

BLOSSOM

The Creator's Guide

A real time MIDI harmoniser. You play a melody, Blossom builds beautiful harmonies around it, and sends them wherever you like

[althemispace](http://althemispace.com)

Let your
music grow



What's in this guide

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What Blossom is, and how it works

02

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03

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First sound, the three modes, the controls you need on day one

04

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Routing to multiple instruments, the arp, shaping the output

05

Tips and Technical Documentation

How to get the most out Blossom, and the finer musical details

01

SECTION ONE

Overview

What Blossom is

QUANTIZE

OFF

DIATONIC

TONAL

PENTATONIC

T1

T2

T3

T4

H

H2

H3

H4

ROUTES

POSITION

MAN

ORBIT

HO

SPIN

DISTANCE

MAN

DIV

CON

SPL

VELOCITY

LIVE

SCALED

FIXED

0.81

SCALE

90

VALUE

DURATION

LIVE

SCALED

FIXED

3.14

200

RANGE

SCALE

VALUE

THE ONE THING TO KNOW FIRST

Blossom changes and augments the notes you play but makes no sound of its own

What it is

- A MIDI effect. Notes go in, more notes come out.
- It generates harmony voices around the melody you play. The rules can be simple or complex; and exceptionally beautiful.
- Each voice can be sent to a different instrument.
- Your instruments turn those notes into sound.
- Blossom uses simple rules, but with vast potential with results that are stunning musical, and equally useful as a sketchpad, composition, performance, educational, and production tool.

What it isn't

- Not a synth. It has no oscillators and no samples.
- Not an effect on your audio. It never touches sound.
- Not silent because it is broken. Silence means it isn't routed yet.
- A tool with one right way to use, or one style.

If you open Blossom and hear nothing, that is expected. Section 02 fixes it in four steps.

HOW IT WORKS

One line becomes an ensemble

You play

one melody



Optional
Arpeggiator

Blossom generates

up to 9 voices



EXAMPLE ROUTINGS

EXAMPLE A

All Channels

Melody and all voices on same instrument
e.g. piano

EXAMPLE B

Channel 1

The melody (M-voice) e.g. piano

Channel 2

a voice generated by Blossom e.g. pad

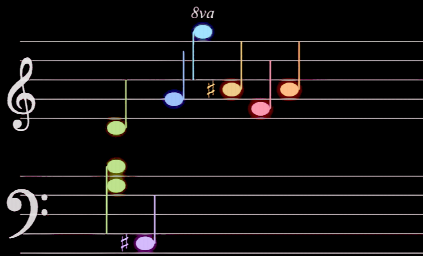
Channel 3

Additional harmony voice e.g. hardware synth

Channel 4

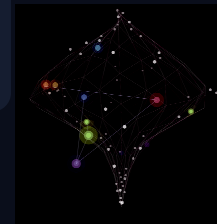
Additional harmony voice e.g. external
hardware synth

● M ● T1 ● T2 ● T3 ● T4 ● H ● H2 ● H3 ● H4



Every voice can have its own MIDI channel, and sound

Blossom takes your input melody (either through live playing or recorded material) and adds additional voices, each of which can be sent to the same, or different internal or external instruments. All voices are colour coded throughout Blossom.



Tone voice 1
(T1)

Harmony Voice
(H)
Harmony Voice 2
(H2)

Tone voice 2
(T2)



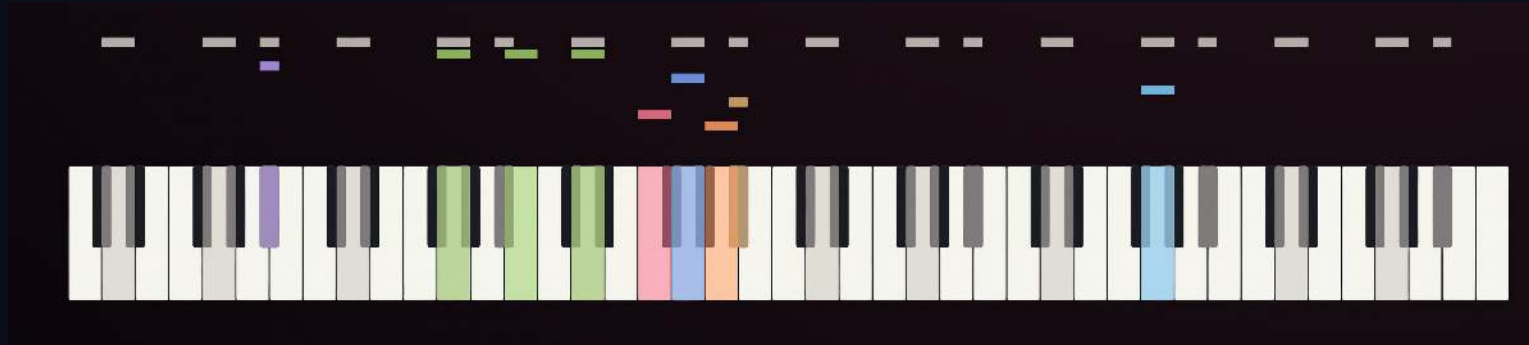
Melody
(M)

Tone voice 2
(T2)

Voices appear on Blossom's keyboard, notation
and central visualizers

WHAT BLOSSOM GENERATES

The voices



M

Melody

The note you actually played. Pass it through, quantize to a scale, or mute it and let the harmony carry.

T1 to T4

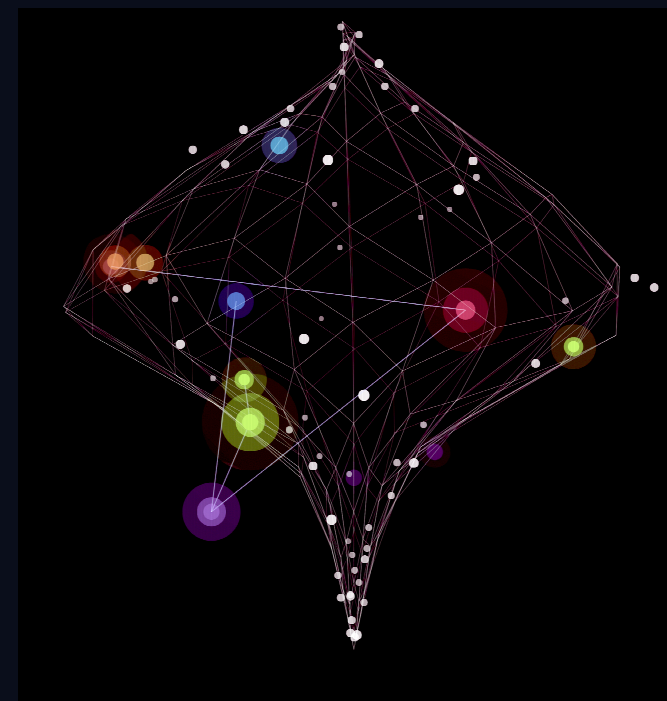
Tone voices

Each one picks a note from the 'chord of the moment' guided by your melody note, and moves with it. This is the core Blossom sound, creating shimmering contemporary harmonies.

