

Introduction

Welcome to the world of Datura-Synthesizers and thank you for choosing MoPif.

MoPif is a six-generator machine-sound-synthesizer/sequencer. It generates up to six different sounds that are controlled by a eight step sequencer, produces sounds like machines or robots and others. You may use MoPif for theatre, video and multimedia production or maybe as a special drum machine.

Each Datura-Instrument follows a special philosophy, an idea it is dedicated to. So maybe you will miss some functions that are not included in MoPif. Well, there are so many VST instruments available full of faders, knobs and complex controls and matrixes. This Datura-Synthesizer provides only the controls you need to program the kind of sounds for it was developed. Enjoy!

Terms of License Agreement

MoPif is full freeware. You don't have to register, activate or pay. Any commercial distribution of this product is not allowed. If you want to send a copy of this software to a friend, always copy the complete MoPif folder including this manual.

You may use MoPif for all kind of music and audio production (private or commercial) but anyway on your own risk and responsibility. MoPif can generate very extreme loudness and frequencies. Always make your experiences on a low level of volume. Be careful if you use headphones.

“Datura VST Instruments” is a private project, not a company. No warranty can be given!

You are not allowed to modify, decompile or reverse-engineer the software.

Changes may be done without notice.

VST plugin technology was developed by Steinberg.

Support

Please visit datura-instruments support forum at www.midi-musiker.de

If you have any problems or questions then contact via datura-instruments@midi-musiker.de or datura-instruments@web.de

It would be nice for me to hear some music you have created with datura synthesizers.

Check for updates and other VSTi: www.datura-instruments.de



Installation

If you are a user of some DAW-software (e.g. Sonar, Cubase...) you will know the place you have installed your VST instruments. Copy the complete MoPif folder into your VST path and you are ready to go. If MoPif is not found by your host, command it to scan VSTi.

You're a novice in the VSTi world? Ok. No problem. Let me explain:

VST instruments or effects don't work alone because they are constructed to plug them into music software (host). Some VST instruments from different producers can be installed with a "stand alone" option. This will be useful, if you want to play it live, without any sequencer or music production software. But most users will plug them into their production software.

Well, if you don't have any software that hosts VSTi you can download a host from the web.

