Axon User's Guide
Audio Damage, Inc.
Release 1.1

Credits

Software Design and Construction, Documentation
    Chris Randall
    Adam Schabtach

Field Testing
    Brandon Daniel
    Steve Hamann

Made Possible By
    Elle
    Tracie

Fuzzy Logic
    Alfred
    Edwin
    Chica
    Madeline
    Pablo
    Zed

Audio Unit version implemented using Symbiosis from NuEdge Development.

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Introduction

Axon introduces an Audio Damage original: the Neuron Sequencer. A radical departure from traditional x0x- or MPD-style sequencers, the Neuron Sequencer generates rhythms and melodies with a network of interconnected nodes called neurons. Each neuron has a flexible but simple to use FM-based synthesizer capable of generating electronic percussion sounds and metallic tones. Axon includes an internal mixer for setting the relative levels and stereo positions of these seven synthesizers. The mixer also feeds a stereo delay and a pair of filters, both drawn from Audio Damage's highly regarded effects plug-ins. Axon's neurons also transmit MIDI note messages so you can use Axon to drive your favorite hardware or software synthesizers, sample players, etc. Axon can receive MIDI note messages and be used as a software synthesizer without using its internal sequencer.

If You Don't Like To Read Manuals

We understand. You just got a shiny new plug-in and you'd really rather play with it than read some dull exposition about it. Go ahead, then—install it, load it up, flip through the presets, move some of the controls around. Axon comes with a healthy assortment of built-in presets that will provide instant gratification and keep you amused for quite some time.

However, eventually you may find that it's not entirely clear exactly what's going on. Hexagons blink, sounds happen, beats emerge, but how? When you're ready to learn about how Axon does what it does, come back to this manual and read on.

System Requirements

To use Axon, you'll need a Steinberg VST-compatible host application which conforms to the VST 2.0 specifications, and a computer capable of running it. For the Audio Unit version of Axon, you'll need an application capable of hosting Audio Unit plug-ins, and an Apple computer with an Intel CPU capable of running it.

We support the use of Axon under Microsoft Windows XP, Vista, or Windows 7; and Apple OS X version 10.5 or newer.

Installation

Double-click the Axon Installer icon, and follow the instructions. During the installation process the installer will ask you to enter your registration code. Your registration code uniquely identifies your purchase, and you will need it if you need to reinstall your plug-in (for example, after upgrading to a new computer). You can retrieve your code from your account at the Audio Damage website if you misplace it. Please don't share your code with your friends. We're delighted if you like our products so much that you want to share them, but please ask your friends to buy their own copy so that we can keep making new products.

On OS X, the installer installs both the AudioUnit and VST versions of Axon by default. If you click the Customize button you can choose to not install one of these formats. If you're running a 64-bit version of Windows, you can choose to install either a 32- or 64-bit version of Axon, or both.

To un-install from OS X, simply delete the plug-in from your VST folder, which is usually located at `/Library/Audio/Plug-Ins/VST/`, and your AudioUnits folder, which is located at `/Library/Audio/Plug-Ins/Components/`. To un-install from Windows, delete the file named `Axon.dll` from your VST folder(s).

What's New in Version 1.1

Version 1.1 includes the following improvements:

- **Multiple outputs**
  Each of Axon's synthesizers now has a separate output bus so that you can process the sounds individually with your host software's mixer.

- **New synchronization mode**
  Axon now optionally resets all of its node counters to zero when you stop your host software's transport, to provide more predictable alignment with other tracks.

- **Fewer Bugs**
  Timing problems when using Logic have been corrected, and an obscure issue with automation has been removed.

Operation

The following screen shot shows Axon's user interface. The controls are described in the following paragraphs.

1. Neuron Sequencer

Axon employs a unique new design for its internal sequencer. It is made up of a group of interconnected objects we call *neurons*, so we call it the *neuron sequencer*. The neurons are displayed in a pane on the left of Axon's window.

The neurons are numbered from zero to seven. The neuron at the center is Neuron 0. Neuron 1 is directly above Neuron 0, and the remaining neurons are numbered in a clockwise fashion. The neuron with the blue hexagon in the center (Neuron 5 in the illustration) is the *selected* neuron. To select a neuron just click it with the mouse.

