

***TOBYBEAR PRODUCTIONS***  
***IS PROUD TO PRESENT***

# ***INSBAG***

**Disclaimer:**

All information in this manual is given at my best knowledge. I cannot gurantee that this plugin is working on every system under every condition. If you encounter a problem, please contact me.  
Features & specifications subject to change without notice

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## **Introduction**

Welcome to InsBag, a VST instrument collection from Tobybear!

This collection contains *Screamer*, *Helios*, *Electric Cowboy 3000*, *Four Seasons* and *Borderliner*.

### **Compatibility issues:**

#### **1. Operating systems:**

This software has been tested under Microsoft Windows 95, 98, ME, 2000 and XP and worked without problems. Should you encounter an OS-related problem, please contact me!

***Note concerning Macintosh version: I don't have a Mac myself, nor do I know someone nearby who has one, nor do I know how to program on a Mac, so it's very improbable that a Mac version of these plugins will come out. Sorry!***

#### **2. Host software:**

I have tested this extensively with "Cubase SX 2.0" and "Wavelab 4.0" (both from Steinberg), but it should work in any VST 2.0 compliant host. If YOU encounter any problems relating to these plugins or can't get them to work in your favorite VST host software, don't hesitate to contact me under [tobybear@web.de](mailto:tobybear@web.de) (full contact details at the end of this document).

### **Installation:**

Just extract the archive and copy the DLL files into your preferred VST plugins directory (mostly something like "c:\programs\steinberg\vstplugins" when working with Cubase VST). I decided not to include an installer yet as this would significantly enlarge the archive.

## Screamer



**Screamer** is a very simple TB-303 sound-a-like with included step sequencer. I know there are far better 303-emulators out there, but this was mainly done to test my Delphi step-sequencer class.

Don't take this too seriously, it is just a little fun box :-)

Use the 16 sliders to sequence the notes. Above each slider there is a field which displays the current note name, above that a switch for activating or deactivating the current note (a pause will then be played instead).

The "G" switches below each slider activate the so-called "glide" (pitch of note glides from previous pitch).

The "A" switches set an "accent" on the current step, making it a bit louder than the rest.

There are global controls for "cutoff", "resonance", "decay" and "tempo" on the lower part of the screen, which should be self-explanatory.

Next to the tempo dial is a small switch that toggles "sync" mode. If it is off, tempo is given in bpm (beats per minute), if it is on, tempo is set in multiples of the current host tempo.

"saw"/"square" select the waveform to be used.

Finally, the "start"/"stop" buttons start and stop the sequence playback :-)

If you send MIDI notes to the plugin, playback will start transposed, eg. if you play any "C" note on your keyboard, the sequence will play normally (as it would if you pressed "start"), but if you play for example a "D#", the sequence would be played with +3 semitones transposed.

There is a fixed assignment of MIDI CCs to some controls:

