



MAYER EMI

MD900

Update XVAOS 2.20 A



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Preface

Version 2.20 contains a number of stability improvements, in the "Synth Engine" and essentially the graphical user interface.

The "workflow" remains completely unchanged. Only further information like popup windows (load/save) or more info on panel level, were added to allow a better overview.

The focus of this version was to incorporate the experiences, critics, ideas and bug reports of the users.

In consequence described, a number of novelties, which in turn enable new sonic ways.

I wish a lot of fun and creative work.

Horst Mayer

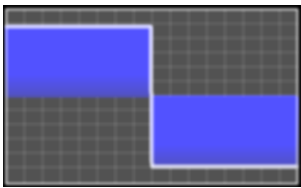
New functions & enhancements

LFOs

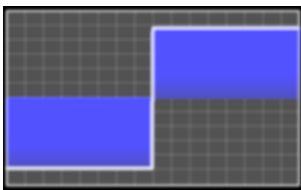
FIXED: Quantization noise with slow modulations (FILTER, OSC-Phase,...)

The LFOs have got new waveforms:

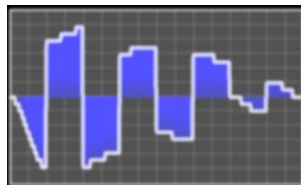
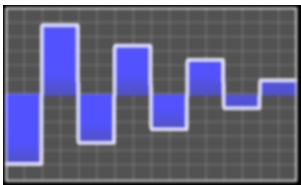
PLS_HL:



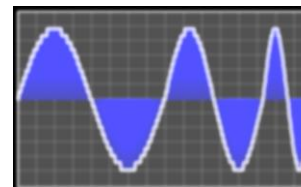
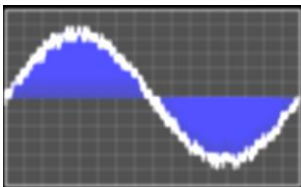
PLS_LH:



PLS_DECENT:

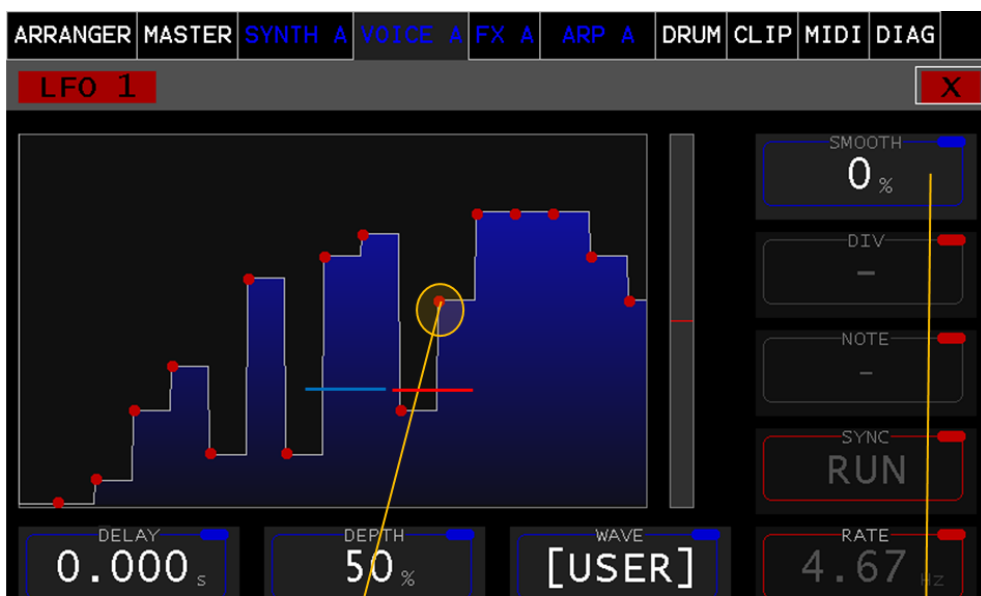


SIN_VARIANTS:



LFO Wavetable [USER]:

Used defined "Wavetable", this is done by the 16 points which are internally interpolated to a complete high resolution "Wavetable". These points can be moved vertically directly on the touch display and smoothed with the help of the SMOOTH parameter (0-100%). Thus a rectangular, trapezoidal or triangular contour shape is possible.