Any neuron can be connected to other neurons. Connected neurons send signals, called *pulses*, to each other at metrical intervals. A neuron that sends pulses to other neurons is called a *transmitter*. A neuron that receives pulses from other neurons is called a *listener*. A neuron can be both a transmitter and a listener.

Neuron 0 is special: it receives pulses at a fixed rate determined by your host program's tempo, or Axon's internal timing source. We'll describe Axon's timing features in greater detail in a following section titled *Transport Controls*; for now just remember that Neuron 0 always receives a steady stream of pulses regardless of any connections in the neuron sequencer. Neuron 0 is the origin of pulses within the neuron sequencer. If Neuron 0 isn't connected to any other neurons, then no other neurons will receive (or send) pulses.

Each neuron has a *threshold* value. The neurons each have a counter to keep track of how many pulses they receive. When the number of received pulses exceeds the threshold value, the neuron fires and five things happen simultaneously:

1. The neuron sends a pulse to any other neurons that are connected to it.
2. The neuron triggers its corresponding synthesizer voice, generating a sound.
3. A MIDI note message is transmitted by the plug-in to anything that might be connected to it, such as a software or hardware synthesizer.
4. The outline of the neuron flashes blue in Axon's window.
5. The neuron resets its pulse counter to zero.

A neuron's threshold has a value from zero to six. If its threshold is zero, the neuron will fire every time it receives a pulse. If the threshold is one, it will fire every other time it receives a pulse; if the threshold is two, it will fire after it receives three pulses, and so on.

The neuron's threshold value is displayed with grey bars inside the neuron. The current value of the pulse counter is displayed with white bars. The neuron shown at the left has a threshold value of three and a pulse count of two.

To change a neuron's threshold value, click on it with the mouse and drag vertically. You can also change the threshold value of the currently selected neuron by clicking and dragging on the digit labeled **THRSH** near the top center of Axon's window.

Wiring Mode

Axon's window has a special mode for making connections between neurons called *wiring mode*. The buttons labeled **WIRE** and **PLAY** at the upper-right corner of the Neurons area let you switch between wiring mode and play mode.

When wiring mode is active, the connections between the currently selected neuron and other neurons are shown by bold outlines. Neurons that are listening to the current neuron have a blue outline. Neurons that are sending to the current neuron have a grey outline.

In the following screenshot, Neuron 5 is the currently selected neuron. Neurons 1, 2, and 6 are all listening to Neuron 5, and Neuron 5 is listening to Neuron 0.
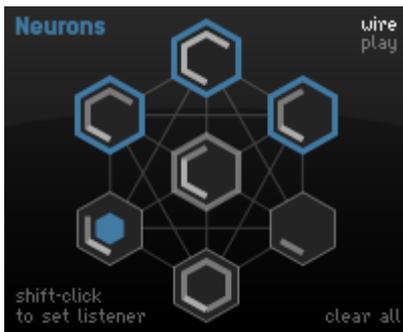
To make a connection from one neuron to another, first select a neuron by clicking it (as usual). Then hold down the SHIFT key on your keyboard and click on another neuron to make it listen to the first neuron. The second neuron's outline will turn blue to indicate that it is a listener. You can make several neurons listen to the first one by clicking each of them while holding the SHIFT key.

To remove a connection, do the same thing. Shift-clicking on a neuron that is a listener of the currently selected neuron removes the connection. You can remove all of the connections for all of the neurons by clicking the **CLEAR ALL** button at the lower-left corner. (Use with caution!)

You can connect any neuron to any number of other neurons. The only restriction is that you cannot connect neurons such that the connections create a loop. Axon checks for loops as you make connections and will prevent you from forming loops.

Creating patterns with Axon consists of finding combinations of connections and threshold values that produce interesting results. Keep in mind that while the results can be unpredictable, they are not random.

2. Voice Controls

The controls in the upper-right area of Axon's window control Axon's seven percussion synthesizers, which we call "voices" for short. Each voice is a simple but flexible synthesizer based on a pair of oscillators followed by a wave shaper. The seven voices share the controls; the current voice is indicated by the solid blue hexagon in the Neurons display, and by the digit labeled **VOICE**.

