UTOPIA

Version 1

Concept : Marc Adamo and Geraint Luff

Utopia Algorithm : Geraint Luff Signalsmith Audio

Development : Ursa DSP, Maxence Grandidier, Theo Burt

UX and UI Design : Marc Adamo

Presets designed by Marc Adamo, Coma Kid, Databroth

ADPTR

Signalsmith Audio

UTOPIA

We weren't going to make just another reverb, that would be boring.
We wanted to make something that sounded a lot like a reverb, and could be used just like a reverb, but also it had to do so much more.

In my search for an original algorithm, I had the good fortune to be introduced to Geraint Luff of Signalsmith Audio. (Big thank you to Josh at the Audio Programmer for that)

Geraint had this wonderful sounding prototype which didn't use conventional reverb DSP such as delay lines or convolution. It used a very unique spectral processing engine to re-synthesise the audio into spatial textures.

Perfect, it sounds like reverb, but what else can it do?

Over the course of the next two years, we bounced ideas back and forth, exploring, expanding and refining the algorithm, diving deep into spectral processing until it developed into the plugin that is now Utopia.

We are all very excited to share Utopia with you, and we hope you have a lot of fun with it.

Marc Adamo : Adptr Audio

UTOPIΔ

Contents

UTOPIA

Quick Start

Shape

Design the onset of the reverb, for smooth swells, or snappy decay

Pre-Delay and Stereo Width

Helps sit things in the mix. Pre-Delay can be BPM synced

Motion

Add Detune and Shimmer effect for super lush sounds

Panel Page Buttons

Click something to see more parameters in the display. You know you want to

Decay

Set the length of the reverb with the biggest knob on the UI. Freeze button to the left and BPM sync on the right

Volume Mixing

Balance the levels of the Early Reflections and the Tail, set the wet/dry mix and automatic the send

Mix Tools

Keep the mix clean with Auto-Clear and add volume shaping effects such as Audio ducking, Pump and Gate.

Colour

This controls the Tone - Decay and Post EQ scale, plus the wonderful Spectral Colour

Blue Panel

This is where you can edit the spectrum EQs, Volume shaping parameters, Expert settings and more

ADPTR · A Dream Ov Utopia · ▲ ▼ · A B C D · UTOPIA

UTOPIA

Pre Delay · Stereo · Shape · ❄ Decay · Mix · Send · ER · link ▾ · Tail

Motion · Colour · Mix Tools
Detune · Shimmer · Decay EQ · Spectral · Post EQ · Auto Clear · Duck

A Dream Ov Utopia ▲ ▼

Volume
Pump
Gate
Duck ◉
Colour
Decay EQ
Post EQ
Tweak
Expert
Buffer

Decay EQ ○ 100%

20 · 50 · 100 · 200 · 500 · 1k · 2k · 5k · 10k · 20k

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The Preset Library

Toggle the library button to show the preset explorer

Filter Preset

Toggle to see All Presets, or to display all favourites or all User created Presets.

Filter Preset by Decay Time

A quick way to see short, medium or long presets.

Just drag the handles to set min and max Decay time, and then the preset list will update to show you just those in the time range.

Filter Preset Groups

Toggle a group name to display presets tagged to that group.
Toggle again to remove the filter.

Select Bank A B C or D

You can load a different preset into each Bank, or copy / paste settings between each bank or to another instance of Utopia.
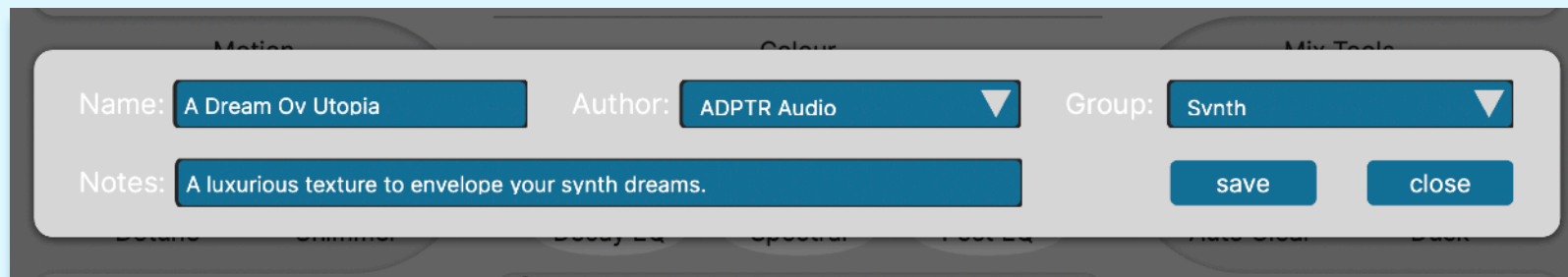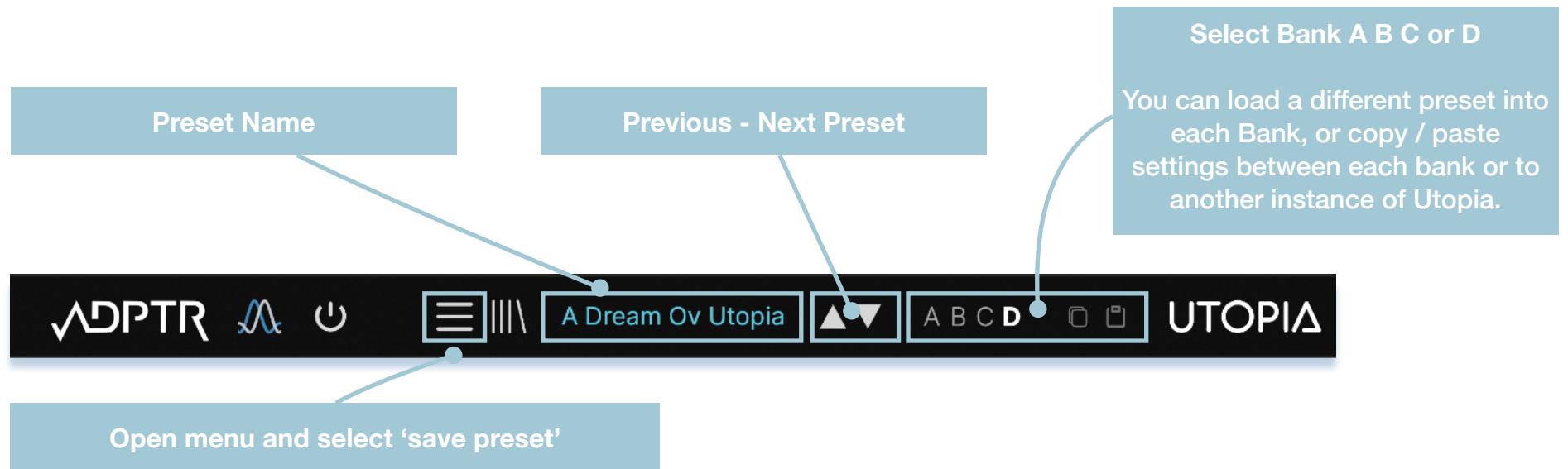
Every preset can display details of the author and notes on what the preset is for and how to use it. You can add your own notes and author details when you save presets.

Close Preset Window

Essential Mix Controls

You can lock any parameter with Right-Click.
When Locked, it won't update when you load a new preset.

