadTriggerList

bool AkBank::loadAsynchronous = false

Check this to load the SoundBank in the background. Be careful, if Events are triggered and the SoundBank hasn't finished loading, you'll have "Event not found" errors.

	AkBank
bankName decodeBank HandleEvent loadAsynchronous saveDecodedBank UnloadBank unloadTriggerList	bool AkBank::decodeBank = false Decode this SoundBank upon load.

	AkBank
bankName decodeBank HandleEvent	bool AkBank::saveDecodedBank = false
loadAsynchronous saveDecodedBank	Save the decoded SoundBank to disk for faster loads in the future.
UnloadBank unloadTriggerList	





AkCallbackManager

AkCallbackManager		
PostCallbacks()	AkCallbackManager	[inli stati
SetBGMCallback(BGMCallback in_CB, object in_cookie)	AkCallbackManager	0 0 0 0 0 0
SetMonitoringCallback(AkMonitorErrorLevel in_Level, MonitoringCallback in_CB)	AkCallbackManager	[inli stati



AkEmitterObstructionOcclusion

AkEmitterObstructionOcclusion

AkRoomPortalObstruction

LayerMask AkObstructionOcclusion::LayerMask = -1 [inherited]

Indicates which layers act as obstructers/occluders.

AkRoomPortalObstruction

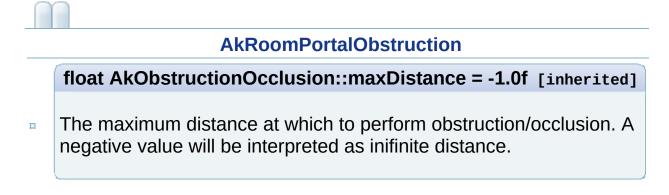
float AkObstructionOcclusion::refreshInterval = 1 [inherited]

The number of seconds between obstruction/occlusion checks.

AkRoomPortalObstruction

float AkObstructionOcclusion::fadeTime = 0.5f [inherited]

The number of seconds for fade ins and fade outs.





AkEnvironment

AkEnvironment



AkEnvironment::AkEnvironment_CompareBySel

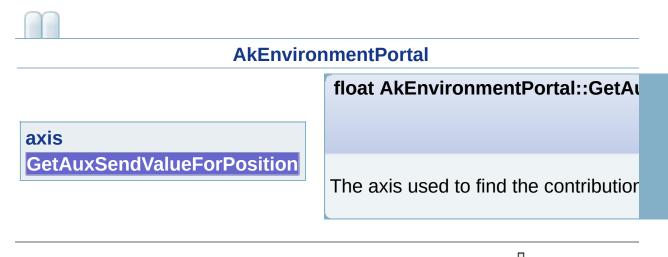
AkEnvironment::AkEnvironment_CompareBySelectionAlgorithm

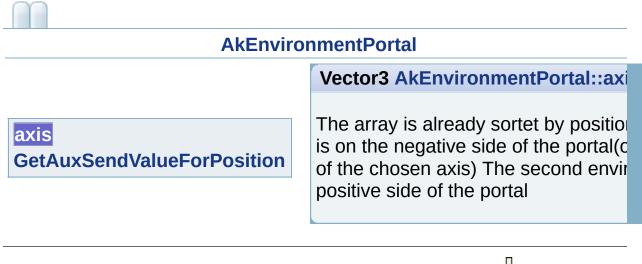


AkEnvironmentPortal

AkEnvironmentPortal

axisAkEnvironmentPortalGetAuxSendValueForPosition(Vector3
in_position, int index)AkEnvironmentPortal
[inline]







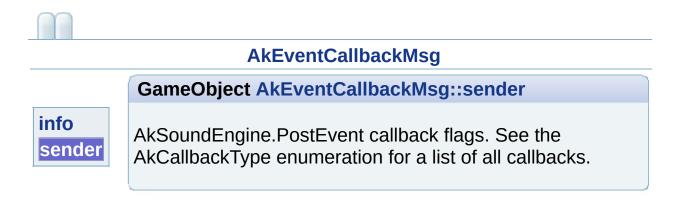
AkEvent

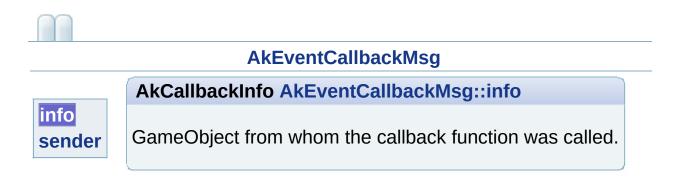
AkEvent	
actionOnEventType AkE	vent
curveInterpolation AkE	vent
enableActionOnEvent AkE	vent
eventID AkE	vent
soundEmitterObject AkE	vent
transitionDuration AkE	vent



