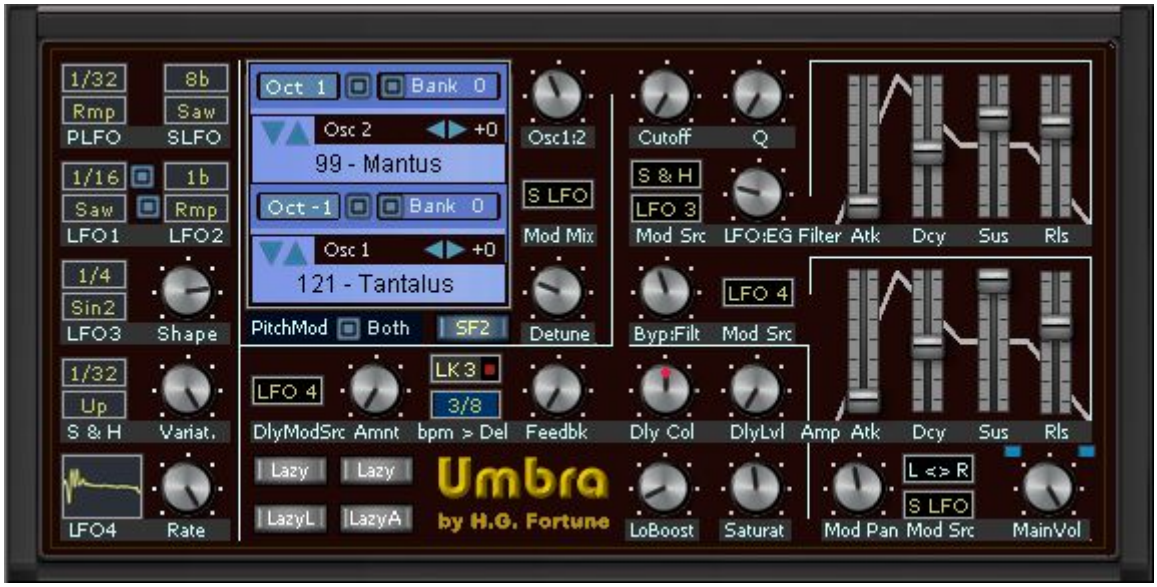
Umbra

Wave-Set plus bonus VSTi Synthesizer / SF2-Player



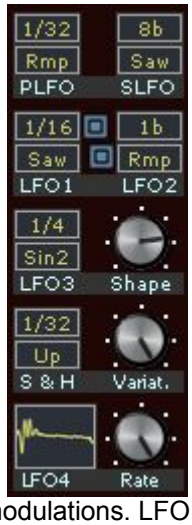
Umbra is basically a Waveset of 128 complex waveforms as SF2 plus a specially designed VSTi Synthesizer / SF2 (Soundfont) player.
The Umbra waveset consists of complex waveforms which are best suited for dark ambient, soundscapes, athmospheres, textures and rather experimental sounds. The Umbra waveset can be used also with STS-26 and ProtoPlasm21 though it is recommeded not to load it into all slots of these as sound might get too fat then.

Umbra VSTi Synthesizer features:
2 Oscillators with 128 waveforms as external SF2 (24 of these waveforms in free version)
6 LFO and 1 Sample&Hold incl. 1 dedicated pitch mod LFO
1 24db LowPass filter with resonance and EG (ADSR)
1 Amp EG (ADSR)
1 Delay bpm synced and modulateble by selectable source
LKO function for LFO (LastKeyOff unleashes full delay amount)
LoBoost & Saturator
Pan modulateble by selectable LFO and option to switch between normal Pan and Delay to opposite direction
4 Lazy buttons

FAQ:
Q: Why are there two versions of the VSTi - a dedicated Free and another one with the registered waveset?
A: As the registered waveset comprises of 128 waveforms the internal patches are not restricted to the 24 inbuilt waveforms of the free version. Those 128 internal patches in the free version are utilizing the 24 inbuilt waveforms only.

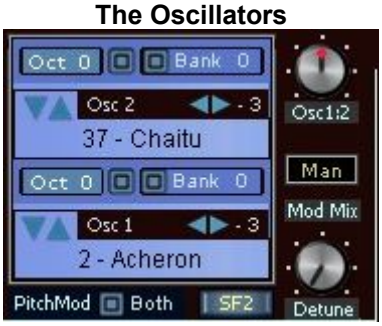
The LFO section

comprises of a dedicated pitch LFO (PLFO) with it's amount **controlled by Modwheel**



The SLFO is a rather slow LFO for longterm modulations. LFO 1 and LFO 2 are identical while LFO 3 features more complex waves plus a shaping knob, Sample&Hold hast got several modes and a variation knob, and LFO4 has a set of 21 complex waveforms with a Rate knob, so this one's tempo is manually adjustable and not synced to BPM as the others are.
Also PLFO, LFO1 and LFO2 are synced to first keypress thus these will restart on first keypress but continue as long as at least one key is pressed. This is quite useful esp. for pitchmodulation as You can have a dedicated pitch up using e.g. a Ramp (Rmp) wave when starting to play. As KeySync is crucial on Delay Modulation I made it switchable - thus there are two buttons between LFO 1 and LFO 2.

