USER MANUAL

WELCOME

The Crow Hill Company thanks you for your purchase. Designed by professional composers with the sonic connoisseur in mind.

We're a small team and have worked hard to make everything as intuitive as possible. Our hope is this user manual can offer further help to best explain how to install and use our plugin.

In what is many love letters to the music making sorority we have taken time to make this affectionate user manual get the best out of your purchase.

However if you find yourself still stuck with anything we have a great set of FAQ and videos at:

thecrowhillcompany.com/faqs

CONTENTS

WHATS IN THE BOX MR CROW?

Lets get ready to Murmurate! We've kept things simple, intuitive, quick and easy to use out of the box. But there are a lot of new features to get your head around so hope your inquisitive nature encourages you to RTFM.

String Murmurations is designed for you to think differently about the way you write. The only learning curve you will experience is that of getting used to hearing the music you're about to make.

String Murmurations is composed of a number of components. Master recordings that have been recorded mixed and edited into a plugin with a GUI (graphical user interface) and a preset browser.

This plugin works within your preferred DAW (Digital Audio Workstation) i.e Logic, Ableton, Pro Tools, Garage band, Cubase etc etc.

Within the plug in are 150 presets split into 4 different categories or "Expressions":

Gestures – Behind each key lies an orchestra interpreting your composition and making it into music, into art.

Constellations – Outrageously beautiful clouds of sound, broken down, cell by cell in to granular refractions.

Blurs – True acoustic hysteresis, where sounds intertwine and become one. We made this because samples can't do it.

Crow Hill Selects – We've taken all of these stunning resources and have curated even more presets giving you even more responses to your musical endeavours.

INSTALLATION

1. Getting The Installer
Each instrument has a dedicated download utility to assist in downloading each instruments installer. This download utility (e.g. Crow Hill Murmurations Downloader) is only a few megabytes in size and can be found directly from the product page or in your customer account on www.thecrowhillcompany.com

2. Opening The Downloader
Once downloaded, navigate to your download folder to open the utility. If on macOS this will be a .zip file that needs to be opened to show the .app and on Windows a .exe file.
Once you have opened the utility it will ask you to choose a desired download location.
By default, this will be your Download folder, but if you are low on system disk space you can choose to download to an external drive.
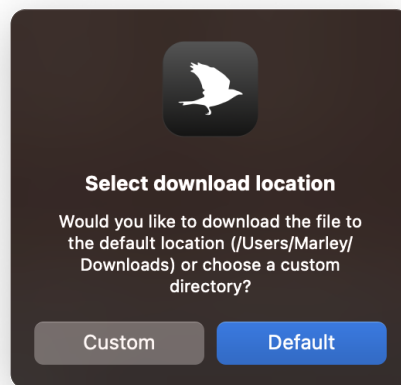
**3. Downloading**
Once opened the download utility will automatically download the instrument installer and open/mount the installer file.

!! What if the download has been completed and the installer files have not automatically opened after several minutes?
In this rare case, you can locate them in your chosen download location and open them directly by clicking on the file.
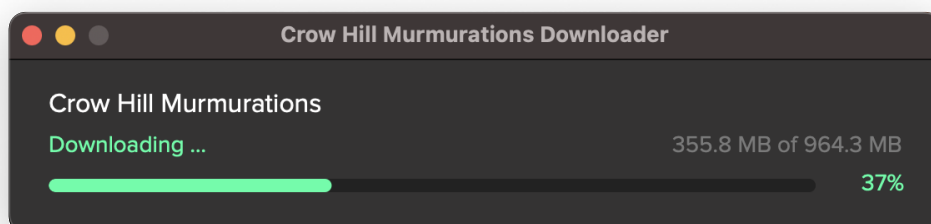
INSTALLATION (CONTINUED)

4. Installing
The installer has on-screen instructions to guide you through the process.

By clicking continue you are shown the End-User License Agreement. To install and use Crow Hill products this agreement should be read and agreed to. This agreement can be saved for your records and can be found in each instrument's user manual. Clicking Agree will take you to the next stage. Clicking Disagree will end the installation process.

5. Choosing A Sample Location
When installing your instrument, you will be presented with the option to select an install location for the audio content (.blob) and to de-select un required plug-in formats.
The default install location for the audio content is your system drive. For smaller products, this is perfectly fine. However, if you are running low on disk space you may install your instrument on an external drive. Select your desired location from the dropdown menu and proceed as instructed.

6. Choosing Required Plug-In Formats
If you only require a specific format (e.g. AU) then de-selecting other formats is a great way to save on disk space.
If you are unsure what plug-in format your D.A.W (Digital Audio Workstation) requires, we suggest installing them all to ensure maximum compatibility.
By default, all formats are pre-selected.

INSTALLATION (CONTINUED)

7. Confirming space
After clicking Continue the next screen confirms the amount of system disk space the installation will require. This is a great time to double-check check you are only installing the formats you require and if you want to use an external drive or not. To make changes to your previous selection simply select "Go Back".

8. Time To Install
Once you are happy to proceed click "Install".
Your operating system will then ask you to enter login credentials.
As the installer runs you will see onscreen progress. This process should only take several minutes with an estimated time presented throughout.

9. Next Steps
After a successful install your computer will ask you (macOS) whether you want to keep the installer or move it to your bin.
We suggest keeping a backup of all installers so, if needed you can use them again without having to re-download.