CC#74: cutoff

CC#72: decay

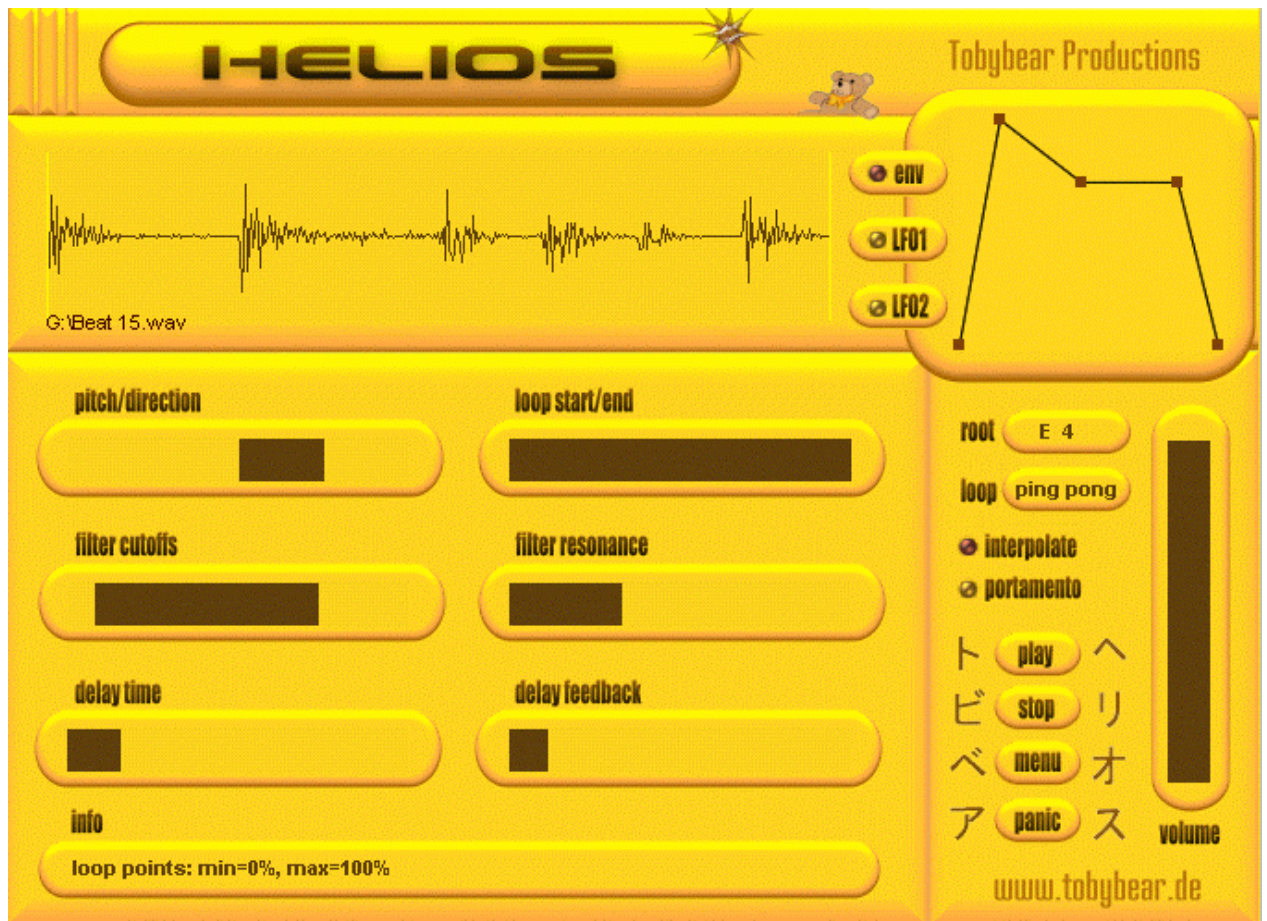
CC#71: reso

CC#70: tempo

For individual control of all parameters, please use the standard VST automation interface.

Final note: the Delphi source code for the step sequencer class and for the TB303 clone engine is available on my site ([www.tobybear.de](http://www.tobybear.de)) in the "developers – code snippets" section.

## Helios



**Helios** is basically a virtual sampler, but before I give you the features, let me tell you what Helios does NOT have:

- multisample/layer support
- multiple outputs
- many features found in "professional samplers"

Helios is a little sampler unit, intended to explore the more creative side of sampling and not really meant to replace full-fledged samplers. Rather regard it as a fun and wicked live performance tool :-). It can load a single WAV file and tweak it live in realtime to produce some really strange sounds.

Here are some of its features:

- waveform display on the GUI
- modulatable loop start and loop end points
- modulatable ADSR envelope control
- reverse playback of the sample
- 2 LFOs, independently syncable to host tempo
- 6 LFO waveforms (sine, saw up, saw down, triangle, square, noise)
- support for Anamark, VAZ and Scala tuning files
- drag and drop support for WAV and tuning files
- full MIDI CC control with MIDI learn and inverse
- on-board serial LP/HP filter with resonance
- on-board delay with feedback
- powerful WAV reader that supports many WAV versions
- start and stop buttons on the GUI
- optional sample interpolation algorithm
- portamento

**The controls:**

- Double-click left on the large yellow area below the Helios logo to open a WAV file, right-click to unload it again.
- The "pitch/direction slider" changes the pitch of the sample in realtime as well as the direction (forward/reverse). Just experiment with it. Right-click opens a preset menu.
- "loop start/end" sets the loop points: use left mouse button for loop start, right mouse button for setting loop end point. You should see this also in the waveform display.
- The "filter cutoffs" slider sets the cutoff frequencies for the lowpass and highpass filter. Use left mouse button to set lower limit (HP), right button for upper limit (LP).
- "filter resonance" controls the resonance of the filter
- "delay time" adjusts the time of the internal delay. If it is turned all the way to the left, it is disabled.
- "delay feedback" controls the delay feedback. Cool effects might occur if you modulate this parameter!

On the top right there is a **multi-purpose box**:

- If you click on "env", you will have access to a standard ADSR envelope control
- "LFO1" and "LFO2" give access to the two LFOs. For each of them, you can set modulation speed, depth, destination and waveform and choose if it should sync to the host tempo.

