FF-Animator

Overview

  The Foleys Finest Animator is a plugin that lets you define a geometric path and simulate acoustically the movement of a sound source along this path. There are several physical settings you can adjust to bring your vision to the audio.

The audio of the sound source is given by the audio on the track. As output several different speaker layouts can be selected defining the bus layout of the output stem.

How to setup

The plugin can be set as insert into any mono or stereo track. Note if you select an output stem differing to the input, your DAW might warn you to remove or add a new outputs. You will have to agree to that dialog box.

The plugin editor consists of two parts, the geometric scene on the left and the physical settings on the right. Note that you can resize the amount of how much space the components use by dragging the border between.

With the toolbar you can switch the actions you perform when clicking into the scene. The default is to create way points of the path. You can simply click and drag on the way points to alter the positions.

When you select the move icon, you can pan the scene's excerpt. You do not need to switch the action. If you drag with the mouse's middle button, it will pan in any mode.

Selecting the zoom glass, dragging up and down lets you zoom into the scene and zoom out. Instead of selecting this mode, you can use the mouse wheel anytime to zoom into the scene or zoom out.

You can toggle the display of the grid by clicking the grid button. The size of the grid distances will be adapted automatically.

By clicking on the speaker symbol you display a list of the virtual speakers positions, distances to the centre and the angles to the viewing direction (12 o' clock).

To return to the default zoom and displayed part of the scene you can click the home button.

Automatization

By default the sound source will not move, because you have to define the start and end point in your audio track as well as the speed. You do this by automating the "walk" parameter.

A value of 0 in your DAW automatisation places the source at the beginning of the path. The value of 1 places the source at the end. To realize a movement with constand speed automate a ramp of this parameter. However you can change the speed of your parameter at any point or stop for some time.


You can also automate many other parameters to create artistic effects leaving the realism.
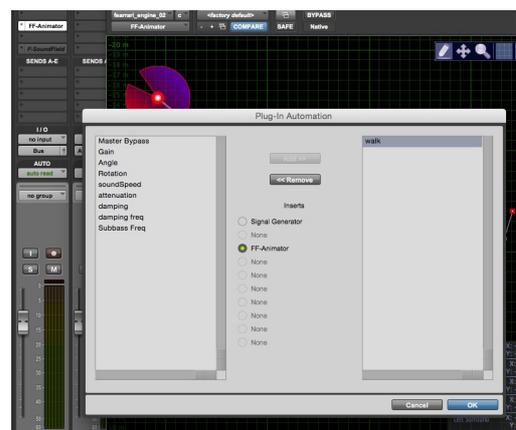
Sound source settings

In the topmost component you can change the behaviour of the incoming signal. The slider is set at 0 dB by default. You can select any gain from -infinity (silent) to +12 dB (double the values) on a logarithmic scale.

With the slider labeled "angle" you can define the radiation pattern of your sound source. The red labeled area symbolizes the contribution of the right channel of the input while the blue shows the left channel. If you decrease the angle, the sound will not be radiated to the back of the source. So if you don't hear anything, the source probably points away from you (i.e. the speaker positions).
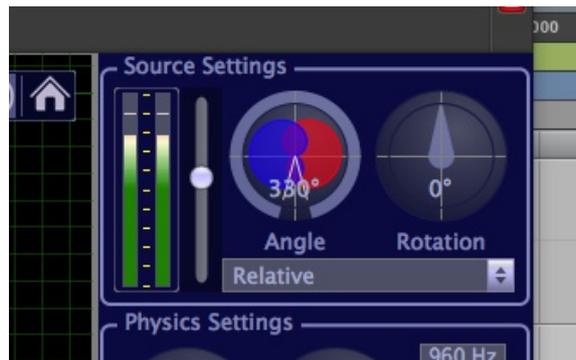
By default the sound source points along the path of the movement. You can alter that direction relative to the movement by changing the "rotation" knob. If you want the sound source to point at an absolute direction relative to the scene, change the "Relative" setting in the combo box to "Absolute".

Physical settings

To emphasize or to remove the physical effects, you can alter some constants. The delays to the different speaker positions are computed using the sound speed constant. To increase the doppler effect and the first wavefront, you can slow down the sound speed. But note that this also adds more delay with increasing distance to the listener.

The gain attenuation setting defines, how much the signal is attenuated by the distance. The numeric value represents the attenuation normalized to 10 meters.

The third parameter consists of two values. It represents the resulting bandwidth with increasing distance. The frequency setting defines the centre frequency when attenuated most. The maximum distance (where the most attenuation is added) is defined by the second parameter in meters. The cutoff frequency is linearly interpolated between the maximum distance and zero distance.