The Oscillators



Both oscillators can be set to octave range from -2 to +2. Nest to the octave selector is a Mute button to mute each oscilltor - this button is not labeled. Next to this one is a bank selector if there are more than one bank in a soundfont (SF2) file. Below this are two arrows poiting left and right these are the volume attentuators for each oscillator. In general a setting of +0 is best suited for sounds to be played as chords, but for sounds being played with one key only you might set it to +3. Also this attentuators are helpful if You want to lower the level of one oscillator in the relation to the other. The output of both oscillators can be balanced or mixed by the Osc1:2 knob which can also be modulated by selectable sources via Mod Mix selector. Below this is a Detune knob to set an amount of detuning bewteen both oscillators.
Left to this is the SF2 button which is used to popup the loading slots for SF2 files. Left to this is a selector for targets of pitchmodulation as not only both oscillators but also one of the two oscillators is selectable.

The Filter

This is a 24db Lowpass filter with Resonance (Q) and dedicated ADSR EG and two slectable LFO for modulation. The LFO:EG knob adjusts between the amount of LFO and EG. The two selectors for LFO ModSrc are: upper=primary source, lower=secondary source = mixing between primary and EG amount. Thereare two tutorial patches (last two) showing how this double modulation of LFO can be handled. Please experiment a little with both patches. The patchbank of free is included within the registered version.

The Amplifier (VCA) section

There is a Balance / Mix knob to mix between the unfiltered signal from the oscillators and the filtered signal. Also this can be modulated by selectable sources. The output signal is shaped by the VCA ADSR EG.

The Delay section

The amount of delay is adjusted by the DlyLvl knob on the right. Also there is a Color knob (DlyCol) to have the delayed signal more dark or light. The delay itself is synced to BPM in various fractions of note values even with three options Grv1 to Grv3 which are a bit out of note related values - this might provide a more groovy delay.
A very special and unique feature is the LKO function. In fact these options serve to supress too extensive delay clouds until the last key is released from keyboard. So you can play along without too much delay until you release the last key then having the full amount of delay as set by DlyLvl.
Also the dley can be modulated by selectable sources which provides some more than just spooky sounds if set appropriately. The Amount knob turned fully to the left = 0 (zero) modulation. Also the DlyModSrc selector can be set to off. **NOTE:** It should not be overused and some settings may require delicate finetuning. As with LFO1 or LFO 2 as modsource you might experience Attack clicks if the respective LFO KeySync button is set to 'On'.

The Output section

There are LoBoost to enhance Bass and Saturate to give some saturation to the sound.
The Pan is a bit tricky though it can be used as normal Pan when set to L<-->R and ModSrc to Man.
If set to <-P-> thenPan sets undelayed signal to one side while the delayed signal is panned to opposite side. This provides a very spatial sound without any complex settings needed. Also the Pan can be modulated by selectabe sources for the sound to 'fly' or 'move' between left and right.

4 Lazy buttons

Lazy A is for All lazy parameters while Lazy L is for the LFO settings. The upper left Lazy button is for oscillator waves only while the left one is for oscillator & filter section parameters only.

Explicit thanks go to:

Most patches were kindly created by Dimitri Schkoda, the other ones by HGF

This VSTi was created with SynthEdit by Jeff McClintock using further modules by Kelly D. Lynch, David Haupt, and Peter Schoffhauzer - thank you guys ;-)

Have fun
H.G. Fortune
www.hgf-synthesizer.de
on MySpace:
http://www.myspace.com/hgfortune
demotrack videos on YouTube:
http://www.youtube.com/HGFortune

More VSTi by H.G. Fortune: 'shuniji' the Rainbow Modulation Synthesizer, STS-26 Space Transition Synthesizer, ProtoPlasm21, X-Wheel of Fortune 4

Note on Soundfont files to be used within this VSTi:
If You load a Soundfont file e.g. into slot for osc. 1 this is valid for the whole patchbank i.e. this soundfont will be used in all patches. For each osc. you can use a different soundfont being valid for all patches of course. Saving the bankfile will keep the resp. settings. Thus using different bankfiles or single patches (.fxp) you can manage more than two soundfonts in usage at all.

