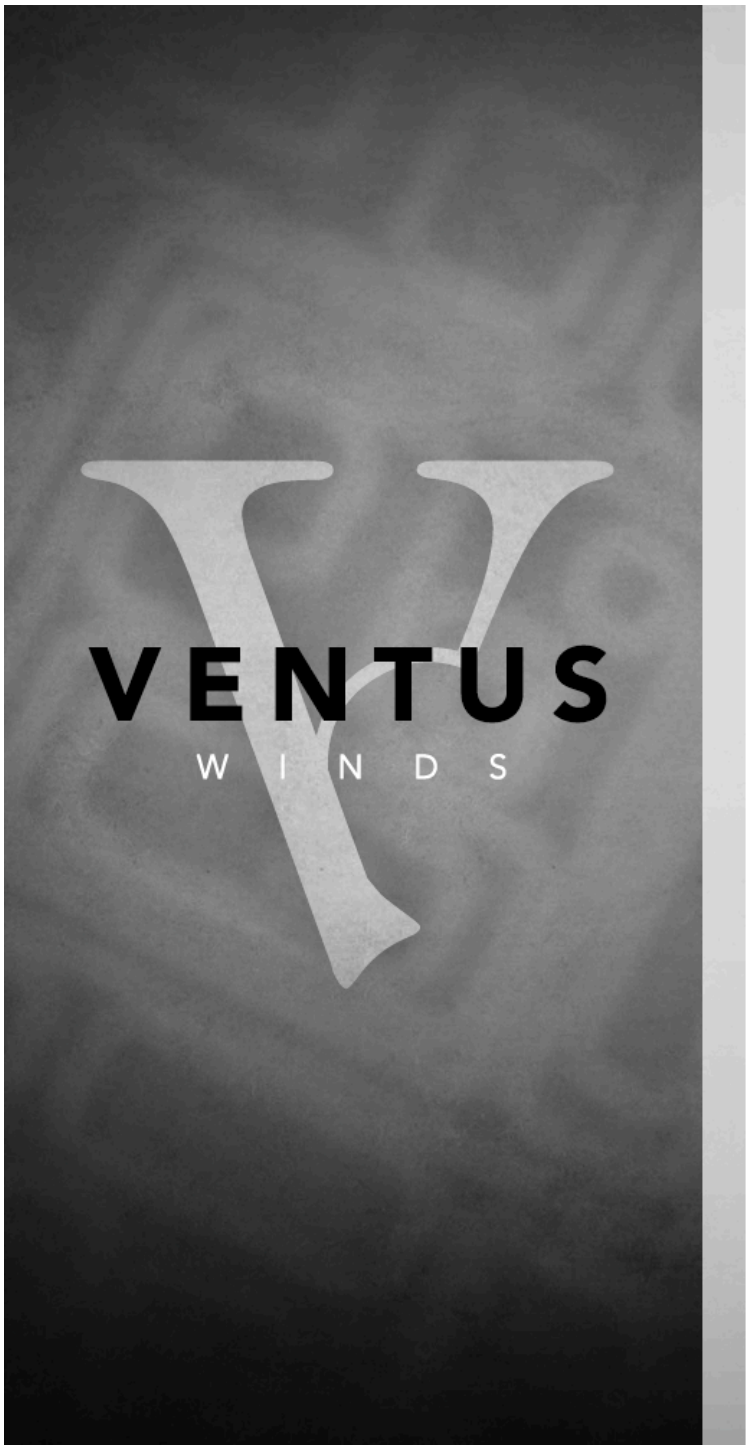




Ventus Winds - Bansuri

An Impact Soundworks Instrument
for Kontakt Player 7.0+
Instrument Version 1.0.0

Product Manual

Overview

We are pleased to present to you the most deeply sampled bansuri ever released, our third entry into our **Ventus** series of solo ethnic woodwind instruments. Originating and widely played in North India, the bansuri is revered as a divine instrument and plays an essential role in North Indian and Hindustani classical music.