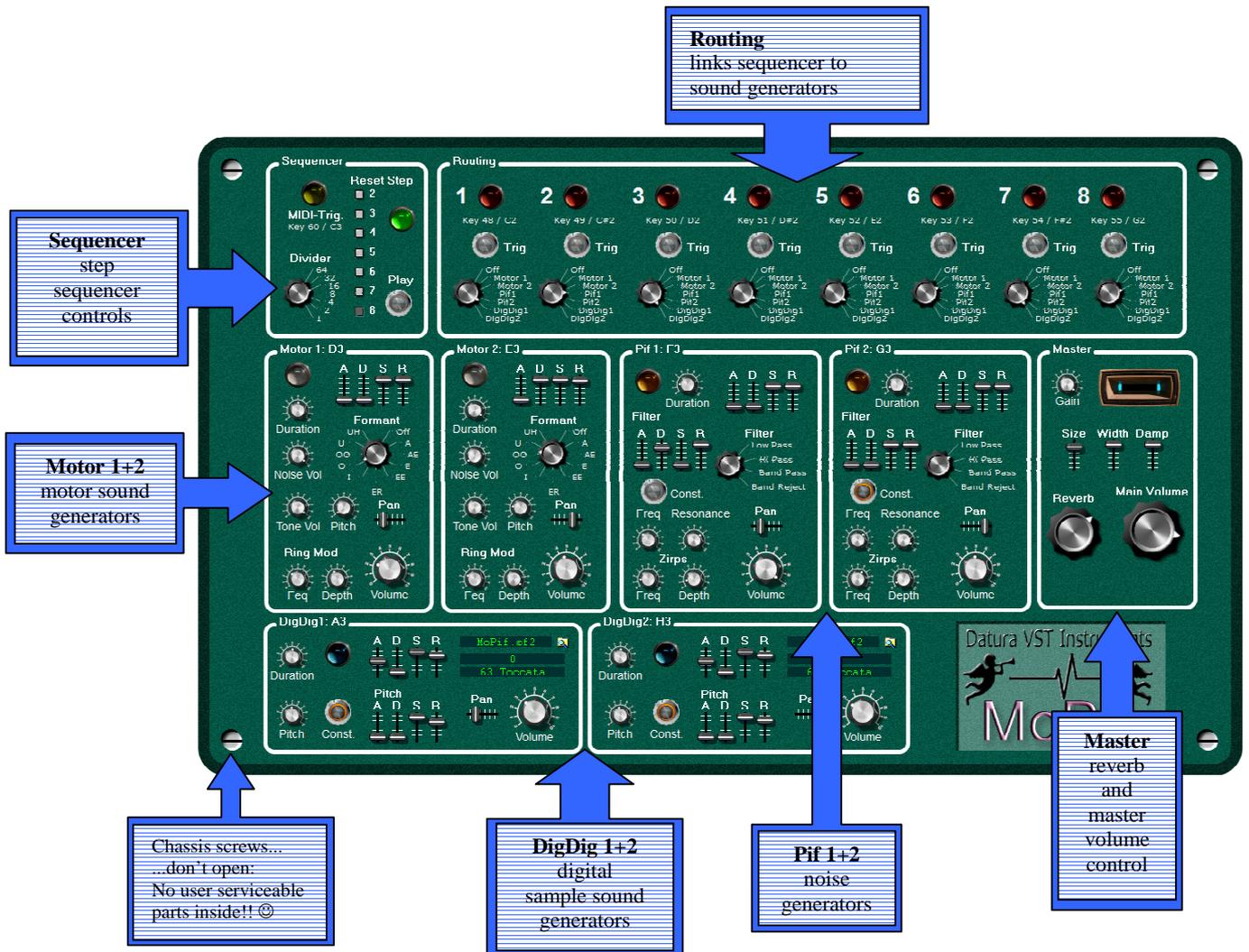
For example got to: <http://www.cantabilesoftware.com/> where you can get a great freeware version of a vst host.

Check the preferences of your host software to define the path you will collect your VSTi files. Copy MoPif folder completely into this folder. Maybe you have to activate a scan in your host. Then you are ready to go.



MoPif architecture

Let's have a look how MoPif is organized:



As you can see there are three pairs of sound generators available:

1. Motor 1+2 generates tones and noise
2. Pif 1+2 generates noise effects
3. DigDig 1+2 plays samples from a SoundFont2 file

Each generator can be triggered by the step sequencer or by a fixed key or midi-note.



Motor 1+2

Motor 1+2 contain a sinus oscillator with ring modulator and a noise generator followed by a formant filter. It is best to generate sounds like electric motors, servos but also metallic beats or bells and buzzers.

If you want to have an audition to the sound you have programmed to motor 1 or 2 you may play the D3 or E3 key on your keyboard to trigger.

When a motor-module is triggered the white lamp above will shine on and the envelope that controls the loudness upon the time will start.

To modify the envelope you could change the ADSR-faders.

- A – means the attack **time** for the tone
- D – means the decay **time** for the tone
- S – means the **level** of sustain (as the module is triggered)
- R – means the release **time** (after duration time has been void)

Modify the duration knob to change the time how long the envelope stays on the sustain level.

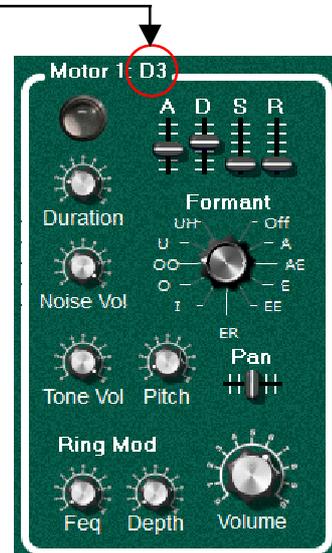
Now if you want to generate a noise with the motor module you should increase the Noise Vol to the loudness you want. Then choose the colour of the sound with the formant knob. It will sound similar to the vocals noted on the panel.

