GIG PERFORMER®
Own The Stage®

Gig Performer® 4 User Guide

v. 4.x
May 2022
https://www.gigperformer.com/

Version 4 update by Nemanja Pudar

Version 3 update by Larry the O, Toys In the Attic Communications

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1 Welcome to Gig Performer

Welcome to Gig Performer! Deskew Technologies developed Gig Performer, the world's most versatile audio plugin host application for live performance. Take complete control of your entire rig and access to all of your instrument and effects plugins instantly — no DAW software necessary.

1.1 Thank you note

Thank you very much for choosing Gig Performer. This software is the result of the finest blend of programming skills and serious touring experience. Gig Performer allows performing musicians to be creative and express themselves on stage while using a computer. We put great effort into making Gig Performer easy to use and ensuring that you enjoy all of its features. This manual will enable you to better understand Gig Performer's advanced features, opening up unlimited possibilities.

We are sure that by allowing you to focus on the music and not the technology, you will enjoy using Gig Performer for all your performance needs.

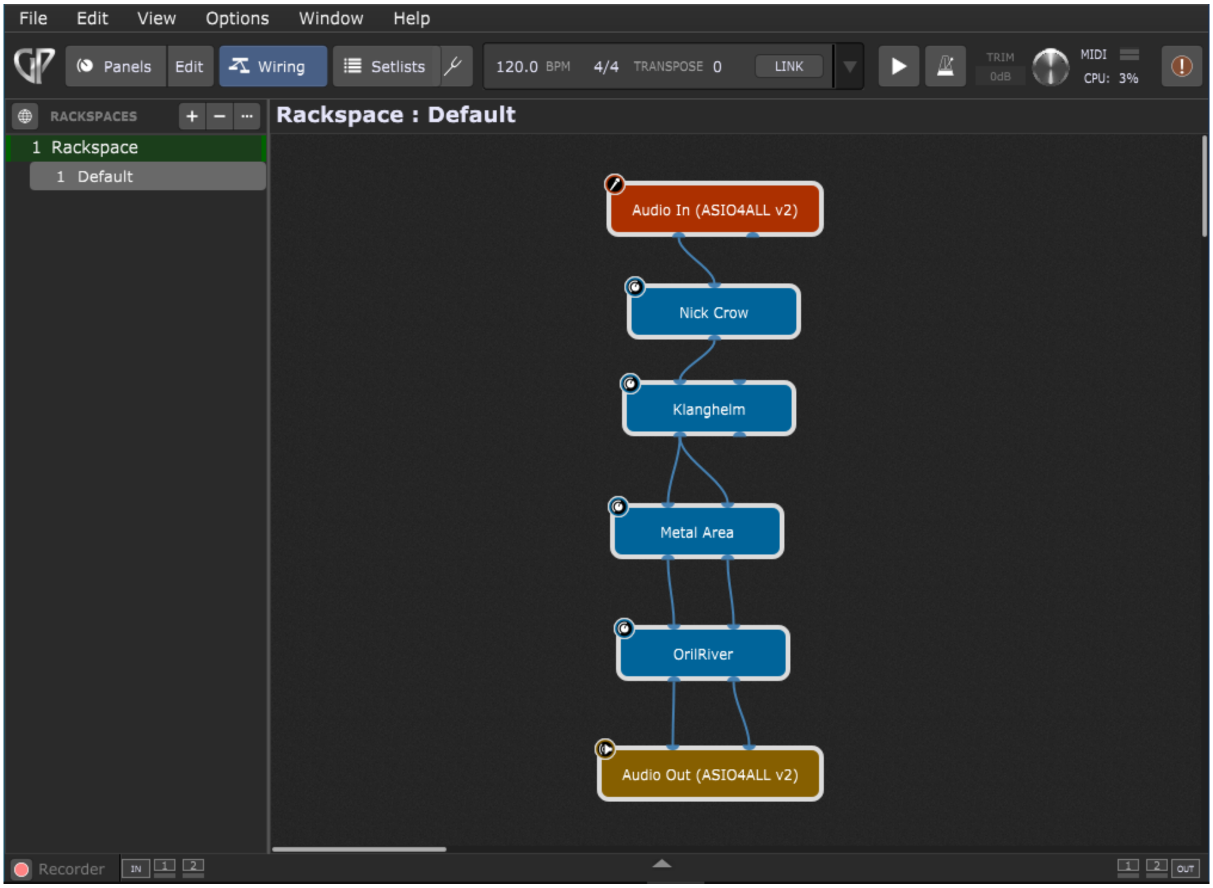
The Deskew Technologies Team.

1.2 What is Gig Performer?

Gig Performer is an audio plugin host that provides the most flexible experience for your stage or session performance. As we stated in the previous section, the secret behind its robustness lies in the very finest blend of programming and musical experience: Gig Performer was developed by people who are both software developers and serious touring musicians. Advanced optimization techniques and heavy stress tests address the requirement for Gig Performer to run reliably on stage and using as few CPU cycles as possible.

Many well-known music professionals worldwide rely on Gig Performer as their audio plugin host of choice for live performance.

Gig Performer's innovative approach and focus on usability is paired with an intuitive rack design, called a Rackspace, and transforms your plugins into the most powerful, yet user-friendly live music software system.



Connect your plugins together any way you wish without the need to create channel strips, busses, sends and inserts.

The impressive list of cutting edge features make Gig Performer stand out compared to other audio plugin hosts. For example, the Predictive loading™ feature enables you to intelligently load parts of your show, instead of loading your entire show, so you can still switch instantaneously to the next Rackspace or Song in your setlist. This feature significantly reduces both your RAM and CPU usage so you can perform confidently even with a very old laptop.

The extensive OSC implementation in Gig Performer allows you to control your show from a mobile phone, iPad, Android tablet, or even from a Web browser.

As a software product created by musicians, for musicians, new updates and features are implemented often in Gig Performer.

You can download a free, fully functional 14 day trial of this plugin host that truly addresses the needs of live performers.

1.3 Who can use Gig Performer?

Every artist who performs on any instrument live or in the studio, as well as front of house sound engineers, can benefit from using Gig Performer. For example, whether you are a keyboard player, a guitarist, a vocalist, a drummer, or a live sound engineer, Gig Performer has much to offer:

- **Keyboardists** can control all their software synths, samplers, and sequencers - as well as effects - directly from the sliders, knobs and switches on their instruments.
- Using their MIDI pedalboards, **guitarists** can freely switch between multiple amp/cabinet models and digital effects in real time without any audio glitching.
- **Singers** can easily add compression, EQ and other desired effects to their vocals.
- **Drummers** can mix and match their favorite drums and cymbals from different drum plugins to create their own perfect drum kits. Drum kits can be switched on the fly so as to have instant access to hundreds of different sounds during your gig.
- **Live sound engineers** can use Gig Performer to create a standalone mixing system or to intercept audio coming from the FOH or monitor system, add desired effects processing, and then send the results directly back to the mixing board. Gig Performer can simultaneously record multichannel audio from the mixing board for later processing and mixing in your favorite DAW.

You can even run multiple Gig Performer instances simultaneously, allowing different members of a band to access different plugin setups independently as long as the computer is fast enough.

Gig Performer can be used for many other use cases; to learn more, visit our Gig Performer in Action forum and see photos and stories of many great setups with Gig Performer.

Gig Performer's intuitive interface makes it easy to use and remarkably fast with which to get started. Beneath the surface, however, are many advanced features, which we will cover in the pages of this User Guide.

1.4 Gig Performer standard features

This is an incomplete list of standard Gig Performer features. Be sure to check http://www.gigperformer.com/features-and-benefits.html for a full list of current features.

- Cross-platform audio plugin host - runs on both macOS and Windows platforms so you can create, share, and modify your files on any computer and such files will run on either platform as long as the needed plugins are available
- Supports VST2 and VST3 (macOS and Windows) and AU (macOS only) plugins
- Includes built-in plugins - MIDI File Player, Audio File Player, Audio Mixers, MIDI Out to OSC converter plugin, MIDI Channel Constrainer plugin, and many more
- Minimal CPU usage
- Rock solid performance, extremely stable, leading to less stress on stage
- Easily play multiple instruments and controllers, layer sounds, and add effects
- Intuitive user interface - simply connect any plugin to any other plugin in any configuration; no confusing buses, sends or inserts
- Build fully customizable rackspaces consisting of a collection of interconnected plugins along with one or more front panels containing knobs, sliders and other widgets
- Instantaneous glitch-free switching between sounds, even while holding notes for seamless transition from one song to the next or from one part of a song to another
- Use keyboards, MIDI pedals, and control surfaces to alter plugin parameters in real time by connecting them to knobs, sliders, buttons, labels, meters, and other widgets
- Learn mode for easy assignment of MIDI controls to widgets and widgets to plugin parameters
- Build setlists that automatically change to the right sound for each part of each song in the list. Capture on-the-spot tweaks right into song parts. A gig becomes as simple as stepping through its setlist.
- ChordPro support - create and edit ChordPro song documents, and set each to be automatically displayed when its song is selected in the setlist.
- Automatic mixing of signals when multiple outputs are connected to a single input
- Deactivate any plugin at any time to remove a sound or bypass an effect
- Widget groups for making cross-faders, grouped level controls, and other ganged behaviors.

- The Rig Manager simplifies switching a Gig Performer rig to use a different set of physical controllers - great for backlined touring
- LEDs show input/output levels on each channel as well as audio and MIDI activity
- Built-in full screen chromatic tuner
- Audio metronome using built-in or user-supplied sounds
- Create multiple instances for different members of the band which run independently or for when you want to control some plugins while leaving others alone
- Audio and MIDI recorder - audio input recorder captures audio from input channels to WAV files for post-production editing, processing, and mixing in a DAW. MIDI Recorder captures MIDI input from all devices, placing each on its own track of a Type 1 Standard MIDI File that can be imported for post-production in a DAW.
- Works with any operating system compliant audio interface
- Predictive Loading reduces RAM and CPU demand in systems with limited resources
- Automatic detection of new MIDI devices—connect and reconnect on the fly
- Full MIDI remapping, transposition, layering, and keyboard splitting
- Send program change and other messages to external MIDI devices automatically
- VST Bus Layout support
- OSC support for remote control via tablets and smartphones
- Compatible (via OSC) with Max/MSP and Bidule for the development of complex interactive control algorithms
- GPScript proprietary programming language for complex or custom needs
- Gig file Templates
- The Global rackspace
- Zoomable Wiring view
- Non-linear scaling curves that allow advanced widget scaling and keyboard velocity scaling
- The Probabilistic Sound Designer

- An external API for third-party developers
- Support for Cakewalk style instrument definition files
- Select and copy/paste/duplicate multiple blocks simultaneously
- Export selections to a file and easily drag them in to rackspaces
- Save and load a preset for a plugin
- Large numeric keypad for easier numeric editing on a touchscreen
- Startup hints

Please navigate through this manual to find more information about these bullet items.

Refer to the next chapter to find what's new in Gig Performer 4.

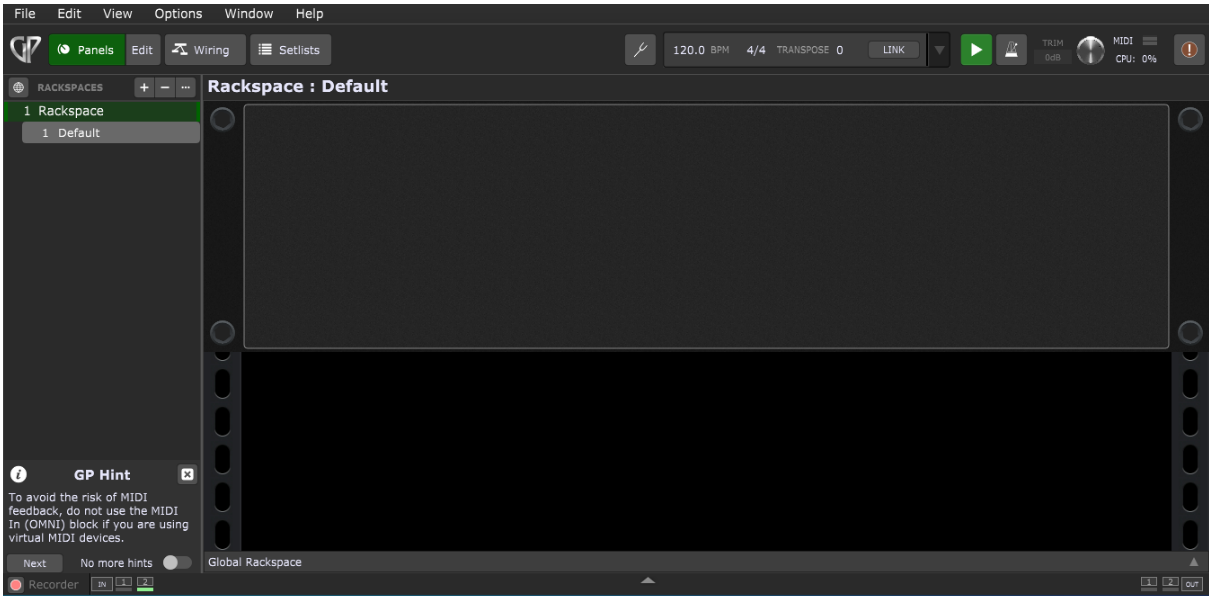
2 What is new in Gig Performer 4?

Gig Performer 4 introduces many new useful features as well as numerous improvements to existing features. The user interface has a better look, new widgets are available, an optimized input method is provided for touch screens, and much, much more. Read sections in this chapter to find out more exciting new features.

2.1 Improved user interface

Users interact with their computer through the user interface. We wanted this interaction to be easier, appealing and more adaptable to modern touch screen devices.

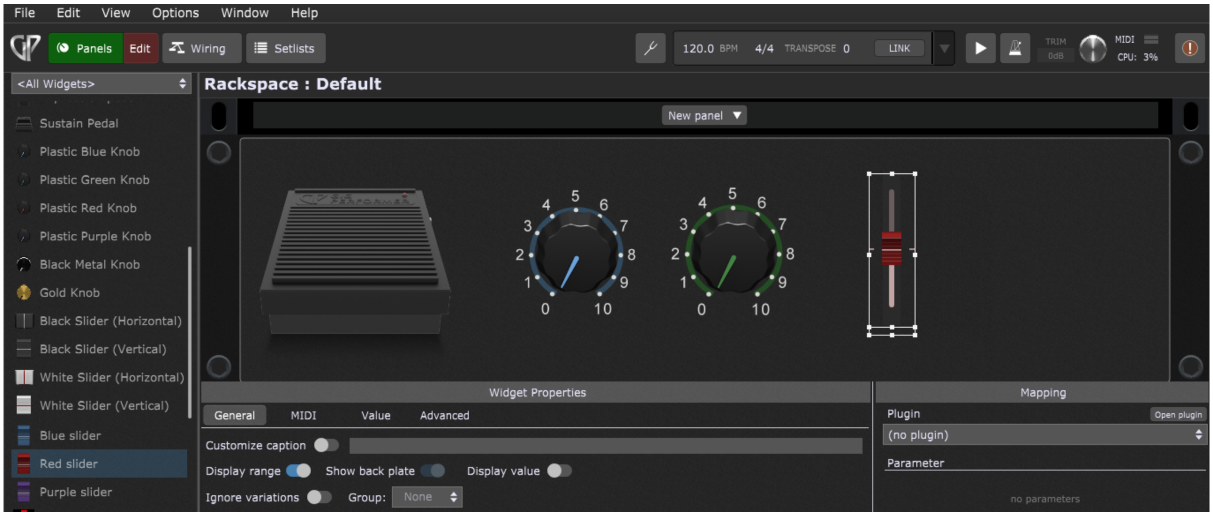
Here is a quick look at a new empty gig in Gig Performer 4, where, if you are familiar with earlier versions of Gig Performer, you will easily notice the changes in the general look and feel of various UI elements:



GP Hint

To avoid the risk of MIDI feedback, do not use the MIDI In (OMNI) block if you are using virtual MIDI devices.

Here are some of the new widgets in Gig Performer 4:



120.0 BPM 4/4 TRANSPOSE 0

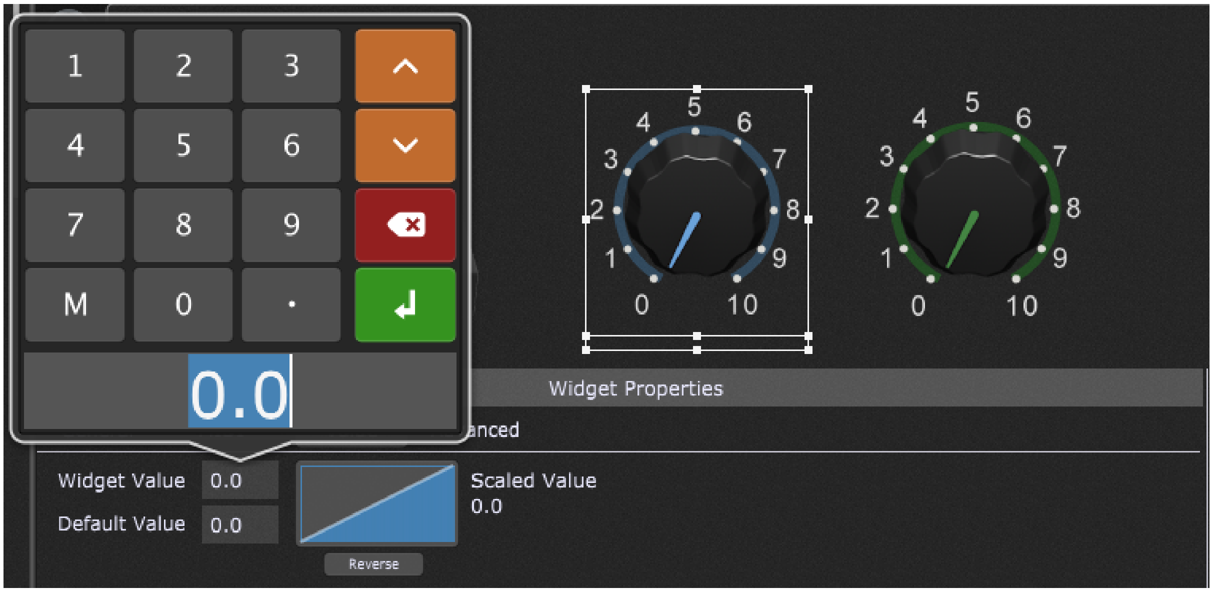
0dB CPU: 3%

Rackspace : Default

Customize caption
Display range
Show back plate
Display value
Ignore variations
Group: None

Plugin
(no plugin)
Parameter
no parameters

If you run Gig Performer on a touchscreen device such as a Microsoft Surface tablet, you might want to activate the new Touch-friendly number editing feature (in Display Options), to show a dial pad for easier numeric input:



0.0

Widget Value 0.0
Default Value 0.0
Scaled Value
0.0

Refer to this chapter to learn more about entering values in Gig Performer.

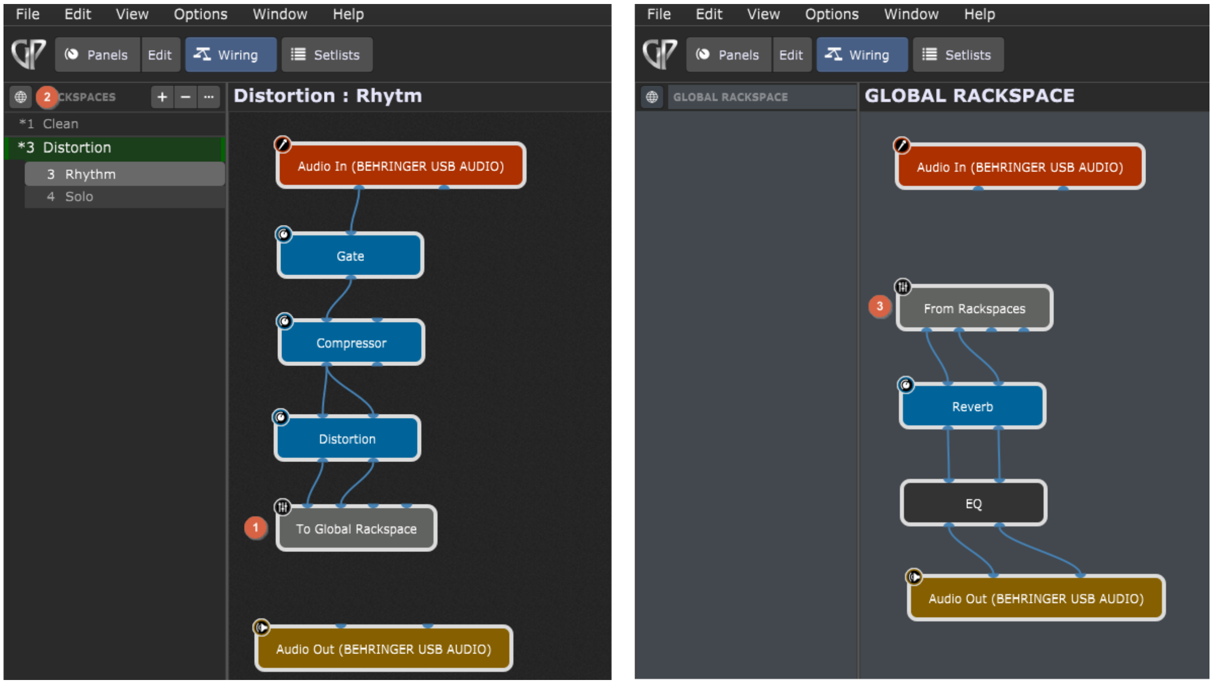
2.2 Global Rackspace

The Global rackspace is a special rackspace that allows audio plugins to be shared and used by normal rackspaces (from now on these will just be called "rackspaces"). The Global rackspace is always active. For example, you can create global effects - e.g. a common reverb, delay, or chorus, instead of creating them in individual rackspaces. Audio from the currently active rackspace can then be sent to the Global rackspace for processing. You can of course also insert regular synth plugins along with MIDI In blocks to the Global rackspace. This would allow you to, for example, have a piano or organ that is always available.

The Global Rackspace is bidirectional. That means that while audio can be sent from rackspaces to the Global Rackspace (to support common effects as described above), audio can also be sent from the Global Rackspace back to whatever rackspace is currently active. This is particularly valuable for guitarists or singers who may want to always add a certain amount of "pre-processing" to their input, for example.

While this feature could be accomplished with earlier versions of Gig Performer by using separate instances of Gig Performer along with virtual audio routing (see this blog article for more information), the Global Rackspace greatly simplifies the process.

Below is an example of a rackspace and the Global rackspace working together:


File Edit View Options Window Help
Panels Edit Wiring Setlists
2 CKSPACES
*1 Clean
*3 Distortion
3 Rhythm
4 Solo
Distortion : Rhytm
Audio In (BEHRINGER USB AUDIO)
Gate
Compressor
Distortion
1
To Global Rackspace
Audio Out (BEHRINGER USB AUDIO)
File Edit View Options Window Help
Panels Edit Wiring Setlists
GLOBAL RACKSPACE
GLOBAL RACKSPACE
Audio In (BEHRINGER USB AUDIO)
3
From Rackspaces
Reverb
EQ
Audio Out (BEHRINGER USB AUDIO)

The signal flow is easy to understand; note the special block called To Global Rackspace **(1)** in the left screenshot, where signals are directed to the Global Rackspace instead of being sent to the Audio Out block. The Global rackspace can be accessed by clicking on the globe icon **(2)**.

In the right screenshot, the Global rackspace wiring layout can be seen. Note the special block From Rackspaces **(3)**, used to receive audio sent from rackspaces to be further processed serially through the Reverb and EQ blocks before being sent to the Audio out.

When the Clean rackspace is active (in which there are no distortion or compressor plugins in use), the signal flow is still ultimately directed to the Global rackspace and further processed by Reverb and EQ and so there is no need to include effects such as reverb or delay in every rackspace.

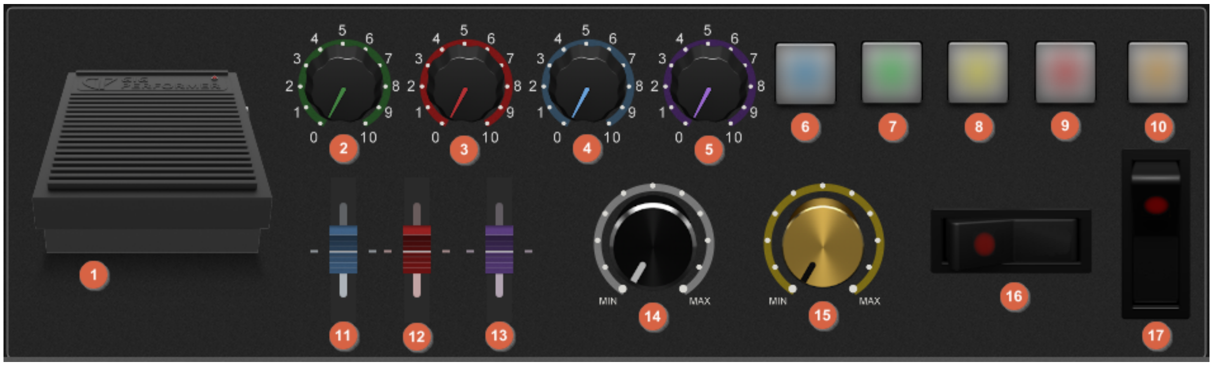
To conclude, while the Global rackspace can be used for many purposes, the three primary uses are:

- **Master effects processing** - allows you to send a signal from any rackspace to the Global rackspace where you can add effects, EQ, and other plugins for further signal processing. In previous Gig Performer editions, you must insert and connect all these effects in every rackspace if you want to use them; in Gig Performer 4 you can insert these effects into the Global rackspace and send signals from the active rackspace to the Global rackspace and thereby saving a lot of plugin duplication that was necessary in earlier versions.
- **Input pre-processing** - the Global Rackspace receives audio input from your instrument, does some common pre-processing and sends the result to the active rackspace for specific effects needed for individual songs.
- **Permanent instrument patch** - allows you to add an instrument patch (e.g. a standard piano patch) that is always available from any rackspace. You can also create (say) a permanent vocal setup in the Global rackspace, and just use rackspaces for your guitar, piano or other instrument layouts.

Tip: check The Main Gig Performer window chapter, point 21 to learn how to show/hide the Global rackspace controls when regular rackspaces are displayed.

2.3 New widgets

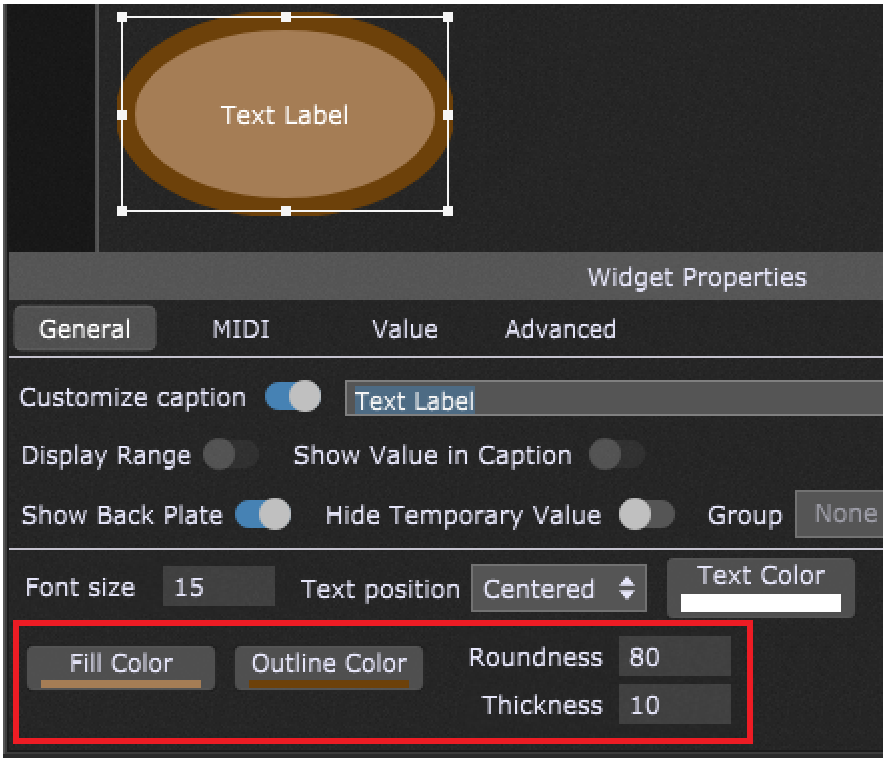
Gig Performer 4 contains many new widgets shown in the screenshot below:



1. Sustain Pedal
2. Plastic Green Knob
3. Plastic Red Knob
4. Plastic Blue Knob
5. Plastic Purple Knob
6. Pad Button Blue
7. Pad Button Green
8. Pad Button Yellow
9. Pad Button Red
10. Pad Button Orange
11. Blue Slider
12. Red Slider
13. Purple Slider
14. Black Metal Knob
15. Gold Knob
16. Switch Red (Horizontal)
17. Switch Red (Vertical)

In Gig Performer 4, the **Panel** widget has been renamed to the **Shape** widget.

The **Text label** widget has also been improved:



Customize caption ● Text Label

Display Range ○ Show Value in Caption ○

Show Back Plate ● Hide Temporary Value ○ Group None

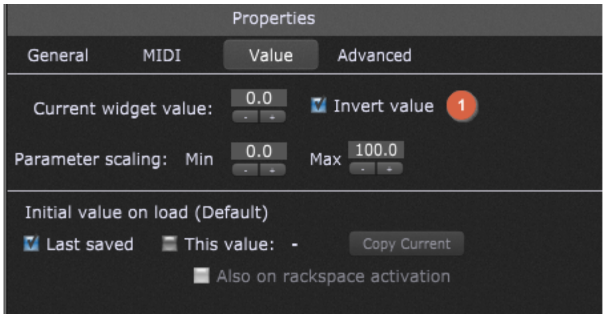
Font size 15 Text position Centered Text Color

Fill Color Outline Color Roundness 80

Thickness 10

Now it includes the *Text Color* selection and new formatting options, as indicated with the red rectangle: *Fill Color*, *Outline Color*, *Roundness* and *Thickness*.

Note that the old "Invert" check-box **(1)** for widgets is gone - don't panic, its functionality is now folded into the new scaling curve system **(2)**:



Properties

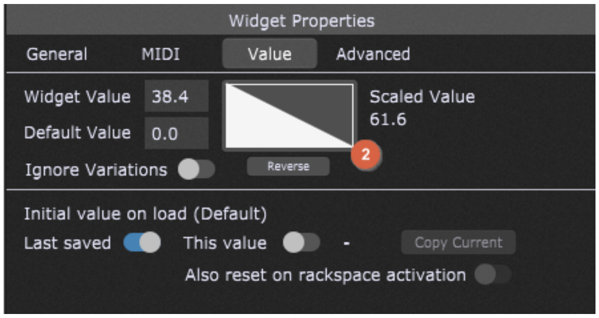
Current widget value: 0.0 ☑ Invert value

Parameter scaling: Min 0.0 Max 100.0

Initial value on load (Default)

☑ Last saved ☐ This value: -

☐ Also on rackspace activation



Widget Properties

Widget Value 38.4

Default Value 0.0

Ignore Variations

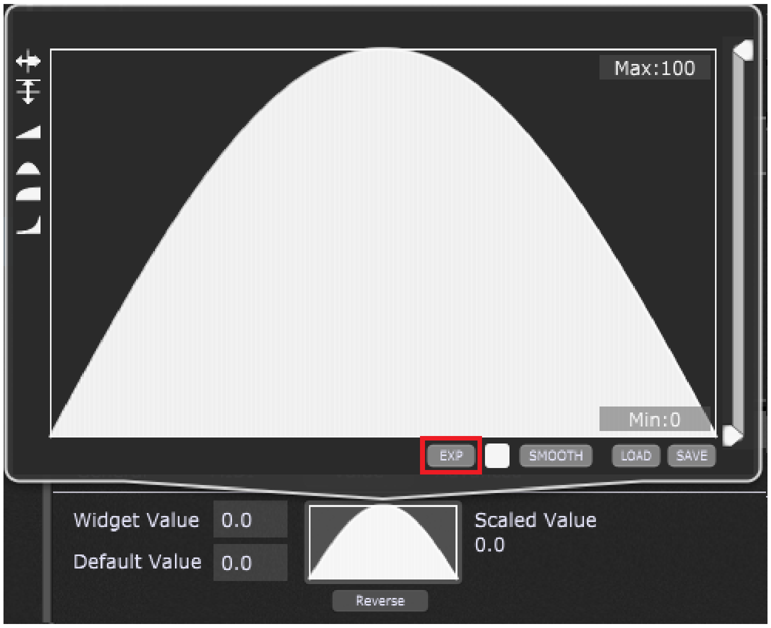
Scaled Value 61.6

Initial value on load (Default)

Last saved ● This value ○ -

Also reset on rackspace activation ○

The scaling curve can be seen in Gig Performer 4 screenshot located on the right, and if you click on the rectangle indicated with **(2)**, you can select more scaling options:



Widget Value 0.0

Default Value 0.0

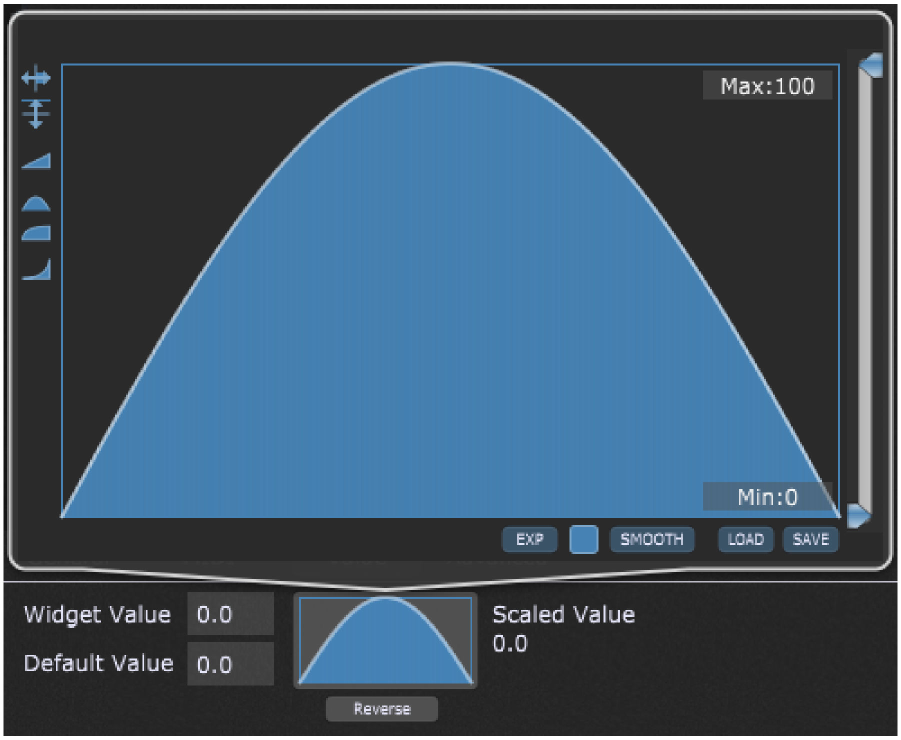
Scaled Value 0.0

If the built-in scaling options don't suit your needs, you can simply click to draw your own curve which can then be smoothed as necessary. For even more control, you can create your own curve segments by clicking on the EXP button (indicated with the red rectangle) and entering your own expression in the Gig Performer **Curve Designer**. This way you can define advanced curves for your widgets (MIDI velocities can also be adjusted this way). Refer to this chapter for more information.

Refer to the Widgets chapter for in-depth topics about widgets.

2.4 New Scaling component

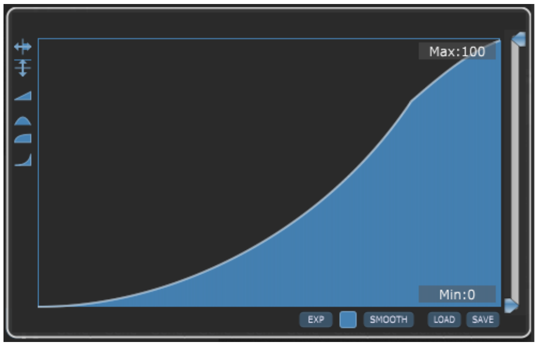
While Gig Performer 3 included features such as inverting widget values and parameter scaling, as seen in the previous section, Gig Performer 4 introduces a new scaling component that allows you create complex relations between actual widget values and their corresponding scaled values that are sent to plugin parameters by defining curves:

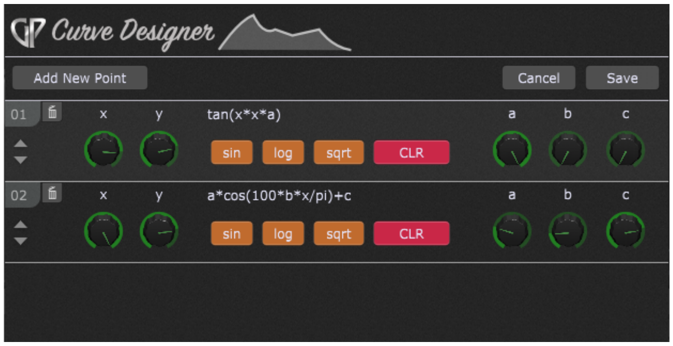


Widget Value 0.0
Default Value 0.0
Scaled Value 0.0

Besides the widget scaling, this scaling component is also used for the velocity scaling in MIDI In blocks and for defining parameter randomization ranges in the Probabilistic Sound Designer.

You can select one of the supplied curves, reverse or invert them, create them with your mouse or open the Curve Designer to design a curve using custom expressions:





tan(x*x*a)

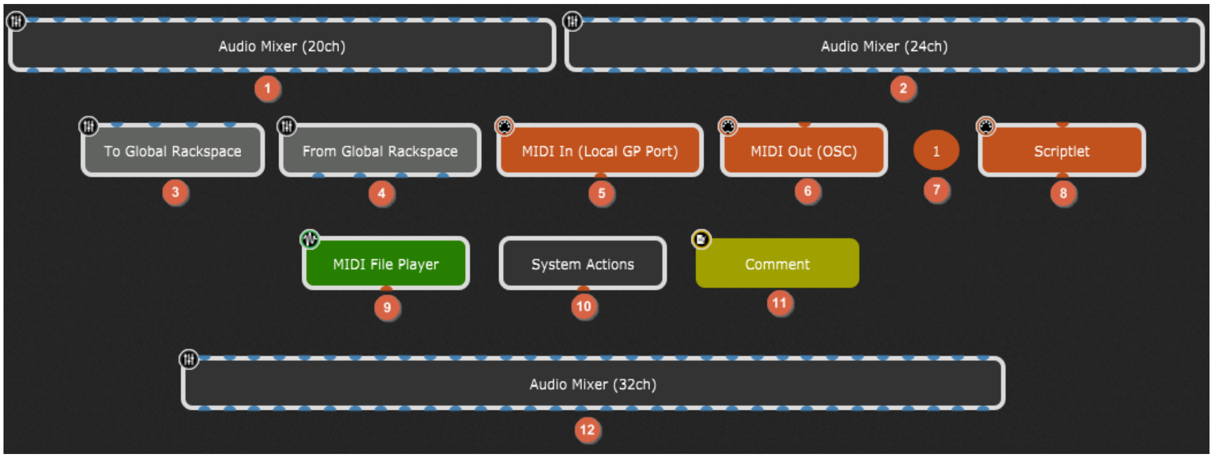
a*cos(100*b*x/pi)+c

This feature enables you to have the full control of your scaling operations.

Check this chapter to learn more.

2.5 New plugins

Gig Performer 4 introduces new bundled plugins that allow you to create the most sophisticated setups for your live performance:



1. Audio Mixer (20ch)
2. Audio Mixer (24ch)
3. To Global Rackspace
4. From Global Rackspace
5. MIDI In (Local GP Port)
6. MIDI Out (OSC)
7. MIDI Channel Constrainer
8. Scriptlet
9. MIDI File Player
10. System Actions

11. Comment
12. Audio Mixer (32ch)

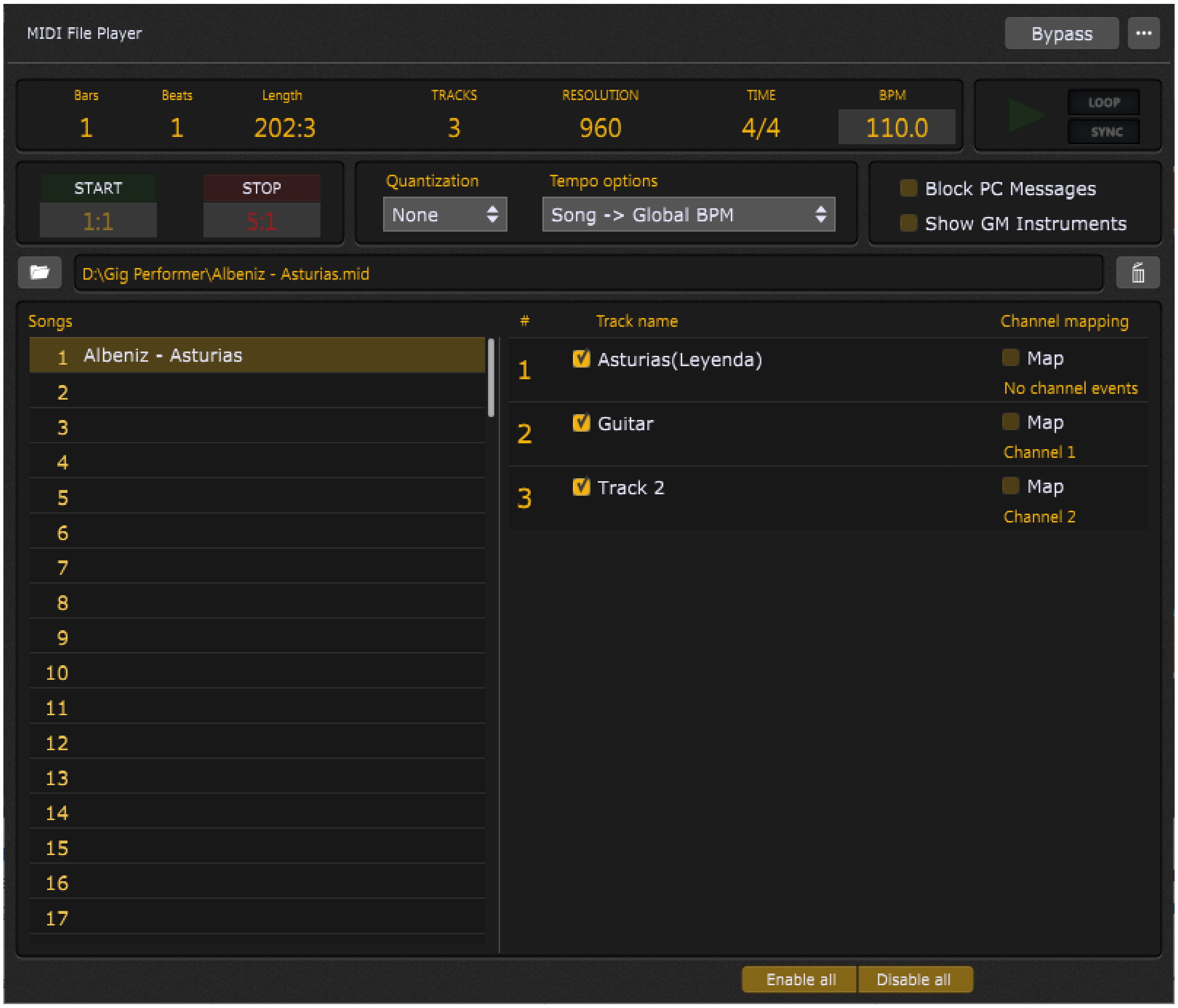
Refer to the Built-in plugins chapter for more information.

There are two additional plugin blocks present only in the Global rackspace and which cannot be removed: From Rackspaces and To Rackspaces.

Visit the Inserting and Wiring your plugins chapter to learn how to insert and connect your plugins.

2.6 MIDI File Player

One of the most requested features for Gig Performer was a built-in MIDI file player and Gig Performer 4 now includes a MIDI File Player plugin:



Bars	Beats	Length	TRACKS	RESOLUTION	TIME	BPM
1	1	202:3	3	960	4/4	110.0

START 1:1
STOP 5:1

Quantization: None
Tempo options: Song -> Global BPM

□ Block PC Messages
□ Show GM Instruments

D:\Gig Performer\Albeniz - Asturias.mid

Songs
1 Albeniz - Asturias
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

#	Track name	Channel mapping
1	☑ Asturias(Leyenda)	□ Map No channel events
2	☑ Guitar	□ Map Channel 1
3	☑ Track 2	□ Map Channel 2

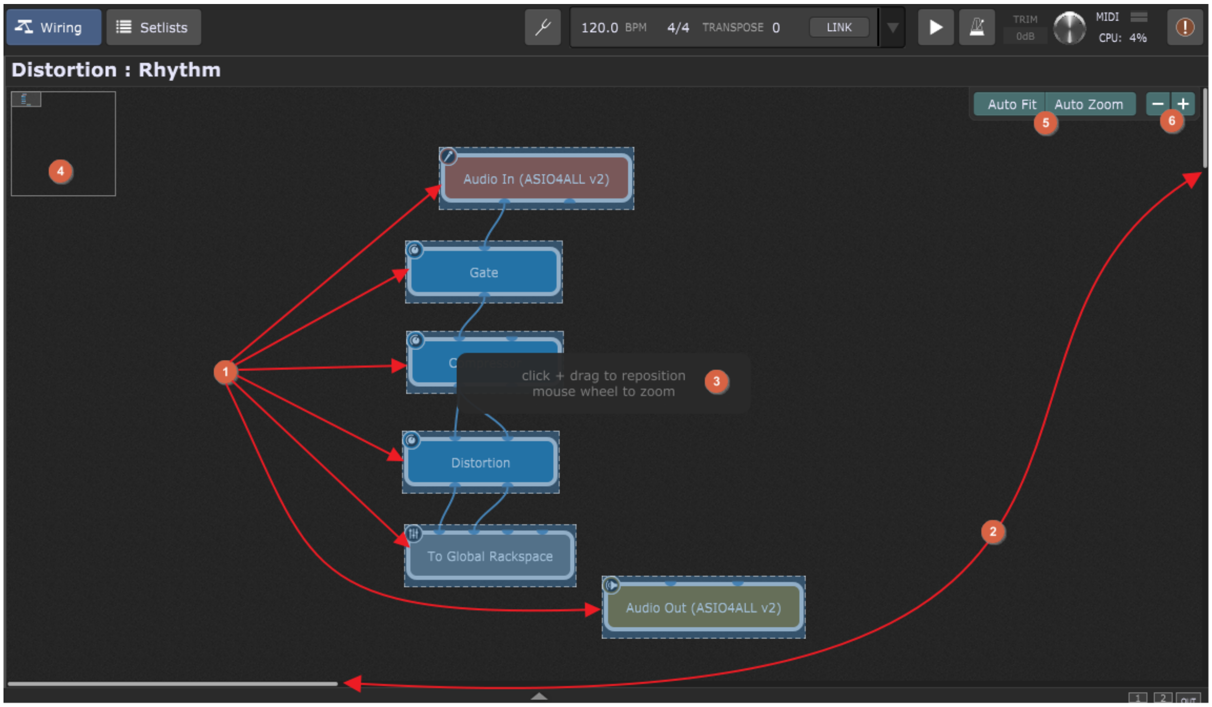
The MIDI File Player plugin can load up to 128 different songs. For each song you can easily select which tracks to play and optionally map them to specific channels. A looping feature is also supported, where you can specify both a start and stop position.

Refer to the MIDI File Player chapter for more information.

2.7 Improvements to the Wiring view

The Wiring view (formerly known as the Layout designer) has some new exciting features.

You can now select multiple blocks by dragging over them with your mouse. You can select all blocks (explicitly excluding the Audio I/O blocks) by pressing Ctrl+A (Cmd+A on Mac). You can select specific blocks by holding the Shift key and clicking on each individual block **(1)**:

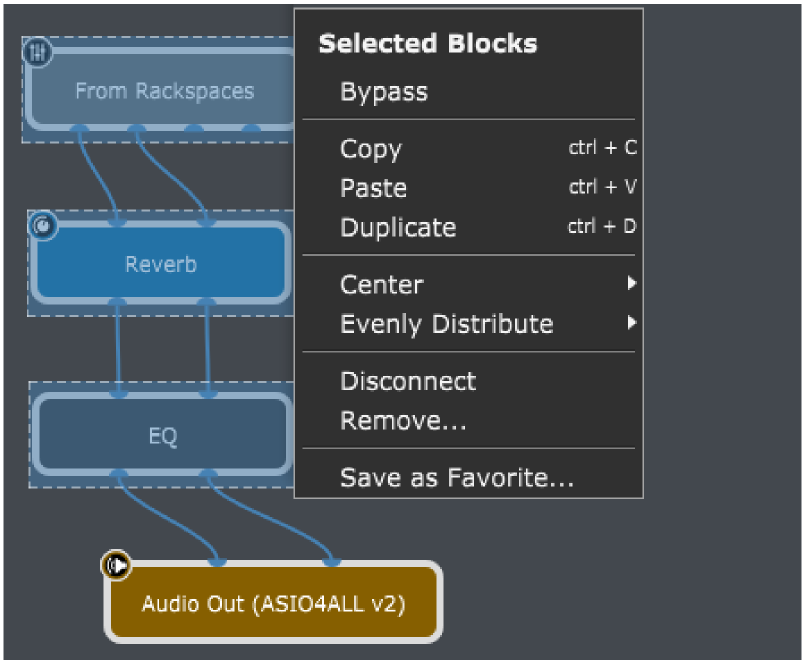


You can now easily drag, copy and reposition multiple blocks together.

The design surface itself is now virtual giving you much more room to layout your plugins without cluttering or otherwise placing them too close together. You can zoom in or out to focus on a particular area of the wiring view. Use the arrow keys on your PC keyboard or the horizontal and vertical scroll bars **(2)** to move around. When you press and hold the Alt key (Option key on a Mac) a tooltip appears **(3)**, notifying that you can click on the design surface and drag it to navigate through it. While doing this, note the minimap in the left upper corner **(4)** that provides a quick overview of the whole design surface and the position of your layout.

You can use your mouse wheel to zoom in or zoom out the design surface in the Wiring view. If you also hold down the Alt key (Option key on a Mac) then **Auto Fit** and **Auto Zoom** options will appear in the upper-right corner **(5)**; clicking the Auto Fit button places all your plugins within the current screen and fits them to the current zoom level. Clicking the Auto Zoom button zooms all your plugins to fit the current screen. **Zoom Out** and **Zoom In** buttons are also available **(6)** both of which allow you to set the desired amount of zoom level.

You can also save multiple interconnected blocks as favorites for quick reuse; select the blocks you want, right click on your selection and select **Save as Favorite...** (refer to the Selected Block contextual menu section for more information):

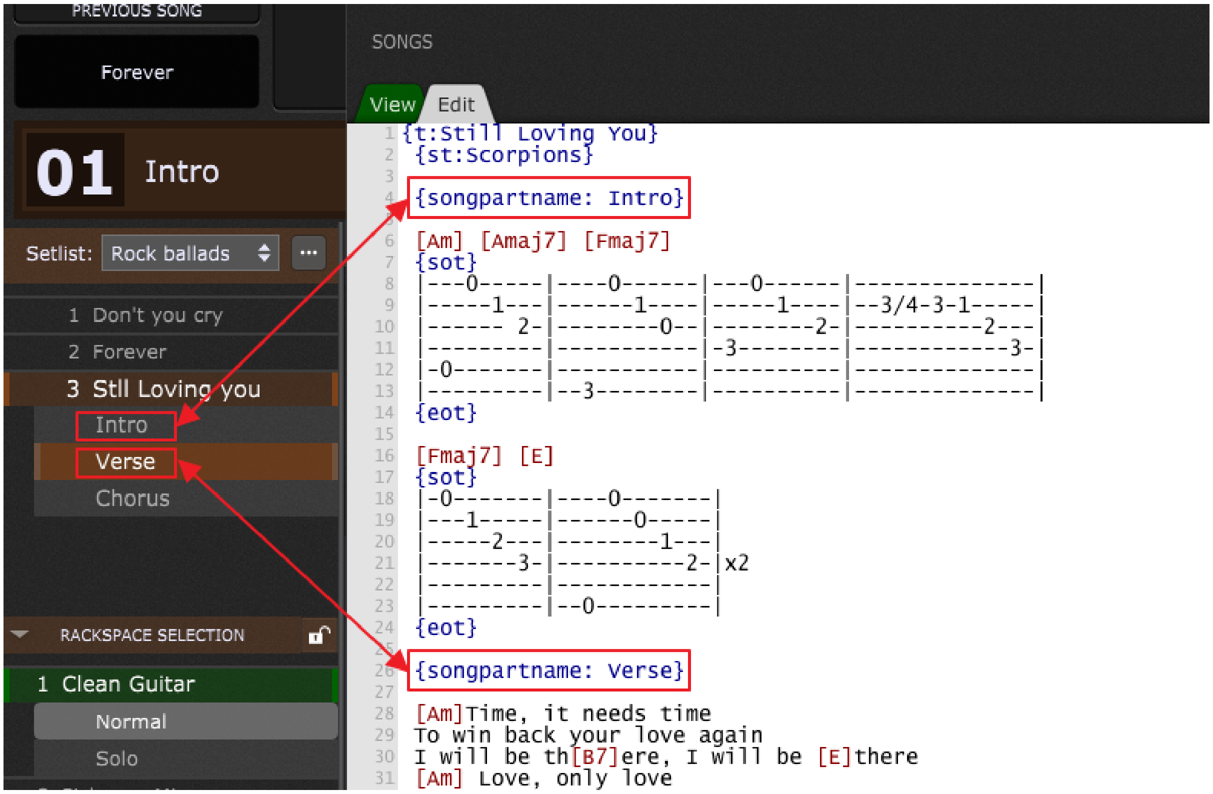


Favorites can be dragged in from the file system and doing so will automatically insert the required plugins. Favorites also show up in the Wiring view contextual menu and and in the Quick Plugin Finder dialog.

When you select multiple plugins you can Center them or Evenly distribute; refer to the Selected Block contextual menu section for more information.

2.8 Improvements to the Song Lyrics/Chords Editor

The Song Lyrics/Chords Editor now supports automatic scrolling to song parts:



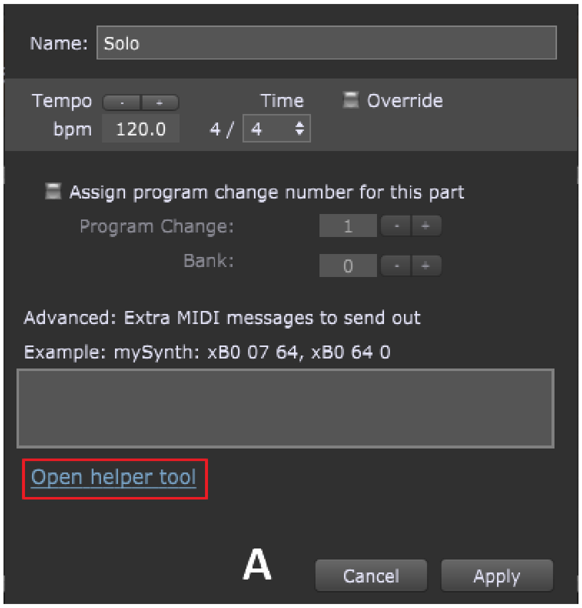
```
{t:Still Loving You}
 {st:Scorpions}

 {songpartname: Intro}

 [Am] [Amaj7] [Fmaj7]
 {sot}
 |---0-----|----0------|---0------|--------------|
 |-----1---|------1----|-----1----|--3/4-3-1-----|
 |------ 2-|--------0--|--------2-|----------2---|
 |---------|-----------|-3--------|------------3-|
 |-0-------|-----------|----------|--------------|
 |---------|--3--------|----------|--------------|
 {eot}

 [Fmaj7] [E]
 {sot}
 |-0-------|----0-------|
 |---1-----|------0-----|
 |-----2---|--------1---|
 |-------3-|----------2-|x2
 |---------|------------|
 |---------|--0---------|
 {eot}

 {songpartname: Verse}

 [Am]Time, it needs time
 To win back your love again
 I will be th[B7]ere, I will be [E]there
 [Am] Love, only love
```

For example, if you have a song with three song parts - Intro, Verse, and Chorus - as in the screenshot above, you can select the desired song part and the Song Lyrics/Chords Editor will automatically position your lyrics just on the previously specified place.

