The Dreammachine V.2d Pro
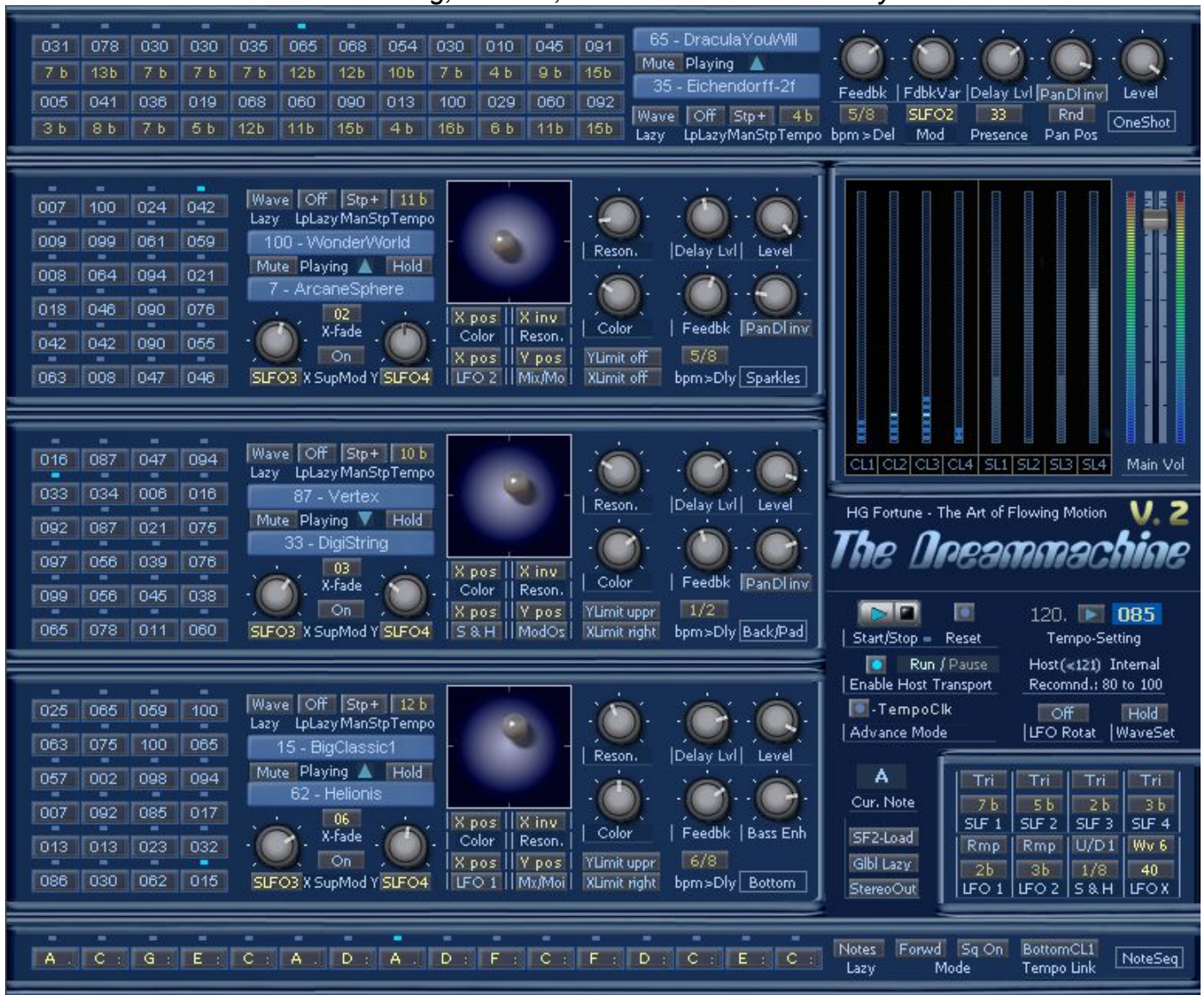## < The Art of Flowing Motion >
< Get it running, lie back, relax and dream endlessly ... >

What it is not and what it is:

This not a synthesizer to be played like one would usually play a keyboard synthesizer. Instead is it more a self running machine which can be transposed so this is ideal e.g. to provide backings of complex athmospheres and soundscapes for live performances. And, yes, it is monophonic only.

The concept of the Dreammachine is based on very slow running wavesequencing and modulations. Thus realtime editing is not as one might expect it. - This is a machine for **slow motion**.

