

# X-WoF 3

## Multipart algorithmic Music System (X-Wheel of Fortune 3)



X-Wheel of Fortune 3 is a multipart integrated algorithmic VSTi music system for creating tracks based on 8 instruments-parts: Pad 1 synthesizer, Pad 2 synthesizer, Bass synthesizer, Hi Sq Synthesizer, Kick, HiHat, Perc3 to Perc5 and Variable Atmospheric Oneshot Sq. Each patch/preset may be a complete musical track, a track for backing a live performance etc. All this can be arranged in two different ways using the algorithmic Wheel mode for free floating or the Scale step mode for harmonically prestructured tracks.

There are more than 80 selectable PCM waves for the Pad synthesizers, about 200 Percussion instruments and drums. In addition wavefiles can be loaded at pad parts and for percussion. Also featured is an inbuilt quickhelp system covering the most needed topics including a quicktutorial with resp. patch.

**It's a tool for incredibly easy track creation for many types of electronic music.**

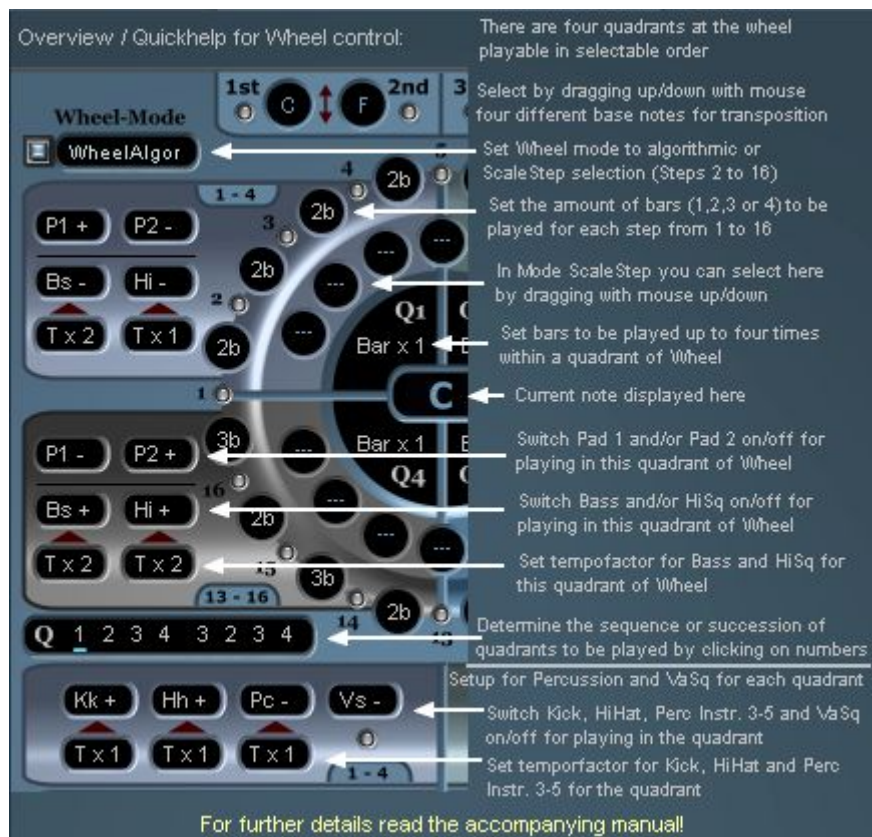
There are 64 editable presets/patches available in the registered version (32 in free)

### Quickstart & Manual

**Quickstart: everything is easy if you know a few essentials!**

## The concept of the Wheel:

In contrary to the prior X-WoF II series X-WoF 3 features a far more elegant (and more simple) access to create tracks through the concept of the Wheel which is grouped or parted into 4 quadrants with individual settings for parts to play, tempo on specific parts, length in bars to be played from one step to next on the Wheel.



Most important to understand is the Wheel consists of 4 equal quadrants to be played in selectable order.

Each quadrant is featuring 8 instrument parts:

Pad1 (P1), Pad2 (P2), Bass (Bs), HiSq (Hi) = next to Wheel

Kick (Kk), HiHat (Hh), Perc3-5 (Pc) and VaSq (Vs) = below Wheel

At each quadrant you can determine independant settings for playing (+ = on) or not playing (- = off) for Pad1 & Pad2, Bass, HiSq : on / off e.g. P1 + (=on) or P1 - (=off) in addition for Bass and HiSq you can set a tempofactor of 1 (normal), 2 (double) and 1/2 (half) tempo

Same for Kick, HiHat, Perc3-5 and VaSq : e.g. Kk + (on) or Kk - (off) plus adjustable tempofactor for Kick, HiHat and Perc3-5

These settings determine the basic activity for each instrument part per quadrant.

