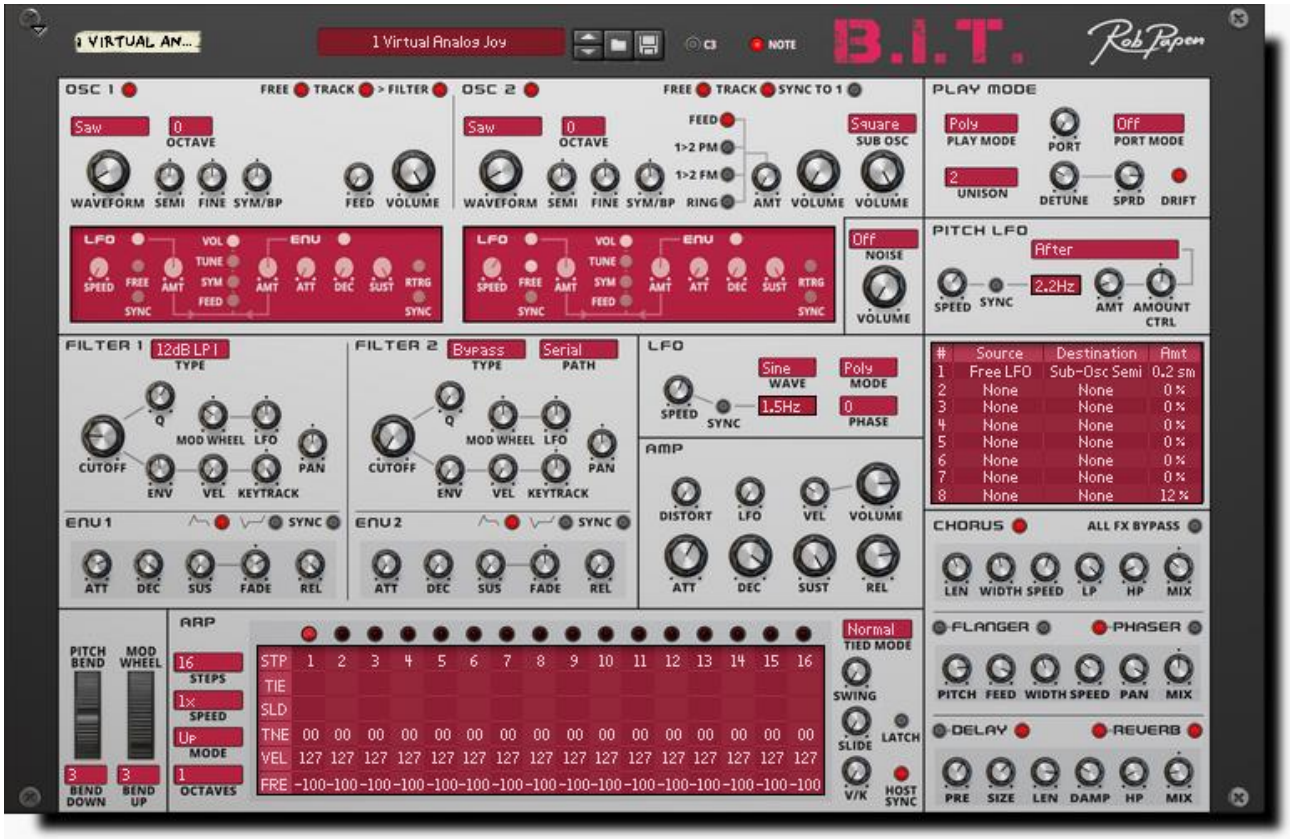
ROB PAPEN B.I.T.-RE

MANUAL ADDENDUM



Introduction & Welcome

B.I.T. stands for - Back In Time -
Instead of combining the best of analogue modelling with hybrid synthesis, which we can see with the other Rob Papen synthesizers, B.I.T. focuses on Analogue Modelled Synthesis.
Why this move you might think?
The idea behind it is that the classic analogue type of synthesis has its own charm and simply has not yet been covered by the Rob Papen brand. So, no spectrum waveforms, or samples inside B.I.T. nope, it is pure 'Analogue Modelled' synthesis.

Although B.I.T. has no patch cables, it is modular by all means!
The Modulation Matrix is used for patching, however also included is the smart 'advanced' panel below the Oscillators. With these advanced features you can quickly make several connections such as LFO and Envelope to the Oscillator parameters inside of B.I.T.
Also included is the option to modulate Oscillator 2 by Oscillator 1 in several ways which expands the sound pallet with Phase Modulation, Frequency Modulation and Ring Modulation.