There are three parts: Bottom/Bass, Back/Pad and Sparkles covering the lower, low mid and upper mid frequencies. Each part has got a 24 step sequencer for waveforms to be played in succession. The currently playing waveform and the next in the pipeline are displayed and can be altered temporarily without affecting the sequence list! There is a dedicated Lazy button for the waveforms and a LoopLazy button to get a new set of waveforms automatically after the sequence has finished the 24th step and returns to step 1. Also it is possible to choose random position play thus the waveforms are not played in linear order but instead from a random position though the counter does display the actual step in the sequence.

The Dreammachine V2 features a lot of major enhancements:
Most noticable are the new XY-SuperModulation controls at the three synthparts and the 16 step note sequencer at the bottom. Due to the XY controls the whole control system has been reworked and is providing now a far deeper and more efficient control on shaping the sound. In addition to that the sf2 files had to be reworked too featuring now different wave sets than with prior version. With the new 16 step note sequencer another feature has been added as you can advance now manually using a MIDI kbd. The output sections with delay have been integreted to the resp. synthparts. Also there is a new LFO X with 9 complex waveforms.

Some changes to version 2.d: There is now a dedicated and independant step advance at each part/section controllable via mouse (Stp+ button), MIDI CC# and MIDI note#s 24, 26, 28 and 29 so one can advance each part independantly via MIDI-Keyboard without transposing. This is really nice. Also the general step advance system has been reworked so one can advance instantly without the required little delay before. Minor drawback is the wave preview to next step had to be removed which on the positive side also led to save some CPU. Anyway this more instant response makes working at all far more fluent. Also there is a new selector slider to lenghten/smoothen the crossfade at wave switching. Plus you can switch waves up/down via MIDI keyboard too - for details see image on page 5. Also SuperModulation on the oscillator waves is now possible mixing the dormant wave to the active one thus enhancing the sonic flavour to a great extend.

The Three Synth Parts

These parts are quite identical execpt the Bottom (Bass) part has got a Bass Enhance knob while the other two parts allow Pan settings. Thus the Bottom / Bass is always centered in Pan position what makes sense.

Each part has got it's own tempo control which is set in length of bars. This too provides a good source for variations - setting all parts to the same tempo is possible though but gives far less interesting results.There is also a Mute button, and a Hold button which serves to 'freeze' the currently playing wave until the Hold button is pushed again. Additionally there is also a global Hold button at the Start/Stop control section.

After determing a sequence of waves the sound can be tweaked at far more extend than with the previous version. Basically the sound modifiers are a 24dB LP filter for the Bottom part, a 12 dB HP Filter for the Back / Pad (Mid) part, and a Colorizer (similar to Anvilia) for the Sparkles (Hi) part. Each modifier has Resonance which can be modulated too which is a nice feature keeping in mind this is a machine to 'run for itself' for longer periods of time, so this does offer addditional variations.
With the Color and Resonance knobs you can determine a basic amount or dedicated range for modulation while the XY SuperModulation are used to control the modulations. There are 4 destinations Color, Resonance, Selectable destination (see below) and a selectable faster LFO to be added to the Slow LFO (SLF / SLFO) modulations. Thus the Slow LFO controls the amount of the faster LFOs. (Remark to be kept in mind: please note that with quite fast LFO settings like 1/16 or 1/8 you might experience not really wanted blip like sounds! I told you so don't complain about it.)

X/Y SuperModulation

XY SuperModulation is very similar to that of the STS-33 where you can set a dedicated SLFO for the X and Y axis to have a two dimensional modulation on the selected targets. With the two knobs above the SLFO selector you control the amount of modulation in positive and negative range, thus mid position will lead to zero mod.
The bottom right selector below the XY-Pad serves to determine one or two destinations :
1. MixOut - as before mixes between colored and direct oscillator signal
2. ModOs - mixes via SuperMod the 'dormant' wave to the active one to a certain extend (max about 80%)
3 .Mix/Mo - 1 and 2
4. Mx/Moi - like 3 but Mod Os inverted.
Below the Color knob there are two more switches to limit the range of the X and / or Y modulation thus the whole modulation amount is used in that restricted area - which can be quite nice

Finally the signal can be fed through a delay with adjustable feedback and bpm related delay time. The Level knob sets the output level of each part.