H1 to H4

Harmony voices

H voices are additional harmony voices drawn from the 'scale of the moment'. This creates fuller, harmonic support including traditional harmonisations. H voices provide a support to the tone voices.



Every voice can be switched on or off, routed separately, given its own MIDI channel, offset and automated in countless ways.

The chord and scale of the moment may be manually selected or respond in real time to your playing in 'external chord mode'

Harmonic Concepts

M

Melody

The note you actually played. Pass it through, quantize to a scale, or mute it and let the harmony carry.

T1 to T4

Tone voices

Each one picks a note from the 'chord of the moment' guided by your melody note, and moves with it. This is the core Blossom sound, creating shimmering contemporary harmonies. The chord of the moment is either manually selected (Manual mode) or inferred from what you play (External chord and Listen modes)

H1 to H4

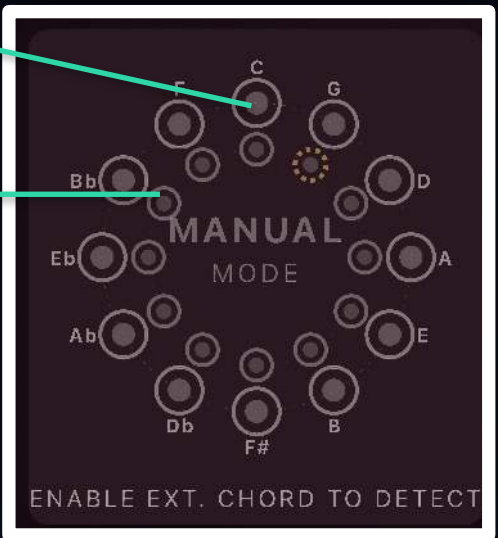
Harmony voices

H voices are additional harmony voices drawn from the 'scale of the moment' This creates fuller, harmonic support including traditional harmonisations. H voices provide a support to the tone voices. The scale of the moment is either manually selected (Manual mode) or inferred from what you play (External chord and Listen modes)

Manual Mode

C Major (Chord & Scale)

B $\flat$ minor (Chord & Scale)

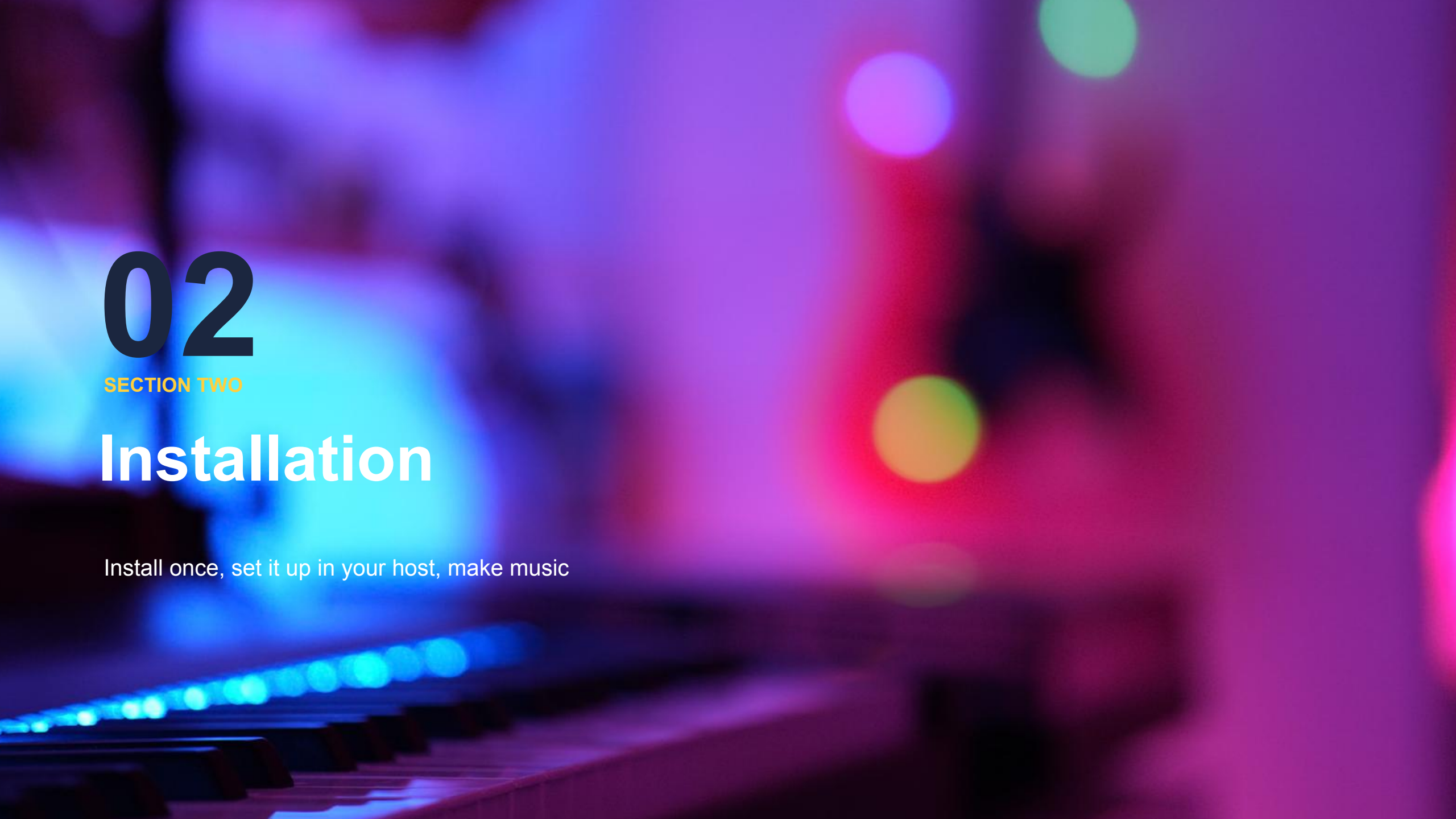


Ext. Chord & Listen Modes



Chord dictates T voices (e.g. G7#11)

Scale dictates H voices (e.g. G Lydian)



02

SECTION TWO

Installation

Install once, set it up in your host, make music

BEFORE YOU START

Which version do I have?