Drag Vertical

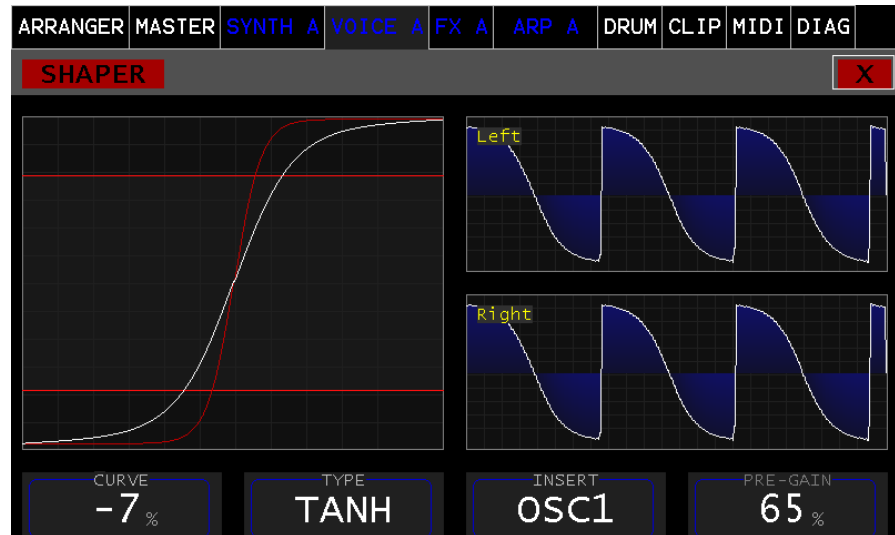
Smooth Edges

SHAPER:

Is now implemented. The **Pre(Gain)** parameter sets the working range in unit gain. The **CURVE** parameter changes the curve depending on the shaper type.


TYPEN:

- TANH
- HARD
- ARC
- SIN
- EXP
- CRUSHER



The insert of the SHAPER can be done after OSC1 or OSC2 or the MIX of all OSC1, OSC2, NOISE (see MIXER).

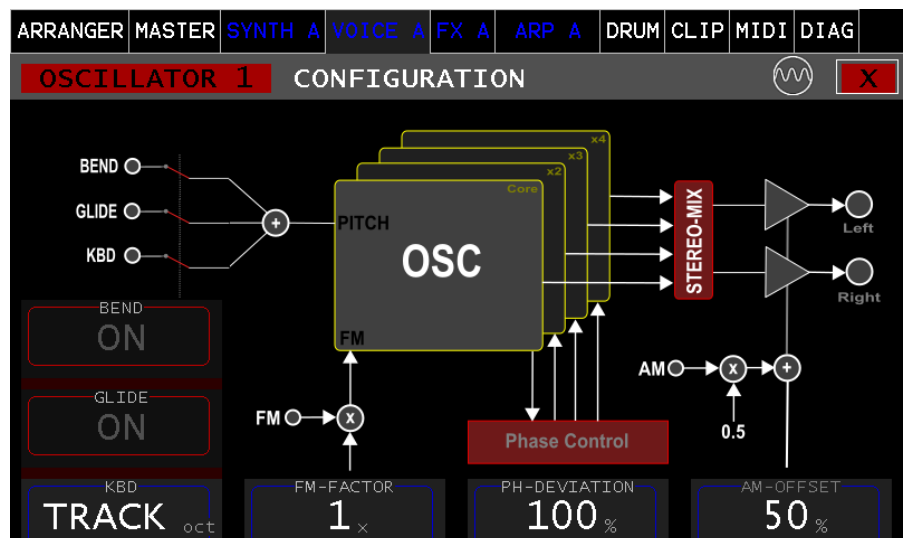
OSCILLATOR 1&2

The two oscillators 1 and 2 have been extended by a configuration panel. At the upper right edge of the oscillator  panel, you can access the configuration of the respective OSCILLATOR.

BEND: ON/OFF controls the frequency takeover by the pitch/bend wheel.

GLIDE: ON/OFF activates the Glide function

KBD: TRACK frequency is taken from the midi note, 2-7 set a fixed octave position.



FM-FACTOR: Allows setting the multiplier for frequency modulation.