You are now ready to load up your favourite audio workstation, create a new instrument track, find the Crow Hill folder and load your new Plug-In.
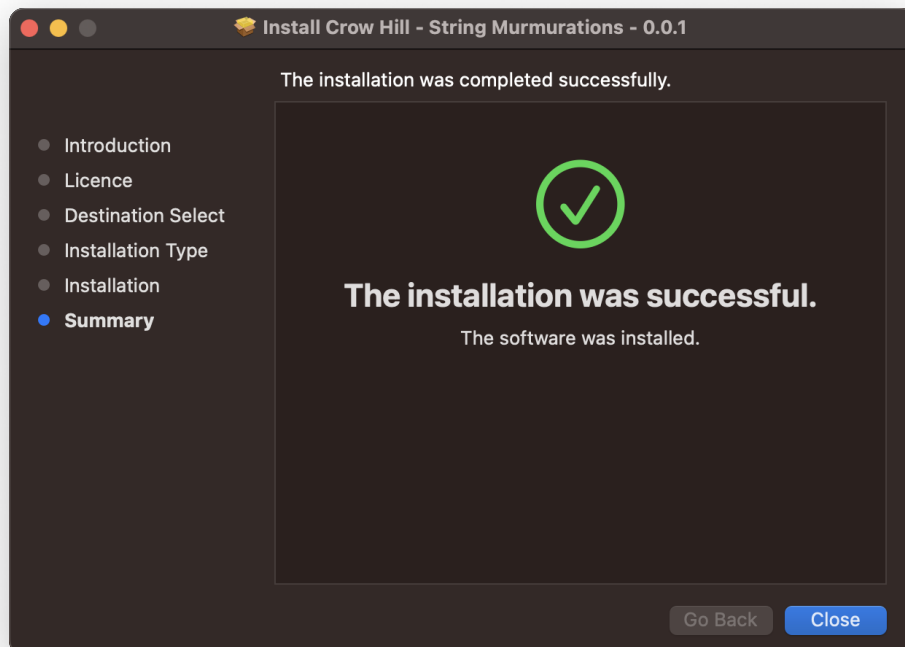
QUICK START

All of the treasures found in this collection work directly in your D.A.W. If you want to get up and running quickly or audition some presets simply load the plug-in, navigate to the top preset panel, and click the menu to see the fully integrated expression browser.
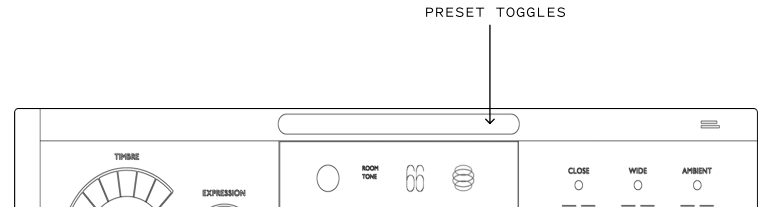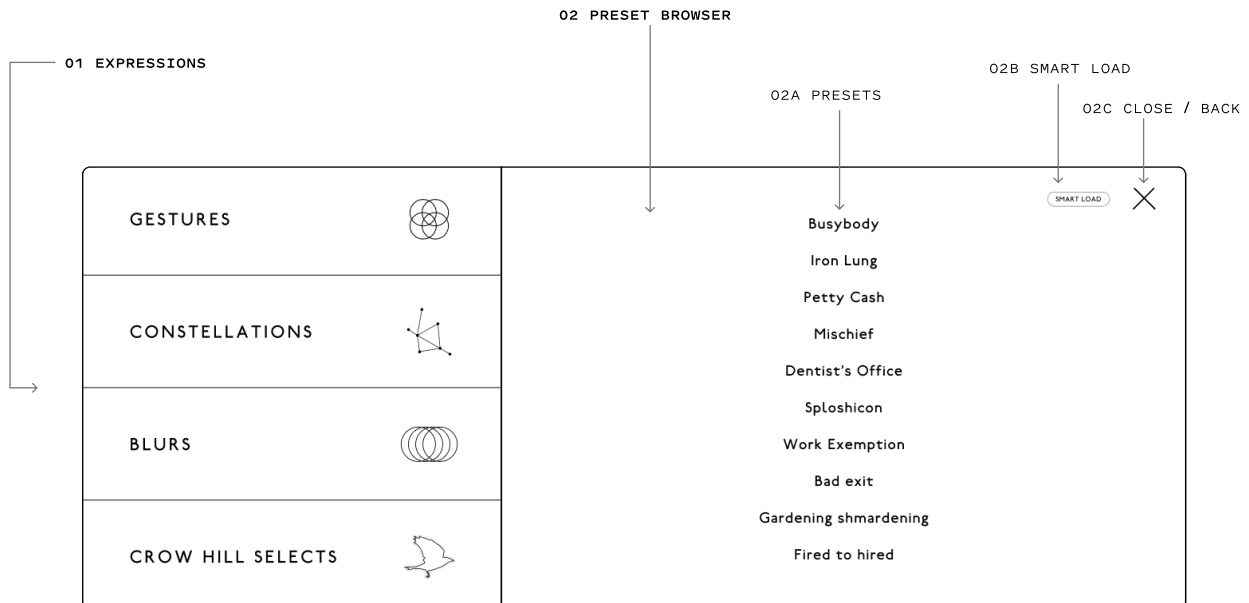
PRESET TOGGLES

Whilst we'd encourage you to mess around with all the controls. The preset toggles will move you forward and backward through the different expressions.