Blossom

[MIDI FX](#) . [AU](#) and [VST3](#)

The core harmoniser

Blossom Pro

[MIDI FX](#) . [AU](#) and [VST3](#)

Full voice count, routing matrix, MIDI port, extended arp and echo

Blossom Pro Live

[Instrument](#) . [AU](#) and [VST3](#)

The same engine optimised for Ableton Live

Blossom Complete

[Bundle](#) . [Installer](#)

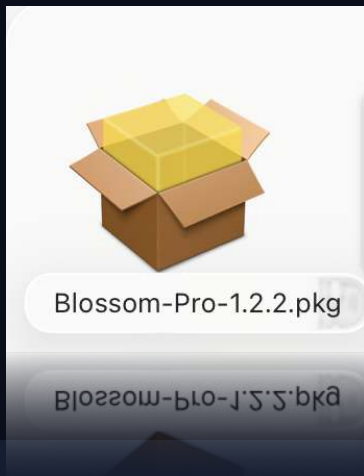
Pro, Pro Live and the light pack (a visualiser for Native Instrument Komplete keyboards) together

MIDI FX versions sit before an instrument and feed it. Pro Live sits in an instrument slot.

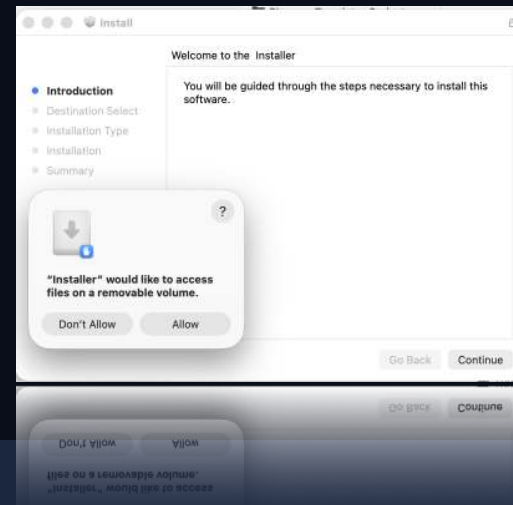
ALL HOSTS

Installing

Double-click package



Click allow if prompted



macOS

1 Quit your DAW first

Plugins loaded in memory are not replaced while the host is running.

2 Run the installer

Components go to the system Audio Plug-Ins folders automatically.

3 Reopen your DAW

It will scan on launch. No manual rescan needed in most hosts.

Where files land

AU

/Library/Audio/Plug-Ins/Components

VST3

/Library/Audio/Plug-Ins/VST3

Check the version

The version number is shown in the top left corner of the plugin window. Confirm it matches the build you installed.

If the plugin does not appear after reopening, run your host's plugin rescan and check it is not in the blacklist.

Setting up in Ableton Live

Blossom in Ableton Live — Setup Guide

1

Drop Blossom, Blossom Pro or Blossom Pro Live on a MIDI track

Any MIDI track. Set its input to your keyboard or controller. Set Monitor to IN (or Auto with REC enabled)

2

Open the gear menu and switch MIDI Out on

This creates a virtual MIDI port called Blossom that other tracks can listen to (this is turned on by default in Blossom Pro Live)

3

Create a second track with an instrument

Any synth or sampler. This is what will actually make sound.

4

Set that track's MIDI From to Blossom

Choose a specific channel, only choose All Channels if you want to hear all voices on one instrument (a polyphonic instrument is advised). Then set Monitor to In (or Auto with REC enabled)

Routing Example

Track 1

your keyboard in, Blossom on it, MIDI Out on

Track 2

MIDI From: Blossom, Ch. 1

Track 3

MIDI From: Blossom, Ch. 2

Track 4

MIDI From: Blossom, Ch. 3

Ableton Live: set the input properly



A wrong input setting creates a feedback loop

Blossom sends notes out to the Blossom port. If a track that feeds back into Blossom is also listening to that port, its output returns to it and multiplies. The result is a runaway cascade of notes that will not stop until you hit PANIC.

Do this

- Instrument tracks: MIDI From Blossom, on a specific channel.
- Blossom's own track: input from your keyboard or controller only.

Never this

- The Blossom track listening to the Blossom port. This will create an infinite MIDI loop, not desirable.
- When you create a new MIDI track in Ableton Live

If routing shows greyed out after reloading a set, re-select Blossom in the MIDI From menu to relink it.

Setting up in Logic Pro

Blossom in Logic — Setup Guide

1 Create a software instrument track

Load the instrument you want to hear first. Blossom sits above it.

2 Click the MIDI FX slot

It is directly above the Instrument slot in the channel strip.

3 Choose Blossom from the MIDI FX list

It appears under ALTHEMI. Play and you should hear harmony immediately.

4 For multiple instruments, switch MIDI Out on

Then set other tracks to receive from the Blossom port, filtered by channel.

Why Logic is simpler

Logic's MIDI FX slot feeds the instrument on the same channel strip automatically. You get sound on the first play with no routing at all.

Blossom Pro Live

If you prefer an instrument rather than a MIDI effect, load Pro Live in the Instrument slot instead. Same engine, different slot.

Other hosts and hardware

Any VST3 host

Load Blossom wherever the host puts MIDI effects. If it has no MIDI effect slot, use Pro Live in an instrument slot and route its MIDI out.

Cubase, Studio One, Bitwig, Reaper and Digital Performer all work this way.

Hardware synths

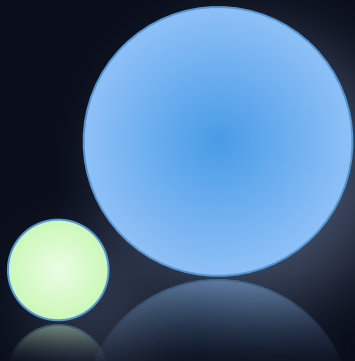
Switch MIDI Out on, then point your interface or host at the Blossom port and filter by channel.

Each generated voice can drive a separate hardware instrument. This is where Blossom is at its best.

Two instances

Running more than one? The ports appear as Blossom and Blossom 2, so each instance can drive its own set of instruments.

Useful for splitting a keyboard across two rigs, or running a separate arp.



03

SECTION THREE

Basic operation

Your first sound, the three modes, and the controls that matter on day one.

[althemispace](http://althemispace.com)



BASIC OPERATION

Your first sound in four steps

1

Load Blossom

On a MIDI track in Ableton, or in the MIDI FX slot in Logic.

2

Route it to an instrument

Ableton: MIDI From Blossom on a specific channel. Logic: it feeds the track already.

3

Pick a preset

Use the browser or an A to H slot, so voices are already enabled and routed.

