Behringer Pro-1 Ctrlr panel documentation and instructions

V2.4– 2023-07-21

Introduction

Hi! Thanks for having purchased this Ctrlr Behringer Pro-1 panel!

The panel is only a patch loader/saver on computer as the Behringer Pro-1 does not support the load/save of programs or the manipulation of program parameters by Midi NRPN/CC messages except for Global settings that can be transferred to the Pro-1.
It can thus also be called a "patch mapper".

It will support you in saving and retrieving Pro-1 patches on your PC but gives you also the possibility to exchange them with other users as they are stored as sysex files.

The look and feel has been respected but of course it would be stupid to not benefit of the computer possibilities. Therefore, you also get a display of the current parameters value, a graphic display of the envelopes, the ability to store and indicate the input/output patches, to draw patch cables on the panel, etc.

Despite careful testing it is possible that some bugs remain. Please contact sunny.synths@gmail.com if you find one so they can be corrected as soon as possible.

In the same spirit, contact sunny.synths@gmail.com as well if you would like some enhancement on the panel.

By that, please have a look on this manual to have an idea of the way of using it and its features.
Enjoy making music with your Pro-1 and have fun!

Sunny Synths

About this v2.4 version

This 2.4 version provides the following changes corrections to the panel:
– Removed endless loop when double I/O were used and that was causing high CPU load
– File browser Set Root adapted

The 2.x version provided the following changes to the panel:
– Patch cables drawing
– Ability to switch between full cables or cable plugs
– Support for double inputs / double outputs
– Added the setting of the transparency of the patch cables
– Added a Welcome message display switch
– Added a Load OK Confirm switch
– Added ability to play AAC, MP3 and AIF files on MacOs
– Remembers the last file saved path and name so it is used by default at next Save
– The previous Author is now kept when loading a new Init program
– Patch cables are now restored at panel opening when the user selects No load at panel load
– All labels (Name, LCDs, Synth1/2, FX...) are now restored when user selects No load at panel load
– Consequence of this correction/adaptation: you can now change presets in DAW with correct Name, Description, LCDs, cables... which was not working previously ☺
– More visible switches position
– Display info: Diff w/ Init switch (differences with an Init program)
– No program load at panel load button
– Internal adaptation to prevent multiple popups when opening the panel on several tracks in DAW
– Sequencer Track button is now 'active'
– Correction Osc B mix level display on patch sheet

Information for the users of a previous version than 2.3

As some images have been added in v2.3, **you need to delete the existing temporary "Behringer Pro-1" folder so that it will be replaced by the new one**.

You may have to redo your Midi settings so take note of them before deleting the folder (or copy the Behringer Pro-1.settings file to a safe place and put it back when the temp directory is recreated).

On Windows, the temporary folder **Behringer Pro-1** is located in the normally hidden directory **C:\Users\your_username\AppData\Roaming**. You can display the AppData folder by selecting to display the hidden elements in the Windows Explorer ribbon under Display.

On MacOS, the temporary folder **Behringer Pro-1** is located in your personal Library/Preferences folder. This is also a hidden folder that you can see/reach by using the Finder and clicking on Go while pressing the Option (Alt) key.

Due to some internal change related to the changes mentioned above, you will most probably get an error about ReadStateData the first time you start this v2.3. Just close the panel and restart it. The new ReadStateData will be fine.

Table of Contents

Installation and features

Installation of the Ctrlr panel

The panel is provided as a compressed .zip file containing:
– the Behringer Pro-1 panel as an .exe file on Windows PC
– the Behringer Pro-1 panel as an .app file on Mac OS (zip folder to be uncompressed)
– the Behringer Pro-1 panel as VST 32 bits and 64 bits for Windows PC
– the Behringer Pro-1 panel as VST and AU plugins for Mac OS
– this manual as PDF
– a folder containing programs from the Pro One user manual
– two Advanced mode templates to pilot the panel from a Novation SL MkII keyboard/controller

For the PC standalone version, decompress the zip file anywhere on your PC then copy the **Behringer Pro-1.exe** file in some directory and launch it. The file may be scanned by your antivirus program (Avast on my computer) and should return no issue. If any, they are false and probably due to the fact that the program is not officially referenced.

For the Mac OS standalone version, decompress the zip file anywhere on your Mac then decompress the Behringer Pro-1.app.zip. You may have to open the **Behringer Pro-1.app** file using Ctrl+click as it may not be recognized by the OS.

On Mac you may also do either *chmod +x Contents/MacOS/** on the package contents or need to go to System Preferences then Security and Privacy and to click on the Open anyway button to have the package/plugin saved as an exception in the security settings.

The program will directly display the Ctrlr window with the Pro-1 panel displaying its main tab.
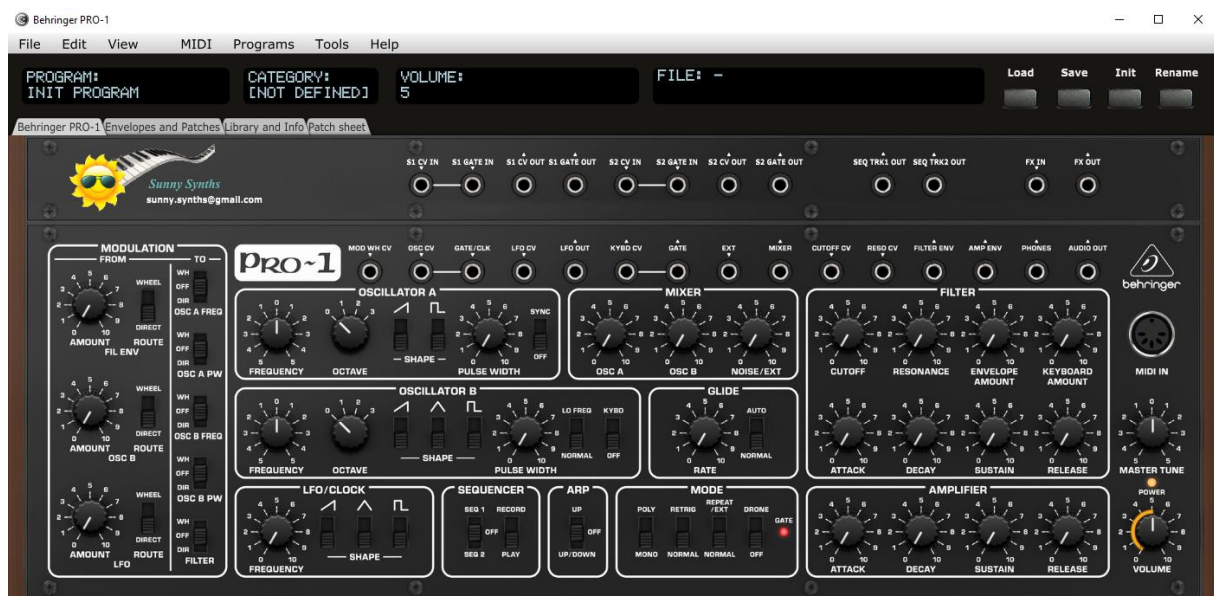
⚠ It is possible that the top row buttons are not responding after the initial installation (first try the Init button for ex.). Simply close the program and restart it. The issue should be solved.

For the installation of the plugins, please refer to Installing and using the Pro-1 panel as plugin on page 27 further in this manual.

Features

You will find the following features in the Behringer Pro-1 panel:

– Behringer Pro-1 interface with same look as actual synthesizer
– Top row of support "screens" with old look
– Visual feedback by using "LED" ring buttons and indication of the value (on change or on click)
– Envelopes graphs handled by mouse or classical ADSR rotary encoders
– Load / Save programs from individual .syx files
– Easy program renaming
– Display and export of program parameters as text file
– Ability to describe 9 input/output colored patch cables with different sources/destinations
– Patch cables drawing
– Ability to display full cables or cable plugs
– Programs have a name, author, save date and description. They can be associated to a category
– Browser of the files on the disk with reading of associated wav file if any
– Patch sheet tab with patch sheet for Pro-1 and other gear (external synths/sequencers)
– Global settings management with automatic/manual send to the Pro-1 synth
– Automatic reading of wav/aif*/aac*/mp3* files associated to a patch (*MacOS only)
– Manual/Automatic reading of any wav/aif*/aac*/mp3* file (*MacOS only)
– All buttons associated to a Midi CC controller number so you can adjust them from a hardware controller (still no impact on the synth of course and unfortunately).

Communication with your Pro-1 synth

> 💡 If you don't want to manage global settings or if your Pro-1 is not connected by USB or Midi to your PC then you can skip this section.

Preliminary info

As mentioned in the introduction of this manual, the Behringer Pro-1 synthesizer does not support the load/save of programs or the manipulation of program parameters by Midi NRPN/CC messages.

It does however support the modification of global settings via sysex commands. Unfortunately, it is also not possible to know/read the state of the global settings; only to send a message to set their value.

Some examples of connection setup

You can connect your Pro-1, a master keyboard / controller and your computer in different ways. The Midi settings in the panel will be different according to the setup you choose.
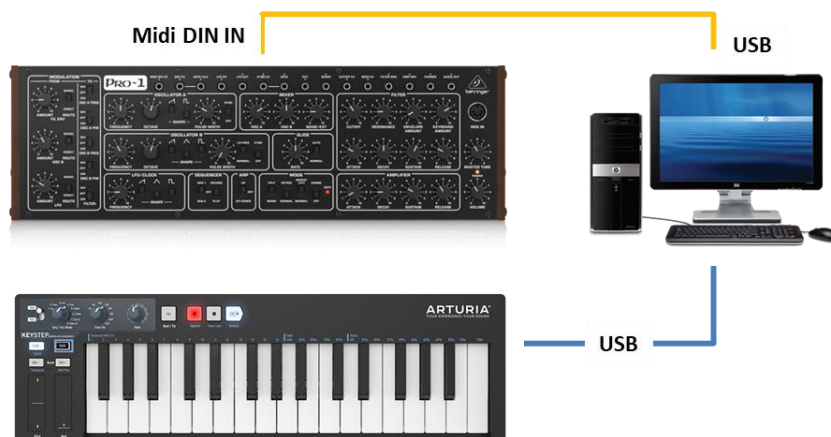
Configuration 1: full USB
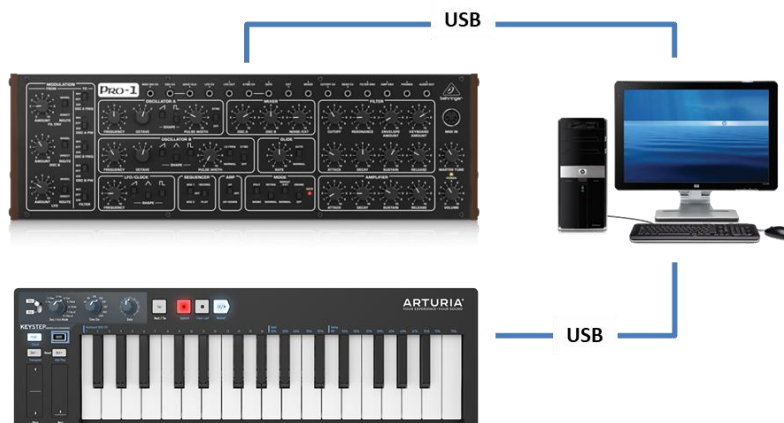
– Connect the Pro-1 to the computer by USB
– Connect your master keyboard / controller to the computer by USB (connecting the master keyboard by USB to the computer gives you the possibility to use it for the Pro-1 but also for VST plugins or other soft synths)
– Power the Pro-1 On
– Start the Pro-1 panel
– In the **Midi** menu, select **Input – Device** *your_master_keyboard*
– In the **Midi** menu, select **Input – Channel** *1* (set this to the Midi channel of your Pro-1). This is done to receive notes from the master keyboard.
– In the **Midi** menu, select **Output – Device** *Pro-1*
– In the **Midi** menu, select **Output – Channel** *1* (set this to the Midi channel of your Pro-1). This is done to send Global Settings and Notes to the Pro-1
– In the **Midi** menu, select **Midi Thru – Input Device -> Output Device**. This is done to send the received notes to the synth

Configuration 2: USB and Midi DINs

- Connect the Pro-1 to the computer by USB
- Connect your master keyboard by Midi DIN to the Pro-1. Notes will come from this connection
- Power the Pro-1 On. The master keyboard will be dedicated to the Pro-1.
- Start the Pro-1 panel
- In the **Midi** menu, select **Output** – **Device** *Pro-1*
- In the **Midi** menu, select **Output** – **Channel** *1* (set this to the Midi channel of your Pro-1). This is done to only send Global Settings to the Pro-1

**Configuration 3: USB and USB-Midi**

- Connect the Pro-1 to the computer by USB – Midi cable going OUT of the PC to the Midi IN of the Pro-1.
- Connect your master keyboard by USB (connecting the master keyboard by USB to the computer gives you the possibility to use it for the Pro-1 but also for VST plugins or other soft synths)
- Power the Pro-1 On
- Start the Pro-1 panel
- In the **Midi** menu, select **Input** – **Device** *your_master_keyboard*
- In the **Midi** menu, select **Input** – **Channel** *1* (set this to the Midi channel of your Pro-1). This is done to receive notes from the master keyboard.
- In the **Midi** menu, select **Output** – **Device** *Pro-1*
- In the **Midi** menu, select **Output** – **Channel** *1* (set this to the Midi channel of your Pro-1). This is done to send Global Settings and Notes to the Pro-1
- In the **Midi** menu, select **Midi Thru** – **Input Device -> Output Device**. This is done to send the received notes to the synth