The breathtaking expressiveness of this instrument comes in part through the many lovely ornaments and articulations used by master performers. As with our other **Ventus** instruments, we endeavored to capture as many of these techniques as possible, with a range of grace notes, accents, bends, and phrases. In total, we recorded 14 distinct playable techniques and over 300 unique phrases to inspire your compositions.

The Ventus Bansuri includes our **Total Articulation Control Technology (TACT)**, unifying and simplifying the process of creating your own personal mapping setup for the instrument, along with two mic positions and a host of tweaking and editing controls. We even added a bonus **drones** patch with samples from our acclaimed Sitar Nation library, to help you create beautiful multi-instrumental textures.

We hope you enjoy **Ventus Winds - Bansuri**!

Installation

We have an online installation guide for this instrument library here with images and the latest information: https://helpdesk.impactsoundworks.com/hc/3369906564/68/install-guide-kontakt-player-instrument?category_id=5

If anything goes wrong during the installation process, feel free to send us an email at support@impactsoundworks.com and we will help you as soon as we can!

Content Overview

Ventus Winds - Bansuri features a deeply-sampled Bansuri played in a traditional style. 14 playing techniques and ornaments were captured with multiple dynamics and round robin (RR) variations, with 24-bit sample depth. Three mics were used to capture the instrument: one close ribbon mic, and a pair of room mics. The studio used was a small treated room, just enough to add 'air' to the room mics.

Also included are over 300 phrases in a variety of unique and inspiring styles and lengths. These can be used within the Kontakt instrument, or loaded as WAVs in your DAW for further editing, slicing, and arrangement.

Lastly, we have created a bonus "Sitar and Tambura Drones" patch. These are samples from our Sitar Nation library that are very helpful in creating slow, continuous strummed drones to accompany the bansuri.

Bansuri.nki – The default patch, highly playable out-of-the-box.

Bansuri Phrases.nki – All phrases playable in a single patch. Phrase speed cannot be changed as Time Machine Pro is disabled, however it uses less CPU/RAM as a result.

Bansuri Phrases TM Pro.nki – All phrases with speed control enabled (uses more CPU/RAM).

Sitar and Tambura Drones.nki – Bonus drones patch with two instruments (only one articulation – long drone).

ARTICULATIONS

SUSTAINS
The simplest playing technique is a straight sustain with no additional ornaments.

SUSTAIN TONGUED
A slightly more accented sustain technique with a faster, breathier attack.

VIBRATO
Two forms of vibrato are included in the library: breath (performed by altering the amount of air blown into the instrument), and smooth (generated through Kontakt). All primarily affect the instrument volume rather than pitch.

FLUTTER
A tremolo-like technique done by rolling the tongue while playing a sustained note.

SUSTAIN BEND UP
A gradual bend up to a sustained pitch. Playing at **higher velocities** will trigger **faster bends**.

SUSTAIN ORNAMENTED LONG
A series of pitch ornaments before ending on a sustain note.

SUSTAIN ORNAMENTED SHORT
A shorter series of pitch ornaments before ending on a sustain note.

SUSTAIN ORNAMENTED STACCATO
A shorter series of highly accented pitch ornaments before ending on a sustain note.

SUSTAIN ORNAMENTED BEND
An expressive mordent leading into a sustained note.

REPEATED
A sustain note with multiple tonguings throughout the sustain.

STACCATO
A very brief and energetic note.

LEGATO
Quick pitch transition played from one sustained note to the next.

PORTAMENTO
Slower, more exaggerated pitch bend up or down to a note.

REL BEND UP
Release technique that ascends in pitch.

REL BEND DOWN
Release technique that bends the pitch down.

REL STOPPED
Fast release technique.

Mapping Notes

As you will see below in the **TACT – Total Articulation Control Technology Section**, the bansuri's mapping is highly customizable. Different articulations can be triggered in any number of ways using keyswitches, velocity ranges, MIDI CCs, pedal position, etc.

There are just a few pre-configured mapping ranges that cannot be changed in the Articulations tab.