Refer to the ChordPro chapter to learn more on how to set this.

2.9 MIDI Helper Tool

The Song Part Properties dialog in Gig Performer 3 included the ability to create a MIDI message hex string that can be used to help you create special purpose MIDI messages to be sent out when selecting song parts (as indicated with screenshot A):



Name: Solo

Tempo bpm 120.0 Time 4 / 4 Override

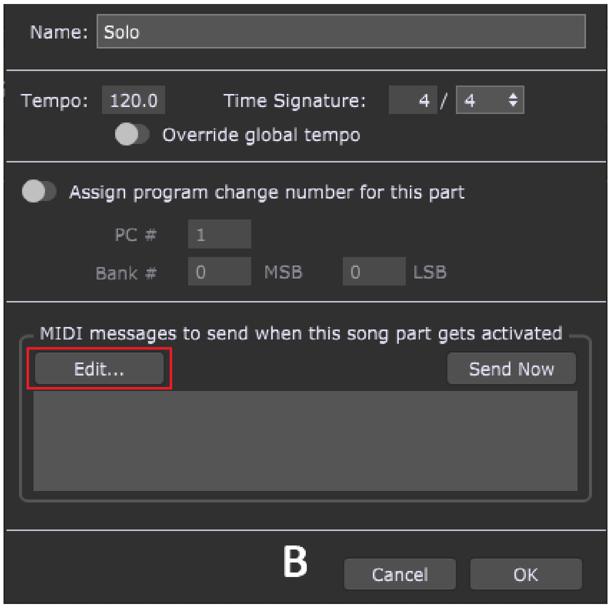
Assign program change number for this part

Program Change: 1

Bank: 0

Advanced: Extra MIDI messages to send out

Example: mySynth: xB0 07 64, xB0 64 0



Name: Solo

Tempo: 120.0 Time Signature: 4 / 4

Override global tempo

Assign program change number for this part

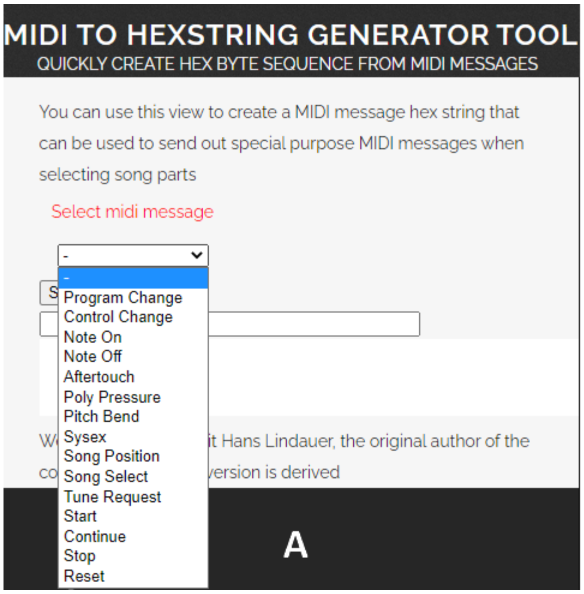
PC # 1

Bank # 0 MSB 0 LSB

MIDI messages to send when this song part gets activated

However, you had to click on the **Open helper tool** link and be connected to the Internet if you wanted to use the online [MIDI to Hexstring Generator Tool]() which was hosted on Gig Performer website. In Gig Performer 4 this mechanism has been replaced by the new MIDI Helper Tool through which you can easily create the desired messages interactively. To open this tool, click on the Edit button, as indicated with the red rectangle on the screenshot B.

Below you can see a comparison between the online tool **(A)** and the MIDI Helper Tool **(B)** for which an Internet connection is not needed:

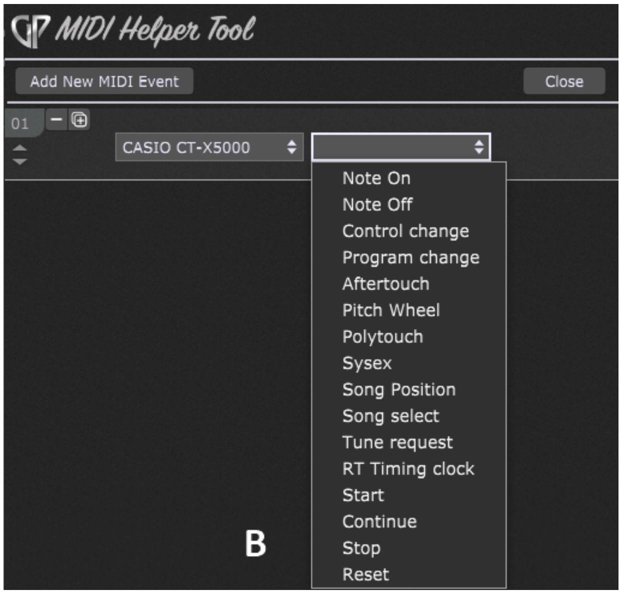


MIDI TO HEXSTRING GENERATOR TOOL

QUICKLY CREATE HEX BYTE SEQUENCE FROM MIDI MESSAGES

You can use this view to create a MIDI message hex string that can be used to send out special purpose MIDI messages when selecting song parts

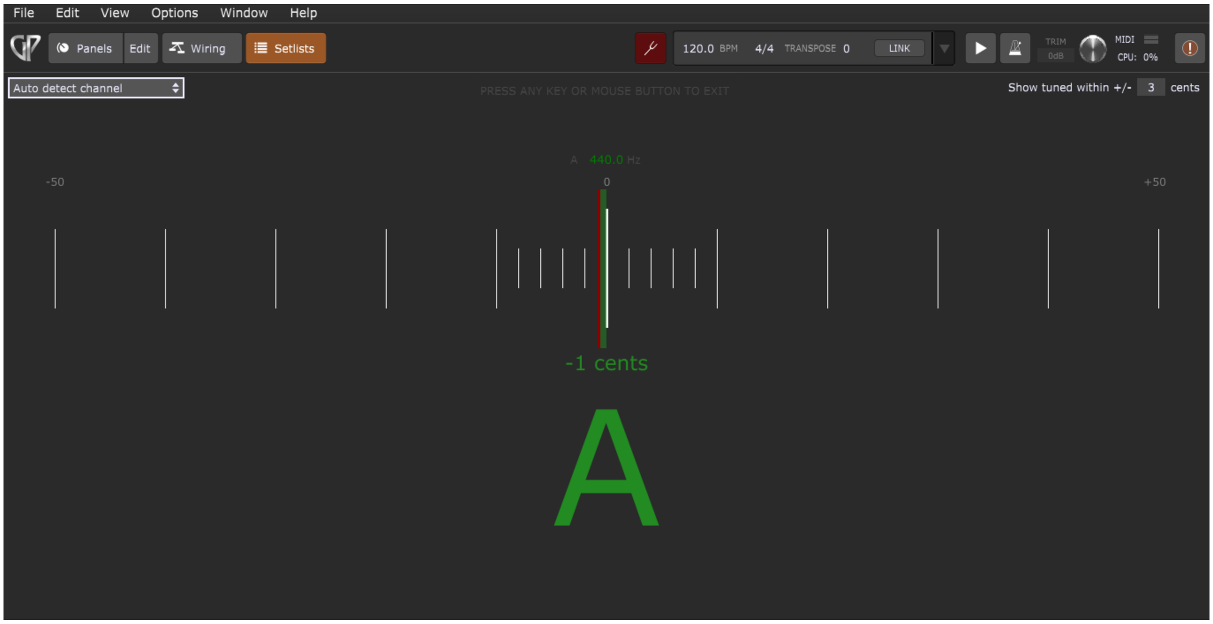
Select midi message



For more information about the MIDI Helper Tool, refer to the Song Part Properties chapter. This tool is also used in MIDI Out blocks to send arbitrary sequences of MIDI messages (including SysEx) when a rackspace is activated.

2.10 Tuner improvements

Gig Performer 4 features a completely redesigned tuner:



Auto detect channel

PRESS ANY KEY OR MOUSE BUTTON TO EXIT

Show tuned within +/- 3 cents

A 440.0 Hz

-1 cents

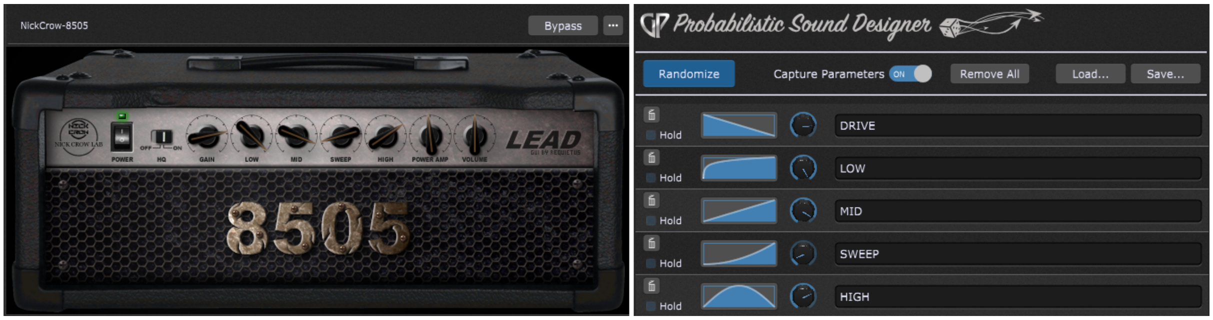
The tuner has been optimized for the stage, it's big and it will be blatantly obvious to you if the string you are tuning is in or out of tune. All other distractions are kept to a minimum.

The tuner mechanism itself is also enhanced, more sensitive and more accurate.

Refer to The Tuner chapter for more information.

2.11 Probabilistic Sound Designer

The somewhat hidden Random Parameter Generator in Gig Performer 3 has evolved into the brand new Probabilistic Sound Designer (PSD):



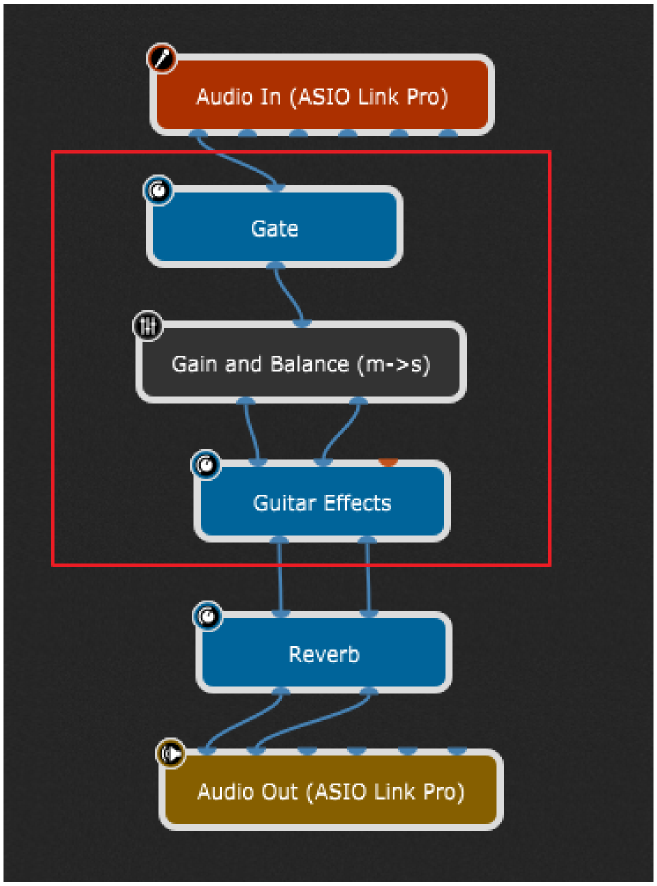
The PSD will work with any plugin and allows you to design random but related sounds by randomizing selected values of plugin parameters and using probabilities to determine how each parameter can be varied.

Simply move the desired controls (such as buttons or knobs) of your favorite plugin and the corresponding parameters will be automatically captured by the Probabilistic Sound Designer. Click on the Randomize button to create a new sound. Discover what amazing sounds can your plugin produce. Of course you can save your created configuration along with the plugin preset so that you can later continue from where you left off.

Check this chapter to learn more.

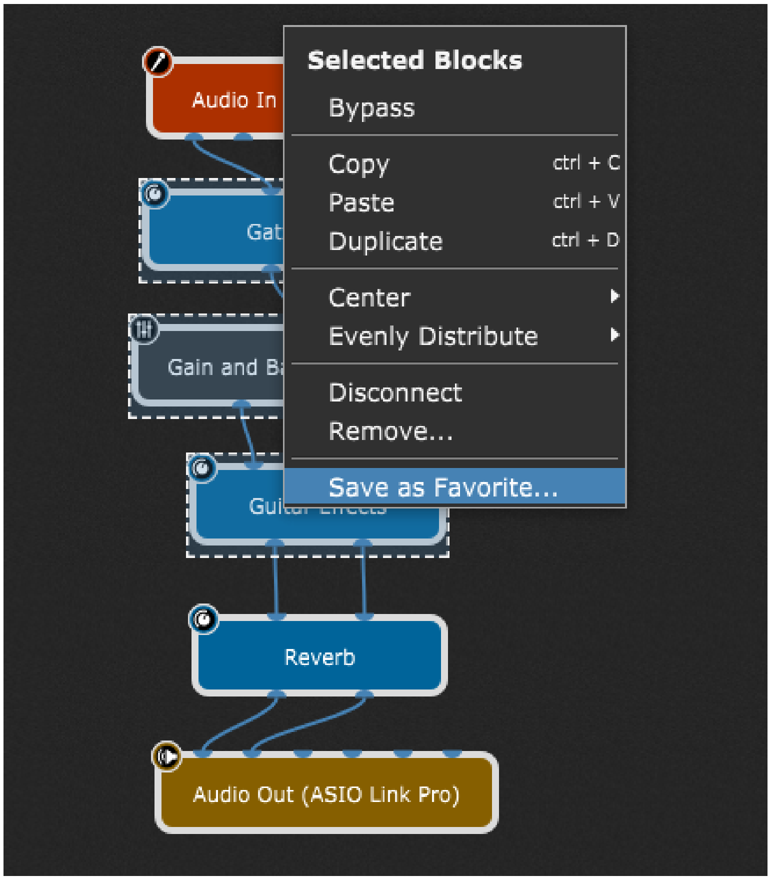
2.12 Save one or more plugins as favorites

Gig Performer enables you to select a plugin block or more plugin blocks and save the selection as a favorite. Let's take a look at this example below:



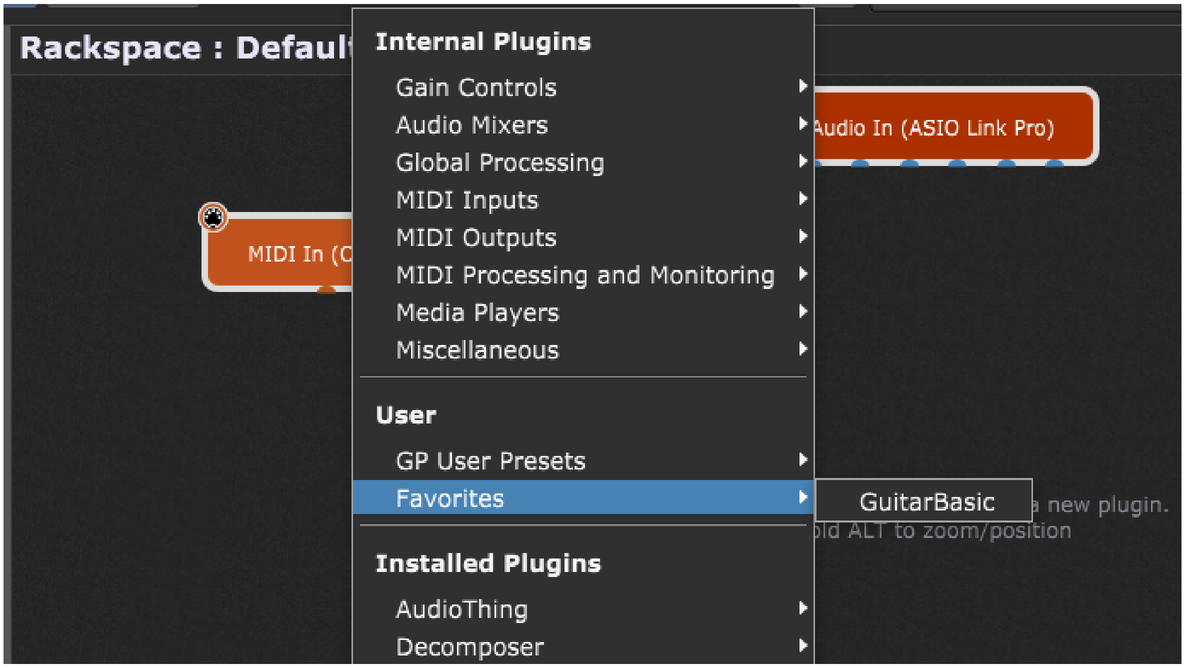
In this simple guitar layout, the audio signal first goes through the noise gate, then is converted to a stereo signal which is then forwarded to the guitar effects plugin. Suppose you want to re-use these three plugin blocks (indicated with the red rectangle) in other rackspaces or in new gigs.

Simply select these plugins and right mouse click on any selected plugin to open the Selected blocks contextual menu:

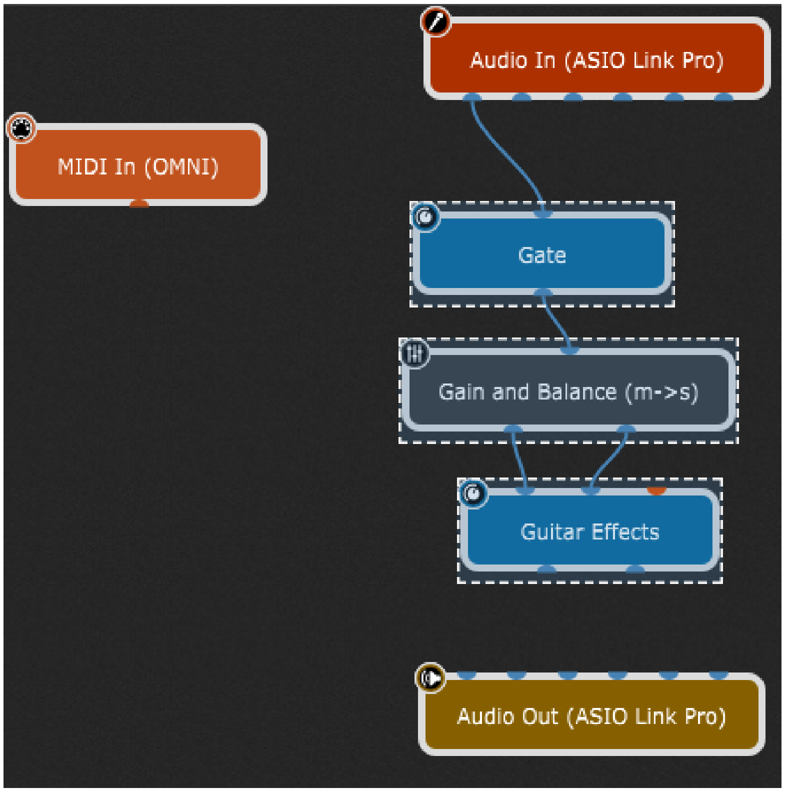


Select the **Save as Favorite...** menu item, type in a name (e.g. GuitarBasic) in the dialog that appears and click on the Save button.

Now let's create a new empty gig (File -> New Gig and then click on the New Empty Gig button) to reuse the saved favorite:

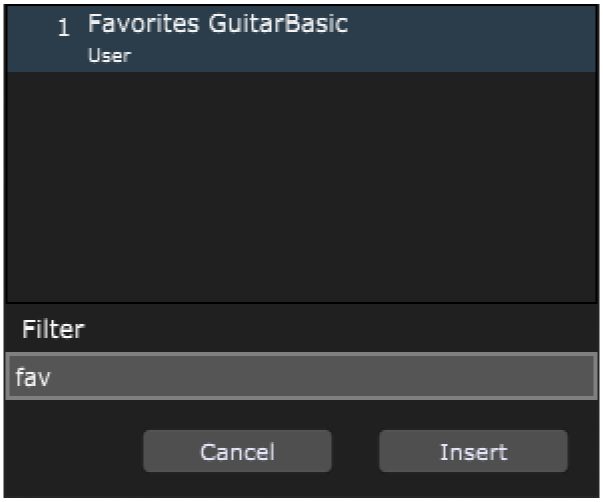


Right click on the empty surface to open the contextual menu, then expand Favorites and select your favorite file:



Three blocks are automatically inserted, connected to the audio input and interconnected as you had saved them. Additionally, all parameter values in these blocks are restored, so you can continue building your setup and connect it to the audio outputs.

Tip: you can also use the Quick Plugin Finder, and filter for favorites:


1 Favorites GuitarBasic
User

Filter
fav

Simply type in "fav" to show all favorites, and pick the desired from the list.

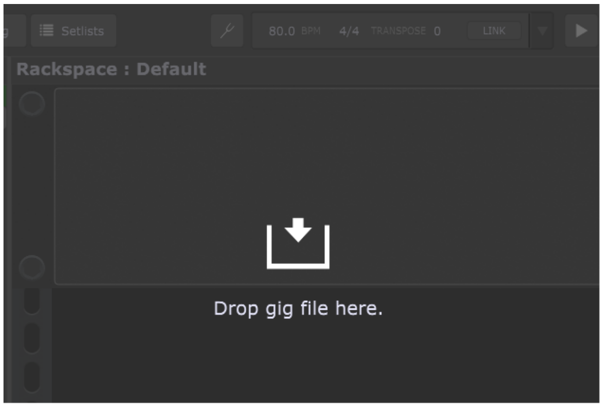
Favorites are a very valuable workflow tool, particularly useful for musicians who do session work and need to very quickly create certain sounds on demand. It is now easy for a musician to create a collection of favorite sounds, made from multiple interconnected blocks and just recall them when needed.

Note: to delete a favorite, click on the Window menu and then click on the *Open Content Folders* menu item; open the Favorites folder and then delete the desired favorite file.

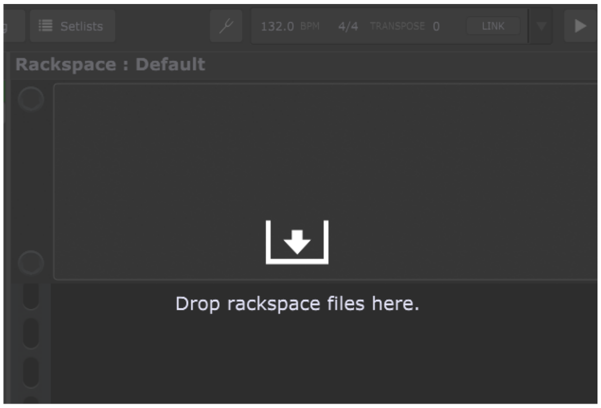
You can insert favorites by using the drag and drop technique; check the Drag and drop support section to learn more.

2.13 Drag and drop support

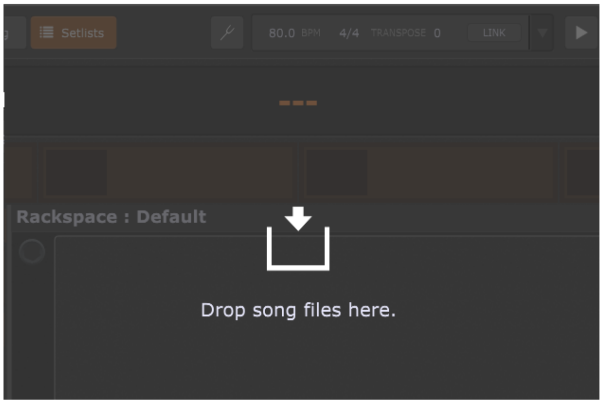
Gig Performer now supports inserting files using drag and drop:



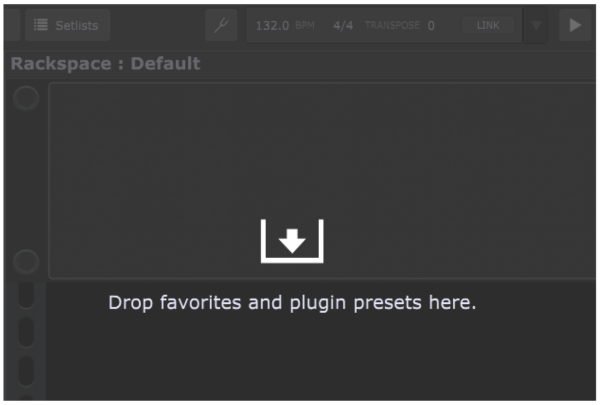
Drop gig file here.



Drop rackspace files here.



Drop song files here.



Drop favorites and plugin presets here.

The following file types are supported:

- Gig files,
- Rackspace files,
- Song files,
- User plugin presets,
- Favorites.

Simply click on a supported file and while holding the mouse drag it into the Gig Performer window. Depending on the file type, one of the four screens above will appear.

2.14 Other enhancements

Other major new features that were added to Gig Performer 4 are:

- Gig file Templates,
- Many work-flow and usability enhancements,
- External API for controlling Gig Performer with 3rd party hardware.

Other notable updates:

- Basic Undo facility
  - Works for widget movement, widget resizing and widget caption resizing
  - Scaling curve can be undone
  - Randomize parameters operation in the Probabilistic Sound Designer can be undone
- Separate controls for input muting and output fading (audio tails)
- Manual MIDI learn editor
- MIDI In block
  - Supports transpose range from -127 to 127 (NB this is a breaking change if you had a widget controlling the MIDI In Transpose parameter in an earlier version of Gig Performer)
  - MIDI In blocks can now ignore the global transpose value (useful for drum parts and triggering samples)
  - MIDI In blocks can now receive MIDI from other plugins that can create MIDI events (such as 3rd party arpeggiators, chord generators and the new Scriptlet plugin)
  - SysEx (System Exclusive) support
- The Quick Plugin Finder now includes manufacturer names and searching works with multiple substrings
- There is now a Quick Plugin Replacer
- There is also a Quick Plugin Parameter finder
- The metronome now respects the denominator value in a time signature
- The number of input and output pins can now be defined for individual plugins
- Bank switching values are now defined using the more convention MSB and LSB values instead of a single combined value
- The MIDI Out block now supports Cakewalk Instrument Definition Files
- GPScript language enhancements

  - Song-level scripts
  - Gig-level script
    - Redirect incoming MIDI to other devices
    - Define your own keyboard shortcuts
  - Many new system functions

Note: click on this link to see Gig Performer release notes for the latest improvements and fixes.

2.15 Breaking changes for GP3 users

Gig Performer 4 can open gig files created with earlier versions of Gig Performer and for the most part, everything will just work without change. However, there are a few changes in behavior that might require you to modify slightly some of your rackspaces.

General

1. The MIDI In block transpose value can now range from -127 to +127 rather than from -48 to +48. If you had explicitly associated a widget with this transpose parameter in any of your rackspaces, then the transpose value will be incorrect. For example, if your widget knob was at its zero position, the transpose would have been -48 semitones but in Gig Performer 4 that transpose value would now be -127 semitones. Consequently, you will need to adjust the widget value accordingly to correct to the desired transpose. Please make sure to check all your rackspace variations where you have used this feature.

2. Layout handling has been significantly improved so as to retain proper positioning regardless of window resizing. Unfortunately, you may have to slightly reposition/resize widgets on panels that were created with GP3 and opened in GP4.

GPScript

1. If you are using GPScript and have taken advantage of the (at the time, experimental) *On BeatChanged* callback, you will need to slightly modify your script. In earlier versions of Gig Performer, the bar value was always 0 and the beat value was simply the total number of beats seen once the playhead is enabled. This required GPScript users to manually calculate the "current" bar based on absolute beat values. In Gig

Performer 4, the *On BeatChanged* callback now correctly provides you with the actual bar and beat when the playhead is running.

2. GPScript handles are now case sensitive. Therefore, if you have a plugin block where you have defined a plugin handle called "foo", the declaration in your GPScript must also be called "foo" - it can no longer be called "FOO" (for example).
3. The names *Song* and *Songpart* are now reserved words as they are used for the *On Song* and *On Songpart* callbacks in song scripts.

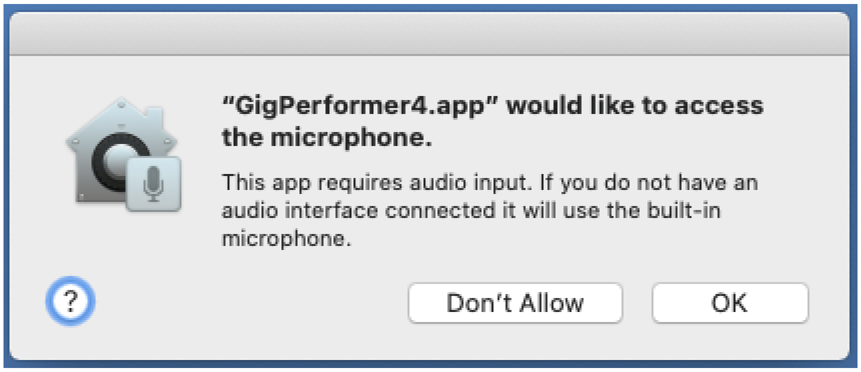
3 Getting started

This chapter will provide you with useful information before you start actively using Gig Performer.

3.1 Before you start

Before launching Gig Performer, **make sure that all audio and MIDI interfaces connected to your system are powered on**. If no external audio interface is connected, Gig Performer will try to use your computer's built-in input and output if available. If you have more than one interface connected, you'll be able to choose among them after the application launches. Note that you can use different interfaces for input and output if desired (refer to the Audio I/O section for more information).

Note: if you are running Gig Performer on Mac OS X 10.14 or above, you will be prompted to allow access to the "microphone":

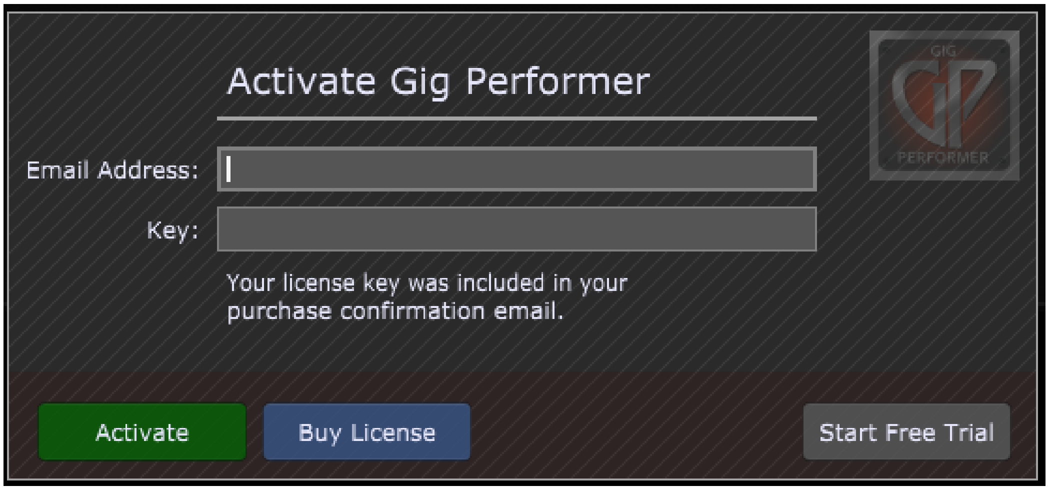


“GigPerformer4.app” would like to access the microphone.

This app requires audio input. If you do not have an audio interface connected it will use the built-in microphone.

You must allow this otherwise Gig Performer will be unable to receive the audio from your guitar, microphone or other audio device that you plug into any of the inputs of your audio interface.

When Gig Performer is first launched, the following dialog will appear:



Activate Gig Performer

Email Address:

Key:

Your license key was included in your purchase confirmation email.

If you have purchased a license, enter your email address, and type in or paste the activation key (your key is emailed to you when you buy a license; make sure your anti-spam blocker didn't prevent the confirmation email with your license key from being received). Then click on the **Activate** button to activate your copy of Gig Performer 4.

Note: you need an Internet connection to activate Gig Performer.

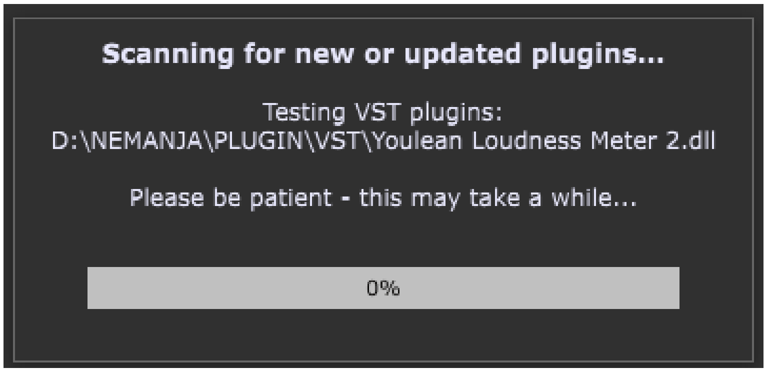
If you have not yet purchased a license, click on the **Start Free Trial** button to access a fully operational trial version of Gig Performer for a period of 14 days (the dialog will also show you how many days you have remaining for this trial).

You can purchase a license key at any time by clicking on the **Buy License** button.

Note: when Gig Performer is in trial mode, there will be random momentary dropouts in the audio and the screen will flash red.

Before using Gig Performer, please make sure you agree to the license agreement, a copy of which is included (see Appendix -> License agreement).

Immediately after launching, Gig Performer will scan your system looking for plugins and the following dialog will appear:



Scanning for new or updated plugins...

Testing VST plugins:
D:\NEMANJA\PLUGIN\VST\Youlean Loudness Meter 2.dll

Please be patient - this may take a while...

0%

When running Gig Performer on Mac (OS X) systems, it will scan for VST, VST3 (Virtual Studio Technology) and AU (Audio Unit) plugins; when running on Windows systems, it will look for all VST and VST3 plugins.

Note: If you are a Windows user, you may have to tell Gig Performer what folders to search, since there is no single location where all plugins are guaranteed to be installed.

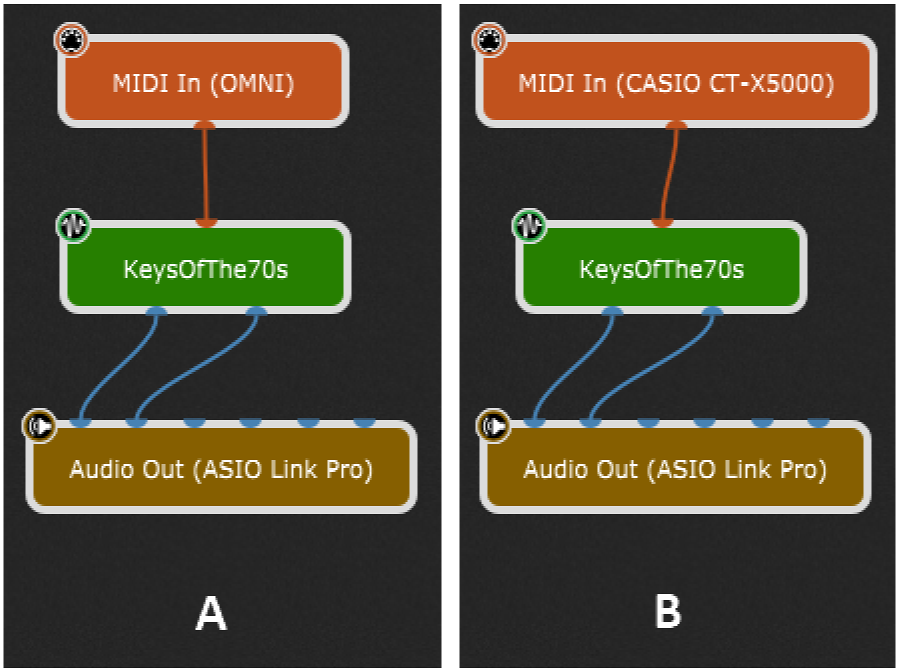
To do so, launch Gig Performer, go to the Windows menu, then select Plugin Manager. In the resultant window, click on **Manage**, then choose the **Set VST folders for scanning** option. We suggest that you begin by having Gig Performer search in the folder C:\Program Files\VstPlugins. If you have additional plugins stored in other folder locations (as some plugin and DAW manufacturers automatically create), the Plugin manager allows you to easily add other folders to scan.

This scanning process can take some time the first time you use Gig Performer but will be nearly instantaneous on subsequent launches unless you have installed or updated any plugins since the last usage (if you like, you can disable the automatic scan completely in the General options dialog).

Note: Gig Performer 4 comes with a number of specialized plugins to handle basic MIDI and audio operations. Some third party plugin vendors have kindly provided us with versions of some of their commercial plugins which are used in some of our templates to make it easier for new users to work with Gig Performer if they do not have their own plugins yet.

3.2 Basic setup for keyboardists

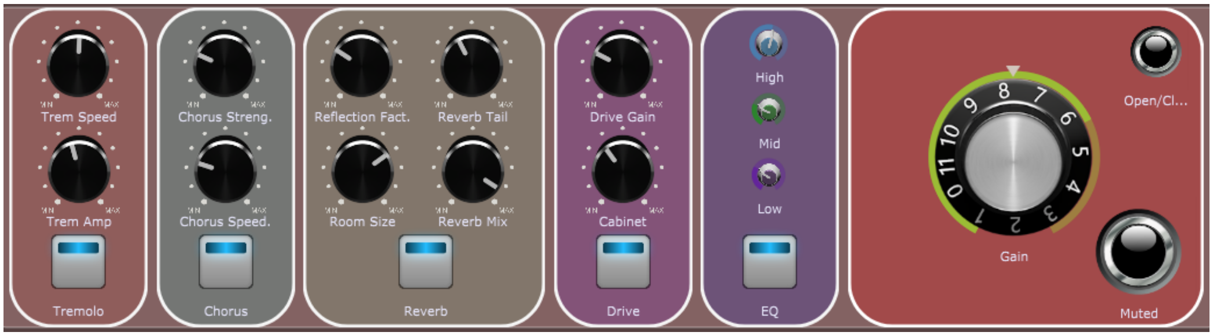
To get started as a keyboardist, first insert the desired synth plugin and connect the existing MIDI In (OMNI) block to it (check this chapter to learn more):



Incoming MIDI messages from any of your keyboards will now be sent to the synth plugin. Complete the signal chain by connecting the synth plugin block to your audio interface outputs. This very basic setup is displayed in image **(A).** At this point you should be able to play your connected keyboard(s) and hear the result.

If you use more than one keyboard and want each one to control different plugins, you will need to replace the MIDI In (OMNI) block with MIDI In blocks associated with each keyboard (MIDI device). To do this you can either insert a new MIDI In block or right click on the MIDI In (OMNI) block and replace it with the desired one, as indicated with **(B)**.

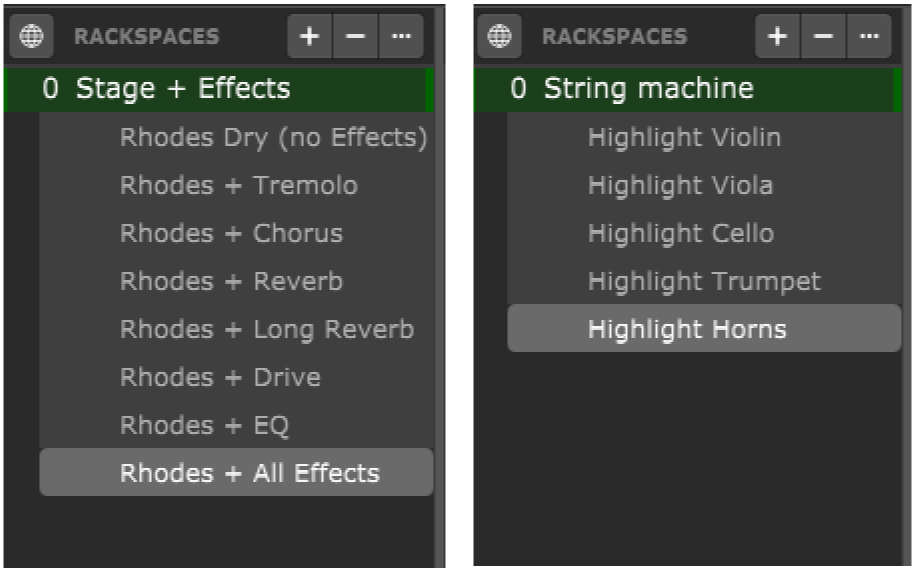
When you have finished adding your plugins, switch to the Panels view, and enter Edit mode. Add panels and widgets for the plugin parameters you mostly use or want to control either from the panel or from your keyboard or other MIDI control surface. Here is an example:



Refer to the Widgets chapter to learn more. Make sure to also check our built-in templates and Community-driven shared rackspaces (click Help -> Community -> Community Shared

Gigs, Rackspaces and More) to access nicely designed, community created rackspace and gig files that you can use directly or as templates for your setups.

Depending on the features of your plugins (i.e. are they multi-timbral) you can organize your rackspaces and variations in many different ways, for example:



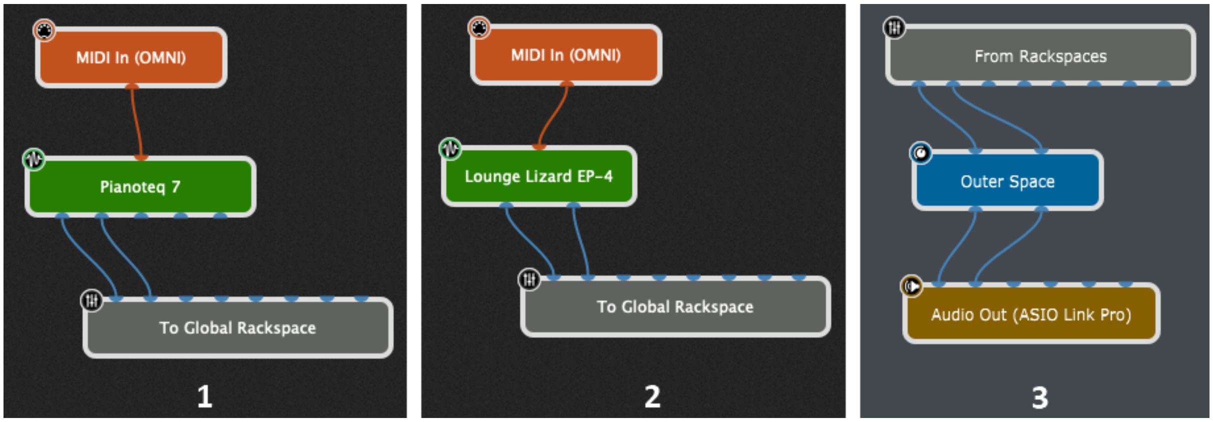
RACKSPACES

0 Stage + Effects
- Rhodes Dry (no Effects)
- Rhodes + Tremolo
- Rhodes + Chorus
- Rhodes + Reverb
- Rhodes + Long Reverb
- Rhodes + Drive
- Rhodes + EQ
- Rhodes + All Effects

RACKSPACES

0 String machine
- Highlight Violin
- Highlight Viola
- Highlight Cello
- Highlight Trumpet
- Highlight Horns

Gig Performer 4 includes the Global rackspace where you can place your common effects, such as reverb or delay or other plugins that you might want to be present all the time (i.e. an Audio File Player or a MIDI File Player). In the screenshot below are shown the Wiring views of two rackspaces and the Global rackspace. One rackspace contains an acoustic piano **(1)** and the other contains an electric piano **(2).** A delay is added to both of these sounds in the Global rackspace **(3):**



So rather than inserting a delay plugin in both rackspaces, you can simply insert it in the Global Rackspace.

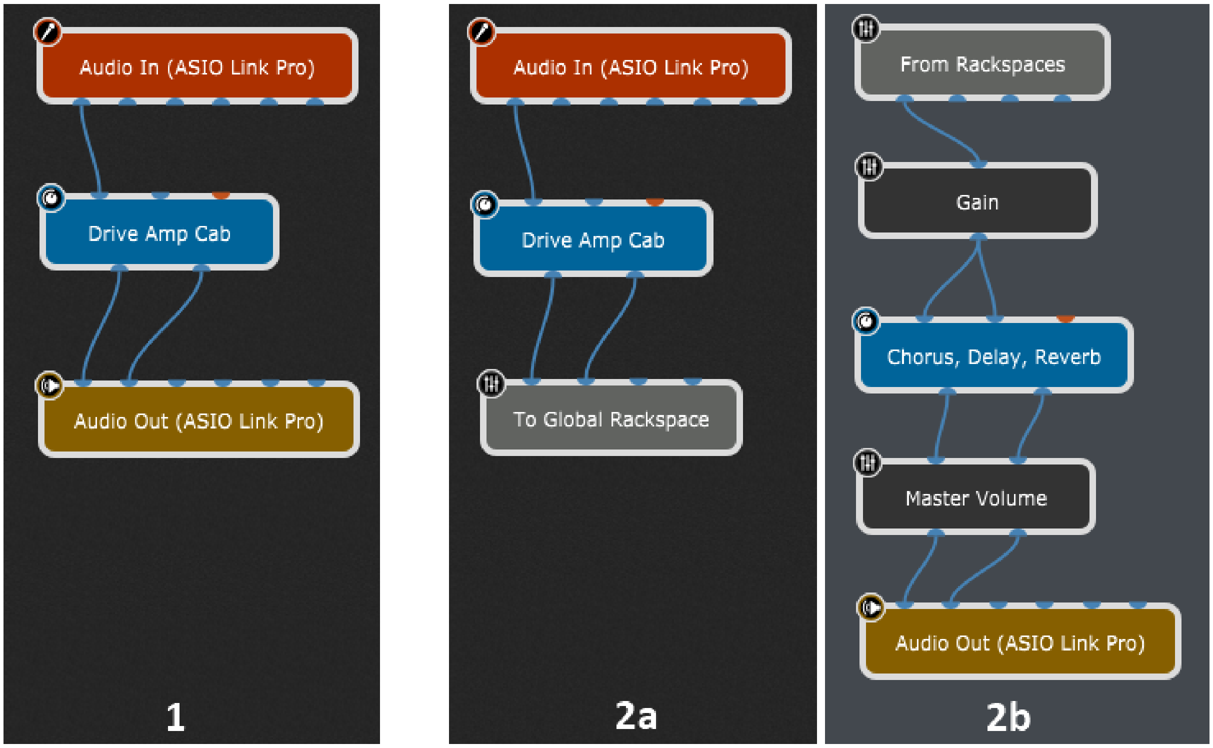
Check the Global Rackspace chapter to learn more about the Global rackspace.

As a keyboardist you'll appreciate that each rackspace supports a mechanism that allows your sounds to stay on until you release all the keys that you were holding down (or the sustain pedal if it was down), even if you switch to another rackspace with different sounds for the next part of your set. This mechanism is called Patch Persist (check the *MIDI Patch Persist* section in the Rackspace properties).

When this feature is disabled, when you hold a note down and then switch to the other rackspace, the note you're holding down stops immediately.

3.3 Basic setup for guitarists

To get started as a guitarist, first connect your audio interface inputs to your effect and amp modelling plugins (check this chapter to learn more):



Complete the signal chain by connecting these plugins to your audio interface outputs. The very basic setup is displayed in image **[1].** At this point you should be able to play your guitar and hear the result.

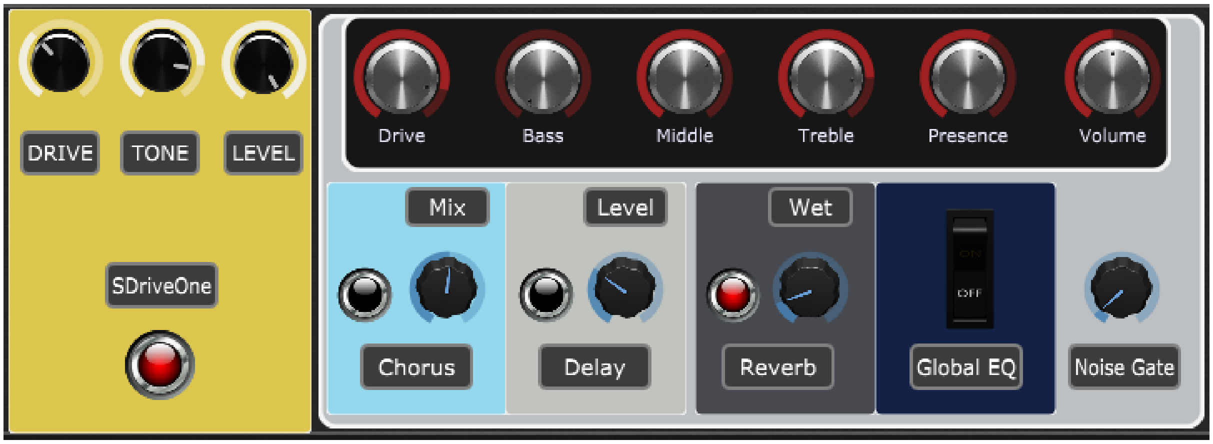
You can mix and match plugins together just as if they were physical devices. There are no complicated AUX buses, sends or inserts. Simply connect things together as if you were using wires.

If you want to parallel process your signal and, for example, run it through two different amps you can simply connect your input signal to two amp plugins, then sum these together with our Audio Mixer plugin.

Gig Performer 4 includes the Global rackspace where you can place your common effects, such as Chorus, Delay and Reverb. Image **[2a]** displays a rackspace which routes the audio signal to the Global rackspace, and **[2b]** is displaying a connection where the audio signal is coming from the Global rackspace, does some further processing and then completes the signal chain by sending the singal to your audio interface outputs.

Check the Global Rackspace chapter to learn more about the Global rackspace.

When you finish adding your plugins, switch to the Panels view, and enter Edit mode. Add panels and widgets for plugin parameters you mostly use or want to control via MIDI or OSC. Here is an example:



Refer to the Widgets chapter to learn more. Make sure to also check our built-in templates and Community-driven shared rackspaces (click Help -> Community -> Community Shared Gigs, Rackspaces and More) to access nicely designed, community created rackspace and gig files that you can use directly or as templates for your setups.

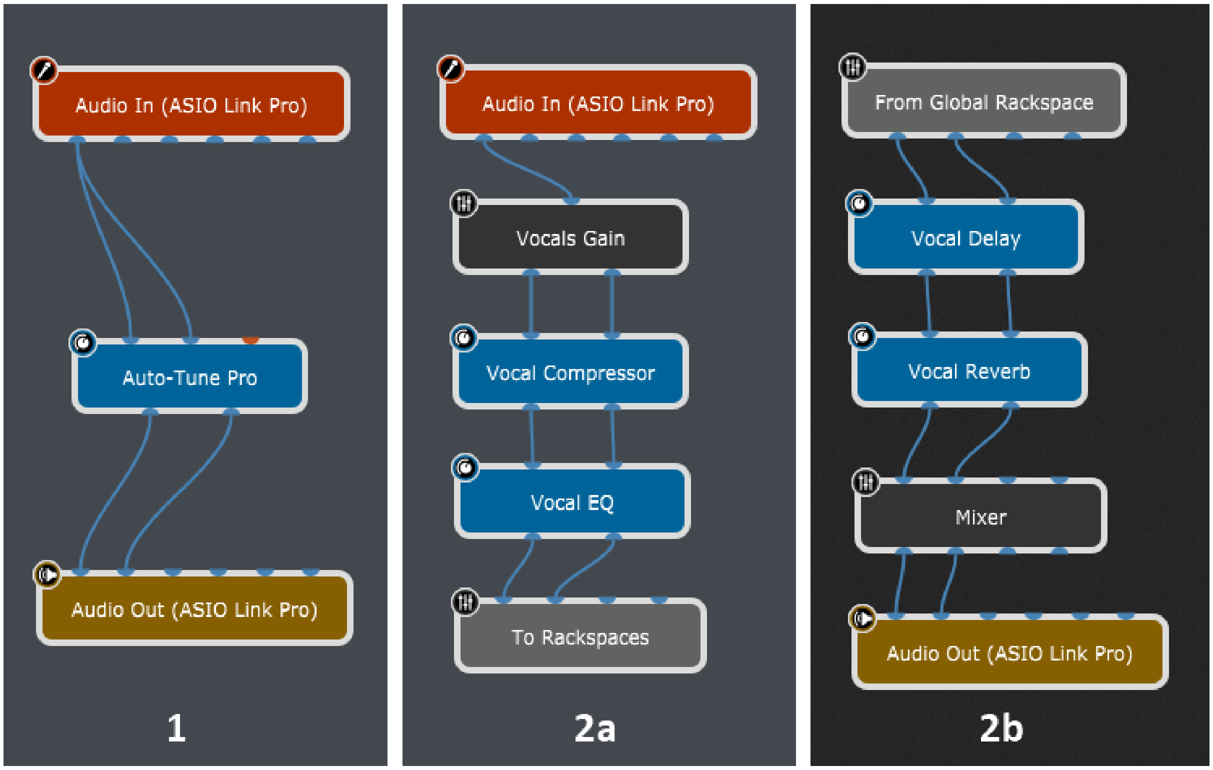
We recommend that you organize your rackspaces based on the common sounds you use like Clean, Crunchy, Distorted, etc. This is not a rule, however, and you're free to organize things the way it works for you and your style of playing.

As a guitarist you'll appreciate that each rackspace has fine-grain control over its "silencing periods". This means that you control how long each rackspace has to silence its input/output as you switch to another rackspace. This provides an incredibly smooth transitions between your sounds (check the *Tail Length* section in the Rackspace properties).

3.4 Basic setup for vocalists, drummers, other musicians and FOH engineers

In the last two chapters are covered basic setups for keyboardists and guitarists, but Gig Performer can be used by any artist who performs on any instrument live or in the studio using their specific plugin setups.

For example, vocalists can easily add compression, EQ and other desired effects to their vocals.



Vocalists might want to take advantage of the Global Rackspace and add their effects there if they don't change their effects often, like shown in **(1)**. Of course, feel free to make arrangements any way you like, for example, you can use the Global rackspace for plugins that you want to be always present in your setup (like shown in **2a**) and take advantage of rackspace variations to apply different amounts of reverb and delay (like shown in **2b**).

Similarly, drummers can mix and match their favorite drums and cymbals from different drum plugins and create drum kits. Drummers can organize drum kits as rackspaces and switch them instantly.

Front of house sound engineers will appreciate Gig Performer's OSC implementation; sophisticated plugin chains in Gig Performer can be reviewed and adjusted remotely. Your entire FOH setup can consist of a rackmount mixer and Gig Performer, all of which can be controlled remotely from a tablet, such as iPad.

