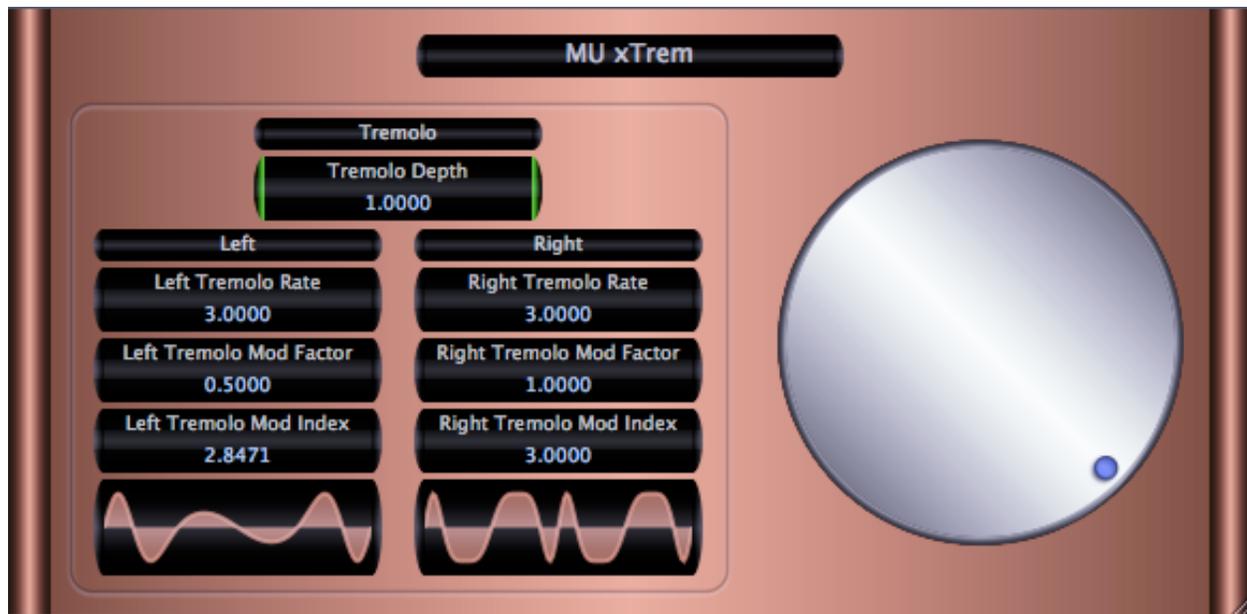# Music Unfolding xTrem Audio Unit
User Guide

Requirements:

OS X 10.4 or higher is required. MU xTrem requires an Audio Unit (AU) capable host. A host that supports Cocoa user interfaces (UI) for AU's is preferred.

Installation:

MU xTrem can be installed in any of the standard Audio Unit component locations. These are commonly /Library/Audio/Plug-Ins/Components and ~/Library/Audio/Plug-Ins/Components (where "~" stands for the user's home directory). Drag MU xTrem.component into the Components directory and relaunch your AU host software. The included presets also need to be installed into one of the standard locations (/Library/Audio/Presets/MusicUnfolding/MU xTrem and ~/Library/Audio/Presets/MusicUnfolding/MU xTrem). If you already have a MusicUnfolding directory in your "Presets" directory, then drag the MU xTrem directory into this location. If not, drag the MusicUnfolding directory that contains the MU xTrem presets directory into the "Presets" directory.

Description:

First, a quick introduction to the editing controls for MU xTrem. All controls are set using the same knob. Click the desired control readout to select and then move the knob to control. The active (selected) control is indicated by the green end caps. The knob works with a circular control motion. The closer to the center you are dragging the knob, the rougher the increments. Moving farther out makes the increments finer. You can even click the surface of the knob and drag out of the surface of the knob and then move in a circular motion if you want finer control. To set a parameter to an exact value, double click the parameter readout. This brings up a text box where the parameter value can be set exactly. Double-clicking the knob sets the selected parameter to its default value. The knob will act with a linear, logarithmic, or power response depending on the parameter that is selected.

The controls also support click-and-drag directly on the surface of the readout. Clicking-and dragging in a vertical direction changes the parameter values. Dragging in a horizontal manner causes the value to change ten times slower. The control behavior (linear, log or power) is the same as it is while using the knob for parameter control. In addition, hovering the mouse over the control and using the scroll wheel also changes the control value. If you have a mouse with a horizontal scroll wheel motion, scrolling horizontally changes the parameter value with 10 times finer control.

The colors of the parameter displays can be changed in the preferences/registration panel. To bring up the panel, click on the name tag/badge for the AU. Select the colors of your choice and then to see the new colors in effect, you must close and reopen the AU. The preference is applied in all hosts for a given user. Note that these color preferences apply to all of the Twister series AU's. Setting your color preference in one will apply this preference to all of the Twister AU's.

MU xTrem is a tremolo unit capable of a nice range of tremolo shapes. It works as a mono or stereo tremolo. In mono mode, the left channel controls are active. MU xTrem is pretty straight forward. The two channels are fully independent except for the tremolo depth setting. This gives it the capability of producing some interesting panning/tremolo combinations. The tremolo wave shapes are highly configurable via the "Mod Factor" and "Mod Index" parameters. The formula for the oscillators is $o(t) = \sin(f + M \sin(n\,f))$ where M is the "Tremolo Mod Index" parameter and n is the "Tremolo Mod Factor" parameter. Usually, these will be integers. But, they don't have to be. On the other hand, this is one of those cases were very precise values can make a big difference. Double-clicking the parameter readouts for the "Tremolo Mod Index" and "Tremolo Mod Factor" parameters will allow you to enter exact values. The presets have some examples of what various values will do.