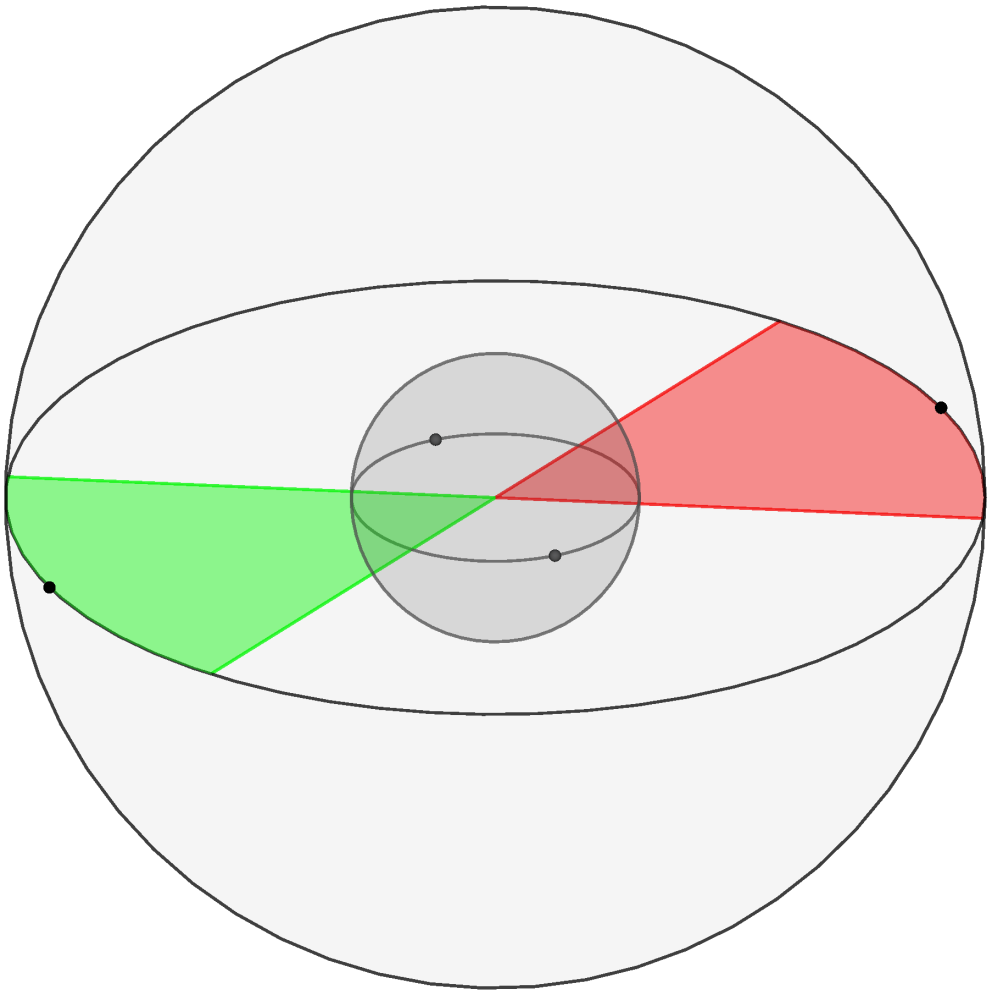
ENHANCED AUDIO SOURCE



Version 1.1 – Jan 2022

Overview:

The Enhanced Audio Source asset contains a new audio object named Sound Source, that wraps around the Audio Source component to enhance functionality.

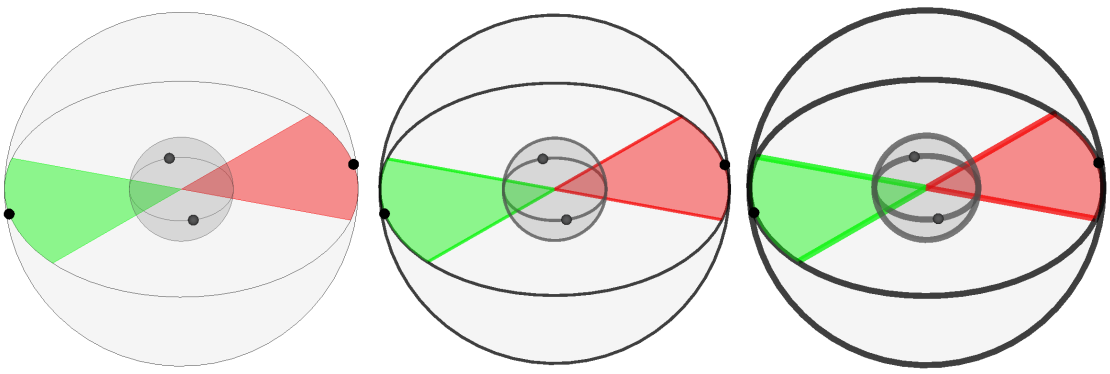
To create a new Sound Source in your scene, in the main menu bar, select GameObject > Audio > Sound Source. Alternatively, right click in the Hierarchy and select Audio > Sound Source. The **Sound Source** consists of the Sound Source script, an AudioSource and an Audio Low Pass Filter.