Remark on Bass Enhance at the Bottom part: it is not always advisable to use it's full extend (knob turned completely to the right) instead find a balance between Bass Enhance and Level setting of the part.

### The OneShot part for oneshot fx or vocal phrases
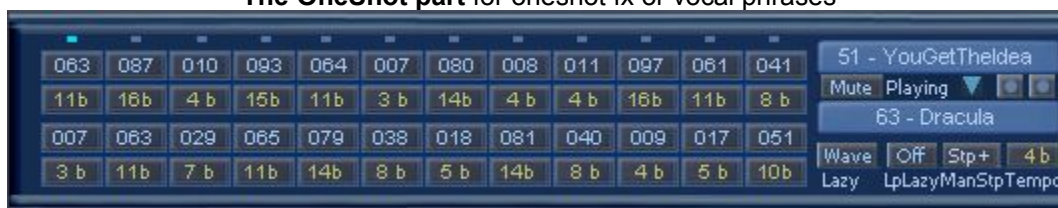
This part serves to add oneshot samples as an additional flavour to The Dreammachine. There is a 24 step wave sequencer just as with the other parts. You can set intervals for each steps or use a common bar interval. Switching is done at the end of that setting, i.e. at 4b it switches when 4th bar has finished.There two unlabeled buttons to change banks (cycle up / left=lower/right=upper) in the OneShot sf2 files if preset banks are present!


As with the other parts these one shots can be fed through a delay. This delay features a feedback variation knob in order to have different depths of repetitions: turned to left the setting of the feedback knob is used moving the knob to the right changes to the amount of variation controlled by a selectable SLFO. Below the delay level knob there is a selector slider to increase the Presence i.e. high frequencies of the signal before the delay.

The waves of uper and lower slot are panned to opposite pan postion as determined by the Pan knob by default. Also you might choose the Rnd mode for pan which is controlled by the selected SLFO of FdbkVar.

The LFO Section
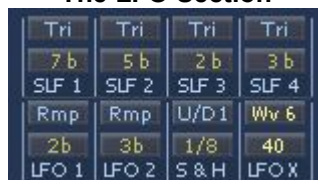
In total there are 8 LFO: five very slow LFO for longrunning slow modulations and two 'common' or faster LFO and one Sample & Hold. the new 5th LFO x features 9 more complex waveforms with it's tempo adjustment done by the selector slider belwo the wave seletor.
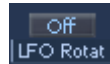
The button above the LFO section labeled LFO Rotat serves to shift / cycle LFO 1, LFO 2 and S&H through the parts adjustable in selectable steps (4,6,8) controlled by the Bottom part tempo.

The 16 Step Note Sequencer

There are 16 slots to set notes from A to a (16 steps). These steps can be transposed via MIDI Keyboard at realtime anyway the display of the steps remains as set up though the current note will display the actual note palyed.


You can switch the Note sequencer On or Off and have it played forward or backward while the selector for TempoLink determines the Tempo which is controlled by the selected part's tempo. The Note Lazy buttoms gives really randomised note data.
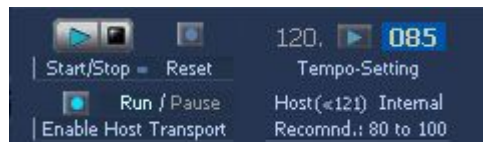
There are two basic ways to control the running status of the machine:
If Host Transport Control is enabled you can use it to start and stop the machine. Please keep in mind this machine has got nor bar indicators to jump to certain bars thus if you want to jump forward and backward in your host sequencer it is advisable to stream the output of the Dreammachine into a file first.
If Host Transport Control is disabled you can use the Start/Stop button to run the machine.
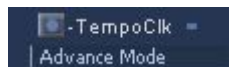
Additionally you can set via Advance mode to Man / Kbd advance thus you trigger to next step via e.g. Midikeyboard (Key A). Note you can only advance when the blue LED is lit this delay is required to ensure the internal switching of the waves stays in line. This manual mode is also helpful to set up wavesequences.
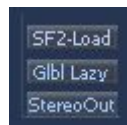
There are three more buttons: SF2 Load to load different SF2 files; Glbl Lazy to randomize the related paramteres; StereoOut/MultiOut to switch between just a stereo output pair or stereo output for each part = 4 x stereo out.