Voice

The **VOICE** control indicates which of Axon's seven voices is currently selected and can be modified by the other controls. You can switch between voices either by clicking on the neurons or clicking and dragging up/down on the **VOICE** digit.

Threshold

The **THRSH** control displays the threshold value of the voice's neuron. Change the threshold value either by dragging up/down on the voice's neuron, or by dragging on the **THRSH** digit. The threshold value ranges from zero to six and is also reflected by the number of light grey bars in the voice's neuron.
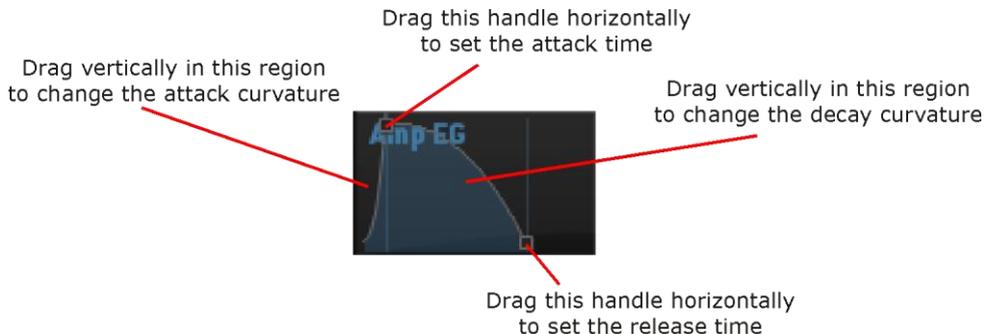
Pitch

The **PITCH** control sets the note that the voice plays. Notes are indicated with the usual names of "A" through "G" followed by a single digit indicating the octave. C4 is middle C. Sharps are indicated by a # symbol following the note name[1]. Click and drag up/down to change the pitch of the voice.

The **PITCH** control also sets the pitch of the MIDI note transmitted by Axon when the voice is triggered.
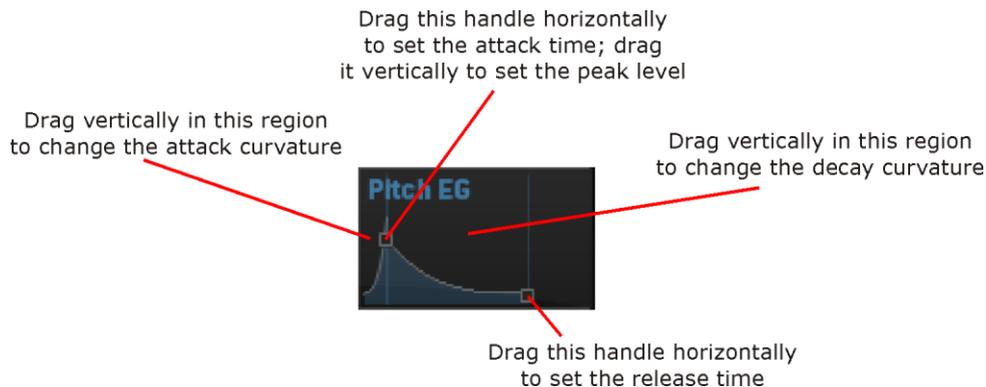
Amplitude Envelope Generator

The amplitude envelope generator, labeled **AMP EG**, controls the overall "shape" of the sound—that is, its loudness over the duration of the note. Since Axon's voices are intended for creating percussive sounds, the **AMP EG** is fairly simple. It has a brief attack phase in which it jumps from silence to a peak, followed by a release phase in which it fades back to silence. You can control the duration of both phases as well as their curvature. The following diagram shows how to change the **AMP EG** by clicking and dragging on the control:

Drag this handle horizontally
to set the attack time

Drag vertically in this region
to change the attack curvature

Drag vertically in this region
to change the decay curvature

Drag this handle horizontally
to set the release time

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[1] The omission of flat symbols from this control is accidental.

Pitch Envelope Generator

The pitch envelope generator, labeled **PITCH EG**, is similar to the **AMP EG** but affects the frequency or pitch of the sound. It has the same general characteristics as the amplifier envelope generator—an attack phase followed by a release phase—but you can also vary the level of its peak by clicking and dragging its center handle.

