# ORCHESTRAL WOODWINDS
## FLUTE OBOE CLARINET BASSOON

# Chris Hein-Winds
## VOL. 1-4 COMPLETE

# best service

# Contents

# *Chris Hein - Winds*

Thank you for buying **Chris Hein - Winds**
This manual covers the features of CHW-Flutes, Clarinets, Oboes and Bassoons.
The pictures illustrate the functions but may vary depending on the product you purchased.

With a vast amount of samples, many articulations and up to eight dynamic layers, the instruments in CH-Winds are sampled with extraordinary detail and programmed with great care.
The user-interface holds tons of features on several pages to shape the sound and to adjust the playability to the way you want it.
However, if you don't feel like editing, just play and explore the 26 pre-programmed Key-Switch presets ranging from A -1 to A #1 on the lower keys of your midi-keyboard.
Thanks to the clever programming and intuitive user interface, the new and innovative features like „Note Head Designer", „Key-Vibrato" or the „Hot-Keys" are very easy to use.

One of the greates and unique features of CH-Winds are the Phase-Aligned samples.
After 6 months of research, we found a solution to phase-synchronize the samples.
This enables an absolutely perfect blending between 6 dynamic layers.
During the developement, very much attention was spent on how to work with dynamics to provide a perfectly realistic and expressive instrument.

During the Phase-Align process, we had to separate the noise part from each sample, to synchronize the phase of the pure tone. As a result we got four audio files for each sample:
- The original recorded sample used in the velocity sensitive dynamic mode „Keyboard"
- The processed phase aligned sample used for the „X-Fade", „Key & X-Fade", „Auto X-Fade"
- A pure tone sample
- A pure noise sample

The fader „Noise" lets you blend between the pure tone and the pure noise part.
This is a „never seen before" technique to shape the sound from „clean" to „crisp"

I hope you like Chris Hein - Winds. Have fun!
Chris Hein

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**System Specs:**

**PC:** Windows7, Intel Core Duo or AMD Athlon 64 X2, 2 GB RAM (4 GB recommended).

**MAC:** Mac OS X 10.7 or later, Intel Core 2 Duo,
2 GB RAM (4 GB recommended).

**Please respect our hard work and do not share or torrent.**

### The Edit-Pages

The Small-Page is great if you have multiple instruments loaded and don't need to edit them.
This page has no edit features.
Click the „Open" button to display some of the major controls.
Start playing right away and use the Key-Switch keys, ranging from A -1 to A #1 to select one of the 26 pre-programmed Articulation-Presets and Hot-Keys.
The actual selected articulation is diplayed in white at the bottom the screen.



You can enter the 5 edit-pages by clicking one of the edit-tabs at the bottom of each page.



### General Controls
1 Solo/Mute   2 Tune - (CC09)
3 Panorama - (CC10)  4 Volume - (CC07)
5 Level indicator

### Saving Changes
CH-Winds has many features to customize
the  instrument to suite your demands.
To save the settings you have made,
use the Files menu from the Kontakt top-menu.

## Meters / Edit-Tabs

**Edit-Tabs**
Five tabs at the bottom of the interface let you access the different edit modes.

Click the „Basics" tab to enter the Basics page.

**Meters**
Several meters indicate the status of the following functions:

## Articulation Select / Overview / Body & Room

### Articulation Display and Selector
The currently selected articulation is dislayed on top of the virtual keyboard. Click any keyboard key on the graphic to switch to the corresponding articulation-preset

### Articulation Overview
An overview over all loaded articulations and Hot-Keys is diplayed here.
The red border marks the selected articulation and Key-Switch key.

### Body and Room
CHW contains 40 fantastic, built-in convolution reverbs, as well as 23 very short impulse responses to design the body of the instrument.
The combination of two convolution reverbs lets you design the body and the room individually.

### Controls for Body and Room
**On/Off -** Switches the Convolution Reverb on and off.
**Presets -** Choose from 40 specially-designed Impulse Responses.
**Volume -** Adjusts the amount of the Convolution Reverb.
**Delay -** Sets the pre-delay time before the reverb starts.

Sampling (convolution) reverbs have become more and more common. With convolution, we have a chance to capture the sound of anything in the world that can generate a reverb and use these sound impulses freely in any sonic situation imaginable. This enables us to use the sound of highend reverb units, real-world rooms, halls, cathedrals, synthetic reverbs and other sources, including non-reverb ones, without any hassle and in a uniform way using only a single program or a plug-in module.

You will probably spend most of your time with Chris Hein - Winds in the Articulation-Presets Page.
Everything you see on this Articulation-Presets Page is stored on one single Key-Switch.
Each setting of the functions on this page can be different for each and every of the 26 key switch keys. The only exceptions are the Blending controls, which are set for the whole instrument.
A key-switch preset can be assigned as a Key-Switch or as a Hot-Key.
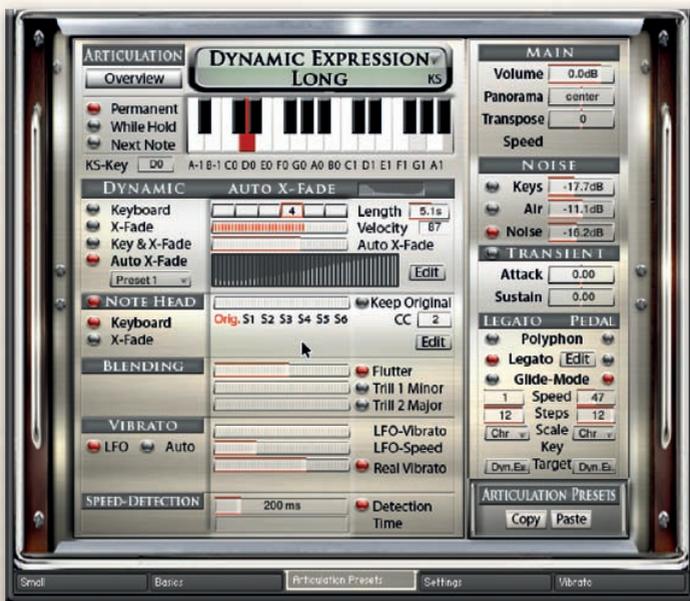


