

Multiply

User Guide

Acon AS

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1 Introduction

Acon Digital *Multiply* is a versatile chorus effect with a unique twist. Each simulated voice is processed with a phase randomizing filter so that unpleasant comb filter effects are omitted. The effect can be used to simulate the effect of several performers playing the same tones simultaneously, to widen the spatial image or to create special effects for sound design. Multiply can simulate up to 6 additional voices and both the pitch and the loudness of the voices can be modulated. There is also an integrated equalizer consisting of a low cut, low shelf, high shelf and high cut filters that can be applied to the effect signal. An integrated pre-delay section makes it possible to create modulated and diffuse echo effects.

1.1 Requirements

Before you install *Acon Digital Multiply*, please make sure your computer fulfills the following requirements:

PC Version (Windows)

- Windows 10 / 8 / 7
- Intel Core i3 or AMD multi-core processor (Intel Core i5 or faster recommended)
- 1366 x 768 display resolution (1920 x 1080 or higher recommended)
- 1 GB RAM (4 GB or more recommended)
- 1 GB free HD space
- A host application that is compatible with (32 bit or 64 bit) VST , VST3 or AAX (Pro Tools 10.3.5 or higher)

Macintosh Version (OS X)

- OS X 10.8 or later
- 1 GB RAM (4 GB or more recommended)
- 1 GB free HD space
- A host application that is compatible with (64 bit) AU, VST, VST3 or AAX (Pro Tools 11 or higher)

2 Acon Digital Multiply

2.1 Accessing the Plug-In

You can access *Acon Digital Multiply* from your host application (audio editor or DAW) of choice. The plug-in is available as a 32 or 64 bit VST, VST3 or AAX plug-in on the Windows platform or as a 64 bit VST, VST3, AU or AAX plug-ins on Mac OS X. Some host applications will require a rescan and possibly adding the *Acon Digital Multiply* installation directory to the list of VST directories. Please consult the manual for your host application for further details.

2.2 Using Multiply

The graphical user interface of *Acon Digital Multiply* is designed to give quick and intuitive access to all the parameter settings defining the sonic quality of the effect.



The graphical user interface of the Multiply plug-in in action.

Parameters

- **Dry level (dB)**

The amount of dry (unprocessed) signal to send to the output specified in decibel.

You can use the toggle button to exclude the dry signal completely. You can lock the

relation between the dry and effect levels by clicking the lock button between the dry and effect level sliders.

- **Effect level (dB)**

The amount of processed signal to send to the output specified in decibel. You can use the toggle button to exclude the effect signal completely.

- **Frequency modulation rate (Hz)**

The frequency modulation rate controls how rapid the tone fluctuations in the simulated voices should be. It is specified in Hertz.

- **Frequency modulation depth (%)**

The frequency modulation depth controls the amount of tone fluctuations in the simulated voices. It is specified in percent, ranging from no modulation (0%) to full modulation (100%).

- **Amplitude modulation rate (Hz)**

The amplitude modulation rate controls how rapid the loudness variations in the simulated voices should be. It is specified in Hertz.

- **Amplitude modulation depth (%)**

The amplitude modulation depth controls the amount of loudness variations in the simulated voices. It is specified in percent, ranging from no modulation (0%) to full modulation (100%).

- **Voice count (#)**

The amount of simulated voices.

- **Stereo spread (%)**

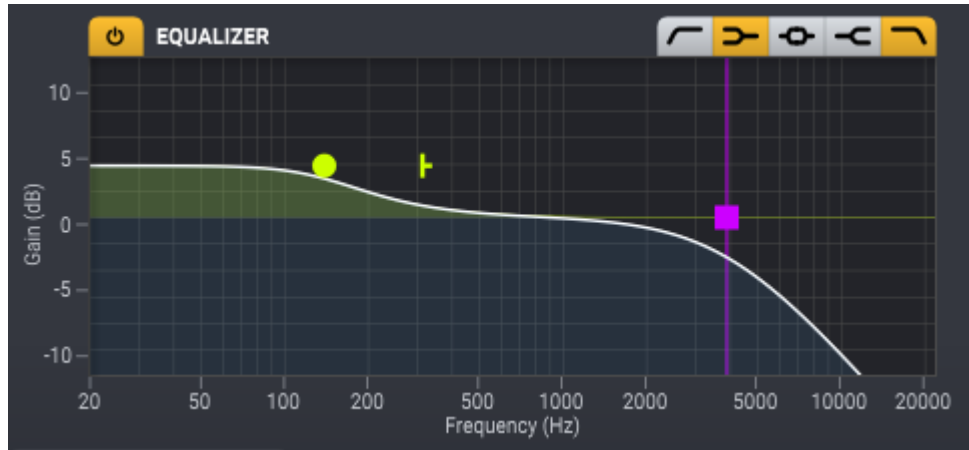
You can use the stereo spread parameter to control the stereo width of the effect signal. If the stereo spread is set to 0%, the effect signal will be mono when the input signal is mono and at 100% the full stereo width is achieved.

- **Pre-delay (ms)**

The pre-delay slider allows you to adjust the time in milliseconds before the effect signal arrives.

- **Equalizer**

You can use the output equalizer to apply filtering to the effect signal. The equalizer consists of high and low pass filters, high and low shelving filters as well as a bell filter. You can use filter band handles to change the filter settings. You can toggle the filter bands using the buttons in the upper right corner:



The equalizer allows detailed control over the frequency content of the effect signal.

The Plug-in Header

The upper region of the *Multiply* plug-in window lets you manage presets, undo or redo changes or quickly compare different settings using the A / B compare tools:

Preset section

Multiply is shipped with a set of factory presets that serve as a starting point for further adjustments. You can browse through preset categories and presets as well as create and manage your own presets using the preset management section in *Multiply*:



The preset management section.

You can browse through the presets using the arrow buttons. Alternatively, you can click the current preset name and a drop-down menu appears. You can also save your own presets by choosing "Save user preset file..." from the menu. A file chooser dialog box appears where you can enter the name of the preset you wish to save. You can create sub folders and place your preset files inside, and these will appear as categories in the user presets.

Undo and Redo

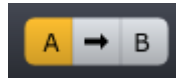
You can undo (or redo) changes to the parameter settings by clicking the circular arrow back or forward buttons:



Undo and redo buttons

A / B Comparisons

It is frequently useful to be able to quickly compare different parameter settings. You can do this using the A / B comparison buttons:



The A / B comparison buttons allows you to quickly compare different settings

You can keep two independent sets of parameter settings, the A and B settings, and switch between them using the corresponding buttons. The arrow button copies the settings from A to B or the other way around depending on which parameter set that is currently active.

The plug-in menu

The last button in the header section displays the plug-in menu:



You can click the plug-in menu button for the plug-in specific menu

From the plug-in menu you can among other choose different visual themes, show this help or information about the plug-in.

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