

VIVE 3DSP Unity Plugin Release notes

VIVE 3DSP Unity Plugin v1.3.0

Release date: 2023.09.29

Based on native code version: 1.3.0

- New features
 - Added audio source near field effect feature.
 - Added audio source directivity effect feature.
 - Added audio watermark feature.
 - Audio optimization for VIVE XR Elite is now available.
- Change logs
 - Renamed the headset audio optimization feature from **Headset Model** to **Headset Config**.
 - You no longer need to specify the VIVE headset you're optimizing the audio experience for. The **Auto Detection** feature can automatically detect which VIVE headset is being used.

VIVE 3DSP Unity Plugin v1.2.8

Release date: 2021.11.26

Based on native code version: 1.2.8

- Bug fixes
 - Fixed ambisonic decoder orientation issue.

VIVE 3DSP Unity Plugin v1.2.6

Release date: 2021.09.17

Based on native code version: 1.2.6

- Bug fixes
 - Fixed minimum decay setting issue.

VIVE 3DSP Unity Plugin v1.2.4

Release date: 2021.04.16

Based on native code version: 1.2.4

- Bug fixes
 - Fixed audio source auto enable issue.
 - Fixed a crash issue when the audio source is destroyed.

VIVE 3DSP Unity Plugin v1.2.2

Release date: 2020.11.30

Based on native code version: 1.2.2

- Bug fixes
 - Fixed SDK version check error.
- Change logs
 - Improved the sound quality.
 - Improved FFT calculation performance.

VIVE 3DSP Unity Plugin v1.2.0

Release date: 2020.08.10

Based on native code version: 1.2.0

- New features
 - Added a cylinder-type geometric occlusion engine.
 - Added “help” and “link to forum” features.
- Bug fixes
 - Fixed crash issue when attaching a different plugin source script.
 - Fixed sphere-type occlusion radius update issue.
 - Fixed memory leak issue when the audio source is destroyed.
 - Fine-tuned the sound optimization for the VIVE Pro headset model.
 - Fixed pop issue when listener gain is adjusted rapidly.
 - Reduce the output volume difference when "bypass small signal" is enabled.
 - Fixed the loading still exists even when the occlusion effect is disabled.
 - Fixed user defined room material is apply to wrong wall.
 - Fixed pop noise during occlusion effect on/off switch.
 - Fixed the switch problem of headset model.
 - Fixed pop noise during DRC on/off switch.
 - Fixed clipping issue in Big Room Background Audio.
 - Fixed abnormal loading in occlusion frequency free mode.
 - Fixed memory leak issue.

- Fixed the loading still exists when the occlusion material is set to "None".
- Change logs
 - Modified the SDK Guide document.
 - Spatial blend value is now set as 1.0 in VIVE 3DSP audio engine regardless of the Unity setting.
 - Improved the sound quality.
 - Fine-tuned the output gain of the spatializer.
 - VIVE 3DSP preserves Unity Volume Rolloff curve and bypass its effect when Overwrite Volume Rolloff option is enabled.

VIVE 3DSP Unity Plugin v1.1.0

Release date: 2020.02.27

Based on native code version: 1.1.0

- New features
 - Add occlusion effect engine.
 - Add 24kHz sample rate support.
 - Add new version notification.
 - Add room and occlusion material presets.
- Bug fixes
 - Fix geometric occlusion corner case.
 - Fix sample rate stick to 48k issue.
 - Fix memory leak issue.
 - Fix crash issue when Unity default speaker mode is not set to Stereo.
 - Add support when buffer size under 256.
 - Fix ambisonic decoder incorrect parameter.
 - Fix clipping issue in occlusion process.
 - Fix crash issue in Win32 environment.
 - Fix room effect discontinuity issue.
 - Fix occlusion disable issue.
 - Fix low frequency ratio when not properly applied to occlude.
 - Fix incorrect channel decoding of ambisonic decoder.
 - Fix HRTF won't update when sample rate is changed.
 - Fine tune ambisonic decoder.
- Change logs
 - Rename occlusion engine to occlusion geometry.
 - Change sound decay minimum volume to -96dB.

- Improve geometric occlusion calculation performance.
- Change occlusion default geometry to box type.
- Improve multiple occluder efficiency.
- Fix some descriptions in the SDK document.
- Add support sample rates in ambisonic decoder.
- Improve sound quality.
- Improve listening experience of Headset Model - VIVE Pro.

VIVE 3DSP Unity Plugin v1.0.0

Release date: 2019.03.08

Based on native code version: 1.0.0

- New feature
 - Add geometric occlusion mode feature.
 - Add bypass small signal feature.
 - Add mute far distance source feature.
- Bug fixes
 - Fixed geometric occlusion corner case.
 - Fine-tuned ambisonic decoder.
 - Fixed raycast occlusion issue where it keeps calculating even when the component is disabled.
 - Early reflection calculation results are now correct.
 - Fixed speed up mode binaural reverb gain issue.
 - Fixed reverb clipping issue when function is on or off.
 - Fixed sample rate error where it was not set correctly when setting the reverb parameter.
 - Fixed reverb preset effect.
- Change logs
 - Improved FFT calculation performance.
 - Fine-tuned sphere-type geometric occlusion performance.
 - Changed parameter creation method to improve performance.
 - Changed object creation method to improve performance.
 - Fine-tuned overall process when the signal is small.