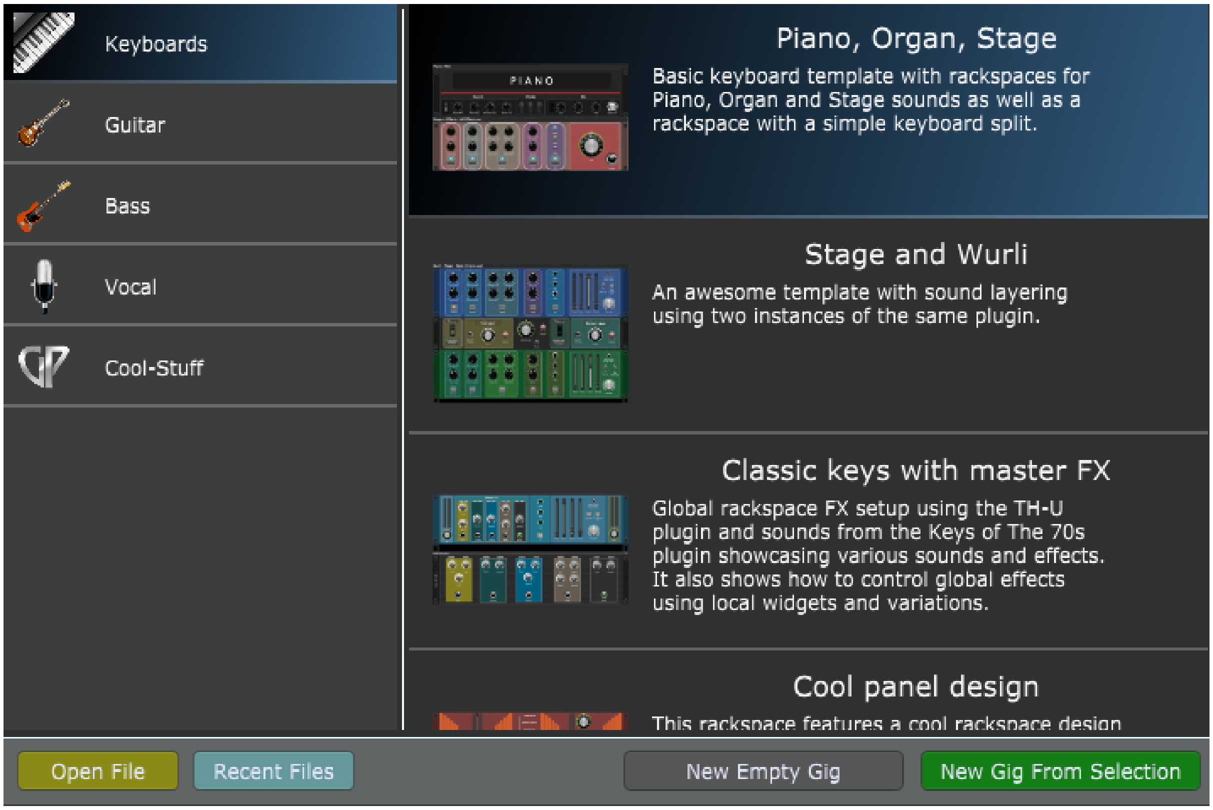
Using Gig Performer instances, every band member can use different plugin setups on a single computer (provided that a computer is powerful enough to host these setups).

Make sure to check out our Community-driven shared rackspaces (click Help -> Community -> Community Shared Gigs, Rackspaces and More) to access nicely designed, community created rackspace and gig files that you can use directly or as templates for your setups.

3.5 Built-in templates

A template is simply a predefined gig file that is nicely laid out so users can easily reuse it. You can use the supplied plugins or replace them by other user-provided plugins and then reassigning the widgets. A template can contain one or more rackspaces with variations.

When you first start Gig Performer the New Gig dialog will appear:



Piano, Organ, Stage

Basic keyboard template with rackspaces for Piano, Organ and Stage sounds as well as a rackspace with a simple keyboard split.

Stage and Wurli

An awesome template with sound layering using two instances of the same plugin.

Classic keys with master FX

Global rackspace FX setup using the TH-U plugin and sounds from the Keys of The 70s plugin showcasing various sounds and effects. It also shows how to control global effects using local widgets and variations.

Cool panel design

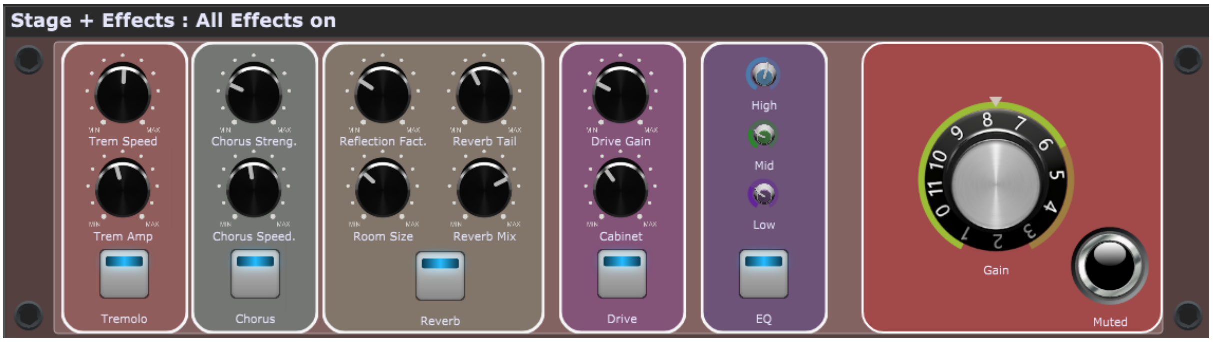
This rackspace features a cool rackspace design

Note: the contents of this dialog may differ from the screenshot above, as new templates may be included in future 4.x versions of Gig Performer.

This dialog will also appear every time you start Gig Performer if you turn off the *Reload the last gig on startup* toggle button in the General Options. You can invoke this dialog any time by clicking on File -> New -> New Gig from Template...

To create a gig from the template, simply select a category, such as Keyboards (as indicated in the screenshot above) and double-click the desired template (alternatively, select the desired template and click on the *New Gig From Selection* button.

Depending on your selection, the fully functional gig file will open with nicely laid out panels with widgets:



You can use templates to quickly try out features in Gig Performer or to get ideas for your own gig design.

Note: the screenshot above is used for demonstration purposes only and might be changed in future as templates might change.

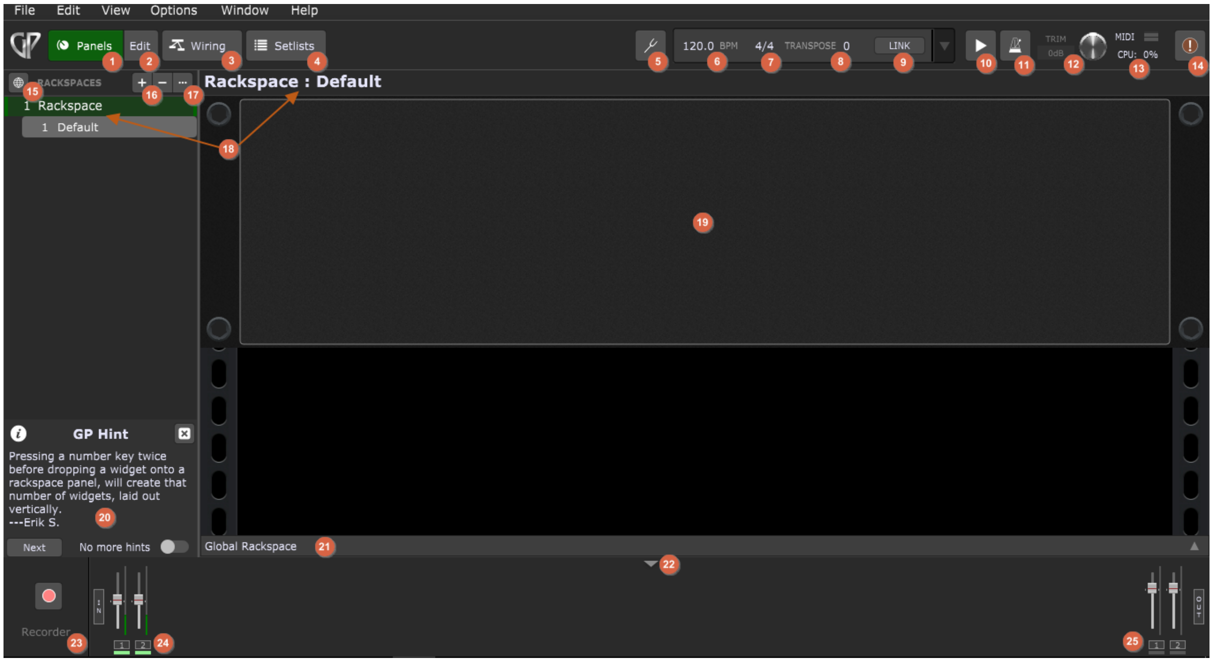
You can also browse the Community-driven compilation of gig files and rackspaces; click *Help -> Community -> Community Shared Gigs, Rackspaces and More* to access this section of our Community.

4 Gig Performer user interface and concepts

In this chapter you will learn more about the Gig Performer user interface, different views, and important concepts such as rackspaces, variations, panels, widgets, the Rig Manager and other key components.

4.1 The main Gig Performer window

When you start Gig Performer and the **New Gig** window shows up, you can either create a new empty gig, or choose a template to use as your starting point. The following screenshot shows the main Gig Performer window after a new empty gig has been chosen:



Pressing a number key twice before dropping a widget onto a rackspace panel, will create that number of widgets, laid out vertically.
---Erik S.

1. **Panels view** - click here to show the Panels view.
2. **Edit button** - in Panels view, click on this button to enter the Edit mode, where you can edit panels and widgets.
3. **Wiring view** - click here to show the Wiring view.
4. **Setlists** - click here to show the Setlist view.
5. **Tuner icon** - click here to toggle the Tuner view (the icon turns red).
6. **Tempo display** - shows the current tempo being used by all connected plugins (for example, sample/loop/beat-playback plugins, as well as those generating echoes,

delays and reverbs). You can of course change the tempo any time. The tempo can also be set automatically by song and song part tempos. For more information see Tempo and Time Signature. The maximum tempo value is 640 BPM.

7. **Time signature display** - shows the current time signature being used by all connected plugins (for example, sample/loop/beat-playback plugins, as well as those generating echoes, delays, and reverbs). You can change this value and enter any time signature, up to 32/16.

8. **Transpose** - enter a global transposition value that will be applied to all MIDI In blocks by clicking on the field and entering a number of semitones directly, or by clicking on TRANSPOSE and using the increment (+) and decrement (-) buttons to set the number of semitones. Note: individual blocks can optionally ignore the global transpose value, something that is useful if a MIDI In block is being used for percussion or sound effects.

9. **Link button** - click this button to activate or deactivate Ableton Link.

10. **Play/Stop button** - click to start playback, click again to stop it. When playing, all plugins that support playback control (for example, sample, loop, or beat playback plugins) play back. When disengaged ("stop"), they are all put in a stopped state.

11. **Audio metronome on/off** - click to turn on the audio metronome, click again to turn it off. See Metronome for more information.

12. **Global output volume (Trim) knob** - use this to temporarily change the overall volume of your gig. An increase in volume is highlighted in red and a decrease is highlighted in blue. Double-click on the knob to reset its value to 0dB. The Trim knob can be remotely controlled; map it to a MIDI controller in the Global MIDI Assignments section of the Global MIDI options dialog. The initial value when Gig Performer first starts can be set in the General options.

13. This section contains:

    a. **MIDI activity indicator** - flickering here indicates the presence of MIDI data. The top bar lights green when incoming MIDI messages are received, while the bottom bar flickers when MIDI messages are being transmitted (via a MIDI Out block). If the "Sync tempo with external MIDI clock" option is selected for the current rackspace (see Rackspace Properties), a thin yellow bar above the two flickers to indicate the presence of incoming MIDI Clock data and also serves as a visual tempo indicator. Open the Global MIDI Monitor window if you want to see detailed information about the MIDI messages being received.

b. **CPU usage indicator** - shows the percentage amount of CPU overhead currently being used by Gig Performer for audio processing. Actually, Gig Performer itself is only responsible for a very small percentage; most of the CPU overhead is taken up by the plugins currently loaded in memory. It is normal for this value to change in real time as incoming MIDI data is received and as widgets are moved.

14. **Panic button** - click this to issue "turn all notes off" messages on all MIDI channels, along with a Sustain OFF message and a Center PitchBend message, thus stopping stuck notes. Double-click this button to also reset the audio engine.

15. **Globe icon** - click on this icon to show or hide the Global Rackspace.

16. **New rackspace/variation** ("+") and **Delete selected rackspace/variation** ("-") buttons - click "+" to add a new rackspace or variation; click "-" to delete the selected rackspace or variation.

17. **More... button** - click on the button with the ellipsis (three dots) to drop down a menu of operations related to rackspaces, variations and widgets.

18. **Browser** (indicated by the left arrow) - in Panels and Wiring views, the browser shows a list of all rackspaces and variations that have been created. The current rackspace is outlined in green. The right arrow indicates the display of the current rackspace and variation. Click on a rackspace in the list to select it. Double-click on a rackspace in the list to open the Rackspace Properties dialog. Drag rackspaces up and down in the list to reorder them. The browser looks different in Setlist view, though the rackspace/variations list is still displayed. For more details, see Setlist view.

19. **Panel surface** - in the Panels and Setlist views, the purpose of this surface is to display widgets that had been previously dragged onto this surface in the Edit mode.

20. **GP Hint** - the hints database contains various tips and tricks about Gig Performer, many submitted by Community members. By default, a new hint will appear every time you start Gig Performer though of course you can turn this off. Show hints at any time by clicking on the Help menu -> Show a Gig Performer Hint.

21. **Global Rackspace toggle** - click on this toggle button to show/hide the Global rackspace controls.

22. **Collapse/Expand bottom controls toggle** - click on this arrow to collapse or expand the bottom controls, i.e. faders for all audio input and output channels.

23. **Recorder button** - click this to open the Recording Options dialog. For more detail, see Recording your performance.

24. **Interface input levels** - a set of meters and sliders that allow you to view and adjust the levels of your audio interface's various inputs. Flickering here indicates the presence of input signal. Double-click a fader to set it to 0 dB.
25. **Interface output levels** - a set of meters and sliders that allow you to view and adjust the levels of your audio interface's various outputs. Double-click a fader to set it to 0 dB.

Note: Gig Performer displays up to 16 input or output interface channels at a time. If your interface has more than 16 I/O connections, the remaining inputs and outputs are accessed by clicking the Next or Previous button to scroll the display.

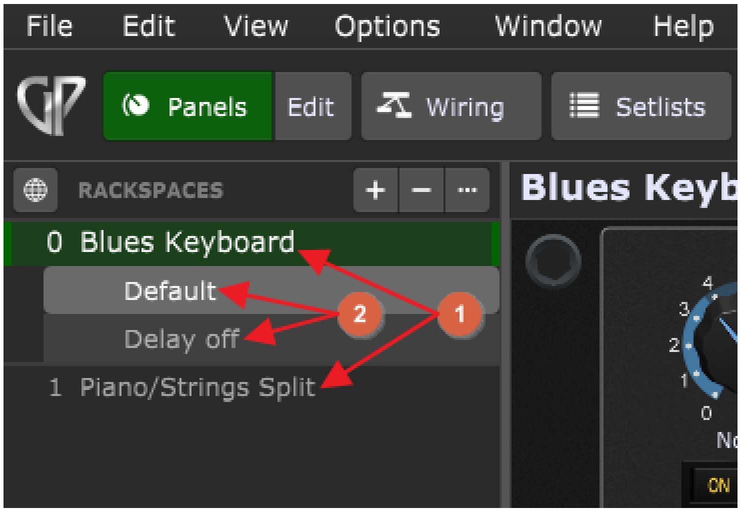
4.2 Rackspaces and Variations

A **rackspace** is a collection of interconnected plugins, along with one or more panels containing widgets to control plugin parameters in real time. A rackspace can actually be pretty much anything you like: it can represent a single sound or all the elements you need for an entire song - or just one part of a song. You can switch from one rackspace to another instantaneously, either from your laptop, with up/down pedals, or via MIDI program change messages. Sounds will change without any glitching and sufficiently quickly that you can switch rackspaces even in the middle of a bar.

A **variation** is essentially a rackspace preset which contains the same plugins and interconnections, but with different widget settings. For example, you can create a rackspace to add phasing to a piano sound, and then add several variations, each with different degrees of phase intensity. Since variations actually store widget settings, every parameter you want stored in a variation must be assigned to a widget on a rack panel. As with rackspaces, you can switch from one variation to another instantaneously and with no interruption of sound either from your laptop, with up/down pedals, or via MIDI program change messages.

Variations allow you to leverage the plugins in a single rackspace to create many different sounds without having to duplicate the rackspace for each sound. It's also a great way to save on memory. For example, you could have multiple virtual instrument plugins feeding a mixer plugin, and then mute different plugins, or have a different mix of them, in each variation. Or you could connect multiple effects (i.e. phasing, flanging, tremolo, reverb, or echo) and have different ones enabled or disabled in each variation. Rather than creating a rackspace for an instrument with phasing, and another for the same instrument with echo, the same thing is accomplished by two variations of a single rackspace containing both phaser and echo plugins.

On the picture below are depicted rackspaces **(1)** and variations **(2)**:



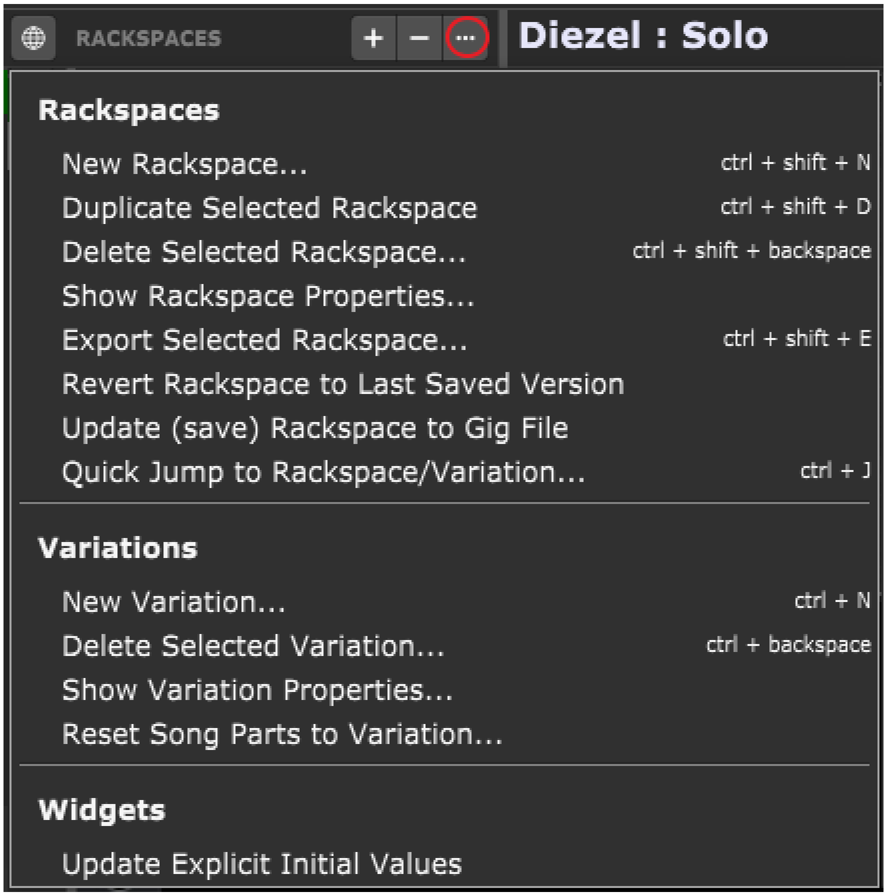
Note: see also the Global Rackspace, a special rackspace that allows audio plugins to be shared and used by regular rackspaces. Find out more in the Global Rackspace chapter.

Check out this blog article How to change sounds and control plugins from your MIDI controller to learn how to change rackspaces and variations using your MIDI controller.

Visit this blog article to learn more about rackspaces and variations.

4.2.1 Manage Rackspaces/Variations contextual menu

Right clicking on any item in the rackspace list or clicking on the "three dots" button (indicated with the red circle) in the rackspace list in Panels or Wiring View opens the following menu:


RACKSPACES
+
–
···
Diezel : Solo
Rackspaces
New Rackspace... ctrl + shift + N
Duplicate Selected Rackspace ctrl + shift + D
Delete Selected Rackspace... ctrl + shift + backspace
Show Rackspace Properties...
Export Selected Rackspace... ctrl + shift + E
Revert Rackspace to Last Saved Version
Update (save) Rackspace to Gig File
Quick Jump to Rackspace/Variation... ctrl + J
Variations
New Variation... ctrl + N
Delete Selected Variation... ctrl + backspace
Show Variation Properties...
Reset Song Parts to Variation...
Widgets
Update Explicit Initial Values

This menu is split into three sections: Rackspaces, Variations, and Widgets.

<u>**Rackspaces**</u>

New Rackspace... - creates a new rackspace. **Note:** the advantage of putting different sounds into different rackspaces (as opposed to creating one complex rackspace with multiple signal chains and complicated switching) is that you can go from one to the other, glitch-free, with the use of simple MIDI program change messages transmitted via a MIDI controller, such as up-and-down switches on a pedalboard - or even via a smartphone or tablet running an OSC app. What's more, Gig Performer's Tail length function allows you to set the maximum time before a sound is cut off, up to 10 seconds when you switch rackspaces.

Duplicate Selected Rackspace - duplicates the selected rackspace.

Delete Selected Rackspace... - deletes the selected rackspace.

Show Rackspace Properties... - opens the Rackspace Properties dialog.

Export Selected Rackspace... - exports the selected rackspace to the **.rackspace** file format.

Revert Rackspace to Last Saved Version - reverts the current rackspace to the last version saved. **Note**: click OK in the confirmation "Are you sure?" dialog only if you are sure that you want to do this, because all changes made since the file was last saved will be permanently lost. If you want the opportunity to save your work first, click on the Cancel button, then go to File -> Save or File -> Save As...

Update (save) Rackspace to Gig File - saves the selected rackspace to the currently open .gig file; make sure to save a gig first for this feature to work. **Note**: this option saves only the currently selected rackspace, and changes made to all other rackspaces will not be saved; if you want to save/update all rackspaces, click on File -> Save instead. Also note that you cannot add and save new rackspaces this way - the rackspace must exist and must be saved to the gig file first (you cannot add a new rackspace and then select this menu item to update it because it is not in the gig file yet).

Quick Jump to Rackspace/Variation - opens the Quick Rackspace/Variation finder.

Variations

New variation... - creates a new variation. **Note:** creating a new variation always duplicates the currently selected one.

Delete Selected Variation... - deletes the selected variation.

Show Variation Properties... - opens the Variation Properties dialog.

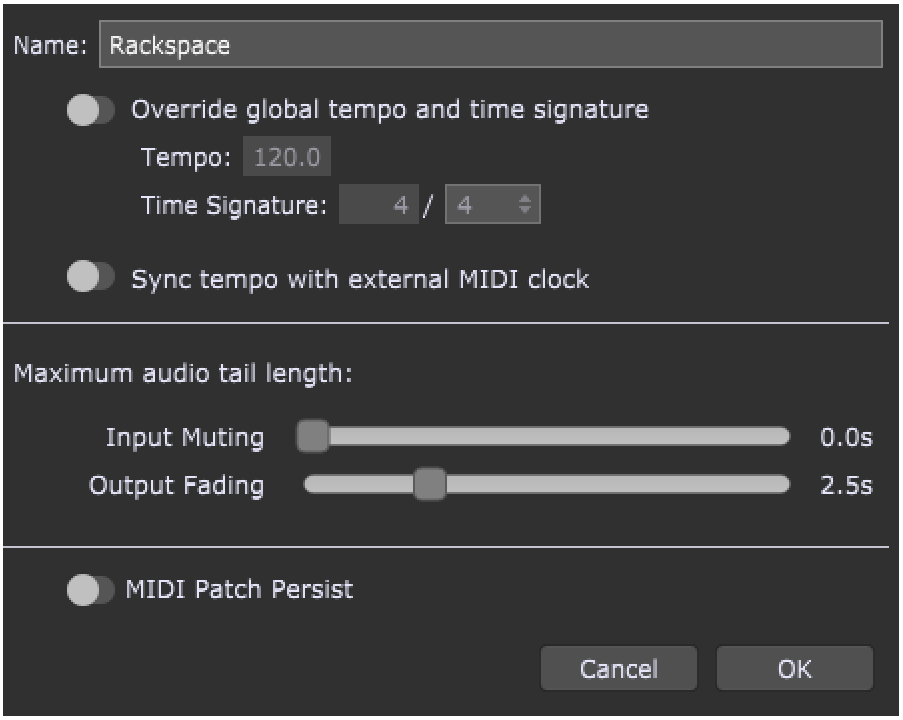
Reset Song Parts to Variation... - writes the current variation settings to every song part that use the current variation. Use this command when you update a sound and want to ensure the newest version is used everywhere the sound occurs.

Widgets

Update Explicit Initial Values - clicking on this menu item updates widget initial values to the current ones when a gig is loaded. Initial values settings are defined in the Widget Properties inspector.

4.2.2 Rackspace Properties

Double-clicking on a rackspace name (or choosing the Show Rackspace Properties... menu item from the contextual menu) opens a dialog that displays rackspace properties:



Name: Rackspace

○ Override global tempo and time signature

Tempo: 120.0

Time Signature: 4 / 4

○ Sync tempo with external MIDI clock

Maximum audio tail length:

Input Muting 0.0s

Output Fading 2.5s

○ MIDI Patch Persist

Name - to rename the rackspace, type a new name here.

Override global tempo and time signature - turn on this toggle button if you want the rackspace to have its own tempo value and time signature, then enter the desired BPM (beats per minute) and time signature. If this toggle button is turned off, the rackspace will use the global tempo and time signature information.

Sync tempo with external MIDI clock - turn on this toggle button if you want the rackspace to adjust its tempo from incoming MIDI clock messages (24 ticks per quarter note) sent from an external device, thus enabling echo/delay or arpeggiator plugins capable of receiving MIDI clock to be automatically synchronized with your external device. Visit this blog article to learn how to synchronize Gig Performer's tempo to an external MIDI clock or Link-enabled products.

Maximum audio tail length - sets the maximum time before a sound is cut off when you switch rackspaces. The maximum length is 10 seconds. Often known as an audio "tail", this feature is useful when using effects such as reverb or echo. In Gig Performer 4 you can select Input muting and Output fading:

Input muting - move this scroll bar to select the desired number of seconds (up to 10s) in which input to this rackspace will be smoothly silenced.

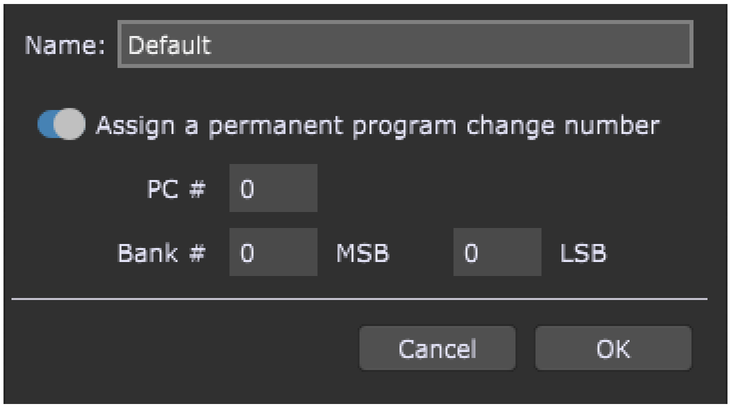
Output fading - move this scroll bar to select the desired number of seconds (up to 10s) in which the audio output of this rackspace will be smoothly faded out.

MIDI Patch Persist - if this feature is checked, whenever you switch to another rackspace, notes that you are holding (either directly on your keyboard or via your sustain pedal) will continue sounding until you release the keys or the pedal. This feature works with any number of rackspaces, up to the limits of your system's available RAM and CPU resources, so you could conceivably keep the sound of five or more rackspaces going simultaneously.

If this feature is unchecked, whenever you switch from one rackspace to another, the sound of the previous rackspace is immediately silenced even if you are holding notes down or have pressed the sustain pedal.

4.2.3 Variation Properties

Double-clicking on a variation name (or choosing the Show Variation Properties... menu item from the contextual menu) opens a dialog that displays variation properties:



Name: Default

Assign a permanent program change number

PC # 0

Bank # 0 MSB 0 LSB

Name - to rename the variation, type a new name in this text box.

Assign a permanent program change number - when this toggle button is turned on, you can specify the program change number and, optionally, the bank select numbers (in Gig Performer 4, you set MSB and LSB values separately) used to switch to this variation. **Note**: if a program change number has been assigned, that number will appear to the left of the variation name. If there is only one variation in the rackspace, the program change number will also appear to the left of the rackspace name; if there is more than one variation, an asterisk will appear there instead.

If this toggle button is turned off, Gig Performer will assign program change numbers in ascending order, i.e. the first variation in the first rackspace will be called up when program change 0 is received; the first variation in the next rackspace will be called up when program change 1 is received, etc.

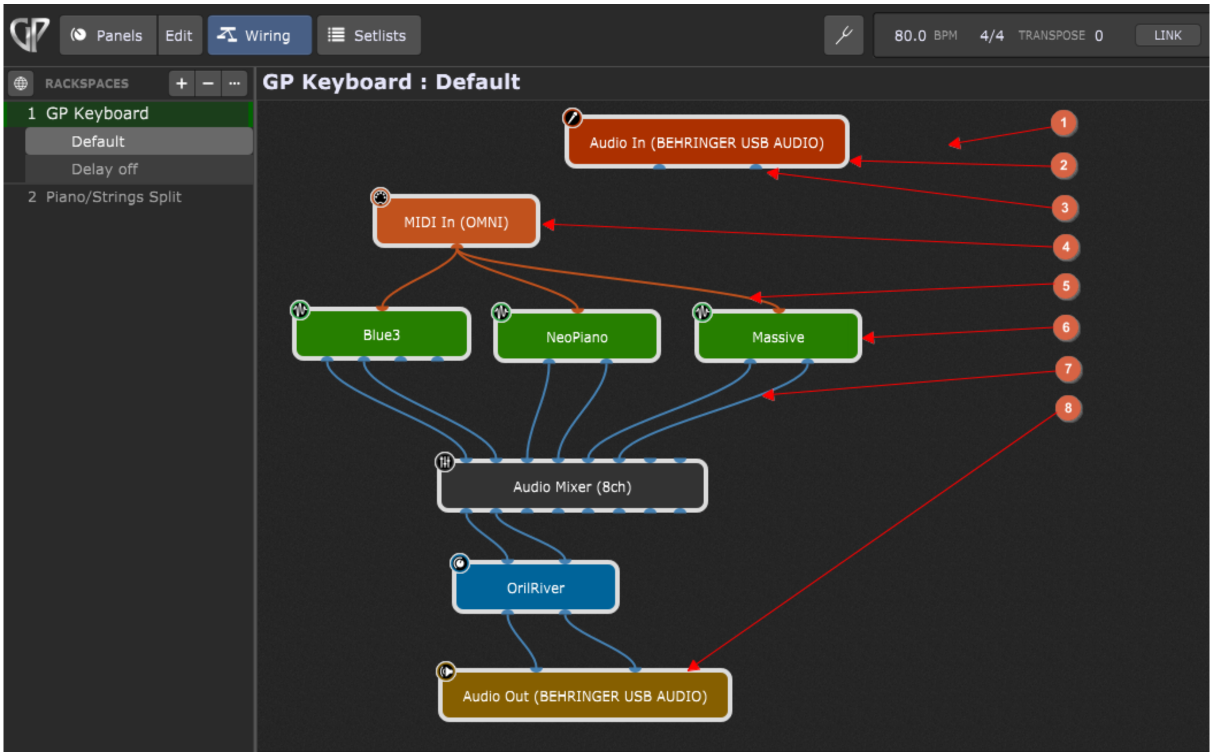
Make sure that you also review these options when it comes to assigning variations and program change numbers:

Auto-assign a permanent PC number to new rackspaces (first variation), in the General tab.

Use zero-based PC numbers, in the Global MIDI tab.

4.3 Wiring view

The Wiring view enables you to insert your plugins and connect them with virtual wires. Look at this example of a plugins layout in the screenshot below:



1. **Wiring view design surface** - this large area of the screen is used to display your plugins and their interconnections. Drag a plugin to move or reposition it. Double-clicking a plugin opens its plugin editor. Refer to the Improvements to the Wiring view to learn more about new features in Gig Performer 4 such as zooming, scrolling, and selecting multiple plugins.

2. **Audio interface input block** - Gig Performer automatically shows inputs for audio interface device(s) known to the operating system.

3. **Plugin port** - plugins are interconnected by virtual wires, where an output port (or pin) of one plugin is connected to an input port of another plugin. Blue ports indicate audio ports and orange ports indicate MIDI ports. Note that audio ports cannot be connected to MIDI ports (and vice versa).

4. **MIDI In (OMNI) block** - Gig Performer inserts the built-in MIDI In (OMNI) plugin by default. Other MIDI devices can be added in the same fashion as any other plugin. MIDI plugins are colored orange. Note that you can connect the MIDI output ports to multiple MIDI plugin input ports (the same applies to audio ports). Refer to the chapter MIDI Inputs to learn about these built-in plugins.

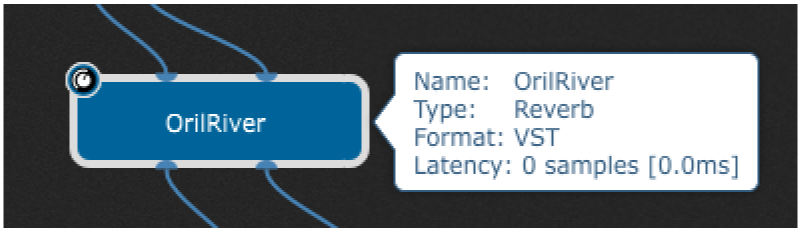
5. **MIDI connections** - shown as orange wires between from MIDI Out ports to MIDI In ports.

6. **Audio plugin** - virtual instruments are colored green, audio processors are colored blue, and some of Gig Performer integrated plugins, such as Audio Mixer (8ch) are colored black. Also note the mini-icon located at the upper-left corner of a plugin, that visually indicates the plugin type.

7. **Audio connections** - shown as blue wires from audio output ports to audio input ports.

8. **Audio interface output block** - Gig Performer automatically shows outputs for audio interface device(s) known to the operating system.

Hovering cursor over a plugin brings up a tooltip with basic information about that plugin:

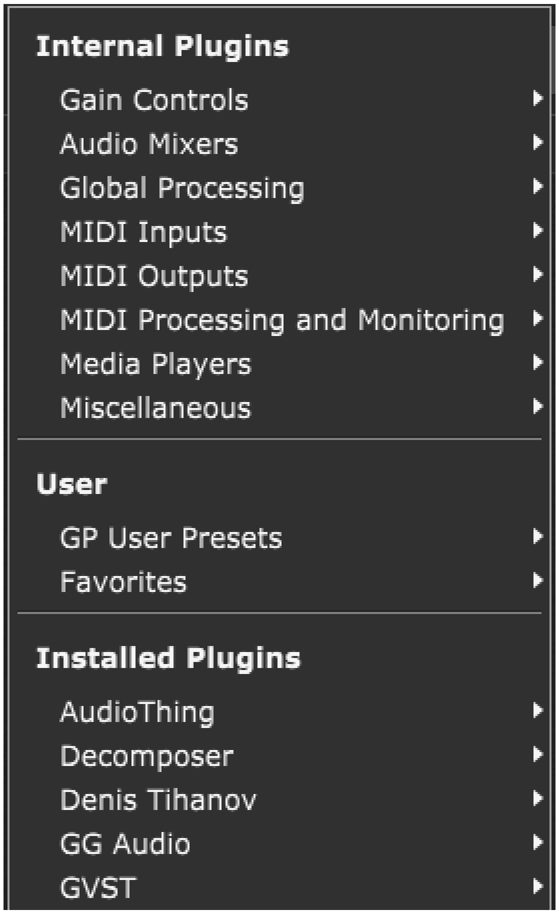


Name: OrilRiver
Type: Reverb
Format: VST
Latency: 0 samples [0.0ms]

Gig Performer 4 introduces a new detail in plugin tooltips - **Latency**; this way you can easily check how much latency your plugins introduce to your setup. The tooltip can be disabled by turning off the *Show information on plugin hover* option in the Display Options.

4.3.1 Wiring view contextual menu

When you right click anywhere in the background in the Wiring view, the following menu appears:



This menu is split into three main sections:

1. **Internal plugins** - allows you to insert one of the many built-in plugins such as Gain Controls or Media Players. Refer to the Built-in plugins chapter for more information.
2. **User** - allows you to insert plugins with user-saved Presets and Favorites (exported plugin selections will appear under Favorites). Refer to this chapter for more information.
3. **Installed Plugins** - all your installed plugins are available through these menus, organized alphabetically by the manufacturer of each plugin. Navigate through these menus to insert the desired plugin.

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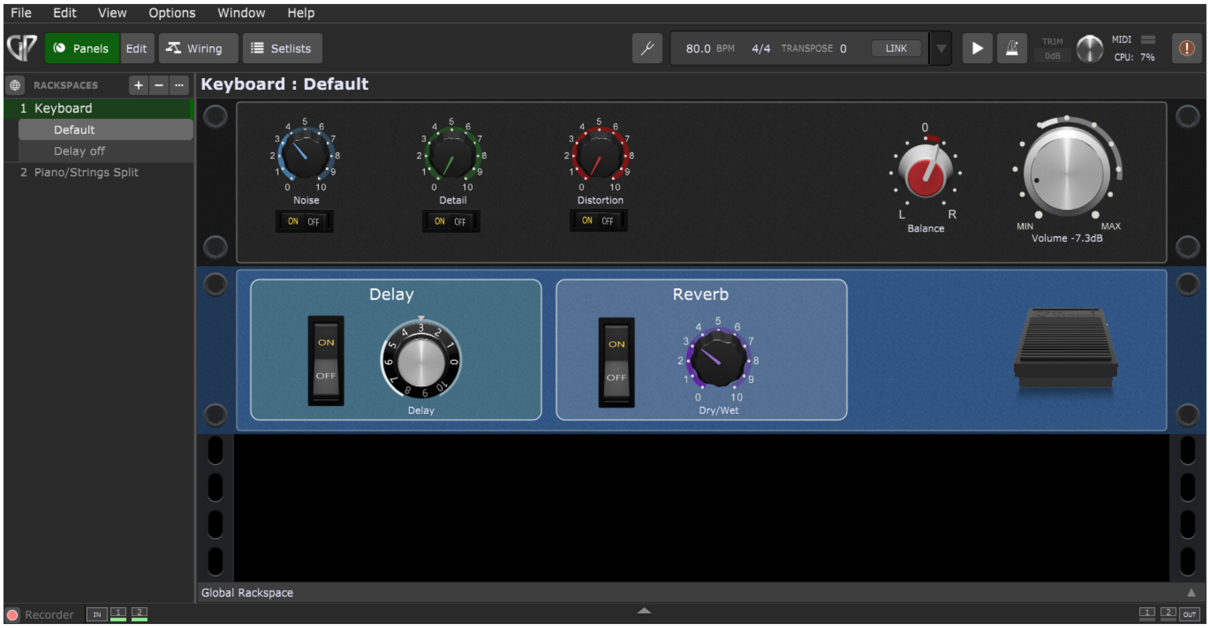
4.4 Panels view

The Panels view represents the front of the rackspace with their panels and widgets:



This view allows you to manage panels, widgets, assign plugin parameters to widgets and assign hardware MIDI controls to widgets. Check the Panels and Widgets chapter to learn more. Make sure to also check out The main Gig Performer window section to make yourself familiar with various elements and their names in Gig Performer.

To see how widgets are connected to plugins and their parameters, click on the **Edit** button:

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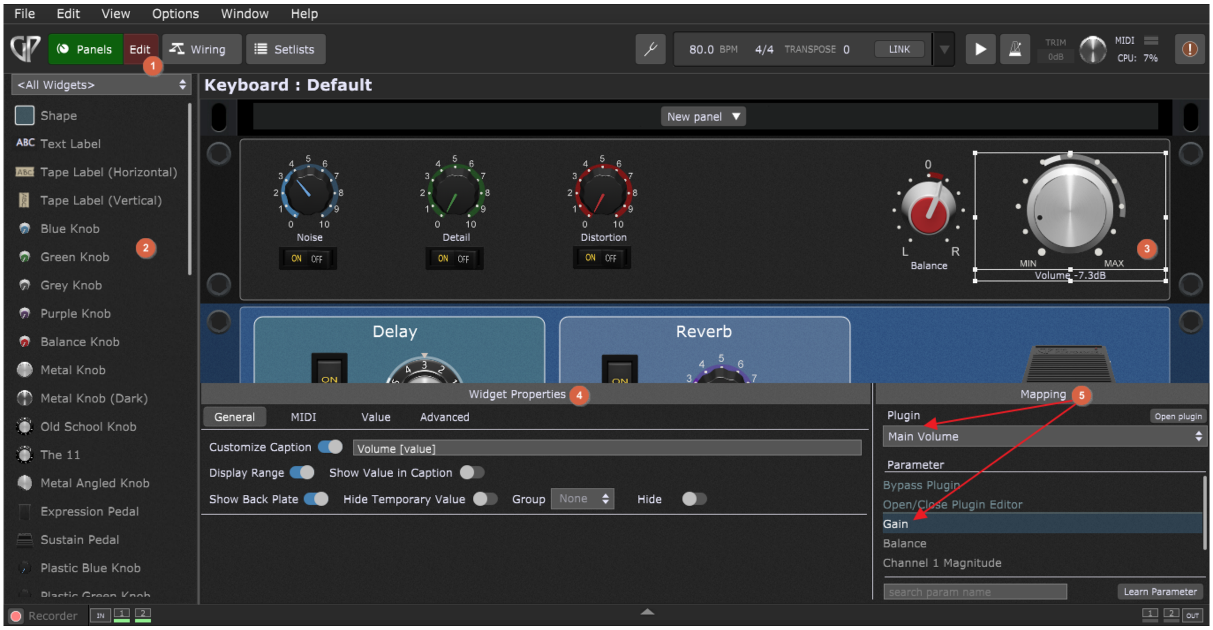
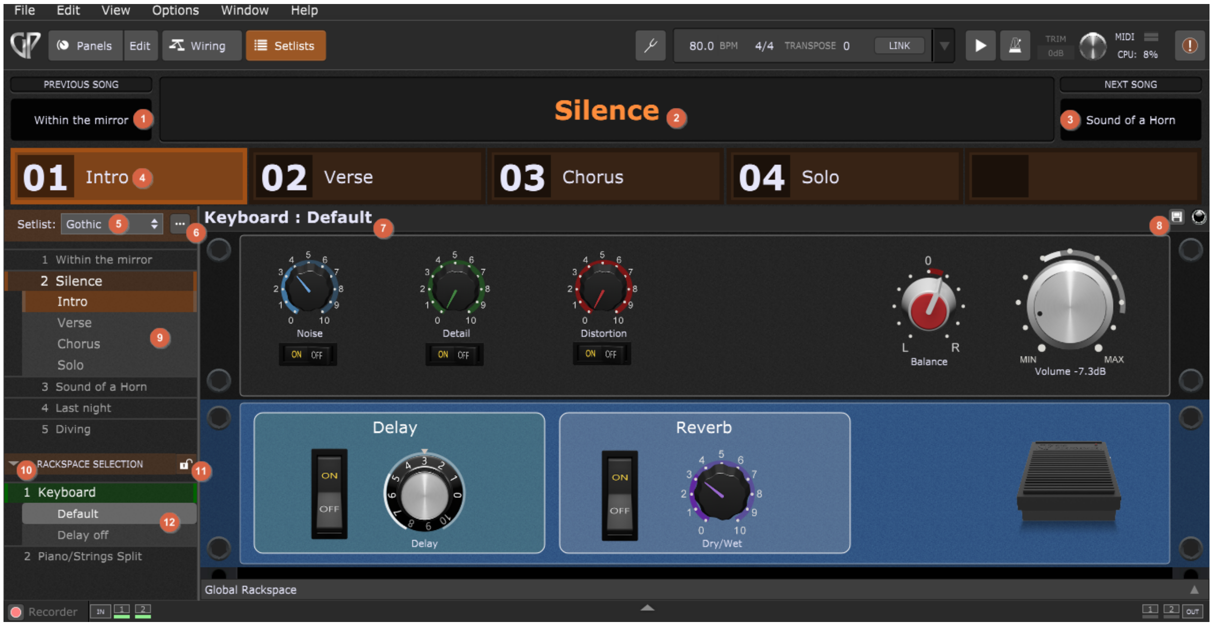


The Panels view in the Edit mode **(1)** enables you to add new widgets **(2)** by dragging them onto a panel and connect them with your plugins. Look at the example of a widgets layout in the screenshot above; the metal knob widget is selected **(3)** and you can see its properties **(4)** and mapping **(5)**. Refer to the Widget Properties inspector chapter for more information. In the Mapping section, you can see that the selected widget is assigned to the Gain parameter of the Main volume plugin.

4.5 Setlist view

A setlist is a collection of songs. Songs consist of an arrangement of song parts. The Setlist view is shown on the screenshot below:



1. **Previous Song button** - click on this button to move to the previous (earlier) song in the setlist.

2. **Song name** - displays the name of the current song.

3. **Next Song button** - click on this button to move to the next (later) song in the setlist.

4. **Song part tile bar** - click on any of these large, highly visible buttons to instantly switch between song parts. Tiles can be configured to visually match the layout of a MIDI foot pedal controller. The Gig Performer Lemur template also contains tiles, to make it easy to select songs by touch. A song part is linked to a rackspace variation and can store edits to the variation it uses (refer to the Songs and Setlists chapter for more information).

5. **Setlists drop-down menu** - select a setlist to play from this menu. The All Songs setlist is always present in the list.

6. **More... button** - clicking this opens the contextual menu which contains numerous commands for managing setlists, songs and song parts.

7. **Rackspace/Variation display** - displays active rackspace and variation.

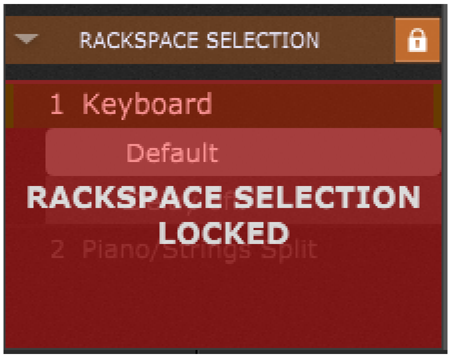
8. **Capture variation button** - click on this button to save edits you have made to a variation into the currently selected song part only. The changes are not saved to the underlying variation in the rackspace browser. This is a quick way of customizing a

variation and saving it. Check the How to capture variation edits chapter to learn more.

9. **Setlist editor** - allows you to reorder songs and song parts by dragging. Many important functions for the Setlist editor are found in the More... contextual menu. A song can be loaded by selecting in a setlist, in the Quick Song Finder or using Previous/Next buttons that can be mapped to incoming MIDI messages.

10. **Rackspace Show/Hide button** - click here to show or hide the rackspace list.

11. **Lock Song button** - this is a safety feature to prevent accidental changes. When this button is clicked, changes to rackspaces assignments in songs are not allowed. Attempting to change a rackspace produces an error screen:



RACKSPACE SELECTION LOCKED

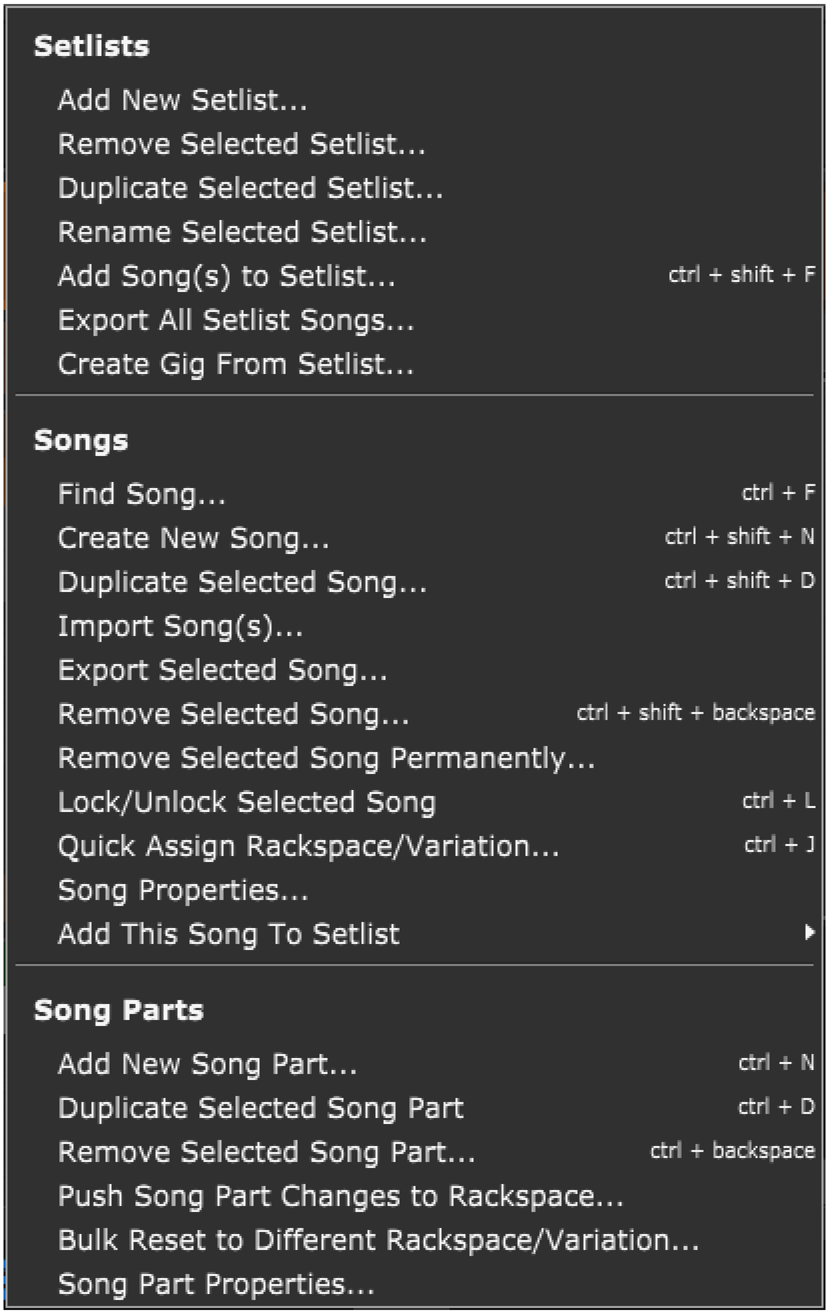
12. **Rackspace browser** - rackspaces and variations can be selected here to map to song parts on the fly. There is no rackspace management in the Setlists view - for that you must enter Panels or Wiring view. **Note:** Panels and Wiring views access only stored versions of variations; edits performed in the Setlist view are not available in those views. However, there is a method to push changes made in the Setlists view back to the underlying variations; see the *Push Song Part Changes to Rackspace* option in this chapter.

A song can send a MIDI program change message out to an external MIDI device when selected. A song part can be selected by an incoming MIDI program change message and can send out a sequence of MIDI messages upon selection. Check the Song Properties and Song Part Properties chapters to learn more.

Each song can have its own key, transpose value, tempo and time signature; the same also applies to song parts. A song can be linked to a ChordPro document for lyrics and chords.

4.5.1 Manage setlists contextual menu

Click on the **More...** button or right click on any song or a song part to open the Manage setlists contextual menu. This contextual menu contains various commands for managing setlists, songs and song parts:



Setlists	
Add New Setlist...	
Remove Selected Setlist...	
Duplicate Selected Setlist...	
Rename Selected Setlist...	
Add Song(s) to Setlist...	ctrl + shift + F
Export All Setlist Songs...	
Create Gig From Setlist...	
Songs	
Find Song...	ctrl + F
Create New Song...	ctrl + shift + N
Duplicate Selected Song...	ctrl + shift + D
Import Song(s)...	
Export Selected Song...	
Remove Selected Song...	ctrl + shift + backspace
Remove Selected Song Permanently...	
Lock/Unlock Selected Song	ctrl + L
Quick Assign Rackspace/Variation...	ctrl + J
Song Properties...	
Add This Song To Setlist	▸
Song Parts	
Add New Song Part...	ctrl + N
Duplicate Selected Song Part	ctrl + D
Remove Selected Song Part...	ctrl + backspace
Push Song Part Changes to Rackspace...	
Bulk Reset to Different Rackspace/Variation...	
Song Part Properties...	

This menu is split into three organizational units - Setlists, Songs, and Song Parts:

Setlists

- **Add New Setlist...** - opens a setlist name dialog and adds a new setlist in the browser (the new setlist becomes the current setlist).
- **Remove Selected Setlist...** - removes the selected setlist and sets the previous setlist as the current setlist.
- **Duplicate Selected Setlist...** - opens a setlist name dialog and creates a copy of the selected setlist in the setlist editor (this duplicate becomes the current setlist). This menu item is grayed out when the *All Songs list* is active.
- **Rename Selected Setlist...** - opens a setlist name dialog and allows renaming of the selected setlist. The renamed setlist is automatically sorted in alphabetical order.
- **Add Song(s) to Setlist...** - opens a new dialog with the list of all songs where you can easily add a song (or songs) to the setlist.
- **Export All Setlist Songs**... - exports all songs from a setlist to a user defined folder.
- **Create Gig From Setlist...** - allows you to export a setlist to a stand-alone gig file.

Songs

- **Find song...** - choose this command to open the *Quick song finder* window displaying all of the songs currently in the setlist. To add a song from the list in the window to the current setlist, select the song you want to add and either press the **Enter** key or double-click it. Press the **Escape** key or click the **Close** button when you have added all the songs you want in this setlist.
- **Create New Song...** - opens the Song Properties dialog and allows you to create a new song.
- **Duplicate Selected Song...** - opens a *Song name* dialog and makes a copy of the selected song.
- **Import Song(s)...** - opens a new dialog and allows you to select one or more **.gpsong** files to import. Refer to the File extensions used in Gig Performer chapter for more information on different file types in Gig Performer.
- **Export Selected Song...** - opens a new dialog and allows you to save a song in the **.gpsong** file.
- **Remove Selected Song**... - removes the selected song from the current setlist.
- **Remove Selected Song Permanently...** - removes the selected song from all setlists.

- **Lock/Unlock Selected Song** - choosing this menu item blocks changes to rackspace assignments in a selected song. This protects the selected song from accidental modification. Clicking on a rackspace in the browser when the song is locked produces an error message. Use Shift + click to apply to all songs.

- **Quick Assign Rackspace/Variation…** - opens the *Quick Rackspace/Variation Finder* window, allowing you to immediately switch to any rackspace and variation.

- **Song Properties…** - opens the Song Properties dialog.

- **Add This Song To Setlist** - adds a song to a setlist; select the song in the browser, then choose this menu item, picking a target setlist from the drop-down menu.

Song parts

- **Add New Song Part** - opens a *Song part name* dialog and creates a new song part in the song currently selected in the browser.

- **Duplicate Selected Song Part** - makes a copy of the selected song part.

- **Remove Selected Song Part** - removes the selected song part from the current song.

- **Push Song Part Changes to Rackspace** - selecting this menu item overwrites the current variation with any changes made to widgets and then stored to a song part using the *Capture Variation Edits* button. After changes have been written back to the original variation, the red indicator next to the button goes out, and the *Compare* and *Revert* buttons disappear. **Note**: If you edit values on the fly and like the changes, this is how you save those changes. If you want to keep the original variation as well, make a duplicate of it before clicking the *Capture Variation Edits* button.