Breath Notes (E2, F2, G2, A2)
Pressing these notes triggers the sound of the performer breathing in. Each key has breaths of different lengths.

Release Note (B2)
Pressing this note will release the currently-held note, also triggering a release noise if any are active in the Articulations tab. For example, if **Rel Bend Up** is set to trigger on velocity 100, and the Release Note is hit at velocity 100, the bend down release will trigger regardless of the velocity of the original note.

Interface – Main Instrument

The Ventus series features a new way of triggering unique, authentic performances without manually sequencing keyswitches and CC data. We call this the **Ornaments System**. When Ornaments are enabled, they can be played back **at random**, ignoring normal articulation mapping. This system is explained in more depth below, but the important thing to remember is this:

The ornaments on the front page are triggered separately from the Articulations tab. You can have an articulation used only as an ornament, and not triggered elsewhere, or vice versa.



Ornaments Knob: Sets the probability that ornaments will randomly play. For example, if this is set to **25**, then there is a **25% chance** that an ornament will be played on attack or release.

Attacks | Releases: Toggles between attack and release ornament views. Attack ornaments can be triggered in the place of any sustain articulation, while release ornaments can be triggered anytime.

Ornament Buttons: Enables or disables individual ornaments within the system. Again, this does not affect articulation mapping in the Articulations tab.

Ornament Chances: The percentage numbers (like 25% in the picture above) can be adjusted to weight the probability of articulations triggering at random. In the above example, if the Ornaments knob were turned to 25%, there would be a **25% chance of ANY ornament triggering**. If an ornament triggers, we can see that Tongued and Orn Short techniques have about the same chance of triggering, while Orn Long is slightly higher.

Waveform Display: Shows a waveform of the sound being triggered. Note that this may not always change from one round robin to the next, as multiple samples are always being triggered at once and Kontakt can only display one sample at a time.

DYN Slider: Controls the instrument's **Dynamics**, both volume and 'forcefulness' of performance. This can be MIDI learned by right-clicking.

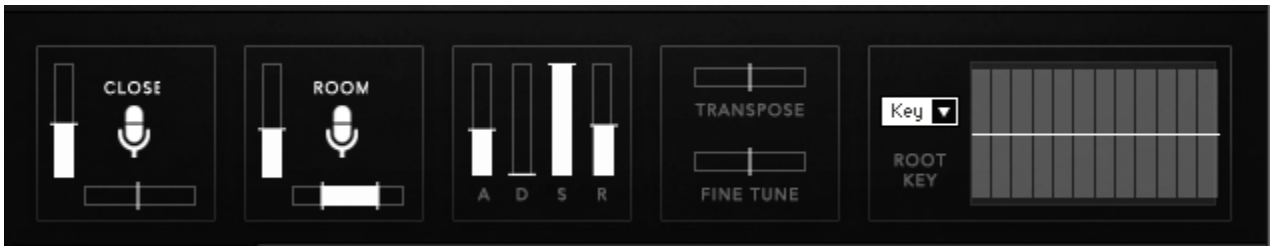
Vibrato Dropdown: Selects from six possible vibrato modes.

- **Breath**: Recorded natural vibrato with a smooth crossfade blend via Vibrato slider.
- **Smooth**: Kontakt-generated vibrato with parameters adjustable in the ADV tab.
- **Breath (AT)**: Triggers natural vibrato via aftertouch instead of via MIDI CC.
- **Smooth (AT)**: Triggers smooth vibrato via aftertouch instead of via MIDI CC.

Vibrato Slider: Controls the instrument's **Vibrato** amount by crossfade. This can be MIDI learned by right-clicking. Note that Vibrato and Flutter cannot be enabled at the same time.

Flutter Dropdown: Selects from flutter triggered by MIDI CC or by aftertouch.

Flutter Slider: Controls the instrument's **Flutter** amount by crossfade. This can be MIDI learned by right-clicking. Note that Vibrato and Flutter cannot be enabled at the same time.