Drag this handle horizontally to set the attack time; drag it vertically to set the peak level

Drag vertically in this region to change the attack curvature

Drag vertically in this region to change the decay curvature

Drag this handle horizontally to set the release time

The position of the **PITCH EG** control peak determines how much the sound changes in frequency. If the peak is at its lowest position, the sound will have the same pitch for its entire duration. As you raise the **PITCH EG** peak handle you'll hear the sound's pitch bend. A **PITCH EG** setting with an instantaneous attack and a short decay can add a "blip" to the sound, making its beginning more noticeable. A longer decay phase can be particularly useful when using the voice to modulate other voices through the FM and Ring Mod busses (see below).

FM XY

The grid labeled **FM** is a two-dimensional "XY" control that alters the frequency modulation parameters of the synthesizer voice. Axon's voice consists of two audio-frequency oscillators, one modulating (changing) the frequency of the other. In the usual parlance, the two oscillators are referred to as the *modulator* and the *carrier*. The carrier generates the sound that you actually hear, and the modulator changes the timbre of the carrier by rapidly changing its frequency.

Moving the white circle of the **FM** XY control affects the oscillators in two ways. The horizontal position of the circle sets the ratio of the frequencies of the two oscillators, and the vertical position of the circle determines

how much the modulator modulates the carrier. In general terms, moving the circle left and right changes the character or timbre of the sound, and moving it up and down changes its brightness.

If the circle is at the bottom edge of the grid, the modulating oscillator is effectively disconnected and you'll hear only a simple sine wave (i.e., a pure tone, and a fairly dull-sounding one at that). As you move the circle upwards the amount of modulation increase and the sound becomes brighter. Try moving the circle up just slightly from its lowest position and then moving it left and right to hear how changing the position of the circle affects the sound.

Timbre XY

The grid labeled **TIMBRE** is another two-dimensional control which affects the voice's tone. The **TIMBRE** control adjusts a pair of mathematical functions which change the shape of the sound wave that is generated by the oscillator. In other words, the timbre changes in two different ways as you move the white circle horizontally and vertically.

If the circle is at the lower-left corner of the grid, the **TIMBRE** control has no effect on the sound. As you move the circle either to the right or upwards, you'll hear the sound change in character. Moving the circle vertically usually has a greater effect than moving it horizontally. While the **FM** and **TIMBRE** controls adjust independent parts of Axon's synthesizers, you'll find that both of them can alter the sound dramatically and the influence of one is in some sense dependent on the position of the other.

Modulation Busses

The voice controls described so far affect Axon's voices individually. Changing the pitch control of Voice 2, for example, has no effect on Voice 3 or any of the other voices. The horizontal sliders at the bottom of the voice panel allow Axon's voices to affect *each other*, altering each other's timbres in rhythmic and sometimes unpredictable ways.

Axon contains a pair of internal busses similar to the effects-send busses in a mixing console. Each voice can send a variable amount of its output to each of these busses. The two busses independently add together (or sum) the signals from each voice. Each voice can also receive a variable amount of the summed signals from the busses.

The voices send their signals to both busses in the same manner: two sliders controls how much of the voice's output is added to the buss. The voices receive signals from the busses in two different ways. The FM buss, short for Frequency Modulation, changes the timbre of a voice by modulating its carrier oscillator in the same manner as the modulator oscillator. The Ring buss, short for Ring modulation, essentially turns the output of

the voice on and off at a rate equal to the frequency of the signal on the buss. This creates an effect similar to the ring modulators found on analog synthesizers.

It is perhaps self-evident that the effect of both of the busses is easier to hear than it is to describe. The most important point to remember as you experiment is that the voices are modulating each other. There are no internal oscillators that generate the signals for FM and Ring busses. If no active voices have their FM Send and Ring Send sliders positioned above their minimum values, there will be no signals sent to the busses and you won't hear any effect as you move the FM Receive and Ring Receive sliders.

FM Send/Receive

The **FM SEND** slider sets how much of the voice's output is added to the FM buss. Moving the slider to the right increases the amount that the voice's signal contributes to the FM buss.