ADPTR A Dream Ov Utopia ▲▼ A B C D UTOPIA

FILTER
All Presets
Favourites
User

Decay Time
min: 10 ms   max: 7.5 s

Groups
Halls
LoFi
Piano
Places
Plates
Short
Spectral FX
Strings
Synth
Test Set
Utopia Essentials

A Dream Ov Utopia
A Dream Ov Utopia
A Dream Ov Utopia v2
A Dream Ov Utopia v3
A Dream Ov Utopia v4
Arp 1/16th note gater
Arp Halo
CHunker Pump
Cloud Halo
Drone Logic
Drone Suspense
Galaxy Plucks
Grunge Wah
Light Years Away
Modular Bliss
Pad Pumper
Pipe Smoke

Author ADPTR Audio
Group Synth

A luxurious texture to envelope your synth dreams.

close

Pre Delay   Stereo   Shape   Decay   Send   ER link   Tail

UTOPIA

Browse and Save Presets

Select Bank A B C or D

You can load a different preset into each Bank, or copy / paste settings between each bank or to another instance of Utopia.

Preset Name

Previous - Next Preset

ADPTR ⏻ ☰ |||| A Dream Ov Utopia ▲▼ A B C **D** ⧉ 🗋 UTOPIA

Open menu and select 'save preset'

Name: A Dream Ov Utopia   Author: ADPTR Audio ▼   Group: Synth ▼

Notes: A luxurious texture to envelope your synth dreams.   save   close

When we select **'Save Preset'** from the menu, it opens the Save Preset Window.
Give the preset a name, add Author details and assign it to a group, e.g. Drums.
We can create new Author names and Group tags by typing something new, or if we want to reuse a name or group tag, we can select a previous Author name or Group using the down arrow.
Notes : we can also add some notes to helps us remember what we used it for, or some tips to work with it.

In addition to the **Dry / Wet Mix**, Utopia also provides a **Send** control. This is useful when using it as an insert effect, to control the amount of signal sent to the reverb.

Workflow Tip : Use Automation to fine tune the Send amount throughout the mix

There are individual volume controls for ER and Tail. These can be operated individually, or **Linked** for ease of use.

There are three options for linking.

OFF : This is the default mode, ER and Tail are operated individually. When **Link** is set to **OFF**, Link is displayed with a white background.

Link : This enables us to control both of the volume settings by editing either one of them.

This is useful when we find the right balance between ER and Tail, and then want to increase both together.

Invert : This enables us to increase one volume, while the other decreases in tandem.

I.e. If we increase the ER volume, then the Tail volume decreases, and vice versa.

This is useful when we want to move forward and backwards in space.

Mix - Dry / Wet

Send : Hover to display Value and edit

83%
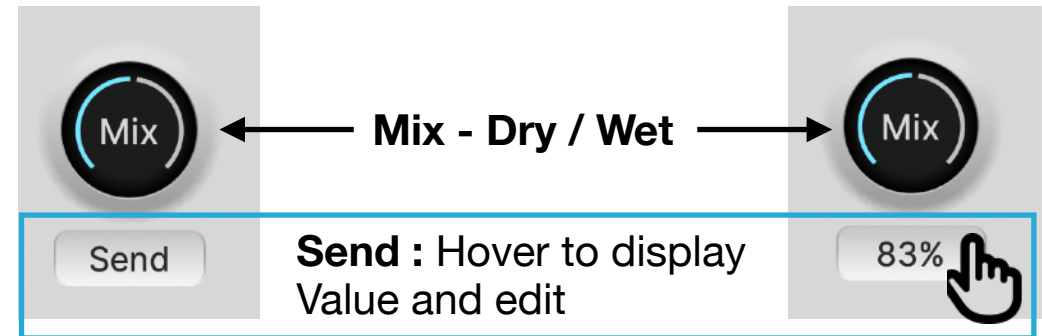
Note : Link is not saved with Presets, it's just for you!

Link Menu (Link OFF)

√ Off
Link
Invert

Link Mode Active

Invert Mode Active

ER | link ▾ | Tail

ER | inv ▾ | Tail

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UTOPIA
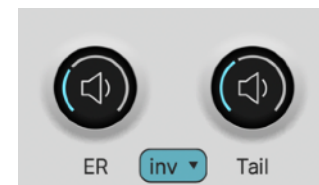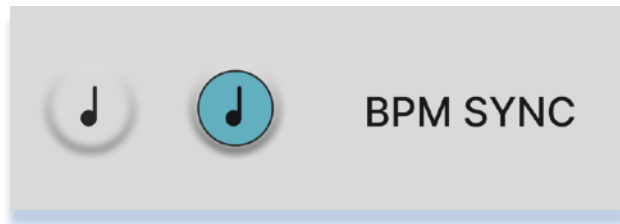
Pre-Delay and Decay can be BPM Synced to the Host tempo.
Click the button and now everything looks like this….

BPM SYNC
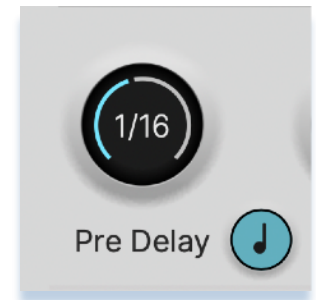
We can Freeze the Reverb buffer for infinite sustained sound drones.
Just Click that snowflake looking thing until it goes a chilly blue colour

Freeze

Almost every parameter can be **Lock**ed, so when you load a new preset, it will keep the current setting.
Right click on a parameter, and the menu will let you select the Lock option.
To **Unlock**, repeat the process. We can also **Unlock All** parameters by selecting, **Unlock All**. P.S. you can still edit parameters when they are locked, because it would be silly if you couldn't.

UTOPIΛ

Most of these menu options should be pretty obvious, so lets just deal with the ones that may not be.

Presets
You can load preset files from your hard drive, but we would recommend using the preset explorer since it has great filtering options and notes from the sound designers
You can load just the 'colour settings' from any preset, but again - you can do that easier from preset browser under the colour section on the UI.
Initialise Preset will give you a nice starting point showcasing the sound of Utopia.
Open Preset folder, does what you think it does, useful if you want to share presets with your friends or back them up.

UI
You can resize the UI by dragging the lower corner, and you can set you preferred size by selecting **Set Default Zoom**.
If you get into trouble with the UI size, just select **Reset Zoom** and it will check your monitor size an automatically resize to a sensible zoom.

☰ ||||\ Kick Gate Four X Four • ▲ ▼ A B C **D**

Presets
Load preset file
Load color from preset
Save preset
Initialise preset
Open preset folder