Testing the Midi connection

We can now test the Midi connection:
– Press some keys on your keyboard and confirm you get some sound from the Pro-1. If not, check your audio, check if Midi Thru is activated (not for configuration 2)
– On the panel, in the Envelopes and Patches tab, press the **Auto GS** button so this is activating the automatic send of all changes done on global settings to your synth
– In the **Tools** menu, select **Midi monitor** and in the new monitor popup check On **Monitor input** and **Monitor Output** in the **View** menu
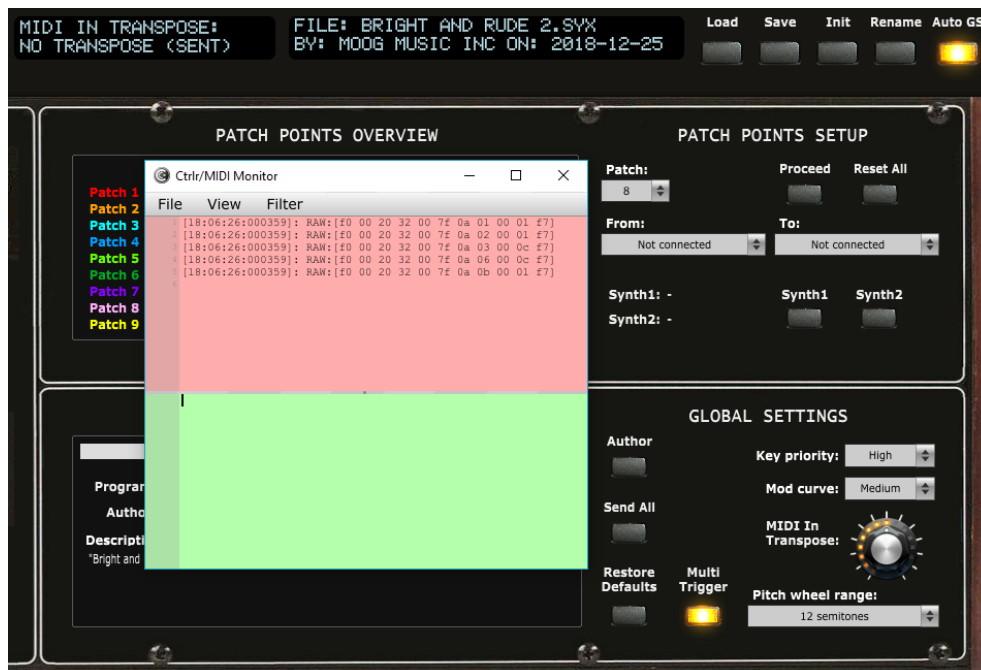
– Play a note on your keyboard and move the pitch wheel to its max. The range should be the default one at 12 semitones
– In the panel, select the second tab and change the Pitch bend range to 2 semitones (or another low amount) in the Global settings section
– Verify that the last message in the Midi Monitor output section is like **f0 00 20 32 00 01 08 11 02 00 f7**
   ▪ the number in blue will depend on your choice of pitch wheel range
– Play the keyboard and move the pitch wheel to its max. The range should now be much lower.
– Change the Pitch wheel range to 12 semitones in the Global settings section
– Verify that the last message in the Midi Monitor output section is like **f0 00 20 32 00 01 08 11 0c 00 f7**
– Play the keyboard and move the pitch wheel to its max. The range should now be back to its default value

You can also press on the **Send All** button to send all Global settings at once to the synth:
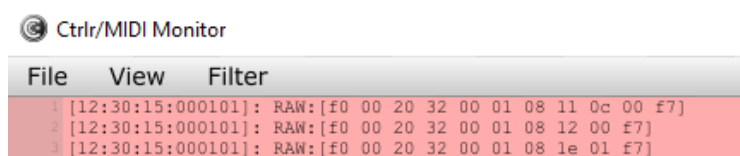
Way of working

As you will discover by yourself, the usage of the panel is pretty straightforward but there are anyway different specific things you should know… ☺

Using the buttons and modifying parameters

You modify parameters using rotary encoders by clicking on the button then moving the mouse cursor vertically up or down.

You can also modify any rotary encoder based parameter by hovering the mouse on the button then using the mouse scroll wheel.

Toggle buttons are modified by simply clicking on them. There is no left/right; up/down effect; just a simple toggle between the two positions

Triple switch buttons are moving between their different positions by each click

Momentary push buttons are activated by simply clicking on them (what a surprise…). They will momentary flash.
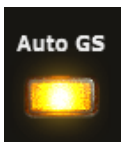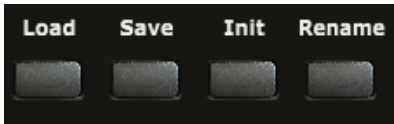
Permanent toggle buttons are activated by simply clicking on them (what a surprise…). They will stay highlighted until the next click.
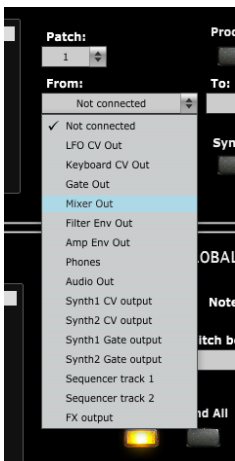
Parameters presented as pulldowns are modified by opening the pulldown and selecting one of the pull-down items.

Quick reset to default value

Most of the rotary encoders have default values set and you can quickly revert to this preset default value by double-clicking on the button. Try with the Master Tune encoder.

Opening and closing the panel

When closing the panel (either by using **File – Quit** or by clicking on the upper right red cross) the file of the last program loaded or saved is stored.

When opening the panel, it is checked if the last file used still exists (could have been renamed or moved or deleted).

When no file is found, the Init program is loaded (in the same way as when loading the panel for the first time (unless the button **No program load at panel load** in the Envelopes and Patches tab is ON).
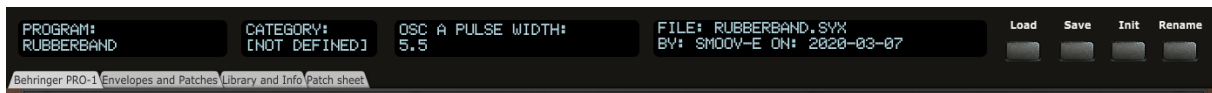

When the last saved file is found, the panel is restored so you can continue your work where you saved it (unless the button **No program load at panel load** in the Envelopes and Patches tab is ON).

The same is done with the root folder of the File browser (see Library and Info tab on p20).

Top panel area

In the top panel area you find 4 feedback "screens", 5 buttons and 4 tabs:

– The first screen displays the **name** of the current program
– The second screen displays the **category** of the current program
– The third one indicates the parameter currently modified and its value
– The fourth one displays the latest sysex file loaded, its author and the save date
– The **Load** button allows loading a sysex file from disk
– The **Save** button saves the current program to a sysex file on disk
– The **Init** button reset all parameters to *a Basic program*
– The **Rename** button allows renaming the current program
– The **Behringer Pro-1** tab displays the synth
– The **Envelopes and Patches** tab displays the envelopes as graphs, allows the registration of 9 different input/output patches, the identification of two external synths, an effect chain and allows modifying the Category, the Author and the Description of the current program. This is also the place where you can handle the Global Settings
– The **Library and Info** tab provides the file browser that allows the selection of sysex files or the ability to listen to wav files, the display and the export of the parameters of the current program as text file and gives About info of the panel. It is also here that you will find the manual panel zoom that is memorized.
– The **Patch sheet** tab displays automatically the Behringer Pro-1 patch sheet with all parameter values (as in the manual) but with the addition of author, date, external synths and effect chain names and 12 external input/output connections
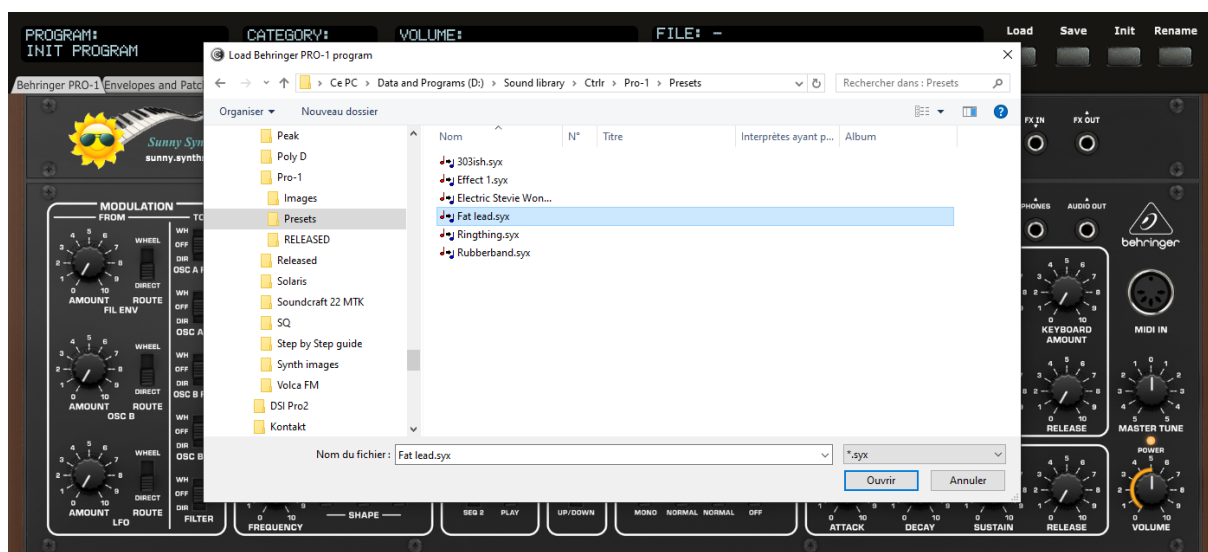
Loading a Behringer Pro-1 program

The panel loads and saves the program parameters as a 600 bytes sysex file (.syx) from/to your computer.

Clicking the **Load** button opens a classical Open file dialog where you can select the file to load. An internal check is done to verify that the file is compatible with the Behringer Pro-1 panel. The parameters are loaded, the top screen is showing the name of the file, the author and the saved date and a confirmation dialog is shown.

If the **Auto GS** (Automatic send of Global Settings) button is lit, the panel will send the Global settings to your Pro-1 synth at load. Nothing will happen if your synth is not connected by Midi/USB or if your synth is on another Midi channel than the one set in the MIDI menu of the panel.

> 💡 Verify the Auto GS button before loading a program. If lit, the panel will send the Global settings to your Pro-1 synth at load.

If you want, you can prevent the display of the Load confirmation message (see Envelopes and Patches tab on p2021).

Saving a Behringer Pro-1 program

The panel loads and saves the program parameters as a 600 bytes sysex file (.syx) from/to your computer.

Clicking the **Save** button opens a classical Save file dialog where you can enter the name of the file to save. The last saved filename and path is proposed by default. You will get a confirmation popup if you select an existing file and want to overwrite it.

Once the parameters are saved, the top of the screen displays the name of the file, the author (as set in the Envelopes and Patches tab) and the saved date (thus, the current date) in ISO format *yyyy-mm-dd*. A confirmation dialog is also shown.
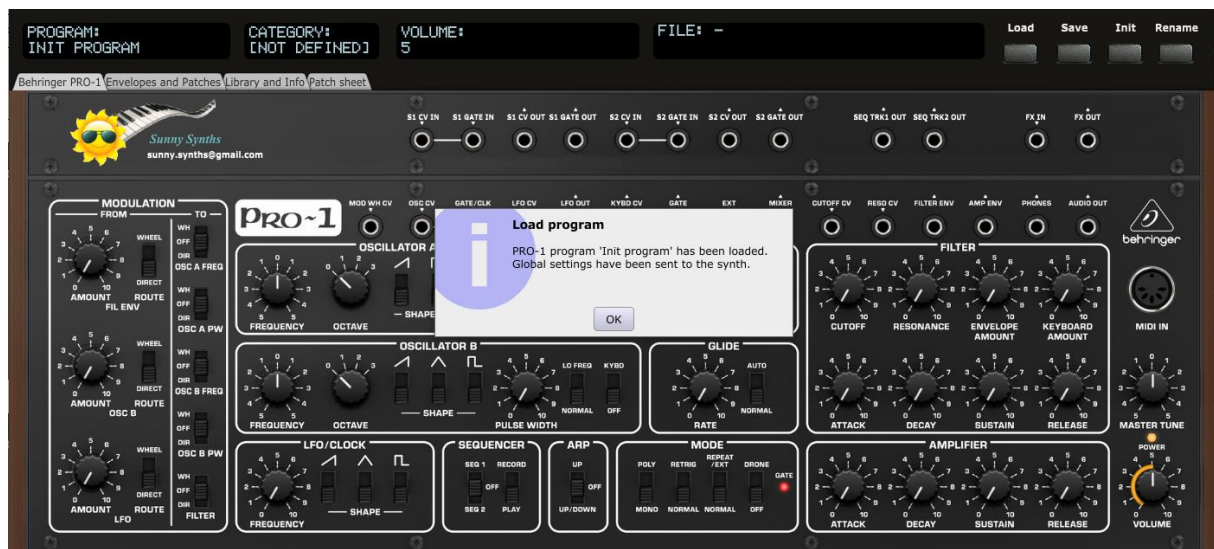
The panel stays on the current tab after a Save is done.
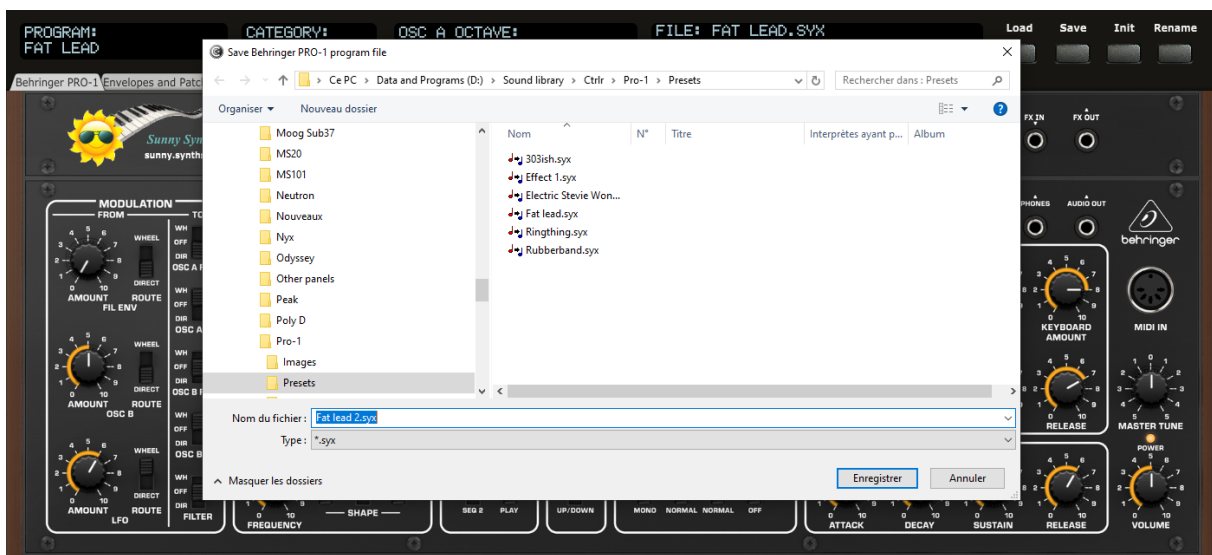
Program Init

Clicking the **Init** button loads the parameters for a Basic program that has the following characteristics:

– Global settings at their default value
  ▪ Note priority: LOW
  ▪ Pitch bend range: 12 semitones
  ▪ Midi Clock Output: ON
– All parameters at 0 or OFF

Program Rename

Clicking the **Rename** button opens a popup window where you can modify the name of the program. The name should be maximum 20 characters long (will be truncated if longer).