Close & Room Mic Buttons: Enables or disables either mic position.

Close & Room Mic Volume: These **vertical sliders** control the volume of each mic.

Close Mic Pan: This **horizontal slider** controls the panning of the close ribbon mic.

Room Mic Width: This **horizontal slider** controls the stereo width of the room mic pair.

ADSR Envelope: Controls the attack time, decay time, sustain level, and release time of the entire instrument.

Transpose: Transposes incoming MIDI input by a set amount. This does not do any pitch bending; it strictly affects MIDI input.

Fine Tune: Tunes the entire instrument +/- 200 cents (2 semitones).

Microtune Root Key: Sets the root note to be used for the microtuning table.

Microtune Table: Allows for tuning offsets of +/- 100 cents per note in a scale. The notes are determined by the Root Key. For example, with a key of C, the leftmost table bar is C, the second bar is C#, etc.



These advanced controls can be accessed by clicking the "**ADV**" button above the mic mixer/ADSR section.

Ornaments Recording & Playback Controls

When the ornaments knob is set above 0%, ornaments will begin randomly playing back each time a sustain note is triggered (or released). By clicking the **Record** button, this ornament playback will be recorded into memory.

For example, you play three notes: D3, F3, A3.

D3 – No attack ornament, release bend down ornament.
F3 – Sus Double attack ornament, no release ornament.
A3 – Emotional sustain attack ornament, release bend up ornament.

Normally if you were to hit the same sequence of keys again, you would not hear the same ornament combination. However, if **Record** was enabled, then by clicking **Play** and hitting the same 3 notes, you **will** hear the same ornaments again. Note that **Play** will also reset the playback position. Thus, it's a good idea to **Record** a track prior to render, and then press **Play** before rendering.

Clicking the **Clear** (X) button will clear all recorded ornaments from memory.

Pressing **Save** will save the ornament sequence in NKA format. This can then be loaded into another project with the **Load** button. The **numerical ID** will show you the unique ID of that particular ornament sequence.

By holding **SHIFT** and pressing **Save**, the ornament sequence will be saved in a human-readable format. This will show every note played and which ornaments were triggered with each note. This is very useful if you want to re-create an ornament sequence manually via articulation switching.

Legato Length: Controls the length of the legato transition sample. This does not timestretch the sample; it simply allows more time for the transition to play back.

Legato Xfade Time: Controls the amount of crossfade between the transition sample and the destination note.

Legato Pre-Trans: Controls the pre-transition offset time of the transition sample. Each transition sample is recorded with a small amount of the previous note baked in. By reducing the pre-trans time, this will not only lengthen the transition but also blend more smoothly from the previous note. The tradeoff is that legato playing will feel less 'responsive' as the transition will take longer to complete.

Smooth Vibrato Depth: Sets the maximum depth of the smooth (generated) vibrato. Does not affect Natural vibrato.

Smooth Vibrato Freq: Sets the frequency of the smooth (generated) vibrato.

Mono Fade Time: Sets the crossfade time when a note is faded out due to note overlaps. This **does not affect** legato playing. The Shakuhachi is a monophonic instrument, so anytime two notes would be overlapping, the older note will always be faded out.

Extra Dynamic Filter: Toggles a gentle lowpass filter that removes some breathiness and brightness from the samples. The filter cutoff is controlled by the Dynamics slider.

Release Triggers: Toggles release samples triggered via the Articulations tab. This **does not affect ornaments**. In other words, if you want to ONLY use randomly-generated ornament releases, you should turn Release Triggers OFF.

Purge Unused Mics: When enabled, mics that are turned off will also be unloaded from RAM.

Pitch Wheel BEND | REL: Changes the function of the pitch wheel controller. In BEND mode, it acts normally: moving up or down will bend the pitch +/- 200 cents. In REL mode, moving the pitch wheel up will release the current held note and play a bend-up release sample, while moving down will do the same thing but with a bend-down sample.



Our easy-to-use FX rack features an analog-modeled parametric EQ & compressor, delay line, and convolution reverb.