UI
Reset zoom
Set default zoom
✓ Show help

Version: 0.9.11-0.1.2-297-g6070641
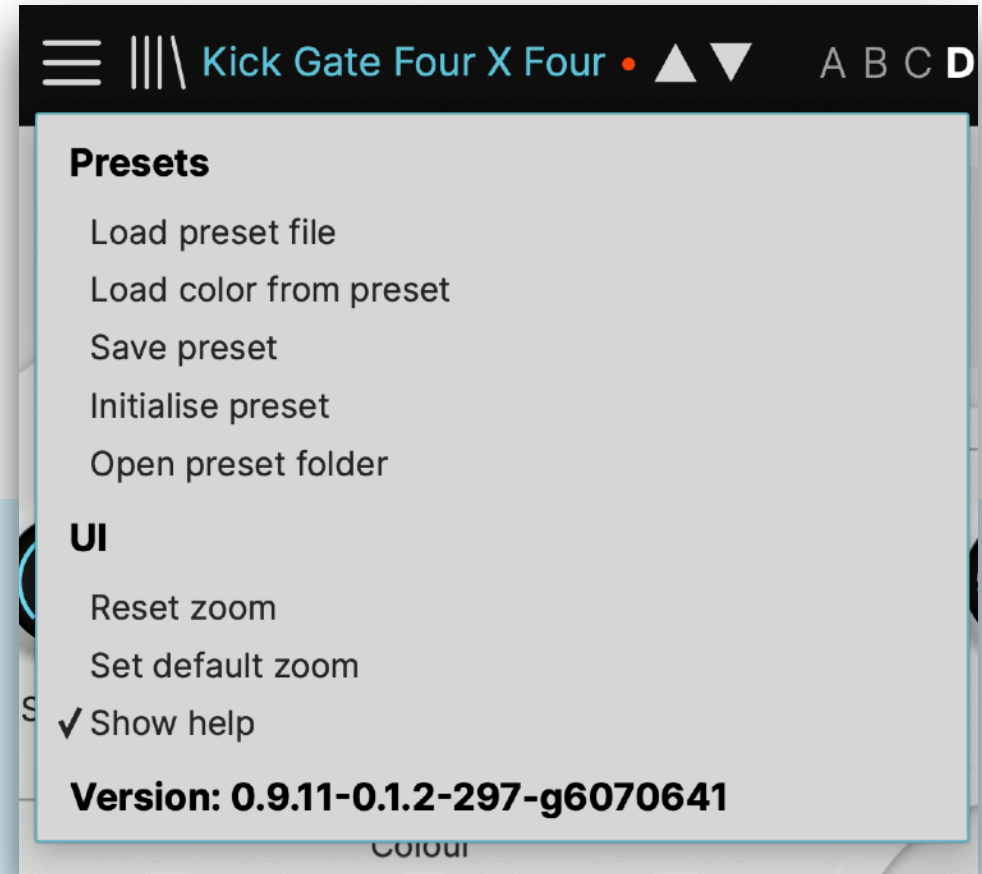
Show help will show the tooltips at the bottom of the panel, just hover over something and it will try its best to explain it to you.
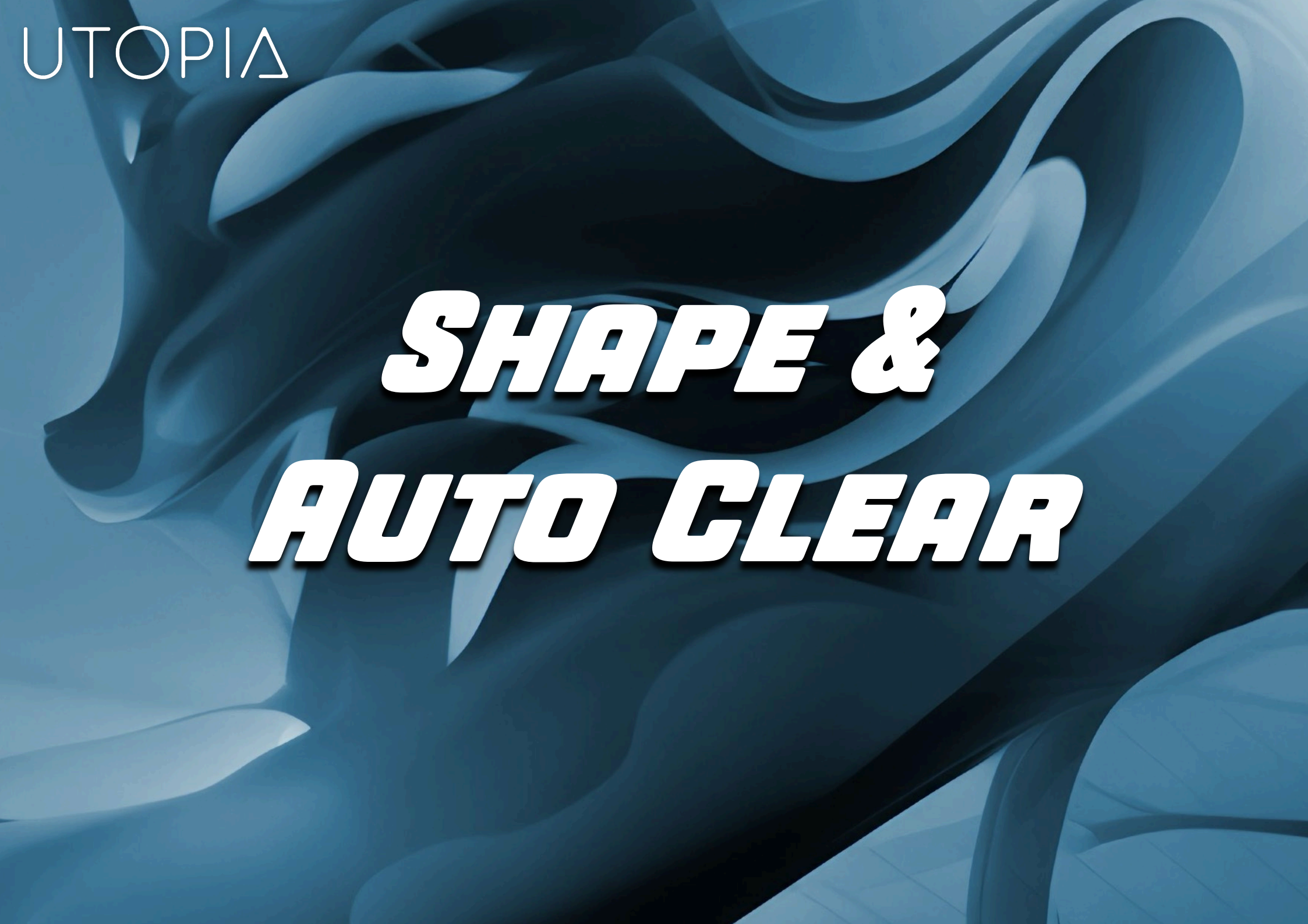
UTOPIA

Shape & Auto Clear

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Alongside the Decay rate, Utopia also offers a unique SHAPE parameter for creative reverb design.

Each preset can have it's own unique shape, which has been programmed by the sound designer, and you can also check out the full range Shape presets in the Utopia Essentials preset category.
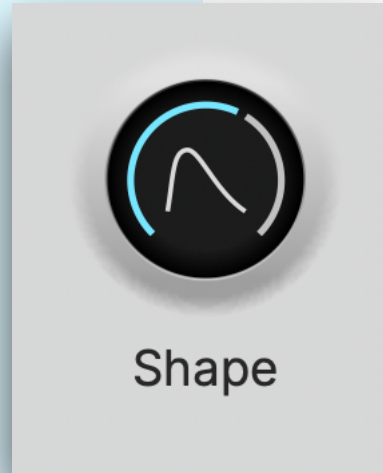
Shape

The Shape Parameter produces a smooth range of shapes including Fast Decay, Hold (Sustain) before decay and Swell (or Bloom) before decay.

Or even a combination of all three, depending on what the sound designer thought was a nice effect.

(They can read about this in the preset Notes when using the preset explorer)

Decay Shapes

Linear Decay — Decay Time
Fast Decay — Decay Time
Hold before Decay — Decay Time
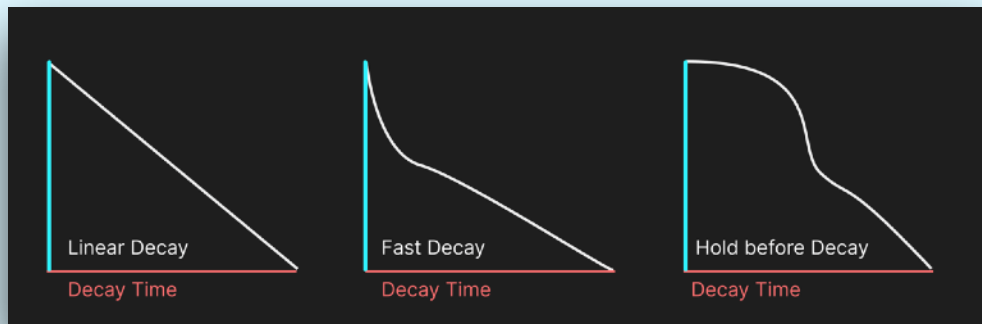
Decay is usually linear, but we can also produce a very snappy decay at the onset, or we can hold the onset for a short time for a thicker sound.