Please note that the program name can (of course) be different than the file name the program is saved in.

Behringer Pro-1 tab

In the **Behringer Pro-1** tab, you have access to the same parameters as on the actual synthesizer.

Please refer to the Behringer Pro-1 user manual
(https://www.behringer.com/Categories/Behringer/Keyboards/Synthesizers-and-Samplers/Pro-
1/p/P0DRK) for the explanations of each encoder/button.

The third top screen is showing the name and the value of the parameter you are modifying.

Doing a single click on any rotary encoder is displaying its name and current value **without that you need to modify it**.

Modifying the ADSR encoders of the filter and the amplifier is setting identical encoders/buttons in the Envelopes and Patches tab and adapting the envelopes graphs accordingly.

Patch cables drawing

In this tab you can also draw your patch cables.

To draw a patch cable, click on an output patch point, keep the mouse button pressed, drag the cable to a patch input point then release the mouse button.

Depending on the state of **Cables** button in the **Envelopes and Patches** tab, either full cables (**Cables** button ON) or cable plugs (**Cables** button OFF) will be displayed.

As soon as you are using the same input or the same output twice, the Cables button will be locked ON and only full cables will be displayed.

All the patch cables are listed and can be further managed in the **Envelopes and Patches** tab.

It is always the next free cable that is selected automatically.

You delete an existing cable simply by re-drawing it from its output to its input.

In the Envelopes and Patches tab you can also adjust the transparency level of the cables.

Envelopes and Patches tab

In the **Envelopes and Patches** tab, you can:
– adjust the filter and loudness envelopes either with encoders or by moving the anchors of the graphs
– set/indicate up to 9 from/to patches
– delete a single patch cable or all at once
– switch between the display of patch cables or just cable plugs
– adapt the name of the external synths that could be connected to your Pro-1
– adapt the current program category, author and description (click on the current description to edit it)
– manage different panel settings
– manage 3 Global settings
– manually send or restore defaults Global settings
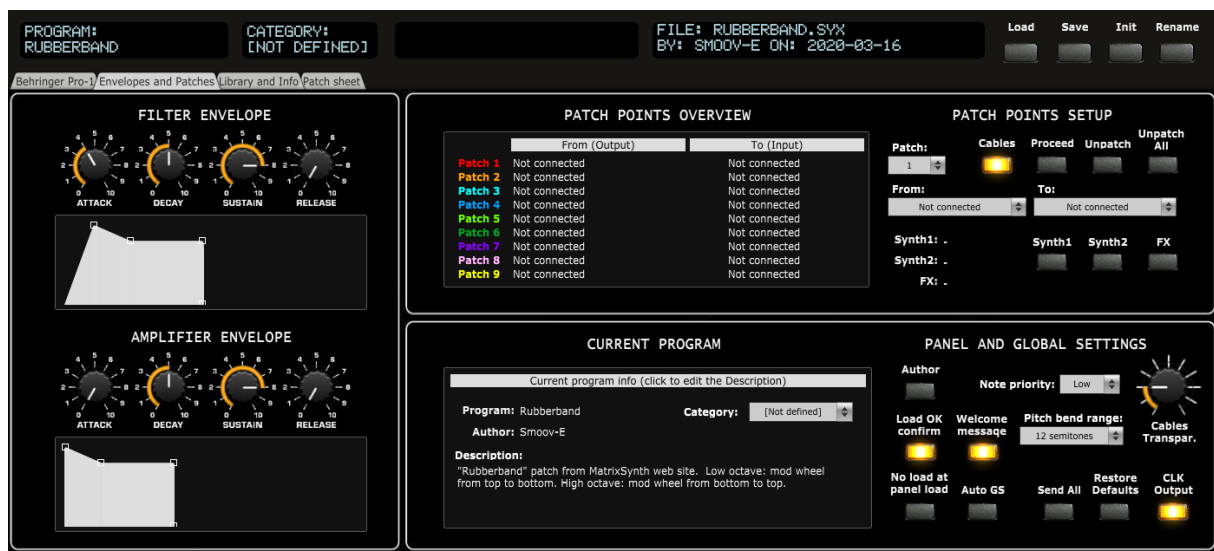

Envelope shapes

You can modify the envelope shapes by either turning the ADSR or by using the mouse and moving the anchors on the graphs either vertically or horizontally.

When moving the anchors, the corresponding ADSR encoders will also turn and the parameter name and value will be displayed in the screen of the top panel area.

Patch points

Besides drawing the patch cables directly on the front panel, you can also modify the from/to patches as follows:
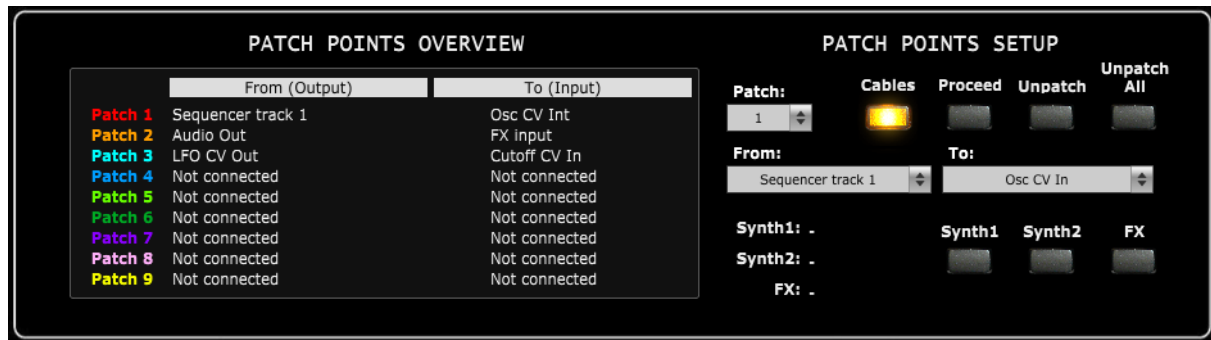
Clicking anywhere on a patch line (label, input, output, blank space) will select the patch to be modified and display its values in the pull-downs. You modify the "From" source and/or "To" destination and press the Proceed button to make the change.

You can also directly select a patch cable in the **Patch** pull-down then modify the **From/To** and press **Proceed**.

Use the **Unpatch** button to delete a patch cable or the **Unpatch All** button to delete all of them at once.

Use the **Cables** button to switch the display on the main panel between patch cables and just cable plugs. This button will be locked on Cables display as soon as the same input or output is used two times.

Use the **Cables transparency** rotary to set the transparency of the patch cables (not the end plugs).

Patches are numbered 1 to 9 and have a color assigned to them. When a from/to patch is set in the Envelopes and Patches tab, corresponding patch cables are displayed on the main Pro-1 tab and corresponding colored numbered circles are displayed on the patch sheet.


Numbered circles are used to help colorblind people.

Available "From" sources are the output patch points of the synthesizer plus a few additional external ones: "Not connected", "LFO CV Out", "Keyboard CV Out", "Gate Out", "Mixer Out", "Filter Env Out", "Amp Env Out", "Phones", "Audio Out", "Synth1 CV output", "Synth2 CV output", "Synth1 Gate output", "Synth2 Gate output", "Sequencer track 1", "Sequencer track 2", "FX output"

Available "To" destinations are the input patch points of the synthesizer plus a few additional external ones: "Not connected", "Mod Wheel CV In", "Osc CV In", "Gate Clock In", "LFO CV In", "Ext In", "Cutoff CV In", "Resonance CV In", "Synth1 CV input", "Synth2 CV input", "Synth1 Gate input", "Synth2 Gate input", "FX input"

Clicking the **Author** button opens a popup window where you can modify the name of the author of the patch. The name should be maximum 15 characters long (will be truncated if longer). If you leave the Author name empty then a "?" is displayed.

Clicking the **Synth1** button opens a popup window where you can modify the name of a synth connected to your Pro-1. The name should be maximum 11 characters long (will be truncated if longer). If you leave the Synth1 name empty then a "-" is displayed.
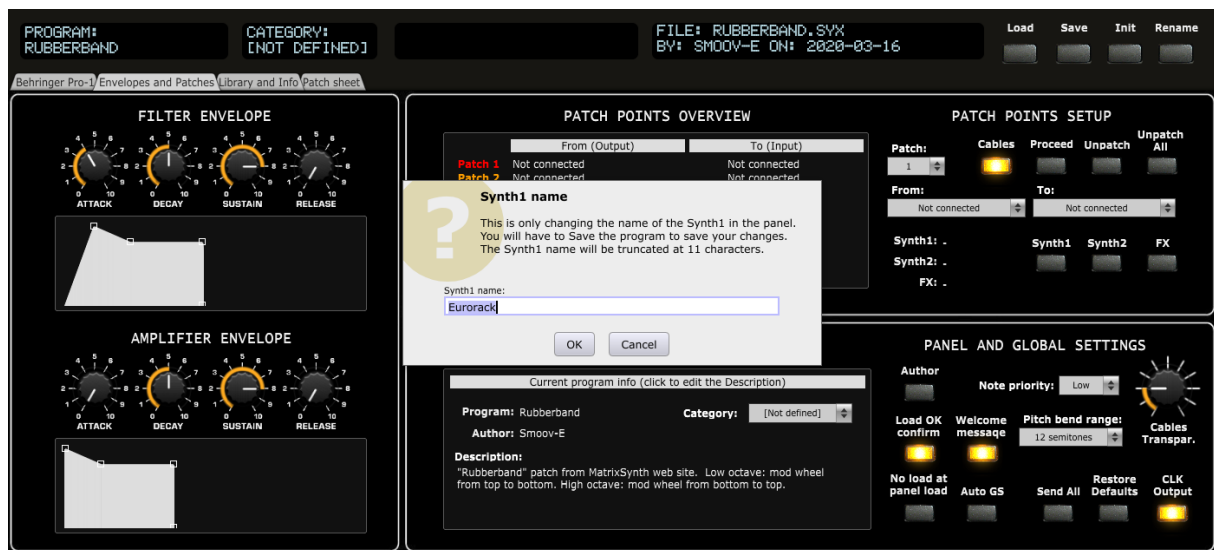
Clicking the **Synth2** button opens a popup window where you can modify the name of a second synth connected to your Pro-1. The name should be maximum 11 characters long (will be truncated if longer). If you leave the Synth2 name empty then a "-" is displayed.

Clicking the **FX** button opens a popup window where you can modify the name of a FX chain connected to your Pro-1. The name should be maximum 15 characters long (will be truncated if longer). If you leave the FX name empty then a "-" is displayed.

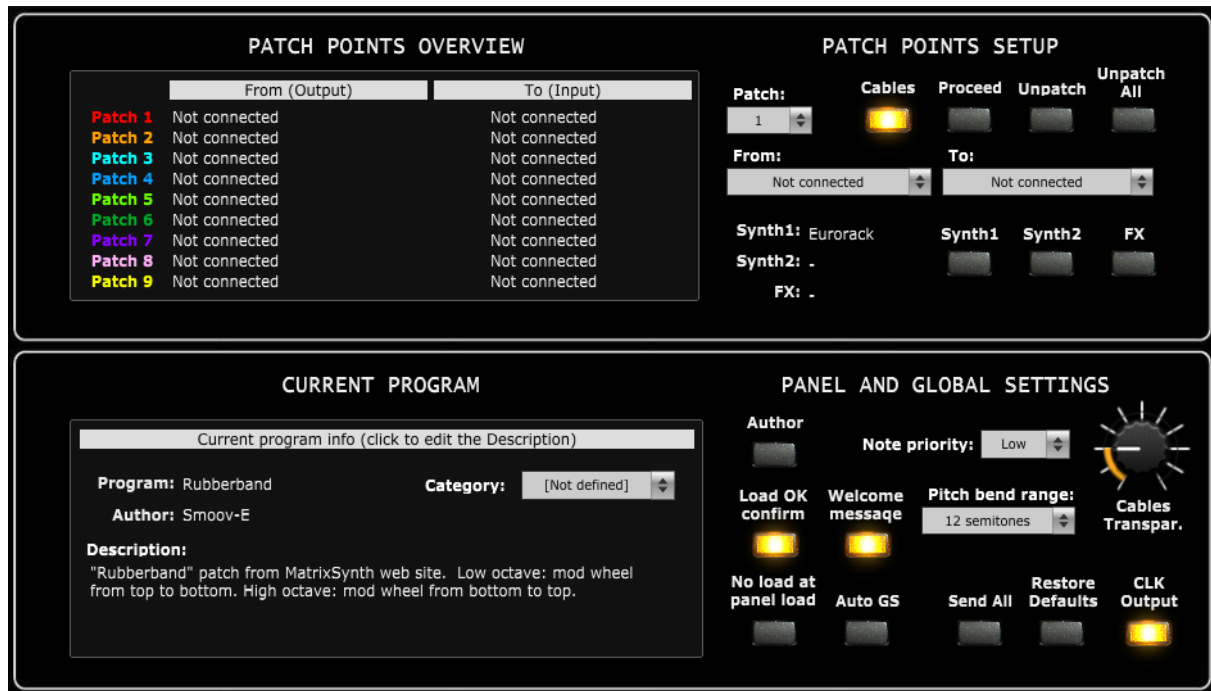**Global settings**

You can manage three Pro-1 global settings:
– Note priority
– Pitch Bend range
– Midi Clock Output

The settings are saved in each program sysex file and thus loaded with them.

The **Auto GS** button allows you to automatically send to the Pro-1 synth the global settings at program load or when each individual global setting is modified.
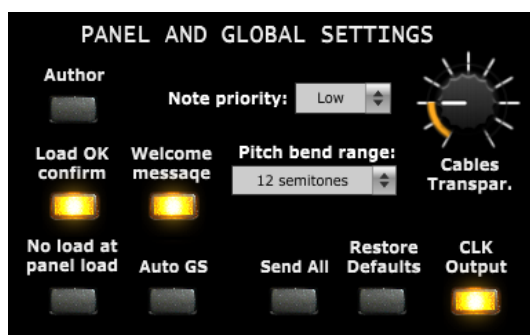
If you don't want this automatic send at load/change, keep the **Auto GS** button unlit and use the **Send All** button to send all global settings when you need it.

The parameter display will show *(sent)* or *(unsent)* to indicate what is happening.

You can restore all Global settings to their default values by pressing the **Restore defaults** button.

Panel settings

Load OK Confirm: by switching this OFF, there is no confirmation popup shown after loading a program. This avoids clicking on OK.

No load at panel load: by switching this ON, when re-opening the panel, the panel will be left as you closed it in the previous session. By switching this OFF, the last saved file is restored if found (or an Init program loaded if not found).