The **FM RECEIVE** slider sets how much the FM buss signal modulates the voice's carrier oscillator—that is, how much it changes the voice's timbre by frequency modulation. If the slider is positioned at the far left the FM buss has no effect on the voice.

Ring Send/Receive

The **RING SEND** slider sets how much of the voice's output is added to the Ring buss. Moving the slider to the right increases the amount that the voice's signal contributes to the Ring buss.

The **RING RECEIVE** slider controls how much you'll hear the Ring buss change the timbre of the voice. It essentially acts as a level control. If the **RING RECEIVE** slider is at the far left, you'll hear the voice unaltered by the Ring buss. As you move the slider to the right, you'll hear an increasing amount of the voice's output modulated by the Ring buss.

MIDI Only

If the **MIDI ONLY** switch is turned on (by clicking it—click it again to turn it off again), the voice does not generate any sound by itself. Instead, only MIDI note on/off messages are transmitted by Axon. Since the voice isn't generating any sound, it doesn't contribute to the FM and Ring busses either. Turning on the **MIDI ONLY** switch can save a little of your computer's available CPU resources if you're using Axon exclusively to control another synthesizer via MIDI.

Since the AudioUnit version of Axon does not transmit MIDI, the MIDI Only switch does not have any useful effect when Axon is running in an AudioUnit host.

Copy/Paste

The **COPY** and **PASTE** buttons let you copy all of the settings from one voice and apply them to another voice. Click the **COPY** button and all of the values of the current voice's controls are stored within Axon. Switch to a different voice, click the **PASTE** button, and those stored values will be applied to the voice. This lets you easily set up two or more of Axon's voices to create the same, or similar, sounds.

The Copy/Paste mechanism does not affect the voice's mixer settings, nor does it work between separate instances of Axon. If you need to move voice settings between two instances, use your host's preset-saving mechanism to save one instance's settings in a file, then load that preset file into the other instance(s).

3. Transport Controls

The controls near the upper-left corner of Axon's window adjust Axon's timing and tempo parameters.
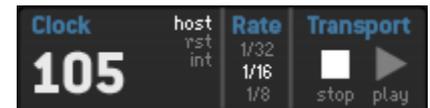
Clock

The numbers labeled **CLOCK** display Axon's current operating tempo. If Axon is using its internal timing source, click and drag up/down on these numbers to make Axon play faster/slower. If Axon is following your host program's timing source, the **CLOCK** control is disconnected.

Note that Axon's factory presets are all set to use your host's timing information. The tempo value displayed by the **CLOCK** control is a suggested tempo marking for the preset.

Source

The switch to the right of the **CLOCK** label switches Axon between using your host program's timing information and its internal timing source to set its tempo. There are three modes, labeled **HOST**, **RST**, and **INT**. If **HOST** is illuminated, Axon follows your host's tempo changes. If **INT** is illuminated, Axon uses an internal timing source whose rate is set by the Clock control to set its tempo. **RST** is the same as **HOST** but in this mode Axon resets the pulse counters of all seven neurons to zero when you stop your host program's transport. While the **RST** mode provides more predictable synchronization between Axon and other tracks in your composition, you may find that the timing offsets or phases between Axon's voices are subtly changed when you stop and restart the song.

Click the appropriate word to switch between **HOST, RST,** and **INT**.

Rate

The **RATE** control sets the metrical unit of the pulses that trigger Axon's central Neuron 0. Setting the **RATE** control to 1/8 will trigger Neuron 0 every eighth note, setting it to 1/16 will trigger Neuron 0 every sixteenth note, and setting it to 1/32 will trigger Neuron 0 every thirty-second note.

Transport

The buttons labeled **STOP** and **PLAY** start and stop Axon's internal timing source. Click **START** to start Axon playing, click **STOP** to stop it. (Betcha could have figured out that yourself, eh?) If Axon's **SOURCE** control is set to host, the **STOP** and **PLAY** buttons have no effect and Axon plays and stops in sync with your host program's transport.