THE BROWSER WINDOW

PRESET TOGGLES

CLICK HERE!
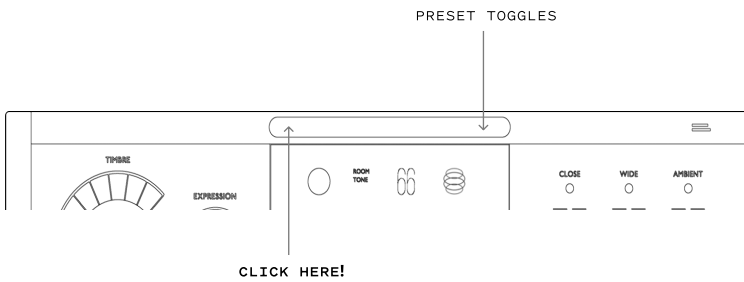
Whilst you can work your way through the presets using the arrow toggles there is also a way of getting to where you want even faster. By opening the preset browser panel.

02 PRESET BROWSER

01 EXPRESSIONS

02A PRESETS

02B SMART LOAD

02C CLOSE / BACK

GESTURES

CONSTELLATIONS

BLURS

CROW HILL SELECTS

SMART LOAD

Busybody
Iron Lung
Petty Cash
Mischief
Dentist's Office
Sploshicon
Work Exemption
Bad exit
Gardening shmardening
Fired to hired

01 EXPRESSIONS

Murmurations are organised into four categories (described on page 4). These behave very differently so click on these to toggle to a preset in the expression style you desire.

02 PRESET BROWSER

This is where you get to play!
Scroll up and down to reveal all presets in each section.

02A PRESETS - Click to load a preset, double click to return to the front panel.
02B SMART LOAD - When active, only loads the audio files you play into system memory.
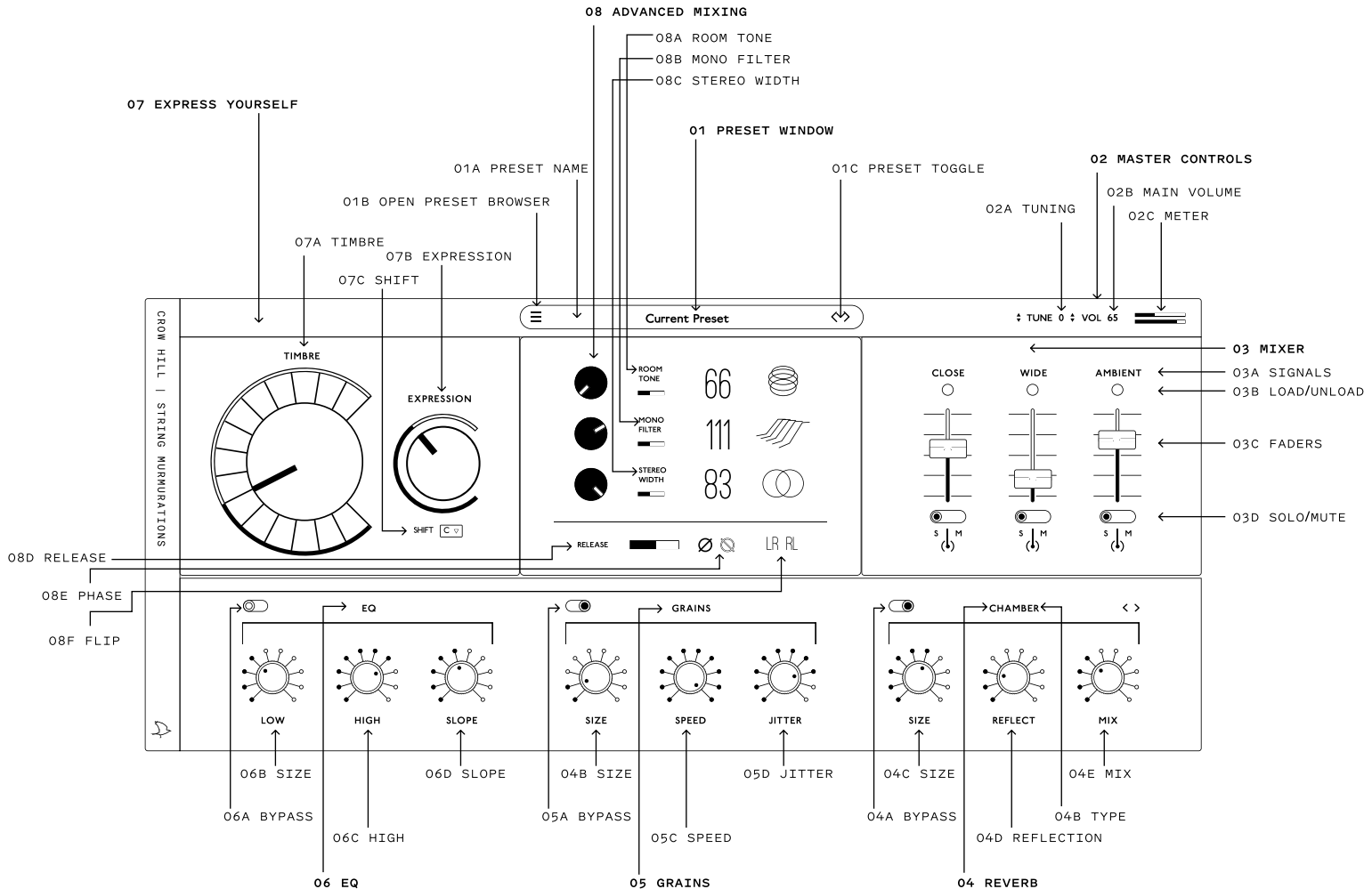02C CLOSE/BACK - Closes browser and returns you to the front panel.

