



The MythoSpheric Space Synthesizer for Pads, Textures, Soundscapes & Atmospherics



This synthesizer has been developed to provide a wide variety of sounds for Pads, Textures, Soundscapes & Atmospherics at a rather CPU-friendly performance. Typically it uses only around 12% on a 2.53 Ghz PVI CPU running at 400Mhz frontsidebus. Another goal of the deveopment has been to have all control-elements on screen for a direct and userfriendly access. There are straight modulation-routings with some unconventional options like modulating the amount of an LFO by another one for more vivid textures.

The basic features are:

- Two analogstyle oscillators featuring Sine, Triangle, Saw, Ramp and Square(Pulse) waves
- Two digital PCM-wave oscillators powered by 110 different waveforms
- Two filters (24db Lowpass and 12 db Low/Highpass selectable)
- Three ADSR-style envelope generators
- Two LFO with three adjustable amounts routed to nine different destinations (bpmsyncable)
- One Sample & Hold with three amounts routed to nine different destinations (bpmsyncable)
- One vLFO (for very low frequency modulations)
- One chorus for the digital (PCM) oscillators
- One synced Cross-Stereo-delay (with feedback modulated by vLFO, LFO1, S&H or manually)
- The possibility to load external SF2 files into PCM oscillators (this is not available in the DEMO version)
- The option to select different MIDI channel (this is not available in the DEMO version)

You will see that even with this quite „simple“ synth-structure you can achieve not only voluminous but also very complex and impressive sounds due to the efficient modulations.

The features of the GOLDEN ASET Synthesizer in detail:

The sound-sources

Two analogstyle oscillators (1 & 2) are featuring Sine, Triangle, Saw, Ramp and Square waves.



If set to Square-wave the width of Pulse can be adjusted manually **[PW]** for each oscillator or be modulated by **[PW-Rate]** (dedicated LFO) and **[PW Amount]** or to bpm-syncable LFO 2. Each oscillator is tunable at different octave-settings and semitones.

There is a fine detuning **[Det 1:2]** between oscillator 1 and 2 for a more vivid sound. The **[Mix 1:2]** knob serves to adjust the level between both oscillators while the **[Level]** knob determines the overall volume of both oscillators. Now the signal is routed to the 24db LowPass (LP) filter with adjustable Cutoff frequency **[Cut 1]** and Resonance **[Q 1]**.



With the **[A][D][S][R]** envelope generator you can adjust the way the filter works on the incoming signal with Attack, Decay, Sustain and Release providing the shape on filtering. With the **[EnvAmt]** knob you can adjust the amount of this modulation on the filter.

Please keep in mind that this envelope amount interacts with the other modulations routed to this filter. So if you notice there is hardly any modulation from other sources please check the setting of this knob.

Both digital oscillators (Osc 3 & Osc 4) have a set of 110 different selectable PCM-waves as soundsource (see the list at the end this manual):



Each oscillator can be set to different octaves (-2,-1,0,+1,+2), the **[Mix 3:4]** knob serves to adjust the volume between both oscillators, while the **[Level]** knob serves to set the overall volume and the **[Byp:Fil]** knob the signal to the filter or directly to the output-section.

The signal of the digital oscillator can be enriched by a special Chorus effect.



Activate with **[Chorus]** switch and there are 9 types (s1-s4 are very slow!) available by the **[Type]** button. Also adjustable are **[Depth]**, **[Delay]** and **[Feedback]**.

The signal of digital oscillators is routed to a 12dB filter with High-Pass and Low-Pass characteristic. You can shift between the HP and LP mode by knob **[HP:LP]**. Cutoff frequency **[Cut 2]** and Resonance **[Q 2]** are adjustable.