Swell Shapes

Instant Attack — Decay Time
Swell or Bloom — Decay Time
Swell & Hold — Decay Time

The Swell can even be programmed to spread the frequencies out as the swell blooms.

E.g. The bass arrives first, then the mid range, and finally the high frequencies arrive last, all in a smooth blend.

One of our favourite DSP innovations is also one of the most sublime.

Auto Clear intelligently identifies clashing frequencies between the newer input signal and the tail, and prioritises the newer signal by reducing the volume of the older competing frequencies to clear space and prevent harmonic clashes.

You never need to worry about chord changes overlapping and cluttering up the reverb tail.

All you need to do, is turn it up and listen to how the mix becomes less cluttered, it's that simple.

Thanks to the spectral algorithm, Utopia can identify which harmonics are common to new and old signals and which are different.

Auto Clear
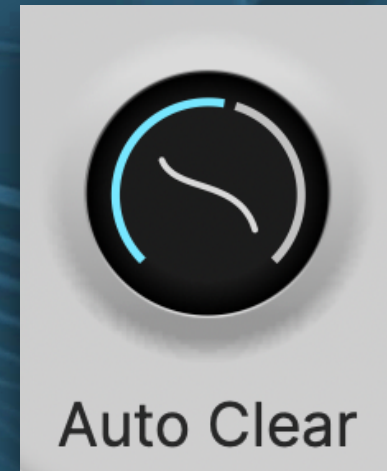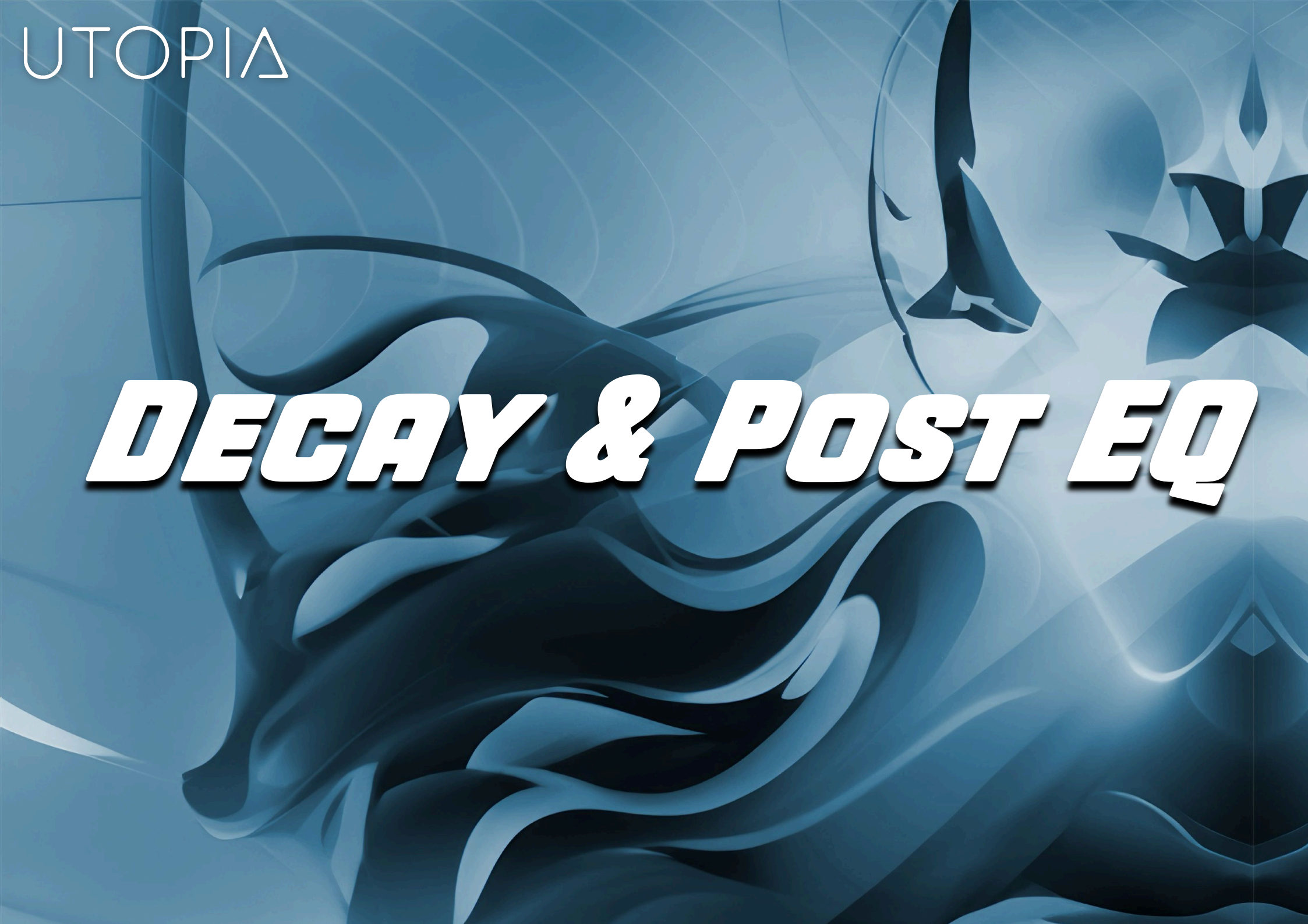
UTOPIA

Decay & Post EQ

Decay and **Post EQ** work with a Node based system to define the spectral balance of each module.

To display the Node Editor for either, just click on the Parameter Name located under the Dial

Or click on the name in the lower panel

Note : Nodes can be dragged across each other, they don't stop when they meet the next node.

We can use up to 5 Nodes to define the balance. Nodes located above the centre line represent gain increase
While nodes below the line are reductions.

Gain increase up to 26dB

Gain reduction up to -Infinity
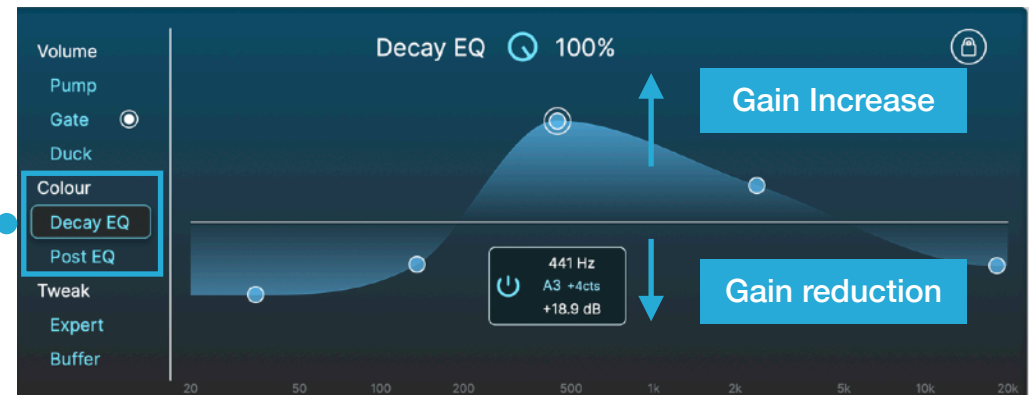
When you edit a node a pop-up appears displaying the values for frequency (Hz), MIDI note and Gain (dB)
We can hover over each one and drag the value precisely while holding the Key command CTRL.
When editing MIDI note, it will snap to the nearest Note.