4

Play

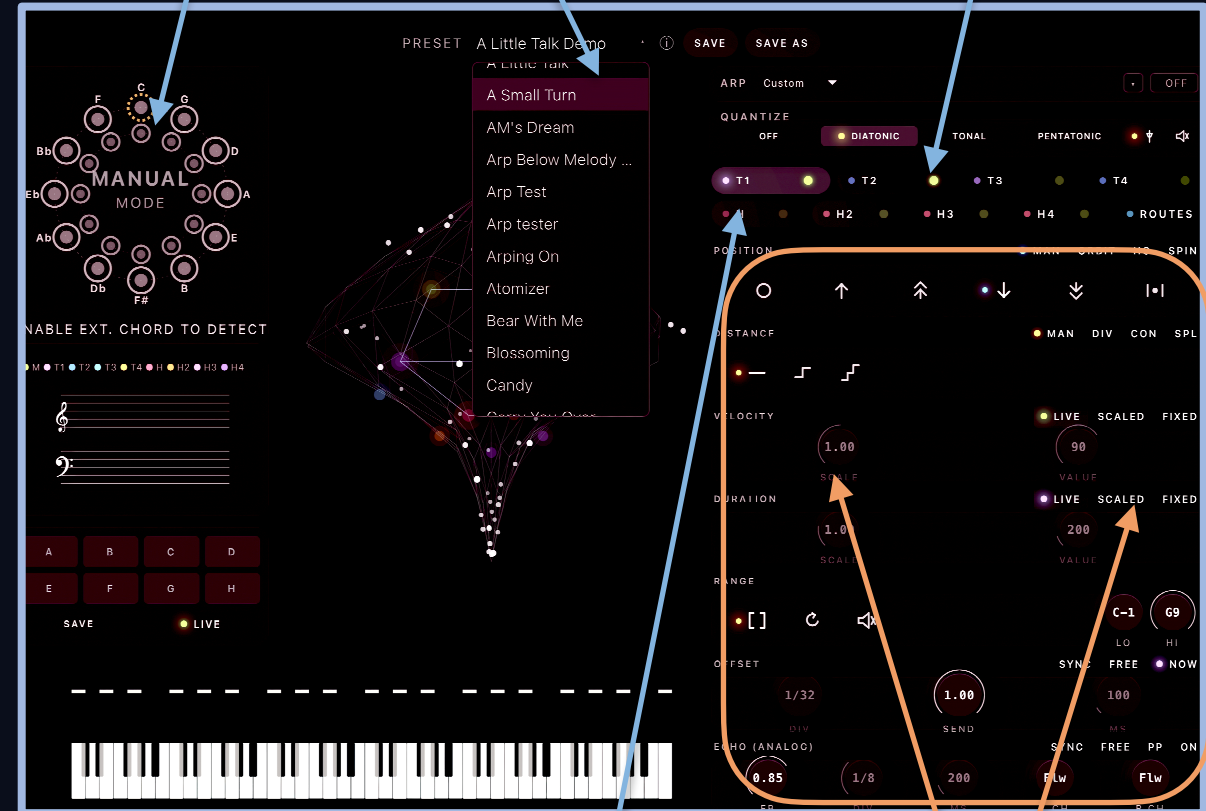
Harmony should appear with your melody straight away.

Hearing only your own notes? Check the instrument track is armed or monitoring.

Try out different chords (major on outer, minor on inner circles)

Pick a Preset 'A Small Turn' is a nice start, play some notes, enjoy.

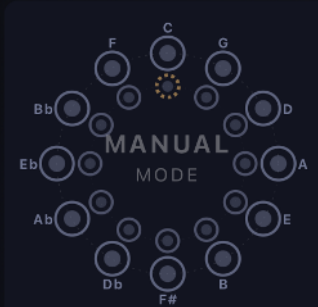
voices on and off



You should see activity here

when selected, each voice's behaviour can be adjusted in this panel

Three ways to tell Blossom the harmony



Below this split point infers harmony this area of the keyboard is muted unless 'Chord Thru' is activated

MANUAL

You set the key and chord yourself from the circle display.

Use it for

Composing, or when you know exactly what you want. Excellent for diatonic use, although chord changes can be automated.

A good place to start

EXT. CHORD

Blossom reads chords you play into it (typically from a second keyboard/track) and harmonises with them.

Use it for

Improvisation, playing over changes. Complex chords and scales. Comping with one hand, melody with the other.

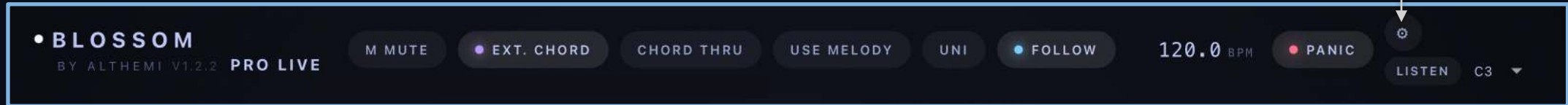
LISTEN

Blossom listens to what you play and infers the harmony as you go.

Use it for

Improvising, teaching, or playing with no setup at all. Interpreting existing MIDI

The controls along the top



M MUTE

Silences your played melody, leaving only the generated voices. Useful for inventive textures, or when the melody is played in parallel on another track

EXT. CHORD

Enables external chord input

CHORD THRU

In external chord or Listen Mode this passes your chord notes through to the output as well as using them to infer harmony

USE MELODY

Uses the melody line as an additional source for harmonic decisions, use if your harmony is driven by melody, disable for greater melodic freedom.

UNI

Unison. This allows voices to output the same pitch as the melody, in most cases only use this when melody and voices are on different MIDI channels.

FOLLOW

Wheel Selection follows detected chord

LISTEN

Automatic harmony detection. Set the split point beside it to determine what is considered harmony (below) and melody (above). In this mode notes below the spit point determine harmony but are muted (unless Chord Thru is enabled)

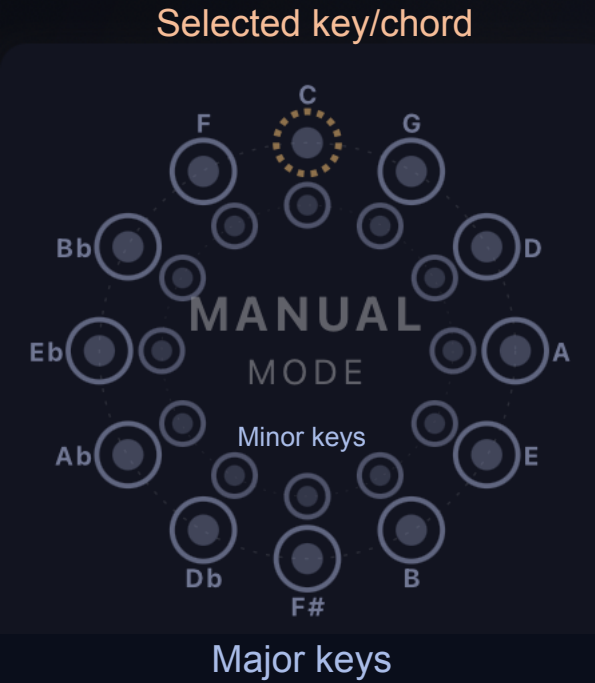
PANIC

Stops everything. All notes off, all channels. Useful for stuck or wild notes.