Additional controls via specifix keys on a MIDI keyboard:

This image shows the related keys on a MIDI keyboard to control Part Step Advance and Wave Select/Switching at each part up and down. Both features are quite handy for setting up new wavesequences and even for interacting at realtime.
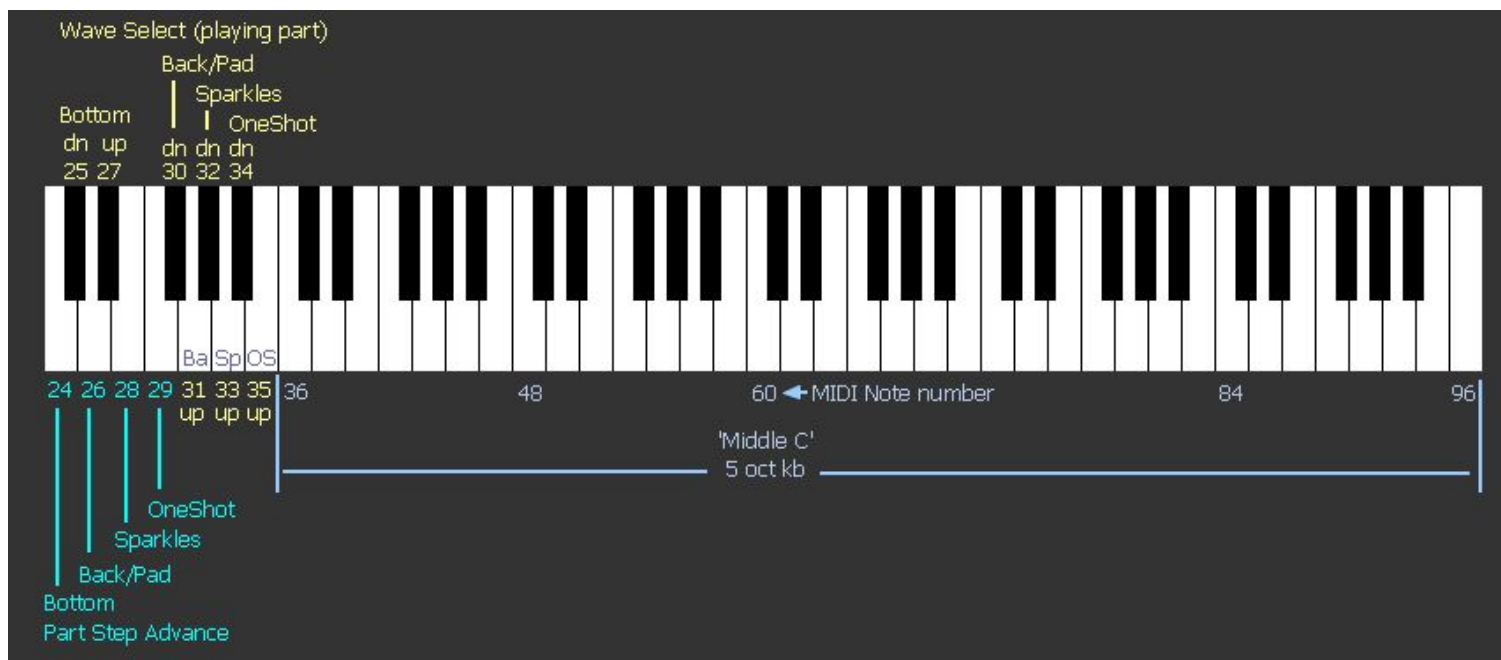
Thanks to all who have helped and do support my work! - Credits and further info
The Dreammachine has been created by H. G. Fortune with Synthedit by Jeff McClintock.
This VSTi uses further modules by David Haupt, Kelly D. Lynch, Peter Schoffhauzer, Daz Diamond and Lance Putnam

The vocal phrases have been spoken by:
Russian language by Jelena Mogilevskaja, Bonn; Eichendorff & Dauthendey (poem excerpts) by Beate Bernard, Cologne; Nornen ('Norns' from Wagner's opera 'Goetterdaemmerung') by Susann Fabiero, Bonn.