Speaker settings

To create the impression of a acoustic surrounding it is essential to define the speaker settings.
There are two analogies of the speaker positions. At one hand you can see it as the positions, where the speakers are placed around the audience. However physically they are more like virtual microphone positions if you would record the scene in reality using a surround recording setup. It is up to the engineer to select the values which fit most to the desired effects.

There are two default setups: circular and rectangular. In the circular setup all speakers are placed in the same distance to the listener position. The angles are predefined at usual numbers, 30° from the centre axis are the left and right speakers placed, 15° towards behind from the sides the surround speakers and 15° from the rear axis to the left and right are the rear surround speakers placed in case of 7.1 surround.
In the rectangular setup you can drag the speakers in the scene moving the correspondent speaker symmetrically.

If the selected layout supports one or two low frequency channels, you can adjust the cutoff frequency using the "bass freq." knob. All speakers except the LFE channels are cut off below the selected frequency and the LFE channels are cut off above the selected frequency.

The modelling of the sound travel delays adds intentional phase differences, which improves spatial perception. However, if you don't want that, you can switch the "relative to" setting to "listener". Now all distance calculations for the delay is calculated between the sound source and the listener position in at the origin of the coordinate system. In real surround recording this would mimic a M/S setup. The gain and frequency attenuations are still computed in relation to the speaker positions.

Path setup

The Foleys Finest Animator supports different paths to switch. You can use the combo box menu to add new paths, copy a path or delete the current path.
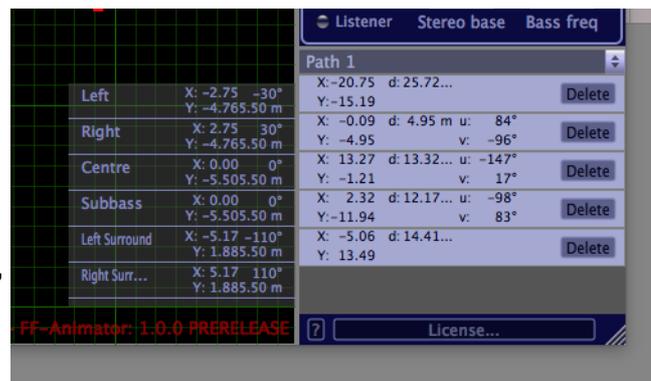If you click on the name of the current path you can alter it's name.

Way point listing

The positions of the waypoints are listed below the path select. The distance to the listener "d" helps you estimate the delay time at that position.

If you add control vertices for round corners, the angles to the previous and following points are listed as "u" and "v".

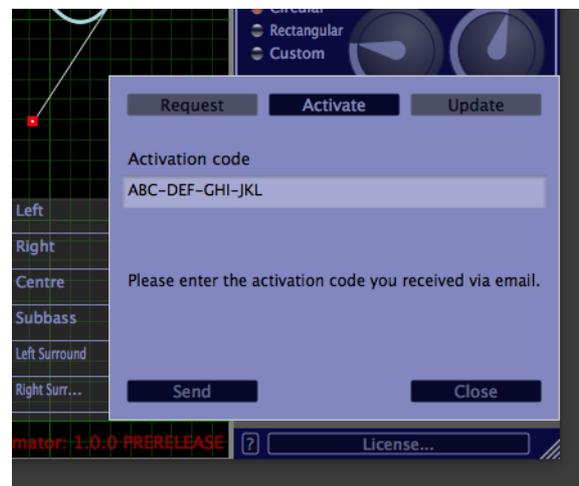The "Delete" button removes single points of the list.

To add control vertices to a point double click it. The control vertices are added at a default position. You can drag them around to smoothen the path. With right clicking on a point or a control vertex you get a context menu to add or remove options.

License activation
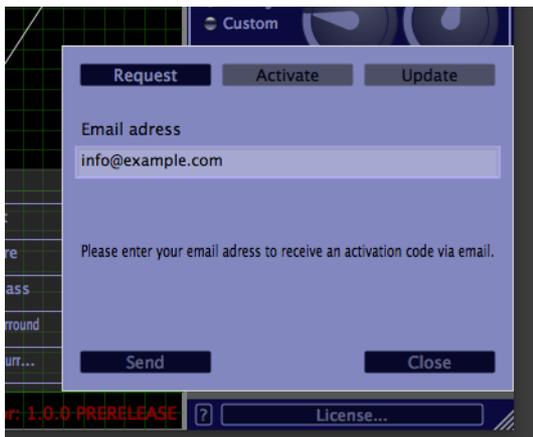
To request an activation code click "License...". The activation code is sent to you by email you provide in the "email" field.

If you add this activation code and click "activate", the license file is automatically downloaded. You get a 14 days free test code automatically. After this period the plugin will continue to play back, but mouse interaction is blocked until you buy a license.