In addition to the noise you will need a tone to create a sound like a motor. First open up by turning the tone vol knob and control the pitch.

To get a metallic sound there is a ring modulator included. Choose Frequency and Depth to have an access to this effect.

Last you will control the main volume and the panorama position in the stereo field.

Check the factory sound patches to get an idea of the possibilities with motor modules.



Pif 1+2

Pif 1+2 contain a noise generator followed by an envelope controlled filter. For special effects a slicer (“Zirps”) is included.

If you want to have an audition to the sound you have programmed to Pif 1 or 2 you may play the F3 or G3 key on your keyboard to trigger.

When a Pif-module is triggered the orange lamp above will shine on and the envelope that controls the loudness upon the time will start.

To modify the envelope you could change the **ADSR**-faders.

A – means the attack **time** for the tone

D – means the decay **time** for the tone

S – means the **level** of sustain (as the module is triggered)

R – means the release **time** (after duration time has been void)

Modify the **duration** knob to change the time how long the envelope stays on the sustain level.

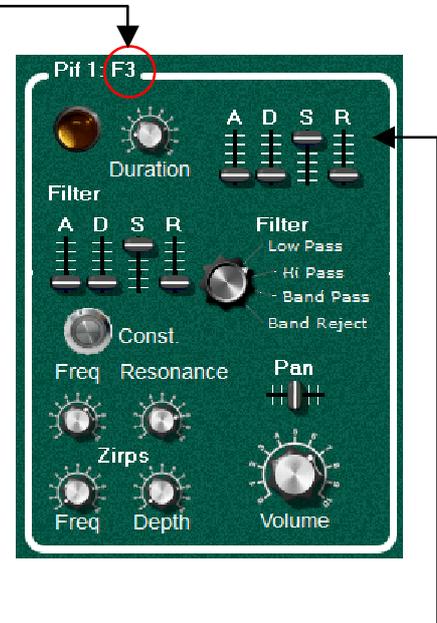
The filter can be adjusted in **Frequency** and **Resonance**. Use the **Filter** knob to choose the filter type.

You will also find an **ADSR** section for the filter. This envelope will control the filter frequency. You can disable the filter envelope by activating the **Const** switch. This will hold the envelope constantly to the adjusted sustain level.

A nice toy is the “Zirps”. This is a slicer, a frequency modulated gate, that helps you to program sounds like a rattle or maybe a guiro (known from the good old Roland CR-78). Choose **Frequency** and **Depth** to have an access to this effect.

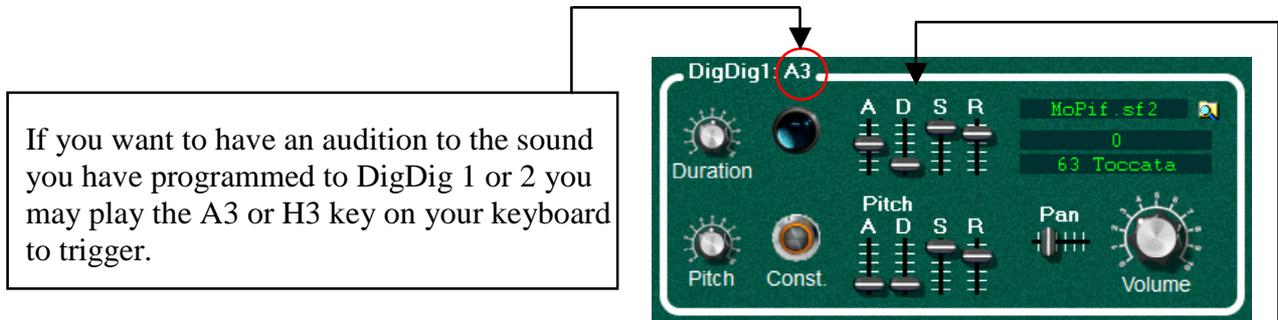
Last you will control the main **volume** and the **pan**orama position in the stereo field.

Check the factory sound patches to get an idea of the possibilities with Pif modules.



DigDig 1+2

DigDig 1+2 contain a digital sample player that supports the SoundFont2* format.