4. Mixer Controls

Clicking the **MIXER** button near the lower left of Axon's window reveals the mixer controls:

Each of Axon's seven synthesizer voices has its own set of mixer controls. Looking from top to bottom, the controls consist of:

Effects Send slider

This slider sends some or all of the voice's sound to Axon's delay and filter effects. Click and drag the slider to the right to increase the amount of signal sent to the effects section. If all of the **FX SND** sliders are off (i.e. at their leftmost position) you won't hear anything from the effects since they won't receive any signal.

Pan slider

This slider moves the voice's sound between the left and right sides of Axon's output and thus sets its position in the stereo field. Click and drag the slider left and right from its center position to move the voice correspondingly. The pan slider does not affect the individual output busses for Axon's voices.

Mute and Solo buttons

The mute and solo buttons, labeled **M** and **S**, selectively silence Axon's voices. Clicking a voice's Mute button silences the voice. Clicking a voice's Solo button silences all of the other voices. Any number of voices can be muted at the same time, but only one voice can be soloed. If, for example, Voice 2's Solo button is illuminated and you click Voice 4's Solo button, Voice 4 will become the only audible voice. Theses buttons do not affect the individual output busses for Axon's voices.

Level Slider

The vertical level sliders set the output level or loudness of the individual voices. Clicking and dragging a voice's slider upwards makes the voice louder. If you drag the slider all the way to the bottom you won't hear anything from that voice. The level slider does not affect the individual output busses for Axon's voices.

Note that a pair of white lines is drawn around the level slider of the voice corresponding to the currently selected neuron.

Master Slider

At the far right of Axon's mixer panel is a slider which sets the overall output level. You may find that Axon's output is too loud (i.e., causes clipping in your audio interface) when several voices play simultaneously. Click and drag the master slider downwards to reduce Axon's output.

5. Delay and Filter Controls

Clicking the **DELAY** button near Axon's lower-left corner reveals the controls for the delays and filter:

The **DELAY LEFT** and **DELAY RIGHT** controls change the amount that signals are delayed in relation to the original (dry) signal. Each delay has a range of 0 to 1999 msec, or approximately two seconds.

The numeric delay controls operate either in units of time or in metrical units, that is, fractions of a beat. Click on the unit indicators in the upper-right corner of the controls (i.e. the words **MS** and **SYNC**) to switch between the two modes.

If the **SYNC** mode is active, Axon uses the current tempo reported by your host to calculate its delay time. In this mode the delay time control sets the delay length in metrical units. The range of values is $1/32^{nd}$ to 1/1 (a whole measure), with dotted and triplet times available. Triplet values are denoted with a "T" after the beat fraction, and dotted values are denoted with a period. For example, "1/8 ." indicates a delay time with a dotted eighth note feel. Axon will track tempo changes, saving you from having to adjust its delay time by hand when you change the tempo of your song.

The two-dimensional **FEEDBACK/FILTER** panel controls both the feedback level for the delays and the frequencies of the filters. Axon has low-pass and high-pass filters which come after the delays. These filters can be adjusted to alter the timbre of the delayed signal. The filters are controlled in tandem with the **FEEDBACK/FILTER** control. Since the filter controls change the low- and high-pass filters simultaneously the filters act like a band-pass filter with a variable width. Dragging the blue dot in the control changes the corner frequencies of both filters. Dragging it to the left moves the filter frequencies downwards, making the delayed signal darker; dragging it to the right moves the frequencies upwards, making the delayed sound brighter.

The **WIDTH** slider to the right sets the separation of the low- and high-pass filters. Dragging the **WIDTH** slider to the right moves the filters farther apart. If you make the filter separation small by dragging the **WIDTH** slider to the left, you may not hear any of the delayed signal at all.

Dragging the blue dot up and down varies the feedback level of the delays. As you drag the dot upwards more of the delayed signal will be fed back into the delays, creating more repeats.

The **RETURN** controls at the right side of the pane set the level of the delayed/filtered signal as it is mixed into Axon's output. Dragging the slider upwards increases the level of the signal. If you move it to its top position the delayed signal will be about as loud as the original signals (although the filters may attenuate the signal, depending on their settings). Click the **MUTE** button to silence the delayed signal altogether.

Note that the delayed/filtered signal is sent only to Axon's stereo output channels, and not to the individual voice channels.