The key-switch concept allows you to customize the instruments in every detail to suit your needs.
Let's say you want to play chords with the sustain articulation and then you want to play a solo line using the legato-mode. All you have to do is copy the articulation-preset, paste it to another key-switch preset and change the legato setting from polyphon to legato.
Now, switching from polyphon to legato playing is done by just pressing one key-switch.
The same process works for all other functions on this page. For example, you can assign different articulations to different keys, enabling you to change articulations on the fly. Or you can design a bunch of different settings for only the sustains, enabling you to alter the behavior of the instrument.

It's important to understand that all functions on this page are valid only for the selected key-switch.
If you want to make changes for other articulations, you will have to change every articulation you plan to use. The only exception is the setting for „Blending" which applies for the whole instrument.
The key-switch presets are located in the lower area of your keyboard, from A -1 to A #1.
Key-switches are displayed in red. Hot-keys are displayed in green.
There are several ways to select a key-switch preset:
- Hit the keys on your keyboard.
- Click the keys on the on screen keyboard in the interface.
- Use the fader „KS-Key" or control it with an external hardware midi-controller (CC06 by default)

It´s up to you to change articulations in your DAW via Midi CC or by using midi notes.

## Articulations, KS-Mode, Copy/Paste, Main controls, Speed-Detection

Let's start to customize your key-switch presets. The first step is to assign the KS-preset as a key-switch or as a hot-key.
**Key-Switches** hold different articulations to be played on your keyboard.
**Hot-Keys** are special keys that don't change the overall articulation, but can add aditional effects like playing key-based vibrato, or work as repetition keys. Let's call these guys KS and HK.
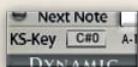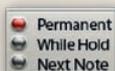
### Articulations

Lets start building a key-switch preset.
Select an articulation from the drop down menu on top of the keyboard graphics to be assigned to the selected KS-preset.
Click the "Overview" button to see and edit an overview of all loaded articulation-presets and Hot-Keys.

**KS-Key** lets you change the key-switch presets via MIDI-CC. (CC06 by default)
Right click to assign any CC and use a hardware fader to control the articulations.

### Key-Switch Modes

There are three different key-switch options to choose from, which determine exactly when and how the articulation change takes effect:
**KS-Permanent:** The articulation remains active until another key-switch is pressed.
**KS-While Hold:** The articulation changes only for as long as the key-switch is held and reverts to the previous articulation as soon as the key-switch is released.
**KS-Next Note:** The articulation changes only for the note following after the key-switch and then reverts to the previous articulation.

### Copy - Paste

You can copy and paste a whole KS-Preset. This is useful if you want a variation of an existing preset on another key to instantly switch between them.

### Main Controls

**Volume** sets the volume for each KS-preset individually. To adjust the global volume, use the volume slider at the top right of the interface.
**Pan** lets you pan each KS-presets individually from left to right.
**Transpose** lets you transpose the preset (36 semitones maximum) up or down.
**Speed** sets the overall speed of the selected articulation.
Changing the speed of the samples is useful for articulations such as Dynamic Expression or Trill. But changing the speed for the sustains can also yield some interesting effects. Click the little red dot to activate the speed-change. Since variable speed needs a lot more RAM, you should activate "time" only when you need it. The speed change is only available if the dynamic mode is set to „Keyboard".

### Speed Detection

automatically changes the attack when playing at faster speed.
The slider sets the time between two notes required to perform the speed-control articulation switch. The time range is shown in milliseconds. Only notes played within the selected time range are performed with the sustain-speed articulation.

**Dynamic:** Usually the dynamic of an instrument is controlled by the velocity of your midi keyboard only. CH-Winds offers additional options to control the dynamic. The details on the next page may sound a bit technical, but don't hesitate and play with the settings to learn what they do.

The buttons at the left side let you switch between four different dynamic-modes.

**Keyboard -** The articulations in CH-Winds have 3-8 dynamic layers. When set to „Keyboard" these layers are available through the velocity of your midi keyboard. The currently played dynamic layer and the midi velocity are displayed as numerical values from 1-8.

**X-Fade -** When this is selected, the velocity is controlled by midi Control Change (CC11, Expression, by default). You can also use any other controller by changing the X-Fade CC.
Setting the controller to zero plays the lowest velocity layer, moving the controller up, fades between the velocity layers, while increasing the value crossfades between the velocity layers until the highest value of 127 is reached.

**Key & X-Fade -** This is a combination of Keyboard dynamic and X-Fade. Velocity is controlled via keyboard velocity, but you can also use Expression (CC11) to crossfade between the velocity layers. Key & XFade works in an intelligent way. Let's say you play a note at velocity 100, then you increase Expression (CC11), starting from zero. No change is audible until the controller reaches a value of 100. From here, Expression takes control of the velocity and lets you change the dynamic even after the note is pressed. Key & XFade is perfect for playing realistic crescendos and decrescendos.