FRONT PANEL OVERVIEW

***PLEASE NOTE, NOT ALL PRESETS SHARE THE SAME FUNCTIONALITY,
IF A PART OF THE GUI GOES GREY OR DISAPPEARS THIS IS QUITE NORMAL***

01 PRESET WINDOW

01A PRESET NAME - Displays the preset you're currently playing.
01B PRESET BROWSER - Opens the preset browser menu
01C PRESET TOGGLE - Toggles to the previous or next preset.

02 MASTER CONTROLS

02A TUNING - Fine tune the instrument.
02B VOLUME - Adjust the master volume of the instrument.
02C METER - A place to help identify issues and resolve
frustration. If you can see it, you should hear it.

03 THE MIXER

03A SIGNALS - Try these different signals to hone your sound.
03B PURGE - Load and unload each signal from memory.
03C FADERS - Adjusts the volume of each signal.
03D SOLO/MUTE - Audition signals with solo, kill them with mute.

04 REVERB

04A BYPASS - Switches off the moist.
04B TYPE - Hall, Chamber, Splosh & Glisten put your band anywhere.
04C SIZE - This changes the size of the space.
04D REFLECTION - Adjusts the decay time of the reverb.
04E MIX - Adjusts ratio of reverb vs the original signal.

05 GRAINS

05A BYPASS - Switches off the harvest
05B SIZE - How big each grain is.
05C SPEED - The speed & direction of each grains playback.
04D JITTER - Adjusts the randomisation of each individual grain.

06 EQ

06A LOW - Switches off / on the effect.
06B LOW - How much pre-curated fatness is added.
06C HIGH - Much pre-curated zingle is added.
06D SLOPE - Adjusts the curvature of the applied processing.

07 EXPRESS YOURSELF

07A TIMBRE - Move this in real-time to control intensity & tone.
07B EXPRESSION - Automate this to adjust loudness in real-time.
07C SHIFT - Selects scale mode for use within Gestures.

08 ADVANCED MIXING

08A ROOM TONE - Avoid digital silence by adding natural room.
08B MONO FILTER - Control fatness by summing the bass to mono.
08C STEREO WIDTH - Escape the the dialogue track by increasing width.
08D RELEASE - Control decay time of released notes.
08E PHASE - Toggle to avoid issues when mixing with other instruments.
08F FLIP - Reverse the stereo image. Left becomes right.

WHAT IS HYSTERESIS

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hysteresis
/ˌhɪstəˈriːsɪs/
noun
1. the phenomenon in which the value of a physical property lags behind changes in the effect
   causing it, as for instance when magnetic induction lags behind the magnetising force.
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Simply put it is the sound of hysteria. Not in the players themselves. But as a result of the very human effect of putting something difficult to play on their stands. When you give them something easy or rudimentary to play they will sound "together". By this we mean, in tune, in time. A good example of this would be asking the violins to play their bottom G. This is an open string (meaning they don't have to "stop" the note with their left hand). So provided they've tuned their instruments correctly you will be left with a very pure tone with a lot of the fundamental (the actual note they're playing).

The act of creating sample libraries means you are always asking the players to play stuff that is incredibly easy. Which means the end result is always "together".

Which is fine if you're programming or composing simple stuff, this will sound true to real life. However when playing more difficult passages in real life it becomes harder to remain totally locked to each other's tuning or time keeping, which means less of a pure sound. Less of the fundamental and where there's less fundamental there's more character. Which is why a lot of sample-based music you hear on the TV, in games and films, sounds "characterless". The samples lack hysteresis because they were easy to play and because you're playing something thats difficult it doesn't sound natural, real, or human.

So what makes musicians hysterical?

> **Speed** – The faster you get them to play the looser they will get (meaning they will be less in time, but also less in tune).
> **Reach** – The wider the gap between the notes the further they have to reach, the less perfectly in-tune they will be.
> **Pitch** – In general terms the higher you get a player to play the harder it is. For wind instruments it takes more lung effort. For string players it requires more intense accuracy (imagine a fret board on a guitar, notice how the frets aren't uniform and get closer together the higher they get, now imagine playing an instrument without frets).

So we decided to get our players to play the hard stuff. They're not compositions, but mere fragments. Which is why you will not feel like you are playing phrases, you will instead feel like you have a string band under your fingers.

Blurs sound that way because they're bloody fast, you can't hear the individual notes because they're inevitably scattered amongst the players.

Constellations are where we got them to completely ignore each other giving you beguiling textures to work with.

**Gestures** are the very real sound of reach & performance.

But most importantly, by not giving musicians easy stuff, they don't get bored. So you also have the sound musicians make, when they're smiling... hysterically.

gesture
/ˈdʒɛstʃə/
noun
1. a movement of part of the body, especially a hand or the head, to express an idea or
   meaning.

Phraselets, transitions or as Bernard Herrmann referred to them, "cells". We've
settled on **Gestures**. They're not music, they're the secondary colours that go into
making it. Where the notes, rhythms and arrangements are the language of music,
without that human element, the gestures, inflections, nuances it can be un-human
sounding. Yes we have done these because they're fun to work with, exciting and
inspiring. But there is a more fundamental reason for that and it is the saddening
fact that samples are really really bad at it. The best orchestral programmers in
the world have a vast and intimate knowledge of symphonic instruments and how
players adjust their playing style to create human gestures. We're not all the
beneficiaries of that knowledge though, nor indeed are blessed with the time it
takes to mimic humanity. So we've decided not to. The way you're about to make
music is about to change, alongside the music you make.