Welcome message: displays the Welcome message or not when opening the panel.

Library and Info tab

In the **Library and Info** tab, you have access to:
– a file browser that gives you directly information about the clicked file without having to load it
– the settings when playing a wav file
– an About screen giving you information about the panel version and the history of changes
– the Panel zoom buttons keeping the zoom factor in memory till next usage of the panel
– the display of all program parameters as a text file with the possibility to export it
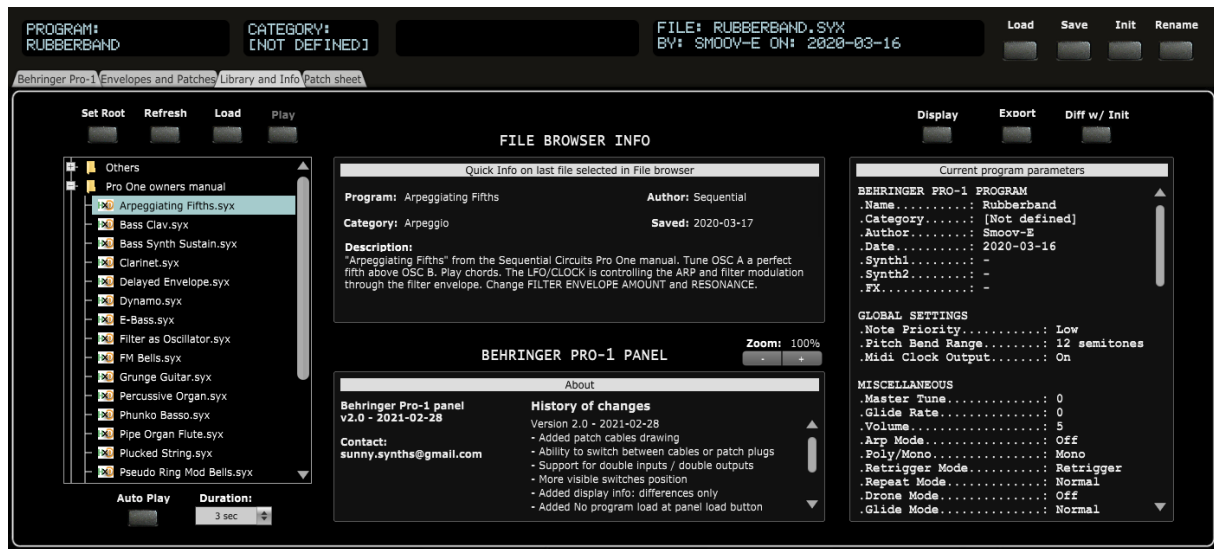
File browser

The **File browser** allows you to navigate on your disk and browse through presets. It works as follows:
– **Click** on any file to display some info (name, category, author, saved date, description) about it in the Quick info window. If you click on a non-Pro-1 or .wav file then it will be indicated. When Auto Play is activated, clicking on a .wav file will play it automatically for the chosen duration and clicking on an Pro-1 .syx file will make the corresponding .wav file play automatically as well (if a wav file with the same name as the Pro-1.syx file is found)
– **Double-click** on a file to load it (Pro-1 .syx file) or play it (.wav file) directly. A popup will be displayed if you do this on a not recognized file type
– Use the **Set Root** button to select the folder where your presets are (at this stage, the patch saver doesn't remember the location after you quit it). Note that you must at least have one file in the selected directory in order to have **Set root** functioning.

> ⚠️ Sometimes the Set Root doesn't work (displays nothing or stays on the currently selected root directory). I have still not found the reason (thought it was due to no file being present in the folder; only subfolders but seems not to be always the case).
>
> Temporary workaround: just select one level higher. Sorry…

– Use the **Refresh** button to refresh the list after having saved several files or added files outside the patch save
– Use the **Load** button to load the selected file and display its parameters
– Use the **Play** button to manually start playing a .wav file

Audio file play settings

WAV files can be played on Windows and MacOS
AIF, AAC and MP3 can only be played on MacOS

The audio files will be played for the duration set in the **Duration** pulldown (3s, 5s, 10s or Full).

Activating **Auto Play** will automatically trigger the play of the .wav (.aif, .aac, .mp3) files OR trigger playing the .wav file corresponding to the clicked Pro-1 .syx file (if found). If there is no corresponding .wav (.aif, .aac, .mp3) file then nothing happens.

If some audio files are playing but not others, check that you are not using special characters in the filename. The panel can handle single quotes but not always other characters.

Panel zoom
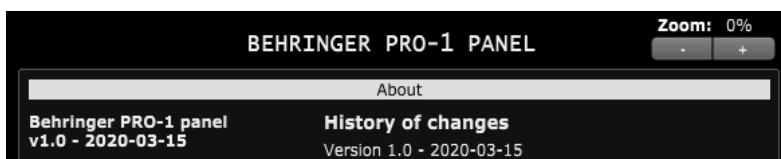
The panel can be zoomed by using the Ctrl + or Ctrl – keys combinations. This is also available from the **View** menu.

Using that method is incrementing/decrementing the zoom factor by 10% steps but the main issue (for some users) is that the zoom factor is not memorized and thus at next usage the zoom is back at 100%.

This is the reason of the implementation of this "manual" zoom. Modifying the zoom factor using those buttons is changing the zoom by 5% steps and will make it keep the zoom factor for next usage.

 If you are still modifying the zoom using the View menu or the Ctrlr + / Ctrlr – keys, no worries! The "manual" zoom is reading the current zoom factor on the panel each time one of the main top panel button is used (Load, Save, Init, Rename).

Display and Export info

On the right side of the panel, you have access to Program parameters:

– Use the **Display** button to list the parameters of the current program
– Use the **Export** button to export as a .txt file the parameters of the current program (it is not needed to first display them before exporting)
– Use the **Diff w/Init** switch to limit the display to only the differences with the Init program
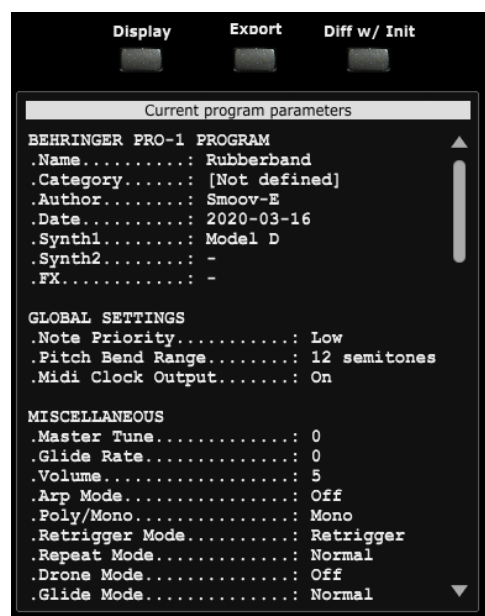
Patch sheet tab

In the **Patch sheet** tab, you have access to:

– A one shot view of the values of all parameters, patch cable connections and program info
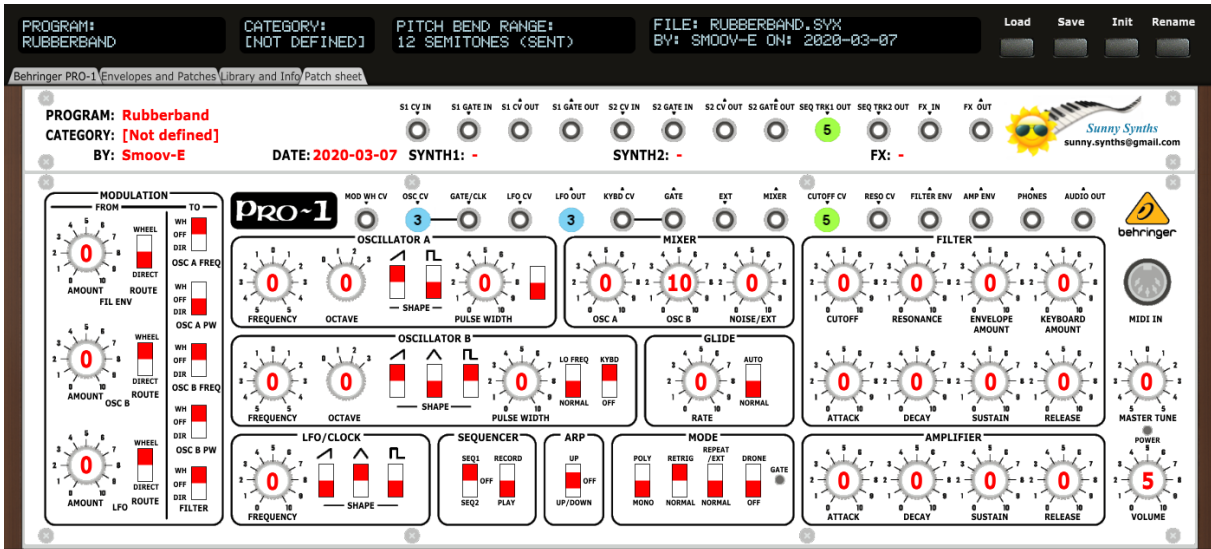
The content of this tab is adapted automatically. Directly ready for a screenshot!

Installing and using the Pro-1 panel as plugin

First of all, thanks to all people that have made some tests and provided feedback from using the plugin with their DAW.

The following paragraphs will provide info on how to install the plugin version of the panel but also describe the way to use it and the known limitations for each DAW.

💡 If your DAW is not listed, please perform some tests as described and send me the equivalent of text and screenshots. I'll add those in the next version of the manual.

Installation

On Windows PC, depending on your DAW version and after unzipping the main file, either copy the **Behringer Pro-1.dll** file from the Windows VST 64 bits directory to your 64 bits plugins directory and/or the **Behringer Pro-1.dll** file from the Windows VST 32 bits directory to your 32 bits plugins directory (Steinberg hosts often use C:\Program Files\Steinberg\VSTplugins as the default plugin path).

On Mac OS, unzip then copy the **Behringer Pro-1.vst** file from the MacOS VST directory to your VST plugin directory (/Library/Audio/Plug-ins/VST) and copy **Behringer Pro-1.component** file from the MacOS AU directory to your plugin directory (/Library/Audio/Plug-ins/Component). You will most probably need administrator rights to perform those copies.

On MacOS you may also get the message that the "*Component or VST cannot be opened because the developer cannot be verified*". Go to System Preferences then Security and Privacy and click on the Open anyway button to have the plugin saved as an exception in the security settings.

Start your DAW and check that the plugin directory is rescanned and that the **Behringer Pro-1** panel is visible in your list of plugins.

Here is an example in Cakewalk (a light blue scanning popup is displayed as soon as a file is added or modified in the identified 64 bits VST plugins folder):
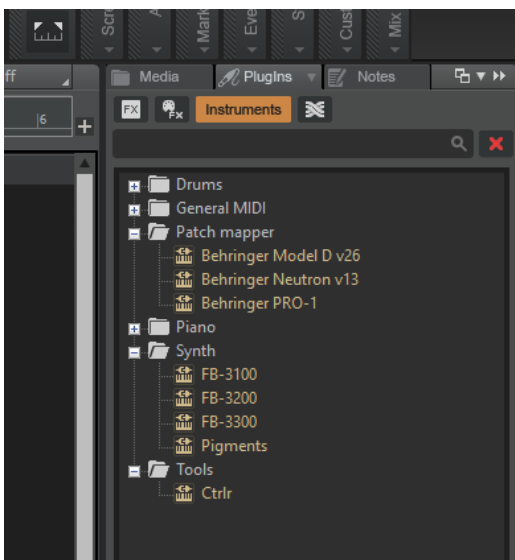
Tests and identified limitations

Different DAWs have been tested and some way of working presented here.

The following actions are checked:
– Creating a track using the plugin
– Displaying the instrument and checking all controls are working fine including Load/Save…
– Playing a wav file from the file browser. The DAW is often using ASIO while the wav files are played with the Windows or MacOs native player
– Saving and opening a project in the DAW. This is checking that the last patch saved is restored correctly. As in standalone mode, the last patch used is restored (not the last position of the knobs!)
– Creating a second track with the plugin
– Saving and opening a project in the DAW. This is checking that there can be different tracks using the plugin with each of their last patch saved restored correctly.
– Creating a preset in the DAW. Each DAW has different ways to do this. Creating presets can also be done by saving full channel strips that are including the VST instrument setup (Cakewalk, Reaper, Logic)
– Creating a track by selecting a DAW preset instead of selecting the plugin. Checks if the correct patch is restored. When working, this is done by loading a saved channel strip.
– Replacing a DAW preset by another DAW preset

> ⚠️ Replacing the DAW preset in a track by another DAW preset is working fine.
> The only remark is that you may get some popups if you directly switch between freshly created presets (just click Cancel in those popups). Creating a new track with the plugin and switching between existing DAW presets works fine and doesn't display the popups.

	Cubase	Cakewalk	Reaper	Ableton	Studio 1	Logic
Create track	✔	✔	✔	✔	✔	✔
Using the plugin	✔	✔	✔	✔	✔	✔
Play wav	✔	✔	✔	✔	✘	✔
Save and restore project in DAW	✔	✔	✔	✔	✔	✔
Save and restore project with 2 tracks	✔	✔	✔	✔	✔	✔
Create DAW preset	✔	✔	✔	✔	✔	✔
Create track based on DAW preset (saved channel strip)	✔	✔	✔	✘	✔	✔
Replace DAW preset by another DAW preset	✔	✔	✔	✔	✔	✔

Cubase

Creating a new track

Add an Instrument track by using the Add track menu displayed when right clicking in the middle of the workspace then select the Behringer Pro-1 VST. Click on the Instrument button to display the panel and use it as you would do for the standalone version.
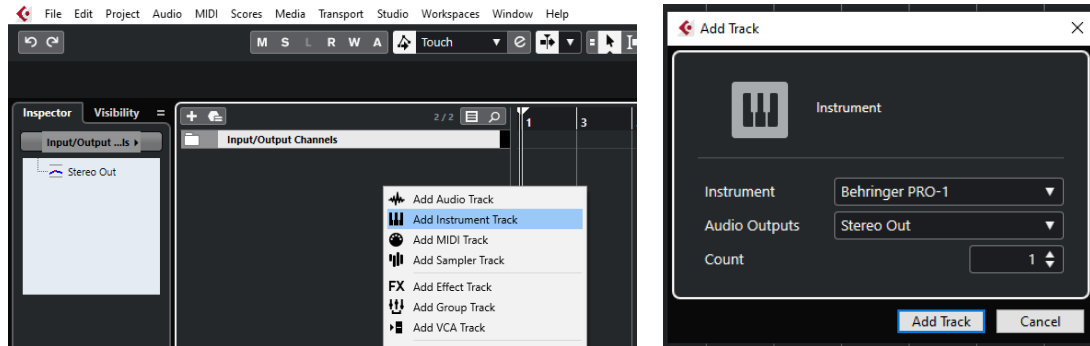
…or by dragging and dropping from the VSTi panel (easier).