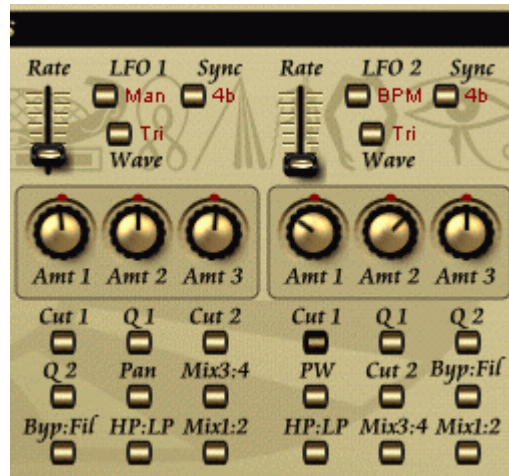
Please keep in mind the Q - resonance of this filter might sound a bit sharp when a lot modulation-amount is sent to it.

With the **[A][D][S][R]** envelope generator you can adjust the way the filter works on the incoming signal with Attack, Decay, Sustain and Release providing the shape on filtering. With the **[EnvAmt]** knob you can adjust the amount of this modulation on the filter working in both directions (+ and - amount) as reflected by the knob type.

Please keep in mind that this envelope amount interacts with the other modulations routed to this filter. So if you notice there is hardly any modulation from other sources please check the setting of this knob.

The modulations sources

LFO 1 and LFO 2 are basically the same with only slight differences.



The LFO-Rate can be adjusted manually or synced to host-clock at different division settings (from 1/8 note to 8 bar length). Each LFO provides selectable waveforms.

There are three knobs available to set an amount of modulation to go to three destinations at the same time each. All the knobs in section of modulations work in positive and negative direction, eg. from -10 to +10.

LFO1 can be adjusted a bit slower than LFO2. The modulation destinations differ in way to have the best possible combinations. So there was no need to build a more complex modmatrix consuming more CPU-resources. Instead of the switch-buttons there could have been amount knobs to each destination, but with an adjustable knob you could never be really sure to switch off a mod completely. So this was ensured by using switches.

The Sample & Hold generator is quite similar to an LFO. The main distinction is that it provides a random modulation signal like pulses at varying levels instead of a continuous / foreseeable mod from an LFO. With the **[Seed-Src]** button you can change the characteristics of the sampled pulses: Less (peaks), More (peaks) and Up & Dn types for ascending or descending motion preferably at lower rates.



Remark: the modulation to **[Mix3:4]** modulates the level (mix) between the two digital oscillators, while **[Byp:Fil]** shifts the amount of level between filtered and unfiltered signal

of the digital oscillators - very useful for interesting textures and atmos. Also the Rate can be set to be synced to the LFO.

The vLFO is there for very low frequency modulation and it controls the amount of the modulation of the destinations unless Pan, Mix3:4 or HP:LP is selected. Sent to LFO or S&H will lead to have an continuous increasing and decreasing amount of modulation at the target. So for example an LFO1-modulation will fade in and fade out continually. With subtle settings your sound will be vivid as never before.



The Output-section

The output section provides an **[A][D][S][R]** envelope generator for shaping the overall signal with Attack, Decay, Sustain and Release. With the **[Volume]** knob you can adjust the overall output of the GOLDEN ASET synthesizer.



The **[Pan]** knob serves to place the signal in stereo-panorama in a very special way as it will send the signal of the analog-style and digital oscillators into opposite direction automatically. So to say it spreads the signal: the more you have the analogstyle osc. on the left the more the digital osc. are on the right and vice versa. As pan can be modulated by vLFO, S&H or LFO1 this provides motion to the stereo-position.

In addition to this the cross stereo delay puts the corresponding delay-signal to the opposite side. This delay is synced to host clock with five selectable division-settings. Use the **[Mix-Vol]** knob to adjust the amount of delayed signal to the normal signal.



The feedback amount can be set manually or be modulated dynamically by the vLFO, S&H or LFO1. This is a quite unique feature which serves to provide a subtle motion to the delayed signal how many times the incoming signal is repeated so it is varying from quite

long to rather short repetitions depending on the amount of the modulations source's current value.

