LaserBlade Pro - 2011 / Free

Most prevailing are modulatable XTorsion, Filter FM (frequeny modulation, like in the Sequential synths) and the Metallize section. Thus in most cases you will have no difficulties in getting quite 'sharp' or digital sounds as well as a variaty of short percussive Seq-sounds. But this is only one side of the 'blade's face' as it can also generate really soft, bell-like and a lot more fascinating sounds. If you are looking for a synth being able to produce rather strange FX you'd check this one too.

Due to the three different types of LFO you can have a wide range of fascinating modulations, esp. as LFO 1 is featuring 42 patternlike waveforms. Those used to modulate the filter will provide a really vivid sound e.g. on Seq-types of sound too.

You may be amazed how versatile and wide the range of sounds is within LaserBlade although it shows a rather simple interface - it's the efficiency and partly unconventional interaction of inbuilt functions providing this ;-)

- two digital PCM-wave oscillators powered by 170 different waveforms
- each oscillators with Harm+ knob for enhancing the upper harmonic structure
- XTorsion with selectable modulation source
- one filter (24db Lowpass w. resonance)
- Filter-FM feedable from both oscillators seperately
- two ADSR-style envelope generators
- three LFO (one bpm-synced; one with 42 patternstyle waves, one with shapeable waves)
- Metallize section for more metallic timbres incl. two modulations
- bpm-synced Stereo-Delay

- 8 voices
- switchable velocity on both ADSR EG
- Lazy? button (hidden - see after MIDI implementation)

added to this 2011 version: internal patch select, Patch (re-)name, & manage (load/save fxb/fxp)

Oscillator section

The waveforms here are of single-cycle type but using more cycles. The numbering of waves is based on groups of 10 with a leading letter A onward as this can be memorized more easily than just simple numbers.
Hint: Click on the wavename to have the dropdown selection - also at LFO 1)

There are two ROM banks with 170 waveforms - note: switching banks on the fly is valid with next press on MIDI-Keyboard. Though a few waves may sound a bit similar (at a fast listen) this changes due to combination with other waves.

Knob Harm+ enhances the upper harmonic structure by adding some upper Harmonics providing a more vivid sound.

X-Torsion is similar to STS-21 but this time it is modulated as it could be done here due to being more efficient on this type of waves. Knob X-Torsion serves in two modes: *Man* to set the amount manually while using a mod source it lets you adjust the Amount of mod.

Detune serves to detune both oscillators into opposite direction which also gives a more vivid sound on request.

Filter section

This is a typical 24dB Lowpass with resonance (Q). it can be modulated by separate ADSR EG and selectable LFO-sources. EG velocity On = golden button right of (R)
Additionally there is frequency modulation of Filter (like in Sequential synths) and there are two knobs to adjust the output of Osc1 FM & Osc 2 FM audio out separately. In order to utilize Filter FM resonance (Q) must be up. You may wonder there is no separate modulation on this but it is not necessary as the LFO and EG mod also have effect on Filter FM. Basically all those modulations interact to a certain degree and the adjustment of knobs provides the mixture.

LFO section

There are three different LFO (plus a separate pitch LFO)
LFO 1 incorporates 42 patternlike waveforms
LFO 2 has different shapeable and some patternlike waveforms
LFO 3 is featuring standard waves Tri, Sin, Saw etc.
Note: only LFO 2 is bpm-synced while the other's rate is to be adjusted by a knob.
This section provides a great variety as modsources.

Metalize
(this is inherited from Swamp Synth Timbre function but placed at a different position saving CPU here)
Knob Metalize serves in two modes: *Man* lets you set the amount of Metalize manually while using a mod source it lets you adjust the Amount of modulation.
The Dry/Wet knob works the same way and balances between the dry and metalized signal.

Knob Thin - basically this one limits the frequency spectrum to upper harmonics

Main / Delay section

The output signal is shaped by an ADSR EG. Actually this signal is running through the metallize section or bypassed according to dry/wet level setting.
The delay is a bpm synced stereo-delay with adjustable feedback for left and right channel. Delay amount is set by the DlyLvl knob while the position in stereo is set by the DlyPan knob - this is more convenient than a separate level knob for each channel.

Just a note to Main volume resp. output level: there are conditions where the outputlevel might be higher than 0db. At times such a distorted clipping is wanted while mostly not. Please take into consideration the are level knobs to adjust this according to your needs.
Velocity is activated by golden button left of (A)

Setup

There is a separate pitch LFO which amount can be adjusted by a knob or by ModWheel of a MIDI keyboard. Rate is adjustable by the specified knob and different waves can be selected.

Portamento knob set to 0 (left down) there will be no effect i.e. it is switched off.

Mono-Mode and Legato maybe used for playing a typical synth solo

Note: Portamento, Mono-Mode and Legato are memorized per patch too.

Additional notes:
Using long/high decay and release settings need a lot more CPU than with these sliders down. So in case you experience CPU going up you should have a look whether these settings can be optimized. It should be reminded that *Decay* is not needed if *Sustain* is set to max value as there is no difference in level to decay to.

Have fun
HG Fortune
www.hgf-synthesizer.de

Explicit thanks go to:

Patches were kindly provided by:
Annabelle (ANN), **Dimitri Schkoda** (DS), **Derek Kay** (DK), **Aron Elvar** (elv),
Kara Music (Kara) - www.karamusicsite.com
Steve (SB) - www.samplebytes.com
Kelly D. Lynch (KDL) - www.rubidiumhexafluorosilicate.com
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Additional modules by:
David Haupt and **Kelly D. Lynch**

Sounddemos have been created by
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LaserBlade VSTi has been created with Synthedit by Jeff McClintock - Thanks, Jeff!
VST is a registered trademark of Steinberg Technology

Implementation of MIDI CC#

01 ModWheel (pitch lfo)	20 Osc 1 Wave	70 Filter Bypass	
05 Portam.Time (0=off)	21 Osc 2 Wave	71 Cut	81 Metal
07 Volume (Main)	22 Osc 1 Level	72 Q	82 Thin
08 Delay Pan	23 Osc 2 Level	73 LFO Mod Amnt	83 Dry/Wet
09 Delay Level	24 Osc 1 Harm	74 EG Amnt	
10 Pan (Main)	25 Osc 2 Harm	75 Attack (Filter)	85 Attack (VCA)
12 Dly Feedback L	26 XTorsion	76 Decay	86 Decay
13 Dly Feedback R	27 ROM bank osc1	77 Sustain	87 Sustain
14 Pitch LFO Rate	28 ROM bank osc2	78 Release	88 Release
15 LFO 1 Rate		79 Osc 1 FM	
16 LFO 1 Wave		80 Osc 2 FM	
17 LFO 2 Wave			
18 LFO 2 Shape			
19 LFO 3 Rate			

Here is the **Lazy?** Button - you don't see it's action but it's result ;-)
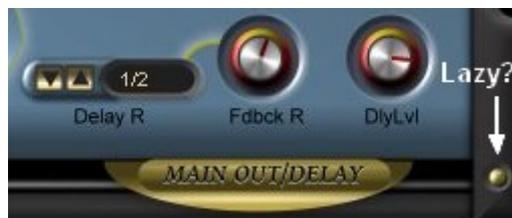
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