A Rob Papen synthesizer would of course be incomplete without the arpeggiator (which can also work in sequencer mode), so a fully featured Arp is available and has an additional free row that you can use to modulate other parts of B.I.T. by using the Modulation Matrix.

Adding the finishing touch to B.I.T. is of course the FX section. Some superb sounding FX are added.
Our top-notch Reverb is also included inside B.I.T. which means you won't have to go outboard for adding reverb.

As previously mentioned B.I.T. stands for - Back In Time - however it can also mean 'Be Inspired Today' whilst using our Analogue Modelled Synthesizer.

Enjoy

Rob Papen and Team

This manual is in addition to the main B.I.T. Manual, describing the differences between the VST / AU and the RE version. For information about oscillators, filters etc, please read the main B.I.T. Manual.

Presets

At the top of B.I.T. you can find the preset browser section.

Preset Controls

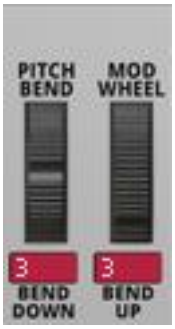
B.I.T. uses the standard Reason preset controls. Clicking on the preset menu displays a list of presets in the current folder and clicking on the up / down buttons next to the menu allows you to scroll through the presets.

Clicking he Patch Browser button will display the patch file browser and allow you to load in presets from other bank folders.

The Save Patch button, allows you to save the current preset.

The C3 button will preview (play) the current preset.