More VSTI by H. G. Fortune:
STS-33 Transition Synthesizer
Anvilia Synthesizer
X-Wheel of Fortune 4 (X-WoF 4)

Homepage: www.hgfortune-vsti.web44.net
H. G. Fortune / G. Hager
Almaweg 49
53347 Alfter
0228/96499010
email: fortune@flomo-art.de

Updated List of waveforms vers. 2

List of 100 waveforms in Sparkles Part:

000 AbyssFloat	025 Dreamshift	050 LightningL	075 SpaceBirds
001 AlienLife	026 DrifterSH	051 Limbodrift	076 SpaceJunk
002 AlienPlanet	027 FantaB-rev	052 LiteStar	077 SpaceRide
003 AlienTalk	028 FarOut	053 LostInSpace	078 SpaceWhirl
004 Amfortas	029 FemBreath	054 LunaticLoop	079 SparkleStr
005 Arcanasque	030 FreeGliding	055 LuringVoice	080 SparklyGls
006 ArcaneSphere	031 FX-OscStorm	056 MachinaX	081 SparklyWnd
007 Asturionis	032 GlissHarp	057 Mantus	082 SpcWarpX
008 AtkWonder	033 Gliss-rev	058 M-Clocks-rev	083 StormWind
009 Balinesque	034 Habaud	059 MetalWhirl	084 StringedVoice
010 Baucis	035 HadesLoop	060 MilkyWay	085 Surreal5
011 BeautyDream	036 HiFemale	061 MircalePad	086 SynAtckMorphPad
012 BellstrumFZ	037 HighlyPraised	062 Morpheus	087 TaCeridwen
013 Bendis	038 Horrifical	063 MultiMorph	088 TalkLoop
014 BigFantasy	039 HotMotion	064 Mythlorien	089 TroubledParadise
015 Birdies2	040 InharmBellPad	065 Mythosfer	090 Tunnellizer
016 Bitdisorder	041 InsideTube	066 Myton	091 Tycho
017 Briseis	042 InTheWoods	067 NTropic	092 UnNatural
018 BriteHeavenly	043 InvWarpoon	068 Osiris	093 Urania
019 Caducifer	044 JetNse	069 OuterPad	094 Vectorial
020 CharmLoop	045 Jungle	070 PlanetWave	095 VividVoicyPad
021 Chicadas	046 Kali	071 Rain-Crackle	096 Wateryshore
022 ChipTalk	047 Labyrinth	072 RainyDay	097 WeirdLoop
023 Circe	048 LadyNature	073 Samoira	098 WeirdLp-rev
024 DeepCaveDive	049 Lakshmi	074 SarahElissa	099 WonderWorld

List of 100 waveforms in Back / Pad Part:

000 Amberionis	025 Chordalica	050 LigaPad	075 StraightVoicyPad
001 Amsoria	026 ChordedNze	051 Luminiscense	076 SubStorm
002 Angelics	027 Cinematic	052 Margalit	077 SuperSoftVoice
003 Aphrodisia	028 Cosiness	053 MilkyWay	078 Superstr
004 ArcaneSphere	029 CrossMorphed	054 ModChord	079 Surreal5
005 ArcanRealms	030 DeepCaveDive	055 Monks	080 SynAtckChoir
006 ArtVox	031 DeepSpaceX	056 MorningSun	081 TadukiVision
007 Aspiration	032 DigiString	057 Mysticon	082 TimeLag
008 AtckSphere	033 DoubleMorph	058 Narcissus	083 TunnelBel
009 Aurora	034 DramaStrngs	059 NebulousPad	084 Turimac
010 Ayesha	035 Dvalin	060 NTropic	085 V-Cello
011 BelloPad	036 Enigmatic	061 Orkestra	086 Vertex
012 Bellspheres	037 FakeVox	062 Prometheus	087 VoiceOfFantasy
013 Belphegor	038 FogQuyer	063 Romantica	088 VoxOfNoise
014 BigChoir	039 FullStacked	064 Salvation	089 VoxStrings
015 BigOrchStrngs	040 Guevercin	065 SawyString	090 VStringy
016 BigSawy	041 Gunthorin	066 She	091 VX-Storm
017 BottleVox	042 Hamadryas	067 Sitar-rev	092 WarmAnalog
018 Bowed	043 HeavyPad	068 SoftDigiBell	093 WarmBritePad
019 BriteHeavenly	044 Helheimr	069 SoftJaws	094 WarmFatPad
020 BriteSawy	045 Helionis	070 Softpudding	095 WaterFlow
021 BriteWhisper	046 HybridBras	071 SoftWhisper	096 WaterStream
022 Britomartis	047 Labyrinth	072 Somnia	097 WhiteClouds
023 Chord2	048 LateSunset	073 SparkleVox	098 WhitePad
024 Chordal	049 Leda	074 SteelWhisper	099 XtraOrchst