Each quadrant of the Wheel has 4 steps and you can determine the length in bars for playing each step e.g. 1b = playing for one bar or 3b = playing for three bars. Also You can elongate this in using the switch Bar x 1 to Bar x 2 (twice as long) or Bar x 4 (four times as long). The step currently played will be marked by an LED in red.

In using ths Scale Step mode of the Wheel you can also set up harmonical steps to be played for the steps 2 to 16 while step 1 always is going to play one of the four selectable Base notes (see below)

When using mode WheelAlgor you need not care for scale steps as these will be selected by an internal algorithm.

In the centre of the Wheel the current note played is shown. This is Base Note for Step 1 and the selected harmonical step note for steps 2 to 16.

Below the Wheel there are two bars (one left, one right) with Q followed by numbers from 1 to 4 in groups of four. Here you determine the succession of the quadrants to be played.

Note: the Base note will change at each first position of these groups of four regardless what quadrant is to be played on this position.

There are four Base Notes selectable right on top of the Wheel:



(Change the notes by dragging with mouse up/down)

Next to setting of Base Notes are two more selectors:



Using the upper one (with mouse dragging up/down) you can set instrument parts to solo which is quite useful for editing the instrument to change the sound. Use this while the Wheel is running or playing that there is sound.

In addition to that the button Loop is useful as You can determine Quadrants to be played (for e.g. editing). Note: the quadrants listed (Q1, Q1-2, Q1-3) reflect the setting of first three entries of left bar below the Wheel where the succession of quadrants is specified.

On the other hand this offers further opportunities as changing the number of the quadrant in first place of the bar you can 'jump' to quadrants which might be helpful to finetune sounds.

### The Main controls



**Tempo sync**(hronisation) can be internal clock or external clock of a host program (like a sequencer or VSTHost by Hermann Seib)

As in most cases the option external sync will be used the internal settings for Tempo have been slimlined to **Coarse** temposetting from 50 to 140 bpm in steps of ten. Internal tempo setting is left in to reflect different tempo settings for patches.

**Run/Stop** will start or stop the internal sequencer. Note: Using a host program with Transport control you can start / stop with that control **but Run/Stop must be set to RUN in this case**

On **Prog(ram) Ch(a)ng(e)** is useful to determine whether the machine should stop on a program change or continue to play. Note: Continue to play is here that it will start on step 1 to play the new patch and does not continue on the current position when program change was sent.

Although I personally do not like it there is an option to have single stereo output for six parts selectable in switching Ind(ividual).Out to on while set to Off you have a stereo sum of all parts.



Adjustable Fade In and Fade Out is useful to start and/or end a track. To end a track simply click on the button **Fade** ... the machine does not stop on this so if you click that button again it will fade in still playing.

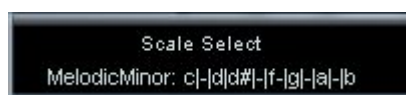
The buttons in this area select the instruments parts e.g. for editing or call up the inbuilt help.



By the knobs you can adjust the level for each part and determine overall volume with the Volume knob - lower this one if needed.

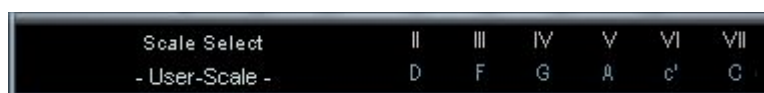
**Note: Settings for Tempo Sync, Run/Stop, On Prog Chng and Ind. Out are global settings not memorized within a preset.**

### Select a **Scale**:



As indicated above you may select one of 41 different musical scales to be used for your track. also you can set up a user scale which is memorized within the patch. To select simply click the current scale displayed.

If you select the user-scale as 42nd scale you can set and change at realtime.



To set up a pentatonic scale simply set step VI to c' and VII to C. Even You can create quite experimental scales as the input system is based on notesettings from C to B and not distances in number of halftones between two steps. See some of the internal patches for it's creative usage.