Quantizing The Melody

Behaviour

In manual mode a key is picked on the chord wheel (12 major keys and 12 minor keys), you can choose to constrain your melody to the key. This is useful if you want quick, effective results from playing, but it also allows you to inout the same melody (played or as a MIDI region) and have it fit with changing harmony. Quantize behaviour



QUANTIZE

● OFF

DIATONIC

TONAL

PENTATONIC

How 'outside' notes are treated

●

ψ

🔊

Adjusted to fit nearest scale note

Muted

Melody is not adjusted, allowing full chromatic freedom

Melody is constrained to major (Ionian) in a major key; minor (aeolian) in a minor key

Melody is constrained to major or minor but with some additional idiomatic passing notes. Allows sophistication while avoiding big clashes

Melody is constrained to major or minor pentatonic

● BLOSSOM
BY ALTHEMI 2.1.2.3 PRO LIVE

M MUTE EXT. CHORD CHORD THRU USE MELODY UNI FOLLOW 120.0 BPM PANIC LISTEN C1

PRESET Arpegg On

SAVE SAVE AS

ARP. Cyclic

QUANTIZE

● OFF

DIATONIC TONAL PENTATONIC

T1 T2 T3 T4

H1 H2 H3 H4 ROUTES

POSITION

MAN ORBIT HQ SPIN

BASIC OPERATION . CONTROLS

T-voices

Four T voices can be set independently

Behaviour

T voices are always drawn from the 'chord of the moment'. For example if manual mode is set to A minor, a T-voice will be an A, C or E. Each T voice's position, range, octave, rhythmic placement, instrument, velocity and duration are all independently adjustable.

RANGE

Each T-voice can be constrained to a specific range

Out of range handling

Range: Low to High

Limit to range

• []

Cycle

↻

Mute

🔊

C-1

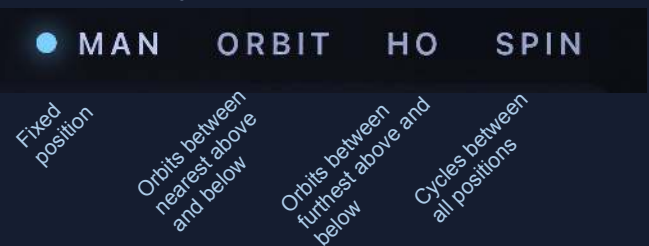
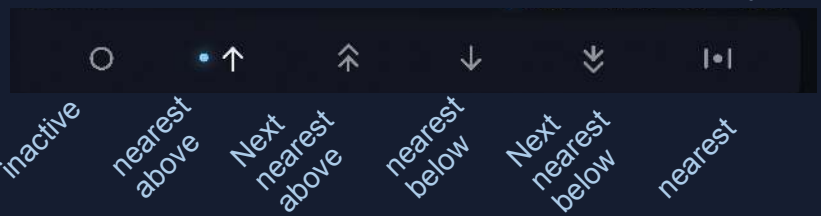
G9

LO

HI

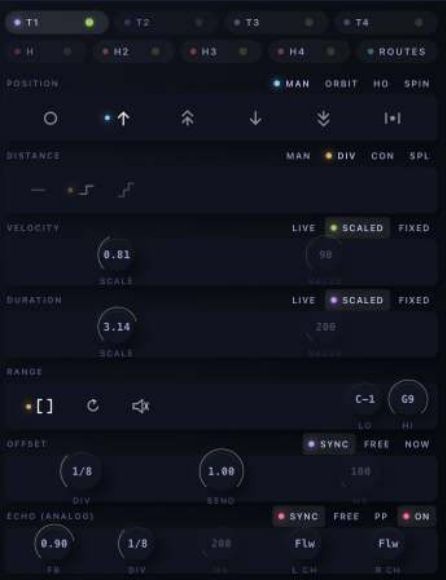
POSITION

This determines which chord tone is played, relative to the melody



DISTANCE

T voices above and below can be displaced by one or two octaves up and down respectively



OFFSET

Each T voice can be offset in time appearing after its 'source' melody note. This delay can be 'sync'd' in musical divisions (1/2 1/4 notes etc) or 'free' in milliseconds



VELOCITY & DURATION

Each T voice can be the same velocity and duration as the melody note; or scaled relatively, or a fixed value

ECHO

A MIDI Echo may be added to each T voice. It need not be the same value as offset. FB determines the feedback, the number of repeats. PP - ping pong mode - cycles echos between MIDI channels. NOTE: Midi echo can overwhelm an instrument's resources – a little goes a long way.

BASIC OPERATION . CONTROLS

H-voices

Four T voices can be set independently

Behaviour

H voices are always drawn from the 'scale of the moment'. For example if manual mode is set to A minor, an H voice will come from the A minor scale. If for example in listen mode, the scale is G Mixolydian, that will determine the H voices. Each H voice's degree, rhythmic placement, instrument, range, velocity and duration are all independently adjustable.

RANGE

Each H-voice can be constrained to a specific range

Out of range handling

Limit to range

Cycle

Mute

Range: Low to High

[]

C-1

G9

LO

HI

POSITION

This determines which scale tone is played, relative to the melody

INTERVAL

OFF

3RD

5TH

6TH

OCT

2ND

4TH

7TH

DIRECTION

ABOVE

BELOW

VELOCITY & DURATION

Each H voice can be the same velocity and duration as the melody note; or scaled relatively, or a fixed value

VELOCITY

LIVE

SCALED

FIXED

0.80

SCALE

90

VALUE

DURATION

LIVE

SCALED

FIXED

1.00

SCALE

200

VALUE

OFFSET

Each H voice can be offset in time appearing after its 'source' melody note. This delay can be 'synced' in musical divisions (1/2 1/4 notes etc) or 'free' in milliseconds

OFFSET

SYNC

FREE

NOW

Offset in beats

1/8

DIV

relative velocity

1.00

5FND

Offset in ms

100

MS

ECHO

A MIDI Echo may be added to each T voice. It need not be the same value as offset. FB determines the feedback, the number of repeats. PP - ping pong mode - cycles echos between MIDI channels. NOTE: Midi echo can overwhelm an instrument's resources – a little goes a long way.