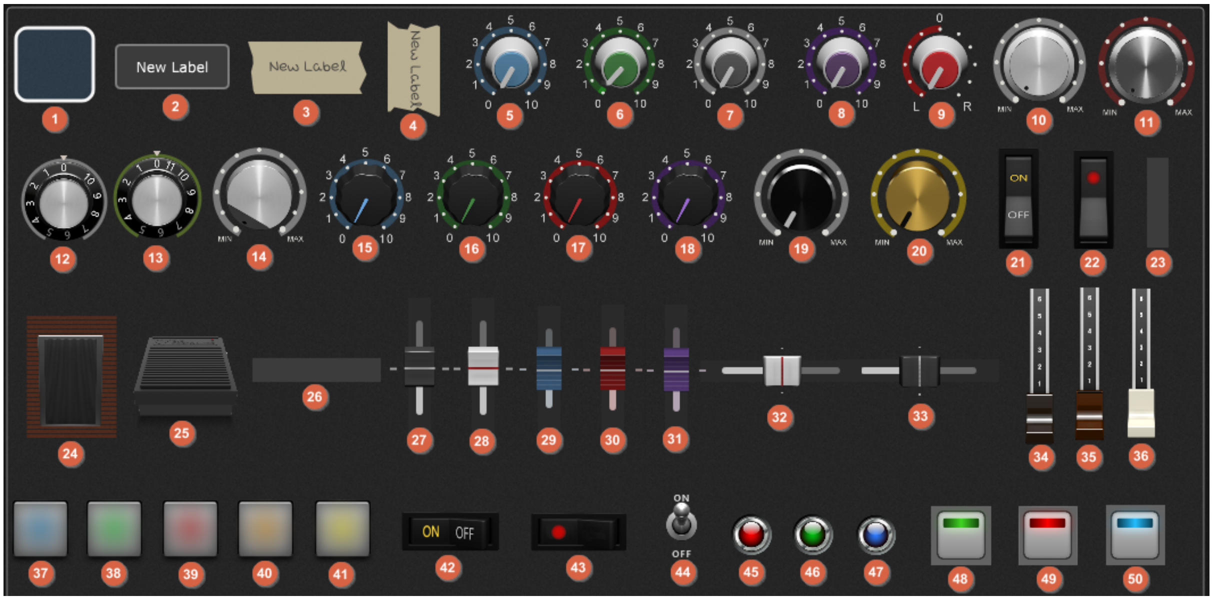
- **Bulk Reset to Different Rackspace/Variation…** - this menu item enables replacing a rackspace variation, everywhere it occurs, with a different variation. This makes it fast and easy to change e.g. all of your piano sounds in one gesture when you get a new, more glorious piano instrument or sound. Choose the rackspace you want to use as a replacement and after accepting the change in the confirmation dialog, all instances of the old variation will be replaced with the new variation.

- **Song Part Properties…** - opens the Song Part Properties dialog.

4.6 Widgets

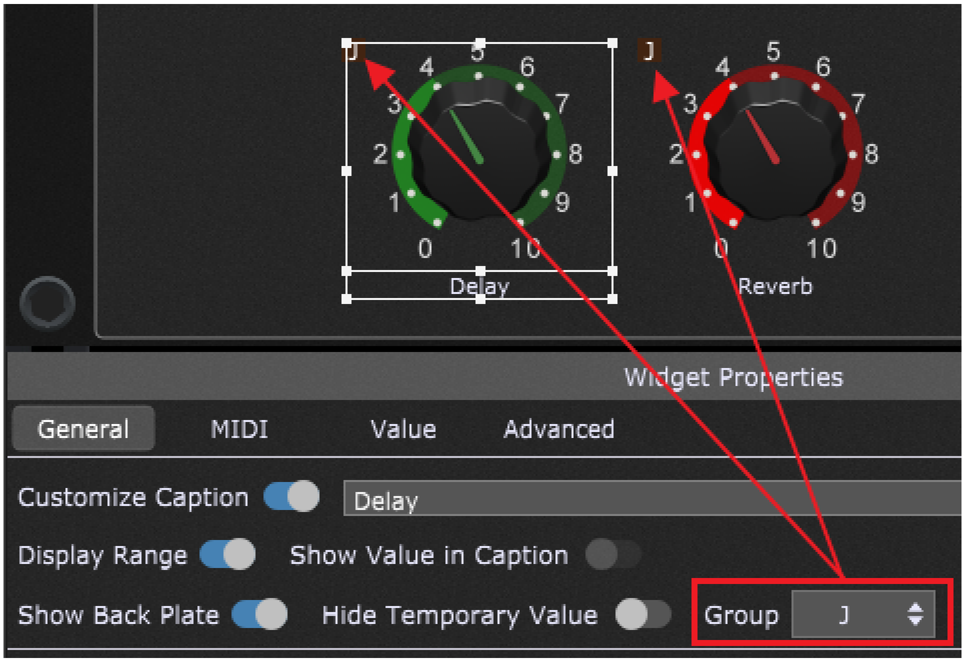
A widget is an object (such as a knob, slider, button, or meter) used to control and/or display plugin parameters. Widgets can be controlled either with your laptop's mouse or trackpad, or remotely from a MIDI controller. With the use of OSC, widgets can also be controlled from iOS / Android tablets and smartphones using the appropriate apps, as well as from other applications such as MaxMSP or Ableton Live that support OSC.

The picture below depicts all 50 widgets available in Gig Performer 4:



1-Shape, **2**-Text Label, **3**-Tape Label (Horizontal), **4**-Tape Label (Vertical), **5**-Blue Knob, **6**-Green Knob, **7**-Grey Knob, **8**-Purple Knob, **9**-Balance Knob, **10**-Metal Knob, **11**-Metal Knob (Dark), **12**-Old School Knob, **13**-The 11, **14**-Metal Angled Knob, **15**-Plastic Blue Knob, **16**-Plastic Green Knob, **17**-Plastic Red Knob, **18**-Plastic Purple Knob, **19**-Black Metal Knob, **20**-Gold Knob, **21**-Switch (Vertical), **22**-Switch Red (Vertical), **23**-Meter (Vertical), **24**-Expression Pedal, **25**-Sustain Pedal, **26**-Meter (Horizontal), **27**-Black Slider (Vertical), **28**-White Slider (Vertical), **29**-Blue Slider, **30**-Red Slider, **31**-Purple Slider, **32**-White Slider (Horizontal), **33**-Black Slider (Horizontal), **34**-Black Drawbar, **35**-Brown Drawbar, **36**-White Drawbar, **37**-Pad Button Blue, **38**-Pad Button Green, **39**-Pad Button Red, **40**-Pad Button Orange, **41**-Pad Button Yellow, **42**-Switch (Horizontal), **43**-Switch Red (Horizontal), **44**-Toggle Switch, **45**-Red LED, **46**-Green LED, **47**-Blue LED, **48**-LED Button Green, **49**-LED Button Red, **50**-LED Button Blue.

Widgets can be operated independently or in widget groups (refer to the How to add a widget to a widget group chapter for more information on widget groups). There are 26 widget groups available in each rackspace and they are represented with letters (A-Z). To assign a widget to a widget group, first make sure that the Edit mode in Panels view is selected; then select a widget and assign it to a group by selecting a letter, as indicated with the red rectangle:



Customize Caption ● Delay
Display Range ●
Show Value in Caption ○
Show Back Plate ●
Hide Temporary Value ○
Group J

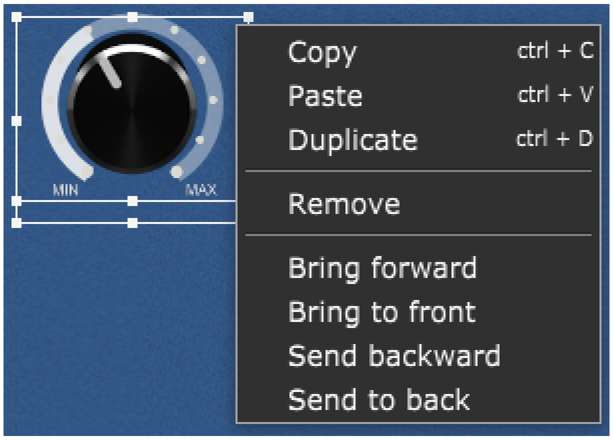
Repeat these steps for other widgets that you want to be a part of the same group. When a widget is a part of a group, there will be a corresponding letter in the upper-left corner of the widget as indicated with the red arrows. Widget groups allows you to define complex relations between widgets, which are further discussed in the Panels and Widgets chapter.

Tip: Pressing a character (A-Z) while holding the Alt key (or Option on Mac) down will assign all selected widgets to that character's widget group.

Historically, if you wanted to control plugin parameters, you had to use MIDI messages to do so. Many plugins supported the ability to learn particular MIDI messages for specific parameters. However, we strongly encourage you to avoid this legacy approach and instead use Gig Performer's host automation support. Using host automation, you will control plugin parameters via widgets and optionally control widgets from your MIDI hardware. This may seem more complicated than it actually is and Gig Performer's ability to learn MIDI automatically makes the process simple while providing you with much more flexibility than controlling parameters directly via MIDI (please refer to this chapter for more information). Visit this blog article to learn what are the benefits of using the host automation. **Note**: while some older plugins may not support host automation, plugins that don't support host automation are very rare.

4.6.1 Widget contextual menu

If the Panels view, the Edit mode is active and you right click on a widget, the contextual menu appears:



Copy - copies the widget into the clipboard.

Paste - pastes the widget from the clipboard.

Duplicate - duplicates the currently selected widget.

Remove - removes the currently selected widget (alternatively, press the Del or the Backspace key).

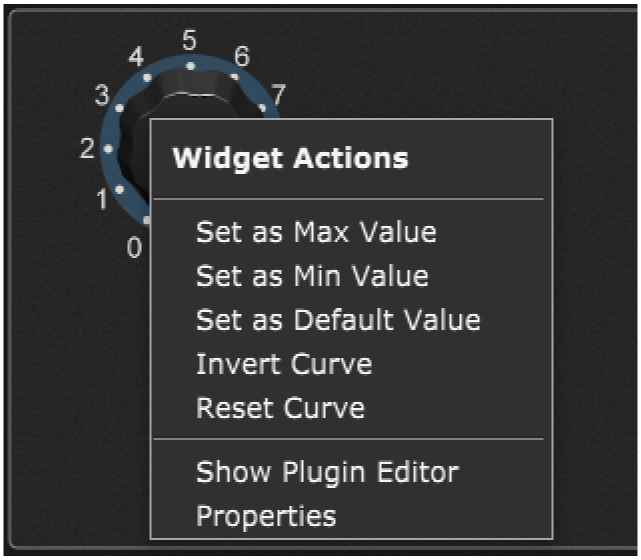
Bring to forward - places the currently selected widget one place higher in the order. Refer to the Widget z-ordering chapter for more information.

Bring to front - places the currently selected widget above all others (the highest priority in the order).

Send backward - places the currently selected widget one place lower in the order.

Send to back - places the currently selected widget below all others (the lowest priority in the order).

Note: if you click on a widget while holding the Shift key in the Panels view (not in Edit mode), the Widget actions menu will appear:



Set as Max value - sets the current widget value as the maximum widget value.

Set as Min value - sets the current widget value as the minimum widget value.

Set as Default value - sets the current widget value as the default widget value (check the Widget Properties Inspector chapter to learn more).

Invert Curve - inverts the widget's scaling curve.

Reset Curve - resets the widget's maximum and minimum values and the scaling curve to linear (which is the default curve).

Show Plugin Editor - shows the plugin editor window if this widget is associated to a plugin.

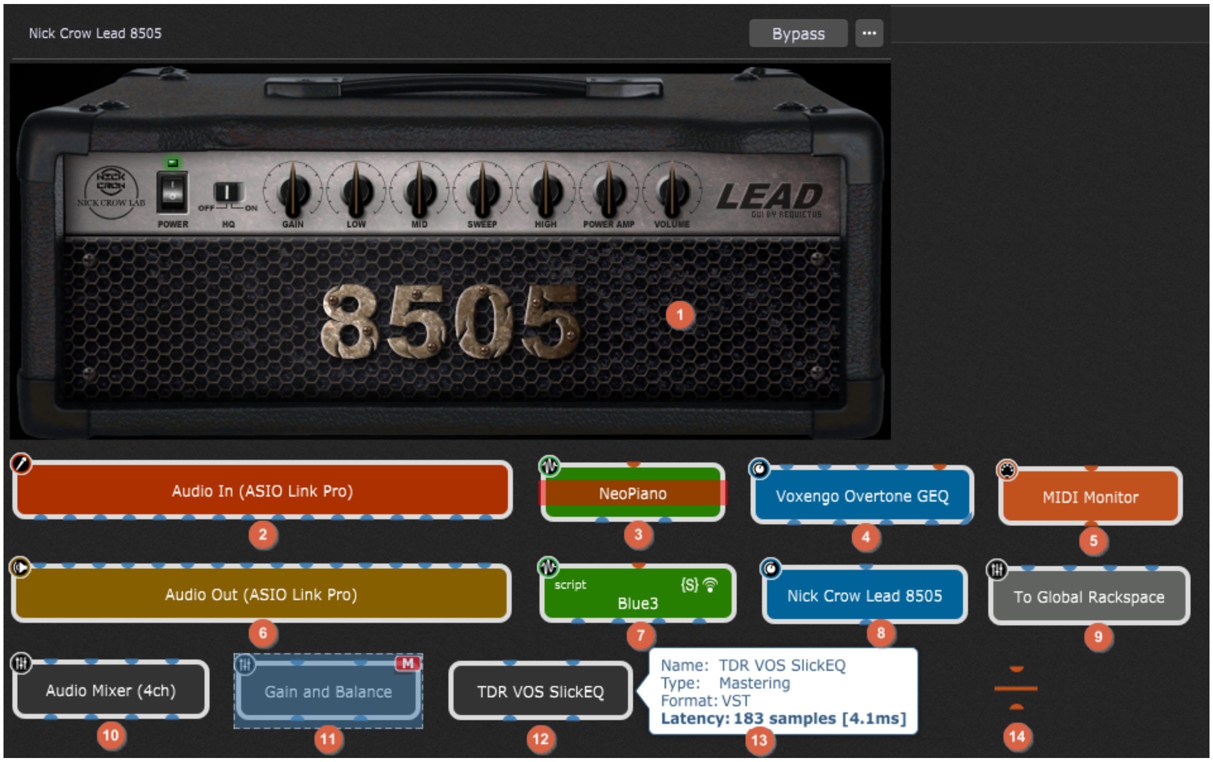
Properties - clicking this menu item opens Edit mode and the Widget Properties Inspector will be displayed for this widget.

4.7 Plugins

A plugin is a separate piece of software that can be loaded into a DAW or a live performance host such as Gig Performer. Some plugins (called "virtual instruments") generate audio, for example, emulations of musical instruments and synthesizers, while effects plugins alter incoming audio signals, such as from a microphone, electric guitar, or virtual instrument, offering pro-cesses like equalization, filtering, compression, limiting, reverb, delay, flanging, chorusing, phasing, and the like. Many thousands of plugins are available in the audio/music marketplace, both free and commercial. Many free plugins are of extremely high quality.

In Gig Performer, a plugin is also referred to as a plugin block or just "block".

Some of the blocks and their elements in Gig Performer are depicted in the screenshot below:



Name: TDR VOS SlickEQ
Type: Mastering
Format: VST
Latency: 183 samples [4.1ms]

Double-clicking a plugin opens its editor **(1)**, e.g. here is a third-party plugin called Nick Crow Lead 8505, as indicated in **(8)**. When you insert a plugin it opens its editor by default; this setting can be changed by turning off the *Show plugin editor when inserted* setting in Display options.

The Audio input block is colored dark orange **(2)** and audio output block is colored dark yellow **(6)**; the actual audio inputs and outputs depend on your audio setup. You can review your settings under Audio I/O Options.

Virtual instruments, such as **(3)** and **(7)** are colored green. The third party-plugin called NeoPiano is bypassed. Learn more about bypassing a plugin in the Plugin contextual menu section.

Audio processors, such as effects plugins **(4)** and **(8)** are colored blue. Note the blue line located at the lower-right corner of plugin **(4)**; hovering a mouse pointer over this line will show a tooltip that states *This plugin has more audio channels. Click to adjust visibility*. Refer to the Plugin contextual menu section to find out more about limiting pins (or plugin ports).

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To find out more about wiring your plugins and ports, refer to the Wiring view and Inserting and wiring your plugins sections.

MIDI plugins such as MIDI Monitor **(5)** are colored orange.

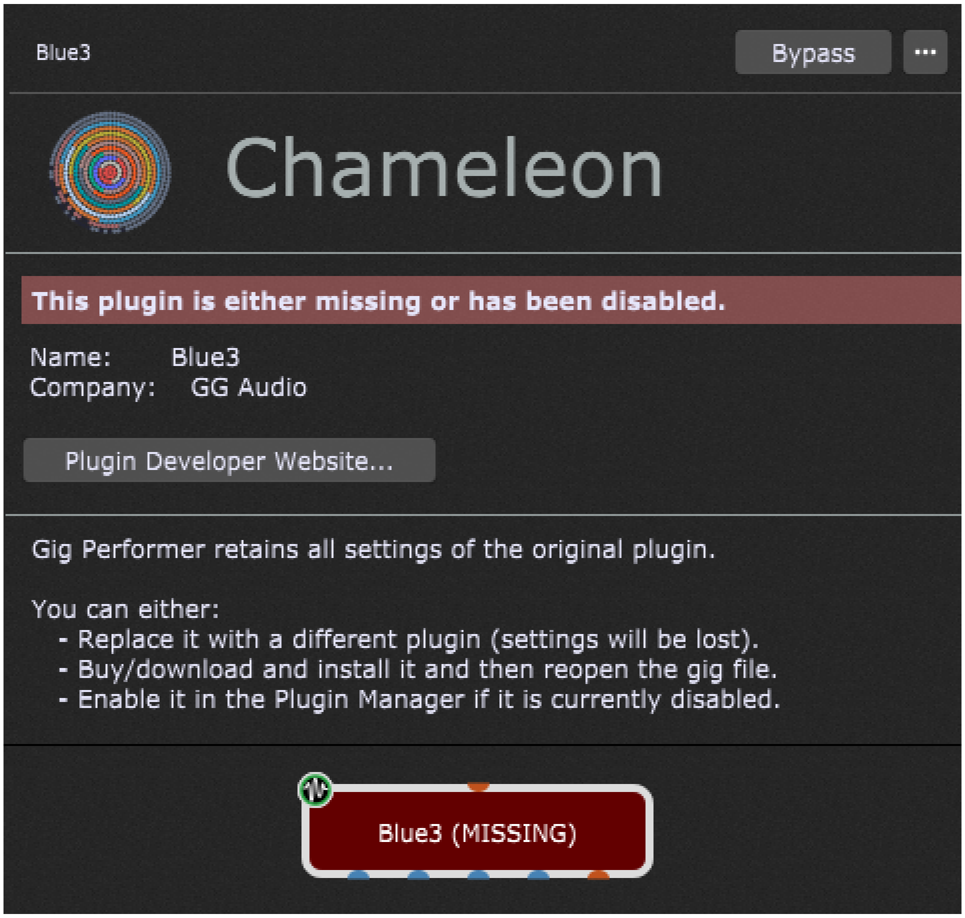
A plugin may have an OSC/GPScript handle assigned to them. Note the Blue3 plugin **(7)** and its handle name "script" located at the upper-left corner of the plugin. Two symbols {S} and "wireless icon" are located at the upper-right corner of the plugin, indicating that the defined handle will be used as a GPScript handle and a OSC handle respectively. Refer to the Plugin contextual menu section for more information on setting up a handle.

As previously mentioned in the chapter Global Rackspace, the gray-colored plugin To Global Rackspace **(9)** is used to send audio signals to the Global rackspace.

When you click on a plugin block it becomes selected **(11)** (NB: when you mute a Gain Control plugin, the "M" indicator will appear in the upper-right corner of the plugin). Many integrated Gig Performer's plugins are colored black, such as Audio Mixer **(10)**. A plugin is also colored black if it doesn't report its type or if it represents a utility plugin, such as some mastering plugins **(12)**. If you hover with your mouse over any plugin, a tooltip pops up, showing the plugin's name, type, format and latency **(13)** (note: the tooltip can be disabled by turning off the *Show information on plugin hover* toggle box in the Display Options).

An exception to the common rectangular shape of plugins in Gig Performer is the MIDI Channel Constrainer plugin **(14)** (to learn more about this plugin and set it to block all MIDI traffic, refer to the MIDI Channel Constrainer chapter).

If the computer you're using to access the gig file is missing some of the plugins that were present when the original file was created, Gig Performer will create a "chameleon" plugin that mimics all the properties of the original plugin except the actual processing. This will allow you to modify the file, save it and later re-open it on a computer that has all of the required plugins installed:



This plugin is either missing or has been disabled.

Name: Blue3
Company: GG Audio

Gig Performer retains all settings of the original plugin.

You can either:
- Replace it with a different plugin (settings will be lost).
- Buy/download and install it and then reopen the gig file.
- Enable it in the Plugin Manager if it is currently disabled.

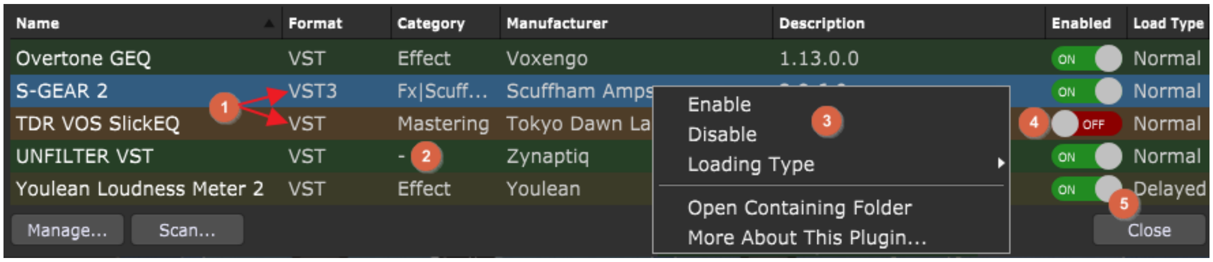
The chameleon plugin is colored dark red and reports the name of the real plugin followed by the word "(MISSING)". If you double-click this plugin, its window opens and states that this plugin is either missing or disabled on this system. This feature is extremely useful if someone sends you a gig file that includes a reverb plugin (say) which you don't have currently installed. You simply open that gig file and see which plugin is missing. Afterward, you can either install the missing plugin or replace it with your own reverb plugin – right click on the chameleon block, then select Replace plugin and choose the existing alternative reverb plugin on your machine.

If you disable your plugin through the Plugin Manager, it becomes a chameleon plugin. This feature is also useful for troubleshooting; check this blog article to find out how you can identify a plugin that crashed.

To learn more about the plugins that are integrated in Gig Performer, refer to the Built-in plugins chapter.

4.7.1 Plugin Manager

The Plugin Manager lets you view all of the plugins installed in your system, and can be sorted by name, format (VST, VST3 or AudioUnit), category (Effect, tone Generator, Synth, Panner, etc.), manufacturer name, description, enabled status or load type:



Name	Format	Category	Manufacturer	Description	Enabled	Load Type
Overtone GEQ	VST	Effect	Voxengo	1.13.0.0	ON	Normal
S-GEAR 2	VST3	Fx|Scuff...	Scuffham Amps		ON	Normal
TDR VOS SlickEQ	VST	Mastering	Tokyo Dawn La		OFF	Normal
UNFILTER VST	VST	-	Zynaptiq		ON	Normal
Youlean Loudness Meter 2	VST	Effect	Youlean		ON	Delayed

To access the Plugin Manager, press Ctrl+Shift+P (Cmd+Shift+P on Mac) or choose **Plugin Manager** from the Window menu. Click on the column name, such as "Name" or "Format" to sort the column alphabetically by that category. Click that category a second time to reverse the alphabetical order of the column.

Note: Windows users can install and use VST and VST3 plugins; examples of those are indicated with **(1)**. MacOS users can install and use VST, VST3 or AudioUnit plugins.

Do however be aware that a plugin's manufacturer might report the wrong category or even not report it at all **(2)**.

Right-clicking on any plugin name opens a pop-up menu **(3)** that allows you to *Enable* or *Disable* any plugin (alternatively, click on the toggle button as indicated with **(4)**), open its containing folder, visit plugin developer's website, or to specify its Loading type - "Normal" or "Delayed" (alternatively, click on the toggle button as indicated with **(5)**).

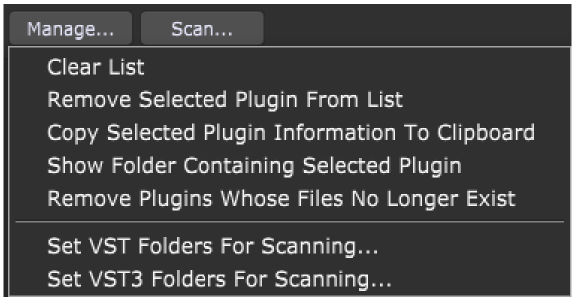
Note: if you see duplicates of your VST plugins in the list, click on the **Open Containing Folder** menu item and review your duplicates locations to determine where they are installed. Afterwards, remove the unnecessary plugins.

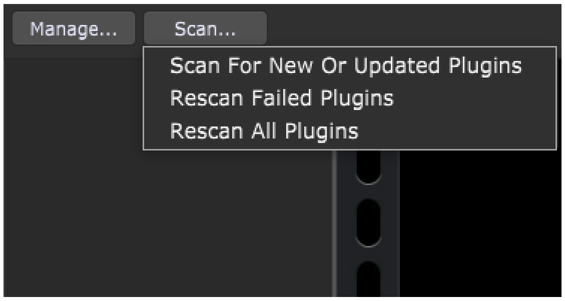
If you encounter third-party plugins that regularly fail to reinitialize successfully (i.e. they don't launch or display with the last saved value when recalling a .gig file), try designating them here as "Delayed" (they will be overlaid with a dark brown see-through bar). Gig Performer will then slightly delay their loading time the next time it is launched, which may help solve the problem.

Note: when you disable a plugin, you will need to reload your gig file for the changes to take effect.

Plugins labeled as "Disabled" in the Plugin Manager are overlaid with a brown see-through bar and will not appear in the list of available plugins when you right-click in the Wiring view surface area. This enables you to reduce clutter if you are sure you won't need to access particular plugins when creating a rackspace.

At the bottom of the Plugin Manager window are two buttons named **Manage...** and **Scan...** :


Manage...
Scan...
Clear List
Remove Selected Plugin From List
Copy Selected Plugin Information To Clipboard
Show Folder Containing Selected Plugin
Remove Plugins Whose Files No Longer Exist
Set VST Folders For Scanning...
Set VST3 Folders For Scanning...

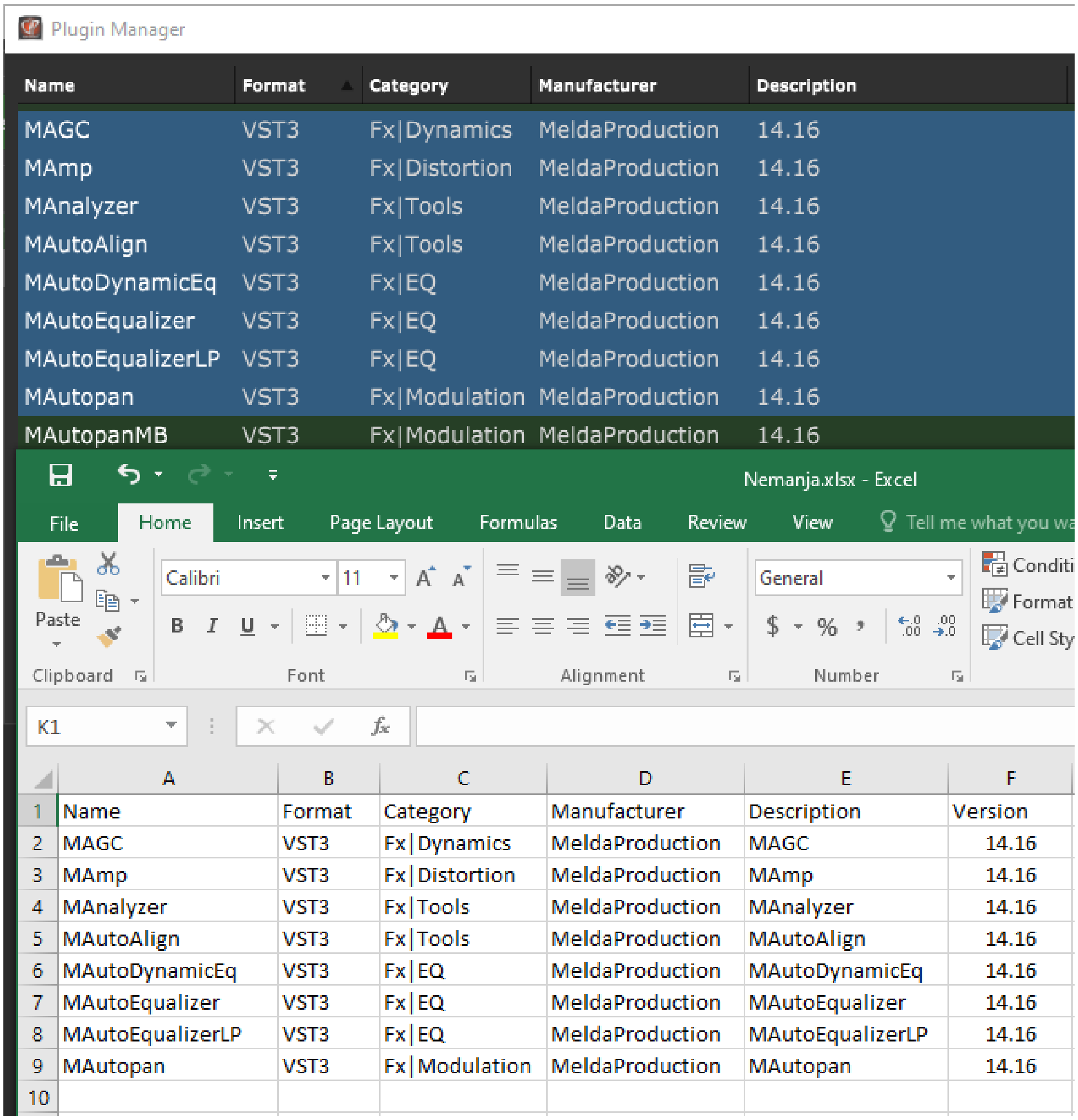


Clicking on the **Manage...** button allows you to:

- **Clear list** - clears all plugins from Gig Performer's Plugin Manager. **Note**: this operation will not actually erase any plugins from your computer, it simply makes them unavailable to Gig Performer until you perform a new scan. Click on the **Scan** -> **Scan for new or updated plugins** menu item to begin the scan.

- **Remove selected plugin from list** - removes the plugin from the Plugin Manager list (note: select a plugin first to make this option operational). This menu item does not remove the plugin (and its files) from your operating system. **Note**: to remove a plugin from the list permanently, find the desired plugin that you want to remove and then delete its files (you can use the *Open Containing Folder* contextual menu item) from your drive (alternatively, move them to another folder location that is not already specified in the Plugin Manager) and then select the *Remove Plugins Whose Files No Longer Exist* option.

- **Copy selected plugin information to clipboard** - clicking this menu item copies selected entries in the Plugin Manager to the clipboard in CSV format. Afterwards, simply paste the clipboard contents into a (say) spreadsheet application to create a nicely formatted list of validated plugins on your computer.



Name	Format	Category	Manufacturer	Description
MAGC	VST3	Fx|Dynamics	MeldaProduction	14.16
MAmp	VST3	Fx|Distortion	MeldaProduction	14.16
MAnalyzer	VST3	Fx|Tools	MeldaProduction	14.16
MAutoAlign	VST3	Fx|Tools	MeldaProduction	14.16
MAutoDynamicEq	VST3	Fx|EQ	MeldaProduction	14.16
MAutoEqualizer	VST3	Fx|EQ	MeldaProduction	14.16
MAutoEqualizerLP	VST3	Fx|EQ	MeldaProduction	14.16
MAutopan	VST3	Fx|Modulation	MeldaProduction	14.16
MAutopanMB	VST3	Fx|Modulation	MeldaProduction	14.16

	A	B	C	D	E	F
1	Name	Format	Category	Manufacturer	Description	Version
2	MAGC	VST3	Fx|Dynamics	MeldaProduction	MAGC	14.16
3	MAmp	VST3	Fx|Distortion	MeldaProduction	MAmp	14.16
4	MAnalyzer	VST3	Fx|Tools	MeldaProduction	MAnalyzer	14.16
5	MAutoAlign	VST3	Fx|Tools	MeldaProduction	MAutoAlign	14.16
6	MAutoDynamicEq	VST3	Fx|EQ	MeldaProduction	MAutoDynamicEq	14.16
7	MAutoEqualizer	VST3	Fx|EQ	MeldaProduction	MAutoEqualizer	14.16
8	MAutoEqualizerLP	VST3	Fx|EQ	MeldaProduction	MAutoEqualizerLP	14.16
9	MAutopan	VST3	Fx|Modulation	MeldaProduction	MAutopan	14.16
10						

Note: the keyboard shortcut Ctrl+C (or Cmd+C on Mac) also works to copy selected plugin information to the clipboard in CSV format. To select all plugins and then copy plugin information for all validated plugins, you can press Ctrl+A and then Ctrl+C (Cmd+A and then Cmd+C on Mac).

Tip: When you paste the content from the clipboard to Excel, under the Paste Options select the **Use Text Import Wizard...** option and then check "Comma" as the delimiter.

Note: in the Plugin Manager window, the Description column also contains version numbers of plugins.

- **Show folder containing selected plugin** - opens the folder containing the selected plugin (note: select a plugin first to make this operational - this only works for VST plugins).

- **Remove plugins whose files no longer exist** - use this option to update the Plugin Manager so that it reflects accuracy what plugins are actually available.

- **Set VST folders for scanning...** - opens the window which allows you to change, add, or delete the VST plugin folders to be scanned (see the Troubleshooting section for more information).

- **Set VST3 folders for scanning...** - opens a window that allows you to change, add, or delete the folders to be scanned for VST3 plugins (see the Troubleshooting section for more information).

Clicking on the **Scan...** button allows you to:

- **Scan for new or updated plugins** - this causes Gig Performer to immediately scan your system for any newly installed or updated plugins; any plugins found will be added to the Plugin Manager list.

- **Rescan failed plugins** - rescans any failed plugins. Note that Gig Performer supports only 64-bit plugins; any 32-bit plugin found will fail to initialize.

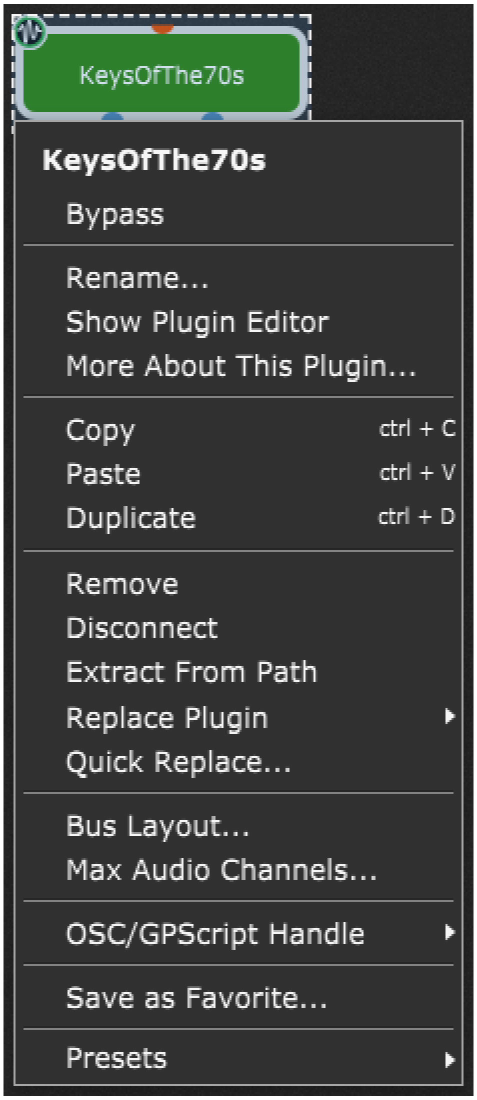
- **Rescan all plugins** - this option will go through your drive again, looking for all plugins in specified folders.

For more information on how to download and use plugins in Gig Performer, check this blog article: Top websites for free audio plugins and how to use them in Gig Performer.

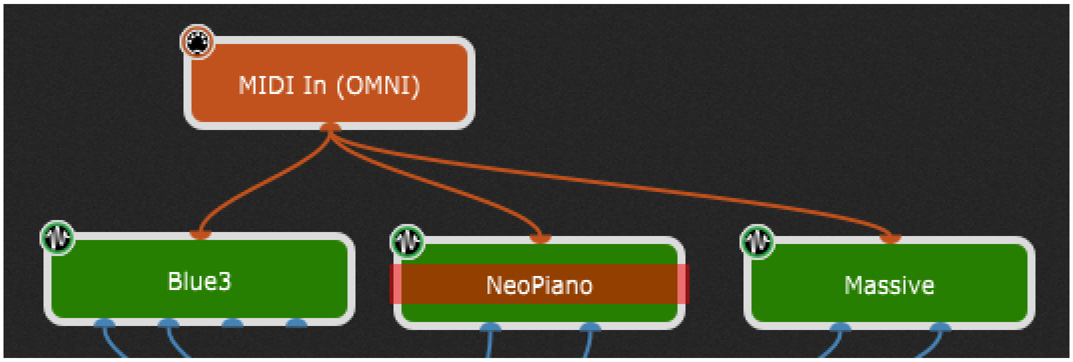
Note: double-clicking a plugin in the Plugin Manager inserts that plugin in the Wiring view.

4.7.2 Plugin contextual menu

Right-clicking on any plugin opens a popup menu with many options:



1. Bypass - places the plugin in bypass mode. Plugin blocks that are bypassed are overlaid with a red transparent rectangle, as shown in the illustration below:



Similarly, you can select multiple plugins and bypass them.

Note: There is a difference between *bypassing* a plugin and *muting* it.

For virtual instrument plugins, *bypassing* actually turns off processing for that plugin, thus stopping the sound from being generated.
Muting, which is accomplished by inserting a Gain Control, Gain and Balance, Gain and Balance (m->s), or one of the audio mixer plugins and clicking the Mute button or setting its volume slider to 0, causes an audio signal to continue to be generated, but with the output silenced.

For example, if you are playing back a loop or click track during live performance but you don't want the audience to hear it for a period of time, mute the plugin instead of bypassing it. That way, it will continue to play (in your headphones, if so routed) until you're ready for the audience to hear it again.

In contrast, bypassing an effects plugin causes incoming signals to pass through the plugin unchanged.

2. Rename... - renames the displayed name (useful if you are using the same plugin more than once).

3. Show Plugin Editor - opens the plugin's editor (same as double-clicking on the plugin block).

4. More About This Plugin... - opens the default Web browser and loads the plugin's homepage (an Internet connection is required to load the plugin's homepage).

5. Copy - copies the plugin into the clipboard.

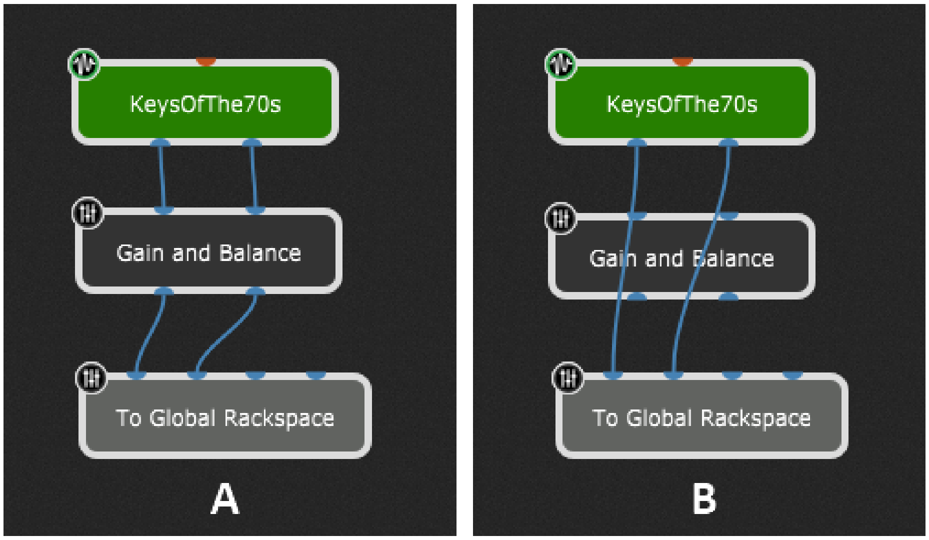
6. Paste - pastes the plugin from the clipboard.

7. Duplicate - creates a duplicate of the plugin. **Note**: check the Additional tips chapter to learn how to duplicate a plugin with inputs.

8. Remove - removes the plugin from the Wiring area surface. You can also select one or more plugin blocks by dragging over them with your mouse and remove them from the Wiring area surface by pressing either the Delete or Backspace keys on your keyboard.

9. Disconnect - removes all connections to and from this plugin.

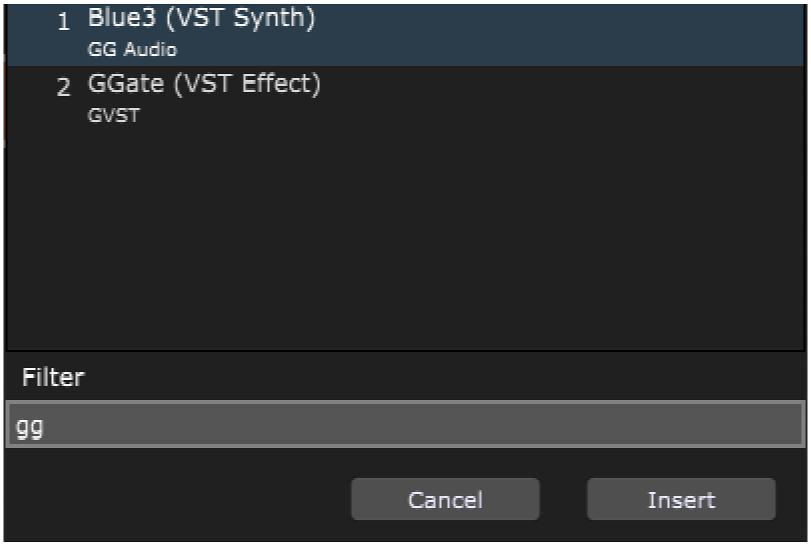
10. **Extract from path** - extracts this plugin block from the audio or MIDI path; see the following example **(A)**:



Clicking this menu item will extract the current block (Gain and Balance block) from the audio path, i.e. connect the KeysOfThe70s block with the To Global Rackspace block (see **(B)**).

11. Replace Plugin - choose a plugin from the menu that pops up to replace the current plugin with another.

12. Quick Replace... - opens a new window that allows you find plugins quickly based on partial names:



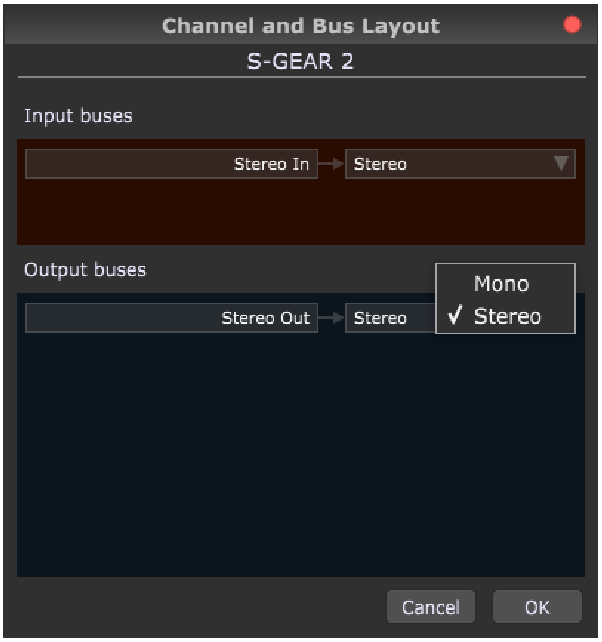
1 Blue3 (VST Synth)
GG Audio

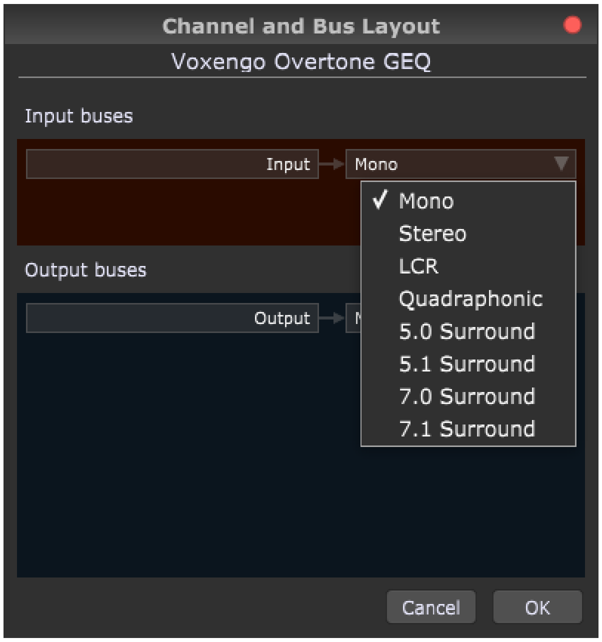
2 GGate (VST Effect)
GVST

Filter: gg

Type in a search query, such as "gg" to quickly find all plugins with that name or their developers name. You can also type in "synth" to display all your synth plugins.

13. Bus Layout... - opens the Channel and Bus Layout dialog:

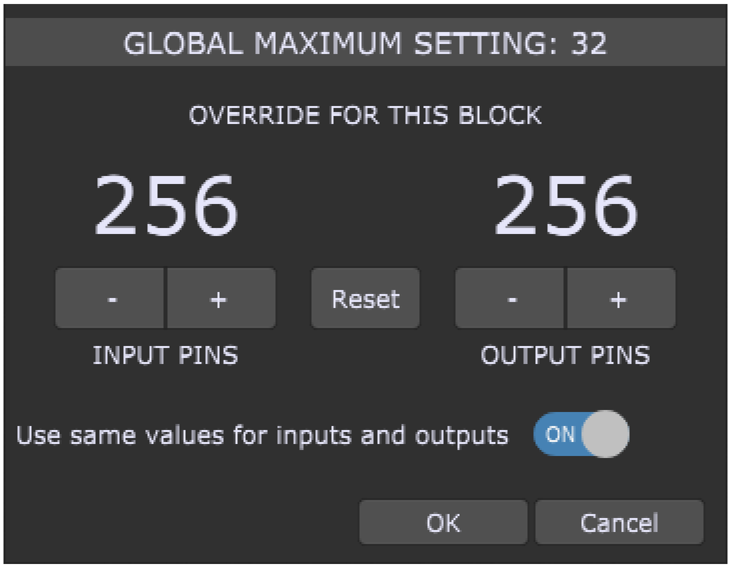




Some plugins support multiple configurations of inputs and outputs, usually mono and stereo, and sometimes multichannel. In a DAW environment, the DAW deals with configuring these input and output buses. In Gig Performer, you can access a plugin's bus options directly in the Channel and Bus Layout dialog.

Many plugins will simply show a stereo input/output bus, but some plugins, such as the eight-channel Voxengo Overtone GEQ, shown in the screenshot above, offer many more configurations.

14. Max audio channels... - this feature allows you to set the maximum number of audio pins for the selected plugin block:



GLOBAL MAXIMUM SETTING: 32

OVERRIDE FOR THIS BLOCK

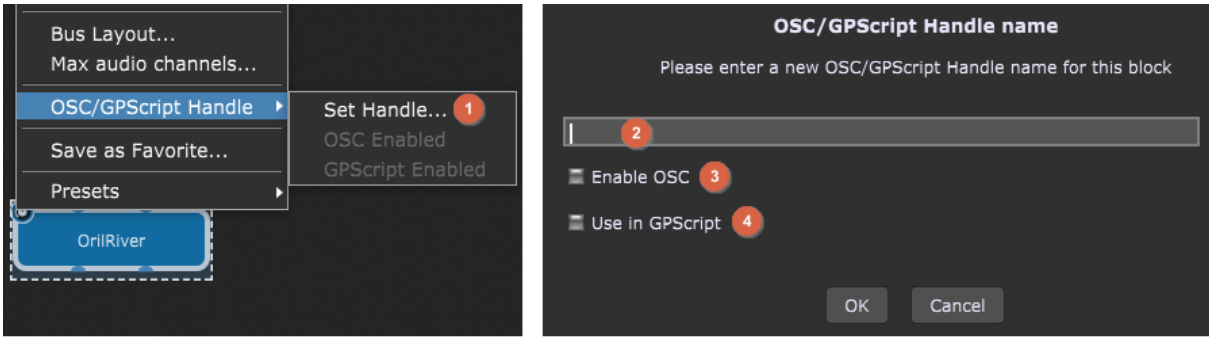
INPUT PINS: 256

OUTPUT PINS: 256

Use same values for inputs and outputs: ON

The global maximum setting (for all plugins) can be changed in Display Options. This setting can be overridden for the selected block; default current maximums for the override are 256 input/output pins, and their number can be set up independently if you turn off the *Use same values for inputs and outputs* toggle button. This feature is very useful for certain plugins that expose a large number of channels (64 or even 128), making the plugin block extremely wide. In such cases, you can use this option to force the plugin to display only the first few channels.

15. OSC/GPScript Handle - allows you to set a handle to be used by GPScript and OSC, and to enable OSC and/or GPScript.



OSC/GPScript Handle name

Please enter a new OSC/GPScript Handle name for this block

Click on the **Set Handle...** menu item **(1)**; new window appears, where you can type in a name of the handle **(2)**, and then activate **Enable OSC (3)** and/or **Use in GPScript (4)** if you want to use these advanced features. Refer to OSC and Gig Performer and GPScript chapters to learn more.

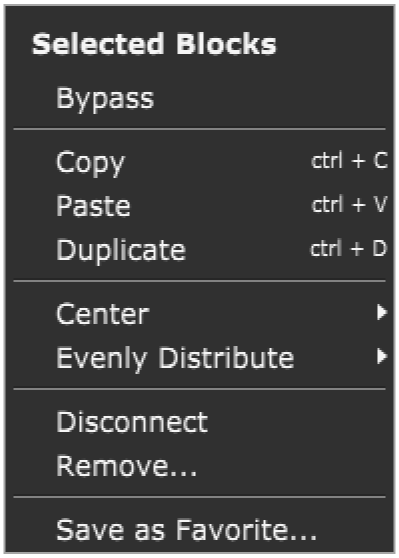
16. Save as Favorite... - allows you to save a plugin as favorite. Refer to the Save one or more plugins as favorites section for more information.

17. Presets - allows you to load plugin's integrated (factory) presets or custom user presets. See the Plugin Editor More menu section to learn more.

Note: the MIDI In plugin block right-click menu is the same as other plugins, but with the addition of:
Change MIDI Input Device - reassigns the MIDI In or MIDI Out block to the MIDI controller chosen from the popup menu.

4.7.3 Selected blocks contextual menu

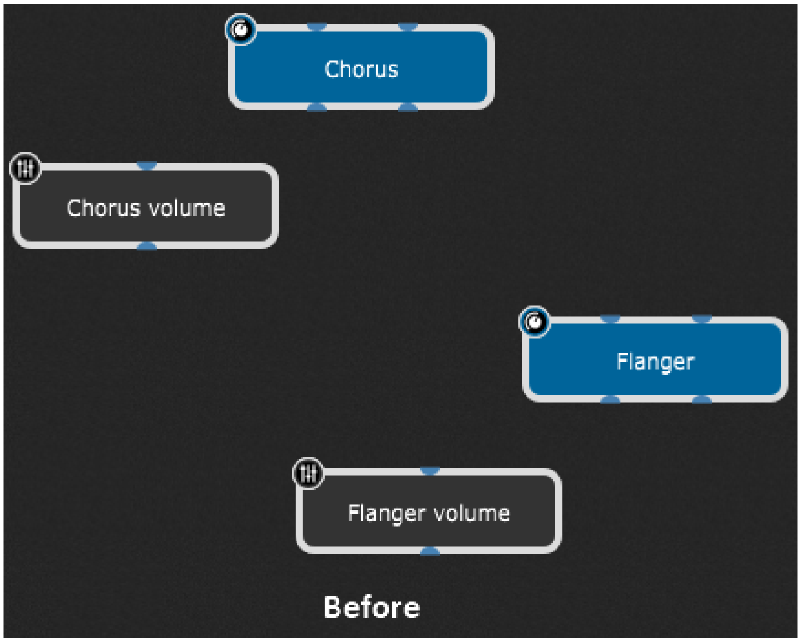
If you select multiple plugins (either by using a selection rectangle or Shift + click on the desired plugin blocks) and right click on any of the selected plugins, the Selected blocks contextual menu will open and allow you to do the following:

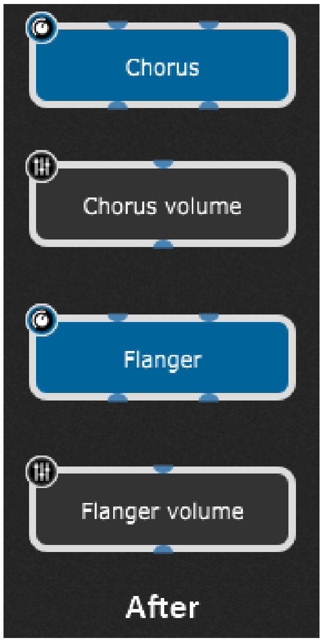


The displayed menu items have the same purpose as described in the Plugin contextual menu chapter; the new menu items are **Center** and **Evenly Distribute**.

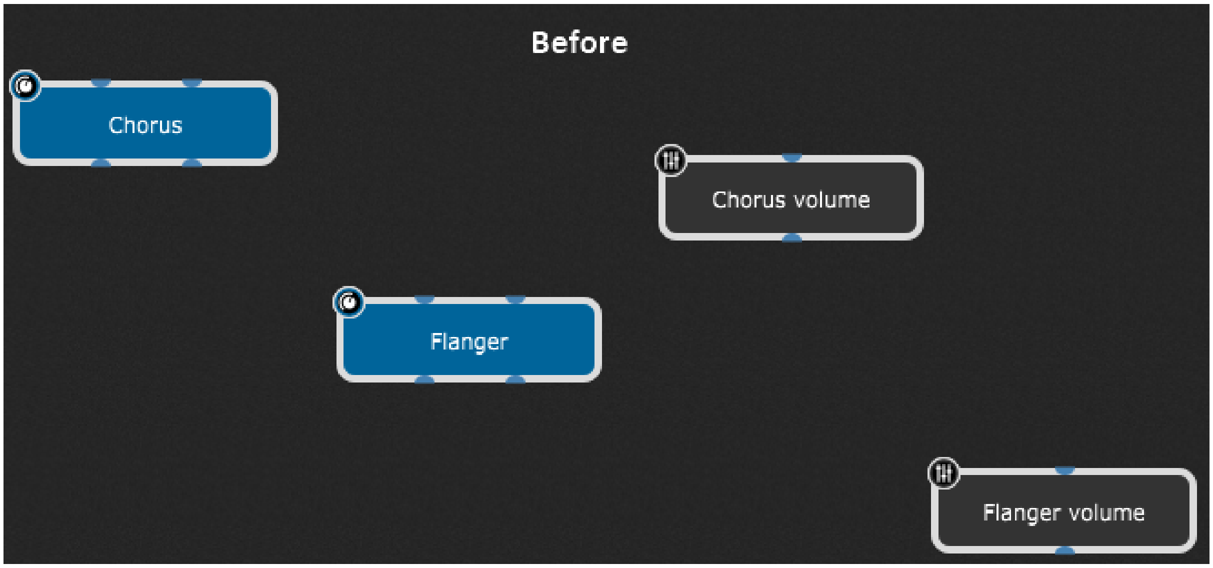
When you hover over the **Center** menu item, two sub-items appear - Vertically and Horizontally, allowing you to center all selected plugin blocks vertically or horizontally respectively.