When a DigDig-module is triggered the blue lamp above will shine on and the envelope that controls the loudness upon the time will start.

To modify the envelope you could change the ADSR-faders.

A – means the attack **time** for the tone

D – means the decay **time** for the tone

S – means the **level** of sustain (as the module is triggered)

R – means the release **time** (after duration time has been void)

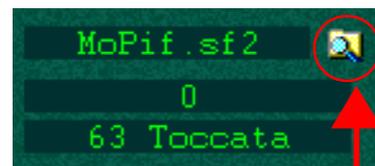
Modify the duration knob to change the time how long the envelope stays on the sustain level.

You will be glad to have influence to the Pitch of the sample.

There is also an ADSR section that controls th pitch upon the time. To disable the pitch envelope just activate the Const switch. This will hold the envelope constantly to the ajusted sustain level.

Click here to change sample bank →

Click here to change sample →



To load another sf2-file* click on the LOAD-Icon.

Last you will control the main volume and the panorama position in the stereo field.

Check the factory sound patches to get an idea of the possibilities with DigDig modules.

* For more information about the SoundFont2 format and how to modify sf2 files check the appendix.



Master

The master section gives you the control over the Main Volume and the Reverb level. You also have the access to the room Size, the stereo wideness (Width) and the Damping of the reverb.

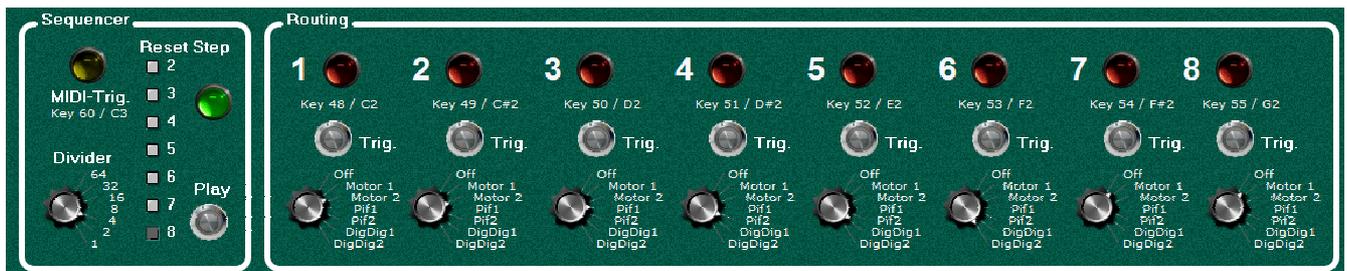
If some distortion occurs the gain knob should be decreased.

The tube-levelmeter gives you information about the output level.

Remark: If the level meter does not shine, you may change the tube because it is burned out. 😊



Sequencer & Routing



The very important part of MoPif is the sequencer. There are eight steps that can be routed to one of the sound generators by switching the corresponding selector in the routing section. If you switch it to “Off”, the step will not play a sound.

To have an audition to the sound of a step just click on the Trig switch of the step you are interested to. Another way is to play the related midi-note or key noted on the panel above the “Trig” switch (Step1=C2, Step2=C#2...).

Now, if you want to run the sequencer, just click the Play button or play the C3 key on your keyboard (or send the midi-note C3 by another way). When the sequencer is runned by a MIDI-signal it will be indicated by the yellow lamp.

If you release the key or click to the play button again MoPif will stop. The sequencer ever will start on step 1.

To control how many steps the sequencer should play you should set the right Reset Step. The number you select is the last step, that will be played before the sequencer returns to the first step.



The MoPif sequencer follows the tempo and clock signal of your host software. If you change the tempo in your music-software, MoPif will change its tempo too.

The **Divider** gives you the control how fast MoPif plays along to your host. The green lamp will show you any beat that steps the MoPif sequencer.

How to use with a DAW or Sequencer-Software...

There are two ways to use MoPif as a plugin inside a music-software and in any case you can combine both at the same time:

1. On recording play the notes D3 to H3 to trigger the different tone generators of MoPif. So you can record free patterns unbound to the step sequencer of MoPif.
2. On recording start and stop Mopif's step sequencer using C3 key. On playback MoPif will do, like you have recorded.