AkEventCallbackMsg

AkEventCallbackMsg info AkEventCallbackMsg sender AkEventCallbackMsg







AkGameObj

AkGameObj [inline]
AkGameObj [inline, virtual]
AkGameObj [inline, virtual]
AkGameObj [inline, virtual]
AkGameObj
AkGameObj
AkGameObj [inline]

AkGameObj

bool AkGameObj::AddListener (AkAudioL

AddListener GetForward GetPosition GetUpward isEnvironmentAware m_positionOffsetData RemoveListener Adds an **AkAudioListener** to the container or gameobject.

listener

:

:

Returns true if the listener was not previc otherwise.

AkGameObj

bool AkGameObj::RemoveListener (AkAu

AddListener GetForward GetPosition GetUpward isEnvironmentAware m_positionOffsetData RemoveListener

Removes an **AkAudioListener** from the cont gameobject.

listener

:

:

Returns true if the listener was previously

AkGameObj	
AddListener	virtual Vector3 AkGameObj::GetPosition
GetForward GetPosition GetUpward	Gets the position including the position offset applyPositionOffset is enabled. User can also to calculate an arbitrary position.
isEnvironmentAware m_positionOffsetData RemoveListener	: The position.

	AkGameObj
AddListener	virtual Vector3 AkGameObj::GetForward (
GetForward GetPosition GetUpward	Gets the orientation forward vector. User can method to calculate an arbitrary vector.
isEnvironmentAware m_positionOffsetData RemoveListener	: The forward vector of orientation.

	AkGameObj
AddListener	virtual Vector3 AkGameObj::GetUpward (
GetForward GetPosition GetUpward	Gets the orientation upward vector. User can method to calculate an arbitrary vector.
isEnvironmentAware m_positionOffsetData RemoveListener	: The upward vector of orientation.

	AkGameObj
AddListener	
GetForward	AkGameObjPositionOffsetData AkGameO
GetPosition	
GetUpward	When not set to null, the position will be offse
isEnvironmentAware	position by the Position Offset.
m_positionOffsetData	
RemoveListener	

	AkGameObj
AddListener GetForward GetPosition GetUpward isEnvironmentAware m_positionOffsetData RemoveListener	bool AkGameObj::isEnvironmentAware = Is this object affected by Environment change Set to false if not affected in order to save so useless calls. Default is true.



AkInitializer

AkInitializer	
basePath	AkInitializer
callbackManagerBufferSize	AkInitializer
defaultPoolSize	AkInitializer
diffractionFlags	AkInitializer
engineLogging	AkInitializer
language	AkInitializer
IowerPoolSize	AkInitializer
maxSoundPropagationDepth	AkInitializer
memoryCutoffThreshold	AkInitializer
monitorPoolSize	AkInitializer
monitorQueuePoolSize	AkInitializer
preparePoolSize	AkInitializer
spatialAudioPoolSize	AkInitializer
streamingPoolSize	AkInitializer

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	string AkInitializer::language = Aks Language sub-folder.

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int AkInitializer::defaultPoolSize = Default Pool size. This contains the m MB, but you should adjust for your ne

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int AkInitializer::lowerPoolSize = A Lower Pool size. This contains the au size is 2 MB, but you should adjust fo

AkInitializer basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize		
callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize	Ak	Initializer
spatialAudioPoolSize streamingPoolSize	callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize spatialAudioPoolSize	Streaming Pool size. This contains the

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int AkInitializer::preparePoolSize = Prepare Pool size. This contains the k on load use this). Default size is 0 MB

Aki	nitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize	float AkInitializer::memoryCutoffTf This setting will trigger the killing of sc sounds are killed.
spatialAudioPoolSize streamingPoolSize	

Aklı	nitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int AkInitializer::monitorPoolSize = Monitor Pool size. Size of the monitor Release build.