List of 100 waveforms in Bottom / Bass Part:

000 3FatOsc	025 Cataon	050 FLayrBass	075 MurmWhisper
001 AbyssFloat	026 Cathedralon	051 FL-Bass	076 Orkestra
002 Adalante	027 Cedalion	052 Forlorn m	077 OuterChoirA
003 AfricanSaw	028 Charon	053 Gladsheimr	078 ProClassic1
004 Amra	029 Chimera	054 GoodLow	079 PWM-6T
005 AnaSynSaw	030 Chord2	055 Goshorun	080 ResoBass
006 Aphrodisia	031 Chordalic	056 Grumbling	081 SawMove
007 ArcanRealms	032 Cidaria	057 Gunthorin m	082 SawsWet
008 AsiaBlown	033 Claviger	058 HardAtckPad	083 SawyStrings
009 Aspiration	034 CrossMorphed	059 Harmonia	084 SeaSaw
010 AtckSphere	035 DeepCaveD	060 Helheimr	085 SoftJaws
011 AtkOpnBrass	036 DeepSpaceX	061 Helionis	086 SubBass
012 Aurora	037 Delphinia	062 Hermaphrodites	087 SubLowHi m
013 Bassical	038 DeltaLow	063 HomesickBass	088 Symphonic
014 BigClassic1	039 Dodone	064 Hypsipyle	089 SynWoodW
015 BigOrchStr	040 DramaStr	065 KS-FatBras	090 TadukiVision
016 BowBass	041 DuoSynOrg	066 LateSunset	091 Thurs
017 BrasBass	042 Durinn	067 LowXsaw	092 Trumpeting
018 BriteDigi	043 Dvalin	068 LtTremloBs	093 Underneath m
019 BriteSaws	044 DXEP-Base	069 Lush	094 VCello
020 BriteWhisper	045 Electryone	070 MechBass	095 VStrings
021 BuzzBass	046 Eleusina	071 ModChord	096 Wateryfonic
022 Calliope	047 Euthymia	072 Monastry	097 WorldSaw
023 Camiro m	048 FakeDungeon	073 MovinJaws	098 XPulsed
024 Cassiopeia	049 Fat-5th	074 MultiMorph	099 Yggdrasilir

List of 100 waveforms in One Shot / Vocal Phrase Part:

000 MightyHawk rus	025 Dauthendey-4e	050 YouGetTheIdea	075 Wateryfonic
001 Golden Shrine rus	026 Dauthendey-4f	051 WaitingAround	076 New-tm2
002 Cosy feeling rus	027 Dauthendey-4g	052 WhichCorner	077 SpaceWhirl
003 Light in Dark rus	028 Dauthendey-4h	053 WillBeDifferent	078 Bouncy 1
004 Mystic Moon rus	029 Eichendorff-2a	054 DontYouTry	079 6T-Whirled
005 Morning Sun rus	030 Eichendorff-2b	055 IDontKnowWhat	080 ExoBell-1S
006 Rainbow rus	031 Eichendorff-2c	056 IKnowWhatYou	081 Med-Swish-2
007 Walking on rus	032 Eichendorff-2d	057 ItsGettingMe	082 WhirlPasser2
008 Deep Water rus	033 Eichendorff-2e	058 MentalProcess	083 LostInSpace
009 Gate of West rus	034 Eichendorff-2f	059 QuiteARat	084 Passnby-1S
010 EaglehasLanded	035 Eichendorff-2g	060 QuietEvening	085 Trahing-1S
011 MoonTakeOff	036 Eichendorff-2h	061 VoiceFomDead	086 Thunor-1S
012 EnteredOrbit	037 Eichendorff-3a	062 Dracula	087 Clusterbell
013 Dauthendey-3a	038 Eichendorff-3b	063 DraculaCastle	088 MStrum-1S
014 Dauthendey-3b	039 Eichendorff-3c	064 DraculaYouWill	089 CicadaRattle
015 Dauthendey-3c	040 Eichendorff-3d	065 DraculaChildren	090 PitGong-1S
016 Dauthendey-3d	041 Nornen_33	066 Birdie	091 StrumBell
017 Dauthendey-3e	042 Nornen_34	067 Bird of Prey	092 StrangeBell
018 Dauthendey-3f	043 Nornen_42	068 Owl	093 Gong2
019 Dauthendey-3g	044 Nornen_43	069 Werewolf	094 LiteGong
020 Dauthendey-3h	045 Nornen_44	070 Ufonics-1S	095 WLiteGong
021 Dauthendey-4a	046 Nornen_47	071 Ufo Passing by	096 Cymb-Backw
022 Dauthendey-4b	047 Nornen_45	072 SparkleWhirl	097 VCrensc Cymbal
023 Dauthendey-4c	048 Nornen_68	073 FX-Bouncer	098 Rolled Cymbal
024 Dauthendey-4d	049 VeryLovelyGirl	074 DiverTm	099 Mute-Skip