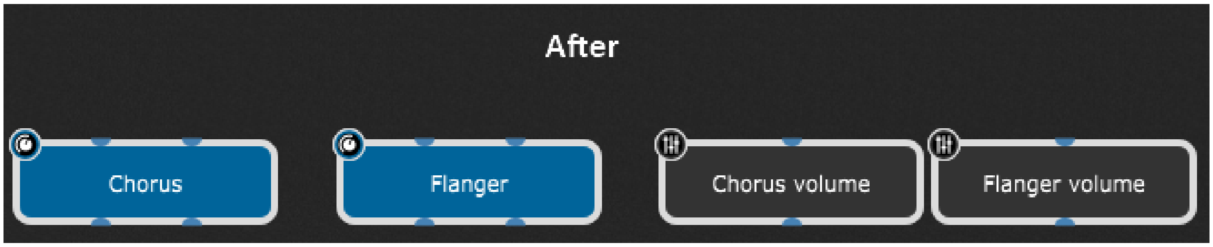
Center -> Vertically:





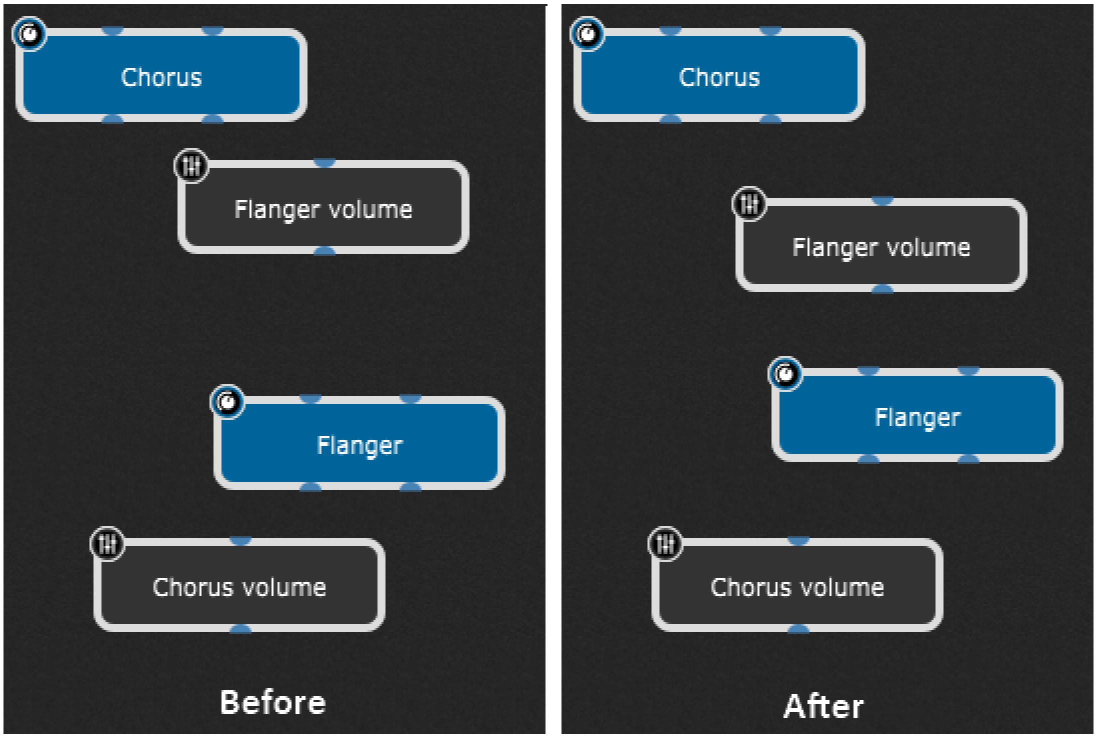
Center -> Horizontally:



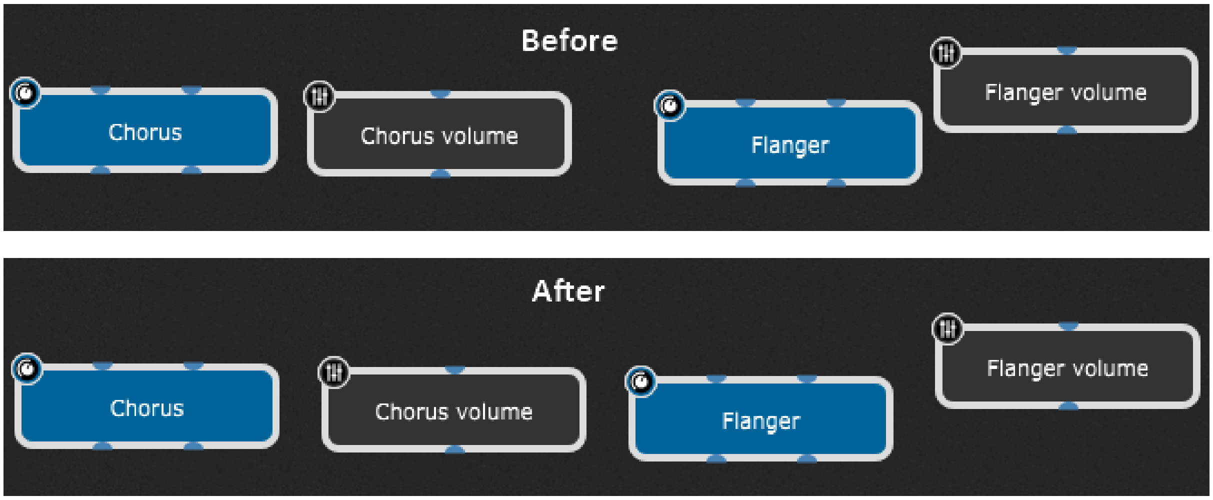


The **Evenly Distribute** menu item will be enabled if you select at least three plugin blocks; when you hover over the Evenly Distribute menu item, two sub-items appear - Vertically and Horizontally, allowing you to distribute all selected plugin blocks evenly either vertically or horizontally respectively.

Evenly Distribute -> Vertically:

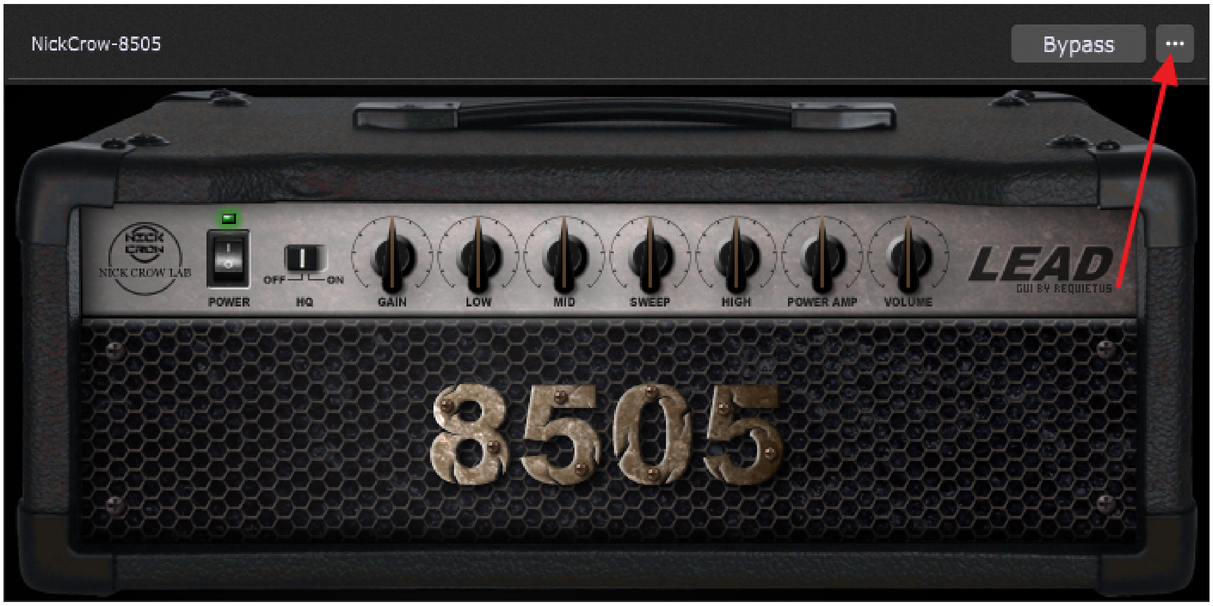


Evenly Distribute -> Horizontally:

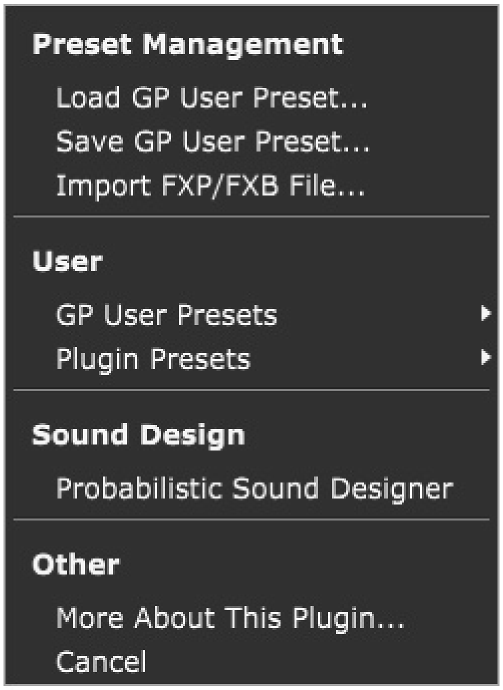


4.7.4 Plugin Editor More menu

Double-clicking a plugin opens its plugin editor:



Clicking on the "..." button (indicated with the red arrow) opens the More menu:



Load GP User Preset... - loads a Gig Performer user preset file (gpp_audiounit, gpp_vst or gpp_vst3).

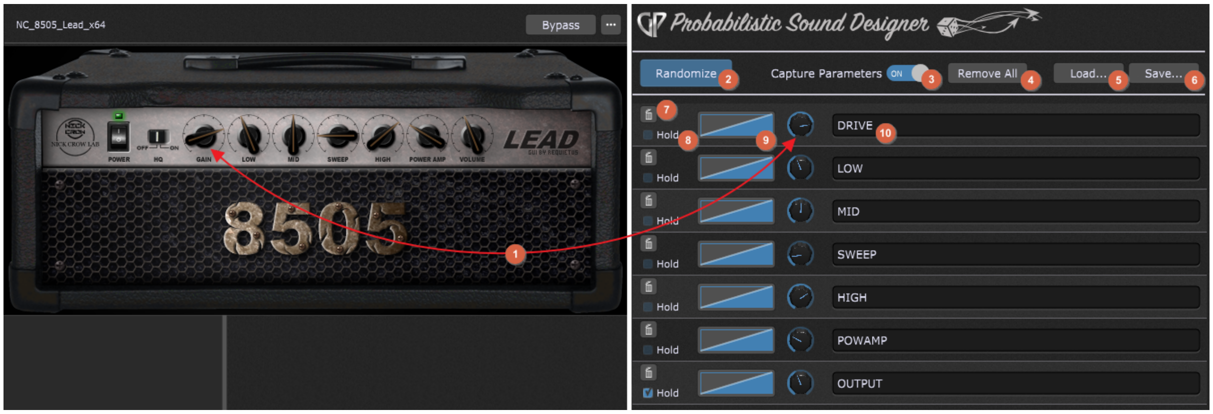
Save GP User Preset… - saves a Gig Performer user preset file (gpp_audiounit or gpp_vst or gpp_vst3, where the actual extension depends on the plugin type). User presets are saved in corresponding subfolders under the Presets folder based on their manufacturer name and the actual plugin name (refer to the File locations in Gig Performer chapter for more information). The resulting subfolder where user preset files are saved is in the following folder tree: Presets\Plugin_Manufacturer_Name\Plugin_Name. **Tip**: to easily access your Presets folder, click Window -> Open Content Folders; open the Presets folder and browse its sub-folders (organized by plugin manufacturers' names) to find preset files and to perform other file operations on them (rename, delete, etc.).

Import FXP/FXB File… - imports a FXP/FXB preset file. FXP is an individual preset, FXB is a bank of presets. This feature is for legacy support and may disappear in a future version of Gig Performer. Not all VST plugins are compatible with the FXP/FXB format. Most of those that are compatible are audio plugins.

GP User Presets - this menu item is disabled if you have not previously saved any user presets for the current plugin. If it is available, it will list the names of your saved user presets.

Plugin Presets - some plugins include predefined presets, most commonly factory presets. If a plugin has any such built-in presets, then they will show up in this sub-menu.

Probabilistic Sound Designer - randomizes selected plugin parameters values to generate random patches. This feature supersedes the Random Parameter Generator, an experimental feature in Gig Performer 3:



1. **Choose the desired parameters** - simply click on a desired control in the plugin editor window (i.e. Gain, Low, or other) and/or move it and the corresponding parameter will be automatically recognized and captured (make sure that the **Capture Parameters** toggle button is turned on). The knobs positions in the plugin editor and the Probabilistic Sound Designer will be automatically synchronized.

2. **Randomize** - when you select the desired parameters, click on the **Randomize** button to generate random values for the chosen parameters. Every time you click on this button creates new values for the chosen parameters. **Note**: if the **Hold** check box is ticked, a random value for that parameter will not be generated (e.g. the last parameter in this list will not be randomized).

3. **Capture Parameters** - this toggle button is turned on by default; if you turn it off, new parameters will not be captured.

4. **Remove All** - removes all listed parameters.

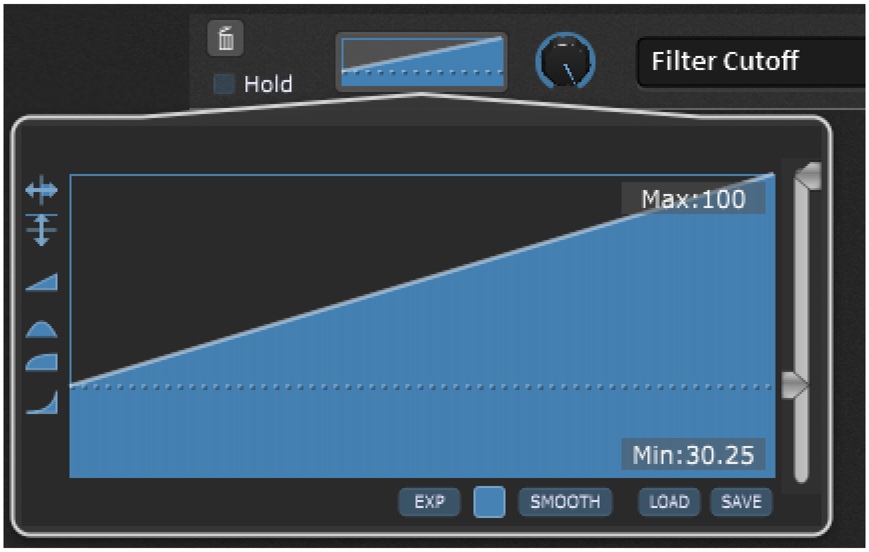
5. **Load...** - clicking on this button allows you to load a previously saved Probabilistic Sound Designer configuration (gppsd_audiounit, gppsd_vst or gppsd_vst3).

6. **Save...** - clicking on this button allows you to save the current Probabilistic Sound Designer configuration to a file (gppsd_audiounit, gppsd_vst or gpp_vst3, where the actual extension depends on the plugin type). By default these files are saved in corresponding subfolders in the PSD folder (refer to the File locations in Gig Performer chapter for more information).

7. **Remove button** - clicking on this button will remove the current parameter from the parameter list.

8. **Hold** - check this checkbox if you don't want the corresponding parameter to get a random value. In the screenshot above, all knobs will get the random value except the output volume.

9. **Curve** - allows you to control the range of possible values and the probability of particular values for the parameter. Refer to this chapter for more information on curves.
   For example, if you're randomizing a low-pass filter cutoff and there is no other modulator (e.g. no ADSR applied), then it's useful to prevent the filter from getting too low a value as that will just block all audio:



So the graph above basically says, produce any value equally likely from within the range 30.25 to 100. The filter value therefore will never be set lower than about 1/3 from the bottom.

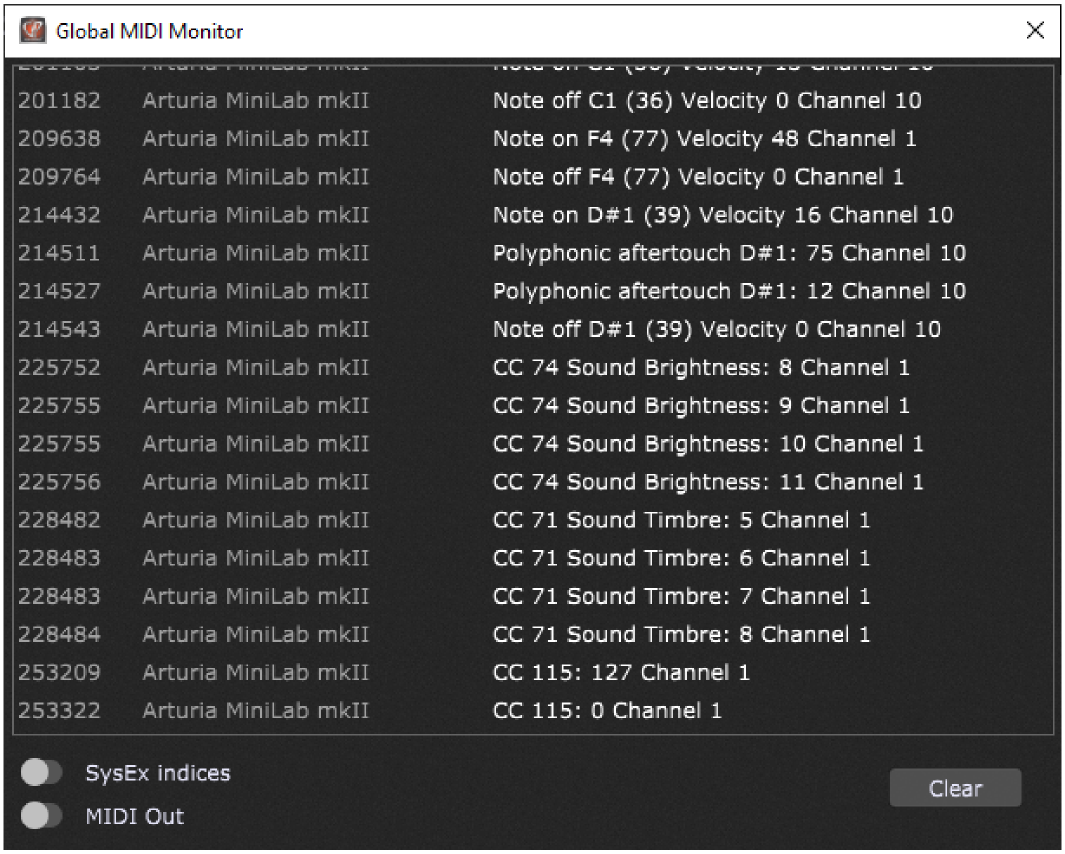
10. **Parameter name** - displays the name of the captured parameter.

More about this plugin - opens the homepage of a plugin's manufacturer in the default Web browser.

Cancel - this menu item simply closes the menu.

4.8 Global MIDI Monitor

The global MIDI Monitor displays all incoming MIDI events. Click on the Window menu and select the Global MIDI Monitor to open it or press keys Ctrl+M (or Cmd+M on Mac):



```
201182   Arturia MiniLab mkII      Note off C1 (36) Velocity 0 Channel 10
209638   Arturia MiniLab mkII      Note on F4 (77) Velocity 48 Channel 1
209764   Arturia MiniLab mkII      Note off F4 (77) Velocity 0 Channel 1
214432   Arturia MiniLab mkII      Note on D#1 (39) Velocity 16 Channel 10
214511   Arturia MiniLab mkII      Polyphonic aftertouch D#1: 75 Channel 10
214527   Arturia MiniLab mkII      Polyphonic aftertouch D#1: 12 Channel 10
214543   Arturia MiniLab mkII      Note off D#1 (39) Velocity 0 Channel 10
225752   Arturia MiniLab mkII      CC 74 Sound Brightness: 8 Channel 1
225755   Arturia MiniLab mkII      CC 74 Sound Brightness: 9 Channel 1
225755   Arturia MiniLab mkII      CC 74 Sound Brightness: 10 Channel 1
225756   Arturia MiniLab mkII      CC 74 Sound Brightness: 11 Channel 1
228482   Arturia MiniLab mkII      CC 71 Sound Timbre: 5 Channel 1
228483   Arturia MiniLab mkII      CC 71 Sound Timbre: 6 Channel 1
228483   Arturia MiniLab mkII      CC 71 Sound Timbre: 7 Channel 1
228484   Arturia MiniLab mkII      CC 71 Sound Timbre: 8 Channel 1
253209   Arturia MiniLab mkII      CC 115: 127 Channel 1
253322   Arturia MiniLab mkII      CC 115: 0 Channel 1
```

This window displays all incoming MIDI messages received by Gig Performer (the first column represents time in milliseconds); you can optionally turn on the **SysEx indices** toggle button to see the position of each byte of a SysEx message, or turn on the **MIDI Out** toggle button to display outgoing MIDI messages, as well.

Double-click an entry in this window to copy it to the clipboard. Hold the Shift key while double-clicking on any entry to copy all entries to the clipboard. Hold the Alt key (Option key on a Mac) to include source MIDI device names as well.

Note: also check the supplied MIDI Monitor plugin.

4.9 Rig Manager

In Gig Performer, a "Rig" is a collection of three sets of information: a set of **physical** MIDI controllers, a set of **virtual** controllers that can be attached to widgets, and a **map** that relates the two sets, thereby connecting your physical controller, through widgets, to parameter controls.

A MIDI Input Device is a physical controller, which may include a keyboard, multiple knobs, sliders, buttons, or other individual controllers. It the device does not include a keyboard, it

is normally referred to as a control surface. In the Rig Manager you define an alias for a MIDI device.
Aliases can also be set to MIDI Controls and they represent the virtual controllers that get mapped to parameters.

Once the lists of MIDI Device Aliases and MIDI Control Aliases are established, they appear as drop-down menus in fields where they are used, for example, as MIDI sources in plugins (see the How to use aliases chapter for more).

The Rig Manager is designed to speed your workflow by eliminating the need to teach controllers to Gig Performer every time you use a different keyboard or controller setup (provided that you created aliases and saved your setup). **Note:** when you use a completely new MIDI device, you will need to map aliases to the desired controllers, but only once, since you can save them. Afterward, simply switch between the saved rigs.

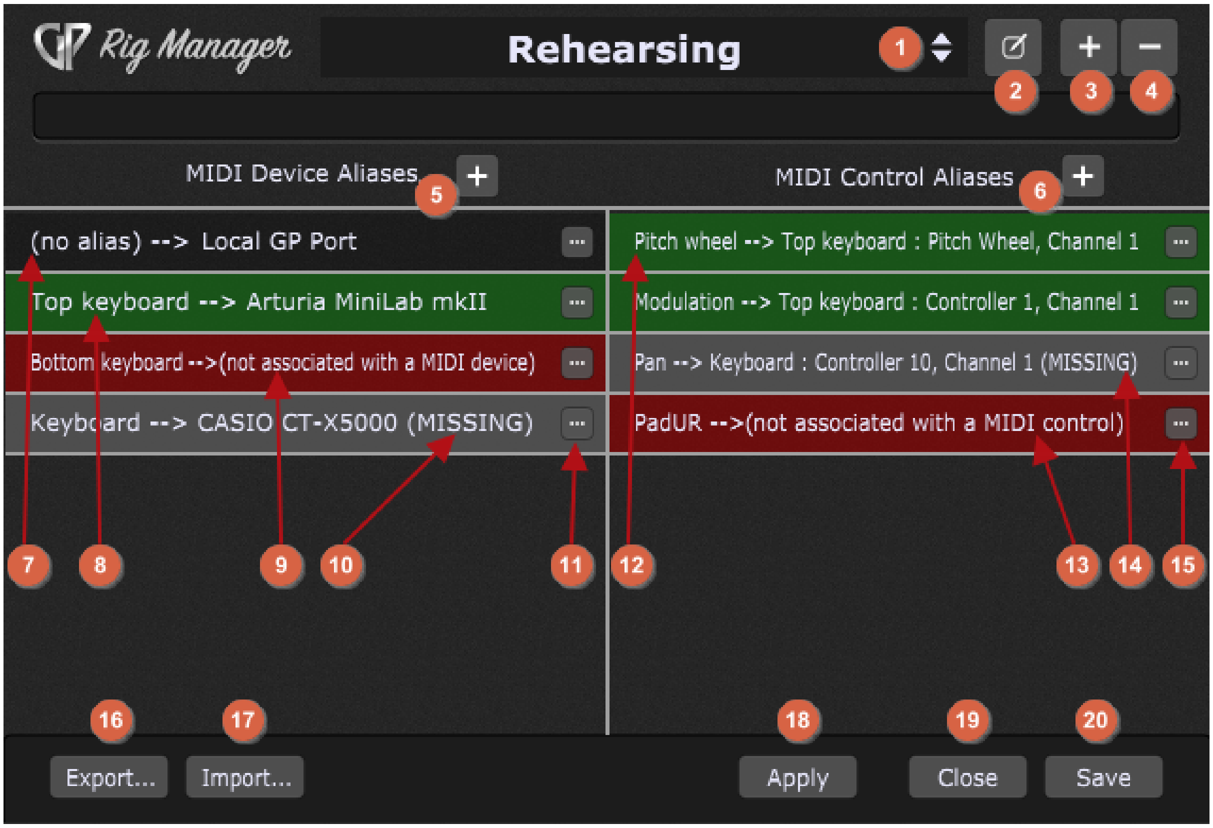
The Rig Manager constructs a map of physical input devices like keyboards, and the controllers they host, like sliders, buttons, faders, and knobs, to aliases (virtual controllers) that are linked to widgets. Virtual controllers decouple the physical controller from the control paths in Gig Performer, which makes it easier to swap out different physical controllers while maintaining your usual controls.

Say, for example, that you're sharing backline instruments with another performer and so have to use someone else's keyboard controller for your performance. The Rig Manager's controller mapping means that you only need to map the new physical controllers to the existing virtual ones and all of your widget controls are reestablished. This can be accomplished in a few minutes, even when you're at soundcheck. As an aside, this is a feature that was implemented after one of the developers was on tour and ran into the problem when he had to use a different controller than normal.

Similarly, if you use one controller for rehearsal and a different one for gigs, the Rig Manager can make it much easier to switch between them.

Also, if you play multiple identical keyboards, the Rig Manager can be used to let you quickly designate which keyboard is which. For example, one of the developers who often uses three identical controllers named them Top, Middle and Bottom in the Rig Manager. When the key-boards are plugged in, he can quickly visit the Rig Manager, play a note on each of these key-boards so as to tell the Rig Manager which one is now Top, Middle or Bottom.

The Rig Manager window is displayed in the screenshot below:



(no alias) --> Local GP Port

Top keyboard --> Arturia MiniLab mkII

Bottom keyboard -->(not associated with a MIDI device)

Keyboard --> CASIO CT-X5000 (MISSING)

Pitch wheel --> Top keyboard : Pitch Wheel, Channel 1

Modulation --> Top keyboard : Controller 1, Channel 1

Pan --> Keyboard : Controller 10, Channel 1 (MISSING)

PadUR -->(not associated with a MIDI control)

1. **Rig list** - clicking this drops down a menu of currently available rigs. Choose one from the list.

2. **Rename this rig** - click this to customize the name of the current rig.

3. **Add a new rig** - click this button to open a menu that allows you to duplicate the rig (the **Duplicate current Rig** option) or add a new one (the **Add new Rig** option). The difference between creating a new rig and duplicating the current rig can be seen in the left side of the Rig manager - MIDI Device Aliases; when a new rig is created, aliases are not associated with MIDI devices and when the current rig is duplicated - aliases are associated with MIDI devices (the same as in the original rig). **Note:** MIDI Control aliases are defined globally and are present in newly created rigs.

4. **Remove this rig** - click this button to remove the current rig. A confirmation dialog offers you the chance to cancel, if you change your mind.

5. **Add a new MIDI device alias** - click this to add a new MIDI device alias in the list. When you add a new MIDI device alias, it is not associated with a MIDI device (like in **(9)**). See the point **(11)** to see how to associate it. After you successfully associate the MIDI device alias with the desired MIDI device, it is highlighted green like in **(8)**.

6. **Add a new MIDI control alias** - click this to add a new MIDI control alias to the list. When you add a new MIDI control alias, it is not associated with a MIDI control (like in **(13)**). See the point **(15)** to see how to associate it. After you successfully associate the MIDI control alias with the desired MIDI control, it is highlighted green like in **(12)**.

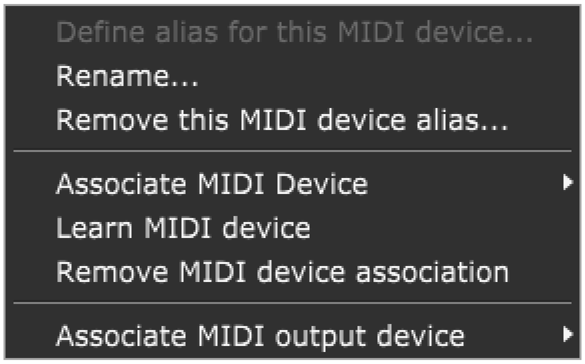
7. **MIDI Input Device with no defined alias** - indicates that Gig Performer recognized this MIDI input device, but no MIDI device alias has been defined for it yet. Gig Performer automatically detects all available MIDI input devices. **Note:** the Local GP port is a special MIDI device, check the Local GP port chapter to learn more.

8. **Associated MIDI Input Device alias** - indicates that the MIDI Input Device alias is successfully associated with this MIDI device and that this MIDI device is connected to the computer.

9. **Unassociated MIDI Device alias** - indicates that the MIDI Device alias is created, but it is not associated with a MIDI device.

10. **Missing MIDI device** - indicates that this MIDI device is associated with the corresponding alias but is disconnected. Connecting the corresponding MIDI device will change the display green as indicated with **(8)**.

11. **Manage this entry button** - clicking on this button (or right clicking on any MIDI device alias) opens this menu:


Define alias for this MIDI device...
Rename...
Remove this MIDI device alias...
Associate MIDI Device
Learn MIDI device
Remove MIDI device association
Associate MIDI output device

    a. **Define alias for this MIDI device...** - clicking on this menu item opens the Define MIDI device alias dialog which allows you to enter a new alias for the corresponding MIDI device.

    b. **Rename...** - allows you to rename the MIDI device alias.

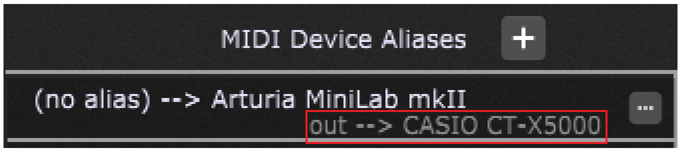
    c. **Remove this MIDI device alias...** - removes the MIDI device alias. The MIDI device will display "(no alias)" when connected (as shown in **(7)**).

d. **Associate MIDI Device** - allows you to manually select a MIDI device from the list and associate it with the MIDI device alias.

e. **Learn MIDI device** - allows you to quickly assign a MIDI device by simply moving the desired control. The MIDI device alias will be automatically mapped to the detected MIDI device.

f. **Remove MIDI device association** - clears the MIDI device association for the MIDI device alias.

g. **Associate MIDI output device** - allows you to select the desired MIDI output device from the list:



(no alias) --> Arturia MiniLab mkII
out --> CASIO CT-X5000

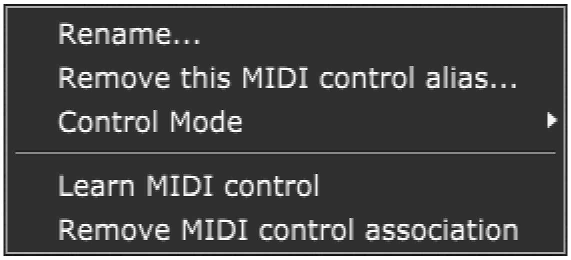
This is used when the **Sync** option is enabled for a widget in the Widget Properties Inspector that is controlled by an MIDI event from an Input device. The **Sync** by default goes back to the same MIDI device, which is what you would want in most cases, but sometimes you may want to Sync or "send out" those MIDI messages to a different MIDI device so it can display the values (as indicated with the red rectangle in the screenshot above). **Note**: this is a widget option and not a a permanent one; if you don't enable the Sync option for a widget then selecting different Out device has zero impact on your setup.

12. **Associated MIDI Control alias** - green background indicates that the MIDI control alias is associated with the physical MIDI control.

13. **Unassociated MIDI Control alias** - indicates that the MIDI Control alias is created, but it is not associated with a MIDI control.

14. **Missing MIDI device** - indicates that this MIDI control is associated with the corresponding alias but the MIDI device that hosts this control is disconnected. Connecting the corresponding MIDI device will change the display green as indicated with **(12)**.

15. **Manage this entry button** - clicking on this button (or right clicking on any MIDI control alias) opens this menu:


Rename...
Remove this MIDI control alias...
Control Mode
Learn MIDI control
Remove MIDI control association

a. **Rename...** - allows you to change the name of the MIDI control alias.

b. **Remove this MIDI control alias...** - removing the MIDI control alias also removes this entry from the MIDI Control Aliases list.

c. **Control mode** - allows you to select between an absolute mode and one of four relative modes:
 - **Absolute** - use this option if you don't have endless encoders (default). An endless encoder doesn't have a "stop" point, so it keeps turning until you stop moving it.
 - **Relative Offset** - positive offsets are sent as offset plus 64 and negative offsets are sent as 64 minus offset. 64 is zero, 65 is +1, 63 is -1.
 - **Signed 1 Bit** - if the most sign bit is set, Then the offset is positive. The lower 6 significant bits are the offset.
 - **Signed 2 Bit** - if the most sign bit is unset, Then the offset is positive. The lower 6 significant bits are the offset.
 - **Two’s Complement** - positive offsets are sent as normal from 1 to 64 and negative offsets are sent as 2s complement negative numbers. This is a signed 7 bit int.

d. **Learn MIDI control** - allows you to quickly assign the physical control on a MIDI device by simply moving the desired control. The MIDI control alias will be automatically mapped to the detected control.

e. **Remove MIDI control association** - removes the association with the physical MIDI control.

16. **Export...** - click on this button to save the state of the rig to a rigsetup file. This file can be moved and imported to a new computer.

17. **Import...** - click on this button to load an existing rig file. **Note**: changes will not take effect until you click Apply or Save.

18. **Apply** - click this button to apply changes you have made.

19. **Close** - clicking on this button closes the Rig Manager window.

20. **Save** - click this button to save the state of the rig to the current rig file and close the Rig Manager window.

Note: the Rig Manager associations are not part of the gig file. If you are moving your hardware from one computer to another you should export your rig from the computer where things work and import it on other computers where you plan to use that hardware. Also refer to this chapter if you want to export all options in Gig Performer.

4.10 ChordPro

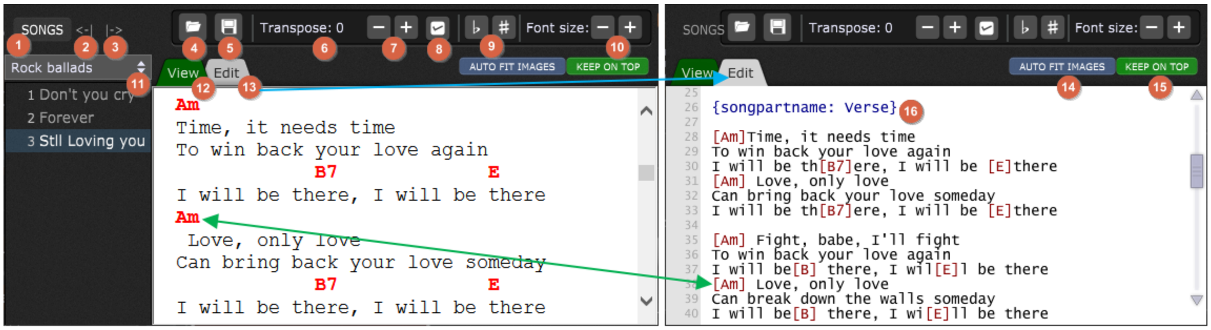
ChordPro is a file format that allows you to represent lyrics and chords using text markup that can then be displayed in a form suitable for performing musicians. Although initially intended for guitarists, it can be used for all kinds of musical purposes.

Gig Performer supports the ChordPro lead sheet file format and ChordPro files can be created, edited, saved, and imported in Gig Performer. A ChordPro file can be linked to a song in the Song Lyrics/Chords Editor. The assigned ChordPro file can be seen in the Song Properties dialog (it also allows you to clear the association to the ChordPro file).

For more information on ChordPro, please visit www.chordpro.org. For more information on its file format specification click here.

Note: any text editor can be used to create and maintain ChordPro files. These files may have arbitrary types (extensions), and common file name extensions for ChordPro files are **.cho**, **.crd**, **.chopro**, **.chord** and **.pro**. Gig Performer will also list and import the most common **.txt** file extension, so you don't have to change the extension of your ChordPro files that you save with your editor.

In Gig Performer, ChordPro files are created and modified in the **Song Lyrics/Chords Editor**:



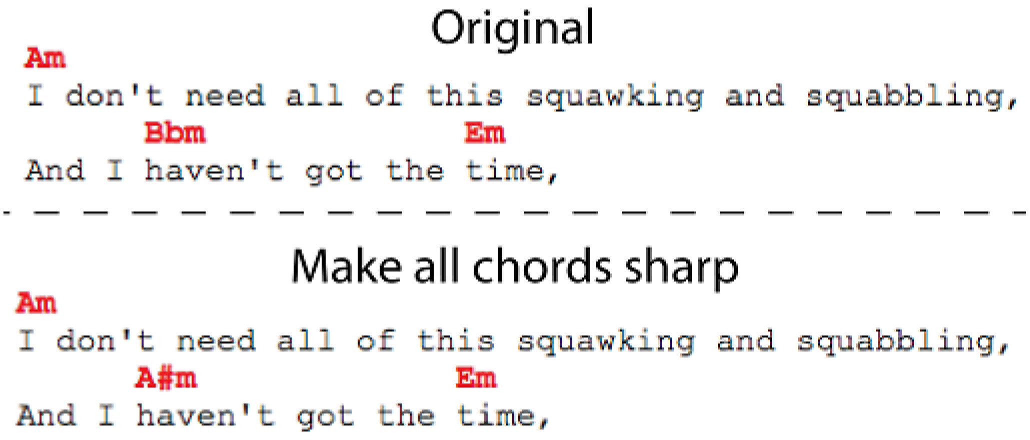
```
Am
Time, it needs time
To win back your love again
          B7            E
I will be there, I will be there
Am
 Love, only love
Can bring back your love someday
          B7            E
I will be there, I will be there
```

```

{songpartname: Verse}

[Am]Time, it needs time
To win back your love again
I will be th[B7]ere, I will be [E]there
[Am] Love, only love
Can bring back your love someday
I will be th[B7]ere, I will be [E]there

[Am] Fight, babe, I'll fight
To win back your love again
I will be[B] there, I wil[E]l be there
[Am] Love, only love
Can break down the walls someday
I will be[B] there, I wi[E]ll be there
```

1. **Song list button** - click this to show the current setlist (indicated with **(11)**) and its songs. When the song list button is clicked, a song browser appears to allow selecting

the song for which you want to work on a ChordPro document. Click the Songs button again to close the song list.

2. **Make the song list narrower button** - allows you to reduce the width of the song browser pane.
3. **Make the song list wider button** - allows you to widen the song browser pane.
4. **Load from a file button** - clicking this button brings up an Open dialog for loading Chord Pro files. **Note**: files can only be opened if they are in the root folder named **Gig Performer Song Lyrics-Chords** by default; you can specify a different root folder in the Setlist/Song Options. Refer to the File locations in Gig Performer chapter to see the default location for this folder.
5. **Save to a file button** - saves the current contents of the editor to a ChordPro file. Files can be saved anywhere, but can only be opened directly from the root directory.
6. **Transpose amount** - this display shows the current transposition in semitones. It is not editable. Transposition only affects the display of chord names in the ChordPro document.
7. **Increase/decrease transposition amount buttons** - use these buttons to set the transposition amount for chord display in the ChordPro document.
8. **Save transposition button** - clicking this button commits the transposition and makes it permanent in the ChordPro file.
9. **Make all chords sharp/flat buttons** - when there are chords whose root contains an accidental, choosing one of these commands causes those chords to be displayed enharmonically.



Original

```
Am
I don't need all of this squawking and squabbling,
      Bbm              Em
And I haven't got the time,
```

Make all chords sharp

```
Am
I don't need all of this squawking and squabbling,
      A#m              Em
And I haven't got the time,
```

10. **Font size larger/smaller buttons** - these buttons enlarge or shrink the font size on everything in the View mode. Clicking this button when you are in Edit mode will switch you to View mode, where you can size the font.

11. **Setlist chooser** - a drop-down menu for choosing a setlist. Below are included all the songs in the active setlist. Clicking on a song displays the linked ChordPro file, if one is assigned.

12. **View tab** - this tab enters the View mode, which interprets the code from the Edit mode and displays the result.

13. **Edit tab** - this tab (indicated with the blue arrow) enters the Edit mode, where ChordPro coding is done.

14. **Auto Fit Images** - clicking this button automatically fits images to the dimensions of the Song Lyrics/Chords Editor window.

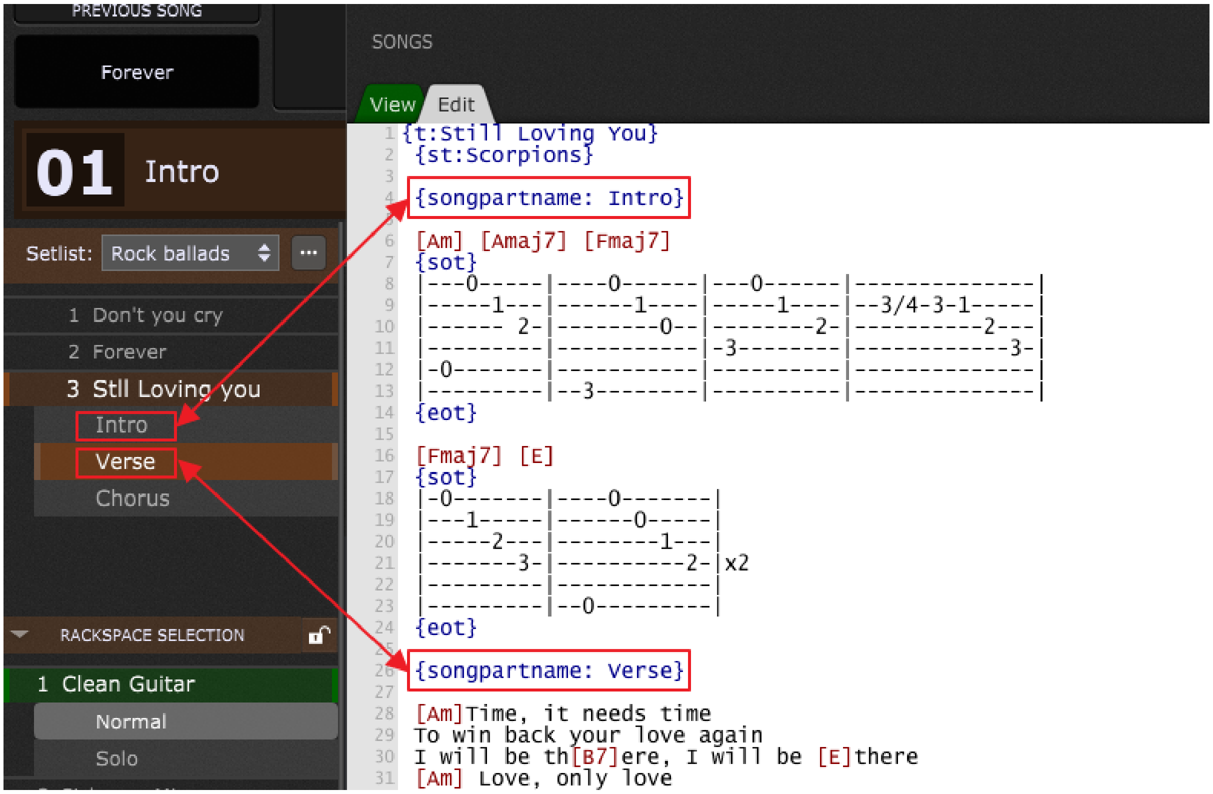
15. **Keep on top button** - when this button is clicked the Song Lyrics-Chords Editor window is always in the foreground and cannot be obscured by another window. When engaged, the button turns green.

16. **Editing area** - a simple text editor for entering lyrics, chords, and ChordPro directives (read more about ChordPro directives here). The chords representation in the Edit mode and the View mode is indicated with the green arrow. **Tip**: to place a chord over the middle of a word, simply insert the chord in its brackets in the middle of the word, immediately in front of the letter you want the chord to appear over, with no spaces. For example, see the word "**th[B7]ere**" in the first screenshot.

    A special directive named **songpartname** is introduced in Gig Performer 4 and is used to link a part in the ChordPro file with a corresponding song part. For more information, refer to the Improvements to the Song Lyrics/Chords Editor chapter.

Note: a ChordPro file can be loaded into the song lyrics/chords editor ONLY from the root directory; to load a ChordPro file not made by Gig Performer, or not stored in the root directory, use the **File** -> **Import ChordPro files...** command.

The Song Lyrics/Chords Editor supports automatic scrolling to song parts:



```
{t:Still Loving You}
 {st:Scorpions}

 {songpartname: Intro}

 [Am] [Amaj7] [Fmaj7]
 {sot}
 |---0-----|----0------|---0------|--------------|
 |-----1---|------1----|-----1----|--3/4-3-1-----|
 |------ 2-|--------0--|--------2-|----------2---|
 |---------|-----------|-3--------|-----------3-|
 |-0-------|-----------|----------|--------------|
 |---------|--3--------|----------|--------------|
 {eot}

 [Fmaj7] [E]
 {sot}
 |-0-------|----0-------|
 |---1-----|------0-----|
 |-----2---|--------1---|
 |-------3-|----------2-|x2
 |---------|------------|
 |---------|--0---------|
 {eot}

 {songpartname: Verse}

 [Am]Time, it needs time
 To win back your love again
 I will be th[B7]ere, I will be [E]there
 [Am] Love, only love
```

For example, if you have a song with three song parts - Intro, Verse, and Chorus - as in the screenshot above, simply open the Song Lyrics/Chords Editor, click on the Edit tab and enter the corresponding directives:

- for the Intro song part enter {songpartname: Intro}
- for the Verse song part enter {songpartname: Verse}
- for the Chorus song part enter {songpartname: Chorus}

Next, click on the View tab and click on one of the song parts - you will notice that your lyrics file automatically scrolls to that part.

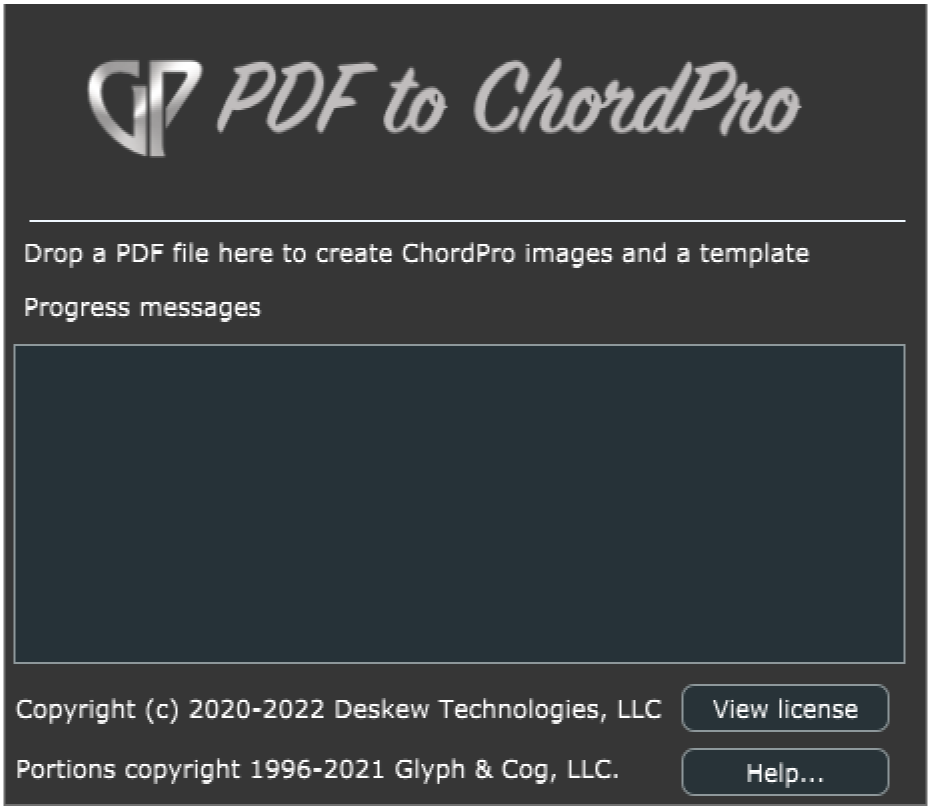
Note: if you don't have a ChordPro file linked to your song, you have to find it or create your own ChordPro file.

There are many chord-oriented web sites for musicians that support ChordPro files. Refer to this blog article How to use ChordPro files in Gig Performer for more information on how to obtain ChordPro files from these web sites or create your own ChordPro files and how to use them in Gig Performer.

For PDF support, please visit this chapter to learn about the free PDFToGPChordPro utility to make your PDF usable in ChordPro.

4.10.1 PDFToGPChordPro

PDFToGPChordPro is a free tool that will convert PDF files into a format suitable for use within Gig Performer's ChordPro.



Drop a PDF file here to create ChordPro images and a template

Progress messages

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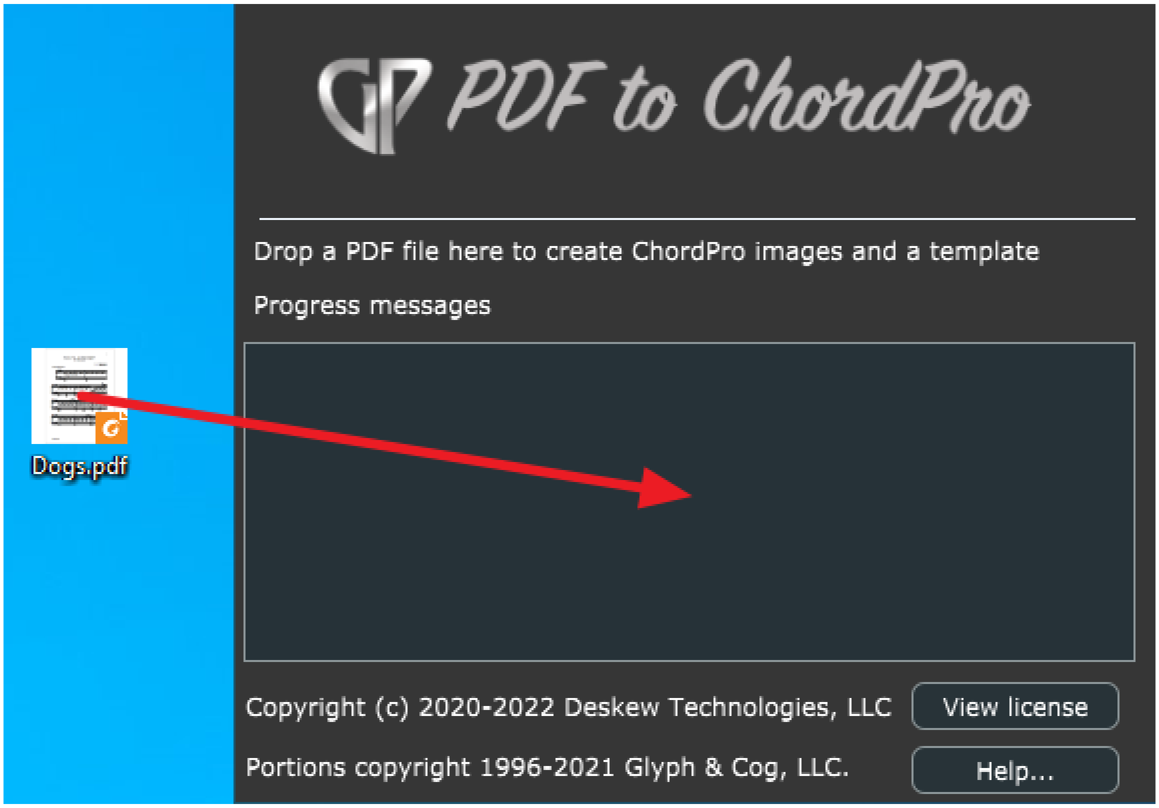
Disclaimer: there is absolutely no warranty whatsoever for this program. Use it completely at your own risk. You agree to indemnify Deskew Technologies for any consequences arising out of your use of this free tool.

First, download PDFToGPChordPro: Mac version or Windows version. Extract the ZIP archive where desired (Mac users may prefer to put it in their Applications folder and Windows users might prefer to put it in their C:\Program Files folder) and start the application.

Drag the desired PDF file and drop it into the applications's window:



PDF to ChordPro
Drop a PDF file here to create ChordPro images and a template
Progress messages
Dogs.pdf
View license
Help...

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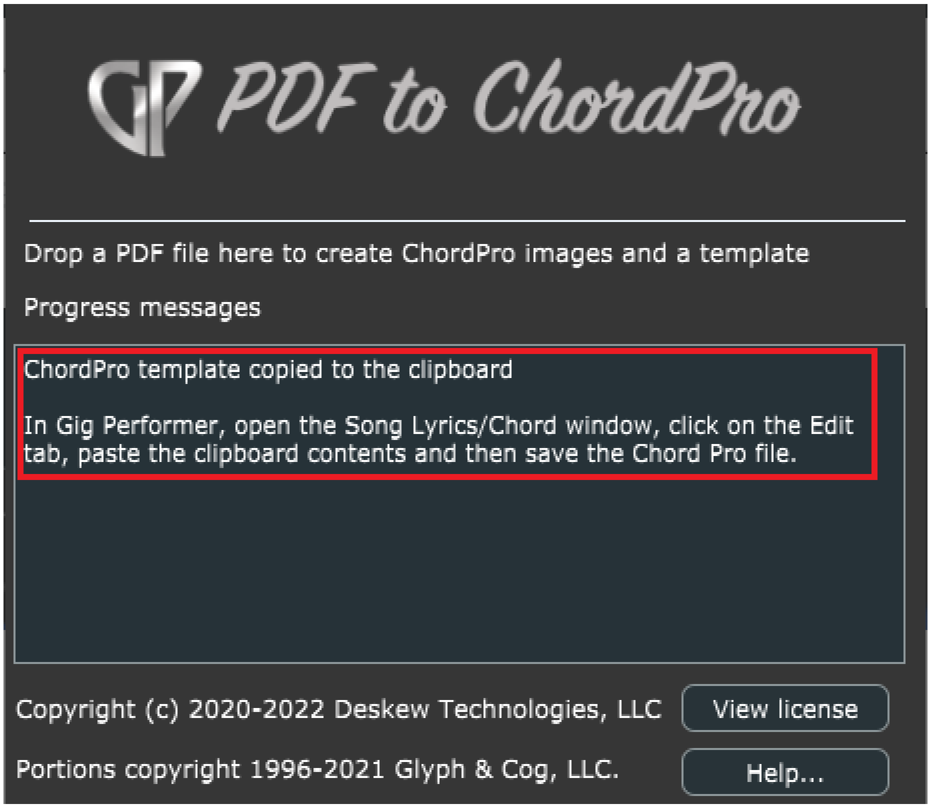
The conversion process takes place automatically. Upon completion, the ChordPro directives needed to display the converted PDF file are automatically copied to your clipboard. Wait until you see this progress message:


PDF to ChordPro
Drop a PDF file here to create ChordPro images and a template
Progress messages
View license
Help...