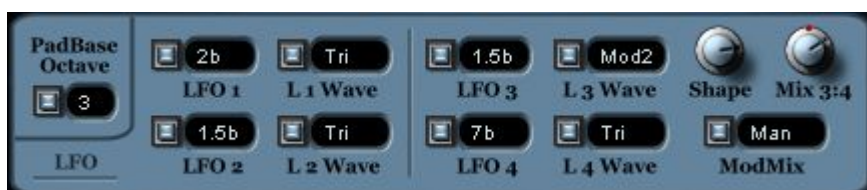
### The Instrument parts:

#### Pad 1 and Pad 2 Synthesizer (with same engine and features) (Pad 2 not in free version)



Obviously nothing really peculiar about these two oscillator synths with LowPass filter, filter Bypass, two ADSR EG and Delay. But there is a Transition 'light' between both oscillators which can be modulated by different sources (inherited from STS). Selectable modulation for filter bypass of osc. signal. LFO modulation on filter is mixable between LFO 1 (hardwired to Pad 1 resp. LFO 2 to Pad 2) and up to two more LFO sources.

There is a common LFO section for both pad synths LFO 1 (to Pad 1), LFO 2 (to Pad 2), LFO 3 and LFO 4 plus a mixable output of LFO 3 & 4 which can be modulated by LFO itself. So there are a lot of vivid modulations possible and you will obtain sounds that you might not expect from this rather simple structure.



The switch for Pad Base octave serves to determine the common octave for both synths - you can offset each oscillator to +/- 2 octaves.

Note: instead of using the internal oscillators you can switch to wave file loading (typically looped synth waves up to 24 Bit). Thank Vera there is also a pitch adjust in halftones for these samples.

If no external samples are used you can use this switch to mute an oscillator ;-)

## The Bass Synthesizer



The Bass synthesizer is featuring one oscillator with two waveform outputs and 8 selectable waves which can be phasemodulated by different sources. The LowPass Filter with separate ADSR EG is also modulatable by LFO. the 2nd ADSR EG serves as amplifier EG so with both EG the possibilities to shape the sounds have increased in contrary to that Gate knob in prior X-WoFs. Finally there is a delay and pan.

The button Hold4Q serves to hold the currently played pattern until switching to next quadrant of Wheel. It should be noted that it does change the notes accordingly to the harmonical steps so only the note lengths of this pattern is held.

Also new to the bass pattern: double note lengths are featured now.

The **HiSq** synthesizer for High sequencer sounds (not in free version)

Quite the same as the Bass Synthesizer with the only difference the octave range is different so there is no separate explanation needed here.



The **VaSq** for variable atmospheric one shot sequencer sounds (not in free version)

This one adds the flavour of more or less spacy sounds as one shots to the music playing. You can specify the octave setting, LFO to filter modulation, set the workingpoint of this resonance filter and shape by Attack & Release.



Use the Trigger button to trigger a sound for editing. This engine is mainly automatic also in terms of selecting its waveform to be modified by filter. This was the best way to keep variations rather simple to set up. Anyway I recommend not to overuse this one.

## The Percussion section



The whole section comprises 5 slots for percussion instruments which can be selected from 67 list entries but as each entry features 3 variations (InstVar) there are around 200 different percussion sounds inside. Also you can load wavfiles into each slot.

The first slot is intended to be used for Kickdrum to setup a basic rhythm on 16 selectable beats. The Var button offers three different variations to be played from beats 14 to 16 on every second loop.

The 2nd slot is intended for HiHat sounds while slot 3 to 5 are intended to play like a percussionist does. But of course you can go beyond this basic intention and use different sounds. Keep in mind the actual pattern played at slot 2 to 5 is calculated by a quite tricky internal algorithm so slots 3 to 5 will not play always at the same time but instead in different combinations.

DlyGrv adds a certain Groove-factor to the delay as it is moved + or - out of exact bpm timing thus avoiding a mechanical beat. In combination with Pitch modulation by LFO you'll get even some more human factor into the percussion. Finally using the Accent knob will lead to decrease level on the non pronounced beats the more you move knob to right. These settings may need a bit more attention.

Pitch of each instrument can be adjusted around +/- 1 octave and each slot has got it's separate delay, pan and volume setting.