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging	
language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold	int AkInitializer::monitorQueuePoo Monitor Queue Pool size. Size of the Release build.
monitorPoolSize monitorQueuePoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	

A	kInitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int Aklnitializer::callbackManagerB CallbackManager buffer size. The size

Ak	Initializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	int AkInitializer::spatialAudioPoolS Spatial Audio Lower Pool size. Defaul

A	kInitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	uint AkInitializer::maxSoundPropa Spatial Audio Max Sound Propagation be less than or equal to AK_MAX_SC

A	kInitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	AkDiffractionFlags AkInitializer::di Enable or disable specific diffraction fo

Ak	kInitializer
basePath callbackManagerBufferSize defaultPoolSize diffractionFlags engineLogging language lowerPoolSize maxSoundPropagationDepth memoryCutoffThreshold monitorPoolSize monitorQueuePoolSize preparePoolSize spatialAudioPoolSize streamingPoolSize	bool AkInitializer::engineLogging = Enable Wwise engine logging. Option



AkMemBankLoader

AkMemBankLoader	
bankName	AkMemBankLoader
isLocalizedBank	AkMemBankLoader
LoadLocalizedBank(string in_bankFilename)	AkMemBankLoader [inline]
LoadNonLocalizedBank(string in_bankFilename)	AkMemBankLoader [inline]

AkMemBankLoader

bankName

void AkMemBankLoader::LoadLocalize

isLocalizedBank

LoadLocalizedBank

Load a language-specific bank from WWW

LoadNonLocalizedBank

\bigcap		
AkMemBankLoader		
bankName	<pre>string AkMemBankLoader::bankName =</pre>	
isLocalizedBank LoadLocalizedBank LoadNonLocalizedBank	Name of the bank to load.	

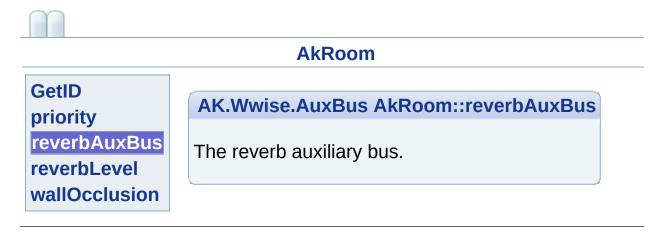
AkMemBankLoader		
bankName	bool AkMemBankLoader::isLocalizedBa	
isLocalizedBank LoadLocalizedBank LoadNonLocalizedBank	Is the bank localized (situated in the langua specific folders).	



AkRoom

AkRoomGetID()AkRoompriorityAkRoomreverbAuxBusAkRoomreverbLevelAkRoomwallOcclusionAkRoom

$\bigcap $			
	AkRoom		
GetID priority reverbAuxBus reverbLevel wallOcclusion	ulong AkRoom::GetID() [inline] Access the room's ID.		



AkRoom	
GetID	float AkRoom::reverbLevel = 1
priority reverbAuxBus reverbLevel	The reverb control value for the send to the reverb aux bus.
wallOcclusion	

00

AkRoom		
GetID priority reverbAuxBus reverbLevel wallOcclusion	float AkRoom::wallOcclusion = 1 Occlusion level modeling transmission through walls.	

AkRoom

int AkRoom::priority = 0

GetID priority reverbAuxBus reverbLevel wallOcclusion

In cases where a game object is in an area with two rooms, the higher priority room will be chosen for AK::SpatialAudio::SetGameObjectInRoom() The higher the priority number, the higher the priority of a room.



AkRoomPortal

AkRoomPortal	
ClosePortal(GameObject in_gameObject)	AkRoomPortal [inline]
GetID()	AkRoomPortal [inline]
HandleEvent(GameObject in_gameObject)	AkRoomPortal [inline]
MAX_ROOMS_PER_PORTAL	AkRoomPortal
rooms	AkRoomPortal

AkRoomPortal		
ClosePortal GetID HandleEvent MAX_ROOMS_PER_PORTAL	ulong AkRoomPortal::GetID () [in Access the portal's ID.	
rooms		
	П	

AkRoomPortal		
ClosePortal GetID HandleEvent MAX_ROOMS_PER_PORTAL rooms	override void AkRoomPortal::Hanc Opens the portal on trigger event.	

AkRoomPortal		
ClosePortal GetID HandleEvent MAX_ROOMS_PER_PORTAL rooms	void AkRoomPortal::ClosePortal (Closes the portal on trigger event.	

AkRoomPortal		
GetID	const int AkRoomPortal::MAX_RO AkRoomPortals can only connect a m	

AkRoomPortal			
ClosePortal	AkRoom [] AkRoomPortal::rooms		
GetID HandleEvent MAX_ROOMS_PER_PORTAL rooms	The front and back rooms connected side of the portal(opposite to the direct the positive side of the portal.		