Listening to wav files associated a patch is also working even if ASIO is used as audio driver for Cubase while the wav file player is Windows.

When saving the Cubase project, the panel is saved as well. It will be restored with the last patch used and saved.

Using several Pro-1 tracks at once

You can associate the panel to several tracks in order to keep track of the different patches used for them. Just drag and drop the plugin two or more times.


Saving a patch as a Cubase preset

You should save your patches using the Save button **inside** the panel but in addition to that you can also save them as *Cubase preset* or *Cubase track preset*.

To save as Cubase preset, click on the small diamond to the left of the small camera icon at the top of the plugin window, select Save preset… then give a name to your preset.


Later on, you can load a preset by using Load preset from the same menu or you can navigate through your presets by using the small up and downs triangle buttons.
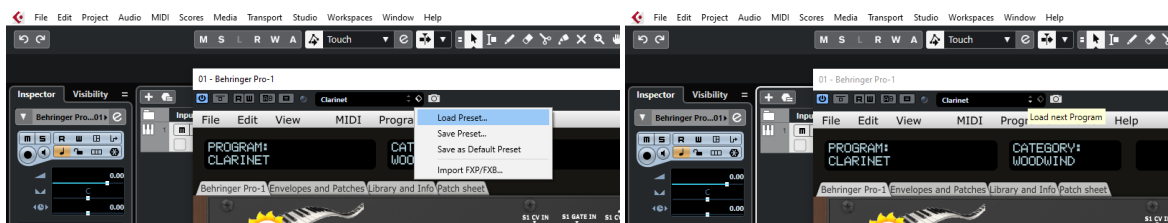
To save as Cubase track preset, select Save track preset when right clicking on a track.

When closing the panel after Saving the track preset, be sure to set the button **No program load at panel load** to OFF and to close the panel with the upper right red cross to have your buttons positions saved in memory.
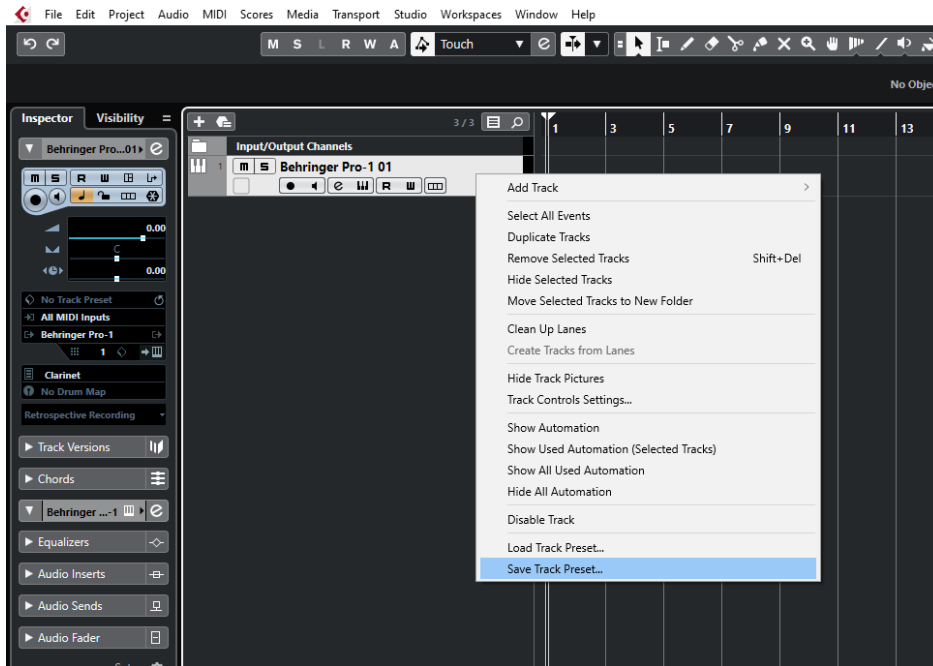

Later on, the content of the panel as is can be restored directly in a new empty track without the need of a Load from the panel by selecting Load track preset when right clicking on a track.
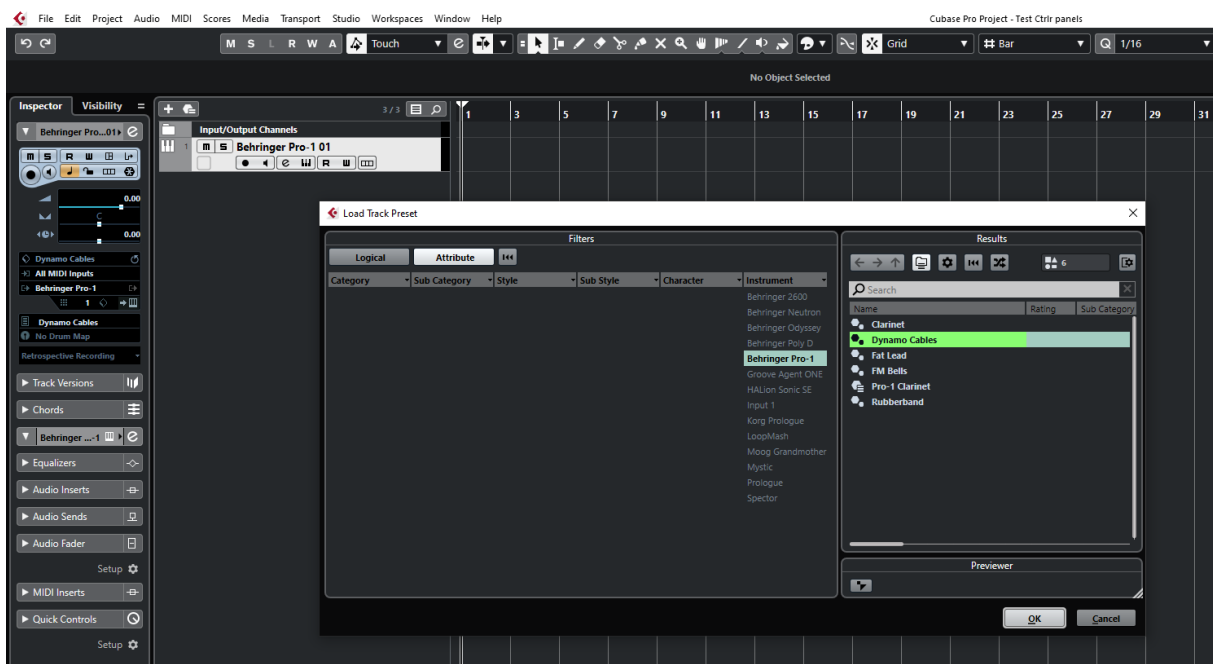
Creating a new track from a Cubase track preset

When creating a new track you can directly pick Using track preset from the menu. The patch will appear in the panel on a new track without the need of a using Load from the panel
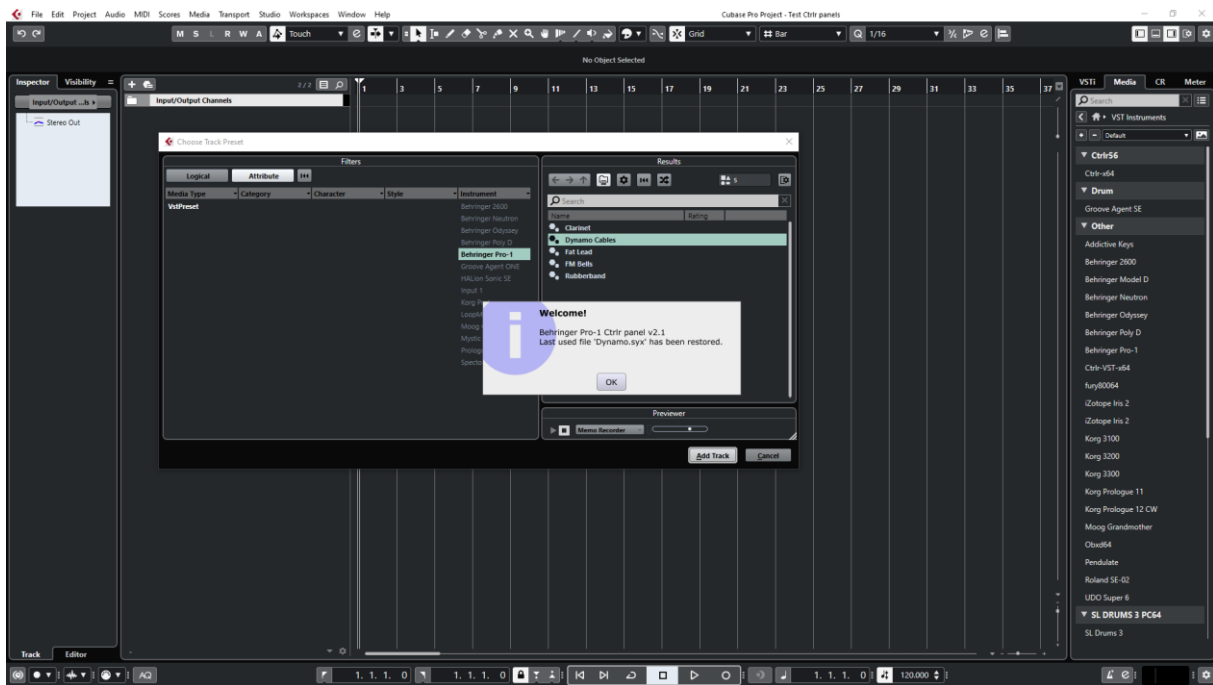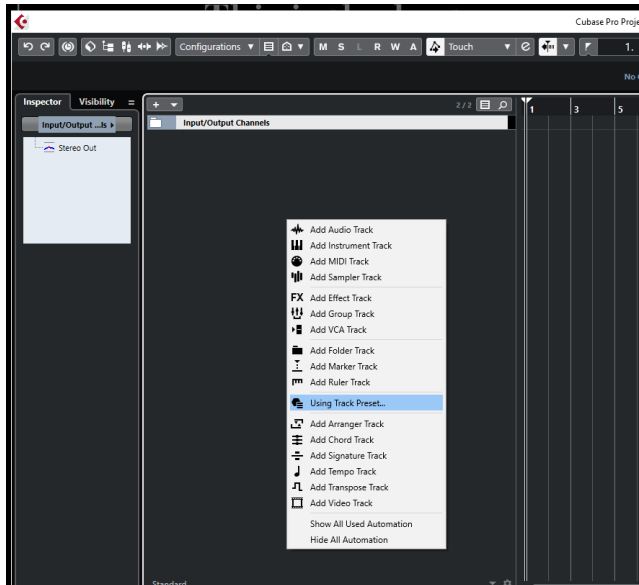
Replacing the preset on an existing track by another preset

This is now working fully fine since version 2.3. Just select another previously saved preset at the top left of the plugin window. All buttons will be positioned according to the newly loaded presets.

You can also scroll through the presets with the small up/down buttons.

Cakewalk by Bandlab

Creating a new track

Drag the Pro-1 plugin from the Instruments plugin window (Synths) and drop it on the main window to create a new track.

Click on the instrument icon near the track name to display the panel.

Load a preset from inside the panel and use it as you would do for the standalone version.

Listening to wav files associated a patch is also working even if ASIO is used as audio driver for Cakewalk while the wav file player is Windows or MacOs.

When saving the Cakewalk project, the panel is saved as well. It will be restored with the last patch used and saved.

Using several Pro-1 tracks at once

Works fine. To keep several plugin windows opened at once you need to pin them first (pin icon on top right of a plugin window). Patches and windows are restored when re-opening the project.

Saving a patch as a Cakewalk preset

It is possible to save the current patch as a Cakewalk preset by changing the name at the top of the plugin window (here "Fat Lead") then clicking on the Save button.
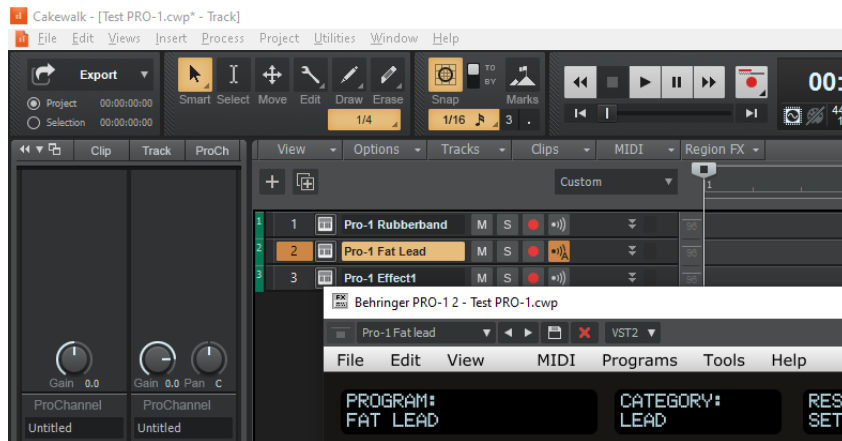

It is also possible to save a complete mixer channel as track template.

Creating a new track from a Cakewalk preset

Not found… It seems it is always needed to first create a track with the instrument plugin and then to select a preset.

Another possibility would be to save each preset as a separate track template then to create the track from those track template "presets".
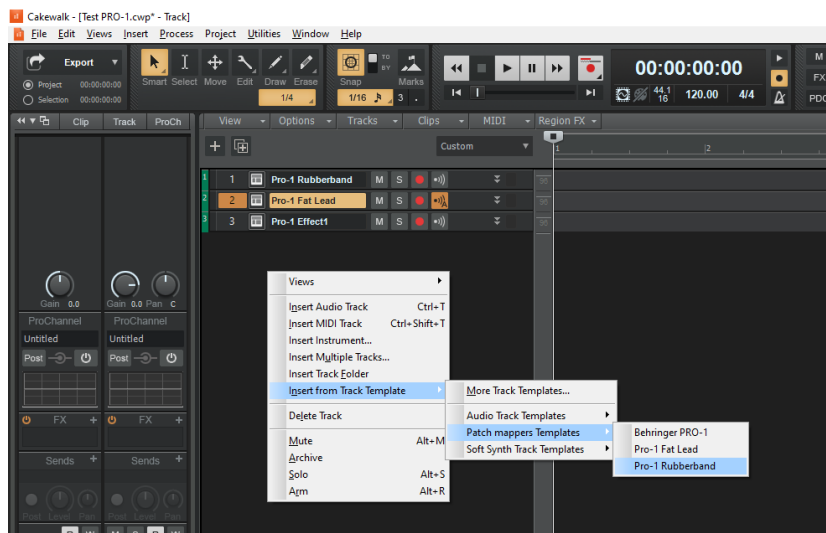
### Replacing the preset on an existing track by another preset

This is now working fully fine since version 2.3. Just select another previously saved preset at the top left of the plugin window. All buttons will be positioned according to the newly loaded presets.