ChordPro template copied to the clipboard

In Gig Performer, open the Song Lyrics/Chord window, click on the Edit tab, paste the clipboard contents and then save the Chord Pro file.

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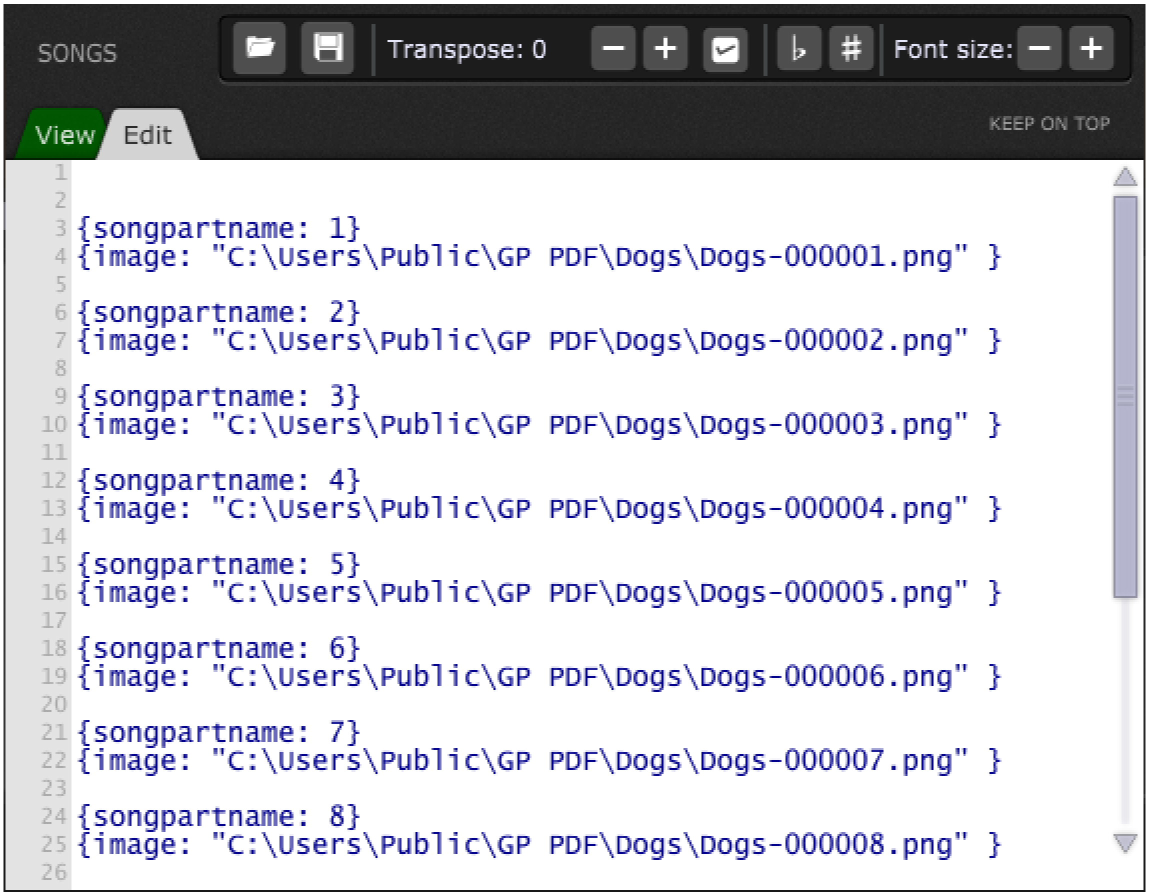
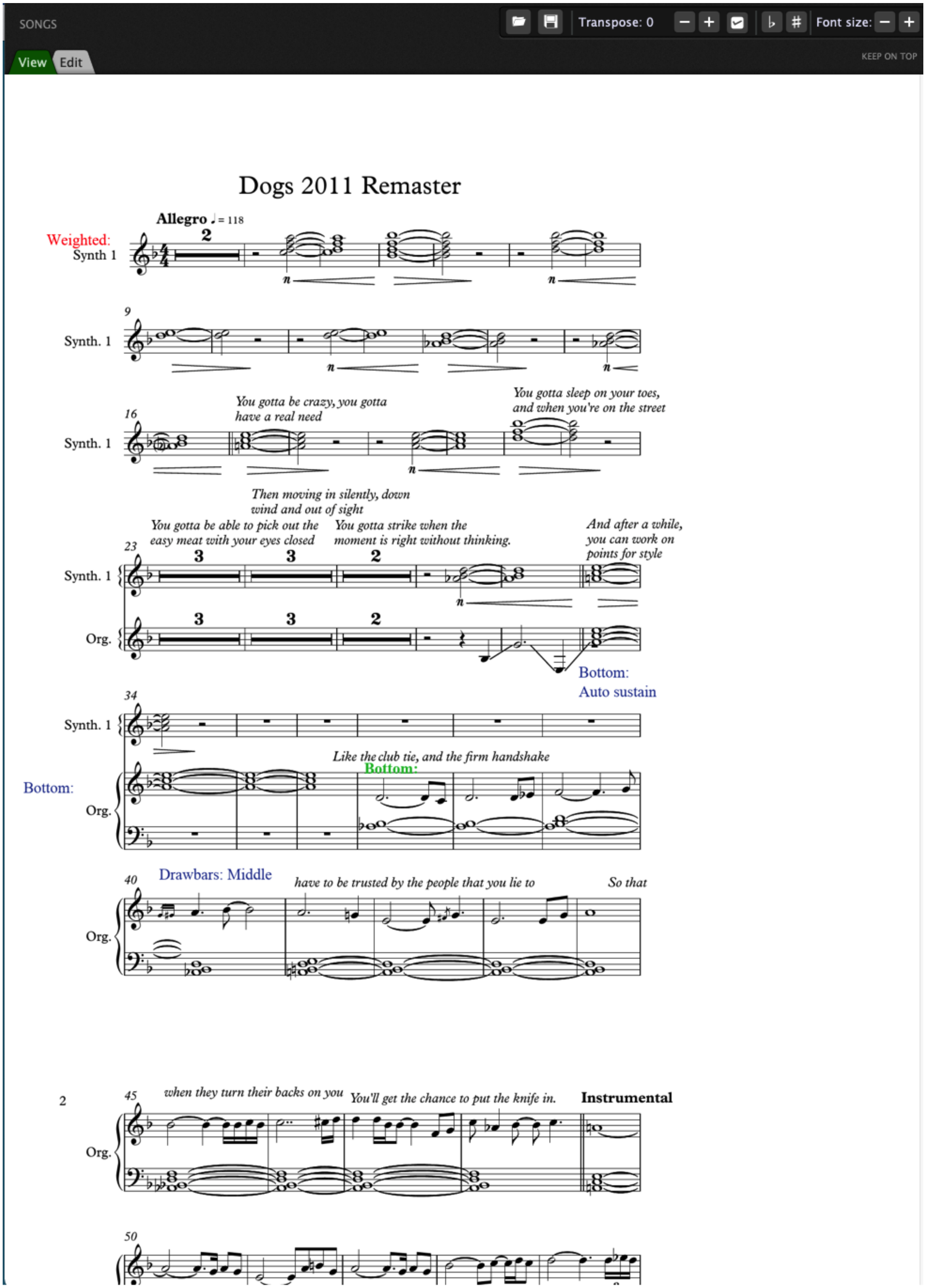
Click on the **Window** menu and select **Song Lyrics/Chords...** to open the Song Lyrics/Chord editor window, switch to the **Edit** tab and paste the clipboard contents:



```


{songpartname: 1}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000001.png" }

{songpartname: 2}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000002.png" }

{songpartname: 3}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000003.png" }

{songpartname: 4}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000004.png" }

{songpartname: 5}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000005.png" }

{songpartname: 6}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000006.png" }

{songpartname: 7}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000007.png" }

{songpartname: 8}
{image: "C:\Users\Public\GP PDF\Dogs\Dogs-000008.png" }

```

Click on the **View** tab to see the result:


SONGS
View
Edit
Transpose: 0
Font size:
KEEP ON TOP
Dogs 2011 Remaster
Allegro ♩ = 118
Weighted:
Synth 1
Synth. 1
Org.
You gotta be crazy, you gotta have a real need
You gotta sleep on your toes, and when you're on the street
Then moving in silently, down wind and out of sight
You gotta be able to pick out the easy meat with your eyes closed
You gotta strike when the moment is right without thinking.
And after a while, you can work on points for style
Bottom: Auto sustain
Like the club tie, and the firm handshake
Bottom:
Bottom:
Drawbars: Middle
have to be trusted by the people that you lie to
So that
2
when they turn their backs on you
You'll get the chance to put the knife in.
Instrumental

The last step is to save your ChordPro file.

Note: if you examine the ChordPro directives that were pasted into the Edit tab, you'll notice *songpartname* directives with numbers as arguments, as already mentioned in this chapter. Therefore, unless you name your song parts 1, 2, 3 ... you will want to change the entries for each *songpartname* directive in the ChordPro text file to match whatever song part names you have used in your song to enable automatic lyrics scrolling to the corresponding song parts.

Of course, you can insert other ChordPro directives if you need them.

Make sure to also check our blog article Converting PDF files for use with Gig Performer ChordPro.

Note: PDFToGPChordPro is built on top of the open source application XpdfReader.

5 Inserting and Wiring your plugins

In this chapter find out how to insert and connect your audio inputs to your plugins, how to connect plugins to each other and how to connect them to audio outputs.

Gig Performer supports 64-bit VST, VST3 and AU (Mac only) audio plugins. Before you proceed make sure that you have installed the 64-bit version of your audio plugins and that plugin directories are properly specified in the Plugin Manager.

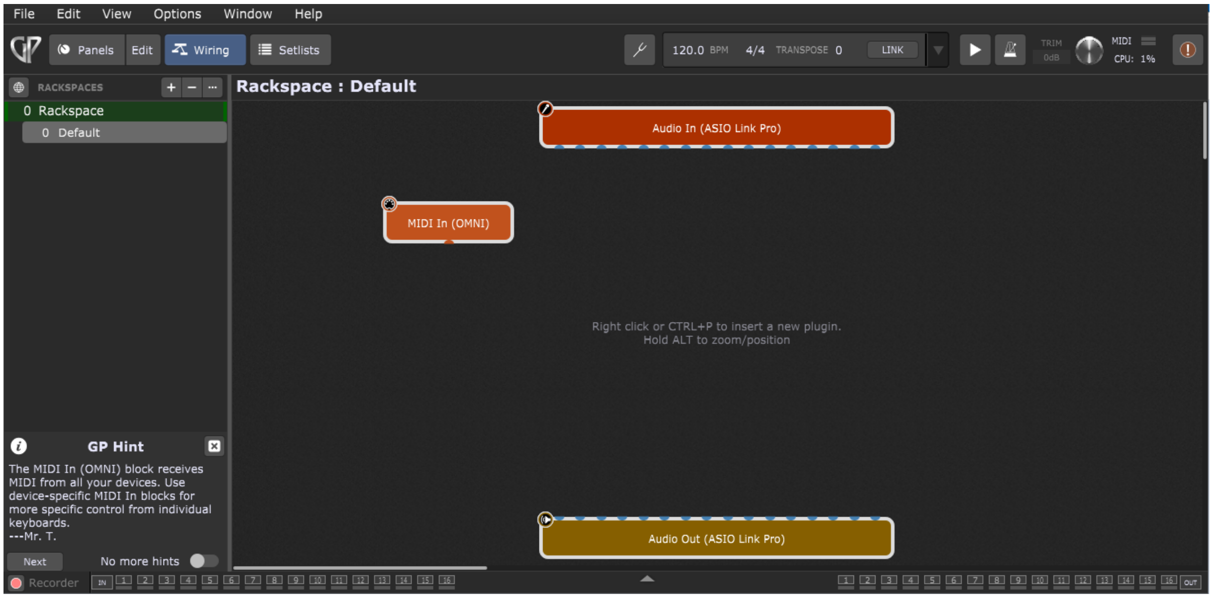
For more information on how to download and use plugins in Gig Performer, check this blog article: Top websites for free audio plugins and how to use them in Gig Performer.

Note: make sure that your audio interface is connected. If no audio interface is connected, Gig Performer will try to use your computer's built-in input and output. If an audio interface is connected but does not appear, see the Troubleshooting section in this user guide.

5.1 How to insert a plugin and connect it

Easy combining, inserting and tweaking your plugins is essential for any serious musician. In Gig Performer, plugins are connected easily using virtual wires. First, make sure that Gig Performer successfully scanned and listed your installed plugins like already advised in the Inserting and Wiring your plugins chapter.

Let's get started! Create a new empty gig and enter the Wiring view by clicking on the Wiring button:

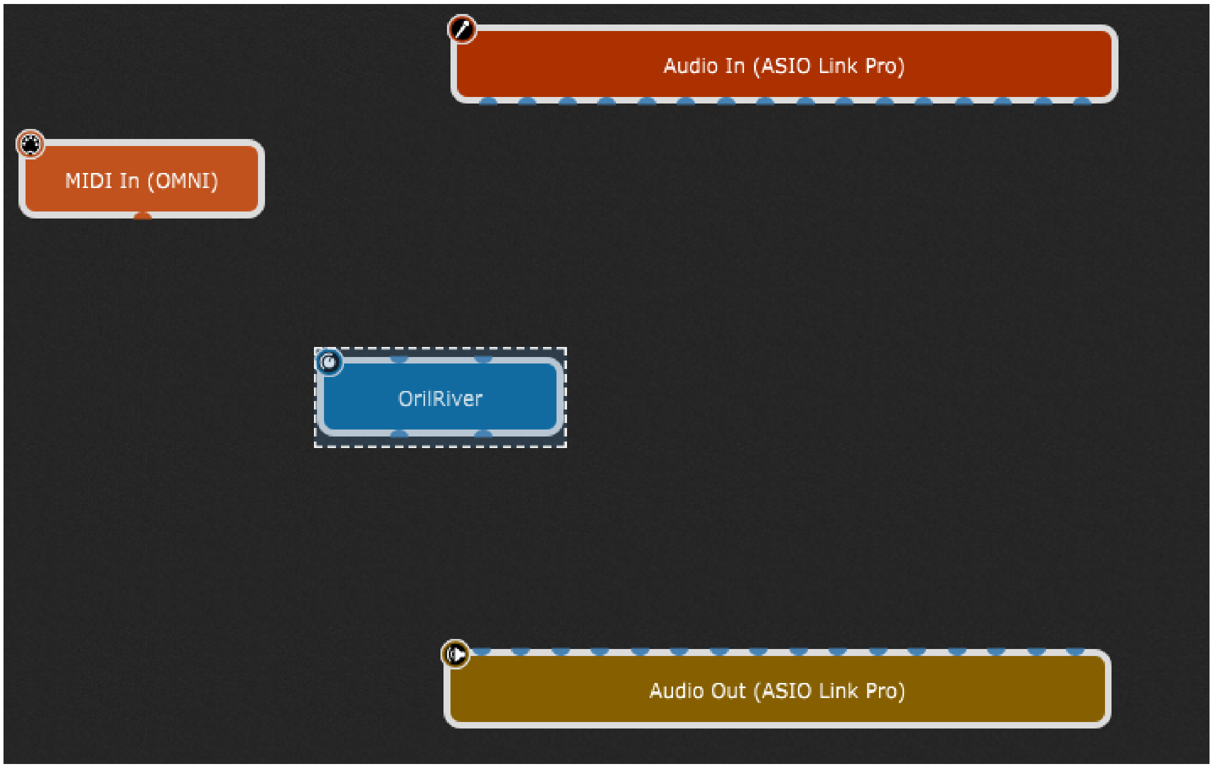


Right click or CTRL+P to insert a new plugin.
Hold ALT to zoom/position

The MIDI In (OMNI) block receives MIDI from all your devices. Use device-specific MIDI In blocks for more specific control from individual keyboards.
---Mr. T.

Various elements in this screenshot are explained in detail in the Wiring view chapter. **Note**: your screen may look slightly different from the one shown above, since the audio input and output blocks will reflect the name of your connected audio interface as well as the number of inputs and outputs it provides.

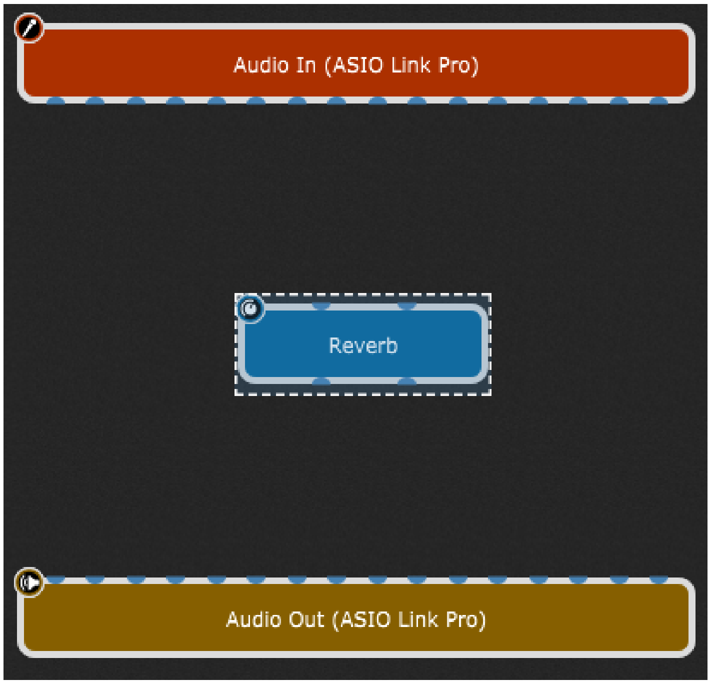
Right click (or two-finger tap if you are using a trackpad) on the empty surface to bring up the contextual menu and select the desired plugin under the Installed plugins section, e.g. a reverb plugin:



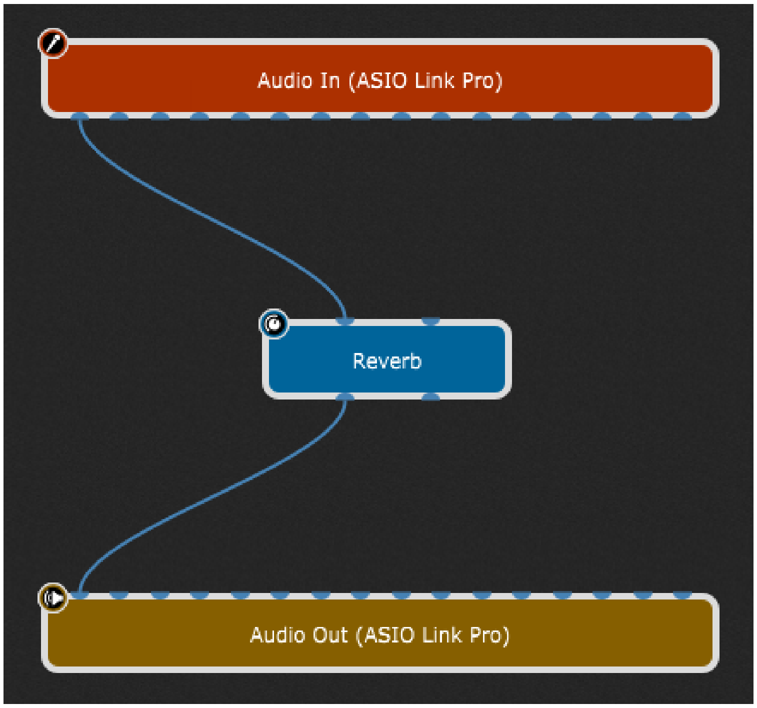
Alternatively, use the keyboard shortcut Ctrl+P (or Cmd+P on Mac) to open the Quick plugin finder window that allows you to search for a particular plugin by part or all of its name and insert it.

As soon as you insert the desired plugin block (or double-click on it), Gig Performer by default opens the editor window for that plugin, allowing you to edit its parameters immediately (note: you can turn off this default behavior in the Display Options). Make the desired adjustments or perhaps select a preset and then close the window.

Afterward, simply click on the desired plugin block and drag it to change its position on the design surface. By default, the name of the plugin is displayed, but you can easily rename it with something that represents the actual sound - very useful for distinguishing among multiple copies of the same plugin. Accordingly, right-click on the newly inserted plugin block and select the Rename... option, then type in the name i.e. "Reverb":



To be able to hear the resulting sound, we need to provide an audio source. If you are a guitarist or vocalist, you might connect an Audio In pin directly to the Reverb input pin and a Reverb output pin to the Audio Out block. If you are a keyboard player using a synth plugin, see the next section. To make these connections, simply click on an output pin and, while holding down the mouse button (or keeping your finger on the trackpad), drag the cursor over the desired input pin and then release the mouse button (click here for a shortcut method of making stereo connections):

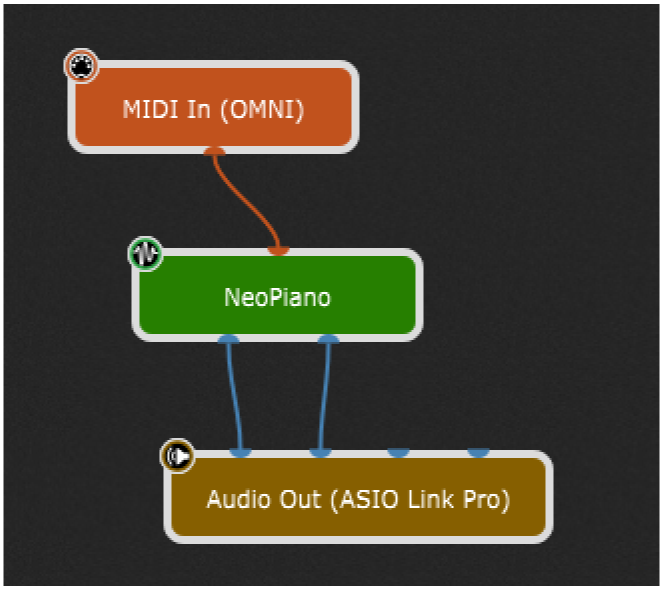


Note: make sure that you connected the right Audio In pin, as your audio interface has multiple audio inputs where sources i.e. microphones, instruments connected via DI (such as electric guitars), or other line-level sources can be connected.

Notice that there are blue and orange plugin pins and connections; click here to find out more.

If you are using a MIDI keyboard or a MIDI controller, you can use it immediately thanks to the MIDI In (OMNI) block which is available by default when you create a new empty gig (see the first screenshot). This block receives MIDI messages coming from any MIDI Input device on your system.

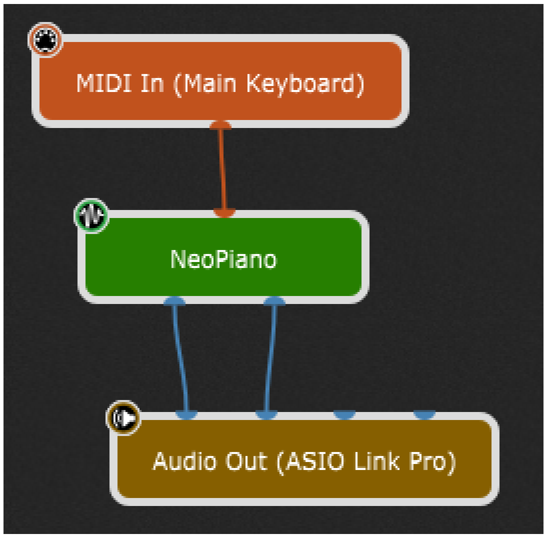
Note that you cannot hear the resulting sound immediately, since this block needs to be connected to the a sound generating block first, and then to the Audio Out block:



At this point, if you play a few notes on your controller (assuming your audio system is turned up), you should be hearing a sound coming from your connected audio interface.

While the OMNI version of the MIDI In block is convenient when just getting started, if you have more than one keyboard or multiple surfaces, we recommend that you use MIDI In blocks specifically associated with those devices rather than the generic OMNI block as this will give you more control over your MIDI signal flow.

To receive MIDI messages from a specific MIDI device, simply right click on the MIDI In (OMNI) block, then expand **Replace Plugin** and from the **MIDI Inputs** list select the desired MIDI device. All connected MIDI devices are listed in this menu. Alternatively, select the MIDI In (OMNI) block and press the Delete key (or the Backspace key) to remove the MIDI In (OMNI) block; afterward, open the contextual menu, insert the desired MIDI device from the MIDI Inputs list and connect its output pin to the orange input pin of your sound-generating plugin:



Note: if you previously created an alias for your MIDI device in the Rig Manager, it will show up in the parenthesis (otherwise, the name of the selected MIDI device will be displayed).

In addition to passing MIDI messages generated by your connected MIDI controller, MIDI In plugins provide a virtual keyboard, so you can play your plugins even if you are not using an external MIDI controller. To do so, double-click on the MIDI In block to open its editor, then play the sound by clicking notes on the virtual keyboard.

To remove (disconnect) a connection, right-click on it and select "Remove this connection" or simply click and drag the connection until it detaches from a plugin and then let go.

To remove all connections from a plugin block, right-click on the block and select "Disconnect" (note: removing a plugin block also removes all its connections; right-click on it and select "Remove" or press either the Delete or Backspace key).

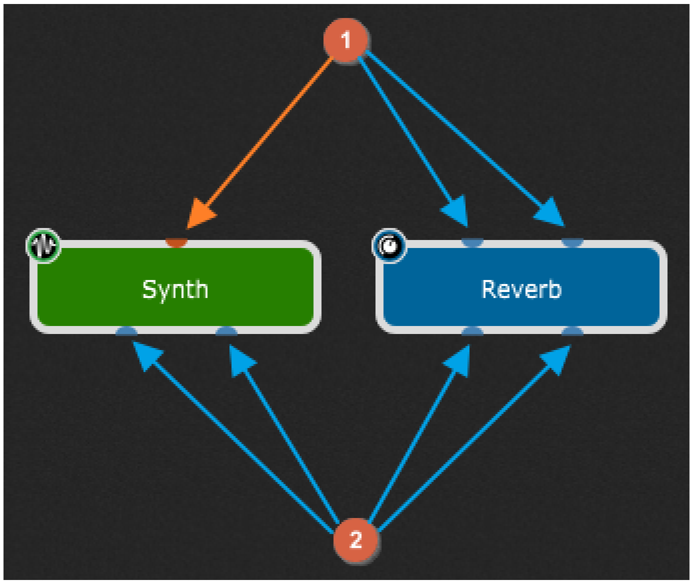
Improvements to the Wiring view such as zooming, scrolling, multi-selection, zoom to fit, etc. are useful while creating your plugin layout. Learn more about these improvements here.

Tip: to learn how to easily insert a plugin block into audio or MIDI path, check the Additional tips chapter.

5.2 Blue and orange colored connections and pins

First, take a brief look at the Wiring view chapter where basic concepts such as pins and plugin connections are described.

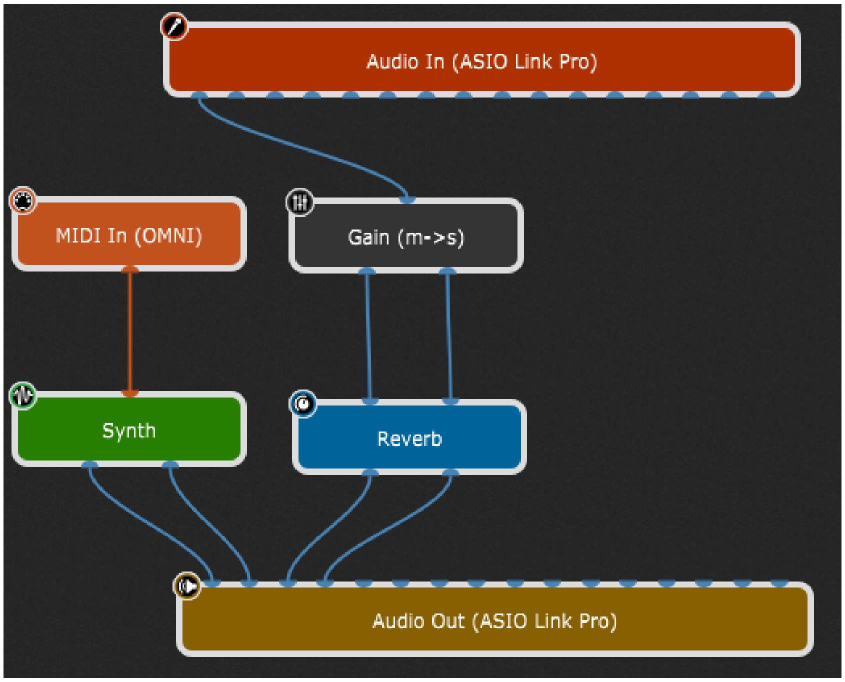
Let's insert two plugins, a reverb and a synth:



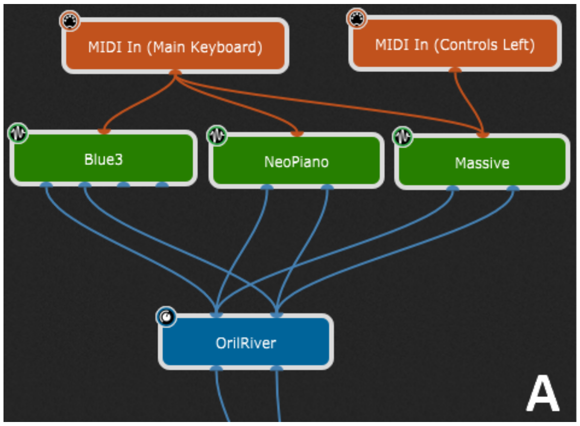
With **(1)** are indicated input pins (or input plugin ports) and with **(2)** are indicated output pins (or output plugin ports). Note that pins can be blue or orange (indicated with orange and blue arrows); blue pins indicate audio ports and orange pins indicate MIDI ports.

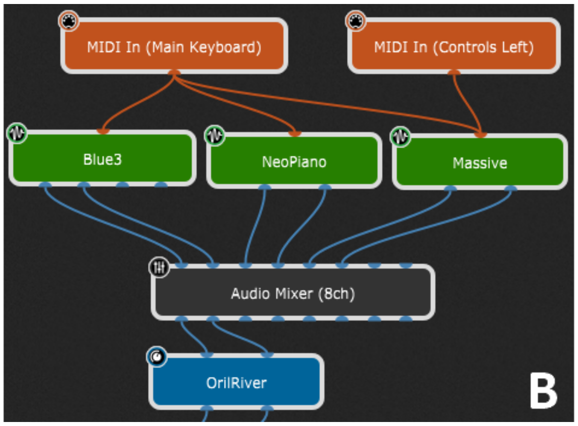
Plugin blocks are connected by virtual wires, where an output pin of one plugin is connected to an input pin of another plugin. Note that orange pins cannot be connected to blue pins (and vice versa). For example, you can connect directly the Audio In block to the Audio Out block, but cannot connect directly the MIDI In block to the Audio Out block.

Likewise, orange connections (orange virtual wires) represent MIDI connections and blue connections (blue virtual wires) represent audio connections:



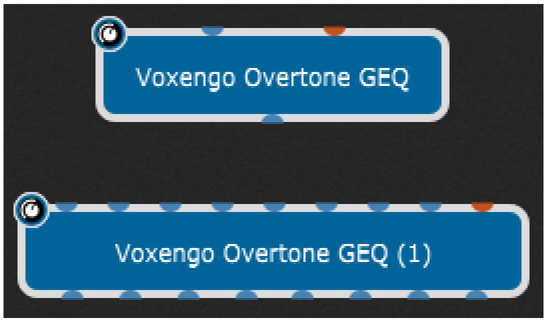
The power of Gig Performer lies in the fact that you can connect plugins any way you like, e.g. you can control multiple synths with one keyboard (you can connect an output pin to multiple input pins) or you can connect multiple output pins to a single pin:





When you connect multiple output pins to a single pin, signals are mixed automatically **(A)**; to have more control over your sound, use the built-in Audio Mixer plugin **(B)**.

The number of input and output pins depends on the plugin manufacturer and provided bus layout settings; in the screenshot below note the difference between mono input and output buses and 7.1 Surround input and output buses for the same plugin:



Gig Performer does let you set a maximum number of pins as a global option (see Display options -> *Maximum number of audio channels to display in blocks*) and also to control the maximum number of pins on each plugin individually.

Refer to the Plugin contextual menu chapter to learn more about bus layout and max pins in plugin blocks.

Check out also this blog article to find out more on plugin pins: My plugin has so many output ports - which ones do I use?

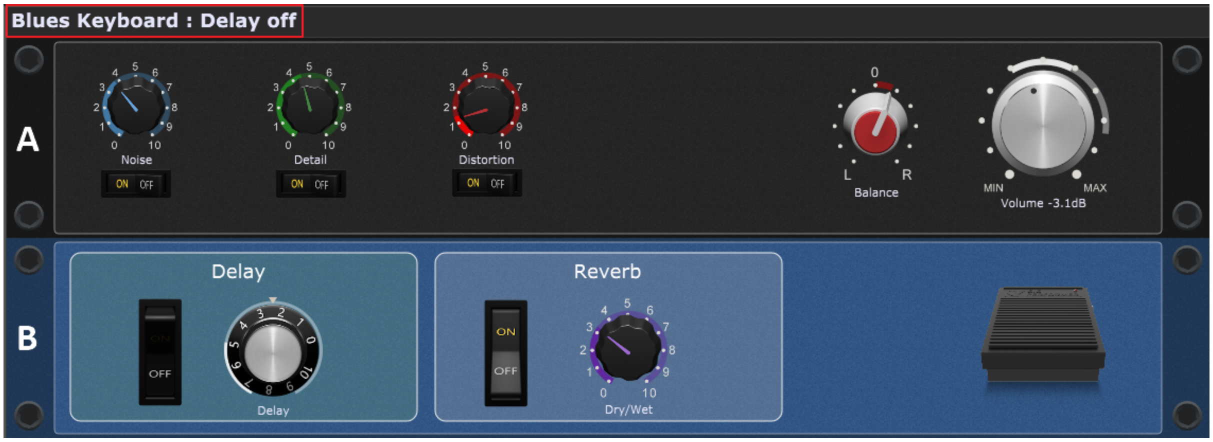
6 Panels and Widgets

A widget is an onscreen control associated with a plugin parameter. A panel is simply a graphic space within which widgets can be placed and labeled. Users typically create different panels to organize their controls in ways that are simple to identify and deal with in live performance.

In this chapter find out more about panels and widgets.

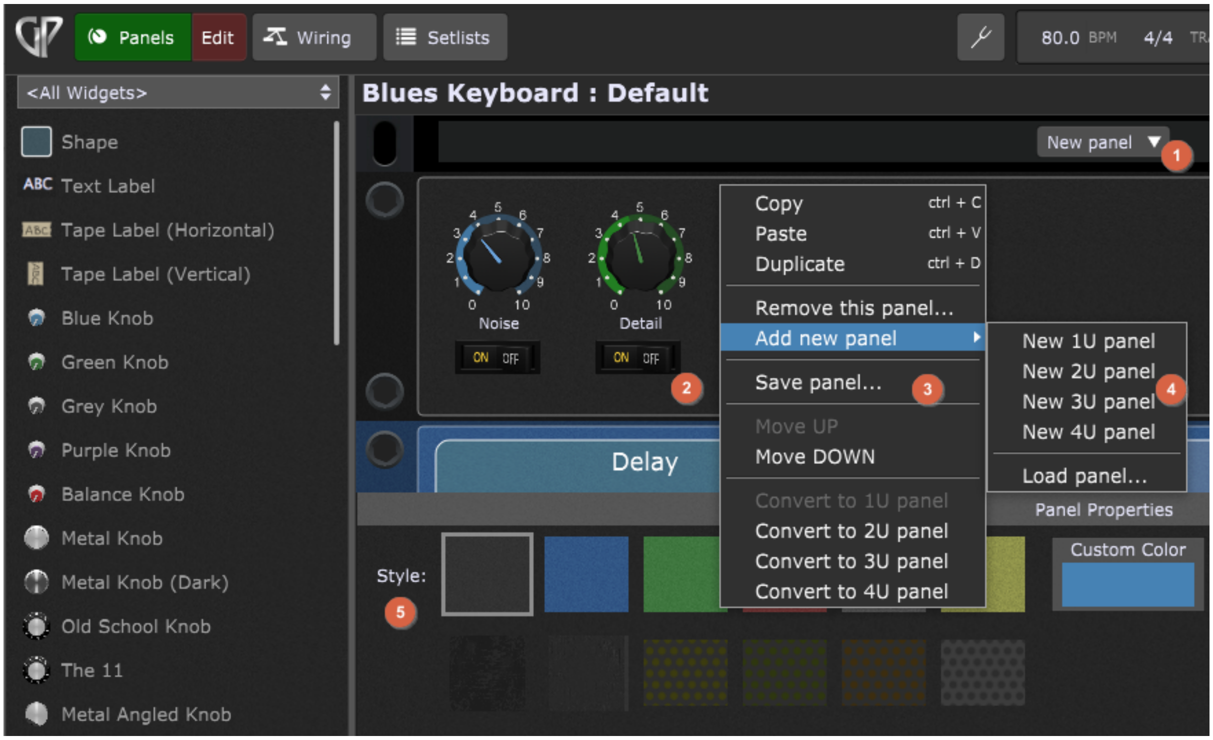
6.1 What is a panel?

In Gig Performer, a panel is an area (visually similar to hardware rack-mounted sound modules and signal processors) containing widgets used to control the plugins in the rackspace. A rackspace can contain multiple panels, each containing one or more widgets:



On the screenshot above is shown a rackspace ("Blues Keyboard" with the "Delay off" variation, as indicated with the red rectangle) with two panels (indicated with the letters **A** and **B**).

In normal operation (i.e. when not in edit mode) dragging a widget with your mouse (or by remote control from your keyboard or control surface) will change the value of that widget, thereby updating whatever parameter is attached to the widget. If you want to make changes to panels and widgets, activate the Edit mode. Refer to the Panels view chapter for more information. In the Edit mode, note the following options as depicted on the screenshot below:



To create a new panel, either:

- click on the **New panel** button **(1)** and then select the desired option from a drop-down menu (this drop-down menu has the same menu items as the sub menu **(4)**.
- or right click on the empty panel surface **(2)** to open the panel contextual menu **(3)**, then expand **Add new panel** and choose the option from the sub menu **(4)**.

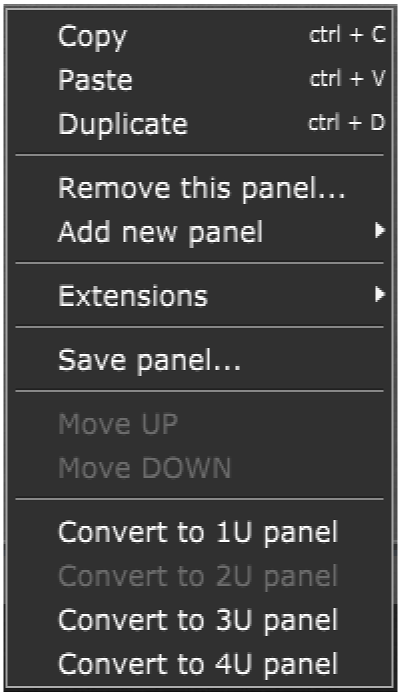
Every time you enter into the Edit mode of the Panels view, tips appear in the **Properties** section: you can click on a panel or a widget to show their properties, or you can add new widgets by dragging them onto a panel surface. When you click on a panel you can see **Panel properties (5)**. Here you can change the background style of the current panel. To change a panel's background, click the panel to select it and then either click one of the textures displayed in this area or choose a custom color.

To find out more about widgets and how to add them to a panel, see the Widgets chapter.

Note: you can move a widget across panels in Edit mode. Simply drag a widget from one panel to another. This feature works currently only for single widgets.

6.1.1 Panel contextual menu

If you are in the Panels view and are in Edit mode, if you right click on a panel, the contextual menu appears:



This contextual menu allows you to perform the following operations:

Copy - copies the widget into the clipboard (alternatively, click on the **Edit** menu and select **Copy**).

Paste - pastes the widget from the clipboard (alternatively, click on the **Edit** menu and select **Paste**).

Duplicate - duplicates the currently selected widget (alternatively, click on the **Edit** menu and select **Duplicate**).

Remove this panel... - clicking on this menu item allows you to remove the current panel from the rackspace.

Add new panel - allows you to add a new panel; expand this menu item to see items in the sub menu:

- **New 1U panel** - clicking on this menu item allows you to create a new 1U panel; "U" is an abbreviation for rack unit - a unit of measure defined as 1 ³⁄₄ inches (or 44.45 mm).
- **New 2U panel** - clicking on this menu item allows you to create a new 2U panel. If you create a new empty gig in Gig Performer, the default panel size is 2U.
- **New 3U panel** - clicking on this menu item allows you to create a new 3U panel.
- **New 4U panel** - clicking on this menu item allows you to create a new 4U panel.

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- **Load panel...** - clicking on this menu item allows you to select a **gppanel** file and load the panel.

Extensions - this menu item is hidden by default and shows up if a third-party extension is enabled and provides one or more custom panels. Refer to the Extensions chapter for more information.

Save panel... - clicking on this menu item allows you to save a current panel as a **gppanel** file, which can be easily reused. Widgets and their MIDI mappings are saved as well.

Move UP - moves the current panel one place higher to the beginning of the rackspace.

Move DOWN - moves the current panel one place lower to the end of the rackspace.

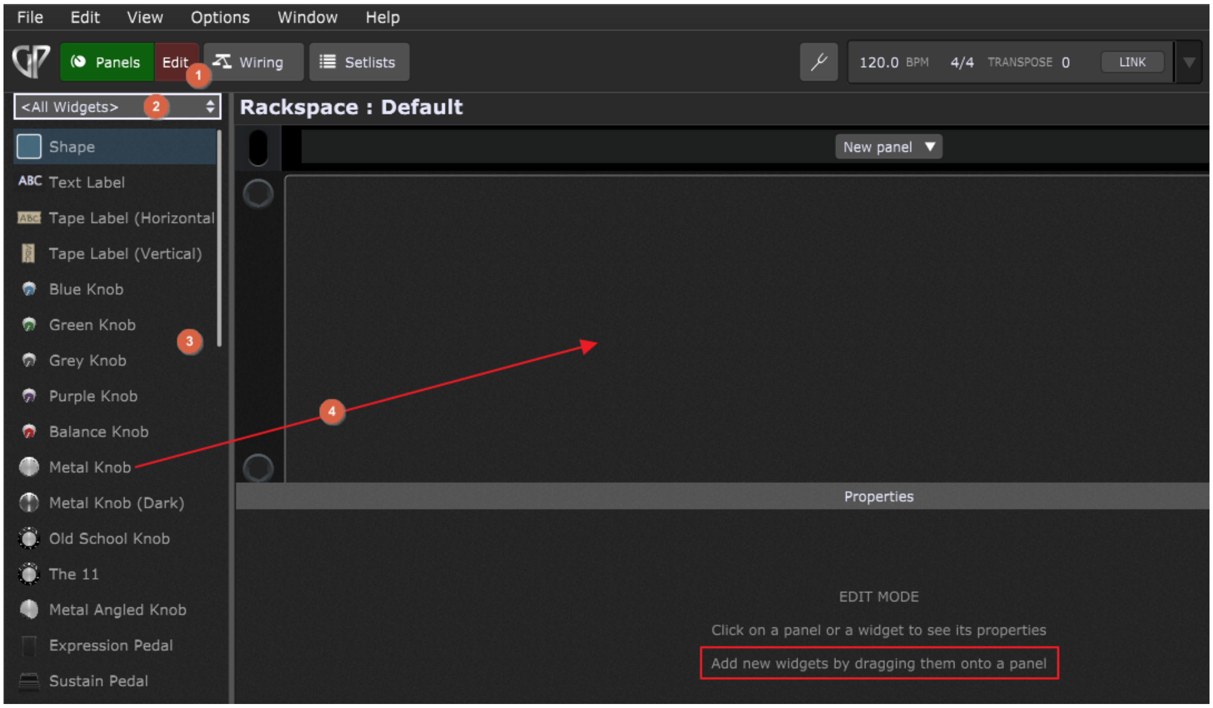
Convert to 1U/2U/3U/4U panel - clicking this option converts the current panel to a 1U/2U/3U/4U panel respectively. Note that converting the unit size (e.g. from 2U to 1U) may reposition and reduce the size your widgets.

6.2 Widgets

Basic information about widgets is available in the main Widgets chapter. This chapter will cover widgets in more detail, providing in-depth explanations of various widget operations.

6.2.1 How to add widgets to a panel?

A widget is added to a panel by either dragging the desired widget from the widget list to that panel, or by copying and pasting (or duplicating) an existing widget:

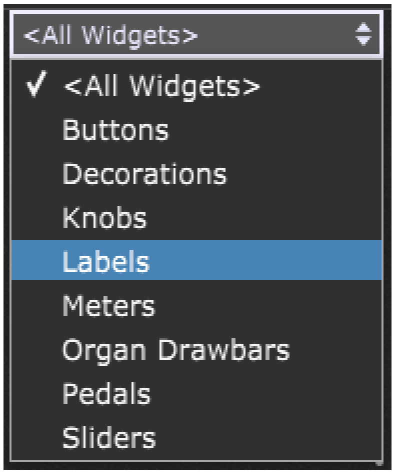


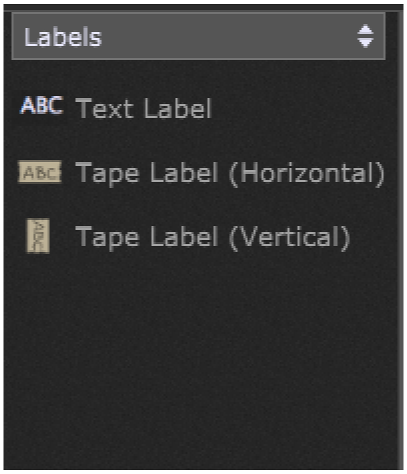
EDIT MODE

Click on a panel or a widget to see its properties

Add new widgets by dragging them onto a panel

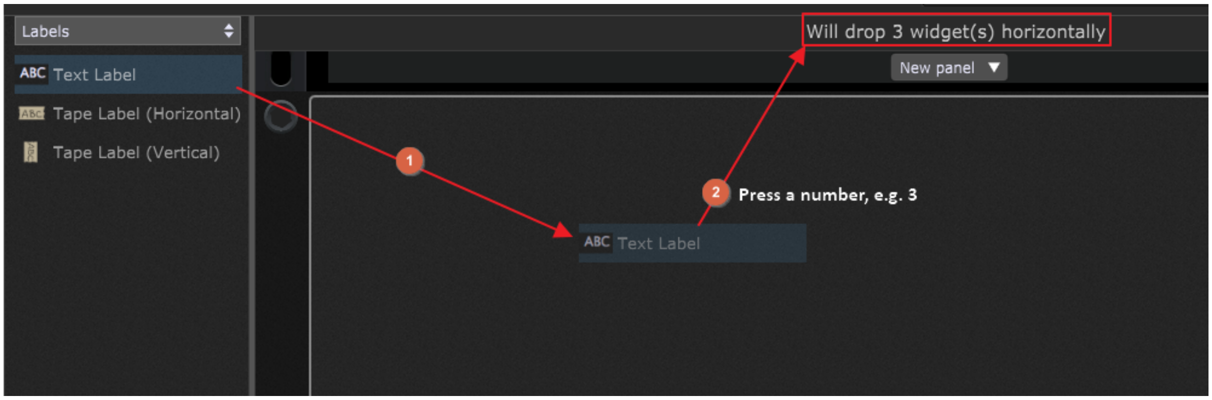
To add a widget to a panel, first make sure that you are in **Edit mode (1)**. Once you enter into Edit mode, you can either immediately drag a widget **(4)** from the widgets list **(3)** onto a panel (also note the tip indicated with the red rectangle), or click on the Widget types list **(2)** to restrict the list to a particular class of widgets:





For example, if you want to add a label widget, simply select Labels from the drop-down box and then simply drag the desired label widget from this list to the panel.

To add multiple copies of a widget at once, drag a widget onto the surface, but don't release the mouse button **(1)**; while holding the mouse button, type the number of copies (up to 9) you want onto the panel **(2)**. A message will flash at the top of the window (indicated with the red rectangle) to confirm the number of copies that will be made:



Then release the mouse button. **Note**: press the desired number again, e.g. 3 while dragging to drop 3 widgets vertically.

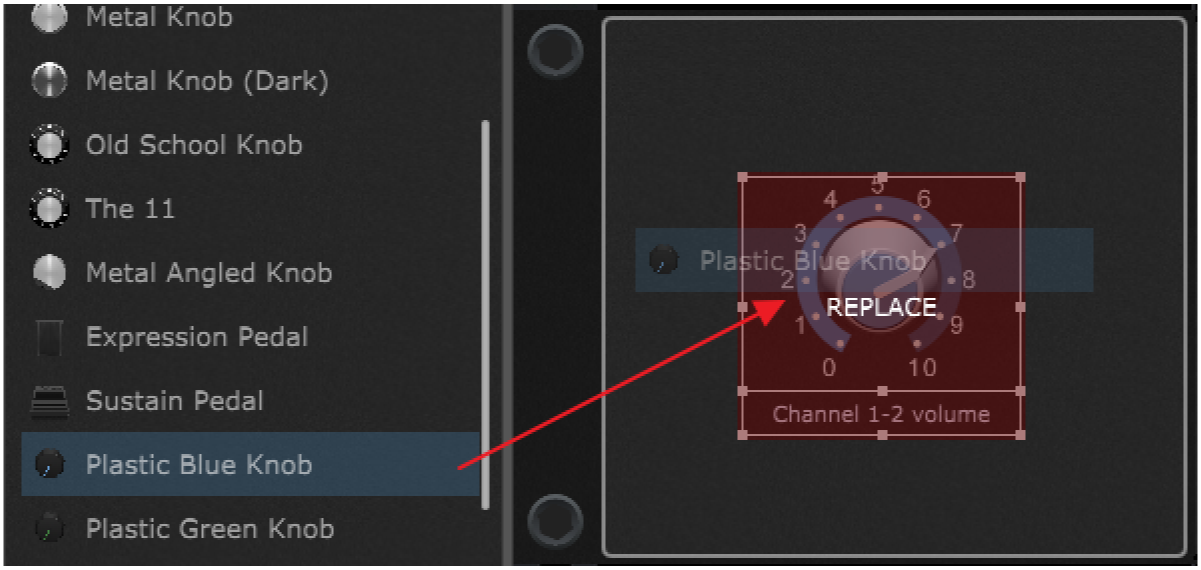
Existing widgets that are already placed onto the panel can be easily duplicated, copied or pasted by clicking on the **Edit** menu and selecting the **Duplicate**, **Copy** or **Paste** menu items respectively. Alternatively, use key combinations Ctrl+D (or Cmd+D), Ctrl+C (or Cmd+C) or Ctrl+V (or Cmd+V) respectively.

Note: A confirmation message also flashes when you copy a widget or panel. MIDI associations are preserved whenever you copy and paste a widget or a panel.

You can resize a widget by dragging any of the corner points (the smaller section directly beneath the white rectangle displays a caption for the widget).

As you may notice, a name of more than a few characters may not display properly within the default caption space; as mentioned earlier, the white rectangle that appears around the selected widget (and caption below) in Edit mode allows you resize it (and the accompanying caption) by dragging any of the corner points.

To replace an existing widget with another one, simply drag the widget over the existing one and when the REPLACE label appears, release the mouse button:



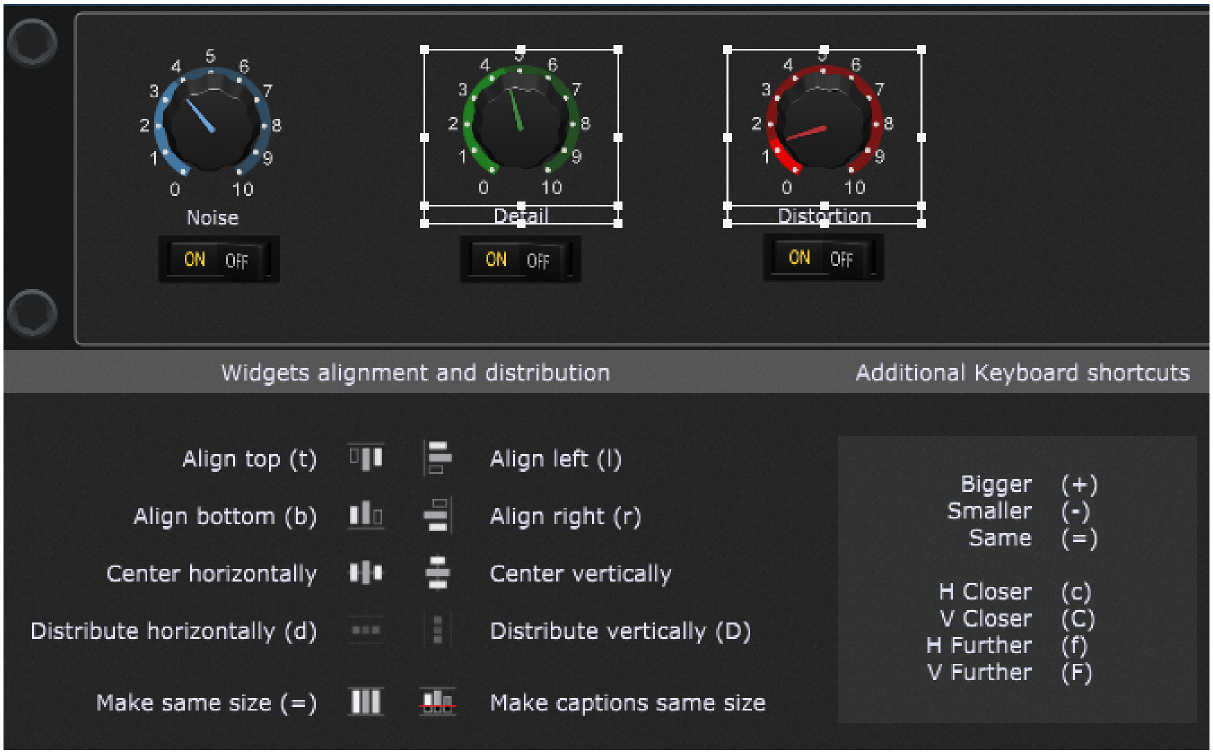
In the screenshot above the Blue Knob (the existing widget) is being replaced by the Plastic Blue Knob. Note that you cannot replace knob widgets with buttons, switches etc. If the replace operation is not supported, the REPLACE label will not appear.

When replacing a widget, all MIDI and Parameter mappings and other widget settings are saved.

Note: moving a widget across the panels is also supported. While in Edit mode, simply drag a widget from one panel to another. This feature works currently only for single widgets.