(x0.1, x1, x2, x5, x10)

FM-DEVIATION: This parameter controls the phase position of the UNISONO oscillators and is only active with **UNISON** > 2,3,4. If these are detuned to each other by the **DETUNE** parameter (see Oscillator Panel), phase shifts occur between these UNISONO signals. Summation (positive/negative half-wave) can lead to near cancellation. At low detuning (**DETUNE**) this can be observed. Basically, this is a nice effect. However, with staccato sounds the OSZILLATOR loses pressure because of this. With this % setting the phase positions are corrected to the maximum % deviation at each new attack. FM-DEVIATION = 0 % all phases are adjusted to the main phase. 100 % free-running phase shift.



Attention: In "V2.20 A", this function is only effective, if the mode "wavetable" of the selected oscillator is used.

AM-OFFSET: Hereby the amplitude modulation signal can be adjusted in its symmetry. In the default setting, the output level of the oscillator will be 0 with a "Unit Gain" of -1, and maximum (100%) with +1. It can thus be fully modulated with a bipolar modulation signal. If, on the other hand, the AM-OFFSET is set to 0%, the phase will be rotated with a negative modulation signal, which would correspond to a ring modulation.

NOISE

This sample-based oscillator has been extended with a "multisample functionality".

Features:

- Mono Stereo Samples,
- Note Range
- Velocity Range
- Panorama
- 2 x Regions parallel (Mono Samples -> Stereo)

These multisamples are stored in the preset just like the single samples. This also preserves the portability.



Attention: The loading time of presets with multisamples can increase significantly (up to 10 seconds 50 Mb)

FILTER

The **Modulation** parameter was added and allows to switch the envelope control signal between LINEAR / EXPONENTIAL. This is now more snappy.

Another filter model KORG 35 Lowpass (used in MS10, MS20 and PS3300) was added.

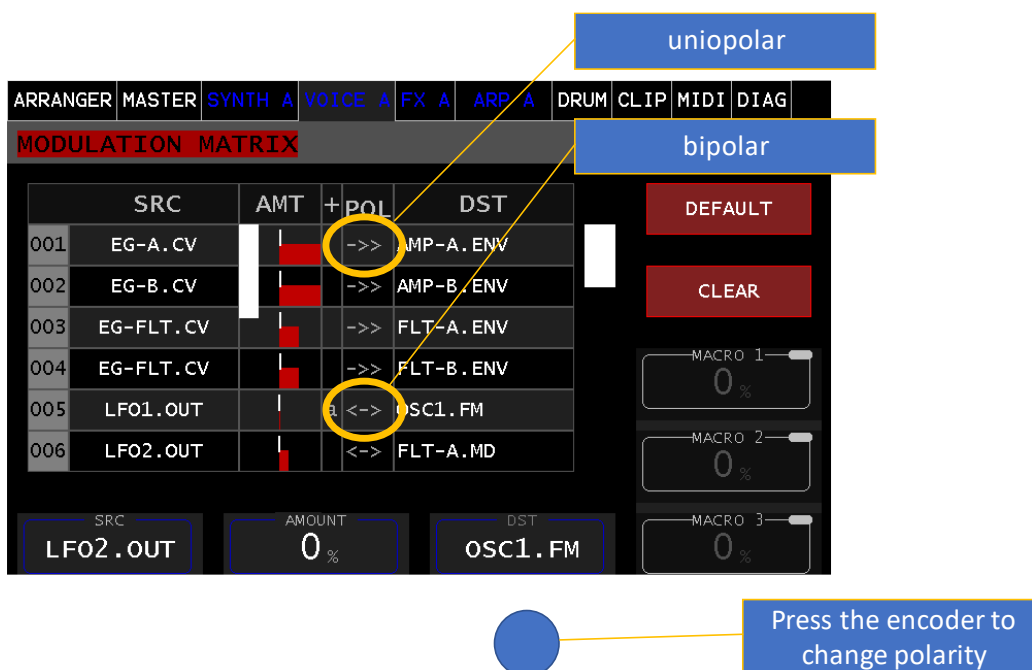
Keyboard track is now more accurate 100% = tonal 1 octave, 50% 6 semitones, 200% 2 octaves

MATRIX

The modulation matrix has been extended with the possibility to choose between Bipolar/Unipolar.