Remark: due to the conditions within the rate-setting of the mod-source are valid for halve the value here, so a setting of $8b = 8$ bars on the vLFO will effect the feedback mod for 4 bars.

MIDI Channel (this is not available in the DEMO version)



The option to select a MIDI channel of Midi input.

The button SF2 (this is not available in the DEMO version)



The option to load external SF2 files to internal PCM oscillators.
More info about custom SF2 files can be found at end of this manual.

The Lazy buttons



There are 4 buttons on the right side, these buttons let you randomly set controllers for individual sections. The button **Lazy All** works globally for all sections. These buttons can help you to create your own patches.

Note:

This version is not patch-compatible with ASET-2121 and previous versions of Golden ASET. However all patches from ASET-2121 and from previous versions of Golden ASET have been redesigned and are available in the attached banks.

The **GOLDEN ASET** Synthesizer is based on ASET-2121 Synthesizer made by H. G. Fortune (www.flomo-art.de/se) with Synthedit by Jeff McClintock.

New GUI, patches, functions and waveforms have been made by Vera Kinter (www.artvera-music.com)

MIDI-Implementation of Continuous Controllers (CC) for sliders & knobs (from left to right each row)

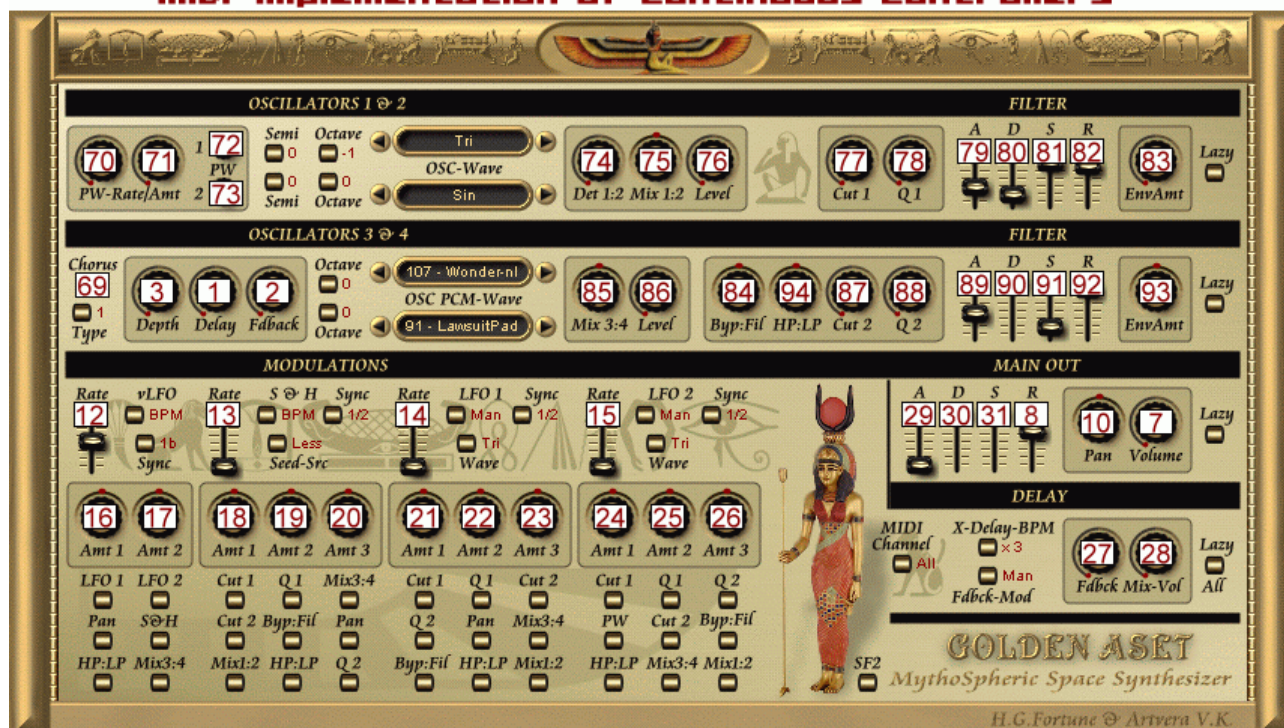
	MIDI CC #	Valuerange	Remarks
Analogstyle Oscillator & Filter section			
PW-Rate	CC # 70	0 – 127	
PW-Amt	CC # 71	0 – 127	
PW Osc 1	CC # 72	0 – 64 – 127	64 = 0 (Midposition)
PW Osc2	CC # 73	0 – 64 – 127	64 = 0 (Midposition)
Det 1:2	CC # 74	0 – 127	
Mix 1:2	CC # 75	0 – 64 – 127	64 = 0 (Midposition)
Level	CC # 76	0 – 127	
Cut 1	CC # 77	0 – 127	
Q 1	CC # 78	0 – 127	
A	CC # 79	0 – 127	
D	CC # 80	0 – 127	
S	CC # 81	0 – 127	
R	CC # 82	0 – 127	
EnvAmt	CC # 83	0 – 127	
Digital Oscillator & Filter			
Depth (Chorus)	CC # 3	0 – 127	
Delay (Chorus)	CC # 1 (Mod-Wheel)	0 – 127	
Fdback (Chorus)	CC # 2 (Breath-Control)	0 – 127	
Chorus (On/Off)	CC # 69	0 / 127	0 = Off / 127= On
Mix3:4	CC # 85	0 – 64 – 127	64 = 0 (Midposition)
Level	CC # 86	0 – 127	
Fil:Byp	CC # 84	0 – 64 – 127	64 = 0 (Midposition)
LP:HP	CC # 94	0 – 64 – 127	64 = 0 (Midposition)
Cut 2	CC # 87	0 – 127	
Q 2	CC # 88	0 – 127	
A	CC # 89	0 – 127	
D	CC # 90	0 – 127	
S	CC # 91	0 – 127	
R	CC # 92	0 – 127	
EnvAmt	CC # 93	0 – 64 – 127	64 = 0 (Midposition)