Note: Using other sf2 files please make sure these have at least 100 waves (presets) from 1 to 100 or as numbered in SF2 Editor from 0 to 99! More waves maybe present but these won't be adressed by the wavesequencer as this one is layed out for 1 to 100.

MIDI-Implementation of MIDI CC (recognized data valid from 0-127) V.2

|		Bottom:		Back:		Sparkles:		OneShot:	
Start/Pause	= 4								
Main Vol	= 7	Wave Sel A	= 23	Wave Sel A	= 25	Wave Sel A	= 27	Wave Sel A	= 29
		Wave Sel B	= 24	Wave Sel B	= 26	Wave Sel B	= 28	Wave Sel B	= 30
Hold Bottom	= 64								
Hold Back	= 65	X-ModAmt	= 70	X-ModAmt	= 74	X-ModAmt	= 78		
Hold Sparkles	= 66	Color	= 71	Color	= 75	Color	= 79		
Hold Wave Set	= 67	Reson	= 72	Reson	= 76	Reson	= 80		
		Y-ModAmt	= 73	Y- ModAmt	= 77	Y- ModAmt	= 81		
Reset	= 68	X-ball	= 15	X-ball	= 17	X-ball	= 19		
		Y-ball	= 16	Y-ball	= 18	Y-ball	= 20		
								Fdbk Var	= 92
		DlyLvl	= 83	DlyLvl	= 86	DlyLvl	= 89	DlyLvl	= 93
		Feedback	= 84	Feedback	= 87	Feedback	= 90	Feedback	= 94
		Level	= 85	Level	= 88	Level	= 91	Level	= 95
				Pan	= 9	Pan	= 10	Pan	= 11
		Step+	= 8	Step+	= 12	Step+	= 13	Step+	= 14
		(&MIDI note	24)	(&MIDI note	= 26)	(&MIDI note	= 28)	(&MIDI note	= 29)

Note: Step+ is related to a MIDI Note number <u>and</u> a MIDI CC# thus if you happen to have an 88keyboard or a keyboard with master ocatve transpose -1 octave down you can use the respective MIDI keys to adavance the steps for each part manually and independantly! See image on page 5.

Appendix on creating one's own sounfonts from existing ones:
There is a free Soundfont Librarian from Creative Labs / EMU which can be used (even without having a Creative Soundblaster / Audigy card installed) to manage, reorganize existing soundfonts - thus even the fairly unexperienced can create his own collection of sf2 files even allowing to modify some basic setting like rootkey.