On the right side of the GUI are some **more options**:

- "root" sets the root key for the sample
- "loop" sets the loop mode, currently you have four options here:
  - "no loop": just plays the selected part of the sample one time
  - "loop only": plays an infinite loop (until note is released) of selected part - playback will start directly at the loop start point.
  - "start+loop": playback starts at the beginning of the sample until loop end point is reached, then jumps to loop start and repeats.
  - "ping pong": playback starts at loop start (forward) - as loop end is reached, the segment is played backwards, then forward again and so on
- "interpolate" turn on sample interpolation, which improves playback quality especially for extremely low-pitched samples.
- "portamento" activates the portamento feature, meaning that the pitch of the sample will glide from one note to the next. You can change the portamento time by right-clicking on the "portamento" label.
- "volume" controls the output volume - but can also be modulated for gating effects
- The "play" button starts playback manually, the "stop" button stops it :-)
- "menu" opens up a little menu to load a WAV sample or a tuning file or revert to the standard tuning.
- "panic" stops all playback and resets the sampler

**MIDI CC control:**

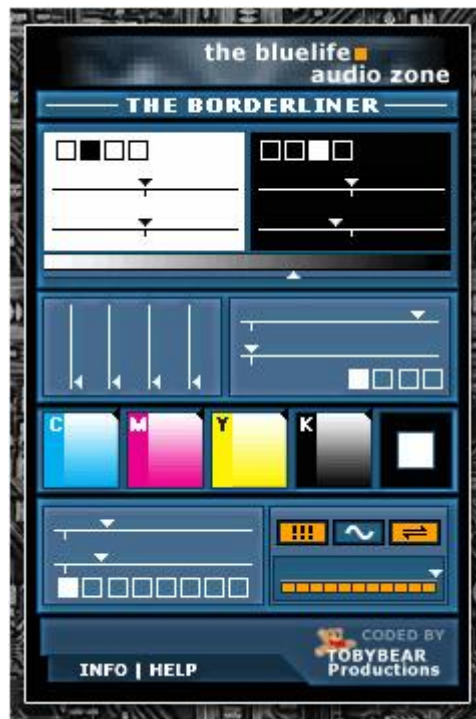
All sliders can be controlled by MIDI CCs:

- hold down "shift" and left-click on a slider to enter the CC manually
- hold down "shift" and right-click to activate MIDI learn (meaning that the next received MIDI CC is assigned to that slider)
- you can also invert the behaviour by setting a negative CC, eg setting a slider to respond to a "-72" CC means if CC has the highest value, slider is on zero, if CC is zero, slider has highest value
- CCs are saved automatically and reloaded on next run

**Effect version:**

There is also an effect version of Helios included ("Helios FX.dll") that can play samples as well, but if no sample is loaded, the audio input signal is sent through the Helios filter/delay unit.

## **Borderliner**



"The Borderliner" is an experimental VSTi synth that sounds a bit different. This is a collaboration between Tobias Fleischer alias Tobybear (VST coding) and Richard James Winter alias Blue (interface design) coded especially for the great folks at the Bluelife Audiozone community. Unfortunately, the Bluelife Audiozone was closed down some time ago, so consider this synth a "nostalgic" reminder of a very good audio site that is now gone...

### **Preset banks:**

The three included \*.fxb files are 3x16 preset patches, you can put them where your host is able to find them.

### **Usage:**

If you don't understand what every little slider and button does, a little description is displayed when you move your mouse over the objects. Furthermore you can click on "help" to see a description of all the sliders. Probably the best way is to experiment with this thing and play with the presets.

### **Effect version:**

There is also an effect version of Borderliner included ("Borderliner FX.dll") where the audio input signal is sent through the Borderliner filter/effect unit.



## Four Seasons



Four Seasons was an experiment to test out some graphic components, not a serious synth :-)

Use the top-left box to draw the oscillator **waveform** with your mouse, change the smoothing mode by clicking on the black slider to the right of the field.

Use the top-right box to set attack, decay, sustain and release values of the **envelope**.

The bottom-left field controls **filter** cutoff and resonance, click on the 'LPF' label to switch to other filter types (LP = lowpass, HP = highpass, DF = distorted filter).

The bottom-right field controls a **delay** in feedback and resonance (if label is set to 'DLY') or the parameters of an experimental **ringmodulator** (if set to 'FMX')

Use the Kanji symbols on the right to activate four effects: **Distortion**, **Spread**, **Invert** and **Glide**.

## **Thanks & Credits**

Thanks to all my beta testers on [www.kvr-vst.com](http://www.kvr-vst.com) for extensive testing, suggestions and bug reports! Without you guys, many bugs would still be in here!

Very special thanks go to **Frederic Vanmol** (In-Line Software/FruityLoops), who created/translated the VST SDK to Delphi and helped out with some bugs. If you want to program VST plugins or ASIO applications in Delphi, check out his site: [www.axiworld.be](http://www.axiworld.be)

Thanks for trying out my little toy! I hope you have fun working/playing with these plugins!

*Tobias Fleischer alias Tobybear*

### ***TOBYBEAR PRODUCTIONS is:***



**Well, actually it is just \*me\* :-)**

Main Coding, Project Coordination, Manual, Interface Design, Presets, Testing

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