MIDI Notes

Axon both sends and responds to MIDI note on/off messages. You can use Axon as a software synthesizer without using its Neuron Sequencer, and you can use its Neuron Sequencer to control other synthesizers.

Receiving MIDI Notes

Axon's seven voices are permanently assigned to the whole notes C4 through B4, i.e. the white keys on the keyboard starting with middle C. Here's a chart showing the voices and their assigned notes and MIDI note numbers:

Voice	Note Name	MIDI Note Number
0	C4	60
1	D4	62
2	E4	64
3	F4	65
4	G4	67
5	A4	69
6	B4	71

Sending MIDI Notes

The VST versions of Axon transmit a MIDI note message every time a voice is triggered. The MIDI note's pitch is set by the voice's Pitch control. Its velocity is proportional to the position of the voice's level slider in the mixer (i.e. the higher the slider, the higher the velocity value). As described previously, if you turn on a voice's **MIDI ONLY** switch, the internal synthesizer for that voice will be turned off.

The AudioUnit version of Axon does not transmit MIDI. At the time of Axon's production, very few AudioUnit hosts provide the necessary information for AudioUnits to transmit MIDI data with accurate timing.

MIDI Controllers

Axon responds to MIDI continuous controller messages. You can use hardware MIDI controllers, such as MIDI slider boxes or the knobs found on some MIDI keyboards, to adjust Axon's parameters.

Axon has a simple "MIDI Learn" mode for assigning its onscreen controls to MIDI controllers. To assign a control to a MIDI controller:

1. Hold down the SHIFT and CTRL keys on your PC's keyboard, or SHIFT and CMD keys if you're using a Mac, and click once on the control. A white box will be drawn around the control to indicate that it is ready to learn which MIDI controller it will be assigned to.

2. Move the MIDI controller to send a continuous controller message—turn the knob, press the button, move the slider, whatever is appropriate.

3. The white square will disappear. Now the control will move when you manipulate the MIDI controller.

When assigning a MIDI controller to Axon's XY controls (the FM and Timbre voice controls as well as the Filter/Feedback control), the XY control will move horizontally in response to the MIDI controller. Hold down the OPTION key on your Mac keyboard, or the ALT key on a PC keyboard, to assign a MIDI controller to move the XY control vertically. You can also use the option or alt key to assign a controller to the peak level of the Pitch EG and the release curvature of the Amp EG.

Axon waits until it has received two consecutive continuous controller messages with the same controller number before it makes an assignment. This filters out extraneous data sent by some MIDI controllers. If you are assigning a button or switch on a MIDI controller, you may have to press or move the switch twice before Axon recognizes the controller and assigns it to the desired knob.

- To assign a different MIDI controller to a control, repeat the same procedure using a different controller.

- To cancel MIDI Learn mode without assigning a controller, hold down the SHIFT and CTRL keys (SHIFT and CMD keys on a Mac) and click in any empty area in Axon's window (i.e., don't click on another control). The white box will disappear.

- To remove a MIDI controller assignment from a control, SHIFT and CTRL keys, (SHIFT and CMD keys on a Mac) click on the control once so that the white box appears, then click again on the same control.

Axon's MIDI controller assignments apply to all presets and instances of Axon, in all host applications that you use. The MIDI assignments are stored in a special file on your hard drive. The contents of this file are read when Axon is loaded by your host. If you have two or more instances of Axon in use at once, any MIDI assignments you make will not be propagated to the other instances until the next time that your host loads the plug-ins.

Automation

All of Axon's parameters can be automated using your host's automation features. Consult your host's documentation for information on how to use these features.

Presets

Axon includes 42 built-in presets to serve as a demonstration of its capabilities and inspirations for your own creations. Access the presets in the usual manner for your host software. The timing source is set to host for all of the presets but suggested tempos are set on the tempo control.

We're On TV!

Well, not really, but we do have a number of tutorial videos available online for your viewing pleasure. Many of the topics described in this manual are demonstrated with video screencasts available in the Support section of our website, http://www.audiodamage.com.

And Finally...

Thanks again for purchasing Axon. We make every effort to ensure your satisfaction with our products, and want you to be happy with your purchase. Please write to support@audiodamage.com if you have any questions or comments.