**Auto X-Fade -** This performs an automatic volume curve relative to the played velocity.
When Auto X-Fade is selected, the automatic volume curve starts at the velocity played on the midi-keyboard, performing a volume change depending on the settings in the table.
You can draw your own volume curve in the table. To edit the curve in more detail, click the „Edit" button to enter a fairly big table.
The length of the Auto X-Fade curve can be adjusted with the „Length" fader
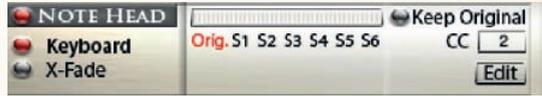
## Note-Head Designer

**Note Head Designer:** This is a unique function which you probably haven't seen in any other virtual instrument before.



**"Note Head"** lets you vary the attack and release shape of the sound in a fantastic new and fle-xibel way. Activate the Note-Head Designer with the switch on the left side. Use a Midi-Controller (CC2 by default) to control the Note-Heads, or use the fader in the interface. Setting the controller to zero playes the original articulation, as displayed on top of the interface. Moving the controller up lets you switch between 6 different variations of the note-head. These variations are short notes, recorded in six different lengths, each with 8 dynamic layers. S1 has a length of more than a se-cond, as you move up, the Note-Heads get shorter, until S6, which is a very short staccatissimo. When playing lines like „Baa dap", a sequence of short and long notes, you would usually use the sustained articulation and just stop the note. However, it makes a huge difference if the ending of a short note is a real recording ending, or just a stopped sustained note.

**"Keep Original"** is the second function of the Note-Head Designer. When this is checked, the short notes are layered with the original articulation. Thanks to the phase-aligned samples, the blending is very smooth. Click the edit page to edit the fade times in detail.

### Note Head Edit

When „Keep Original is selected, the Note Heads blend into the original articulation. You can edit the behavior of the blendings in detail on this page. Copy these settings and paste them to another articulation.



**Head Volume -** Adjusts the general volume of the Note Head.
**Fade Out -** sets the fade out time, the actual blending time of the Note Head.
**Out Delay -** Sets a delay before the fade out of the Note Head begins.
**Fade In -** sets the fade in time, the actual blending time of the original articulation.
**In Delay -** sets a delay before the fade in of the original articulation begins.
All times are shown in milliseconds.

## Transient Designer, Noise, Legato, Sustain Pedal

**The Transient Designer** is a compressor designed to control the attack and sustain of a sound. Instead of following the amplitude of the sound like a traditional compressor, it follows the general envelope and thus is not as susceptible to changes of input gain.

**Attack** controls the scaling of the attack portion of the input signal's volume envelope. Increasing this parameter will add more punch and decreasing it will reduce sharp attacks.

**Sustain** controls the scaling of the sustain portion of the input signal's volume envelope. Increasing this parameter will add more body to the sound and decreasing it will reduce the sound's tail.

**Noise**

**Keys** adds the natural sound of pressing a key on the wind instrument.

**Air** adds the natural sound of air blowing into the instrument without producing a note, which can be used to increase the 'breathiness' of the sound.

**Noise** This little fader provides a very powerful feature. It lets you blend between the pure tone and the noise part of the sample. Setting the noise fader to -50 results in a pure tone without any noise. Check this out on the Piccolo Flute. :-)

**Glide-Mode** While Legato performs a smooth crossfade between the notes, Glide-Mode plays the notes within the interval you played. Let's say you play the note C4, hold it and play E4 with Glide-Mode on. First you hear the note C4, and as soon as you press E4, the notes C#4, D4 and D#4 are played and the run ends on E4. The target articulation can be assigned differently from the basic articulation. This is great to play effects like a „rip" when e.g. choosing a short articulation as the target note. Glide-Mode works up to 12 semitones up or down.

**Legato / Glide-Mode Controls**

**Polyphon** lets you play polyphonic chords, no legato transition is audible.

**Legato** lets you play monophonic lines with a legato transition.

**Glide-Mode** provides real played runs from one note to another.

**Glide Speed** sets the speed of the Glide-Mode transition.

**Steps** sets the maximum halftone steps to be played.

**Scale** choose from chromatic, major, different minor or pentatonic scales.

**Key** sets the key of the scale

**Pedal** If you have a sustain pedal connected to your midi keyboard, the legato settings allow you to change the function of the pedal. If set to „Polyphon" the pedal acts as a regular hold pedal If no pedal is connected, you can use CC 64 to switch between Poly-, Legato- or Glide-Mode.

### Legato Mode

When playing a note, holding it and playing another note, the Legato mode performs a smooth transition between the two notes.

CH-Winds uses an intelligent combination of real recorded note-transitions and an artificial legato which additionally performes a smooth blending and pitch change .

We recorded note-transitions with up to 4 dynamic layers.
Every note transition from a halftone to an octave up and down has been recorded.
You can edit the behavior of the Legato transition in detail in the Legato-Settings Page by clicking the „Edit" button. Playing in Legato Mode is always monophonic.

Activate legato playing in the Articulation Preset page.
Clicking the little Legato Edit icon brings you to the Legato Settings page to edit the details.
You can also open the Legato Settings page through the tab on the left side of the interface.