ECHO (ANALOG)

SYNC

FREE

PP

ON

0.90

FB

1/8

DIV

200

MS

Flw

L CH

Flw

R CH

quantize — notes pass unchanged

T3

T4

H

H2

H3

H4

ROUTES

POSITION

OFF

3RD

5TH

6TH

OCT

2ND

4TH

7TH

DISTANCE

ABOVE

BELOW

SMART

SYNC

FREE

VELOCITY

LIVE

SCALED

FIXED

0.80

SCALE

90

VALUE

DURATION

LIVE

SCALED

FIXED

1.00

SCALE

200

VALUE

RANGE

[]

C-1

G9

LOHI

TONAL

AUTO

MAJ

MIN

COLOR

AUTO

BRIGHT

DARK

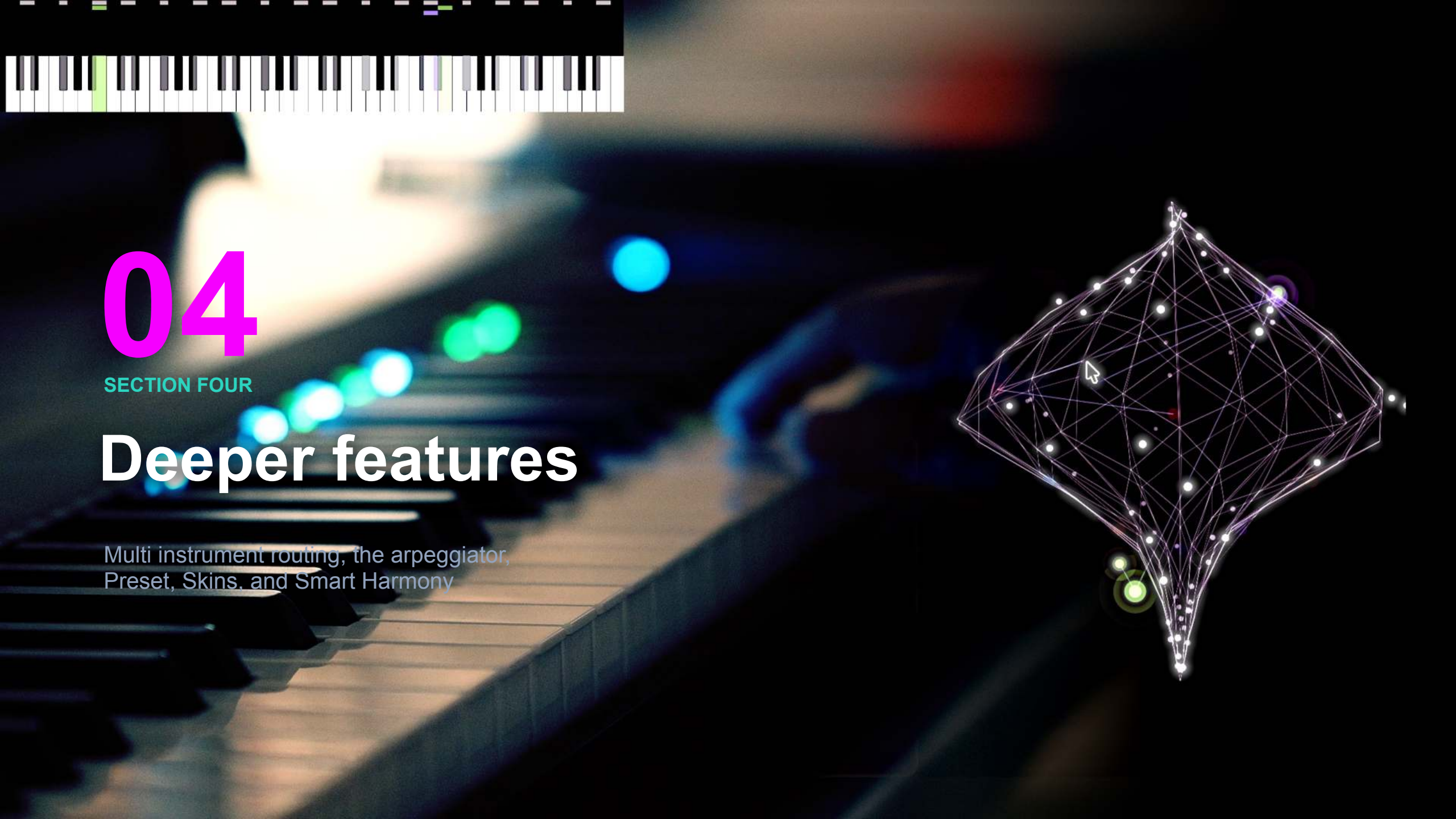
STYLE

AUTO

TONAL

JAZZ

0MFH

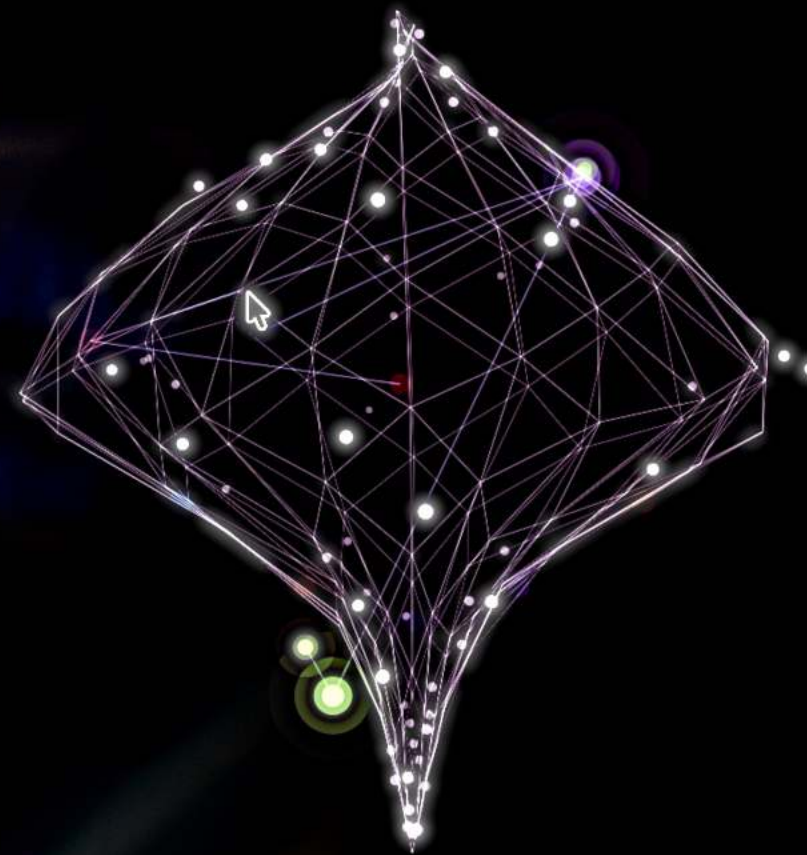


04

SECTION FOUR

Deeper features

Multi instrument routing, the arpeggiator,
Preset, Skins, and Smart Harmony



The routing matrix

Two settings per voice

Route

Off, Follow, Thru, or a hosted slot. This determines the internal MIDI behaviour whether the voice sounds and where it is generated from.