Reaper

Reaper is available on Windows and MacOS. On MacOS, Reaper is supporting both VST and AU plugin versions.

Creating a new track

Select Insert virtual instrument on new track in the Track menu then select the Behringer Pro-1 VST from the VSTi category
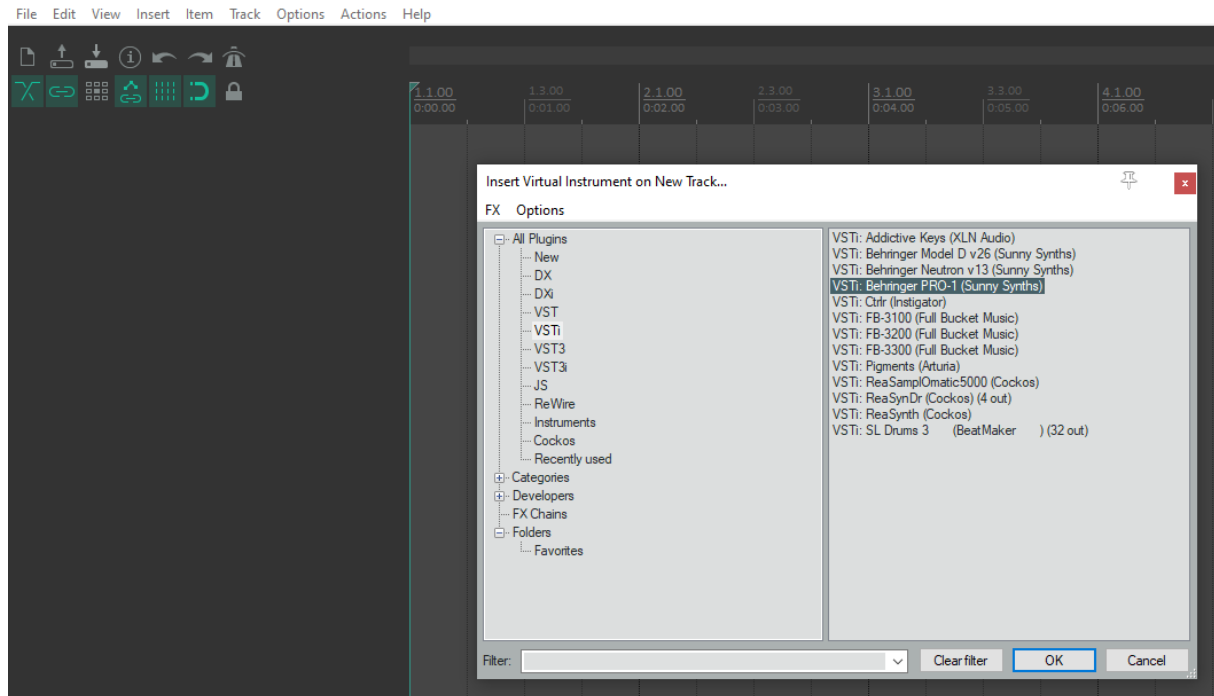
Click on the FX button to display the panel and use it as you would do for the standalone version (right-clicking instead of direct click gives only the plugin window without the blank side area)
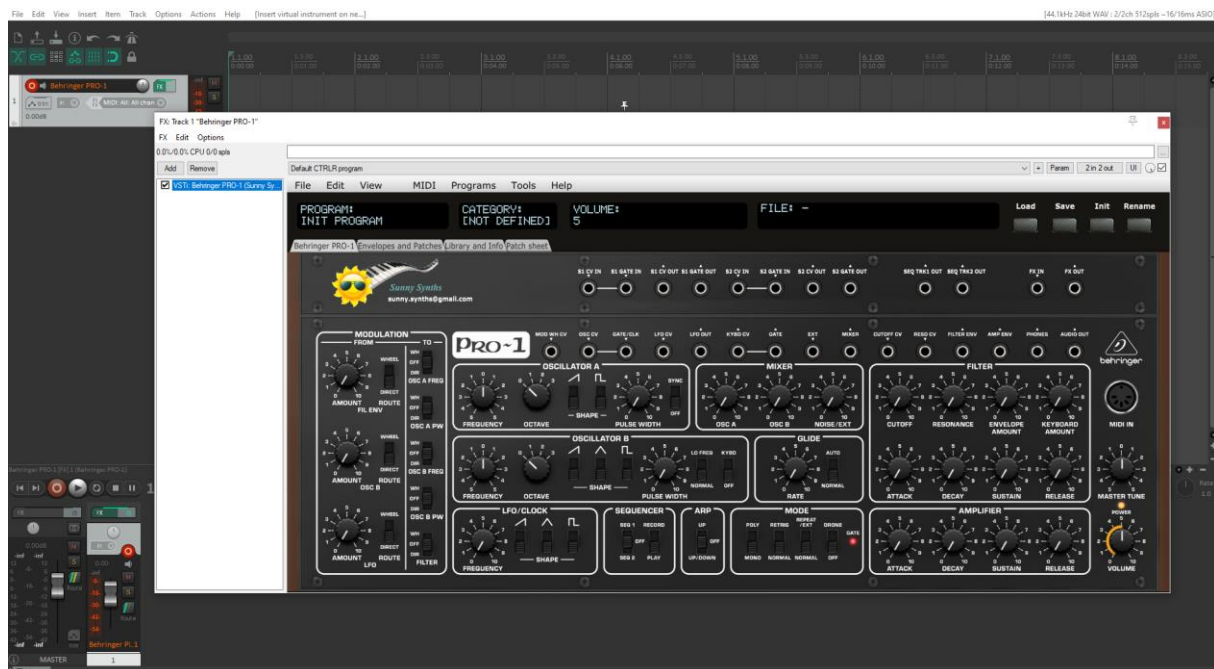
Listening to wav files associated a patch is also working even if ASIO is used as audio driver for Reaper while the wav file player is Windows or MacOs.

When saving the Reaper project, the panel is saved as well. It will be restored with the last patch used and saved.

Using several Pro-1 tracks at once
Works fine:
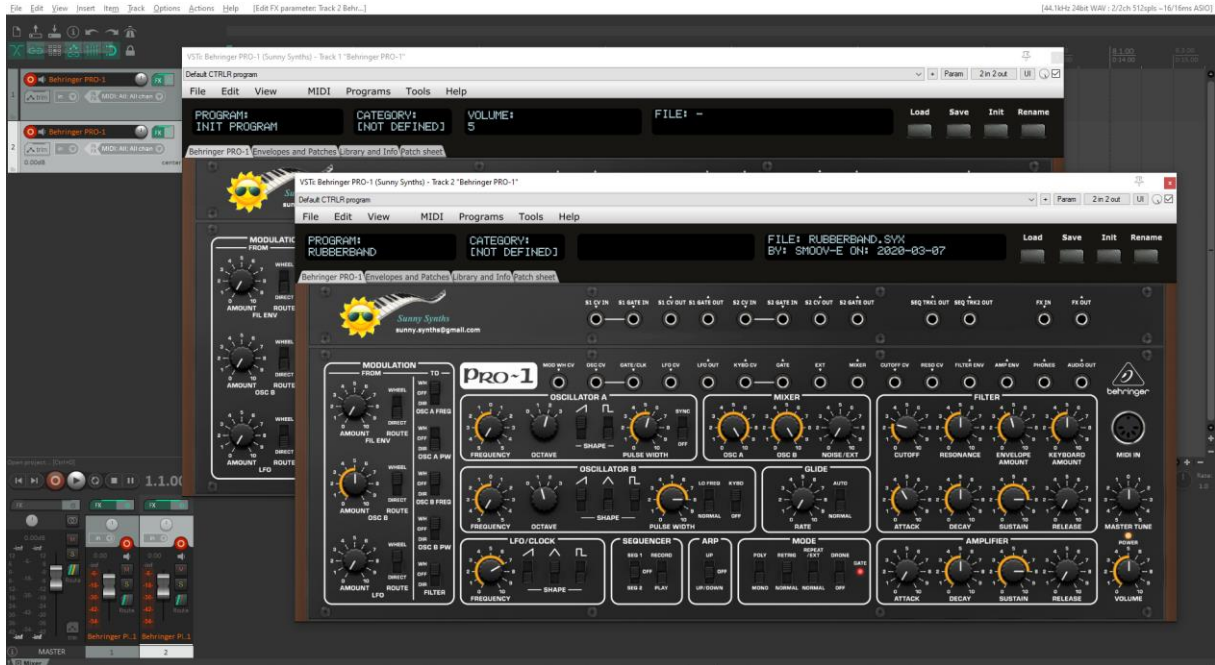
Saving a patch as a Reaper preset
Two different methods are possible:
– Save FX chain – Right click on VST name in white area of plugin window then select FX chain
– Save preset - Click on the + button in the plugin window then name the preset
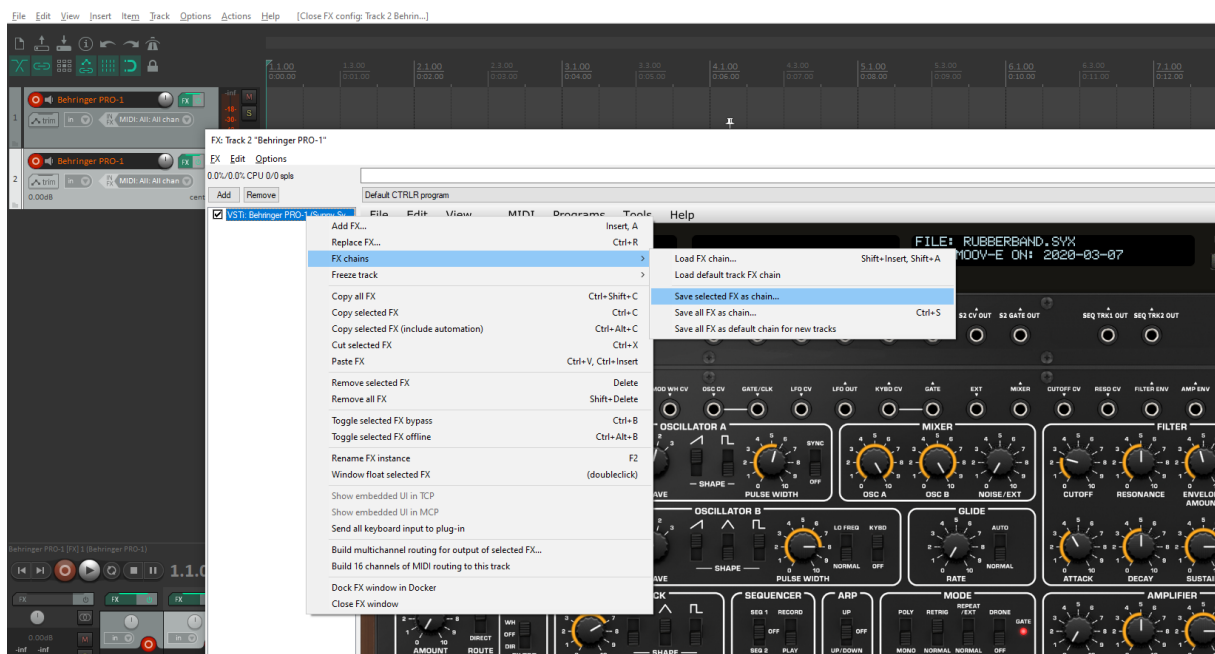
Presets are appearing under User presets
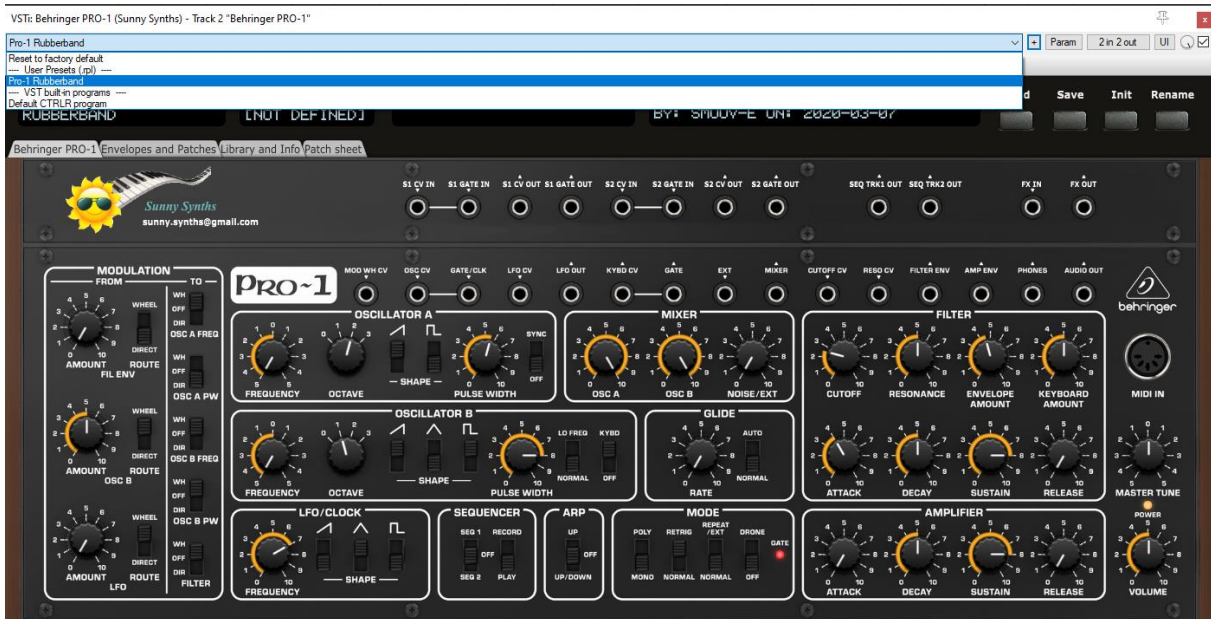
Creating a new track from a Reaper FX chain preset
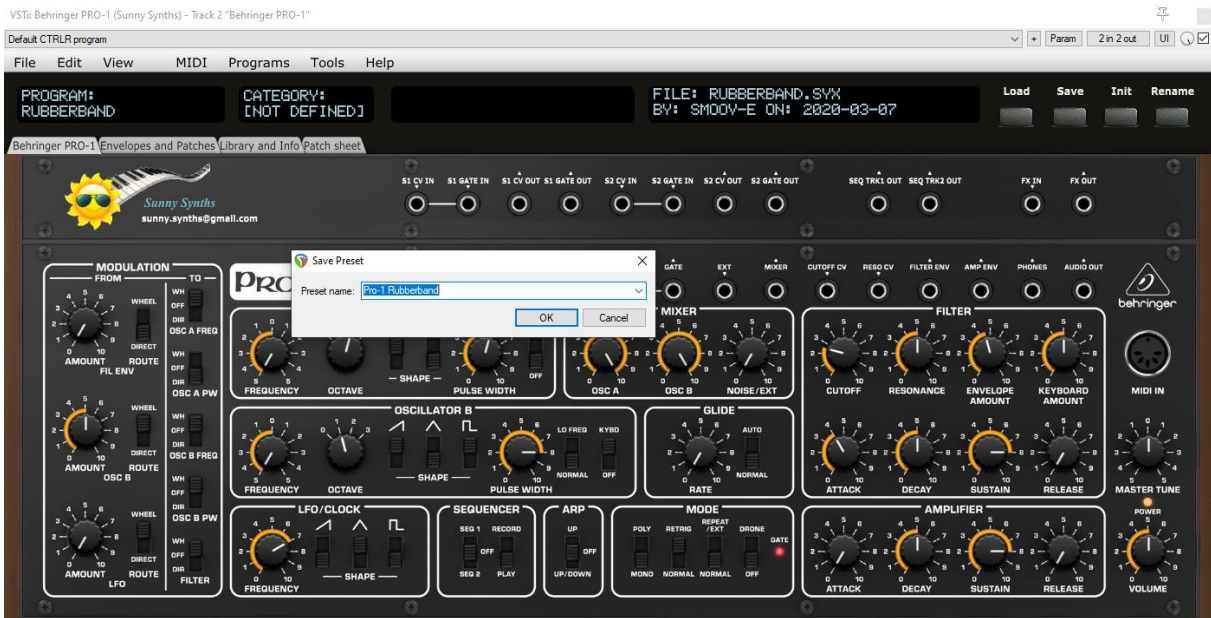
Create an empty track then right click on grey FX button to select a saved FX chain
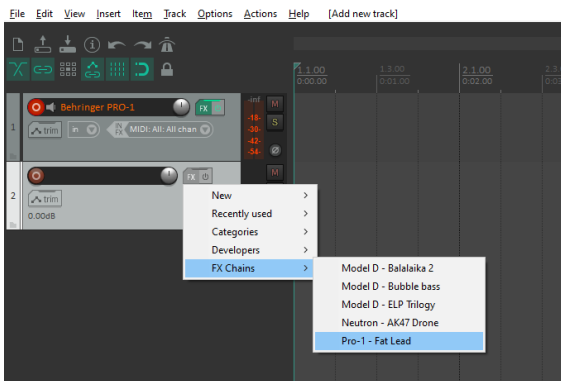
Creating a new track from a Reaper preset