Clicking the * button next to each effect will randomize the FX settings; holding shift and clicking will reset all knobs to normal.

The **convolution reverb** can be CPU-intensive and may have performance issues on older systems. If you are having trouble with clicks & pops, check buffer settings in your DAW, or considering disabling and using an external reverb.

TACT – Total Articulation Control Technology

The Concept

TACT is a modular, scalable system designed to create a consistent plug-and-play performance experience in Impact Soundworks virtual instrument products. It manages articulations with up to 3 triggering types, volume and offset control, and independently controlled legato toggles when applicable. Current supported trigger sources are note range, velocity range, CC range (on any CC# from 1 to 127), keyswitches (latching or non-latching, independently chosen per articulation), and sustain pedal up/down.

TACT is designed to manage user mapping schemes and facilitate experimentation to create the best performance setups for users very quickly and easily. Extra features include:

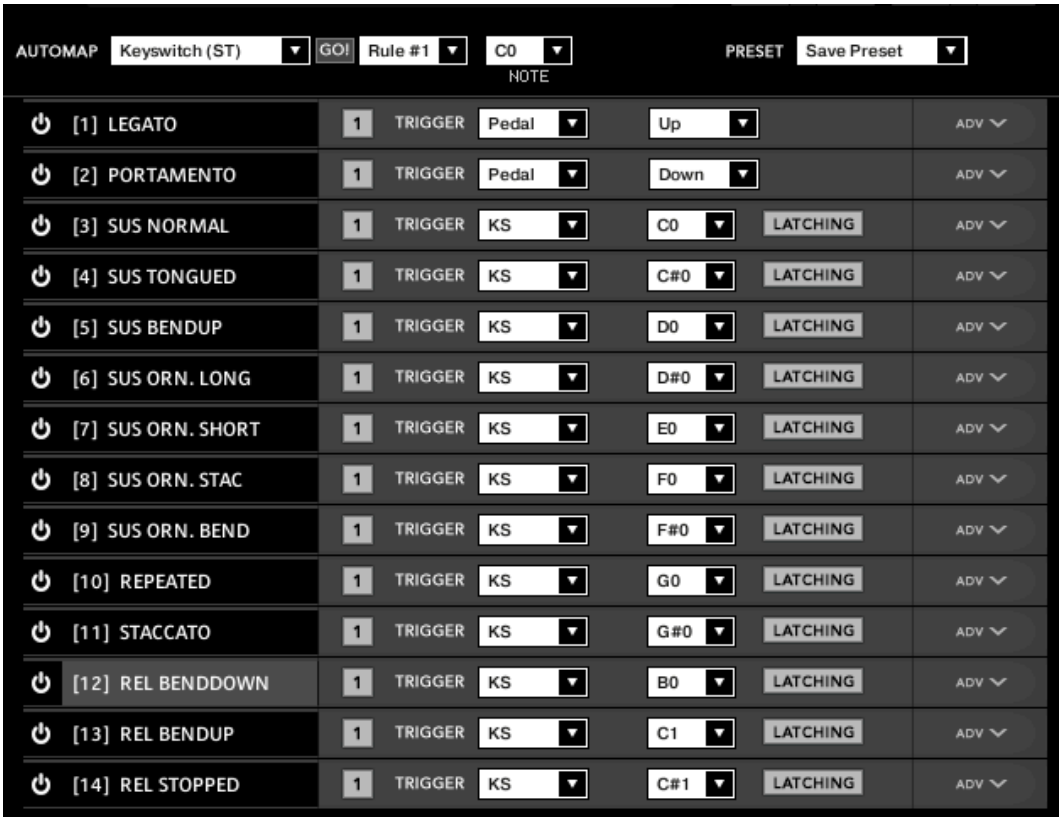
- A **conflict detection algorithm**, which cross references articulations through their 3 rules and detects if the articulations will trigger under the same input. It will then highlight the articulations in red to so the user can observe and resolve the conflict.