### Legato Details

The legato transition consists of four elements:
- Fade Out for volume
- Fade Out for tuning
- Fade In for volume
- Fade In for tuning

There are separate controls for volume-fade in/out and for tune-fade in/out:
**Fade Out Offset (ms)** Sets the time before the fade starts.
**Fade Out Length (ms)** Sets the length of the fade out.
**Tune Out Offset (ms)** Sets the time before the detuning starts.
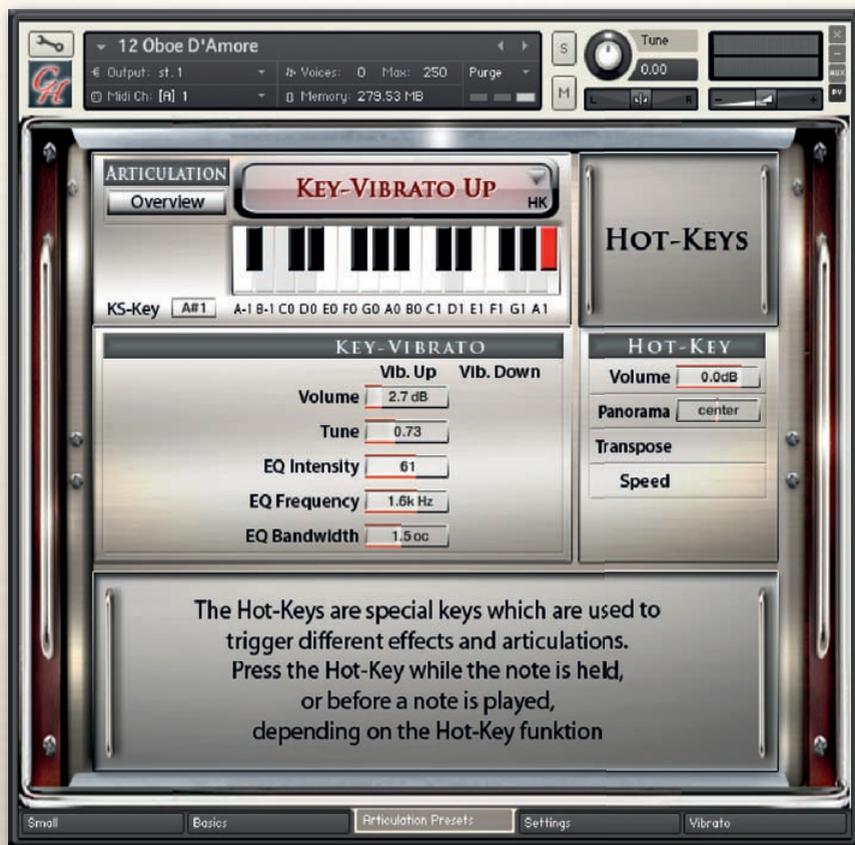**Tune Out Length (ms)** Sets the length of the detuning.
**Tune (c)** Sets the amount of detuning in cents.
**Slope** Spreads the legato time. A higher value results in a shorter legato while playing small intervals like a semitone, and a longer legato when playing larger intervals, like an octave.

The Hot-Keys are special keys which are used to trigger different effects and articulations.
Each of the 26 keys from A -1 to A #1 can be defined as a Key-Switch or as a Hot-Key Preset.

To assign a Hot-Key to a key on your midi keyboard, simply select a Hot-Key from the articulation drop down menu.

You can also set a Hot-Key to 'Play Last Note', which will literally retrigger the last note you played. This is particularly useful for playing legato repetitions which would otherwise not be possible by simply re-playing the same note repeatedly.
In addition to repeating or retriggering the previous note played, hotkeys can also be used to modify the note currently playing. For example, a hotkey can be assigned to trigger a fall, which will stop the note and play a realistic "fall".
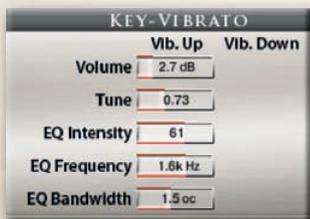
**The following functions are available through the Hot-Keys:**





**Key-Vibrato Up/Down:** Rather than playing a static vibrato with the modwheel, this enables you to perform the vibrato manually on a key of your midi keyboard. You can choose between Vibrato Up or Vibrato Down, which affects volume, pitch and EQ of the note being heard.
A real vibrato, performed by an instrumentalist, consists of a change in volume, pitch and a frequency change.
You can edit all these parameters separately.



**Play last note:** This Hot-Key simply repeats the last note you have played. This is great for fast repititions. No special controls are needed for this effect.
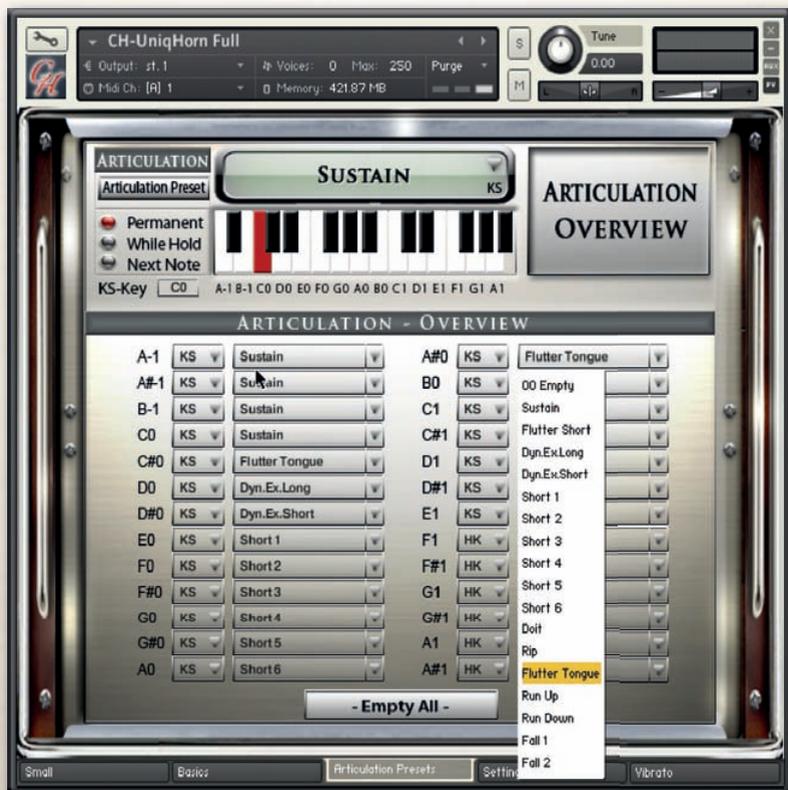
**Play Fall 1,2:** Pressing this Hot-Key while a note is being played, stops the sustain note and adds a real played fall down of the note.