Explicit thanks go to:

**Vera Kinter** for doing the graphic design and patches (VK)

**Dimitri Schkoda** for patches (DS)

**Annabelle T.** for patches

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

Have fun

H.G. Fortune

[www.hgf-synthesizer.de](http://www.hgf-synthesizer.de)

More VSTi by H.G. Fortune: STS-24 Transition Synthesizer, ProtoPlasm TSM, Laserblade

Further tracks by H.G. Fortune's algorithmic work are available for free download at:

<http://www.hgf-algorithmics.net.tc/>

(This is a shortlink to that specific SoundClick page)

## Appendix I:

### Scales

Possible scale steps selectable within X-WoFl Pro (example on Major scale)

Scale																				
Scale	f	f#	g	g#	a	a#	b	C	c#	D	d#	E	F	f#	G	g#	A	a#	B	C1
Major	-IV	-V	-	-VI	-	-VII	I	-	II	-	III	IV	-	V	-	VI	-	VII	I+	

You can set scale steps from -IV to I+ , in this example from f to C1 covering about one and a half octave. So the notes in the Bar step sequencer can 'move' around the rootnote approx. minus a half octave and 1 octave up.

You may ask, what is the musical use these of scale steps? In any key, a typical musical cadence might start with a Supertonic chord (II), then move next to a Dominant (V), before resolving to a Tonic or Root chord of the key (I). There are many other cadence formulas, (such as IV II V I, or II VII I, or II VI V I, ... etc.) and their use is similar. They punctuate or announce the completion of a musical phrase. If you have questions, there are many sources for further study of musical harmony. (by Ralph Phraner)

List of inbuilt scales:

Romanian: c -d d# - f# g - a a# -
Major: c -d e f - g - a - b
Minor: c -d d# - f - g g# - a# -
AscHrmMinor: c -d d# - f - g g# - b
Blues: c - - d# e f - g - a a# -
Ravel: c c# - d# e - f# - g# - a# -
Enigmatic: c c# - - e - f# - g# - a# b
Javanese: c c# - d# - f - g - a a# -
Romanian: c -d d# - - f# g - a a# -
HungGyp: c -d d# - - f# g g# - a# -
Arabian: c -d - e f f# - g# - a# -
LeadWhole: c -d - e - f# - g# - a# b
HarmMajor: c -d - e f - - g# a - b
Oriental: c c# - - e f f# - - a a# -
MarvaInd: c c# - - e - f# g - a - b
TodiInd: c c# - d# - - f# g g# - - b
Persian: c c# - - e f f# - g# - - b
Byzantine: c c# - - e f - g g# - - b
Hindu: c -d - e f - g g# - a# -
Ethiopian: c -d - e f - g g# - - b
UltraLoc: c c# - d# e - f# - g# a - -
Phryg-Maj: c c# - - e f - g g# - a# -
LocrNat2nd: c -d d# - f f# - g# - a# -
Mixolyd-Aug: c -d - e f - - g# a a# -
LydianMin: c -d - e - f# g g# - a# -
LydianDom: c -d - e - f# g - a a# -
LydianAug: c -d - e - f# - g# a a# -
NeapMaj: c c# - d# - f - g - a - b
NeapMin: c c# - d# - f - g g# - - b
HungMaj: c - - d# e - f# g - a a# -
HungMin: c -d d# - - f# g g# - - b
Indianish: c c# - d# e - - g g# - a# -
Lyd/OldEgypt: c -d - e - f# g - a - b
Dorian: c -d d# - f - g - a a# -
Phrygian: c c# - d# - f - g g# - a# -
Mixolydian: c -d - e f - g - a a# -
Locrian: c c# - d# - f f# - g# - a# -
DesHrmMin: c c# - - e f - g g# - a# -
MelodicMinor: c -d d# - f - g - a - b
ChromPhryg: c - - d# e f - g# - a# b
Arabian2: c -d - e f - g# - a# b
Major Inv: c c# - d# - f - g g# - a# -
- User-Scale -

## Appendix II

MIDI Implementation			
Volume (Overall Volume)	CC # 7	0 – 127	Volume
Pad 1 Volume	CC # 16	0 – 127	
Pad 2 Volume	CC # 17	0 – 127	
Bass Volume	CC # 18	0 – 127	
HiSq Volume	CC # 19	0 – 127	
Perc Volume	CC # 20	0 – 127	
VaSq Volume	CC # 21	0 – 127	
Run/Stop	CC # 4	0 – 127	Foot Pedal

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.

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