- A crown-jewel convenience feature called "**Automap**", which allows users to quickly lay out, build, and audition structured mapping schemes.

- A utility to **save and load mapping presets** within a sample library. This allows them to create schemes that suit them for different purposes, such as live performance or efficient DAW sequencing. These presets can also be shared with other users, as they are stored as .nka files.

Impact Soundworks looks forward to providing customers a very consistent and reliable experience in the future using TACT in our new virtual instruments!

Articulations



The main screen of the interface shows a list of articulations. Each articulation shows its name, a **power button** to purge it from memory, its first triggering rule, and an **ADV button**.

Pressing **ADV** will expand the articulation to show its 3 rules, as well as other controls like volume, offset, and dynamic control. For legato-applicable articulations, they may allow disabling legato. If expanded articulations make the list exceed the window height, **scroll buttons** will appear on the top right. Holding shift while clicking these scroll buttons will scroll **3 rows at a time**.

The **numbered squares** to the left of each rule are **toggle states** for the rules. If turned off, a rule is not factored into the system's evaluation logic. If all 3 are turned off, the articulation will never play. Note that setting an articulation rule's trigger type to [None] is equivalent to turning the rule off.

Each trigger type can **only be used once per articulation**. If a trigger type is used in a rule, it can't be used for other rules. This is not true of the [None] type, however. Each articulation will preserve its parameters for each rule type, and even if that rule is set to [None]. For example, if you set a keyswitch to B1, then set it to [None], then enable a keyswitch in another rule, it will remember B1 automatically. This is convenient for re-ordering rules for visual organizational purposes.

Each articulation can be selected/highlighted by clicking on its name. This is important for the Automap feature.

Keyboard Shortcuts:

- Holding control, alt, or shift on the ADV will **expand all articulations** at once.
- Holding control, alt, or shift on the keyswitch rule "LATCHING" button will **set all keyswitch rules** to the same latching designation (latching or non-latching).
- Holding alt while moving the volume or offset sliders will **move them simultaneously** across all articulations to the same value.

- Holding shift or alt while scrolling will scroll by 3 rows (a full expanded articulation) instead of 1.

Automap

Automap works by selecting a list of articulations by clicking their names (activating the blue highlighting to the left), selecting a scheme, such as "CC Split Range", configuring any parameters associated with that scheme (such as for CC Split, which CC# for it to work on), setting the rule # to apply the new mapping on, and the "GO" which executes the automap.

Holding control, shift, or alt while selecting an articulation will select or deselect all articulations.

When automap is executed by pressing GO, the previous mappings will be preserved in memory. If the user wishes to undo the change, they can access the preset menu and hit "Undo Automap". Note that this will only work 1 time, as there is only 1 level of history.

When a new mapping is applied to an articulation via Automap, the associated rule is automatically turned on in every selected articulation. If an articulation already contained a rule with the relevant trigger type, that pre-existing rule will be cleared out first.

For all mapping schemes, especially splits, they are done ***in order of selection***, not visually ascending or descending order. For instance, if velocity split mapping was engaged on articulations ABCD that are selected in order CDBA, then articulation C will have the lowest velocity range, D will have the next lowest, and so on. Here is the list of currently implemented schemes:

Keyswitch (WT) - Will map selected articulations starting at the specified keyswitch, ascending by whole tones (2 half-steps).

Keyswitch (ST) - Will map selected articulations starting at the specified keyswitch, ascending by semi tones (1 half-step).

CC Split Range - Will map selected articulations on the specified CC# to ascending ranges that are even divisions of 1 to 127. For example, on articulations AB will map A to 1-64 and B to 65-127.

Velocity Split Range - Will map selected articulations to ascending velocitry trigger ranges that are even divisions of 1 to 127. For example, on articulations AB will map A to 1-64 and B to 65-127.

In addition to the spanning schemes listed above, TACT also features "shared" schemes that apply the same rule to selected articulations:

Shared Keyswitch - Will map selected articulations to the specified keyswitch.