LFO- & Main Out section

vLFO : Rate	CC # 12	0 – 127	valid in Man(ual) mode
S&H : Rate	CC # 13	0 – 127	valid in Man(ual) mode
LFO1 : Rate	CC # 14	0 – 127	valid in Man(ual) mode
LFO2 : Rate	CC # 15	0 – 127	valid in Man(ual) mode
A	CC # 29	0 – 127	
D	CC # 30	0 – 127	
S	CC # 31	0 – 127	
R	CC # 8	0 – 127	
Pan	CC # 10 (Pan)	0 – 64 – 127	64 = 0 (Midposition)
Vol (Overall Volume)	CC # 7 (Volume)	0 – 127	

vLFO : Amt 1	CC # 16	0 – 64 – 127	64 = 0 (Midposition)
vLFO : Amt 2	CC # 17	0 – 64 – 127	64 = 0 (Midposition)
S&H : Amt 1	CC # 18	0 – 64 – 127	64 = 0 (Midposition)
S&H : Amt 2	CC # 19	0 – 64 – 127	64 = 0 (Midposition)
S&H : Amt 3	CC # 20	0 – 64 – 127	64 = 0 (Midposition)
LFO1 : Amt 1	CC # 21	0 – 64 – 127	64 = 0 (Midposition)
LFO1 : Amt 2	CC # 22	0 – 64 – 127	64 = 0 (Midposition)
LFO1 : Amt 3	CC # 23	0 – 64 – 127	64 = 0 (Midposition)
LFO2 : Amt 1	CC # 24	0 – 64 – 127	64 = 0 (Midposition)
LFO2 : Amt 2	CC # 25	0 – 64 – 127	64 = 0 (Midposition)
LFO2 : Amt 3	CC # 26	0 – 64 – 127	64 = 0 (Midposition)
X-Delay: Fdbck	CC # 27	0 – 127	
X-Delay: MixVol	CC # 28	0 – 127	