**Play Trill:** Pressing this Hot-Key while a note is being played, blends into the Trill articulation

**Empty:** Selecting the empty Hot-Key clears the key-switch preset to save memory.

A list of all selected articulations and Hot-Keys is available through the Articulation Overview tab. You can select from different articulations in the drop down menu and you can define if the preset should be a Key-Switch (KS) or a Hot-Key (HK).
The details of the selected articulation however need to be set in the Articulation-Presets page.

The Articulation Overview page is also handy to unload articulations which you don't need.
If you only need one or a few articulations, setting the unneeded preset to "Empty" saves a lot of RAM.

All features in CH-Winds which require much RAM have an on/off switch.
Switching off features you don't need can save a lot of your computer memory.
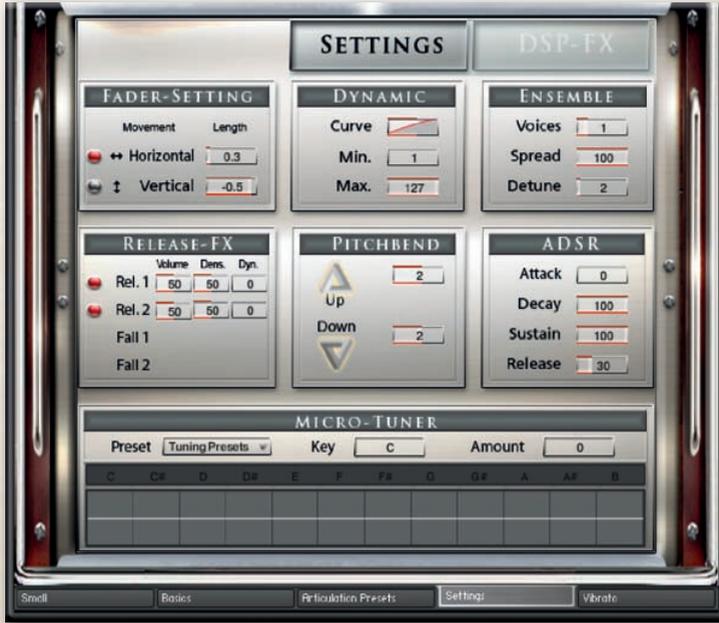
The functions on the Sound-EFX page work as global parameters for all articulation presets.
Use the upper right buttons to switch between „Settings" and „DSP-FX".



**Fader Setting:**
Adjust the behavior of your mouse with these controls
Most faders in CH-Winds are horizontally, but if you prefer to
control them with a vertical movement of your mouse, you can switch
to „Vertical". You can also adjust the length of the mouse movement.
Check which settings works best for you.

**Release EFX:**
The Release EFX applies to the release of a note. Play a note, raise the
knob and release the note at any time to hear the selected effect.
**Release1** - Adds a natural release sound.
**Release2** - Adds a very short fall when releasing the note.
**Fall1** - Adds a fall sound when releasing the key.
**Fall2** - Same as fall short but with a longer fall.

**Dynamic:**
Lets you control the Velocity Response of your midi keyboard.
**Curve -** Sets the curve for the Velocity Response.
Setting the curve to 0 results in a linear response.
**Min -** Sets the Minimum velocity.
**Max -** Sets the Maximum velocity.

## Pitchbend, Ensemble, ADSR, Micro-Tuner

**Pitchbend:**
You can assign the Pitchbend range separately for Bend Up and Bend Down from 1 to 12 semitones.

**Ensemble:**
You can set up a group of wind players here.
**Voices:** Select 1-5 instruments to play.
**Spread:** Sets the Stereo-Spread of the harmonized Sound
**Detune:** Detunes the harmonized sounds in cents.

**ADSR:**
**Attack -** Sets the Fade In time for the sound.
**Decay -** Sets the time until the Sustain level is reached.
**Sustain -** Sets the level maintained from the end of the Decay stage to the start of the Release stage.
**Release -** Sets the Fade Out time after releasing the key.

**Micro-Tuner:**

All samples in CH-Winds are perfectly tuned to the standard chromatic scale with A at 440Hz. However, real players usually don't play perfectly in tune. You can edit the tuning in precise detail using the Micro-Tuner. You can create your own tuning scales by shifting the tuning of each note up or down, or you can use one of the pre-programmed tuning scales based on some of the most famous historical scales.

**Tuning Presets:**
12 Micro-Tuning preset scales are available. You can build your own tuning scales or use the pre-programmed scales and edit them in order to create your own scales.
In addition to the Micro-Tuning scales, you can fine-tune each instrument in its channel strip in the Mixer Page.
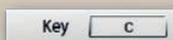
**Key:**
Sets the root key of the scale.
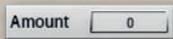
**Amount:**
Scales the overall amount of detuning.

**Other Tuning Methods:**
A Master tuning knob for all instruments is available in the header of the virtual instrument on the Play-Page. Hold down the shift key (on your computer keyboard) while turning the on-screen knob for fine-tuning.