Shared CC Range - Will map selected articulations to the specified value range on the specified CC#.

Shared Vel. Range - Will map selected articulations to the specified velocity range.

Shared Key Range - Will map selected articulations to the specified key range.

Pedal Position - Will map selected articulations to the specified pedal position.

Clear Rule - Will "delete" whatever mapping exists in the selected articulations on the chosen rule (set them to [None]).

A combination of spanning schemes and shared schemes is the key to getting the most out of TACT. For example, in a string library, a user could set all short articulations to a "shared keyswitch" rule, and then have their second rule be a "CC Split Range". This way, they can switch to a general "shorts" keyswitch, and use their mod wheel to select

the specific one. Another example is when the user has a satisfactory mapping scheme but would like to trigger legato using the sustain pedal; they can quickly use automap on the non-legato articulations to have them only trigger when the pedal is released.

Presets

TACT can save presets as .nka files. These files can even be shared with other users, provided they are using it with the same sample library.

To save a preset, simply open the preset dropdown menu and click "Save Preset". A dialog box will appear prompting you to name your scheme.

To load a preset, click "Load Preset". A dialog box will appear, and you can browse your computer to select your saved schemes.

A preset will completely load all articulation purge states, triggering rule data, legato toggles, offset values, and dynamic control mappings. A preset will not, however, save or load articulation volume values. This is done so that the sound and general tone is not affected if the user wishes to heavily experiment with performance mappings.

Interface – Phrases



The **Phrases** patch shares some controls in common with the **Main** patch, and also removes a number of controls that do not apply to phrases.

In this patch, each key on the keyboard corresponds to a different phrase. To select a different **phrase group**, click the name of the group: “Arps & Runs”, “Longs”, etc. Alternatively, press the listed keyswitches.

The **Waveform Display** is now more interactive. **Start** and **End** markers can be moved to trim the phrase to the desired length. These marker settings are **saved per-note** and **saved with your project**.

Clicking the **Sample Playback – Play** button will toggle to **Reverse** mode, where each phrased is played backwards. Useful for sound design! The **Bounce** toggle will set the instrument to play the phrase on a loop, moving forward and backward endlessly.

The **Speed** slider (only in TMPro patch) changes the playback speed of the phrases.

Interface – Drones



The drones patch is very simple, offering standard ADSR, transpose, fine tune, and dynamics control with the appropriate sliders. The **sitar** and **tambura sliders** control the volume of their respective instruments. Note that **Velocity** is also used to switch dynamic layers, while the Dynamics slider controls overall brightness and volume adjustment.

Credits

Instrument Concept & Design: Constructive Stumblings
Additional Design: Andrew Aversa
Performance & Recording: Josh Plotner
Kontakt Scripting: Ryth Azhur and Andrew Aversa
Sample Editing: Christian Yoder, Anthony Mena
Artwork: Constructive Stumblings

Performer Bio

Josh Plotner is a New York-based composer, arranger, and saxophonist/woodwind player originally from Chicago. While he began his musical career focusing on jazz, he has since branched out into musical theatre, classical, rock, Latin (especially South American), and pop music. He has performed and worked with some of the most highly regarded performers in the music industry, including Esperanza Spalding, Meghan Trainor, Valerie Simpson, Terri Lyne Carrington, Susana Baca, Jeff Coffin, Roy Hanes, Rufus Reid, Tia Fuller, Ted Nash, Maurice Hines, Elliot Mason, and many others.

Troubleshooting & Feedback

Have you used **Ventus Winds - Bansuri** in a project recently? Got an awesome track you'd like to share? Drop us a line (support@impactsoundworks.com) and we might post it on our website! Or, tell the world at our Facebook page here: http://www.facebook.com/ImpactSoundworks

We encourage all our users to share and promote their work. Word of mouth is the #1 way people find our samples, so it also helps us to produce more great libraries for you!

For any technical support issues regarding the library, don't hesitate to email support@impactsoundworks.com (but read the FAQ first!).

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