Frequency

MIDI note

Gain

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The Dials in the colour section work to Scale the EQ spectrum from 0% (no effect) to 100% full scale. This allows us to dial back the gain to a neutral response or anywhere in between.

When the Dial is below 100% we can see the Filled area inside the Node map contracting towards the centre line to show the true value of the EQ curve.
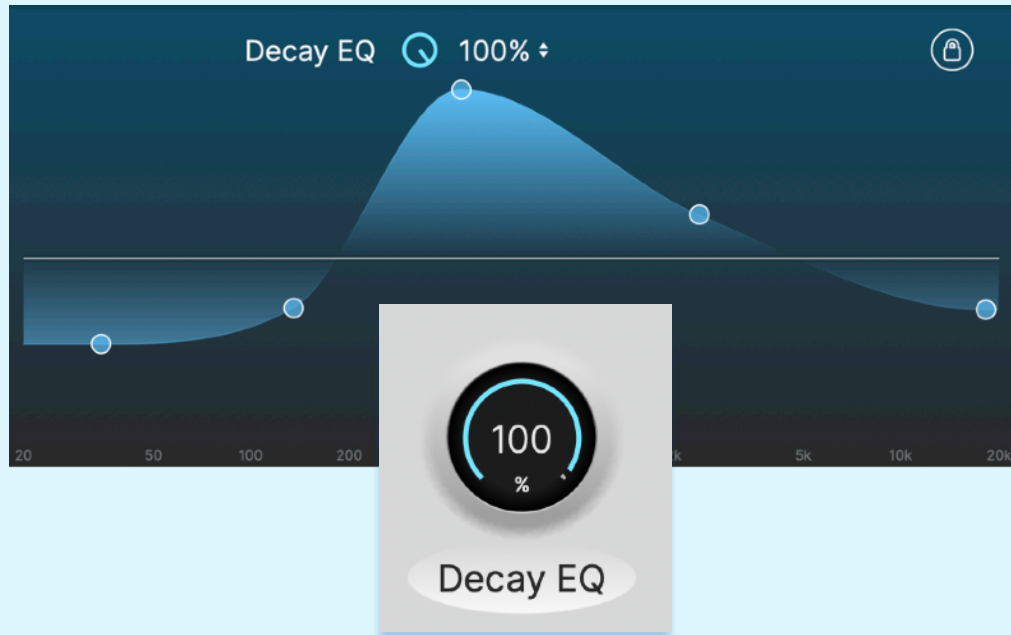
Workflow Tip - Leave the Dials at 100% when doing your initial settings, then scale back to taste.
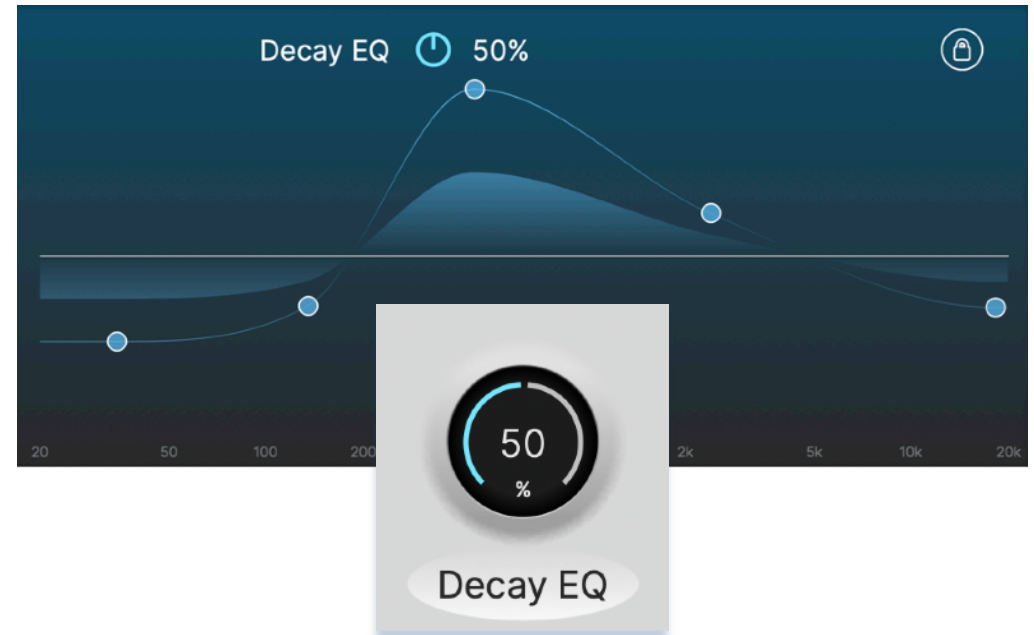
Workflow Tips
Double click a node to reset it to default position (0db Gain)
Shift + Double Click resets all nodes to default position.

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We can edit the shape of the curve between nodes.
Hover the mouse pointer on the curve between two nodes, the pointer will change to a Hand to indicate the curve shape can be edited.
Now drag up or down to re-shape the curve
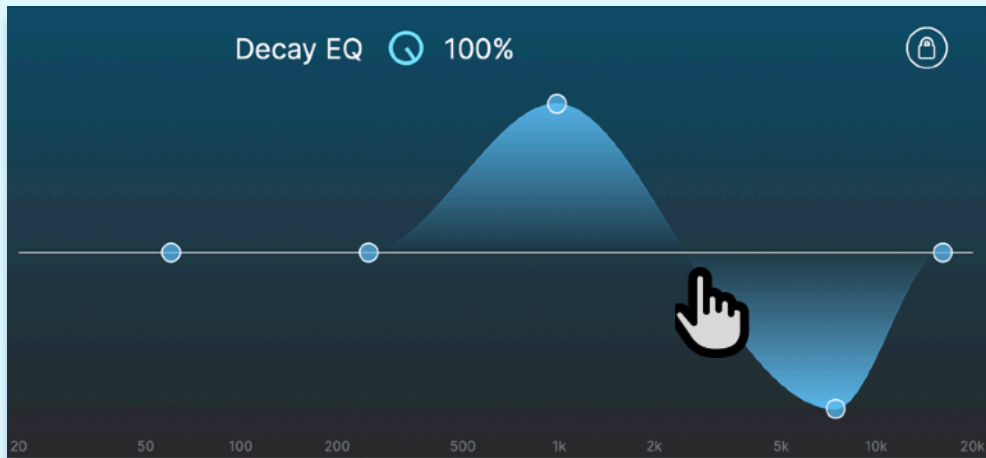
Dragging a curve shape UP
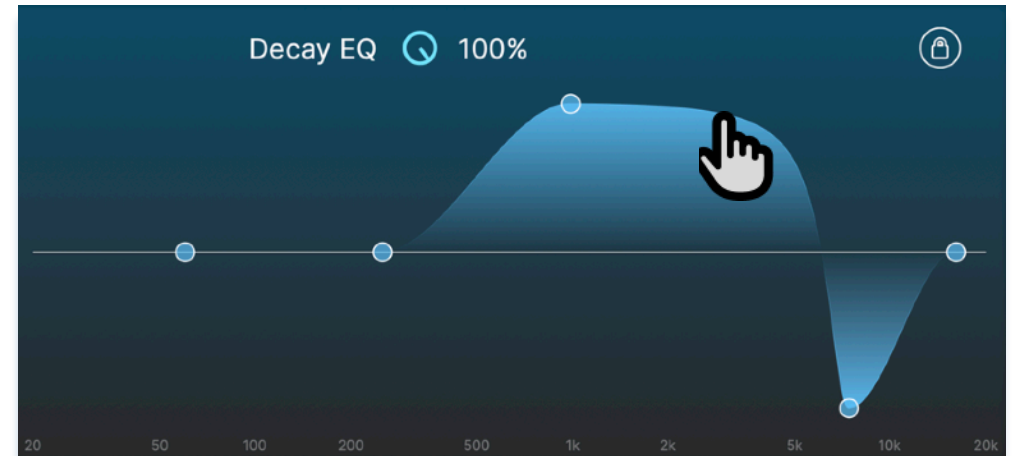
Dragging a curve shape Down
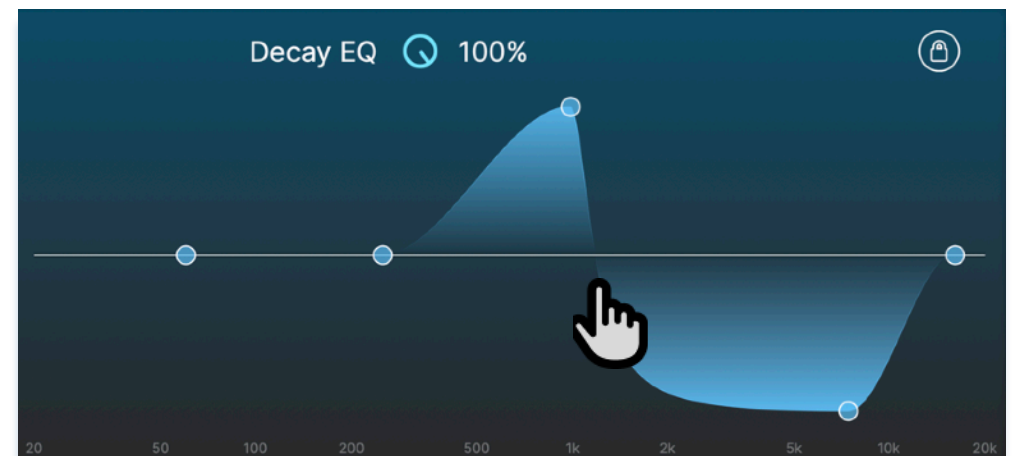
Spectral Colour