THE CROW HILL COMPANY

COMPOSERS   TECHNOLOGISTS
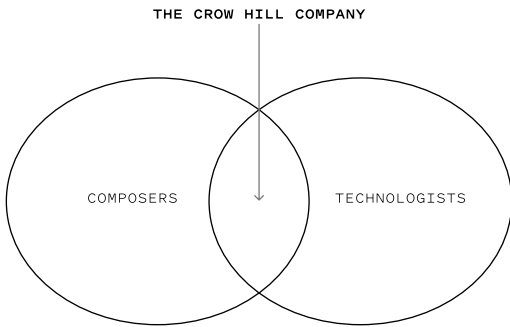
This is where we bring two disciplines
together for the first time. We have designed
a system that is as akin it is to composing as
it is to technology. Our Gestures allow you to
created an almost infinite number of
possibilities with which to make music, your
music. Because of this combination of
disciplines you yourself will feel these
musicians playing YOUR music, not you playing
the music written by someone else.

HOW TO USE THEM
1. Pull up a gesture preset, play a long sustained chord using just the "in key"
   notes on your keyboard controller.

...and thats it.

All the white notes tend to refer to the key of C a happy primary colour, or Amin
a sad primary colour. With various "modes" which contain more nuanced and complex
harmonic colours. Gestures will work in any key or mode you like. Just simply
adjust the key or mode with the "shift" function. Just adjust relative major scale
accordingly.

All gestures have been imagined with a wide array of emotional gestures. From
sweeping, grand and epic to romantic, atmospheric & even a little scary. Dive in
and see what works for your mood. Please note this manual doesn't come with a
shovel to get you out of the rabbit hole it'll send you down.

HOW TO CREATE A MURMURATION
When you hold down a chord you will
notice the effect that gave this
collection of samples its name. This is
caused by engineering in a-symmetrical
gestures.

BY ALLOWING GESTURES TO GO OUT OF PHASE YOU HEAR YOUR MUSIC
VARIES CONTINUOUSLY FOR THE DURATION OF YOUR CHORD.
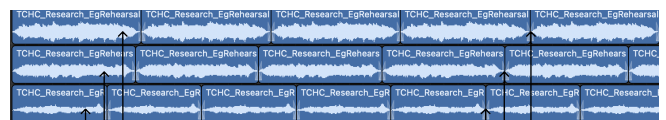
3 GESTURES, ALL DIFFERENT LENGTHS   CROSSFADED LOOP POINTS

11

CONSTELLATIONS

These are the results of a series of workshop sessions where a composer sat in a room with large string band creating some of the most awesome sounds for you to play with. Experimenting with faster moving gestures played totally out of time, to sonic waves & total aleatoric experiments with some quite surprising results. Our ambition was beauty, not scary (well not all the time anyway).

CONSTELLATIONS

SAMPLES   SYNTHESIS
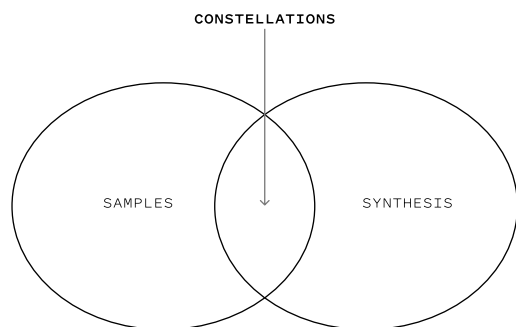
We also hope that by using these, you stop thinking about orchestral music and the sounds an orchestra can make in a conventional light but as part of a set of building blocks whereby you create unique and engaging atmospheres and backgrounds that your listener has yet to hear. So once you've been through a few make sure you pull up that front panel and go to town with the grains and reverbs.

HOW TO USE THEM
1. There's more for you to play with here than with gestures. Many of them have whats called "dynamic layers" so you can adjust the volume and timbral intensity with your modulation wheel. Remember to program a MIDI Controller Automation on CC1 in your D.A.W to take full advantage of the Timbre Control.
2. As most Constellations are spread across the entire keyboard we find using the root notes and fifths of whatever your scale is provides the best musical results.

BLURS

For anyone who has programmed any fast music, or music with a fast accompaniment. We know that this is when we get rumbled for using samples. This goes to the heart of the hysteresis issue. Samples can't fake the effects of musicians playing difficult passages. Simply put the faster and more difficult this becomes the less "together they will be". With a large section of strings resulting in a wonderful gossamer like blurring of the individual notes. Conrad Pope (John Williams) didn't pen the now famous runs to create an aggressive action sequence. He designed them so they would create a murmuration of strings flowing in and out of William's thematic material.

HOW TO USE THEM
With constellations you had dynamic control. This is the same for Blurs, but also you can control the direction of the blur with velocity. ie how loud you play your keyboard controller.

NB THERE IS NO MIDI CC CONTROLLER FOR VELOCITY AS IT IS EMBEDDED IN THE NOTE ON / OFF DATA.
HOWEVER MOST DAWS HAVE A DEDICATED OPTION THAT ALLOWS YOU TO AUTOMATE THIS.

For many of you who aren't piano warriors, arranging these successfully may have to be by programming them directly onto your piano roll.