AkRoomPortalObstruction

AkRoomPortalObstruction



AkSpatialAudioEmitter

AkSpatialAudioEmitterreflectAuxBusAkSpatialAudioEmitterreflectionMaxPathLengthAkSpatialAudioEmitterreflectionsAuxBusGainAkSpatialAudioEmitterreflectionsOrderAkSpatialAudioEmitterroomReverbAuxBusGainAkSpatialAudioEmitter

AkSpatialAudioEmitter		
reflectAuxBus reflectionMaxPathLength reflectionsAuxBusGain reflectionsOrder roomReverbAuxBusGain	AK.Wwise.AuxBus AkSpatialAudioEmi The Auxiliary Bus with a Reflect plug-in Ef	
	п	

AkSpatialAudioEmitter

uint AkSpatialAudioEmitter::reflection:

reflectAuxBus reflectionMaxPathLength reflectionsAuxBusGain reflectionsOrder roomReverbAuxBusGain

The maximum number of reflections that v processed for a sound path before it reach listener. Reflection processing grows expo with the order of reflections, so this number be kept low. Valid range: 1-4.



AkS	oatialAudioEmitter
reflectAuxBus reflectionMaxPathLength reflectionsAuxBusGain	float AkSpatialAudioEmitter::reflection The gain [0, 1] applied to the reflect auxili
reflectionsOrder roomReverbAuxBusGain	

AkSpatialAudioEmitter

reflectAuxBus

float AkSpatialAudioEmitter::reflectior

reflectionMaxPathLength reflectionsAuxBusGain reflectionsOrder roomReverbAuxBusGain

A heuristic to stop the computation of refle longer (and possibly shorter for less CPU maximum attenuation of the sound emitte

AkSpatialAudioEmitter

reflectAuxBus reflectionMaxPathLength reflectionsAuxBusGain reflectionsOrder

roomReverbAuxBusGain

float AkSpatialAudioEmitter::roomRev

Send gain (0.f-1.f) that is applied when se associated with the room that the emitter i



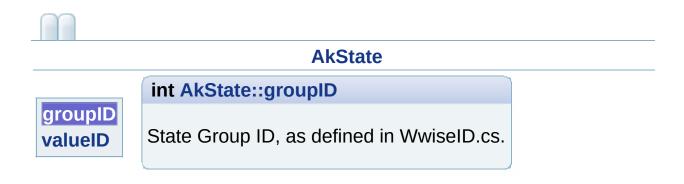
AkSpatialAudioListener

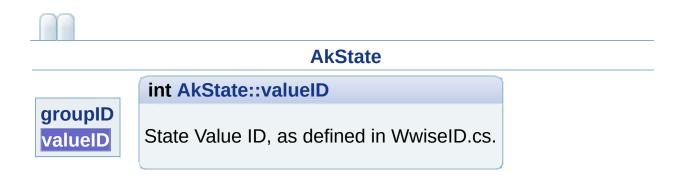
AkSpatialAudioListener



AkState

AkState groupID AkState valueID AkState

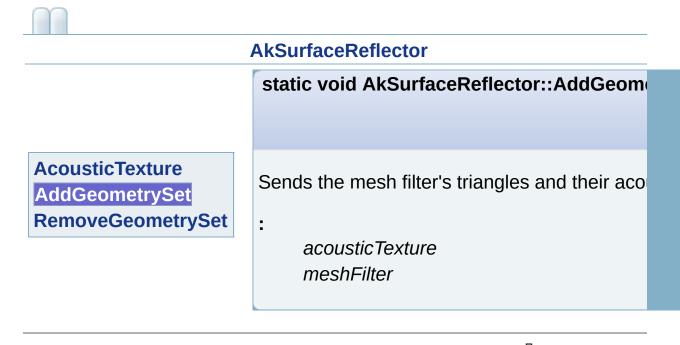


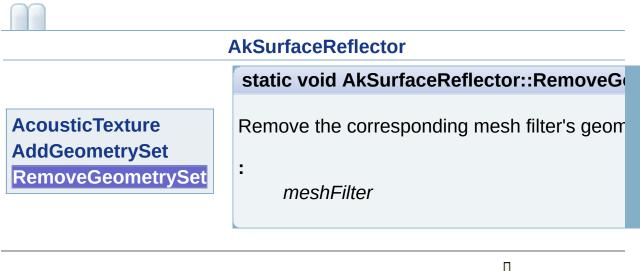




AkSurfaceReflector

AkSurfaceReflector		
AcousticTexture	AkSurfaceReflector	
AddGeometrySet(AK.Wwise.AcousticTexture acousticTexture, MeshFilter meshFilter)	AkSurfaceReflector	[inli stati
RemoveGeometrySet(MeshFilter meshFilter)	AkSurfaceReflector	[inli stati
Generated at Thu Feb 1 09:40:31 2018 for Wwise Unity	Integration by	1.6.3