Key Features:

- Directional sound with adjustable On and Off Axis radius and fine tuneable filter curves based on listener angle to **Sound Sources**. This is a key feature of Sound Cues in Unreal Engine and hasn't been available natively within Unity till now (typically Wwise or FMOD would be needed).
- Customisable appearance per **Sound Source** (no more eye strain to see your inner and outer attenuation spheres!) and **Sound Source** Inspector volume setting affects visual transparency.

Whist the On and Off Axis (indicated in green & red respectively) are visualised as 2D Arcs (3D Cones cluttered the GUI), they are in fact representing 3D Cones. E.g., when the On Axis is set to 90 degrees, the sound is On Axis at 90 degrees on the vertical & horizontal planes.

If you are running Unity 2020.2 and above, you have the option to change the thickness of the Sound Source lines, via the Inspector as below:



The parameter for line thickness does not exist for Unity 2020.1 and below, otherwise all other functionally is present.

Getting Started:

Import the asset into your project: in the main menu bar, select Assets > Import Package > Custom Package, then select the 'Enhanced Audio Source' Unity Package.

- Load the 'Example Scene' and press Play. Sound Source Gizmos aren't visible in the Play window, switch to Scene window.

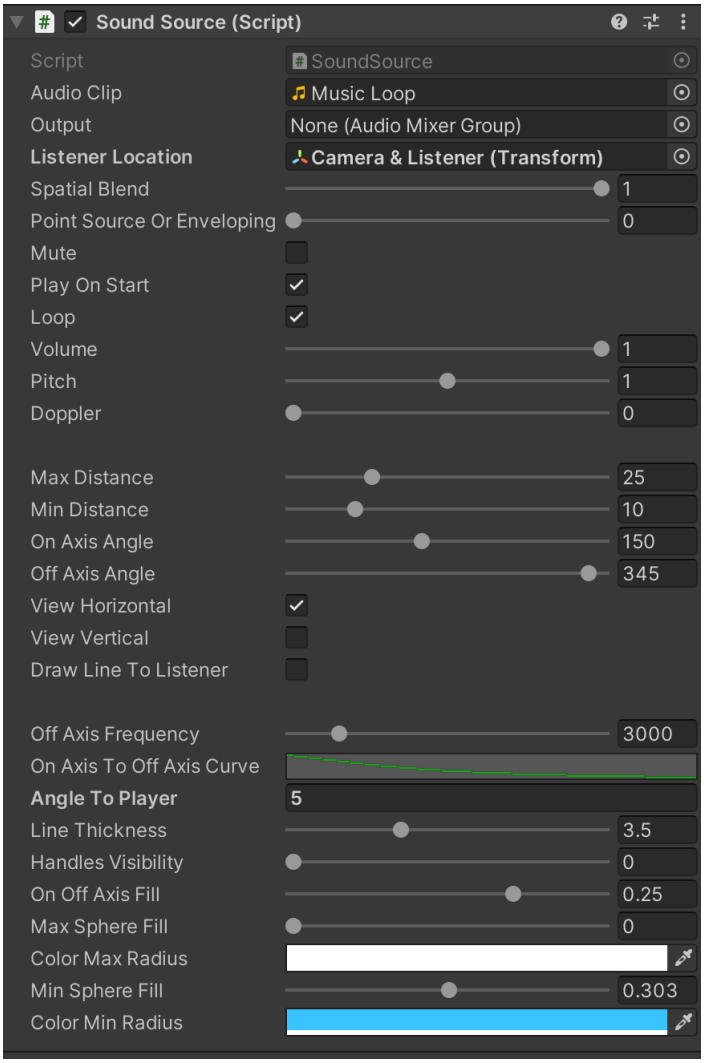
- In the SoundSource component (see below), make sure the 'Listener Location' is set to the GameObject containing the AudioListener (otherwise the audio will not be directional).