To get accurate timing maybe it will be necessary to quantize the recorded track.

MIDI-Controllers

You can control MoPif via MIDI controllers:

MIDI CC	No.91 (effect level)	changes reverb mix
MIDI CC	No.74 (sound brightness)	changes reverb width
MIDI CC	No.7 (volume)	changes main volume

Most parameters of MoPif are defined as "public". If your host does support, you will have access via your VSTi slot in your DAW to use automation.

Tips & tricks

If your sound is sonaring or too much metallic, try to reduce reverb level.

Keep in mind that a filter could be able to depress a sound to zero if it is set to a low frequency level. For example if you want to get a noise with a long release by a Pif-module you must set a long release time to VCA-envelope **and** VCF-envelope because otherwise the filter would close before the VCA.

Don't forget to backup your sound bank files! Keep a copy of the factory soundset and MoPif soundfont on a save place.



Troubleshooting

No Sound	Check volume knobs. Are the Envelopes adjusted correctly? Too low filter frequencies could block the signal! Open the filters by turning the frequency knobs. Look to the levelmeter if MoPif does produce any sound. If not, there could be a problem with your MIDI-input. Check the keyboard, cables and MIDI-settings in your host-software. If the peakmeter in the main section is moving so you must search the problem in your host-software or audio equipment.
Sound is very low	Set the sustain levels higher or try to change the level by turning the gain knob.
Sound is distorted	Look to the levelmeter of the main section. If the lightning bar is closed completely adjust this by turning the gain knob down. Maybe the reverb settings are too heavy.
Sequencer does not run	Check if your host must be started or commanded to send a clock signal.
VCA-envelope does not response correctly	Well, maybe the filter closes before your VCA-envelope releases. Change the filter-envelope in agreement to the VCA-envelope.
The patches does not sound properly	Check if the DigDig have loaded the right SF2 sample file or if the file is missing. For correct use of the factory sounds "MoPif.sf2" must be loaded in both DigDig!

Well, if the problems still makes you crazy check the datura-instruments support forum at www.midi-musiker.de or contact datura-instruments:

datura-instruments@midi-musiker.de or datura-instruments@web.de

System requirements

- PC with multicore processor
- Microsoft Windows XP, Vista or Windows 7
- Professional soundcard or audio-device with ASIO-driver –technology
- 500MB RAM
- MIDI-interface recommended
- software host supporting VSTi-plugin-technology*

* for example got to: <http://www.cantabilesoftware.com/> where you can get a great freeware version of a vst host.



Appendix

Sound Font 2 Information

SoundFont was developed by CreativeLabs® / EMU® for PC soundcards like the SoundBlaster® Series. This format is used by many freeware VSTi without any dependence to a special hardware.

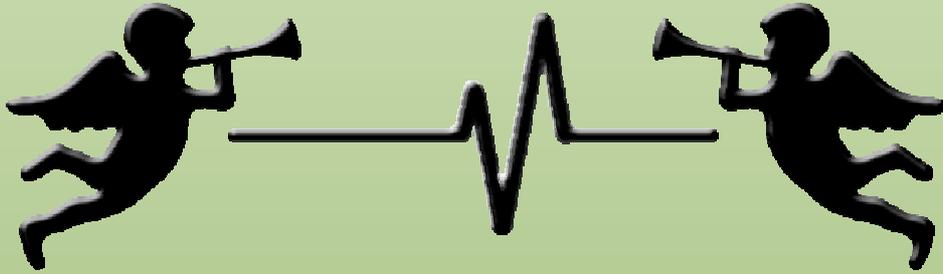
There is a freeware sample editor named “Viena” available: <http://www.synthfont.com/>

There you can load in and modify the “MoPif.sf2” file from the MoPif folder. This file is used as default sample file in the DigDig-modules of MoPif. It would be useful to make a security copy of this file, before you make any changes.

The default path for the sf2-files used with MoPif is the subfolder “MoPif” where the factory soundfont file is placed.



Datura VST Instruments



www.datura-instruments.de