Channel

Which MIDI channel the voice leaves on. Give each voice its own channel and each can drive a different instrument.

The Blossom MIDI port

Switch MIDI Out on in the gear menu and Blossom creates a virtual MIDI port. Any track, or any external hardware, can listen to it and filter by channel.

This is how a multi instrument rig is built. One Blossom, many receivers, each taking one voice.

Presets do not store the routing matrix. Save your set or template to keep routing.

H

H2

H3

H4

ROUTES

ROUTING MATRIX

M · MEL	Thru	▼	Ch 1	▼	T1 · TIN	Follow	▼	Ch 2	▼
T2 · TIN	Follow	▼	Ch 3	▼	T3 · TIN	Follow	▼	Ch 4	▼
T4 · TIN	Follow	▼	Ch 5	▼	H · HAR	Follow	▼	Ch 6	▼
H2 · HAR	Follow	▼	Ch 7	▼	H3 · HAR	Off	▼	Ch 8	▼
H4 · HAR	Off	▼	Ch 9	▼					

120.0 BPM

PANIC

⚙

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

The Arpeggiator

Blossom's arp does not just repeat notes. It distributes them across your voices.

HOLD
On or Off

MODE
Additive, Replace, Freeze

Keeps the pattern running after you lift your hands

Additive adds notes to the held material while replace substitutes new material. Freeze keeps the arpeggio running allowing you to play on top.

RATE
Even or Euclid

Even keeps repeating notes at a constant rate. Euclid spreads hits as evenly as possible cross a number of subdivisions, creating enthralling rhythmic patterns. This pattern can be phased manually or automatically.

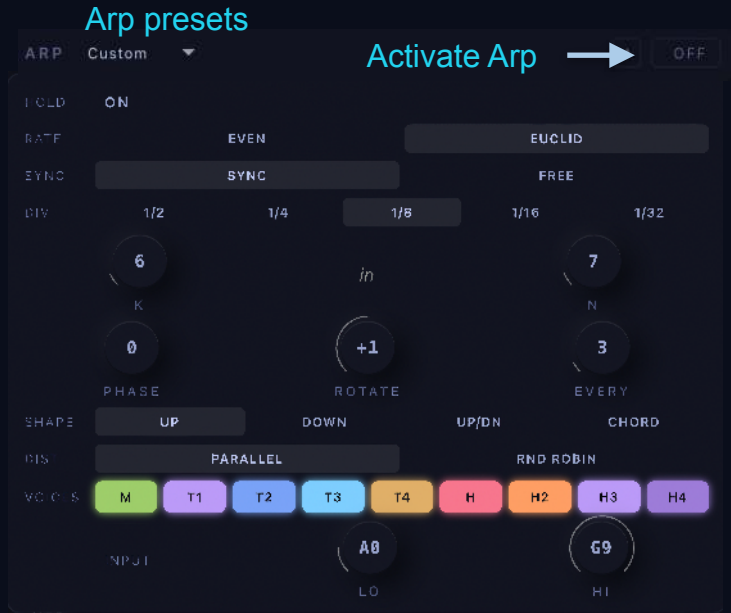
SHAPE
Up, Down, Up/Dn, Chord

Direction of travel through the arpeggio, or repeat as a Chord

DISTRIBUTION

Parallel sounds every armed voice on every step. Round Robin sounds one voice per step, rotating, so the line hands itself between instruments as it moves, creating extraordinary 'hocketed' patterns.

Arm voices to include in arpeggiator



SYNC
Sync or Free

Locked to host tempo, or absolute millisecond values.

DIVISION

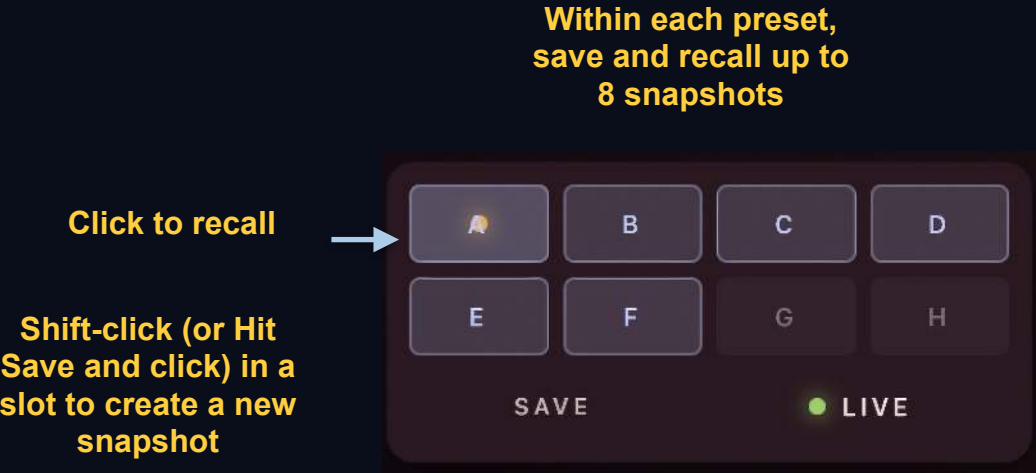
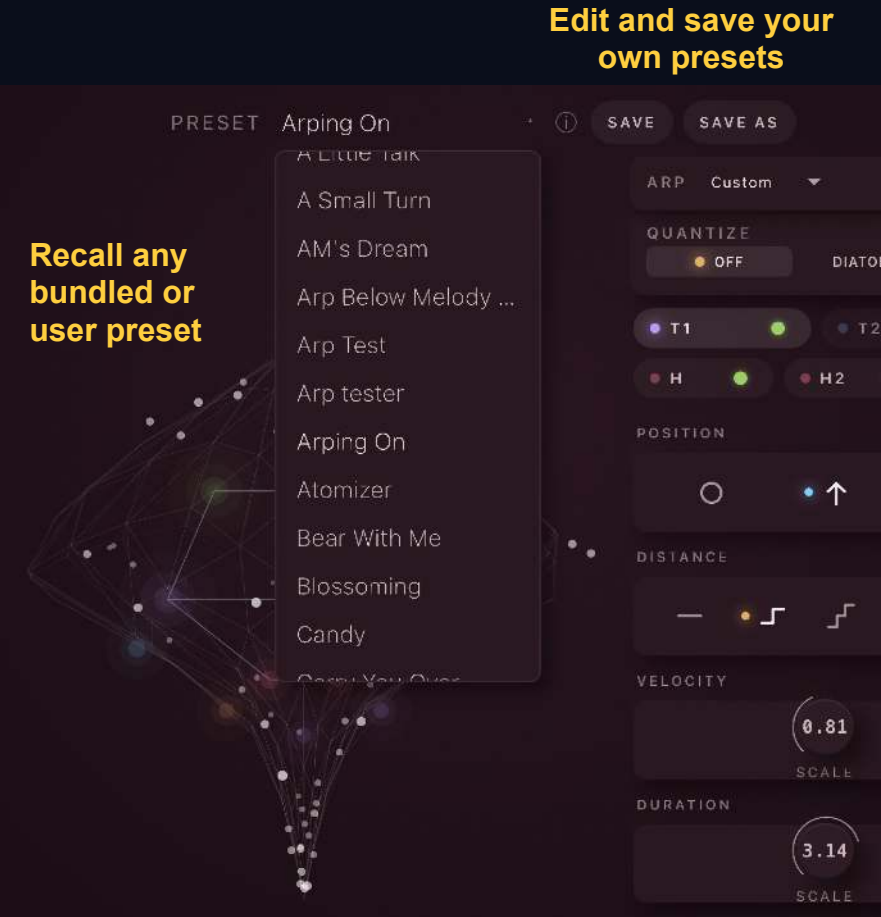
Select the rate of the arpeggio in musical divisions (SYNC) or milliseconds (FREE)