Two types of Vibrato are available in CH-Winds.
Choose between manual LFO-Vibrato, and Auto-Vibrato.
The vibrato type can be set individually for each articulation preset.

**Vibrato:**
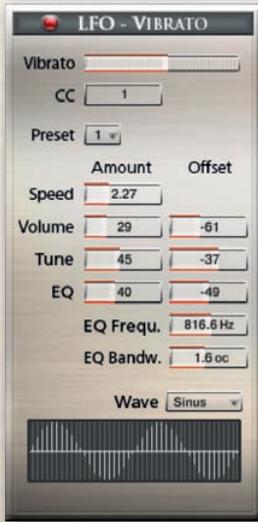These are the controls for the intelligent LFO-based Vibrato available through CC01 (Modwheel).
You can Change the CC from 1 to any other CC.

**The following controls are available for LFO-Vibrato:**
**Vibrato** - Sets the amount of vibrato.
**CC** - Sets the midi controller to control the vibrato.
(CC1 - Modwheel by default)
**Speed** - Sets the speed of the volume and pitch change.
**Volume -** Sets the volume of the vibrato.
**Tune -** Sets the degree of pitch change.
Setting tune to 0 performs a tremolo.
**EQ -** Activates a filter to simulate a realistic vibrato.
Works best in combination with Volume and Tune.
**EQ Frequency -** Sets the frequency for the filter.
**EQ Bandwidth -** Sets the bandwidth of the filter frequency.
**Wave -** choose from different waveforms to set the vibrato curve.
You can also freely draw your own curves.

**Auto - Vibrato:**
performes an automatic vibrato curve.
Instead of using the Modwheel, you can draw different curves to set the development of the vibrato over time.

**The following controls are available for Auto-Vibrato:**
**Preset** - Choose from different pre-programmed curves
**Speed** - Sets the speed over time.
**Volume -** Sets the volume curve over time.
**Tune -** Sets the amount of detuning over time.
**EQ -** Sets the amount of filtering over time.

**Copy -** Copy the curve to paste it into another table
**Paste -** inserts a copied curve
**Clear -** Resets the curve to a clear table

Vibrato can also be controlled via the innovative Hot-Key Vibrato (See page 14)

### Reverb

**Preset:** Different pre-programmed effects.

**Volume:** Level of the reverb effect.

**Pre-Delay:** Introduces a short delay between the direct signal and the reverb trail build-up. This corresponds to the natural reverberation behavior of large rooms, where a short time elapses before the first reflection of a sound wave returns from a wall.

**Size:** Adjusts the size of the simulated room. This affects the duration of the reverb trail.

**Damping:** Sets the amount of simulated absorption that takes place in rooms due to furnishings, people, or acoustic treatments affecting the reflection behavior.

### Delay

**Preset:** Different pre-programmed effects.

**Volume:** Level of the delay effect.

**Time:** The delay time in milliseconds. To synchronize the time to your host or Master Editor tempo, click on the Speed parameter's unit display and choose a note length value from the drop-down list.

**Feedback:** Controls the amount of the output signal that's being fed back into the input of the delay line, thereby creating a series of echoes that gradually fade into silence.

**Damping:** Attenuates high frequencies in the delayed signal. Turning this control clockwise will increase the damping effect. If you have set a feedback level, the signal will gradually lose more high frequency content with each repetition.

### Chorus

**Preset -** Different pre-programmed effects.

**Volume -** Level of the chorus effect.

**Depth:** Adjusts the range of modulated detuning. Higher values give a more pronounced chorusing effect.

**Speed:** Adjusts the LFO speed. To synchronize the speed to your host or Master Editor tempo, click on the Speed parameter's unit display and choose a note length value from the drop-down list.

**Phase:** Imparts an LFO phase difference between the left and the right stereo channel. This can considerably increase the width of the output signal's stereo base.

## Phaser, Flanger, Compressor

### Phaser

**Preset:** Different pre-programmed effects.

**Volume:** Level of the phaser effect.

**Depth:** The amount of LFO modulation. Higher values cause the phaser effect to sweep over a wider frequency range.

**Speed:** The LFO modulation speed. To synchronize the speed to your host or Master Editor tempo, click on the Speed control's unit display and choose a note length value from the drop-down list.

**Feedback:** This control adjusts the emphasis of the peaks and notches that the comb filter effect imparts on the signal.

### Flanger

**Preset:** Different pre-programmed effects.

**Volume:** Level of the flanger effect

**Depth:** The amount of LFO modulation. Higher values cause the flanging effect to sweep over a wider range.

**Speed:** The LFO speed. To synchronize the speed to your host or Master Editor tempo, click on the Speed parameter's unit display and choose a note length value from the drop-down list.

**Feedback:** Feeds a certain amount of the delayed signal back into the module's input, thereby creating a more pronounced effect.

### Compressor

**Preset -** Different pre-programmed effects.

**Volume -** Gain of the compressed signal.

**Threshold -** Sets a level threshold above which the Compressor starts working. Only levels that rise above this threshold will be reduced by the compression; signals that stay below it will be left unprocessed.

**Attack -** Adjusts the time the Compressor will take to reach the full Ratio value after an input signal exceeds the Threshold level.

**Ratio -** Controls the amount of compression, expressed as a ratio of "input level change" against "output level change". A Ratio of 1:1 means that no compression will be happening. For example, a setting of 4 represents the ratio 4:1, which means for every 4 decibel increase of amplitude above the threshold, the output will increase by only 1 decibel.

**Release -** Adjusts the time the compressor will take to fall back to non-compression after the input signal falls below the threshold.