UTOPIA

Utopia is a Spectral Reverb, therefore you will find some unique new sounds to experiment with.

The **Spectral Colour** parameter is unique in each preset and contains a range of interactions designed for the material.

Under the hood, Spectral Colour is connected to several parameters including two main characteristics : **Focus** and **Atmosphere**

Focus reduces noise and transients, stripping it back until we are left with pure harmonic frequencies

Atmosphere is a bit like HDR photography, bringing forward - details and grain, or exaggerating the overall timbre of the reverb tail. It can also soften the details leading to a smoother, harmonically purer tone.

Spectral Blocks is another interesting parameter which plays a big role in the sonic character. This affects how many harmonics the reverb can track at the same time.
Spectral Blocks can be found on the Expert Panel.

Please see the Expert Panel section for more details.

Motion | Colour | Mix Tools
Detune | Shimmer | Decay EQ | Spectral | Post EQ | Auto Clear | Duck

A Dream Ov Utopia

Spectral Colour Knob

Spectral Colour Preset Browser - Displays name of colour preset

UTOPIA

We can experiment with **Spectral Colour** in a quick and fun way by loading the Colour settings from any other preset.
Spectral Colour settings include the **Spectral Colour** macro, plus **Decay EQ** and **Post EQ** settings.

Workflow Tip :
Copy the main preset to another Bank (B, C, D) Then load a new Colour preset and compare results. If we like what we hear, save as a new preset.

Operation :
Open the Colour Preset explorer and select a preset from the list.

The browser works exactly the same way as the main presets browser.

We can use the Filters for Favourites, User, Decay Time and Groups.

Workflow Tip :
Tweak the EQs and Spectral knob to explore a range of sounds.

Lock the Colour Preset when loading a new main preset

Previous / Next Colour Preset

Toggle to Preset Explorer Button to Open the Browser

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Expert Panel

The Expert Panel gets us deeper into tweaking mode. Here we can edit all the Early Reflections parameters in more detail. We can also Edit the Spectral Block Size and experiment with variations for each module.
(see next page for details on Spectral Blocks and Variations)

Use the current Settings and/or Edit them in the panel

Set the Early level

Use settings from one of the variations (see next page for details)

Click to display Expert Panel

Volume
Pump
Gate
Duck
Colour
Decay EQ
Post EQ
Tweak
Expert
Buffer

Early Reflections 🔒

⊖ -19.3 dB

A B C

100% Diffusion   7.7 cts Detune   200% Stereo

80.0 Hz Low Cut   Filters   15.0 kHz Hi Cut

Spectral

Blocks 96 ms

A B C

~ Detune

⏱ 60%

A B C

Stereo

⊖ 80%

A B C

Shimmer

⏱ 68%

A B C

Edit Diffusion
This softens and smooths the sound

Edit Hi and Low cut filters

Edit Detune
This detunes the sound so it spreads the pitch, a bit like a chorus effect

Edit Stereo Width
Min 0% (Mono)
100% (Regular stereo)
200% (Super Wide)

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Spectral Blocks

This affects how many harmonics the reverb can track at the same time: longer blocks can produce more harmonically dense sounds, with slower blooms, while shorter blocks are snappier, and the harmonic density is less complex.

Please Note : when updating the Block Size the audio will stop momentarily.

Set the Spectral Block Size

Set the Stereo Width Amount

Set the Detune Amount

Set the Detune Amount

Spectral
Blocks 96 ms
A B C

Stereo
80%
A B C

Detune
60%
A B C

Shimmer
68%
A B C

A B C Variations

Presets have been programmed with bespoke settings for all the modules, but sometimes we want to quickly experiment with variations.
So we programmed 3 variations for each module which work with most audio material.

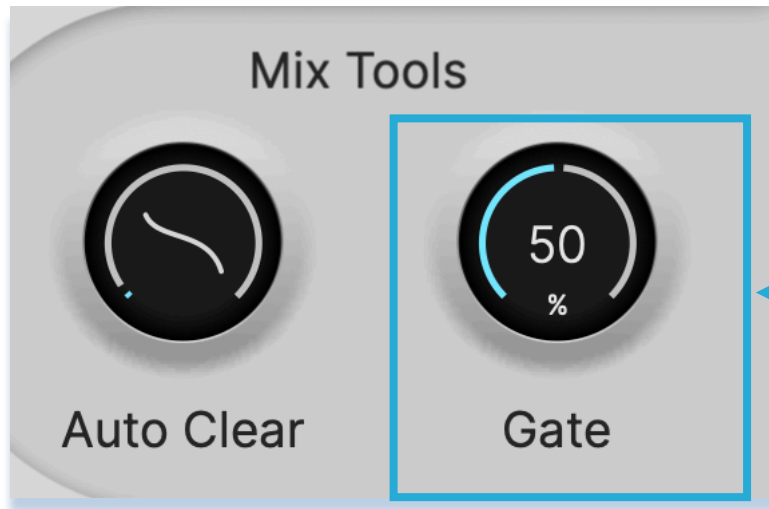To select a variation, just click on A, B or C in the module panel (shown on the right).

To return to the bespoke preset settings, click the Preset Icon (shown on the left).