6.2.2 Widget alignment and distribution

When multiple widgets are selected, widget alignment and distribution tools become available:



Click the associated button or use the displayed key shortcut to apply the alignment or distribution function to the selected widgets:

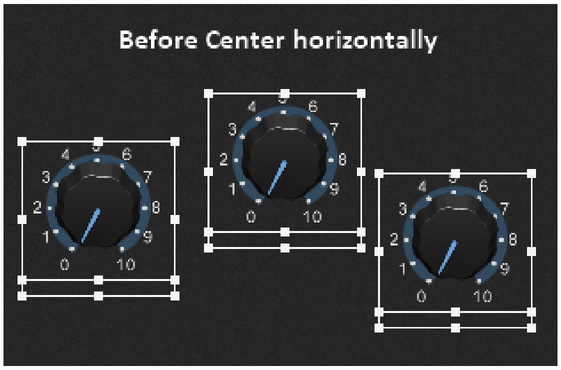
Align top (t) - align the tops of the selected widgets.

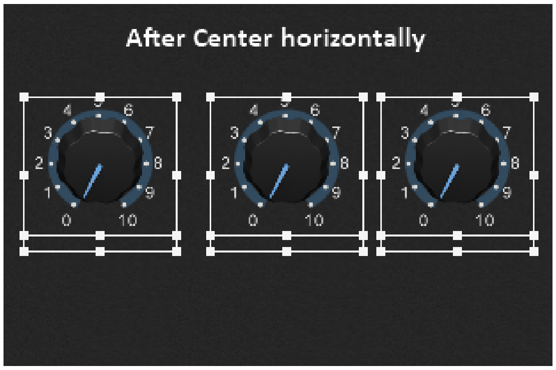
Align bottom (b) - align the bottoms of the selected widgets.

Align left (l) - align the left sides of the selected widgets.

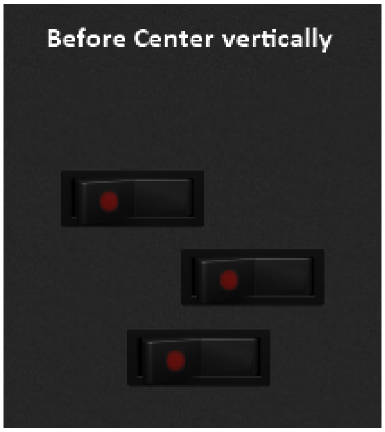
Align right (r) - Align the right sides of the selected widgets.

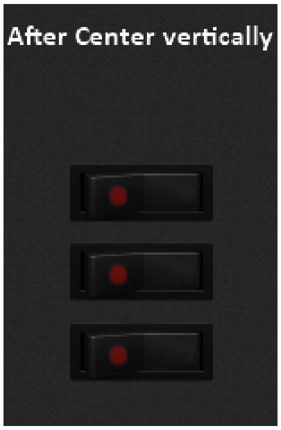
Center horizontally - aligns the selected widgets so that they are all lined up on the X axis at the same value of Y.





Center vertically - aligns the selected widgets so that they are all lined up on the Y axis at the same value of X.





Distribute horizontally (d) - the selected objects are moved to so as to have even horizontal spacing between them. Note: the widgets are distributed evenly across the space between the left side of the left most widget and right side of the right most widget.

Distribute vertically (D) - the selected objects are moved to have even vertical spacing between them.

Make same size (=) - clicking this button makes all of the selected widgets the same size as the first selected widget.

Make captions same size - this button changes the size of the caption text areas for all of the selected widgets to match the size of the first selected widget.

Additional keyboard shortcuts that also apply to selected widgets:

Bigger (+) - grow selected widgets.

Smaller (-) - shrink selected widgets.

Same (=) - make all selected widgets the same size as the first one selected.

H closer (c) - move the selected widgets closer to each other horizontally (along the X axis).

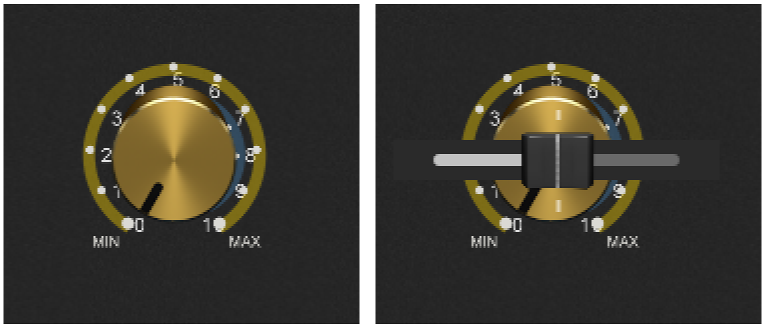
V Closer (C) - move the selected widgets closer to each other vertically (along the Y axis).

H further (f) - move the selected widgets further from each other horizontally (along the X axis).

V Further (F) - move the selected widgets further from each other vertically (along the Y axis).

6.2.3 Widget z-ordering

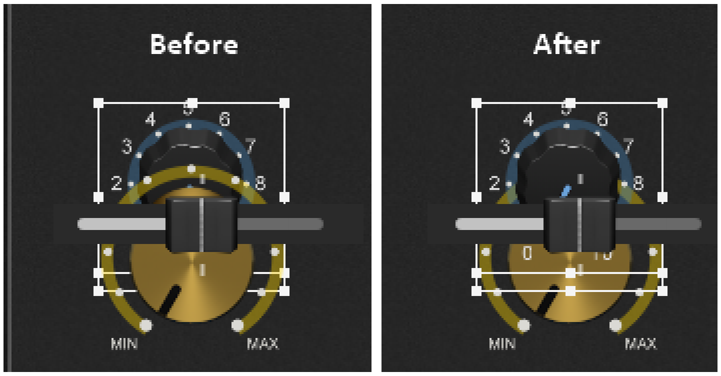
If you insert a widget, e.g. a plastic blue knob, and then insert another one, e.g. a gold knob, and try to place them at the same position, you'll notice that the gold knob overlaps the plastic blue knob:



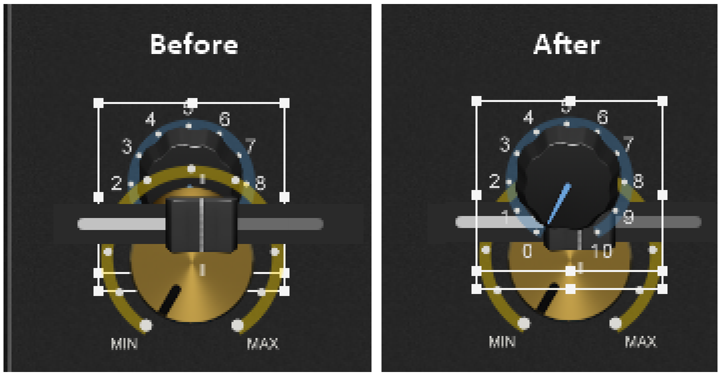
Similarly, if you insert an another widget, e.g. a horizontal black slider and place it at the same place where are the existing widgets are located, you'll notice that the horizontal black slider overlaps the existing ones. The most recently inserted widget will be positioned above earlier widgets at the same location. Note that the hierarchy is preserved here: you can drag the gold widget away but the horizontal black slider will remain above the plastic knob; dragging the gold knob back to the same place will place it between the plastic blue knob and the horizontal black slider.

This order can be controlled by right clicking on a widget and selecting one of the following contextual menu items:

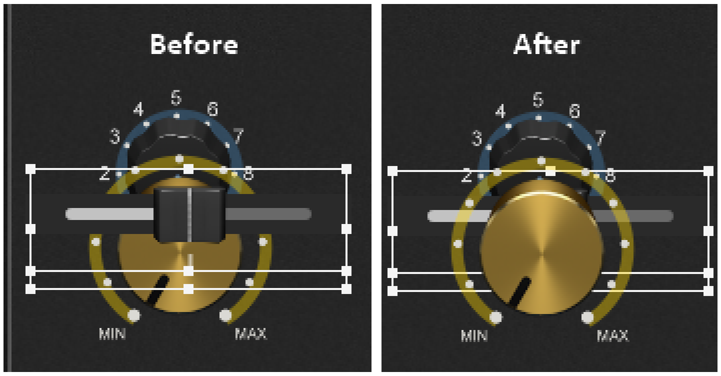
- **Bring forward** - places the currently selected widget one place higher in the order.



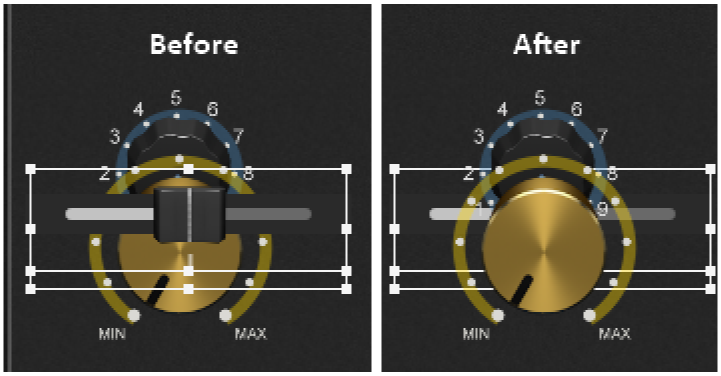
- **Bring to front** - places the currently selected widget in front of all other widgets.



- **Send backward** - places the currently selected widget one place lower in the z-order.



- **Send to back** - places the currently selected widget behind all other widgets.



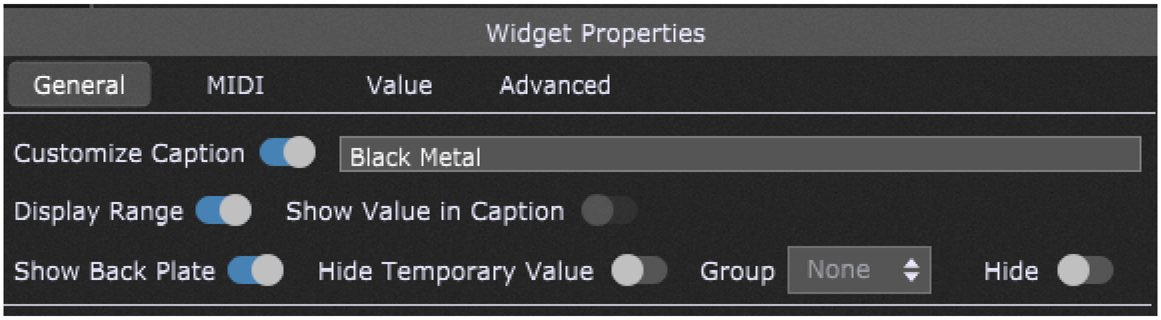
6.2.4 Widget Properties inspector

Adding or selecting a widget in Edit mode opens the Widget Properties inspector which is divided into two sections: **Widget Properties** and **Mapping**.

Widget properties

The Widget properties section is further divided into four tabs - **General**, **MIDI**, **Value** and **Advanced**.

General tab:



Widget Properties

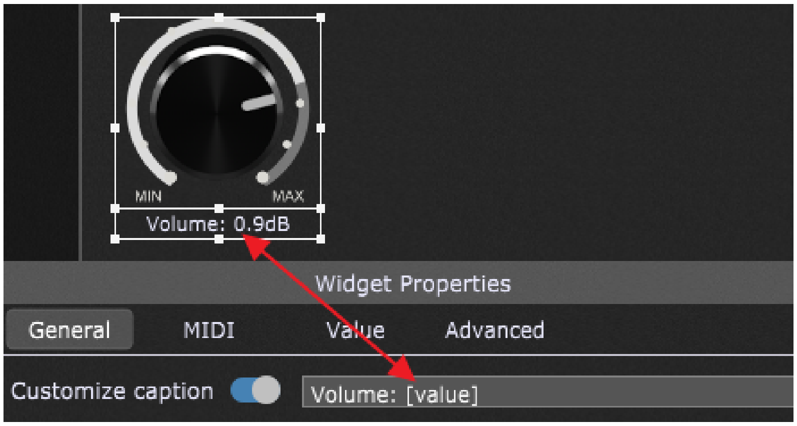
General | MIDI | Value | Advanced

Customize Caption: on — Black Metal

Display Range: on — Show Value in Caption: off

Show Back Plate: on — Hide Temporary Value: off — Group: None — Hide: off

Customize caption - enable this toggle button to have the widget display a custom caption and then type in a new name. If this toggle button is disabled, the default caption is defined by the selected parameter name (refer to the Mapping section below for more information). **Note**: if you add the "[value]" tag (without quotation marks) to your caption, then the parameter value will also be included in the caption:



Volume: 0.9dB

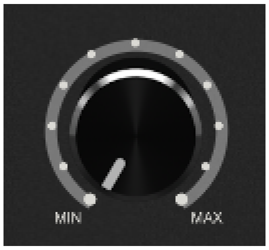
Widget Properties

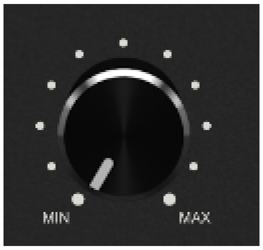
General | MIDI | Value | Advanced

Customize caption: on — Volume: [value]

If you add the "[variation]" or "[rackspace]" tag (without quotation marks) to your caption, then the name of the corresponding variation or rackspace respectively will be included in the caption.

Display range - this option is enabled by default; when disabled, the widget doesn't show the ring around the outside of the knob or slider:

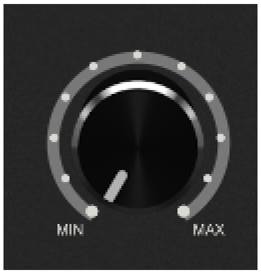


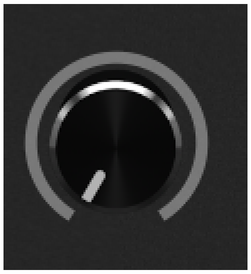


When this toggle button is enabled, you can notice two colors: the total range (dimmed) and the scaled widget value (brighter color).

Show value in caption - this option is disabled by default; when enabled it overrides the defined caption and displays only the parameter value.

Show back plate - this option is enabled by default; when disabled, the "back plate" information such as numbers, Min/Max or an "on/off" legend is not displayed:

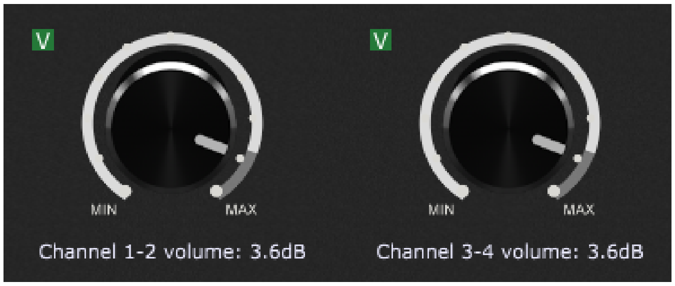




Note: this option is displayed only when you are editing a knob, a toggle switch or a LED button.

Hide temporary value - when this toggle button is turned on, the parameter value is never displayed when a widget changes.

Group - each widget can only be associated with a single plugin parameter. However, the 26 Widget Groups provided by Gig Performer enable you to control multiple parameters from any or all of the widgets assigned to that group. Click on the dropdown list (right to the "Group:") and select a letter ranging from A to Z to assign a widget to that group (e.g. "X"). All widgets with the same letter are grouped together so that moving one widget will cause all the other widgets in that group to move as well, adjusting various plugin parameters simultaneously:



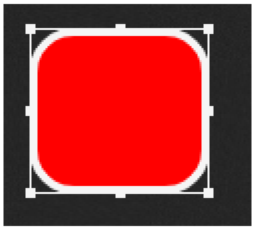
Note: each of these widgets can have its own scale curve so that the actual values sent to the individual plugin parameters do not have to match. Check the How to add a widget to a widget group chapter for more information on widget groups.

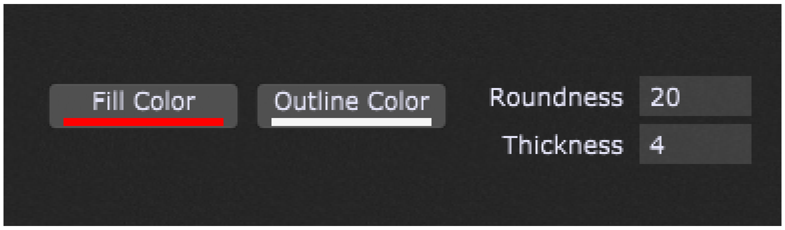
Tip: Pressing a character (A-Z) while holding the Alt key (or Option on Mac) down will assign all selected widgets to that character's widget group.

Hide - clicking this toggle button will hide the widget when Edit mode is not active. **Note**: hidden widgets are semi-transparent in edit mode for easier identification.

Some widgets include the additional properties in the General tab; these are:

1. **Shape widget** - this widget includes additional properties: *Fill Color, Outline Color, Roundness and Thickness* (of the border):

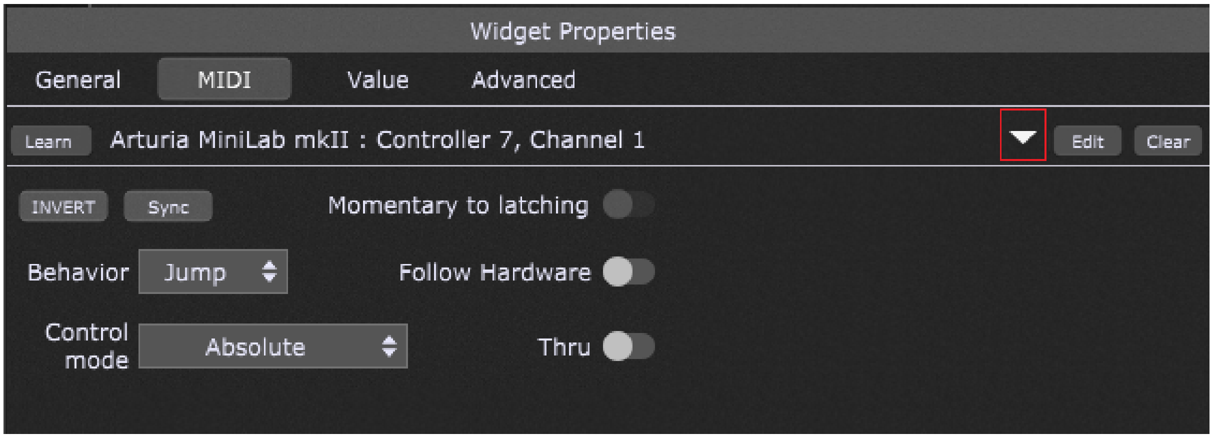
   Roundness 20
   Thickness 4

   Simply click on the corresponding buttons and then pick fill and outline colors (as well as their transparency).

2. **Label widgets** - these widgets (Text Label and Tape Label Horizontal/Vertical) include additional properties: *Font Size* (choose between 4 and 128), *Text Position* (allows 9 positions: Centered, Centered Left, Centered Right, Centered Top, Centered Bottom, Top Left, Top Right, Bottom Left, and Bottom Right alignment), and *Text Color*.

3. **Sustain pedal, Buttons and Switches** - includes the additional property *Momentary touch* to control the momentary behavior on mouse clicks or touch. Disabling this property will keep e.g. the sustain pedal up or down until you click on it again. Enabling this property will keep the pedal pressed until you release the mouse click.

MIDI tab:



Arturia MiniLab mkII : Controller 7, Channel 1

Behavior: Jump

Control mode: Absolute

Learn button - click on this button to have Gig Performer learn the physical control you want to associate with the selected widget. When actively in Learn Mode, the button is lit red; to exit Learn Mode, click on it again and it will return to its normal gray color. Refer to the How to connect a widget to a MIDI device chapter to learn more.

Note: the only CC messages that cannot be learned by Gig Performer are **CC 0** and **CC 32** as these two messages are reserved for bank selection.

Drop-down menu - clicking on this drop-down button (indicated with the red rectangle) opens a menu that allows you to select a MIDI control alias. Check the How to use aliases chapter for more information.

Edit button - click on this button to manually associate a MIDI device, MIDI message type and other parameters (depending on the message type, e.g. Note, Channel, CC number) with the selected widget.

Clear button - click on this button to clear the current controller assignment.

Invert button - when turned on, the behavior of the widget is reversed; for example, a switch or a button will cause a parameter to go to minimum when in the ON (lit) position, and vice versa.

Sync button - pressing this button engages bidirectional communication between Gig Performer and the controller mapped to the control. This lets physical controls on control surfaces reflect changes executed in Gig Performer, as well as Gig Performer widgets showing changes made on the physical control to which it is linked.

Momentary to latching - this toggle button is displayed only when editing switches, buttons, LEDs or a sustain pedal. When checked, the widget remains in its ON position until you click on it (or touch the associated physical controller) a second time. This is useful when you want to have a widget carry out an operation until stopped, i.e. staying at a fast Leslie speed until you are ready to return to a slow Leslie speed.

Behavior - this drop-down menu allows you to choose between Jump and Catch modes. When a widget is in Jump mode, moving the associated physical controller will cause the widget to immediately jump to the position of the controller. When a widget is in Catch mode, the widget will not respond to the associated physical controller until the controller's value matches the current value of the widget, at which point the widget will follow the controller. **Note**: if the **Follow Hardware** toggle button is turned on, this menu will change to *Initial Behavior*.

Follow Hardware - to enable this toggle button you must learn or manually assign a MIDI device and a CC message. This feature allows you set a widget to the last seen value of the hardware (pedal, slider, knob, etc.) when you switch to the rackspace that contains this widget.

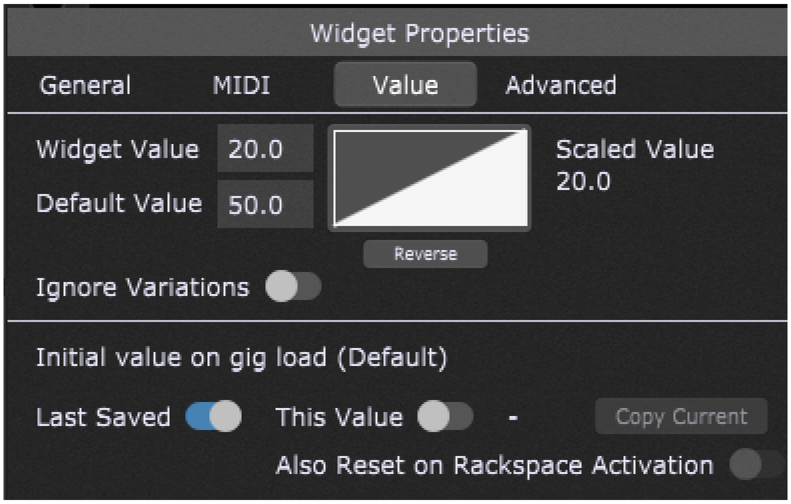
Control mode - allows you to set the either absolute (default) or relative control mode for a widget. There are 4 different relative modes: Relative Offset, Signed 1 Bit, Signed 2 Bit, and Two's Complement.

Note: If you previously selected a MIDI control alias (using the drop-down button indicated with the red rectangle), the Control mode is managed in the Rig Manager. Refer to the Rig Manager chapter to learn more about the Rig Manager and various control modes.

Thru - by default, this toggle button is turned off, so a MIDI message learned by a widget will not be forwarded to plugins. Turn on this toggle button to send out the learned MIDI message to plugins. For example, you can both play a note and have that note turn on your Leslie effect as well.

Note: the *Thru* toggle button is new in Gig Performer 4.5. If you happen to use an older version of Gig Performer, a MIDI message that is learned by a widget will not be forwarded to plugins (all other unlearned messages will be available to plugins). However, learned MIDI messages can be forwarded using GPScript for these use cases. We recommend that you update to the latest version of Gig Performer.

Value tab:



Widget Value 20.0
Default Value 50.0
Scaled Value 20.0
Ignore Variations ○
Initial value on gig load (Default)
Last Saved ● This Value ○ -
Also Reset on Rackspace Activation ○

Widget value - each widget has a range of 0 to 100. Note that this is a percentage, not an absolute value. For example, if the plugin parameter it is controlling has an absolute range from 0.0 to 1.0, then when the widget is at its "100" setting it is actually changing that parameter to 1.0 (i.e. 100% of 1.0). Value of widgets from the Buttons category (buttons, switches, and LEDs) can only be 0 or 100 - there is nothing in between and the only values that a button can emit are the values at those positions. Anything in between will be ignored. You can also directly enter values using MIDI numbers, by adding the letter "m" at the end of the value. For example, if you type in "64m", Gig Performer will interpret it as an exact value of 50.39 (roughly 50% of the maximum MIDI value of 127).

Default value - continuous widgets allow changing the default value, on others this value cannot be set. When you double-click on the widget (when not in Edit mode), the widget value is reset to the specified default value.

Scaled Value - this value is the actual value that is sent to the plugin parameter. The default scaling for a newly inserted widget is the same as the actual widget value, as shown by the triangle shape of the curve. Scaling is based on the defined curve; find out more about curves in the How to control the widget value scaling chapter.

Reverse button - inverts the current curve horizontally. For example, if your curve has a default linear shape where widget value 20 results in scaled value 20, click on the Reverse button will scale the widget value 20 to be sent out as the value 80.

Ignore variations - this option is disabled by default; when enabled, the selected widget will be excluded from variation changes and will instead remain at its current value. This is useful if you have, for example, several different variations that change the widget settings controlling effects such as phasing or flanging, but you want the widget controlling overall volume to remain constant.

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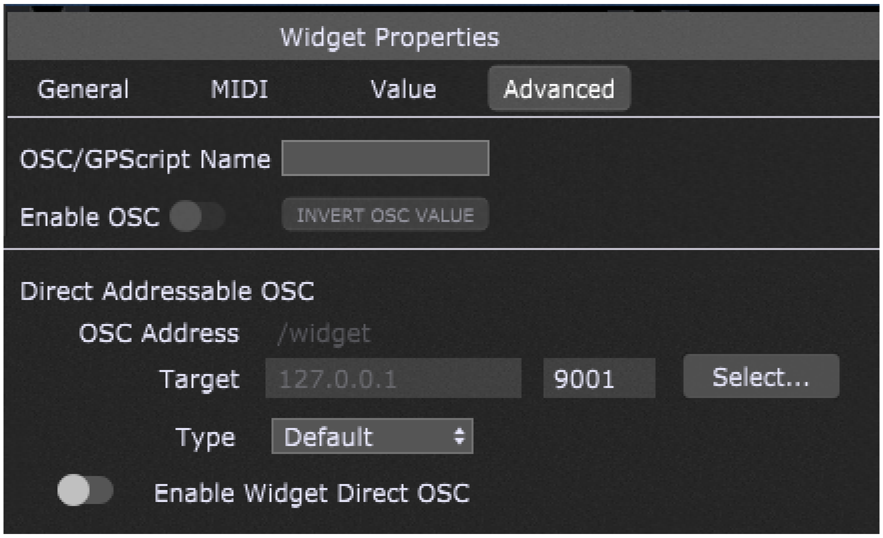
Initial value on gig load (variation_name) (not available in the Global rackspace) - Gig Performer by default restores all widgets to their last positions in variations when a gig file is saved (the **Last saved** toggle button will be enabled in this case).
You can, however, click on the **This value** toggle button to take a snapshot of the current position of the selected widget so that it is that position that gets recalled and loaded instead. This can be useful if you are playing, for example, a song where the volume of your piano always starts softly but gets quite loud by the end. When you come back to that song again, you don't want the piano to still be loud - you want it to always start soft. The concept is that, even if you play around with widgets during the course of your live performance, when you next reload a gig file, your originally stored values will return.
Click on the **Copy Current** button (it is enabled only when the "This value" toggle button is enabled) to take another snapshot of the current widget position.

Additionally, clicking on the **Also reset on rackspace activation** toggle box resets the widget value to "This value" on the rackspace activation.

Note: Widget values are always automatically saved and reloaded in your gig file, per variation. By using the explicit load value, the current widget will be reset to a specific value when your gig loads, even if you later change it and save the gig file.

Advanced tab:



Widget Properties

OSC/GPScript Name

Direct Addressable OSC

OSC Address /widget

Target 127.0.0.1 9001

Type Default

OSC/GPScript Name - allows you to set a name for use in GP Script and/or OSC.

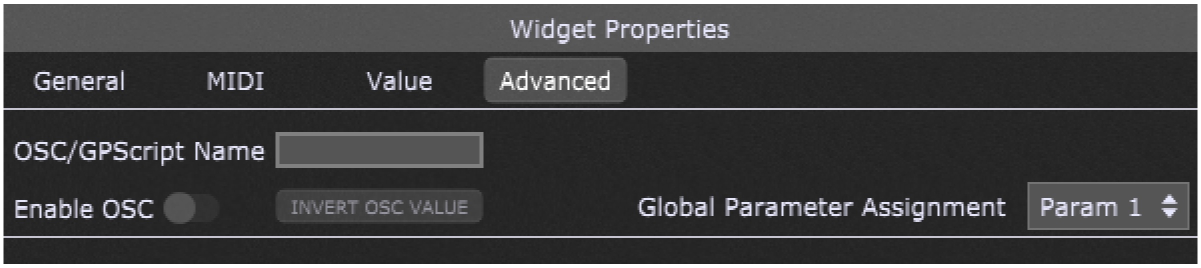
Enable OSC - click on this toggle button to make the OSC/GPScript Name field also be available to OSC. For more information on OSC, click here.

Invert OSC value button - clicking on this button inverts the OSC value. Click again to revert.

Direct Addressable OSC (this section is only visible when the *Enable Widget Direct OSC* option is enabled in OSC Options and is intended for advanced control of remote devices):

- **OSC Address** - type in a valid OSC address of the remote device.
- **Target** - type in a valid target IP of the remote device and afterwards type in the listening port of the remote device. Clicking the **Select...** button allows you to easily select an OSC target from the list that must be previously set in OSC Options.
- **Type** - allows you to set the type of the argument for an OSC message (Default, Float, Integer, and String).
- **Enable Widget Direct OSC** - clicking on this toggle button allows you to send out widget values as OSC messages for external processing. **Note**: OSC Address and Target must be defined to allow this toggle button to be enabled.

Note: global widgets (widgets in the Global rackspace) have one additional setting - *Global Parameter Assignment*:

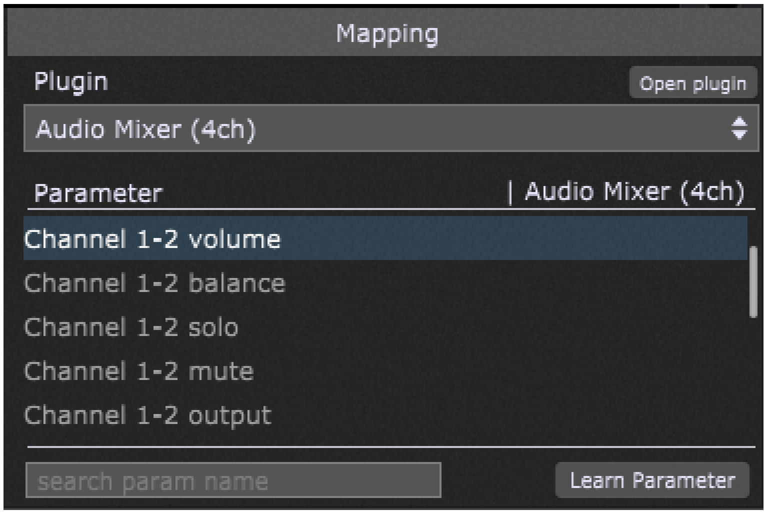


Global Parameter Assignment: Param 1

Refer to this chapter to learn how to use this setting.

Mapping section

The mapping section is used to connect widgets to plugin parameters:



Plugin - click on this drop-down to view the list of plugins in the current rackspace and then select the plugin you want the widget to control.

Open plugin button - click on this button to open the editor for the selected plugin.

Parameter - parameters are displayed only when a plugin is selected; select the one from the list of available controllable parameters that you want to have the widget control. Alternatively, you can search the parameter name by typing a partial parameter name or, even easier, use the **Learn Parameter** button.

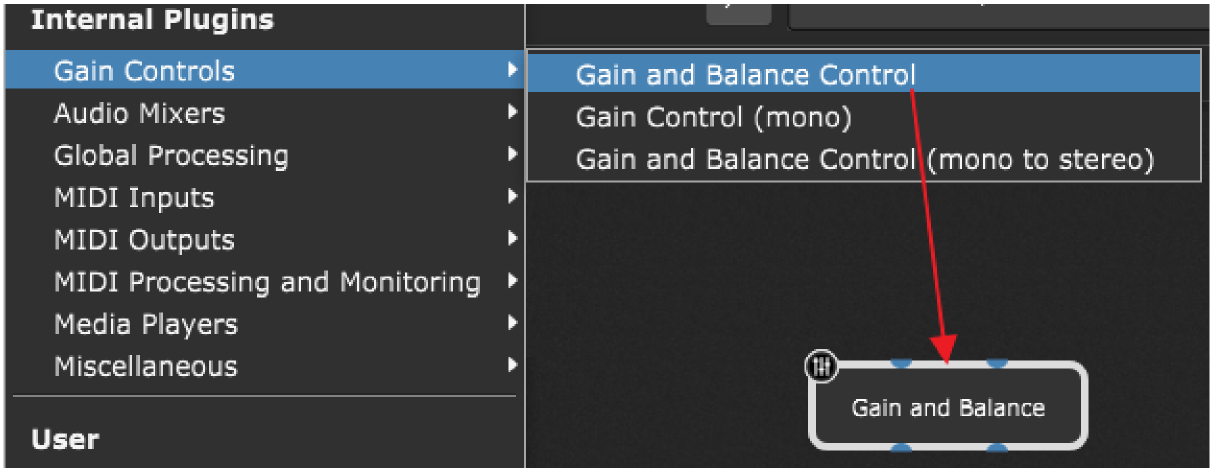
Learn Parameter button - click on this button to have Gig Performer learn the plugin parameter you want to associate with the widget. This button is displayed only when a plugin is selected. When in Learn Mode, the button is lit red; to exit Learn mode, click on it again and it will return to its normal gray color.

Note: widget assignments to physical controllers in the Widget Properties area override assignments made in the Global MIDI Options.

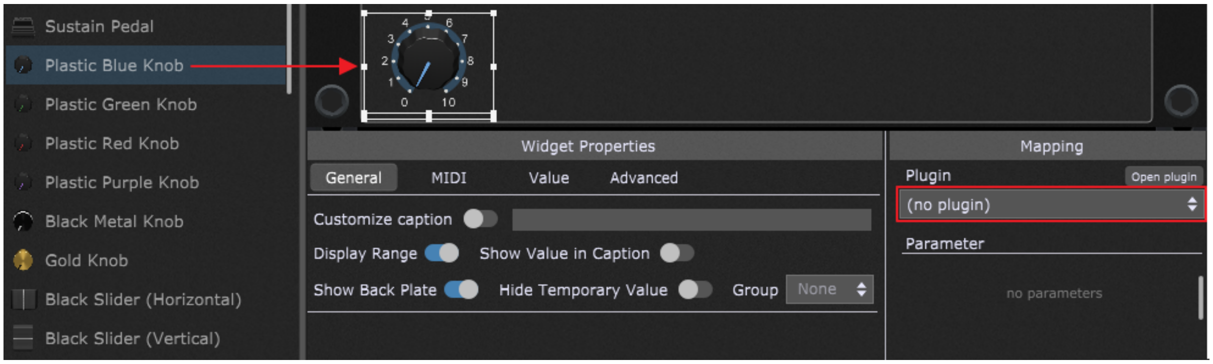
Refer to the How to connect a widget to a plugin parameter chapter for more information on widget mapping and parameter learning.

6.2.5 How to connect a widget to a plugin parameter?

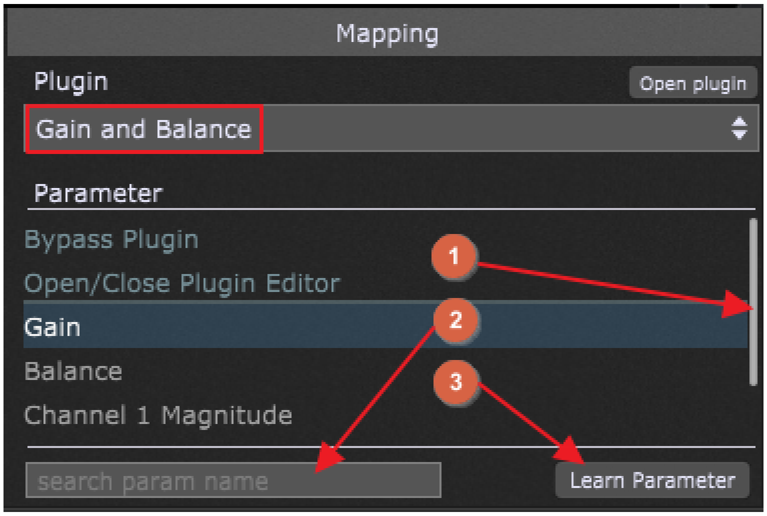
To connect a widget to a plugin parameter, first switch to the Wiring view, right click on the empty surface to open the contextual menu, and then select and insert the desired plugin (e.g. a Gain and Balance Control, as indicated with the red arrow):



Alternatively, you can use the Quick plugin finder to add plugins in the Wiring view. Afterward, switch to the Panels view, Edit mode and drag the desired widget onto a panel surface (e.g. a Plastic Blue Knob, as indicated with the red arrow):



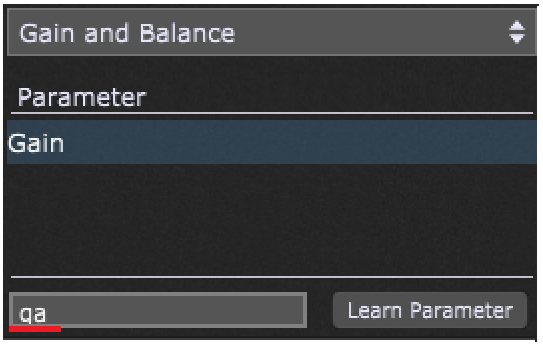
Click on the plugin drop-down menu in the Mapping section of the Widget Properties inspector, (as indicated with the red rectangle) and select the desired plugin (in this case, the Gain and Balance plugin, as indicated with the red rectangle):



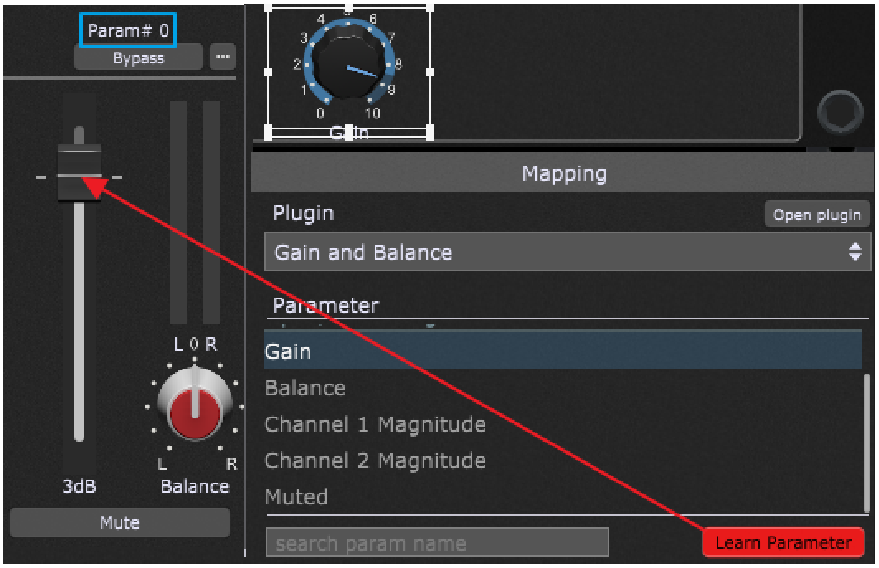
To select the actual parameter, do one of the following:

1. Simply navigate through this list using the scroll bar and select the desired parameter (e.g. Gain),

2. Start typing part of the parameter name into the search box to restrict the visible list of parameters to those matching what you have typed so far:



3. Click on the **Learn Parameter** button; a plugin's editor opens automatically and the background of this button turns red, indicating that you entered into the Learn mode. Simply click on the desired control (indicated with the red arrow) and the parameter will automatically be selected in the parameter list:



Click on the Learn Parameter button again to turn off the learning mode.

Note: every when you move the widget control, its parameter number displays, e.g. "Param #0" (indicated with the blue rectangle); this means that this parameter is the first in the parameter list (counting starts from 0) and below the common parameters "Bypass Plugin" and "Open/Close Plugin Editor". This display is specifically intended for advanced users wishing to control a parameter directly from GPScript or OSC and need to know the actual parameter number.

Test your configuration by moving the Plastic Blue Knob widget - if you successfully learned the parameter, the gain control in the plugin window should move accordingly (and vice-versa).

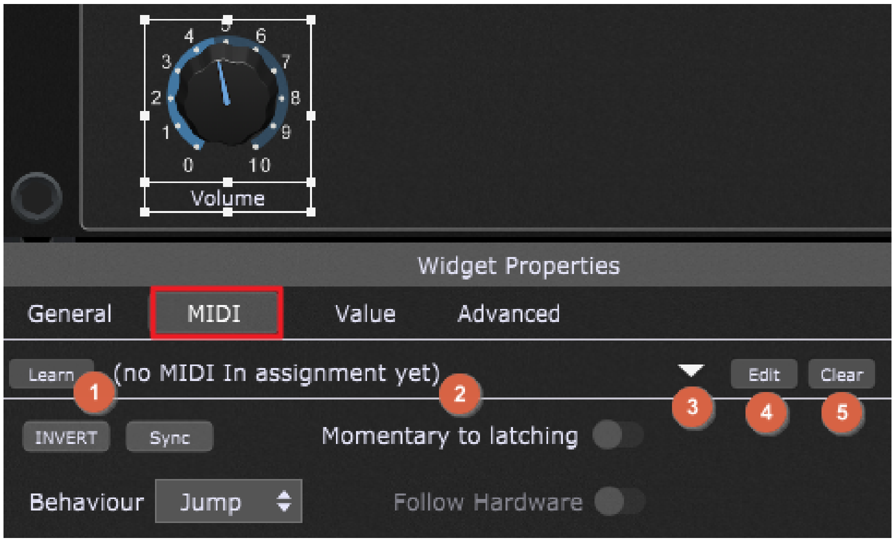
Tip: you can use a Text label widget to display a transparent note. Leave the "no plugin" mapping and change the widget value to 0 for the highest transparency; increasing this value (up to 100) decreases the transparency effect.

If Gig Performer detects unnamed plugin parameters, it displays them as e.g. Param 5, Param 6, Param 7 (visit this KB article to learn more).

6.2.6 How to connect a widget to a MIDI device?

This chapter naturally builds on the previous chapter. When you insert plugins, create widgets, and connect them to plugins' parameters, the next step is to control those widgets by your MIDI controller or remotely via OSC commands.

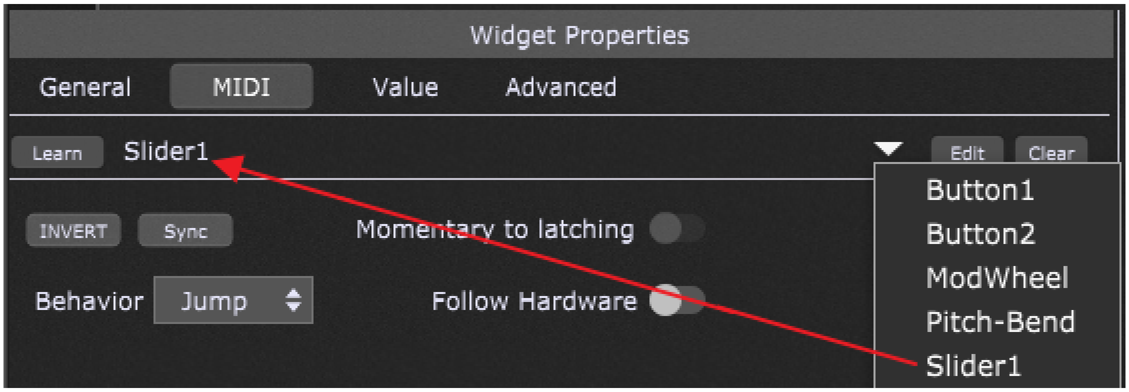
To associate a widget with a MIDI device, first enter into the Panels view, Edit mode, and click on the desired widget (e.g. a Plastic Blue Knob, if you followed the example from the previous chapter; if you created a new empty gig, drag the Plastic Blue Knob widget onto a panel surface and click on it):



(no MIDI In assignment yet)

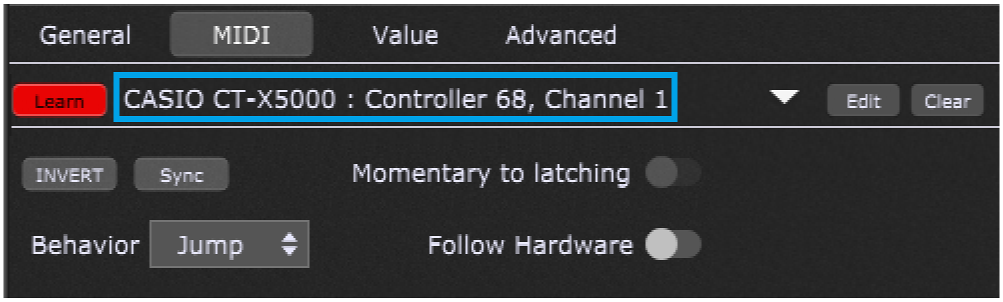
Behaviour Jump

Click on the MIDI tab (indicated with the red rectangle) in the Widget Properties inspector and note that no MIDI assignment has been made yet **(2)**. If you defined MIDI control aliases in the Rig Manager, you can easily click on the drop-down menu **(3)** and select the desired alias:



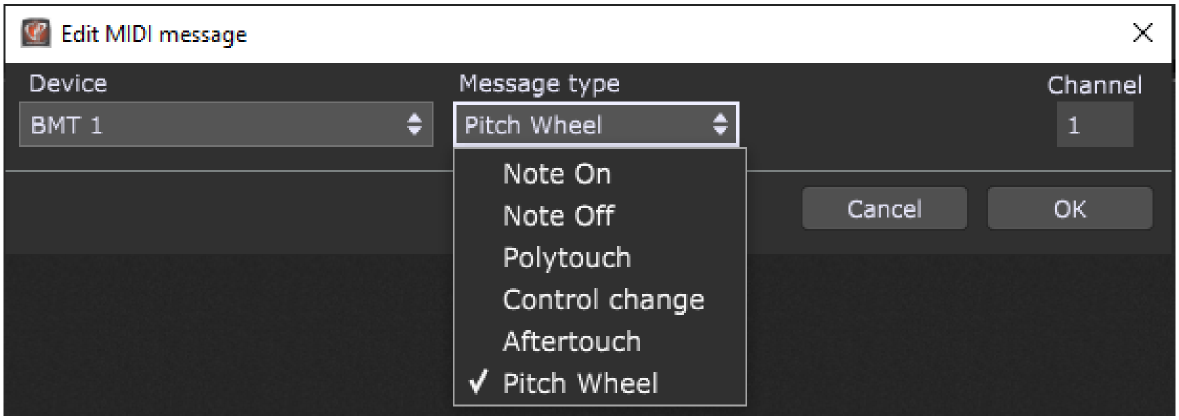
Note how the "(no MIDI In assignment yet)" message changes to match the name of the selected alias.

To have Gig Performer learn the physical controller you want to associate with the widget, click on the **Learn button (1)**; when actively in Learn Mode, the button is lit red. While in Learn mode, move the physical controller. If you already have an alias defined in the Rig Manager for that control, that alias will display; if you didn't define an alias (such as "Slider1" in the screenshot above), then the name of your MIDI device will show up, as well as the associated MIDI controller and the channel:


CASIO CT-X5000 : Controller 68, Channel 1

Make sure that you exit the Learn Mode by clicking on the Learn button again **(1)** and it will return to its normal gray color.

If you already know what MIDI message you need and/or don't have immediate access to your controller so as to use Learn mode, you can define your message manually by clicking on the **Edit button (4)**:



Edit MIDI message

Device: BMT 1

Message type: Pitch Wheel

Channel: 1

Simply select a MIDI device, MIDI message type and other parameters (depending on the message type, e.g. Note, Channel, CC number) and click on the OK button to confirm.

Clicking the **Clear button (5)** clears the current controller assignment.

Note: if you assign a MIDI message to a widget in the Global rackspace, and you assign the same MIDI message to a widget in a local rackspace, the local rackspace will override the Global rackspace which will not respond to the particular message while the local rackspace is active. If you then switch to a different rackspace that does not use that MIDI message - the Global rackspace assignment will work again.

6.2.7 How to add a widget to a widget group?

The concept behind widget groups is simple: any widget assigned to a group can be controlled by any or all other widgets assigned to the same group. This enables you to change multiple plugin parameters together. For example, take a look at this simple layout (refer to this chapter for more information on how to insert and connect plugins):

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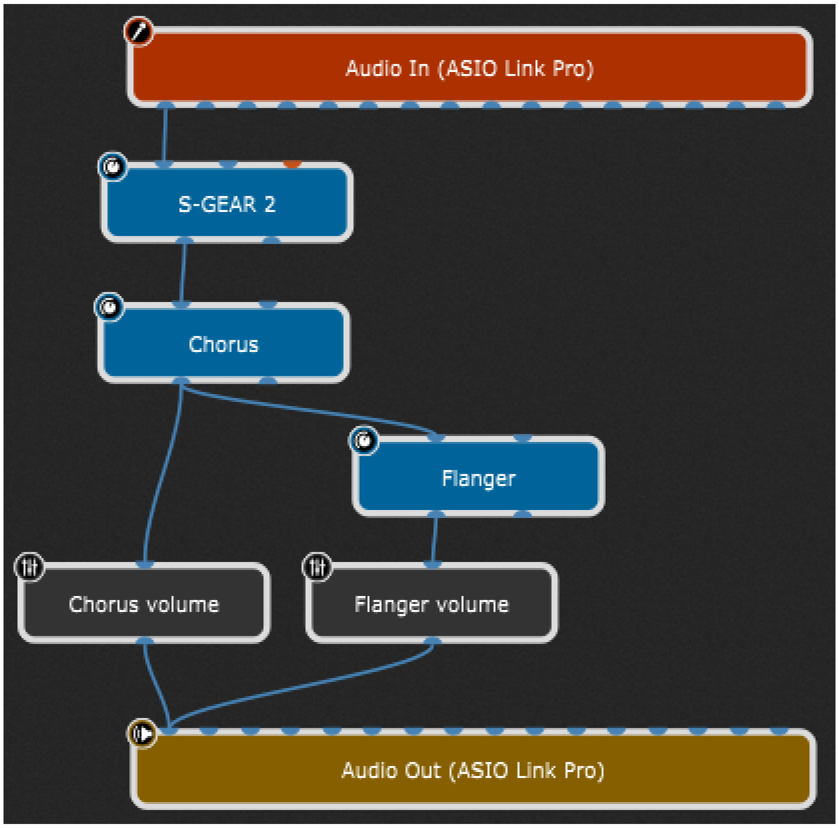


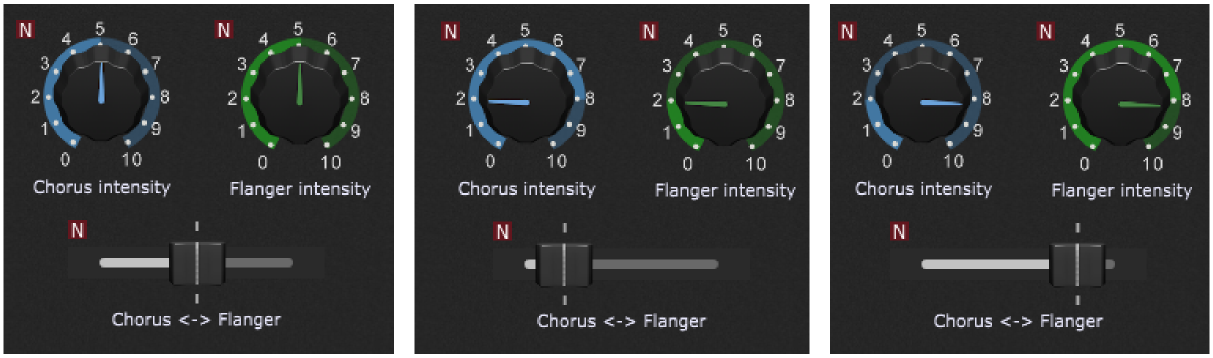
Chorus volume and Flanger volume are Gain Control (mono) plugins. You can easily create a widget group to crossfade between the chorus and flanging effects.

First, we insert three widgets: a Plastic Blue Knob, a Plastic Green Knob and a Black Slider (Horizontal) and then map the Plastic Blue Knob to the Gain parameter in Chorus volume plugin and map the Plastic Green Knob to the Gain parameter in the Flanger volume plugin. The Black Slider (Horizontal) will not be mapped to any of the plugins, and serves only to better display the chorus/flanger ratio (see this chapter for more information on to map a widget to a plugin parameter). **Note**: you can assign a widget to a widget group without mapping it to a plugin parameter; you can add the mapping later.

Customize the caption of the Plastic Blue Knob, the Plastic Green Knob and the Black Slider (Horizontal) widgets to "Chorus intensity", "Flanger intensity" and "Chorus <-> Flanger" respectively (see this chapter for more information).

Make sure that you click on the Reverse button in the Value tab in the Widget Properties inspector for the Plastic Blue Knob widget.

There are 26 different widget groups available in each rackspace (A-Z); to quickly assign all the widgets to the widget group "N", select all the widgets and then press the keyboard key N while holding the Alt key (or Option on Mac). Alternatively, you can of course set the widget group for each widget in the Widget Properties inspector separately. If you move the black slider (or any other widget in this group) you'll notice how the widgets' values change:



Note: we inverted values for the Plastic Blue Knob but you can select a different curve for each widget in a group to scale their values (see this chapter for more information).

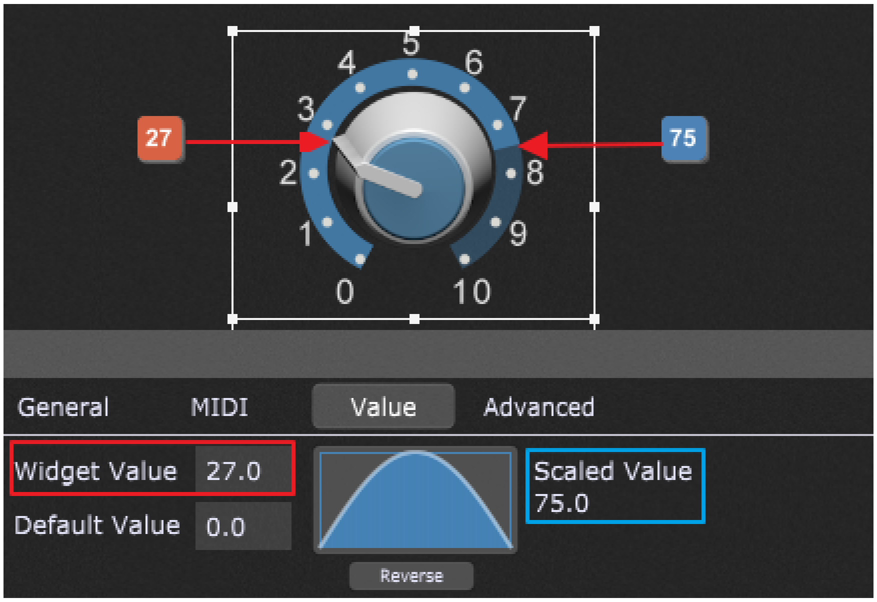
Because all three widgets are assigned to the same group, they will all move together. When the green knob widget is turned up, it will, as expected, cause the volume of the flanging effect to increase, but turning up the blue knob widget will do the opposite because it is set to reverse value: it will cause the volume of the chorus effect to decrease, and vice versa.

As a result, when you move the horizontal slider from left to right, you'll hear the chorusing effect crossfade into the flanging effect, and vice versa.