## Solid G Equalizer, Filter

| EQ | Gain | Frequency | Bandwith |
|---|---|---|---|
| High | 0.00dB | 5.7kHz | HF Bell |
| High Mid | 0.00dB | 2.0kHz | 1.6oc |
| Low Mid | 0.00dB | 707.0Hz | 1.6oc |
| Low | 0.00dB | 155.0Hz | LF Bell |
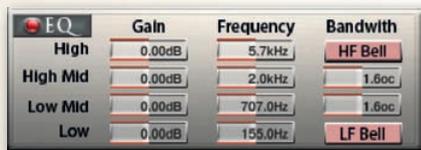
**Solid G Equalizer**
The Solid G-EQ is a 4-band parametric EQ that offers bell or shelf style control of the low and high frequency bands.

**LF Gain:** Adjusts the amount to boost or reduce the LF Frequency.
**LF Freq:** Adjusts the center frequency of the low frequency band at which the boost or cut will happen.
**LF Bell:** Toggles the bell shape of the low frequency band. If turned off, the band becomes a shelf.
**LMF Gain:** Adjusts the amount to boost or reduce the LMF Frequency.
**LMF Freq:** Adjusts the center frequency of the low-mid frequency band at which the boost or cut will occur.
**LMF Q:** Controls the Quality (or Q) of the low-mid frequency band. For most EQs, the higher the quality, the narrower the frequency band, but with this EQ the control is reversed to match the hardware it emulates and becomes a bandwidth control.
**HMF Gain:** Adjusts the amount to boost or reduce the HMF Frequency.
**HMF Freq:** Adjusts the center frequency of the high-mid frequency band at which the boost or cut will occur.
**HMF Q:** Controls the Quality (or Q) of the high-mid frequency band. For most EQs, the higher the quality, the narrower the frequency band, but with this EQ the control is reversed to match the hardware it emulates and becomes a bandwidth control.
**HF Gain:** Adjusts the amount to boost or reduce the HF Frequency.
**HF Freq:** Adjusts the center frequency of the high frequency band at which the boost or cut will occur.
**HF Bell:** Toggles the bell shape of the high frequency band. If turned off the band becomes a shelf.

| FILTER | |
|---|---|
| Gain | 0.0dB |
| Cut Off | 337.3Hz |
| Resonance | 0.0% |
| Type | 0.0 |

**Filter**
A high class filter can be used to limit the frequency of the sound.

The following controls are available:
**Gain:** Adjusts the volume of the filter effect.
**Cutoff:** Sets the frequency.
**Resonace:** Sets the bandwidth of the filter effect.
**Type:** Choose from different filter tone colors.

General Controls:
| | |
|---|---|
| 06 | Key-Switch Select |
| 07 | Global Volume |
| 10 | Global Pan |
| 09 | Global tune |
| 70 | ArticulationVolume |
| 71 | Articulation Pan |
| 72 | Articulation Transpose |
| 73 | Articulation Time On/Off |
| 74 | Articulation Time |

Live controls
| | |
|---|---|
| 02 | Note Head Selector |
| 03 | Note Head On/Off |
| 04 | Note Head Keep Original |
| 05 | Note Head Keyboard / X-Fade |
| 80 | Transient Designer On/Off |
| 81 | Transient Designer Attack |
| 82 | Transient Designer Sustain |
| 83 | Speed Detection On/Off |
| 84 | Detection Time |
| 85 | Air On/Off |
| 86 | Air Volume |
| 87 | Noise On/Off |
| 88 | Noise Volume |

Dynamic Modes
| | |
|---|---|
| 11 | X-Fade Amount |
| 31 | Dynamic Mode Keyboard |
| 32 | Dynamic Mode X-Fade |
| 37 | Dynamic Mode Key & X-Fade |
| 38 | Dynamic Mode Auto X-Fade |

True-Legato:
| | |
|---|---|
| 58 | True Legato On/Off |
| 59 | True Legato Volume |
| 60 | True Legato Offset |
| 61 | True Legato Fade In Length |
| 62 | True Legato Fade Out Length |
| 63 | True Legato Transition Speed |

Artificial Legato
| | |
|---|---|
| 45 | Art.-Legato On/Off |
| 46 | Art.-Legato Fade In Offset |
| 47 | Art.-Legato Fade In Length |
| 48 | Art.-Legato Tune In Offset |
| 49 | Art.-Legato Tune In Length |
| 50 | Art.-Legato Tune In Tune |
| 51 | Art.-Legato Tune In Slope |
| 52 | Art.-Legato Fade Out Offset |
| 53 | Art.-Legato Fade Out Length |
| 54 | Art.-Legato Tune Out Offset |
| 55 | Art.-Legato Tune Out Length |
| 56 | Art.-Legato Tune Out Tune |
| 57 | Art.-Legato Tune Out Slope |

Glide-Mode
| | |
|---|---|
| 89 | Legato Glide Speed |
| 90 | Legato Max. Steps |
| 91 | Pedal Glide speed |
| 92 | Pedal Max. Steps |

Sound EFX
| | |
|---|---|
| 95 | Flutter Tongue On/Off |
| 96 | Growl Volume |
| 97 | Trill 1 On/Off |
| 98 | Trill 1 Volume |
| 93 | Trill 2 On/Off |
| 94 | Trill 2 Volume |
| 99 | Release1 On/Off |
| 100 | Release1 Volume |
| 101 | Release 2 On/Off |
| 102 | Release2 Volume |
| 103 | Fall1On/Off |
| 104 | Fall1 volume |
| 105 | Fall2 On/Off |
| 106 | Fall2 Volume |