Detune
60%
A B C

Use the Settings in the current Preset

Detune
32%
A B C

Use settings from one of the variations

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UTOPIA

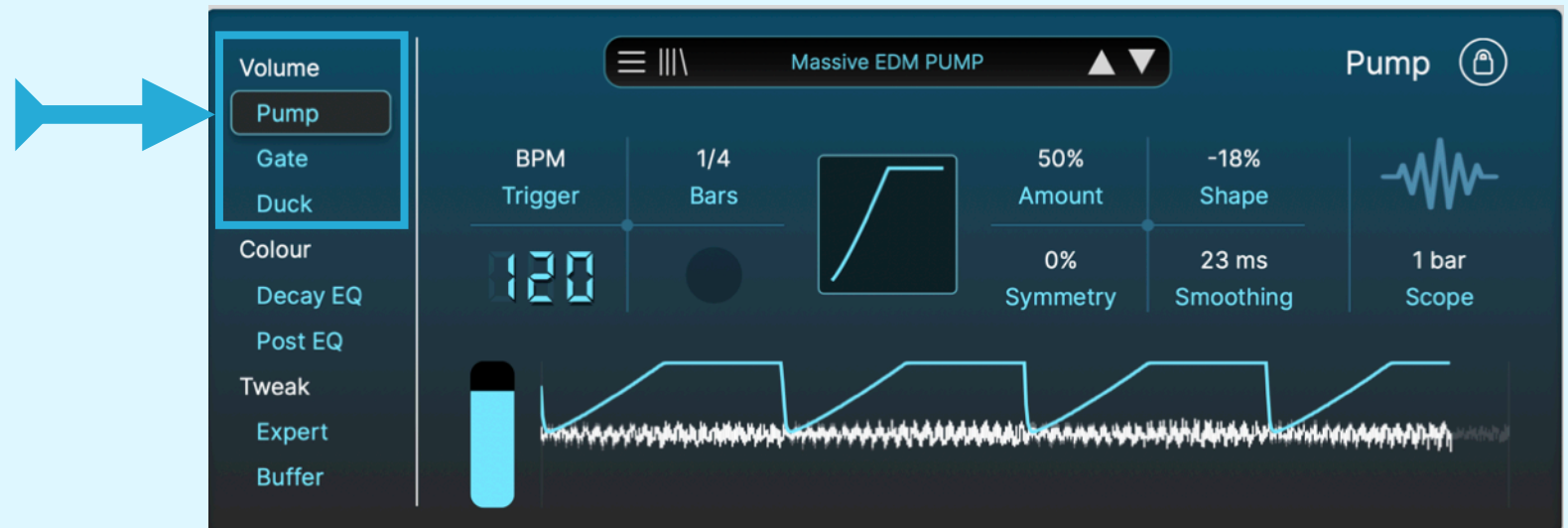Mix Tools

Auto Clear   Gate

50 %

Utopia offers three style of post-reverb volume shaping. **Pump**, **Gate** and **Duck**.

Each preset loads (and saves) with a volume shaper selected, and we can dial it in on the main UI in the Mix Tools Section.
The Dial name will display the name of the currently selected Style, so you may see Pump / Gate or Duck depending on which style is selected.
Click the Label to display the parameters in the panel below.

To select a different Volume Shaping Style Look down to the lower display and click on one of the selections :
Pump,
Gate or
Audio **Duck**ing

Volume
Pump
Gate
Duck
Colour
Decay EQ
Post EQ
Tweak
Expert
Buffer

Massive EDM PUMP

Pump

BPM   1/4   50%   -18%
Trigger   Bars   Amount   Shape

120   0%   23 ms   1 bar
                                 Symmetry   Smoothing   Scope

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Pump Style - gives us instant access to that classic side-chain pumping volume effect. For that goto sound, select the BPM mode for triggering, and select 1/4 bars for speed. Or just load one of the many presets that we have lovingly prepared for you.

BPM ▼
- √ BPM
- Audio
- MIDI
- Sidechain

Select the Trigger Type

Select the Modulation Speed

Set the Amount (Depth) Edit the shape using Shape and Symmetry, and apply a little Smoothing

Volume
- Pump
- Gate
- Duck

Colour
- Decay EQ
- Post EQ

Tweak
- Expert
- Buffer

Pump [Audio] 1-4 Full

Pump 🔒

BPM
Trigger

1/4
Bars

48%
Amount

-57%
Shape

55%
Symmetry

23 ms
Smoothing

128

1 bar
Scope

Host Sync Tempo

Set the duration of the Oscilloscope 1-4 bars

1 bar ▼
- √ 1 bar
- 2 bars
- 4 bars

Volume Level

This flashes when a trigger happens

The Oscilloscope displays the waveform history and the Volume shape trace (blue line)

Gate

Gate Style - gives us instant access to that classic 80s noise gate you heard on a thousand records, but also for tremolo style chopper and trance gate effects.

Select the Trigger Type

Select the Modulation Speed

Set the Amount (Depth) Edit the shape using Shape and Symmetry, and apply a little Smoothing

Set the duration of the Oscilloscope 1-4 bars

Host Sync Tempo

Volume Level

This flashes when a trigger happens

The Oscilloscope displays the waveform history and the Volume shape trace (blue line)

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Pump and Gate share the same layout and features, the difference is the the range of shapes offered. Pump starts low and goes high, while Gate starts high and ends low.

A trigger is required to get things moving, by default the **BPM** mode will work for most cases, and can produce tremolo and classic pump and gater effects.

But we can get more creative, by selecting a different trigger method.
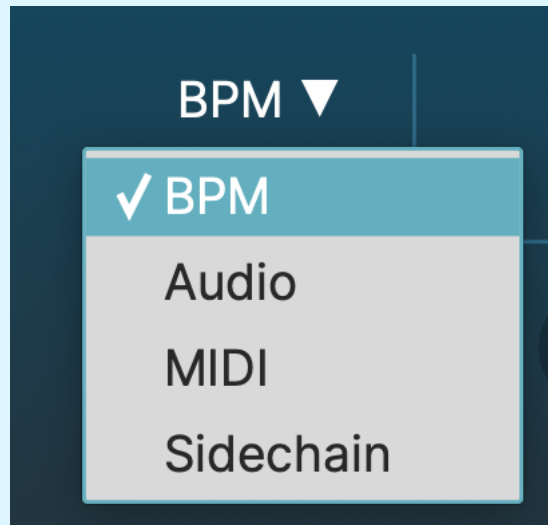
For old school style Gated Kicks and Snares Select **Audio** (input) and set the **Threshold** so that the level of the Kick or Snare produces a trigger.
Now set the length of the Gate using the **Bars**.

For more complex patterns, we recommend using the MIDI input. This way you can write the pattern in MIDI then route it into Utopia.
You can define the MIDI note Range from a single note, to the entire key span.

Duck Style - gives us instant access to that classic audio ducking effect loved by mix engineers for a subtle lift and clarity when mixing vocals
This typically uses either the **Audio** input or a **Side-Chain** source.
It's important to set the **Threshold** and **Amount** parameters to get the desired effect.
Work with **Attack** and **Release** to get the push-pull rhythm for the response.