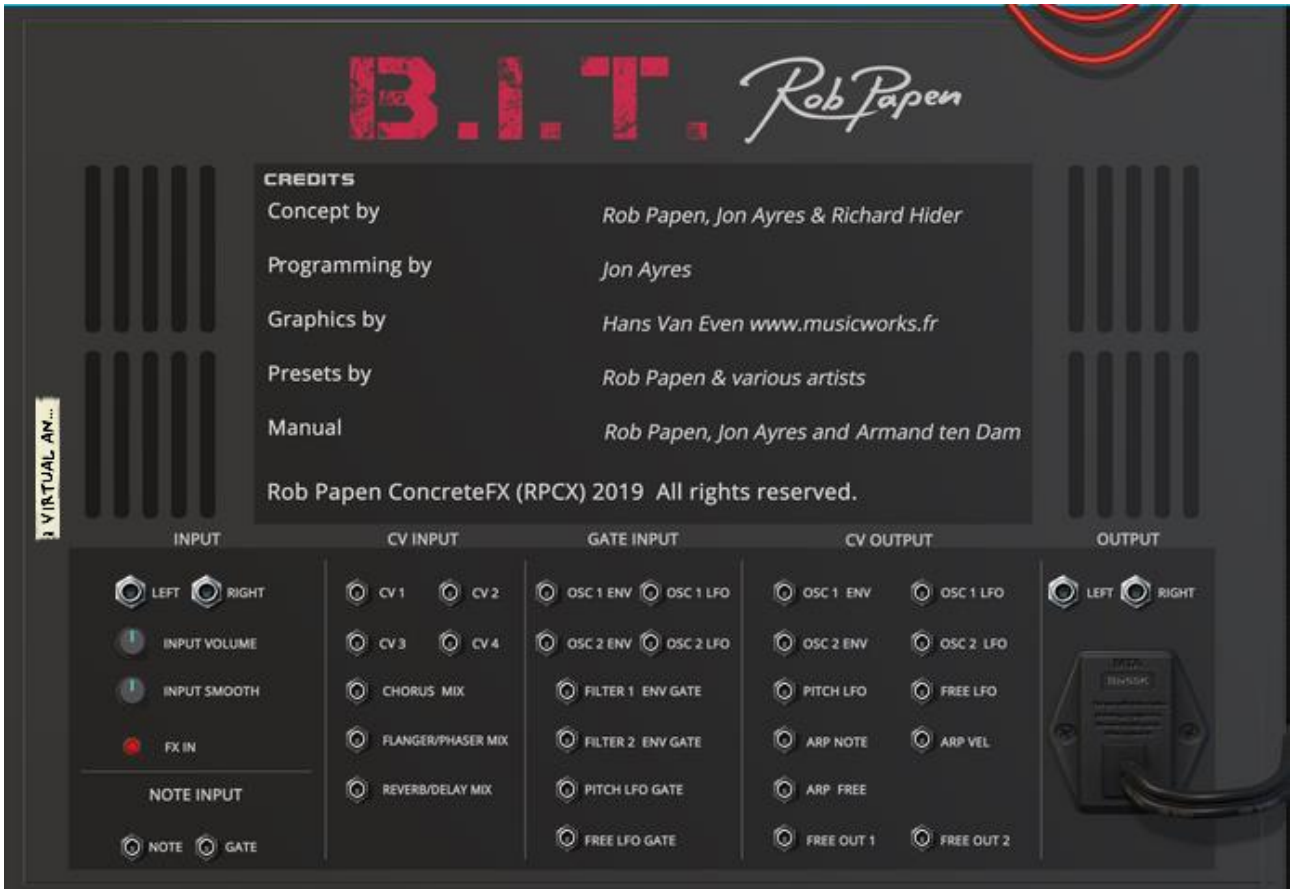
Mod Wheel / Pitch-Bend



Pitch Bend Controls
The pitch bend wheel allows you to pitch bend the currently played sound. The Bend Down and Up controls set the pitch change range when you move the pitch bend wheel up or down. Bend Down ranges from Off, down to - 48 semitones (-4 octaves) and Up ranges from Off, up to +48 semitones.

Mod Wheel
This simulates mod wheel input into B.I.T.

Back Screen



In B.I.T.'s back panel are various connections for inputs and outputs

Input Section
Here you can connect the Note / Gate CV inputs so that other Reason devices can control B.I.T.

Also, you can have left / right audio input, these are used as modulation sources, with mod input smoothing, smooths this input.
You can also route the audio input so that it passes into the effects and also adjust by using the Input Volume dial.

Note Input
Here you can control B.I.T. via external CV Gate and Note values.

CV Input
B.I.T. has 4 CV inputs, which can be used as modulation sources. Also you can change the values of the FX mix via these.

Gate Input
B.I.T. has several gate inputs (for the oscillators and free envelope / LFO), which when triggered resets these modulators.

CV Output
B.I.T. has CV outputs for the free envelope/LFO, arpeggiator pitch and velocity and free outputs (which can be set to any values via the modulation matrix).

Output
Here you can output final audio output of B.I.T.

Appendix – Modulation Sources

None

MIDI Source Modulations
Mod Wheel
After – Aftertouch
Mod/After **-** Modulation-wheel or aftertouch
Velocity
Pitch Bend
Breath
Expression
Sustain
Note – Modulation value from 0% (Midi Note 0) to 100% (Midi Note 127)
Centre Note – Modulation value centred at MIDI Note 57, going up an Octave increases it by 100%, down by 100%.
Note Random 1 – Random value generated when note pressed from -100 to +100%
Note Random 2
UniPolar Note Random 1 – Random value generated when note pressed from 0 to +100%
UniPolar Note Random 2

Osc 1 Modulation Sources

Osc 1 LFO – Polar Oscillator 1 LFO output from -100% to +100%
Unipolar Osc 1 LFO – Unipolar Oscillator 1 LFO output from 0 to +100%
Osc 1 Envelope
Osc 1 Envelope x Osc 1 LFO – Oscillator 1 LFO multiplied by envelope

Osc 2 Modulation Sources

Osc 2 LFO – Polar Oscillator 2 LFO output from -100 to +100%
Unipolar Osc 2 LFO – Unipolar Oscillator 2 LFO output from 0 to +100%
Osc 1 x 2 – Oscillator 1 LFO multiplied by Oscillator 2 LFO
Unipolar Osc 1 x 2 – Unipolar Oscillator 1 LFO multiplied by Oscillator 2 LFO
Osc 2 Envelope
Osc 2 Envelope x Osc 2 LFO – Oscillator 2 LFO multiplied by envelope
Osc 1 x 2 Envelope – Oscillator 1 Envelope multiplied by Oscillator 2 Envelope

Modulation Mod Sources

Pitch LFO
UniPolar Pitch LFO
Free LFO
UniPolar Free LFO
Filter 1 Envelope
Filter 2 Envelope
Arp Velocity
Arp Free

Output Mod Sources
Oscillator 1 Output
Oscillator 2 Output
Oscillator 1 + 2 Output
Filter 1 Output
Filter 2 Output
Output
Offset – Constant 100% value
White Noise

UniPolar White Noise
Pink Noise
UniPolar Pink Noise

Input

Smooth In - Smoothed Input
Input Left
Input Right
CV 1 - CV Input 1
CV 2 - CV Input 2
CV 3 - CV Input 3
CV 4 - CV Input 4

Notes
UniPolar LFO / Noise modulation sources go from 0 to 100%, the normal LFO / Noise modulation sources go from -100% to%100

Appendix – Modulation Destination

None

Global – Main Control destinations
Portamento Amount
Global Semi-Tune
Global Fine-Tune
Arp Speed
Arp Swing
Arp Velocity/Key
Pitch LFO Speed
Pitch LFO Amount