VIVE 3DSP Unity Plugin v0.10.0

Release date: 2018.12.07

Based on native code version: 0.10.0

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- **New feature**
 - Parametric equalizer (UI included).
 - Export audio file.
 - Record audio file.
- **Bug fixes**
 - Fixed CPU burst problem when the set sample rate is not 48Hz.
 - Fixed quaternion value error when Y rotation is 180 degrees.
 - Fixed issue where changes/edits are not applied to all selected objects.
 - Fixed issue where changes/edits are not applied to the background audio and volume.

VIVE 3DSP Unity Plugin v0.9.2.12

Release date: 2018.08.24

Based on native code version: 0.9.2.12

- **New feature**
 - Customizable linear decay feature for sound decay mode.
- **Bug fixes**
 - VIVE 3DSP no longer crashes when room size is huge.
 - Fixed sound clipping issue.
 - Prevent CPU burst when one audio source is released and other sources are still being processed.
- **Change logs**
 - Renamed Quadratic Decay to Point Source Decay.
 - Renamed Linear Decay to Line Source Decay.

VIVE 3DSP Unity Plugin v0.9.1.8

Release date: 2018.07.20

Based on native code version: 0.9.1.8

- **Bug fixes**
 - Fixed noise issue when phi is set to 90 or -90 on the ambisonic decoder.
 - Fixed geometric occlusion issue when the listener, occlusion object, and source are lined up in a straight line.

VIVE 3DSP Unity Plugin v0.9.1.6

Release date: 2018.07.06

Based on native code version: 0.9.1.6

- New feature
 - Graphic Equalizer.
 - Ambisonic channel (Unity version 2017.1 or later).
 - Binaural reverb.
- Bug fixes
 - Fixed geometric occlusion corner case.
 - Minimum decay now works when distance is over 500 meters.
 - Raycast occlusion now works in x64 platform.
 - Fixed Quasi Doppler free crash issue.
 - Changed ambisonic initial distance.
- Change logs
 - Fixed missing audio when the application comes back to the foreground.
 - Fine tune Ambisonic performance.
 - Real world decay rate.
 - Support 32-bit and 64-bit libraries.
 - Changed 3DSP component path.

VIVE 3DSP Unity Plugin v0.9.0.2

Release date: 2018.04.20

Based on native code version: 0.9.0.1

- Bug fixes
 - Background audio volume slider bar not work.
 - Minimum decay volume not work.
 - Minimum decay volume sound smooth issue.
- Change logs
 - Changed default raycast number from 1 to 12.
 - Changed example scene music files.

VIVE 3DSP Unity Plugin v0.9.0.0

Release date: 2018.04.10

Based on native code version: 0.9.0.0

- Bug fixes
 - Fixed sound distortions with reverb effect at the beginning.
 - Fixed Memory leak in Ambisonic.
 - Fixed null reference when audio listener is not attached.
- Change logs
 - When object is covered by multiple rooms, set the smallest room as default.
 - Split occlusion effect into Geometric Occlusion and Raycast Occlusion.
 - Moved most of occlusion calculations into the native library.

VIVE 3DSP Unity Plugin v0.8.6.0

Release date: 2018.02.27

Based on native code version: 0.8.6.0

- New feature
 - Basic 3D sound effect without effector.
 - Raycast quality settings.
 - Room preset.
- Bug fixes
 - Fixed reverb effect smooth issue.
 - Fixed Raycast occlusion ratio smooth issue.
- Change logs
 - Occlusion engine settings move to occlusion script.
 - Removed basic occlusion size settings.
 - Gizmo display only when occlusion engine set to basic occlusion.

VIVE 3DSP Unity Plugin v0.8.5.0

Release date: 2018.02.09

Based on native code version: 0.8.5.0

- New feature
 - Add 2 Occlusion Engines: Advanced and Raycast.

VIVE 3DSP Unity Plugin v0.8.4.2

Release date: 2018.02.01

Based on native code version: 0.8.4.2

- New feature
 - Add audio source spatializer 3D switch.
 - Add audio source room switch.
 - Add audio source occlusion switch.
 - Add audio room component.
 - Add room background audio effect.
 - Add headset model option for optimization.
- Bug fixes
 - Fixed sound distortion.
 - Fixed sound source sometimes get cut.
- Change logs
 - Changed to Audio source effect mode.
 - Computing performance enhancement.
 - Occlusion ratio UI string changed to Occlusion Intensity (Range: 1~2).
 - Occlusion calculation method enhancement.

VIVE 3DSP Unity Plugin v0.8.1.0

Release date: 2017.12.22

Based on native code version: 0.8.1.0

- New feature
 - Version information.
- Bug fixes
 - Fixed crash issue when using an audio source without attaching the VIVE 3DSP script.
 - Fixed CPU loading issue when using audio source without attaching the VIVE 3DSP script.
 - Fixed crash issue when audio source is frequently opened and closed.
 - Fixed create audio source CPU burst issue.
 - Audio source smooth mode update.

VIVE 3DSP Unity Plugin v0.8.0.2

Release date: 2017.12.08

- New feature
 - Add Listener reflection gain.
 - Add Listener reverb gain.
 - Add Occlusion material preset.
 - Add Reverb material preset.
 - Add Spatial blend setting.
 - Add Audio mixer.
- Bug fixes
 - Fixed null exception issue.
 - Fixed CPU computing issue.
 - Fixed occlusion issue when using multiple sources.
 - Fixed update function issue.
 - Fixed sound distortion issue.

VIVE 3DSP Unity Plugin v0.2.0.0

Release date: 2017.11.24

- New feature
 - Add source distance mode.
 - Add custom settings for occlusion material.
 - Add custom settings for listener material.
- Change logs
 - Updated occlusion description.

VIVE 3DSP Unity Plugin v0.1.0.0

Release date: 2017.11.08

- First version release.