This is not possible directly but well in two steps. First, create an empty track then click on grey FX button to display the Track FX window with the VST plugins list. Then, right click on the Pro-1 plugin and select a saved preset under Presets
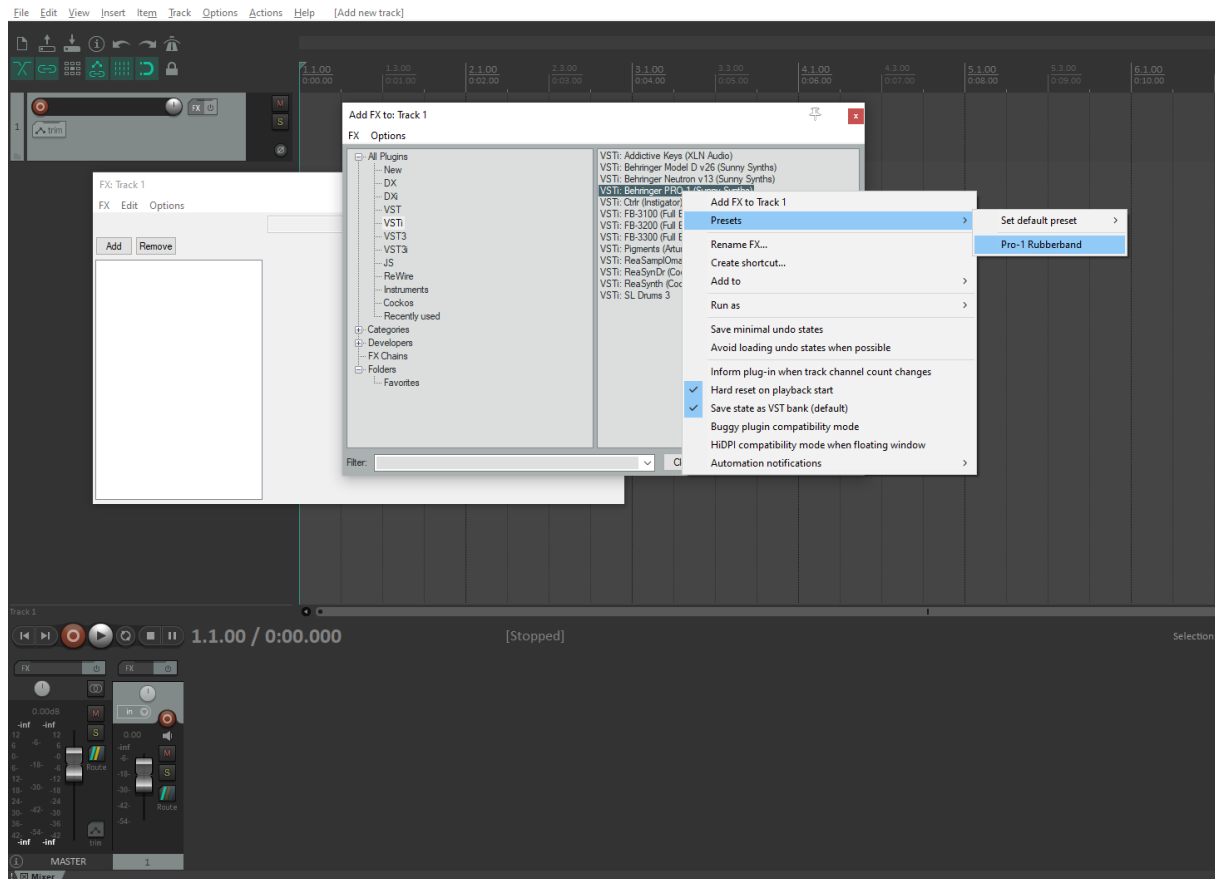
Replacing the preset on an existing track by another preset

Click on the green FX button then in the FX track window, select the FX and press the Remove button.

Add the new one as described above.

Ableton

Status: This has been tested in Ableton Live Lite 10 and it is thus expected to work fine in the full versions.

Creating a new track

Drag the Pro-1 plugin from the plugin browser and drop it on the main window to create a new track.

The panel should open automatically. If not, click on the small wrench icon in the small window at the bottom.

Load a preset from inside the panel and use it as you would do for the standalone version.

Listening to wav files associated a patch is also working even if ASIO is used as audio driver for Ableton while the wav file player is Windows or MacOs.

When saving the Ableton project, the panel is saved as well. It will be restored with the last patch used and saved.

### Using several Pro-1 tracks at once

Works fine. To keep several plugin windows opened at once you need to change the masking of plugin setup in Preferences. Patches and windows are restored when re-opening the project.
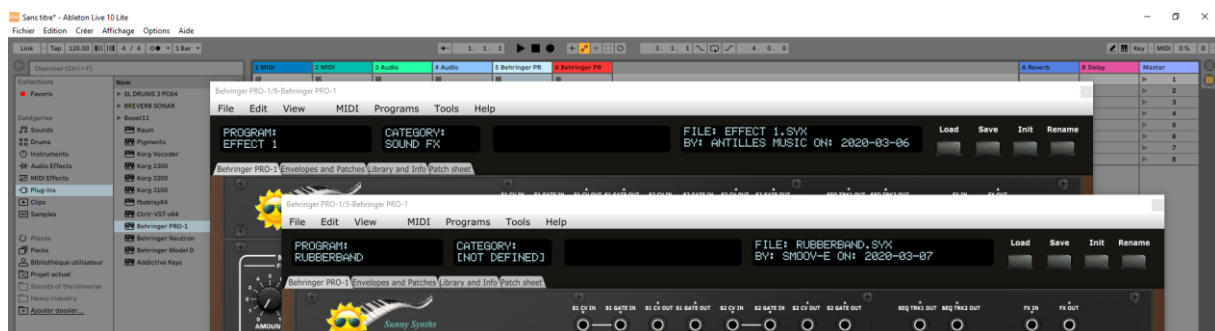
Saving a patch as an Ableton preset

It is possible to save the current patch as an Ableton **.fxp** preset by clicking on the Save button in the small instrument window at the bottom.
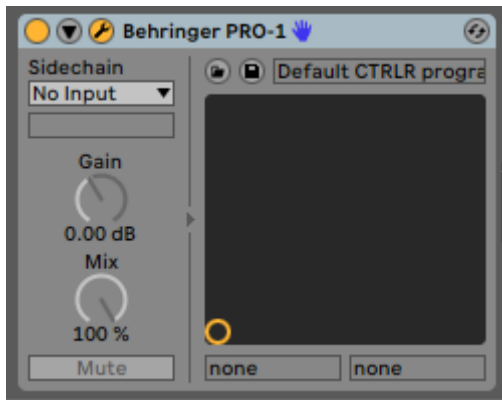
Creating a new track from an Ableton preset
Not found… It seems it is always needed to first create a track with the instrument plugin and then to select a preset as described in next paragraph.

Replacing the preset on an existing track by another preset
This is now working fully fine since version 2.3. Just select another previously saved preset at the top left of the plugin window. All buttons will be positioned according to the newly loaded presets.

Studio One

Status: This has been tested in Studio One 3.5 32 bits and 4.6 64 bits version.

Playing the wav file associated to a patch seems not working.

Creating a new track

Drag the Pro-1 plugin from the plugin browser and drop it on the main window to create a new track.

The panel should open automatically. If not, click on the small Instrument editor icon on the right side of the track name.


Load a preset from inside the panel and use it as you would do for the standalone version.

Listening to wav files associated a patch is not working even if ASIO is used as audio driver for Studio One while the wav file player is Windows or MacOs.

When saving the Studio One song, the panel is saved as well. It will be restored with the last patch used and saved.

Using several Pro-1 tracks at once

Works fine. The instrument editor is showing one tab by track:
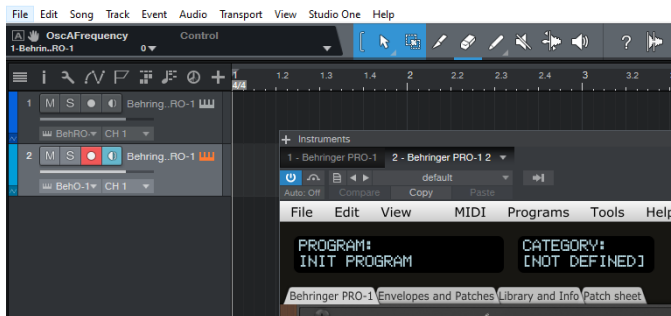
Saving a patch as a Pro-1 Studio One preset

You can save the last patch saved in the panel as a preset in Studio One by selecting Store preset in the plugin window preset menu.

In the popup menu, input the name of a Subfolder corresponding for example to the sound category.
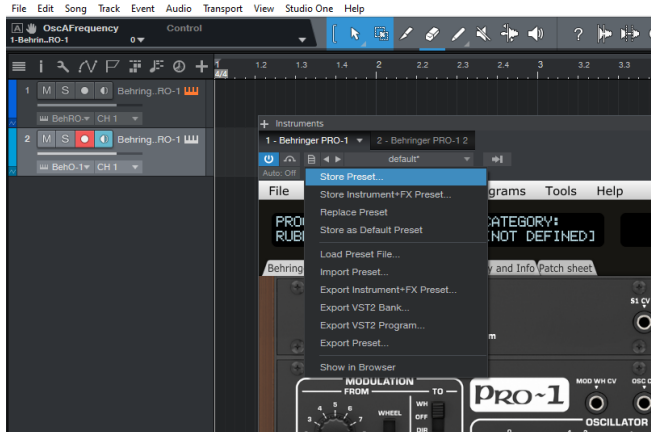
Creating a new track from a Studio One preset

The presets and their subfolders created with the above method are appearing directly in the browser under the Pro-1 VST name in the Instruments tab or in the Files tab
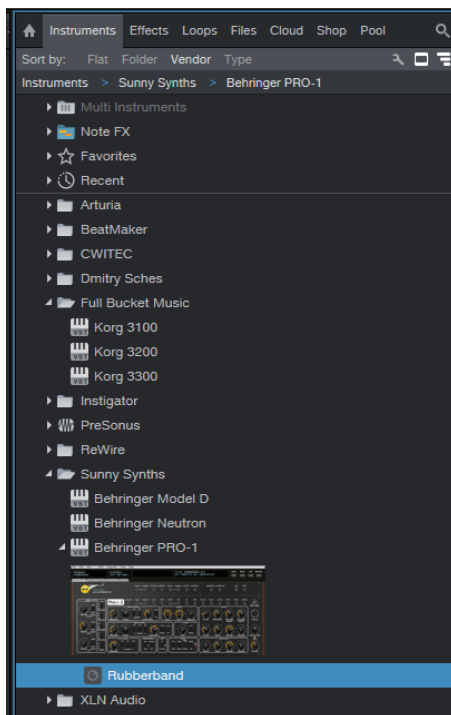
Replacing the preset on an existing track by another preset

This is now working fully fine since version 2.3. Just select another previously saved preset at the top left of the plugin window or with Load preset file. All buttons will be positioned according to the newly loaded presets.

Logic Pro X

Logic Pro X is only available on MacOS and handles only the AU plugin version so you must secure to have the Behringer Pro-1.component plugin file in your AU plugin directory.