You can download it here (3rd item from bottom)
http://connect.creativelabs.com/developer/SoundFont/Forms/AllItems.aspx
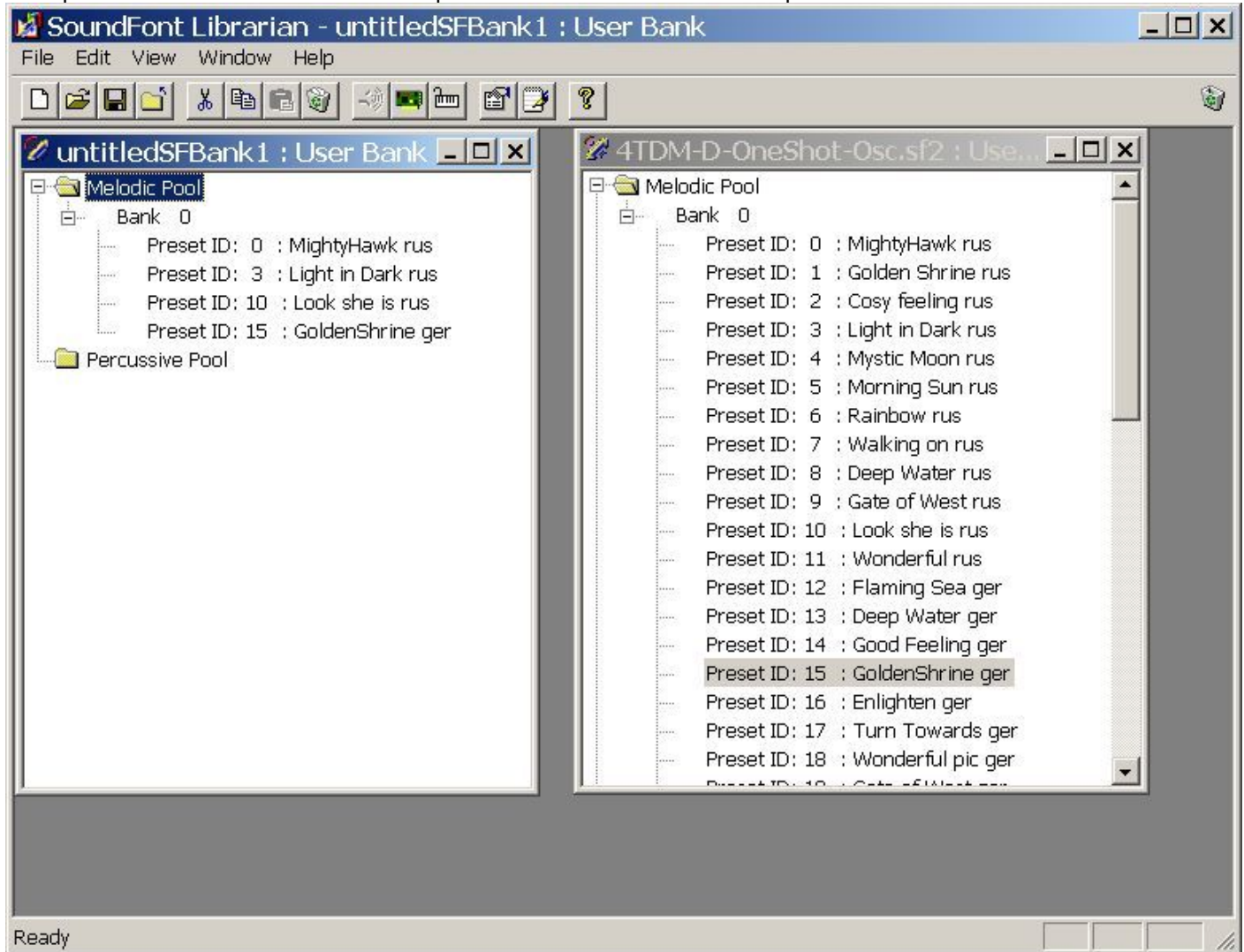
This program is very easy to use as it does support drag and drop to copy presets from one soundfont to another one. The only minor drawback is that you'll probably have to renumber the presets manually. With a Creative Soundblaster / Audigy card installed you might even listen to a selected preset.

I strongly recommend to have a look at this tool as it will enable you to create your individual combinations of sounds (= presets in sf2 files) esp. for the OneShot / vocal phrase part so your musical creations will sound different in the end. One rule to be remembered: **Always work on a copy of a file!** ;-)

There is a zipfile available for download containing a pdf and tools for creating sf2 files:
http://www.hgfortune-vsti.web44.net/public/SF2-Tips&Tools.zip

Terms of License Agreement:

You are NOT ALLOWED to sell the program or charge for the access to the free version.
You are allowed to distribute the free version of this program (online or on magazine CD's) <u>as long as You do not charge for this program</u>! Anyway You are requested to send an info about such a distribution.

You may use the program in personal and/or commercial music (credits are welcome). But You are not allowed to make samples (looped or unlooped) for commercial sampling CDs.
You are allowed to run the registered version of the program on different computers as long as You are the only person having access to and using the program.

You are not allowed to modify, decompile or reverse-engineer the program. This program is not copy-protected but protected by national & international (copyright-) laws.

Changes & enhancements may be made without prior notice and a grant that further editions will read patches from former version cannot be given.

The software is supplied as is. Use this program on Your own risk and Your own responsibility.

As of accompanying SF2 (soundfont files) - with registered Pro version only! - You may use these in other applications too even modify these for personal use, but You are in no case allowed to make these files (original or modified based on waves supplied with my VSTi) available to others.