There is a near infinite number of ways these expressions can be organised, and used. From full-on gesture-fests to more hybrid solutions. You can find a hand-picked collection our favourites in the Selects section.

WHAT'S TO COME?

This is v1.0 of not just a new library with a new company, new tech, new plug-in. But most of all, a new approach to sampling. We have lots of stuff planned to improve and expand this collection. More presets, more features, and possibly some new samples that we didn't get time to put in?

We can't wait to hear what you do with this first collection. From that we will gauge where our direction lies. Being a small company means we can be nimble, be agile. Crow Hill is designed around people so mostly, you tell us! Not only what new Selects to create but if there is anything you'd like us to record for this and future collections. But also if there are any more technical features you would like added you can visit wwww.thecrowhillcompany.com/faqs to share them with us.

FRONT PANEL DEEP DIVE 1 (MIXER & EFFECTS)

Ok, time to get into the technical weeds. We always recommend just giving things a twiddle and finding out for yourself. But sometimes its also nice to know what we're actually doing.

03 THE MIXER

03A SIGNALS - 3 different sets of stems (stereo-masters)
- CLOSE - A mix of microphones placed close to the musicians. Not a favourite of engineers but useful if you want to tighten the sound make it more focussed or indeed re-balance the band a little.
- WIDE - A combination of the two trees (3 mics each above the conductor) plus wider outriggers. This gives the most traditional orchestral sound and is favoured by engineers for your left and right stereo signal.
- AMBIENT - Placed at a distance away from the orchestra these are great for creating a more expansive sound and perfect if you're working from quad.

03B PURGE - Load and unload these signals from your memory, especially useful if working with large templates of sounds. It frees up RAM!
03C FADERS - Adjusts the volume of the signals.
03D SOLO/MUTE - Compare signals by putting them into solo, this automatically mutes the other signals. Conversely the mute toggle simply knocks out that specific signal.

NB these are mixer functions and do not unload the sounds from memory.
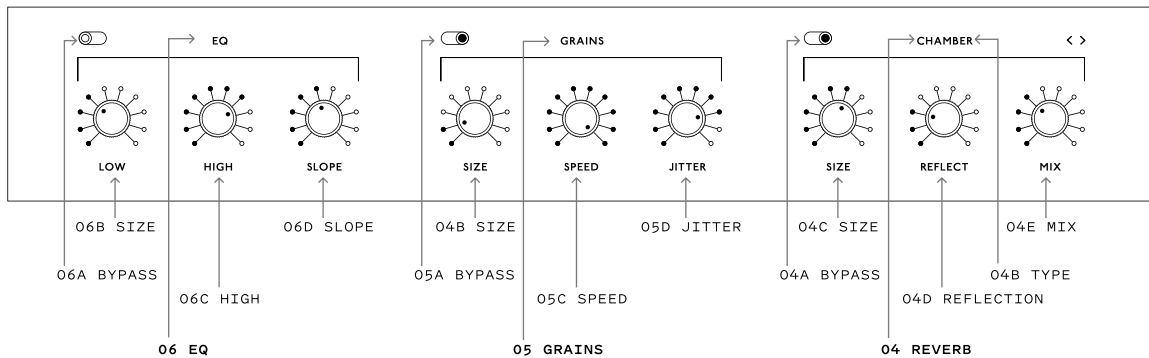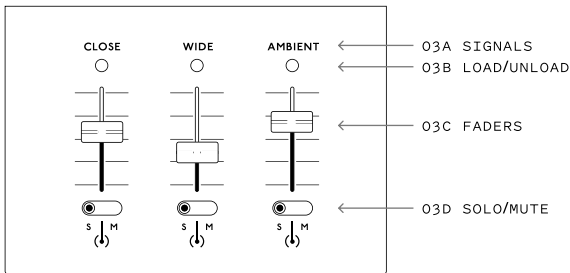
04 REVERB

An effect that puts your band in various different rooms.
04A BYPASS – Switches off the the effect (this will save on CPU usage if you want several plugins to share reverb effects say via a bus or auxiliary on your DAW.
04B TYPE – The reverb uses algorithmic technology which means we have "measurements" of different rooms to put your band in. Scroll through the different types using the scroll arrows. "Splosh" is the favoured setting for composer and founder of Crow Hill – Christian Henson.
04C SIZE – This changes the size of the reverb, the bigger the size, the more stretched and ambient the sound.
04D REFLECTION – Adjusts the decay time & length of the reverb time, altering the reflectivity of the space.
04E MIX – Adjusts ratio of reverb vs the original signal. All the way up and you're listening to no direct or original signal just the reverberation effect. All the way down and you're not hearing any reverb at all.
(However your computer will still be spending CPU power making the stuff even if you can't hear it.)

05 GRAINS

An effect that uses a ton of micro-loops of the original signal to create a patinated digital sustain that takes your orchestra and turns them into hybrid synthesised sounds from space.
05A BYPASS – Switches off the effect and like Reverb, will save on CPU if not in use.
05B SIZE – This determines the length of the micro-loops or "grains" included in the effect.
05C SPEED – Controls the speed of playback at which the grains are "collected" as well as the and direction of playback.
04D JITTER – Controls the overall randomness of where in the file each grain is collected from.