Note on SF2-files:
Although you can use basically any SF2 around there is one limitations: the internal SF-Player does support only one layer from an SF2-preset or instrument (the bottom one as seen in Vienna).

In order to make SF2-files from Your wavefiles You can use the freeware tool ***Viena*** by Kenneth Rundt - http://www.saunalahti.fi/kru99/index.htm
Viena does not require a Creative Soundblaster Live or Audigy Card to assemble SF2-files and please note there is only one 'n' in Viena (unlike *Vienna* from Creative Labs) And please note to start with an already existing SF2 within Viena as a newly generated SF2 file within Viena does not really meet the SF2 specs thus it might not load properly into some applications. Make sure velocity ranges from 0 to 127 within the sf2 file.
As a freeware Wave-Editor with capability to set looppoints you can use Yamaha's TWE Ver. 2.3.1 which is running on Windows XP systems.

Appendix 1:

List of waves in Umbra waveset:
Note: Names in italics (waves 000 to 023) are internal waves in free version

000 AbyssFloat	032 Cedalion	064 Galdrar	096 Mahisete
001 Acheron	033 Celtine	065 Ganymed	097 Maja
002 Adalante	034 Cerdous	066 Glitnir	098 Mantus
003 Amberionis	035 Ceridwen	067 Gladsheimr	099 Medea
004 Amfortas	036 Chaitu	068 Goshorun	100 Melissa
005 Amra	037 Charicio	069 Gunthorin	101 Mendes
006 Annoyser	038 Charon	070 Habaud	102 Mimir
007 Argonyx	039 Chimera	071 Hamadryas	103 Morpheus
008 Arupa	040 Cidaria	072 Harmonia	104 Myton
009 Asturionis	041 Circe	073 Hebe	105 Narcissus
010 Aurora	042 Claviger	074 Helionis	106 Nastrand
011 Balinesque	043 Clio	075 Helheimr	107 Neptun
012 Baucis	044 Clymene	076 Hvergelmir	108 Orcus
013 Bazur	045 Corycia	077 Hyperion	109 Osiris
014 Belinus	046 Daira	078 Hypsipyle	110 Pandora
015 Belisana	047 Darida	079 Jarnvidr	111 Phaeton
016 Bendis	048 Delphinia	080 Ilionis	112 Phoenix
017 Bimatris	049 Diomedes	081 Jorun	113 Prometheus
018 Bitra	050 Dodone	082 Isanja	114 Rama
019 Briseis	051 Dracius	083 Kaftarinn	115 Salmacis
020 Britomartis	052 Durinn	084 Kagura	116 Scython
021 Buceros	053 Dvalin	085 Kali	117 Somnia
022 Butonis	054 Echidna	086 Kaylasa	118 Svartalfr
023 Cabirus	055 Electryone	087 Kirnis	119 Tangra
024 Caducifer	056 Eleusina	088 Kurokusi	120 Tantalus
025 Caligon	057 Elissa	089 Lakshmi	121 Taranis
026 Calliope	058 Elysium	090 Lamia	122 Thurs
027 Callisto	059 Empusa	091 Leda	123 Thiresias
028 Calydon	060 Euthymia	092 Lerad	124 Tycho
029 Camiro	061 Farbauti	093 Lindormr	125 Undine
030 Cassiopeia	062 Faunis	094 Logi	126 Urania
031 Cataon	063 Fulgora	095 Magada	127 Utgard

Appendix 2:

List of implemented MIDI CC

Oscillator	**Filter**	**Amp**	**Delay**	**LFO**
Wave 1 = 20	Cutoff = 70	LoBoost = 80	DlyModSrc = 14	LFO3 Shape = 102
Wave 2 = 21	Q = 71	Saturate = 81	ModAmount =15	S&H Variation = 103
Osc 1:2 = 22	ModLFO:EG = 72	Byp:Filt = 82	bpm->Delay = 16	LFO4 Rate = 104
ModSrc = 23	Mod Src = 73	ModSrc = 83	Feedback = 17	
Detune = 24	LFO Src = 74		DlyColor = 18	
PLFO-Sel=25	Attack = 75	Attack = 85	DlyLvl = 19	
	Decay = 76	Decay = 86		
Osc1 Mute=27	Sustain = 77	Sustain = 87	DelayMode/LKO=31	**Main Out:**
Osc2 Mute=28	Release = 78	Release = 88		Overall Volume = 7
Osc1 Attent=29				Pan = 10
Osc2 Attent=30				PanMode = 12
				Pan Mod Src = 13

Known bugs: loading a single patch program (*.fxp) to first program number (and only there) may change the waveform of the oscillators. This does not apply when loading a patchbank file (*.fxb)! This has to be fixed in the development-environment.

Multiple instances are not possible on multicore CPU systems. Work on solving this is progressing.

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March 20th, 2008