Unison – these destinations allow you to control each of the 4 unison voices individually
Unison Detune
Unison Stereo Spread
Unison Semi-Tune 2-4
Unison Semi-Tune 2
Unison Semi-Tune 3
Unison Semi-Tune 4
Unison Fine-Tune 2-4
Unison Fine-Tune 2
Unison Fine-Tune 3
Unison Fine-Tune 4
Unison Volume 2-4
Unison Volume 2
Unison Volume 3
Unison Volume 4
Unison Pan 2-4
Unison Pan 2
Unison Pan 3
Unison Pan 4
Unison 2 -4
Unison Filter 2
Unison Filter 3
Unison Filter 4

Oscillator 1 – Oscillator 1 destinations
Osc 1 Volume

Osc 1 Semi-Tune
Osc 1 Fine-Tune
Osc 1 Sym/BW
Osc 1 Feed
Osc 1 Phase
Osc 1 LFO Speed
Osc 1 LFO Phase
Osc 1 LFO > Volume
Osc 1 LFO > Tune
Osc 1 LFO > Sym/BW
Osc 1 LFO > Feed
Osc 1 Envelope Speed
Osc 1 Envelope Attack
Osc 1 Envelope Decay
Osc 1 Envelope Sustain
Osc 1 Envelope > Volume
Osc 1 Envelope > Tune
Osc 1 Envelope > Sym/BW
Osc 1 Envelope> Feed

Oscillator 2 – Oscillator 2 destinations
Osc 2 Volume
Osc 2 Semi-Tune
Osc 2 Fine-Tune
Osc 2 Sym/BW
Osc 2 Feed/Mod
Osc 2 Phase
Osc 2 LFO Speed
Osc 2 LFO Phase
Osc 2 LFO > Volume
Osc 2 LFO > Tune
Osc 2 LFO > Sym/BW
Osc 2 LFO > Feed/Mod
Osc 2 Envelope Speed
Osc 2 Envelope Attack
Osc 2 Envelope Decay
Osc 2 Envelope Sustain
Osc 2 Envelope > Volume
Osc 2 Envelope > Tune
Osc 2 Envelope > Sym/BW
Osc 2 Envelope > Feed/Mod

Sub-Osc + Noise – Sub-Oscillator & Noise Oscillators destinations
Sub-Osc Volume
Sub-Osc Semi-Tune
Sub-Osc Symmetry
Sub-Osc Phase
Noise Osc Volume

Filter 1
Filter 1 Frequency
Filter 1 Q
LFO > Filter 1 Frequency
Filter 1 Envelope Amount
Filter 1 Envelope Speed
Filter 1 Envelope Attack
Filter 1 Envelope Decay
Filter 1 Envelope Sustain
Filter 1 Envelope Fade

Filter 1 Envelope Release
Filter 1 Output
Filter 1 Pan

Filter 2
Filter 2 Frequency
Filter 2 Q
LFO > Filter 2 Frequency
Filter 2 Envelope Amount
Filter 2 Envelope Speed
Filter 2 Envelope Attack
Filter 2 Envelope Decay
Filter 2 Envelope Sustain
Filter 2 Envelope Fade
Filter 2 Envelope Release
Filter 2 Output
Filter 2 Pan

Amp – Amp destinations
Main Volume
Distort Amount
Main Pan
LFO > Volume
Amp Envelope Speed
Amp Envelope Attack
Amp Envelope Decay
Amp Envelope Sustain
Amp Envelope Release

Mod – LFO / Modulation Matrix destinations
Free LFO Speed
Free LFO Phase
Free LFO Shape
Free LFO Phase
Mod 1 Amount
Mod 2 Amount
Mod 3 Amount
Mod 4 Amount
Mod 5 Amount
Mod 6 Amount
Mod 7 Amount
Mod 8 Amount

FX – Destination for the Chorus, Phaser / Flanger, Delay & Reverb.
Chorus Length
Chorus Width
Chorus Speed
Chorus LP
Chorus HP
Chorus Mix
Flanger Length
Flanger Width
Flanger Speed
Flanger Feedback
Flanger Pan Mod
Flanger Mix
Phaser Pitch
Phaser Feedback
Phaser Width

Phaser Speed
Phaser Pan Mod
Phaser Mix
Delay Left Length
Delay Right Length
Delay Length
Delay Fine Length
Delay Feedback
Delay LP
Delay HP
Delay Mix
Reverb Pre-Delay
Reverb Size
Reverb Length
Reverb Damp
Reverb HighPass
Reverb Mix
CV Out 1
CV Out 2
Osc 1 Volume
Osc 2 Volume