ADSR
| | |
|---|---|
| 109 | Attack |
| 110 | Decay |
| 111 | Sustain |
| 108 | Release |

Dynamic:
| | |
|---|---|
| 76 | Curve |
| 77 | Minimum |
| 78 | Maximum |

Ensemble
| | |
|---|---|
| 13 | Section Maker Voices |
| 14 | Section Maker Spread |
| 15 | Section Maker Detune |

LFO Vibrato
| | |
|---|---|
| 01 | Vibrato Amount |
| 65 | Vibrato Speed |
| 66 | Vibrato Volume |
| 67 | Vibrato Tune |
| 68 | Vibrato EQ Volume |
| 69 | Vibrato EQ Frequency |
| 75 | Vibrato EQ Bandw. |

Convolution Reverb
| | |
|---|---|
| 39 | Body On/Off |
| 40 | Body Volume |
| 41 | Body Delay |
| 42 | Room On/Off |
| 43 | Room Volume |
| 44 | Room Delay |

The following MIDI-CCs are used internally by the script and can NOT be used to control the instrument:
16,17,18,19,20,21,22,24,25,26,27,30,34,35,36,
112,113,114,117,118, 120,121,122,123,124,125,126,127

# Chris Hein
## Recording / Programming



Chris Hein has almost 30 years of experience with sound samples. By 1986 he had already produced the legendary "Studio-Sample" series for Metra-Sound.
In 1985 he was one of the first computer pioneers, to use the Commodore C-64 for computer music. His work for Emagic (the C-Lab application) at the Frankfurt Music Exhibition set the course for his successful work as a sound-arranger. With the SX-64, the world's first laptop, he traveled to various music studios in Europe.

From Atari to Mac, he eventually settled down with the foundation of "Hine-Studio" and created innumerable sounds for CD-Productions, Film & TV music, industrial shows and musicals. The focus of his work has always concentrated on the reproduction of real orchestras with virtual instruments. The contract musicals "A World for Deinhard" (1994) and the great horse-musical productions "The Enchanted Forrest" (1996), "Goa" (2000) and "Sudakan" (2010) consist exclusively of sample sounds. Today his studio contains an impressive collection of 22 samplers of various types.

In 1997 Chris Hein established the Film & Media production company: "Wizard Media GmbH".

### Credits:
**Recording, Editing, Programming, Interface-Design:**
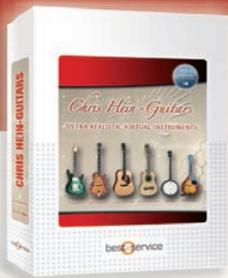Chris Hein
**Additional Editing:**
Ricarda Hein (Mrs. Melodyne)
**Script-Programming :**
Günter Hirscher
**German Translation**
Michael Reukauff
**Produced For Best Service, Munich**

# Chris Hein - Guitars

**Seven Guitars, professionally sampled in one virtual instrument**

Chris Hein - Guitar is an outstanding, sampled virtual guitar library.

thousands of samples, many articulations and dynamics all in one preset per instrument. With about 40.000 samples and 10 GB content, its one of the largest available guitar libraries. Thanks to Native Instruments genius script feature, Chris Hein - Guitar is easy to control.
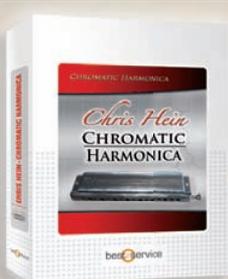
# Chris Hein - Bass

**Six exceptional noble bass instruments, detailed sampled**

It took more than a year for Chris Hein to produce this outstanding collection of six exceptional noble bass instruments, sampled with all imaginable details that answer anyones wishes.

A Musicman Stingray electric-bass picked & slapped, a LeFay fretless bass and a unique upright bass with three different sets of strings: steel-strings (the classic jazz sound), nylon-strings (the high-fidelity sound) and gut-strings (the old-school swing sound of the 40s).

# Chris Hein CHROMATIC HARMONICA

**The most detailed sampled Chromatic Harmonica on the planet**

Play harmonica like Stevie Wonder or Toots Thielemann - on your MIDI-keyboard.

With almost 7.000 samples, 14 articulations, up to 8 dynamic-layers and a full range of 4 octaves, CH-Harmonica is definitely the most detailed sampled Chromatic Harmonica on the planet.

The user interface holds tons of features on several pages to shape the sound the way you want it. However, if you don´t feel like editing, just explore the 26 pre-programmed ready to play presets.

# Chris Hein-Horns pro
## COMPLETE

**by Chris Hein**

*"There have never been nuanced instruments like these created by a computer"*

CHH Pro Complete is the most complete virtual-instrument library of Brass & Woodwind instruments for Jazz, Pop, Big-Band, Funk production but also to spice up your cinematic and orchestral tracks.

With CHH Complete you get 54 Solo- and 32 Section-Instruments, partitioned in four volumes which contain different groups of instruments perfectly matching each other. With the latest Pro update for the first time a Chris Hein library offers phase synchronized samples for perfect blending between velocities.

# Chris Hein-Horns
## - COMPACT -

### CHH Pro - CHH compact

*54 Brass & Woodwind Instruments*

- The professional entry level!
- All 54 instruments from CHH Pro
- Reduced articulations
- Brand new interface
- Moderate price
- Lower CPU usage

The most complete virtual-instruments library of Brass- & Woodwind instruments for Jazz, Pop, Big-Band and Funk. CHH-Compact is a powerful Brass & Woodwind instrument including all the 54 solo-instruments from the highly acclaimed. Chris Hein Horns Complete plus six synth-brass instruments.

## Please Do Not Copy!

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