Modulation Sources (SRC) Reference

OSC1.out, OSC2.out		Bipolar Output (-1 to +1)
LFO1.out, LFO2.out, LFO3.out		Bipolar Output (-1 to +1)
EG-A.CV, EG-B.CV, EG-FLT.CV, EG-MOD.CV		Unipolar Output (0 to +1)
FLTA.out, FLTB.out		Bipolar Output (-1 to +1)
CVA, CVB, CVC		Unipolar Output (0 to +1)
MIDI.VEL		Unipolar Output (0 to +1)
MIDI.PITCH		Bipolar Output (-1 to +1)
MIDI.MOD		Unipolar Output (0 to +1)
MIDI.AFT		Unipolar Output (0 to +1)
FIX		1
MIDI.#NOTE	new	Unipolar Output (0 to +1)
RANDOM	new	Unipolar Output (0 to +1)
MACRO1, MACRO2, MACRO3		Bipolar Output (-1 to +1)



The display and thus the function is to be understood from the point of view of the target. The initial polarity is set automatically after selecting the target and can be changed if necessary.

MIDI.#NOTE represents the MIDI note value 0-127 Unipolar 0 to +1.0 the polarity can now also be switched to Bipolar as shown in the figure.

RANDOM generates a random value between 0 and +1.0 at each MIDI note hit.

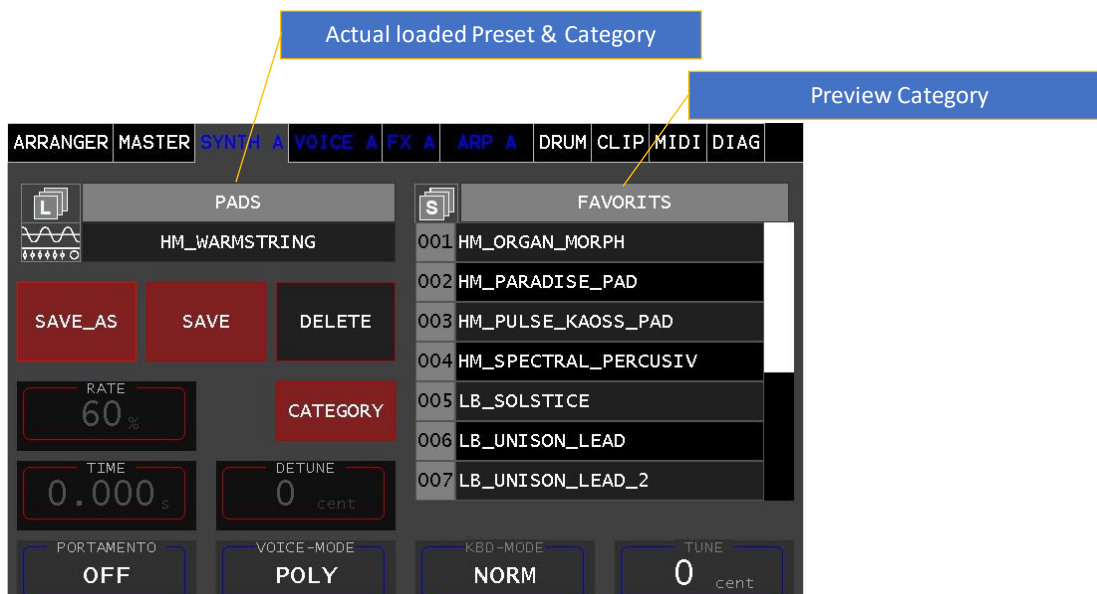
Modulation Destination (DST) Reference

Only the new targets are indicated here (see Md900 Instruction Manual Modulation Targets, page 62,63)

1	SHAPER.CM	Shaper Curve Modulation	+/-100%
2	SHAPER.PGM	Shaper Pre Gain Modulation	0 to 100%
3	NOISE.FM	Noise OSC Frequenz Modulation (TZ)	+/-100%
4	NOISE.FMAMT	Noise OSC Frequency Modulation Amount	0 to 100%

PART

Improvement of the display of loaded presets & category independently of the selection view.



Popup Load / Store, for presets with multi samples the loading time can take several seconds, The preset is fully loaded when the popup disappears.

DELETE allows you to delete a loaded preset (not the selected one). A popup window will appear where pressing the Enter key will confirm the deletion. The preset is still loaded and ready to play, but it is deleted from the file system (it is now displayed in RED). If you press the SAVE key, it will be saved in the file system again.

CLIP

In track 4 (drum track) a MIDI sequence can be stored alternatively.

Select OPERATION-> CreateSeq. Select OPERATION -> CreateTrg to create a drum pattern as usual. (see manual Clip launcher)