INPUT

The arpeggiator function can be constrained to a range on the keyboard (select low and high notes). Outside of this range the melody will not be arpeggiated and pass through to the armed voices in the main panel.

PRESETS & SNAPSHOTS

Recall and Save Presets for later use. Save and recall Snapshots within a preset for useful quick modes (e.g. voice settings and chords)



TIP: Snapshots recall can be automated or mapped in the DAW

DEEPER . SKINS

SKINS

Select your favourite look

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

Click Cog

Choose Skin

BLOSSOM

PRO LIVE

MANUAL MODE

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

NIGHT

BLOSSOM

PRO LIVE

MANUAL MODE

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

IVY

BLOSSOM

PRO LIVE

MANUAL MODE

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

BLOOM

BLOSSOM

PRO LIVE

MANUAL MODE

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

PETAL

BLOSSOM

PRO LIVE

MANUAL MODE

120.0 BPM

PANIC

0

SETTINGS

MIDI ROUTING

MIDI Out

MIDI OUT

Ext. Chord Channel

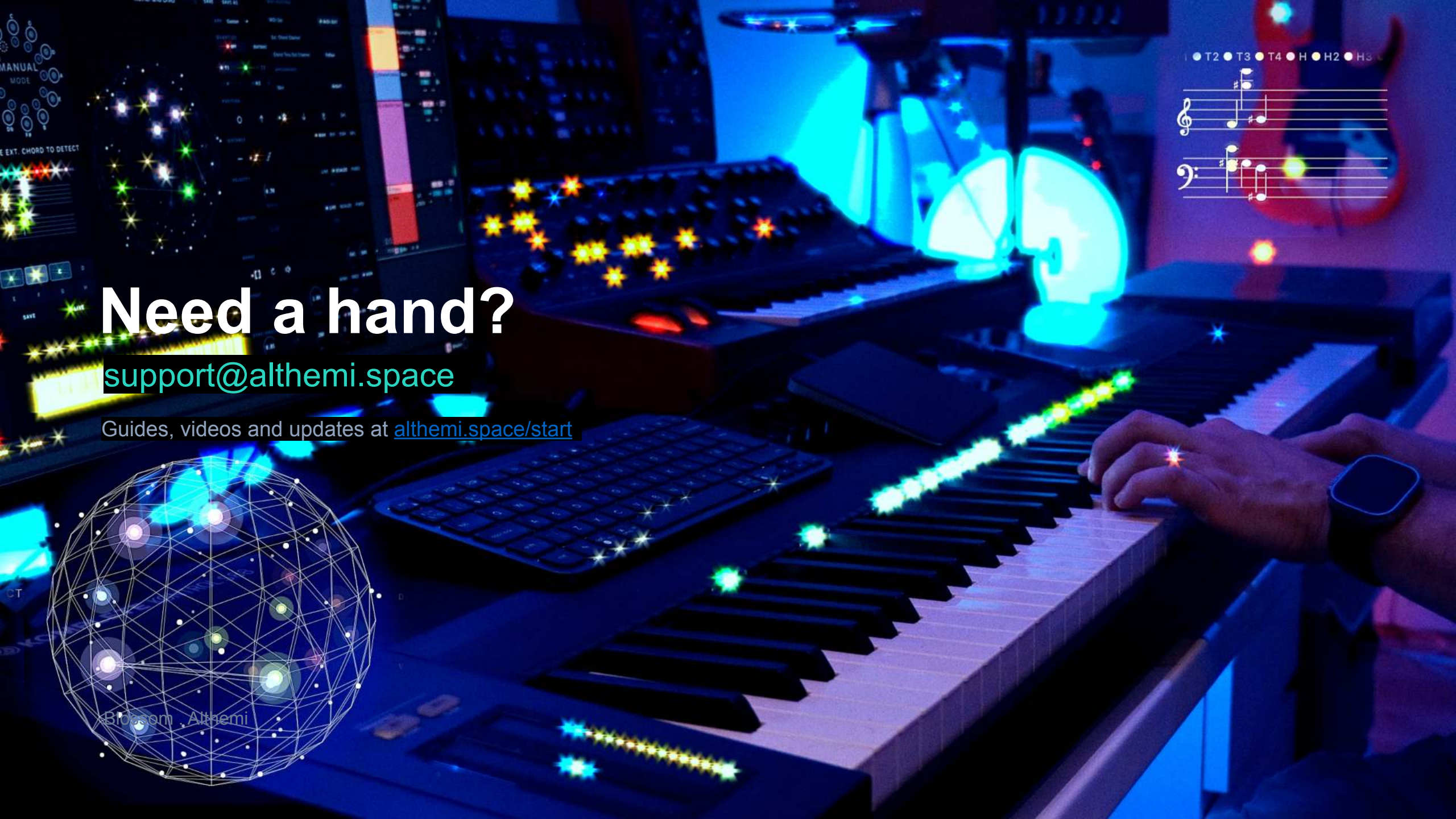
Chord Thru Out ChannelFollow

APPEARANCE

Skin

NIGHT

IRIS



Need a hand?

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