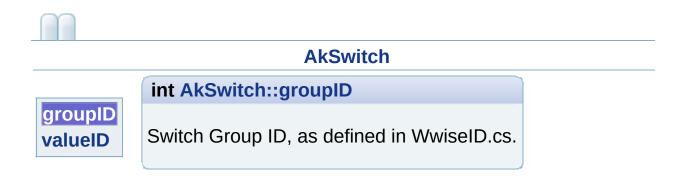


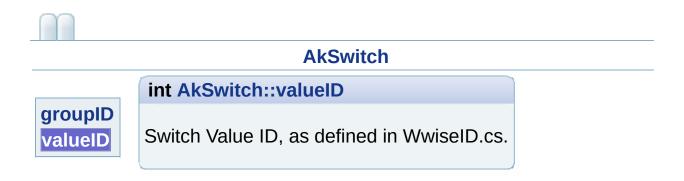




AkSwitch

AkSwitch groupID AkSwitch valueID AkSwitch







AkTerminator

AkTerminator



AkTriggerBase

AkTriggerBase Trigger(GameObject in_gameObject) AkTriggerBase triggerDelegate AkTriggerBase



AkTriggerBase		
	Trigger AkTriggerBase::triggerDelegate = null	
Trigger triggerDelegate	All components reacting to the trigger will be registered in this delegate.	



- AddGeometrySet() : AkSurfaceReflector
- AddListener() : AkGameObj
- ClosePortal() : AkRoomPortal
- ExecuteAction() : AK::Wwise::Event
- GetAuxSendValueForPosition(): AkEnvironmentPortal
- GetForward() : AkGameObj
- GetID() : AkRoomPortal , AkRoom
- GetPosition() : AkGameObj
- GetUpward() : AkGameObj
- HandleEvent() : AkBank , AkRoomPortal
- LoadLocalizedBank() : AkMemBankLoader
- LoadNonLocalizedBank() : AkMemBankLoader
- Post() : AK::Wwise::Event
- PostCallbacks() : AkCallbackManager
- PostMIDI() : AK::Wwise::Event
- RemoveGeometrySet() : AkSurfaceReflector
- RemoveListener() : AkGameObj
- SetBGMCallback() : AkCallbackManager
- SetMonitoringCallback() : AkCallbackManager
- StopMIDI() : AK::Wwise::Event
- Trigger() : AkTriggerBase
- UnloadBank() : AkBank



- a -

- AcousticTexture : AkSurfaceReflector
- actionOnEventType : AkEvent
- axis : AkEnvironmentPortal

- b -

- bankName : AkBank , AkMemBankLoader
- basePath : AkInitializer

- C -

- callbackManagerBufferSize : AkInitializer
- curveInterpolation : AkEvent

- d -

- decodeBank : AkBank
- defaultPoolSize : AkInitializer
- diffractionFlags : AkInitializer

- e -

- enableActionOnEvent : AkEvent
- engineLogging : AkInitializer
- eventID : AkEvent

- g -

• groupID : AkState , AkSwitch

- i -

- info : AkEventCallbackMsg
- isEnvironmentAware : AkGameObj
- isLocalizedBank : AkMemBankLoader

- / -

- language : AkInitializer
- loadAsynchronous : AkBank
- lowerPoolSize : AkInitializer

- m -

- m_positionOffsetData : AkGameObj
- MAX_ROOMS_PER_PORTAL : AkRoomPortal
- maxSoundPropagationDepth : AkInitializer
- memoryCutoffThreshold : AkInitializer
- monitorPoolSize : AkInitializer
- monitorQueuePoolSize : AkInitializer

- *p* -

- preparePoolSize : AkInitializer
- priority : AkRoom

- r -

- reflectAuxBus : AkSpatialAudioEmitter
- reflectionMaxPathLength : AkSpatialAudioEmitter
- reflectionsAuxBusGain : AkSpatialAudioEmitter
- reflectionsOrder : AkSpatialAudioEmitter
- reverbAuxBus : AkRoom
- reverbLevel : AkRoom
- roomReverbAuxBusGain : AkSpatialAudioEmitter
- rooms : AkRoomPortal

- S -

- saveDecodedBank : AkBank
- sender : AkEventCallbackMsg
- soundEmitterObject : AkEvent
- spatialAudioPoolSize : AkInitializer
- streamingPoolSize : AkInitializer

- *t* -

- transitionDuration : AkEvent
- triggerDelegate : AkTriggerBase

- U -

• unloadTriggerList : AkBank

- V -

- valueID : AkState , AkSwitch
- *W* -
 - wallOcclusion : AkRoom