MIDI-Implementation of Continuous Controllers



List of PCM-Waves of the digital (PCM) oscillators:

001-AtkStrngA	012-D50X7	023-LaBella-nl	034-DWEU-06	045-DWAHZ-17	056-SynSquarA
002-WideSyn	013-Hollow	024-LoopB	035-DWUE-07	046-DWBDE-18	057-SawPad
003-MoogSaw	014-Tambura2	025-LoopB-nl	036-DWZA-08	047-DWAT0-19	058-PWMPad
004-DigiPad	015-Cymbalic	026-LoopD	037-DWZG-09	048-MonkVox	059-BriteSynA
005-SynVoice	016-MetalWide	027-LoopD-nl	038-DWHE-10	049-HvyChoir	060-Boadicea
006-ChoirAhhs	017-LaBella	028-LoopD-h	039-DWHZ-11	050-KotoLoop	061-Majestico
007-Fem.Ooh	018-StormWind	029-DWBA-01	040-DWHH-12	051-SynBras2	062-ModChord
008-BottleChoir	019-DarkNoise	030-DWEB-02	041-DWTE-13	052-SynBas1	063-BottleSpctr
009-MeloVox	020-ColdNoise	031-DWBH-03	042-DWTZ-14	053-SynBas2	064-AtkBellish,
010-EerieVox	021-Cymbalic-nl	032-DWGE-04	043-DWA0B-15	054-SynBas3	065-AtkFMTube
011-DigiChime	022-MetalWi-nl	033-DWEE-05	044-DWA0E-16	055-MoogySq	066-Mystery
New waveforms added by V. K.					
067-SweetStr	075-Arpeggio	083-Ancestral	091-LawsuitPad	099-Rhyt-dan	107-Wonder-nl
068-Fantasia	076-Sposito	084-SweepPad	092-Xylo	100-Rhyt-perc	108-Back-nl
069-Theme	077-Galio	085-DancePad	093-Choir:maj	101-Rhyt-reso	109-Horror-nl
070-Serengeti	078-Amani	086-BellVoice	094-HeavenlyChr	102-Explosion	110-Brune-nl
071-Coma	079-Mantovani	087-EastericFl	095-Fractale-nl	103-CoraseNs-nl	
072-SpacBell	080-Bangia	088-MusicBox	096-LeadWh	104-RevDM-nl	
073-Fizzy	081-BrixVoc	089-DreamerPad	097-AnalogPad	105-Grotar-nl	
074-Eternity	082-Camaro	090-KorgPad	098-Rhyt-grw	106-Heero-nl	

- **gray color** - waveforms from version 1.0
 - **yellow color** - waveforms added to version 1.3
 - **greenish color** - new waveforms added to version 2.0
- nl** = non looped samples

Fixed bugs:

- Fixed internal settings at LFOs (this repair causes patch-incompatibility with previous versions)
- Fixed setting of octaves at PCM oscillators - added the option to transpose -2/+2 (this repair causes patch-incompatibility with previous versions)
- The knobs Mix1:2, Mix3:4, HP:LP now work in a more logical way
- Fixed the location of buttons HP:LP/MIX3:4 in vLFO section

Important notes about the usage of external SF2 files as sound sources for internal PCM oscillators

Place all SF2 files you want to use into the subfolder „Golden ASET“ which has been created in the main „Golden ASET“ folder.

You can load different SF2 file into each black box, these loaded SF2 files are used in all patches in the current FXB bank. So you can have maximum of two different SF2 files within a patch bank.

Each loaded SF2 file needs a place in your computer memory, also the internal SF2 player can accept only SF2 files in the size of 128MB or smaller. For these reasons I recommend to use only smaller SF2 files in each of the black boxes which are used to load SF2 banks.

Internal SF2 player has the limitation to play only a single layer or a single multisample layer of a SF2-preset or instrument.