06 EQ

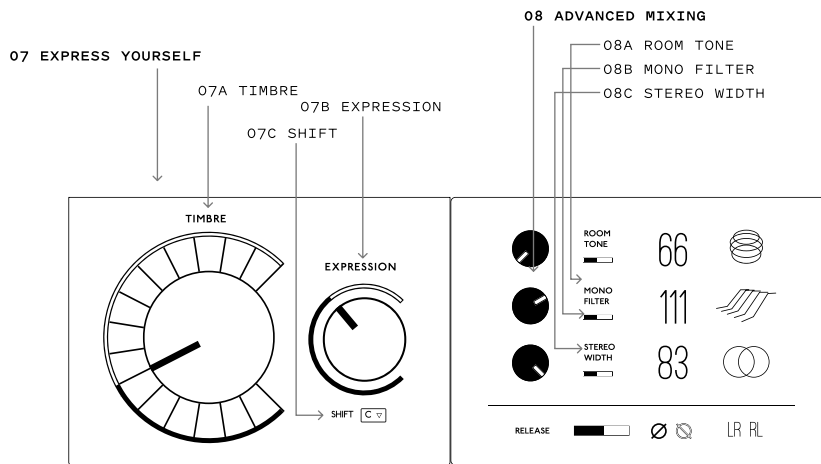06A BYPASS – Switches off and on the effect and saves on CPU if not in use.
06B LOW – Gain control over the bottom end which will make your sound more bass heavy.
06C HIGH – Gain control over the top end which will brighten your sound.
06D SLOPE – Determines how steep the slope is for both top and bottom. The higher the slope the more the EQ effect will act like a filter.

FRONT PANEL DIVE 2 (EXPRESSION & ADVANCED)

07 EXPRESS YOURSELF

07A TIMBRE

07B EXPRESSION

07C SHIFT

08 ADVANCED MIXING

08A ROOM TONE

08B MONO FILTER

08C STEREO WIDTH

07 EXPRESS YOURSELF

If you watch an orchestra play they are not just triggering notes, they're expression themselves whilst they play those notes, louder, softer more timbrally intense. This area of the interface is where you have the chance to shape your music to perfectly to fit your track, or picture.

07A TIMBRE - This is controlled via your modulation wheel or MIDI CC1. Many orchestral programmers have a MIDI fader device that controls this. For expressions that have dynamic layers (like blurs do) this will fade between the two layers so you can control both the loudness and intensity of the sound.

07B EXPRESSION - This is a real-time volume control CC11 that is a totally independent gain stage from the main volume, which is more set and forget. This is a way of balancing your sound against the rest of your arrangement, in real-time.

07C SHIFT - Selects scale / mode for use within Gestures. Keys within the selected scale will highlight a different colour as a visual reminder what notes are gestures, versus "out of scale" single notes.

08 ADVANCED MIXING

08A ROOM TONE - Unless you're sat in an anechoic chamber (which we wouldn't recommend) you will never in your life experience digital silence. Which is why when a sample release dies to nothing it feels like your brain is being sucked out of your nose. Adding a continuous wild track of room tone recorded in the space the musicians recorded in, makes you subliminally feel you are there, not in the depths of outer space. We recommend setting and forgetting this for one instance of your plug-in if you are using multiple Murmurations. Remember too that if you're using volume automation that this room tone will be effected too. Hence the use of expression which has no effect over Room Tone.

08B MONO FILTER - The ear is well equipped to hear detail in top end. It is where sibilance exists, which is where we perceive language. However our older lizard brain has been listening out for a herd of hooves, a growl of a tiger, the rumble of an earthquake or volcano for many more years. So, bless, is a lot more primitive. Music that has a lot of complex bass activity is considered "muddy" and ill defined. Particularly when the top end is detailed. The mono filter determines the frequency at which the plug-in becomes mono. To give you that focussed "tight" bass.

08C STEREO WIDTH - If you are working to picture it is likely you are trying to dodge dialogue and not interfere with your actors voice. The stereo width function stretches the image past the left and right of your speakers so it is well clear of the dialogue. On the flip side, by pulling the width in, you start to collapse the stereo signal into mono.

08D RELEASE - Control decay of notes. When you let go of a note, or take your foot off a sustain pedal this will determine how long the sound lingers. For Constellations you may want to go extreme to create Eno-esque atmospheres, with Gestures you may want to join up note shifts more. Or indeed for Blurs, you may want to tighten the release for greater accuracy when switching between notes.

08E PHASE - Toggle to audition & identify issues mixing with other instruments in your composition.

08F FLIP - Reverse the stereo image. This simply swaps whats playing from the left channel to the right and vice versa. We record the orchestra in a symphonic layout which means your basses are to the right, your violins to the left. Stacking an instance of our plugin with the stereo field flipped will allow you to imitate "antiphonal" performances where basses and celli are split and play either side of the violins and violas.

TROUBLESHOOTING

I Can't Hear Anything!
As much as we all love John Cage, we are sure you want to hear your instrument.
Included in each instrument are a few utilities that can be used to diagnose some
likely causes.
Each plug-in has a combination of ways to control the overall volume.
 • Ensure Expression (CC11) is at its maximum value.
 • If included, check that the mixer controls are not set to -Infinity or muted
   (m).
 • Check that your Master Output Volume is not set to its minimum value (-
   Infinity).
This can be quickly checked by looking at the Volume Meter, which should be moving
while sound is passing through your instrument.

Still no luck?
If you have tried the above and still hear nothing, the onscreen MIDI keyboard can
be directly played by Left-Clicking a piano key in the user interface.
If you can now hear the instrument then the issue is likely the connection between
your MIDI keyboard and your workstation's associated track.
Ensure there are no loose connections, triple-check your MIDI input settings, and
remember to arm your track.