BPM ▼
✓ BPM
Audio
MIDI
Sidechain

Select the Trigger Type

Set the Amount (Depth)
Edit the envelope using Attack and Release

Set the Threshold level where the Ducking starts

We can also set the Threshold by dragging the white bar on the volume level

Volume
Pump
Gate
Duck
Colour
Decay EQ
Post EQ
Tweak
Expert
Buffer

Duck [Audio] Vocal Perfection ▲ ▼   Duck 🔒

Audio
Trigger

Envelope

50%
Amount

-20.5 dB
Threshold

16 ms
Attack

354 ms
Release

4 bars
Scope

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Volume Shaper Presets

Toggle the library button to show the preset explorer

Previous - Next Preset

Select the Volume Shaper Style

This will change the module as well as display presets for this style

Filter by Trigger Type

Click on a Trigger Type to see presets which use this trigger method

Toggle to display Favourites only

Volume
- Pump
- Gate
- Duck

Trigger
- BPM
- Midi
- Audio
- S/C

Favourites

Pump [Audio] 1-4 Full

Pump [Audio] 1-4 Full
Pump [Audio] 1-4 Hard
Pump [Audio] 1-4 Soft
Pump [Audio] 1-4 Square
Pump [BPM] 1-1 Soft
Pump [BPM] 1-4
Pump [BPM] 1-4 Full
Pump [BPM] 1-4 Hard

close

Toggle to add to Favourites

Current Selected Preset

Another way to close this window

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Buffer Reset

Buffer Reset

Select the Trigger style

Set the BPM Interval
(BPM mode only)

Set the Mix Amount
100% = Full Reset
50% = Mix of Reset and current signal

Set the Release Time

BPM ▼
✓ BPM
MIDI
Manual

Volume
Pump
Gate
Duck
Colour
Decay EQ
Post EQ
Tweak
Expert
Buffer

Buffer Reset

BPM
Trigger

1 bar
Bars

Active

100%
Amount

0 ms
Time

128

Reset

4 bars
Scope

Click to display Buffer
Reset Panel

Current Host BPM

Trigger Indicator

Off

Active

Click to Activate
Buffer Reset

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Buffer Reset enables us to stop the audio tail instantly, or with a slight release for smoothness.

When Utopia receives a Buffer Reset trigger, it stops the current reverb buffer (i.e. the sound) and then restarts it fresh with the sound passing through the input.

To do this, we need to Trigger the Reset.
We can choose from several Trigger Inputs depending on the style of effect we want to achieve.
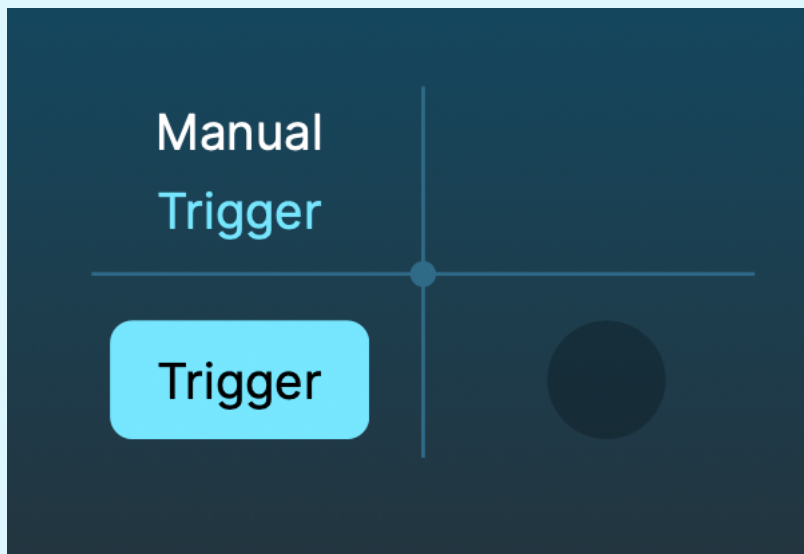
Trigger Inputs

Choose from

BPM

MIDI

Manual
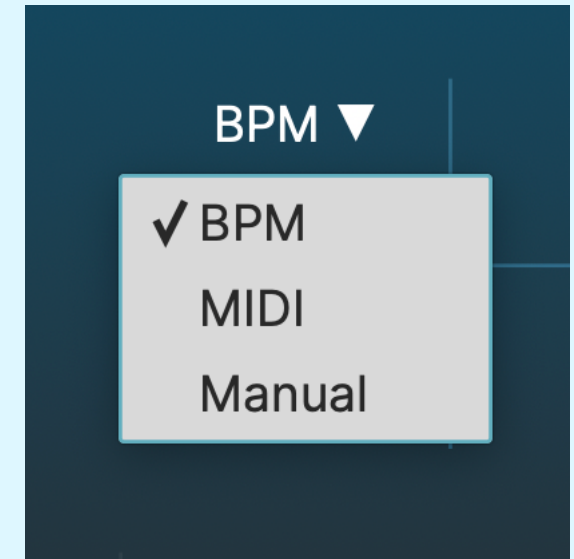
BPM and MIDI Triggering work the same way for the Buffer Reset as they do with the Volume Shaper. Please See Volume Shaper section for instructions.

Manual Mode : Any time you click the Trigger button, it will Restart the Buffer.
The Manual Trigger is also available as an Automation parameter, and you can assign a MIDI controller via Host MIDI to Automation and record live edit and jam with it.

UTOPIA

Utopia's parameters can be automated using the host DAW automation system.

Check out the list —->

We can also use the DAWs automation system to assign parameters to a hardware MIDI controller.

Please refer to your DAW host for steps to link a MIDI controller to an Automation parameter.

Auto Clear	Detune	Post EQ - Band 3 Bias
BPM Sync	Detune Preset	Post EQ - Band 3 Enable
BPM Sync	Duck Attack	Post EQ - Band 3 Freq
Buffer Reset	Duck Release	Post EQ - Band 3 Gain
Buffer Reset Amount	Duck Threshold	Post EQ - Band 4 Bias
Buffer Reset BPM Length	Duck Trigger	Post EQ - Band 4 Enable
Buffer Reset Manual Trigger	Early Detune	Post EQ - Band 4 Freq
Buffer Reset MIDI Note End	Early Diffusion	Post EQ - Band 4 Gain
Buffer Reset MIDI Note Start	Early High Cut	Post EQ - Band 5 Bias
Buffer Reset Time	Early Low Cut	Post EQ - Band 5 Enable
Buffer Reset Trigger	Early Preset	Post EQ - Band 5 Freq
Bypass	Early Stereo	Post EQ - Band 5 Gain
Decay	ER	Pre Delay
Decay (Sync)	Freeze	Pre Delay (Sync)
Decay EQ	Gate Length	Pump Length
Decay EQ - Band 1 Bias	Gate MIDI Note End	Pump MIDI Note End
Decay EQ - Band 1 Enable	Gate MIDI Note Start	Pump MIDI Note Start
Decay EQ - Band 1 Freq	Gate Shape	Pump Shape
Decay EQ - Band 1 Gain	Gate Smoothing	Pump Smoothing
Decay EQ - Band 2 Bias	Gate Symmetry	Pump Symmetry
Decay EQ - Band 2 Enable	Gate Threshold	Pump Threshold
Decay EQ - Band 2 Freq	Gate Trigger	Pump Trigger
Decay EQ - Band 2 Gain	Mix	Send
Decay EQ - Band 3 Bias	Post EQ	Shape
Decay EQ - Band 3 Enable	Post EQ - Band 1 Bias	Shimmer
Decay EQ - Band 3 Freq	Post EQ - Band 1 Enable	Shimmer Preset
Decay EQ - Band 3 Gain	Post EQ - Band 1 Freq	Spectral
Decay EQ - Band 4 Bias	Post EQ - Band 1 Gain	Spectral Blocks
Decay EQ - Band 4 Enable	Post EQ - Band 2 Bias	Spectral Preset
Decay EQ - Band 4 Freq	Post EQ - Band 2 Enable	Stereo
Decay EQ - Band 4 Gain	Post EQ - Band 2 Freq	
Decay EQ - Band 5 Bias	Post EQ - Band 2 Gain	
Decay EQ - Band 5 Enable		
Decay EQ - Band 5 Freq		
Decay EQ - Band 5 Gain		