Creating a new first track

Create a new instrument track and select the Behringer Pro-1 plugin for it (under AU instruments) by clicking on the small Instrument editor icon on the right side of the track Input.
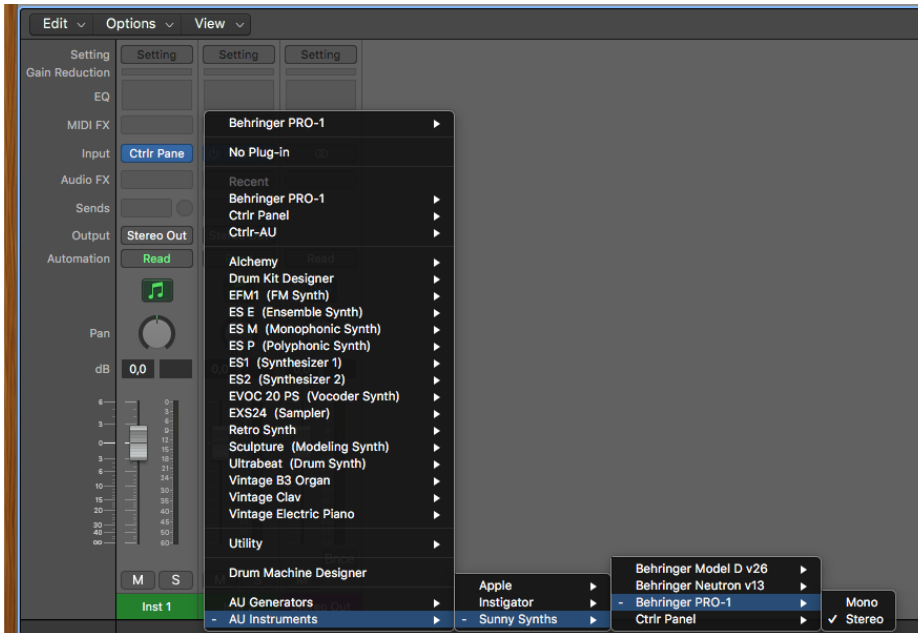
Click in the middle of the track Input to open the panel.


Load a preset from inside the panel and use it as you would do for the standalone version.

Listening to wav files associated a patch is also working even if ASIO is used as audio driver for Logic while the wav file player is MacOs.

When saving the Logic project, the panel is saved as well. It will be restored with the last patch used and saved.

Using several Pro-1 tracks at once

Works fine since v2.1 and can be done by simply creating two tracks with the plugin.

If wished, one can also create a channel strip:

– Save the Init patch as a channel strip preset in Logic by clicking on the Setting button at the top of the channel strip in the mixer and selecting Save Channel Strip Setting as…

– New tracks will be created based on that Init channel strip and can then be changed afterwards to other patches with the Load button

Saving a patch as a Pro-1 Logic preset

You can save the last patch saved in the panel as a plugin preset in Logic by selecting **Save As** in the pulldown menu of the preset area at the top of the plugin window. An .aupreset file will be created.

Saving a patch as a Pro-1 Logic channel strip preset

You can save the last patch saved in the panel as a channel strip preset in Logic by clicking on the Setting button at the top of the channel strip in the mixer and selecting Save Channel Strip Setting as…. Note that this is different than saving a plugin preset.

Creating a new track from a Logic channel strip setting

This is not possible directly but well in two steps. First, create a new Software Instrument track then click on the Setting button at the top of the channel strip in the mixer and select a previously saved channel strip setting.

Replacing the preset on an existing track by another preset

This is working well when selecting a previously saved .aupreset file. Just select another previously saved preset by selecting Load in the top left menu of the plugin window. All buttons will be positioned according to the newly loaded preset, patch cables and all labels will be restored.

This is also working fine with Channel Strips Settings. When replaced, a popup indicates that the Last file used "xxx" has been restored.

Using a controller to move the buttons

If you connected a controller like the Novation SL MkII then you can benefit from moving all knobs of the panel from your controller.

This has been achieved by assigning Midi CC controller numbers to all the knobs.

Of course, as nothing is changed in the hardware, moving the knobs from your controller will not affect the sound as such.

Connect your controller for example as in Configuration 1 presented on page 8
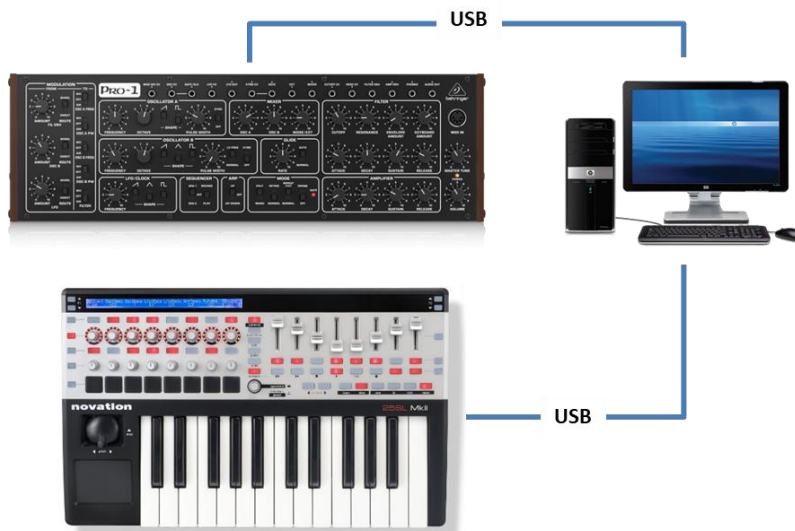
Controller numbers are the following:
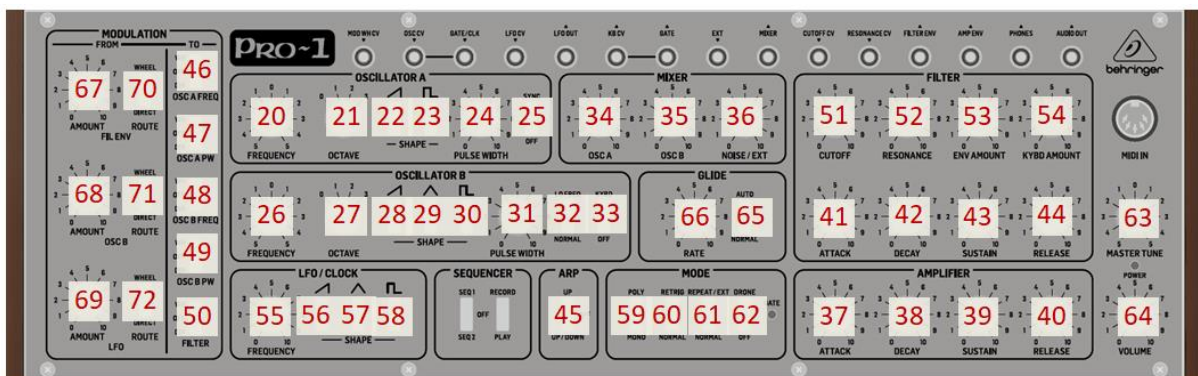
As part of the provided files, you get 2 Novation SL MkII templates (page 1 and page 2). Install them I 2 consecutive advanced templates presets. You can then navigate between page 1 and 2 using the row select buttons of your SL MkII.

The main Ctrlr menus

Actually, not so much is used from the Ctrlr menus…

What you can use is:
- **File** menu: Quit is the only option
- **View** menu: allows zooming the panel in and out by 10% steps
- **Midi** menu: to select your Pro-1 as Output Midi device and to set its Midi channel; to set the Midi Thru (Input->Output)…
- **Tools** menu: use the Midi monitor popup to verify the messages between the panel and the synth
- **Help** menu: displays the About info of the panel
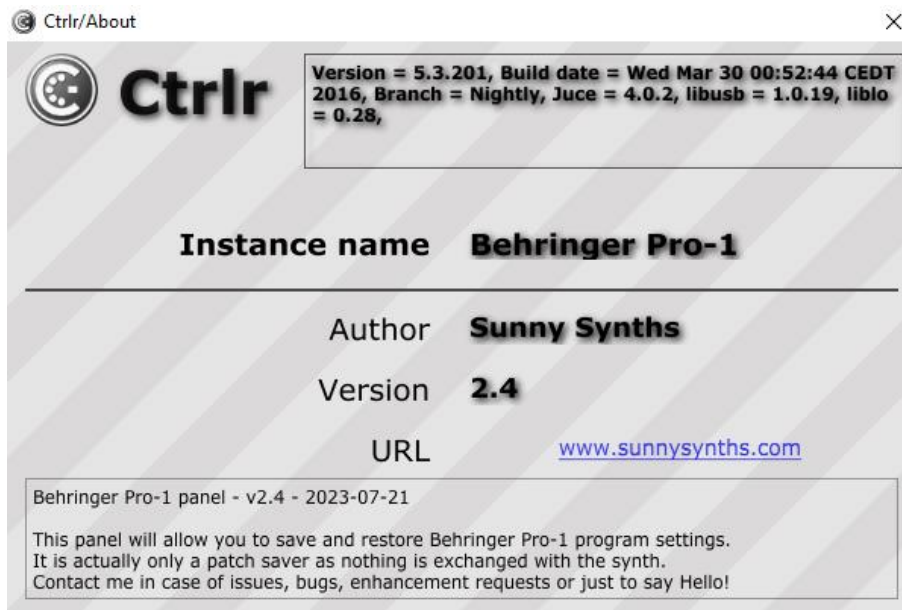
Appendix

Version history

Date	Version	Description	By
2020-03-15	1.0	First version of this manual	Sunny Synths
2021-02-28	2.0	Added patch cables drawing	Sunny Synths
2021-03-14	2.1	Possibility to replace presets in DAW	Sunny Synths
2021-05-10	2.2	Display Info Diff w/ Init button is now a switch	Sunny Synths
2021-11-28	2.3	Welcome message switch, Load OK confirm switch, Cables transparency, DAW presets restore is OK	Sunny Synths
2023-07-21	2.4	Some corrections	Sunny Synths

Pro-1 information

The Behringer Pro-1 product page:

https://www.behringer.com/Categories/Behringer/Keyboards/Synthesizers-and-Samplers/Pro-1/p/P0DRK

A Pro One page: https://greatsynthesizers.com/en/review/sequential-pro-one-best-vintage-monophonic/

Specific MacOS setup issues

Do not use the standard decompress command

For an unknown reason, some users may face problems with the program when it has been decompressed using the standard decompress command. One user found that using a program like "The Unarchiver" was solving the issue.

Developer cannot be verified

On MacOS you may get the message that the "*Component or VST cannot be opened because the developer cannot be verified*".

Go to System Preferences then Security and Privacy and click on the Open anyway button to have the plugin saved as an exception in the security settings.

For the AU (from a user):

To validate the AU plugin in any OS of Catalina or newer, you'll need to disable System Integrity checking (the system equivalent of ctrl-clicking the app).

This is done by restarting holding down CMD-R, choose terminal from the top bar menu once logged in to the recovery console, and typing the following command:

```
/usr/bin/csrutil disable
```

It will then stop telling you it can't be validated and do you want to put it in the bin!

For the VST (from another user)

Just ran the VST on Monterey OS X and it failed. I took my VST and ran 3 commands:

```
sudo xattr -cr
```

sudo xattr -r -d com.apple.quarantine

sudo codesign --force --deep --sign -

Opened up my Ableton - everything works like a charm.

Sysex file documentation

Here is the documentation of the sysex file used to store the parameters. It is 600 bytes long.

```
-- // Behringer Pro-1 - Sound data sysex structure - Size=600 bytes v1.0 //
--
-- Offset is what is displayed with HxD Hexadecimal analyser
-- getByte() is also using the Offset to retrieve Bytes from sysex dump
--

-- This is just a structure used to save the data on the computer
-- Nothing official or unofficial from Behringer, just a decision made by me ;-)
-- This data is not transferred by Midi

-- 100 = 64
-- 140 = 4C

--   Offset        | Byte content
-- ---------------+---------------------------
--   0000         |      F0           Sysex start
--   0001-3       |      00 20 32     Behringer ID
--   0004-6       |      00 01 08     Pro-1
--   0007         |      01           Sound data
--   0008-9       |      00-64        Oscillators Frequency (32=0)
--   0010-11      |      00-64        Oscillators Octave
--   0012-13      |      00-01        Oscillators Saw Shape
--   0014-15      |      00-01        Oscillators Pulse Shape
--   0016         |      00-01        Osc B Triangle Shape
--   0017-18      |      00-64        Oscillators Pulse Width
--   0019         |      00-01        Osc A Sync
--   0020         |      00-01        Osc B Low Frequency
--   0021         |      00-01        Osc B Keyboard
--   0022-23      |      00-64        Oscillators Level
---  0024         |      00-64        Noise Level
---  0025         |      00-64        Filter Cutoff
---  0026         |      00-64        Filter Resonance
---  0027         |      00-64        Filter Env Amount
---  0028         |      00-64        Filter Keyboard Amount
--   0029         |      00-64        EG1 Attack Time
--   0030         |      00-64        EG1 Decay Time
--   0031         |      00-64        EG1 Sustain Level
```

--	0032	00-64	EG1 Release Time
--	0033	00-64	EG2 Attack Time
--	0034	00-64	EG2 Decay Time
--	0035	00-64	EG2 Sustain Level
--	0036	00-64	EG2 Release Time
---	0037	00-64	Glide Rate
--	0038	00-64	Master Tune (32=0)
--	0039	00-64	Volume
--	0040	00-02	Arp Mode
--	0041	00-01	Poly Mono
--	0042	00-01	Retrigger Mode
--	0043	00-01	Repeat Mode
--	0044	00-01	Drone Mode
--	0045	00-01	Glide Mode
--	0046	00-02	Note Priority (default = 00)
--	0047	00-18	Pitch Bend Range (default = 0C)
--	0048	00-01	Midi CLK Output (default = 01)
--	0049		Not used
--	0050-58	00-0C	Patch source (1-9)
--	0059-67	00-0B	Patch destination (1-9)
--	0068-87		Name (20 characters)
--	0088	00-10	Category
--	0089-344		Description (256 characters)
--	0345-359		Author (15 characters)
--	0360-369		Date (10 chars for ISO date yyyy-mm-dd)
--	0379-389		Synth1 (11 characters)
--	0390-400		Synth2 (11 characters)
--	0401-415		FX (15 characters)
--	0416	00-64	LFO Frequency
--	0417	00-64	LFO Saw Shape
--	0418	00-64	LFO Triangle Shape
--	0419	00-64	LFO Pulse Shape
--	0420	00-64	From Filter Env Amount
--	0421	00-64	From Filter Env Route
--	0422	00-64	From Osc B Amount
--	0423	00-64	From Osc B Route
--	0424	00-64	From LFO Amount
--	0425	00-64	From LFO Route
--	0426	00-64	To Osc A Frequency
--	0427	00-64	To Osc A PW
--	0428	00-64	To Osc B Frequency
--	0429	00-64	To Osc B PW
--	0430	00-64	To Filter
--	0431-495		Reserved for Seq Track 1 (64 notes)
--	0496-559		Reserved for Seq Track 2 (64 notes)
--	0560-598		Not used

```
--    0599           |     F7           End of sysex
```