- Play the scene, and within Scene view drag the **Sound Source** around the Character to hear the directional sound attenuation.

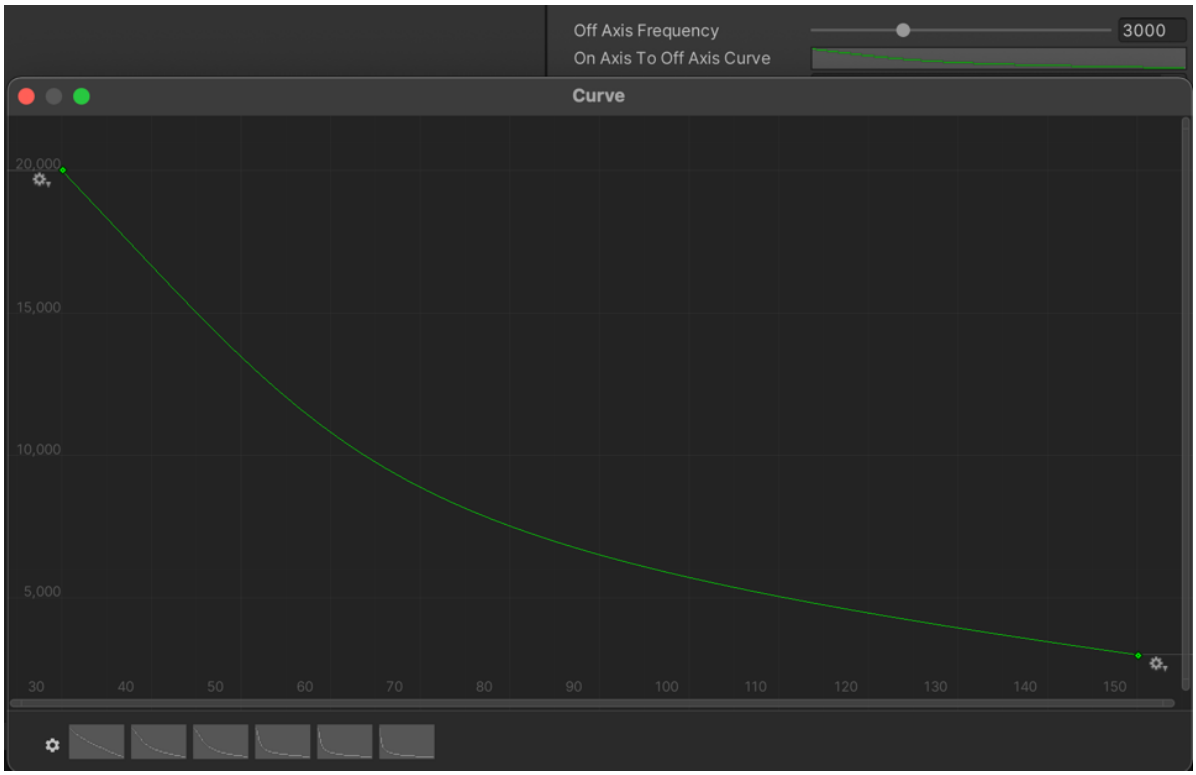
- When the character is in the green 'On Axis' area, the audio is clear and when the character is in the red 'Off Axis' area, high frequencies are filtered off. Adjust the 'Off Axis Frequency' to set the off axis filter frequency.

- The Low Pass Filter cutoff frequency is adjusted depending on the characters angle between On Axis and Off Axis. The 'On Axis To Off Axis Curve' in the inspector is user adjustable. These are the min and max Key's at fixed positions with handles that can be used to alter the curve (see next page).

- Most options in the Inspector have tooltip info on mouse hover.



On the **Sound Source** component click the 'On Axis To Off Axis Curve' to reveal the Curve Editor. Choose from the presets in the lower left, or click the green dots to reveal handles that can be used to adjust the curve to your preference. Currently two Key points are available (creating more will cause errors). As you make curves, you can save them as presets via the cog button.



Sound Source Visibility Option: By default, you can select multiple **Sound Sources** to see them together in the Scene view (multi-**Sound Source** inspector value editing is supported).

I plan to regularly update this asset and would love to hear your feedback and suggestions for features or requests. If you have any issues with the asset, please let me know and I'll aim to assist quickly. My email: **nik@truthrecordings.com**.

Check videos on YouTube for further information.

Cheers!

Nick