Help! My Plug-In's interface is entirely blank.
Don't worry. Looks can be deceiving, this means the plug-in is unable to locate
the audio (.blob) files.
Ensure your external drives are connected and restart your digital audio
workstation (D.A.W).
Unable to locate your .blob files, lost track of where you installed them, or had
to misfortune of misplacing a drive? Simply re-run the installer to be up and
running in no time.

We recommend frequent back-ups of your system, as well as archiving your
instrument installer files to ensure a speedy recovery should it ever be needed.

How Do I Relocate My Instruments Audio Files?
The simplest way to relocate your instrument's audio files (.blob) is to delete
the previous files (where you previously installed your .blob's) and re-run the
installer, selecting the newly desired install location.

This ensures no files are accidentally removed and will automatically overwrite
any pre-existing instrument files.

APPENDIX – SCALES AND MODES

Whilst we won't attempt to explain one of the more complex fundamentals of music theory, we do want you to get the best out of your purchase. So, gestures and scales. How do these work?

Throughout pre-history we sang in monody (imagine monks in a church), either on our own without accompaniment or indeed in unison (all together singing the same thing). When women and men sang together the first interval was discovered, the octave. Men's voices are roughly an octave deeper than those of women's, girls and boys whose voices have not broken. On a stringed instrument it is the halving or doubling of the frequency of the note pitch.

Around the 10th century AD the fifth started to appear in music, then the 4th and the 3rd. But it was really the fifth that was the disrupter as when you travel up from say a C through all the fifths you end up at C again after 12 steps. Arrange these 12 5th notes in "scale order" ie side by side and you get the 12 notes of the chromatic scale... or more accurately, 11 notes before the thing repeats itself.
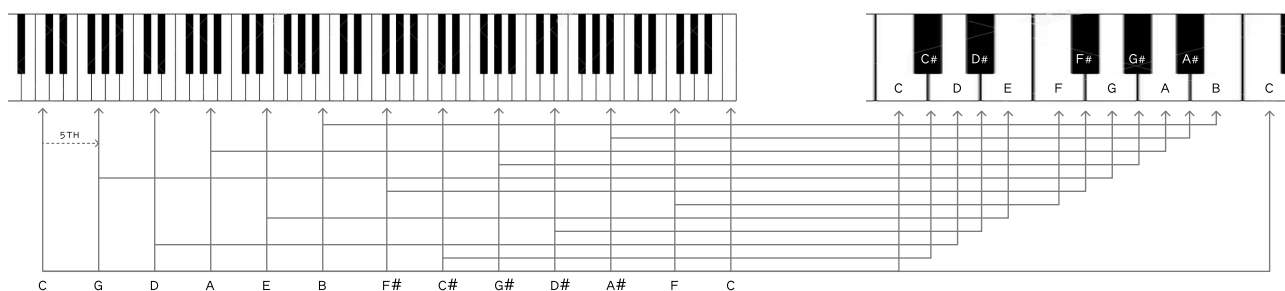
To our human ears we tend to prefer tonal to chromatic music. This is music where the frequencies that play against each other are most complimentary. Where the vibrations are simple subdivisions, not complex ones. Which is why we use scales of 7 notes to create more tonal and emotionally relatable music.

The way of determining a scale is its tonic. Basically the note you return to the most. A scale is defined by its relationship to that tone.

When looking at a keyboard playing all the white notes and returning to the "C" will give you the most pleasant tonal character. It is the thing of nursery rhymes and Christmas carols. However it has a darker twin, if you play all the white notes but return to the "A" most of the time you will have a sadder tonal quality. The "C" scale is a major one, the "A" is a Minor (strictly speaking a diminished minor). These are both modes, and there's not just two, there's seven.

Without shifting the key of any gestures you are playing you can alter the tonal character of the music by simply changing the tonic whilst playing just the white notes. Modes have funny names too. 7 white notes, 7 tonics, 7 modes.

C-C = IONIAN - Our major, joyful, happy scale.
D-D = DORIAN - Minor in sound but more sophisticated (very popular in Hollywood)
E-E = PHRYGIAN - Exotic fruits, mysterious and unfamiliar.
F-F = LYDIAN - Super popular in Hollywood, positive with a questioning nature.
G-G = MIXOLYDIAN - Like a major version of Dorian, major but cooler.
A-A = AEOLIAN - The saddest of modes our "minor" or strictly speaking "diminished minor"
B-B = LOCRIAN - Dissonant, but not sad, unstable.

APPENDIX - CREDITS

Murmurations wouldn't be possible if it wasn't for the efforts of these amazing, talented and generous individuals.

Conductor: ....Adam Robinson
Leader: ....Gregg Lawson
Engineer: ....David Donaldson
Co-producer / Musicians Contractor: ...Kobus Frick
Orchestration: ....Jack McKenzie
Orchestration: ....Joshua Hicken

Development: ....Calum Minuti-Goold
Product Design: ....Prokopi Constantinou
Marketing: ....Gabrielle Atkinson
Operations: ....Marley Petropoulos
Tech Stack: ....Stephen Tallamy
Artistic & Prose Consultant: ....Dot Allison
Logistics: ....Caroline Lofts
Videographer: ....Jack Rosam
Production Assistant:................Theo Le Derf
User Manual: ....Christian Henson

All of us at Crow Hill would like to offer our sincerest thanks to all of the musicians who took part. Everyone at Clockwork Studios. The undying support of our family and friends getting this across the line.
But most of all, to you for buying it. Without you we wouldn't get to play with such a wonderful train set.

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