There are two other ways to control multiple plugin parameters simultaneously:
- one is to assign the same MIDI control to multiple widgets,
- the other is using GPScript to control any number of parameters with a single widget.

6.2.8 How to scale widget values with curves?

The scaling component was mentioned in the Widget Properties inspector chapter and also other basic terms i.e. the widget value and the scaled value. On the screenshot below you can see how these values are represented on the Blue Knob widget:



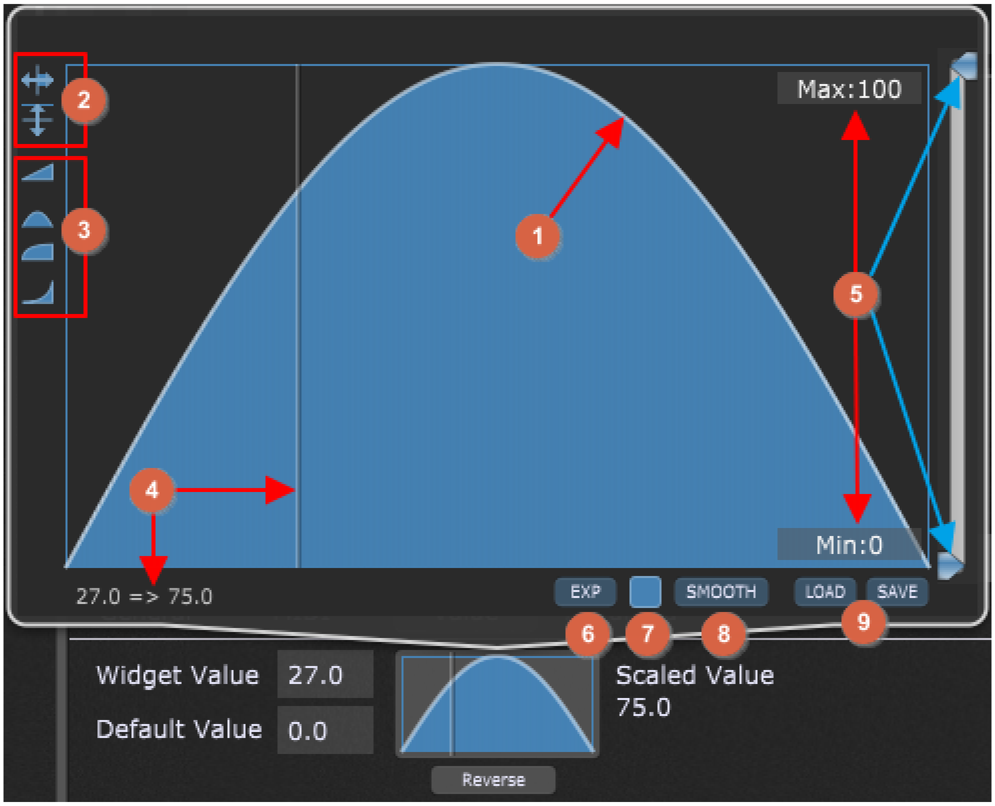
Widget Value 27.0

Default Value 0.0

Scaled Value 75.0

Here it is important to not confuse the **widget value** with the **scaled value**. The widget value is used as the input to the scale component and it is not sent to the plugin parameter. The scaled value is the output from the scale component and this is the value that is sent to the plugin parameter.

Clicking on the scale component brings up the following window:



27.0 => 75.0

Widget Value 27.0

Default Value 0.0

Scaled Value 75.0

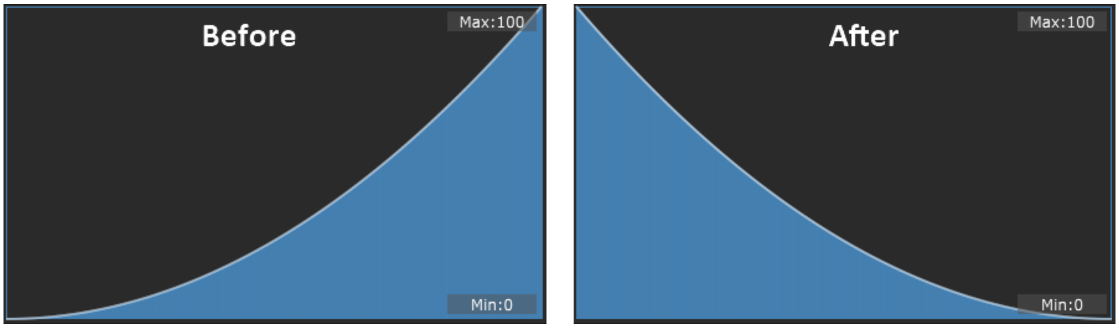
1. **Curve** - the scaling curve is used to transform the widget values to scaled values. To define a curve:

    a. select one of the supplied basic shapes **(3)** (you can also reverse or invert them),

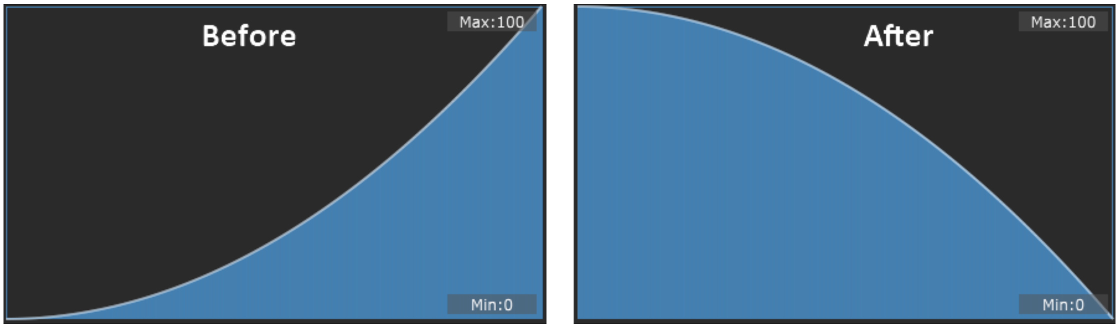
    b. click and hold a mouse to draw a custom shape (like in **(8)**),

    c. use the Curve Designer **(6)**.

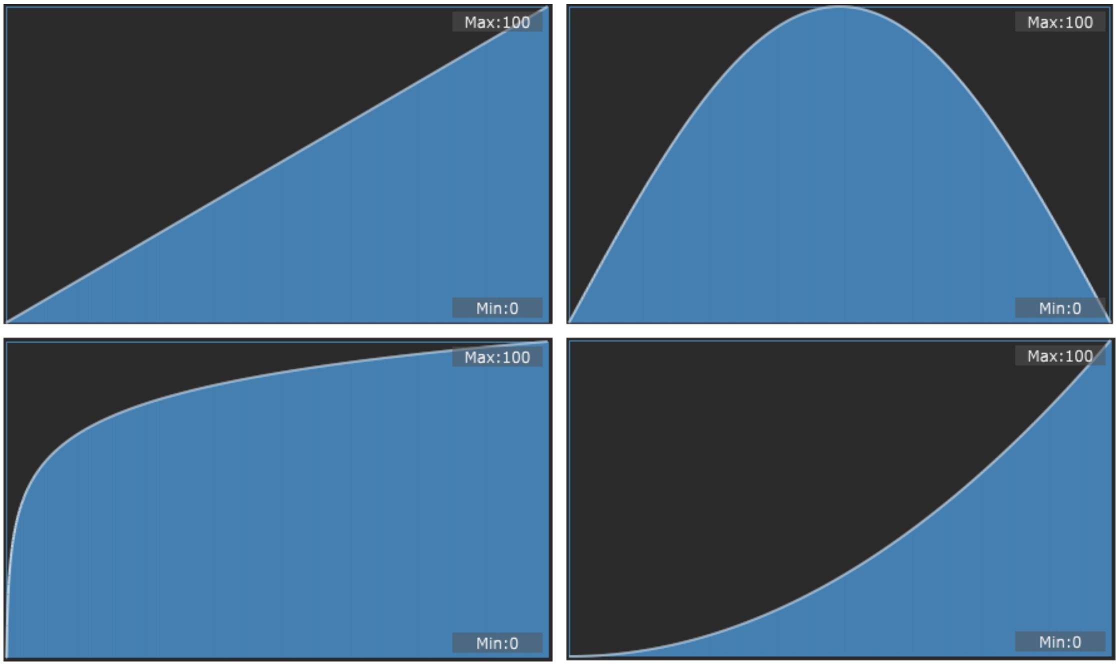
2. **Reverse and Invert buttons** - click on the Reverse button to reverse the curve (invert it horizontally), for example:



Click on the Invert button to invert the curve vertically, for example:



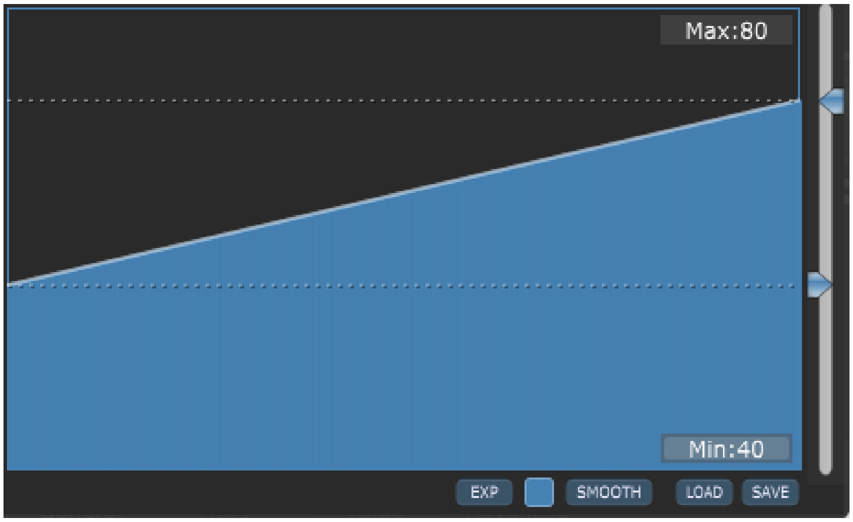
3. **Basic curve shapes** - the provided shapes are linear, sine, Log, and X^2:



Simply click on the desired shape to apply it.

4. **Indicator and values** - if you hover with your mouse over the curve, a vertical indicator will appear and the corresponding value will be displayed: **Widget Value => Scaled Value** (e.g. 27 => 75, as shown in the screenshot). The shape of the curve defines what value will be output for any particular widget value. The vertical indicator lets you easily see what values will be used.

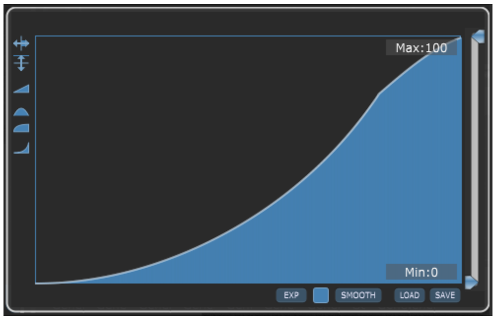
5. **Max and Min fields** - you can set a maximum and a minimum value for your curve by entering the desired values in the Max and Min fields or by adjusting the sliders (indicated with the blue arrows). Besides knobs, defining Min and Max values is also useful for the momentary widgets, i.e. buttons or switches. Although their widget value can be only 0 or 1, you don't necessarily want the "on" to always set the plugin parameter to 1.0. For example, you might want the button to cause the plugin parameter to toggle between 0.4 and 0.8 (you can define a min and max volume between which you could toggle):

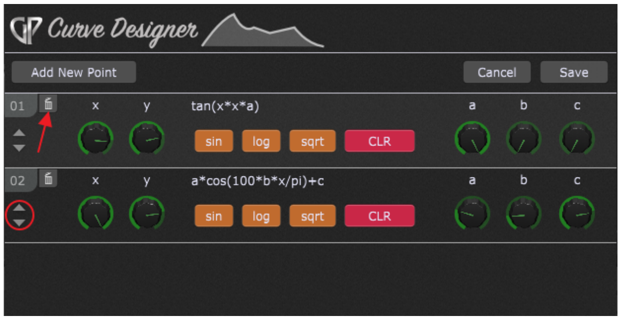


You can also directly enter values using MIDI numbers in the Min and Max fields, by adding the letter "m" to the end of the value. For example, if you type in "64m", Gig Performer will interpret it as an exact value of 50.39 (roughly 50% of the maximum MIDI value of 127).

Note: holding the Alt key (or the Option key on Mac) while moving min or max sliders allows you to fine change the values. Holding the Shift key while moving min or max sliders allows you to move both of sliders at the same time.

6. **Curve Designer** - clicking on the EXP button opens the Curve Designer:



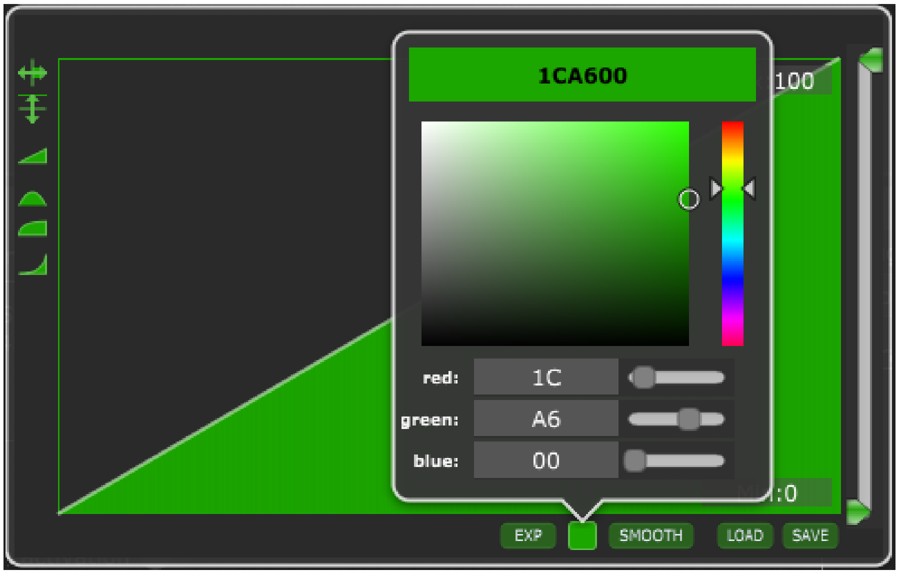


01 tan(x*x*a)

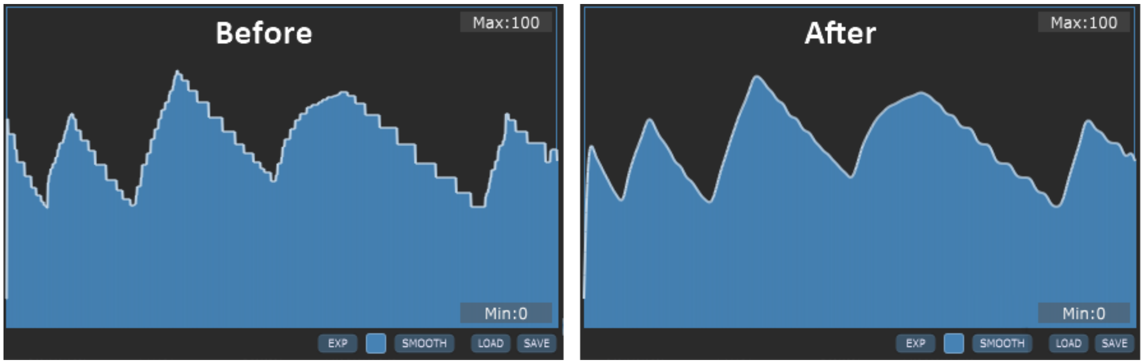
02 a*cos(100*b*x/pi)+c

Type in the desired function or click on the one of the provided buttons (sin, log, or sqrt) to insert a supplied function. You can also use other functions, such as cos, tan or cot (as shown in the screenshot above). Move the provided knobs (x, y, a, b, or c) to adjust your curve. If you want to create a curve with multiple points, simply click on the **Add New Point** button and enter the desired function. Click on the Trash can button (indicated with the red arrow) to remove the point. Click on the up/down arrows (indicated with the red circle) to move the point up or down. When you finish with adjusting the curve, click on the **Save** button.

7. **Color selector** - click on this button to choose the desired color for the scale curve:



8. **Smooth button** - clicking on this button smooths the curve a little bit:



   You can click multiple times to continue smoothing the curve.

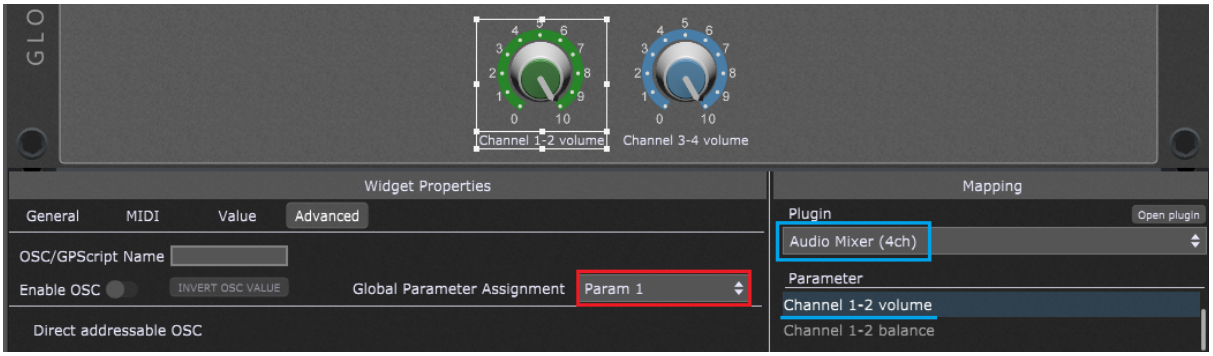
9. **Load and save buttons** - clicking on these buttons allows you to load a previously saved gpscale file or to save scale values to a gpscale file. This file can be also used in the scaling component found in the MIDI In block or the Probabilistic Sound Designer.

Tip: holding the Alt key (or the Option key on Mac) while creating a curve with your mouse constrains the horizontal position thereby producing a flat horizontal line as you move the mouse.

6.2.9 How to control widgets from the Global rackspace in a regular rackspace?

In this chapter you will learn how to configure global and local widgets so that changing widgets values in a local rackspace also change widgets values in the Global rackspace (and vice versa).

First, create a simple layout in the Wiring view in the Global rackspace; for this example we assume that you will use an Audio Mixer (4ch) in your configuration. While you are still in the Global rackspace, open the Edit mode in the Panels View and insert two knobs (e.g. a Green knob and a Blue knob):



Global Parameter Assignment: Param 1

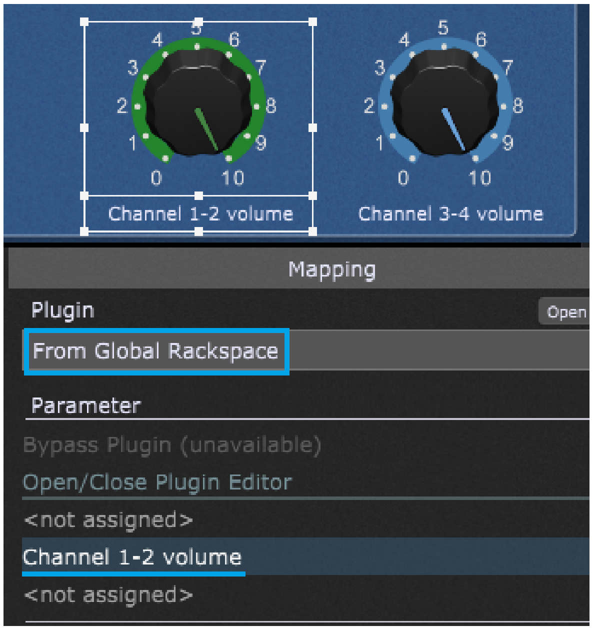
Plugin: Audio Mixer (4ch)

Parameter: Channel 1-2 volume

Click on the Green knob; note that the Widget Properties inspector includes one additional setting for the global widgets: Global Parameter Assignment. Select a value from the drop-down menu (from Param 0 to Param 127), e.g. **Param 1** (as indicated with the red rectangle). In the mapping section choose the **Audio Mixer (4ch)** plugin (as indicated with the blue rectangle) and select the **Channel 1-2 volume** parameter.

Click on the Blue knob; in the Widget Properties inspector select a different Global Parameter assignment, e.g. **Param 127**. In the mapping section choose the **Audio Mixer (4ch)** plugin and select the **Channel 3-4 volume** parameter.

Now switch to a local rackspace (click on View -> Show/Hide Global Rackspace) and in the Wiring view insert the From Global Rackspace block. Then switch to the Panels view, Edit mode and insert two knobs (e.g. a Plastic Green knob and a Plastic Blue knob):



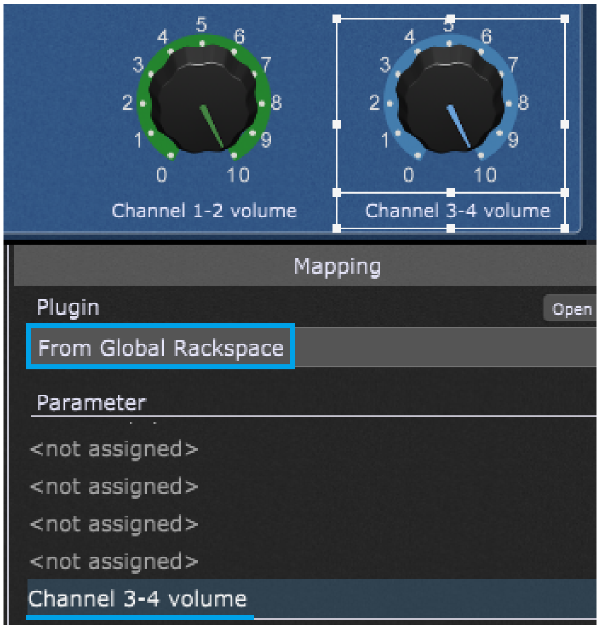
Mapping

Plugin Open

From Global Rackspace

Parameter

Bypass Plugin (unavailable)
Open/Close Plugin Editor
<not assigned>
Channel 1-2 volume
<not assigned>



Mapping

Plugin Open

From Global Rackspace

Parameter

<not assigned>
<not assigned>
<not assigned>
<not assigned>
Channel 3-4 volume

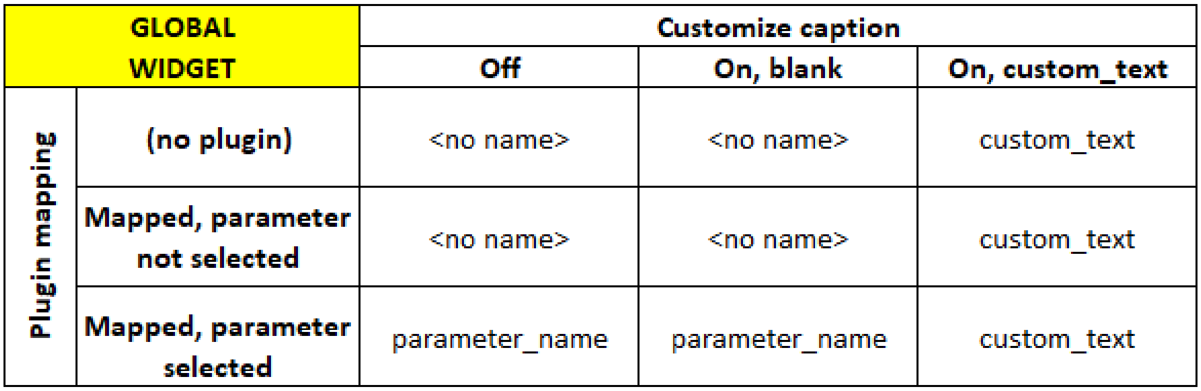
Global parameters are exposed to a local rackspace as parameters of the From Global Rackspace plugin (alternatively, you can also use the To Global Rackspace block, provided that you had inserted it in the Wiring view). Therefore, in the Mapping section for both knobs select "From Global Rackspace" (as indicated with the blue rectangle).

Select the **Channel 1-2 volume** parameter for the Plastic Green knob and the **Channel 3-4 volume** for the Plastic Blue knob.

Note: the actual parameter position in this list depends on what you selected in the above-mentioned Global Parameter Assignment setting. Since Param 1 and Param 127 were selected for the green and blue knob respectively, these positions become available in the From Global Rackspace plugin. If you want to prefix parameter positions in these parameter lists, enable the *Show parameter numbers in widget parameter selection list* toggle button in Display Options.

Finally, switch to the Panels view and move local knobs - the corresponding global knobs will move, as well (and vice versa).

Note: if the *Global Parameter Assignment* parameter position (e.g. Param 126) is not assigned to a global widget, the From Global Rackspace block will display "<not assigned>" for that position (see the screenshot above). If a global parameter position is assigned, the parameter name that you will see in the From Global Rackspace block depends on the global widget settings in the Widget Properties Inspector:



GLOBAL WIDGET		Customize caption		
		Off	On, blank	On, custom_text
Plugin mapping	(no plugin)	<no name>	<no name>	custom_text
	Mapped, parameter not selected	<no name>	<no name>	custom_text
	Mapped, parameter selected	parameter_name	parameter_name	custom_text

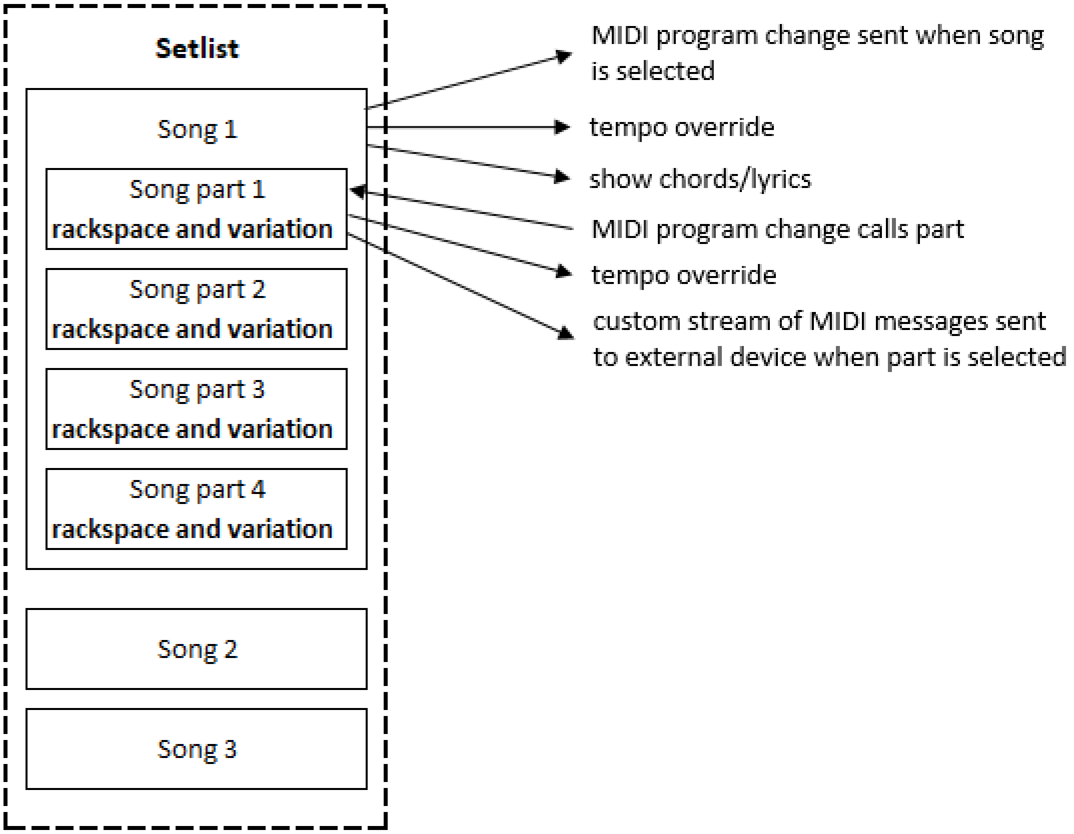
Tip: You can already copy widgets from the Global rackspace and then paste them into a local rackspace using the Copy and Paste menu options. However, if a global widget is mapped to a parameter in the plugin in the Global rackspace, then if you hold down the Shift key while performing the paste into a local rackspace, (e.g. right mouse click on a panel → Paste or click on the Edit menu → Paste), the pasted widget will be automatically mapped to the actual parameter values of the widgets in the Global rackspace. If it doesn't already exist, this action will automatically insert a "To Global Rackspace" plugin into the local rackspace.

7 Songs and Setlists

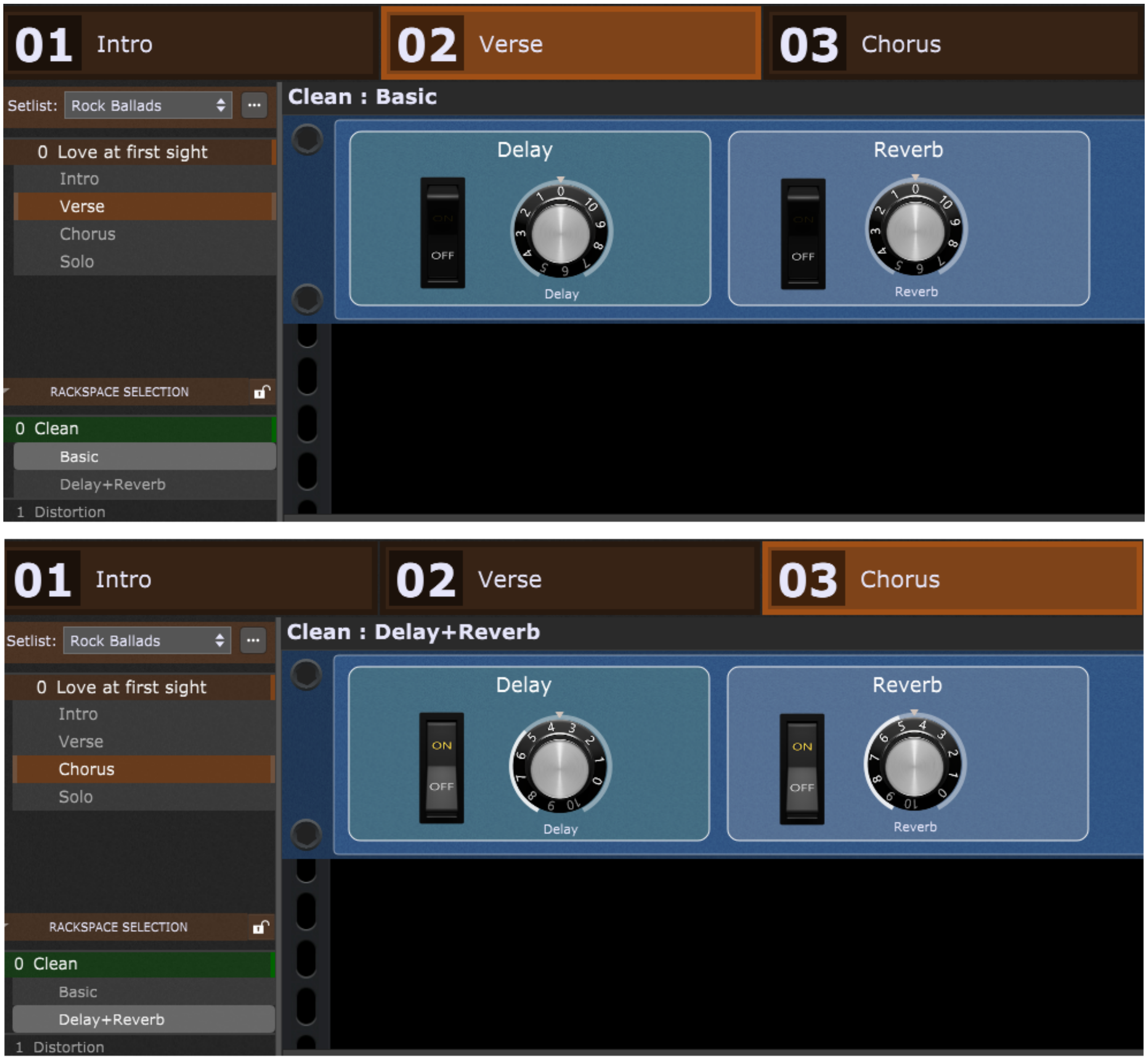
In this chapter you will learn more about creating songs, song parts and setlists in Gig Performer. Find out how variations are related to song parts and more.

7.1 Rackspaces/variations and Song Parts relationship

Gig Performer allows you to quickly and easily organize all of your rackspaces and variations to meet the needs of your performances by letting you build setlists of your songs. Each song consists of one or more song parts, such as verses, choruses, bridges, interludes, and so forth:



A song part is basically a reference to a specific variation in some rackspace that will be used when the part is selected, though there are other song part settings, as well:



On the screenshot above you can see how two song parts (Verse and Chorus) refer to two variations (Basic and Delay+Reverb) respectively.

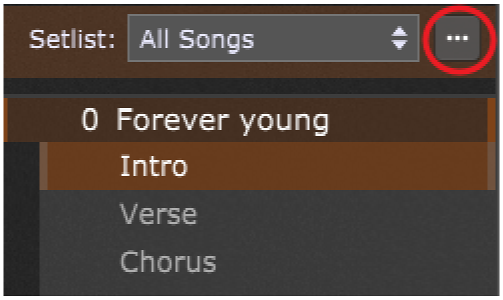
Note: Gig Performer remembers the variation that is selected when you switch away from a song part, so if you are trying different variations, be sure that the correct variation for the song part is selected before you switch away.

In the next chapter you will learn how to create a song.

7.2 How to create a song?

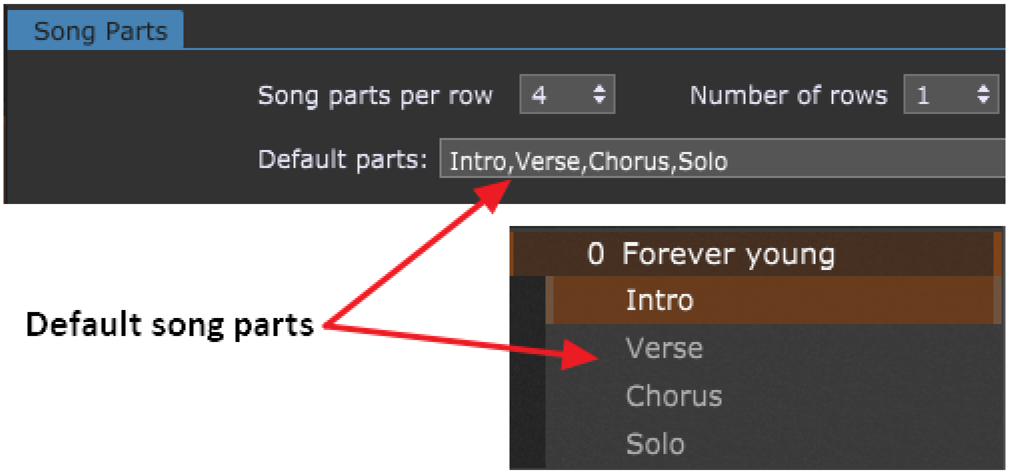
To create a new song, if you do not already have a suitable rackspace to use, first create a layout in the Wiring view (refer to this chapter for more information on how to insert and connect your plugins); in this blog article you can see the example layout, or use one from the built-in templates.

Afterward, switch to the Setlist view and press Ctrl+Shift+N (or Cmd+Shift+N on Mac) or choose the **Create New Song...** menu item from the Setlists contextual menu. The Song Properties dialog appears; enter a name in the dialog that appears (i.e. Forever young) and click on the OK button. Notice that three song parts are automatically created for your song - Intro, Verse, and Chorus:



You can easily create new songs/song parts, rename or remove the existing ones, and perform other operations by clicking on the "More..." button (indicated with the red circle) or by right clicking on a song/song part; learn more about supported operations in the Manage setlists contextual menu chapter. Also, rearrange song parts by simply dragging them to positions you prefer.

Note: you can set the default parts created with a new song by choosing Setlist/Song Settings from the Options menu:



Song parts per row: 4
Number of rows: 1
Default parts: Intro,Verse,Chorus,Solo

In the screenshot above, the Solo song part has been added (make sure to separate song parts with the comma or the semicolon).

The new song is also added to the All Songs list.

Ways to switch to a song part:

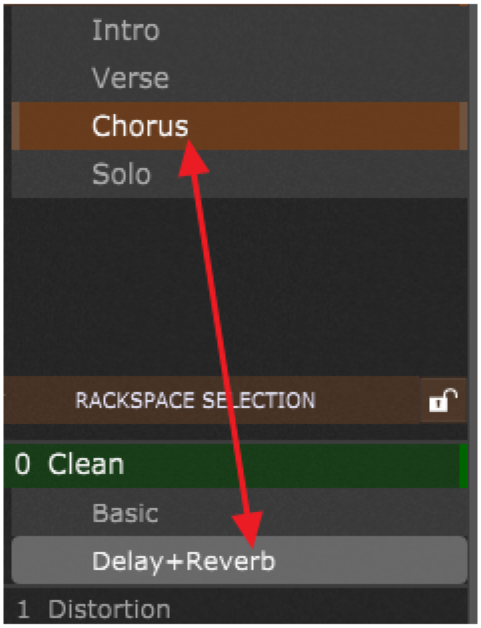
- Click on a tile in the part bar at the top of the Setlist/Song view.

- Click on the part name in the Setlist browser.

- Select a song part with a MIDI program change message assigned in the Song Part Properties dialog.

- Use the up/down arrow keys on your computer keyboard to select the song part above/below the current one respectively.

Click on the variation you want attached to the song part to select it:



Note: click here to find out more about how song parts and variations are related.

When you select a song, the first song part will be active. Note that rackspace variations have a different behavior (if explicit PC numbers are not used in variations the last selected variation will be called when using the PC for that rackspace).

Gig Performer supports the ChordPro lead sheet file format with both an editor/viewer to enable creating, editing, and viewing ChordPro documents, and the ability to attach a ChordPro document to a song, so that selecting the song opens the ChordPro document to put the chords and lyrics right in front of you. Refer to the ChordPro chapter for more information. Make sure to also check this blog article How to use ChordPro files in Gig Performer for detailed guidelines.

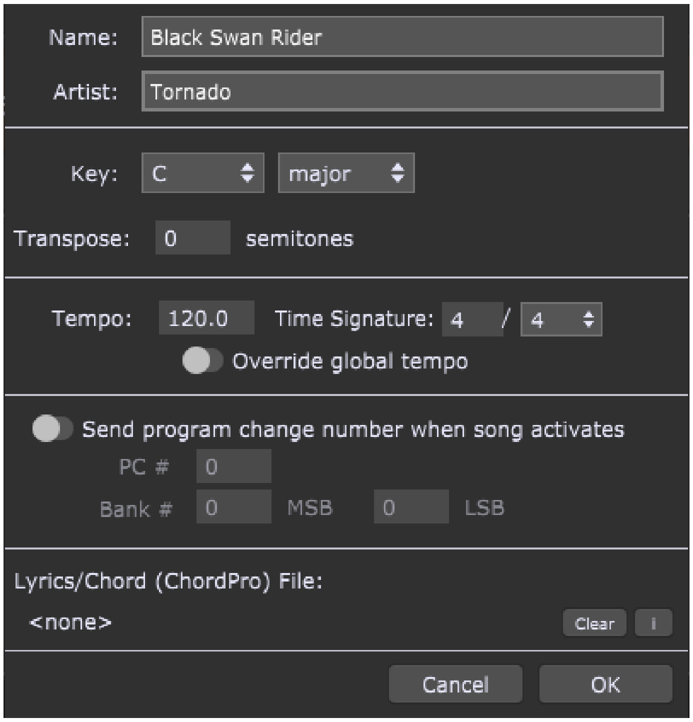
Make more songs and song parts: create new songs, song parts and assign ChordPro files to your songs by following guidelines above.

Note: although a song can have as many parts as you need, you can only assign MIDI events to the first 24 parts. Click here to learn more.

In the next chapter you will learn how to create a setlist from your songs.

7.2.1 Song Properties

When you create a new song or double-click on an existing song (or select Song Properties... from the contextual menu), the Song Properties dialog appears:



Name: Black Swan Rider
Artist: Tornado
Key: C major
Transpose: 0 semitones
Tempo: 120.0 Time Signature: 4 / 4
Override global tempo
Send program change number when song activates
PC # 0
Bank # 0 MSB 0 LSB
Lyrics/Chord (ChordPro) File:
<none>

Name - type in the song name.

Artist - type in the name of the artist/band who performed the song.

Key - choose the key center (root note) and quality (major/minor) of the song from the drop-down menus. These entries are for your information only.

Transpose - click and select a transpose value in semitones.

Tempo - allows you to set a tempo for the song. Turn on the Override toggle button to make this active tempo when the song is selected.

Time signature - allows you to set the desired time signature for the song; click on the numerator and select the desired value and then choose a value for the denominator from the drop-down menu. Turn on the Override toggle button to make this the active time signature when the song is selected.

Override global tempo - when this toggle button is turned on, the selected song tempo will override the global tempo. This tempo will be applied to all song parts of the current song, if they do not have their own overrides - a tempo for a song part (specified in the Song Part properties dialog), if turned on by its Override toggle button, has higher priority and will override the song tempo.

Send program change number when song activates - clicking on this toggle button enables you to send a MIDI program change number when the current song activates; set the desired program change number and bank (MSB and LSB) values. When the song is selected, the program change number is sent out using the MIDI Device and Channel selected in the Setlist tab of the Options dialog.

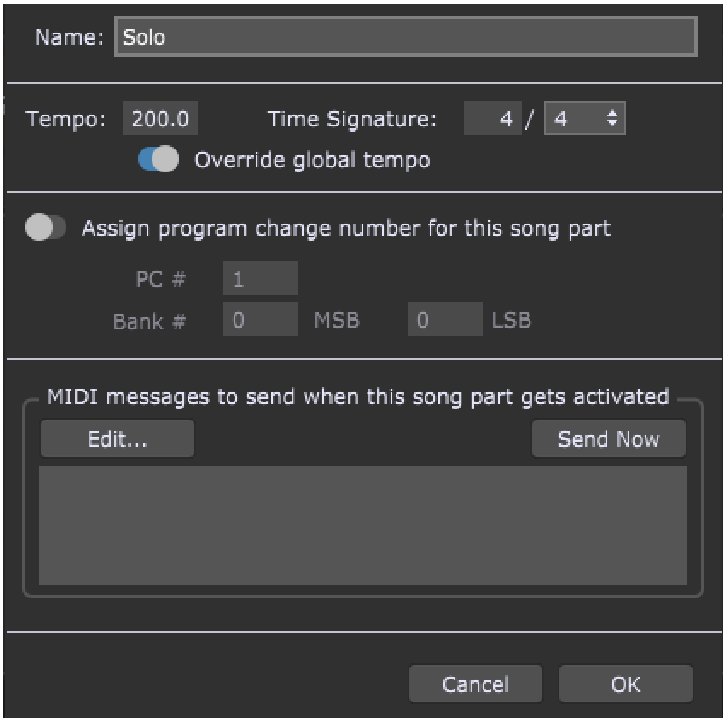
Lyrics/Chord (ChordPro) File - displays a file in ChordPro format. Use the Song Lyrics/Chords viewer to load your lyrics/chords file for this song. Gig Performer will automatically remember and auto-load that file when you switch to this song again. Refer to the ChordPro chapter for more information. **Note**: files can be loaded only from the root directory specified in the Setlist tab of the Options dialog. If the file you want to use is not in that directory use the File -> Import ChordPro Files... command.

Clear - clicking on this button clears the association to the ChordPro file.

"**i**": (information) - clicking on this button opens a dialog stating that ChordPro documents must be opened and assigned in the Song Lyrics/Chords Editor.

7.2.2 Song Part Properties

When you double-click a song part or select Song Properties.. from the contextual menu, the Song Part Properties dialog appears:



Name: Solo

Tempo: 200.0 Time Signature: 4 / 4

Override global tempo

Assign program change number for this song part

PC # 1

Bank # 0 MSB 0 LSB

MIDI messages to send when this song part gets activated

A song part consists of a rackspace variation plus a collection of properties. The variation may be as stored, or it may have been edited just for that song part.

Name - displays the song part name (type another one if preferred).

Tempo - allows you to set a tempo for the song part. Turn on the Override global tempo toggle button to make this tempo active when this song part is selected.

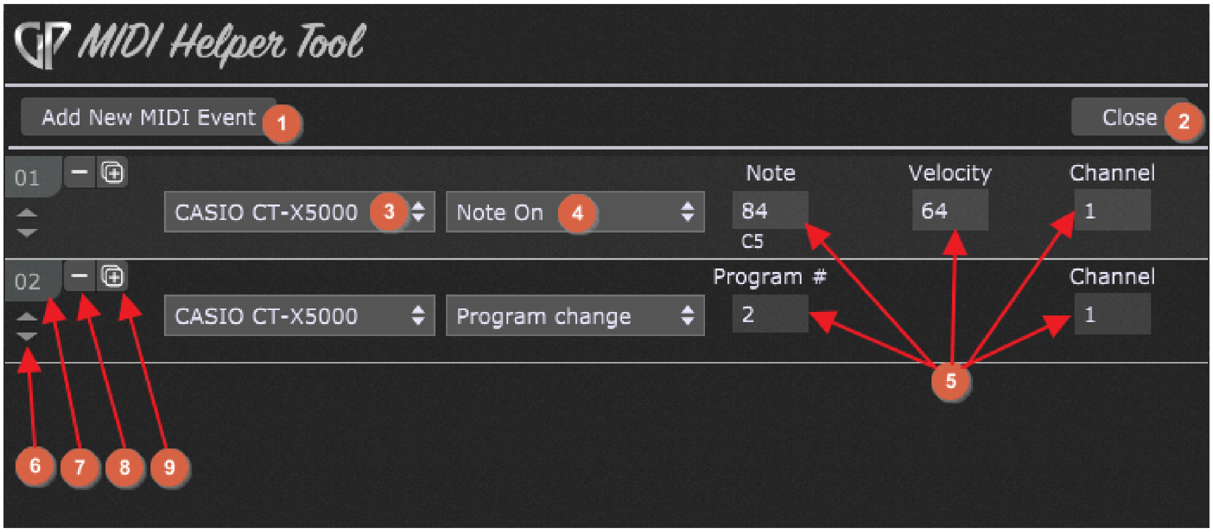
Time signature - allows you to set the desired time signature for the song part; click on the numerator and select the desired value and then choose a value for the denominator from the drop-down menu. Turn on the Override global tempo toggle button to make this time signature active when this song part is selected.

Override global tempo - when this toggle button is turned on, the selected song part tempo will override both the global tempo and the song tempo (see the Song Properties dialog for more information). Hence, the Song part tempo is the highest priority.

Assign program change number for this part - clicking on this toggle button enables you to assign a MIDI program change number to the current song part; set the desired program change number and bank (MSB and LSB) values.

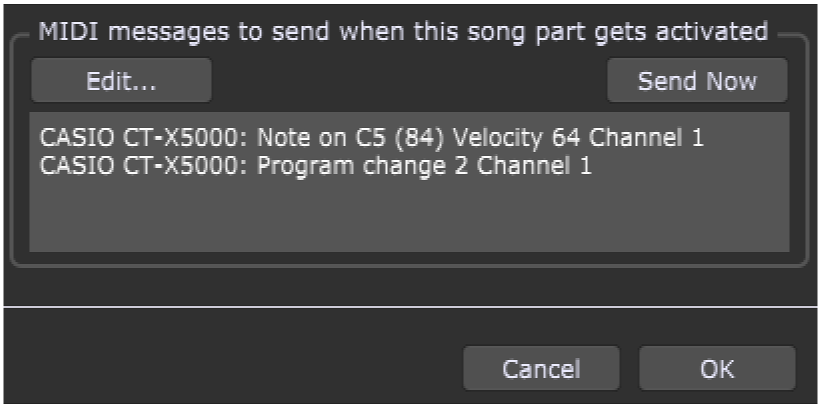
MIDI messages to send when this song part gets activated - allows you to send MIDI messages to one or more physical MIDI Out devices. Click on the **Edit...** button to open the **MIDI Helper Tool** and click on the **Send Now** button to send the selected MIDI messages to the selected physical MIDI out devices.

The MIDI Helper tool allows you to specify an arbitrary sequence of MIDI events to be sent out to MIDI Out devices:



1. **Add New MIDI Event** - clicking on this button adds a new MIDI event placeholder.
2. **Close** - clicking on this button simply closes this window.
3. **MIDI Output device** - click on this drop-down list to choose a MIDI Out device.
4. **MIDI event** - click on this drop-down list to choose the desired MIDI event. Check this chapter for a list of events.
5. **Event parameters** - depending on the type of the event, there are different parameters (or no parameters at all) for an event.
6. **Navigation arrows** - click on up/down arrows to move the current event placeholder up/down.
7. **Placeholder number** - simply displays a number for the current MIDI event.
8. **Remove event** - clicking on this button removes the current MIDI event.
9. **Duplicate event** - clicking on this button duplicates the current MIDI event.

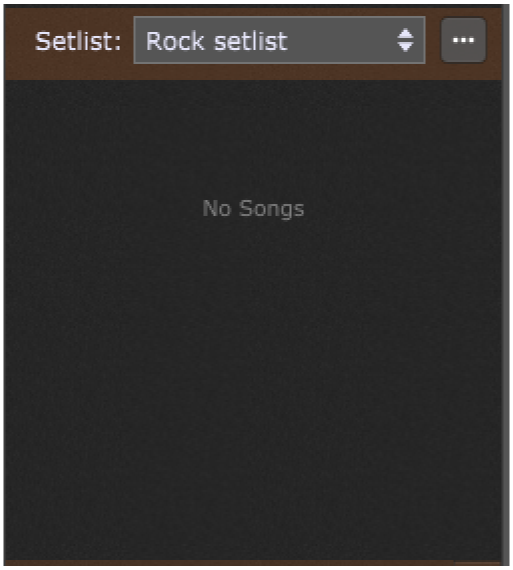
When you finish adding your MIDI events, click on the close button; selected events can be seen in the list:



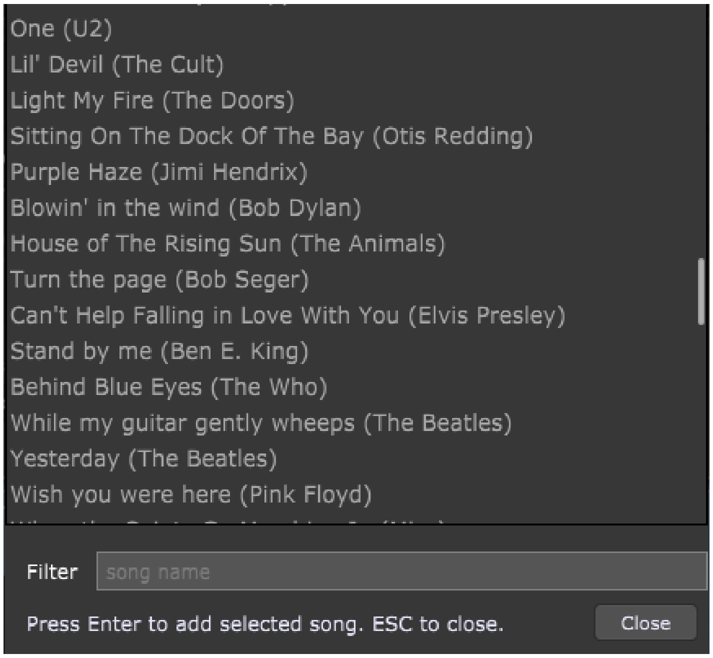
CASIO CT-X5000: Note on C5 (84) Velocity 64 Channel 1
CASIO CT-X5000: Program change 2 Channel 1

7.3 How to create a setlist?

When you create a song, it is automatically added to the All Songs list. To create a setlist, choose the Add new setlist... command in the Setlists contextual menu, or New Setlist... from the Edit menu. Type in a name in the Setlist Name dialog that appears (i.e. Rock setlist) and press Enter:

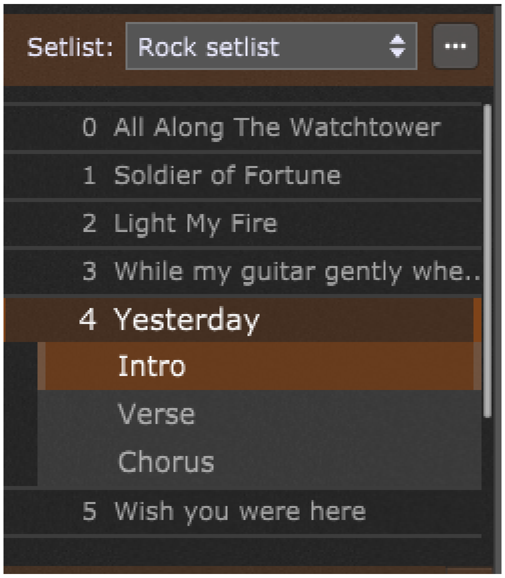


The newly created setlist is automatically selected but with no songs. To add songs to the setlist, open the **Add songs to setlist** window either by pressing Ctrl+Shift+F (or Cmd+Shift+F on Mac), by choosing the **Add Song(s) to Setlist...** command in the Setlists contextual menu or by choosing the **Add Song(s) to Setlist...** command in the Edit menu:



One (U2)
Lil' Devil (The Cult)
Light My Fire (The Doors)
Sitting On The Dock Of The Bay (Otis Redding)
Purple Haze (Jimi Hendrix)
Blowin' in the wind (Bob Dylan)
House of The Rising Sun (The Animals)
Turn the page (Bob Seger)
Can't Help Falling in Love With You (Elvis Presley)
Stand by me (Ben E. King)
Behind Blue Eyes (The Who)
While my guitar gently wheeps (The Beatles)
Yesterday (The Beatles)
Wish you were here (Pink Floyd)

This window lists all available songs. To add a song from this window to the setlist, select it and press the Enter key (or simply double-click it). Songs that are added to a setlist are automatically grayed out. You can also find a song by entering search terms in this field to filter the view. When you are finished adding songs, press the Escape key to close the window:

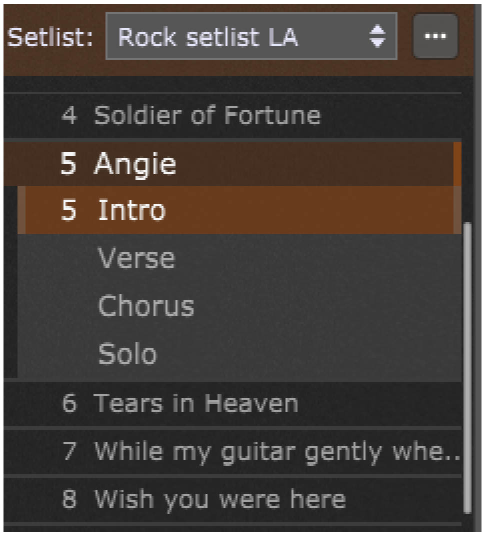


Setlist: Rock setlist

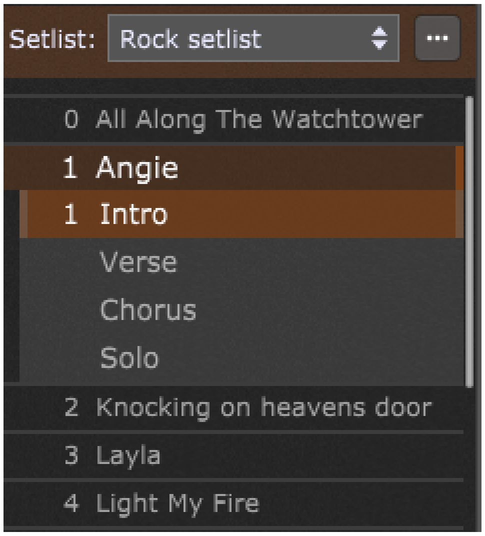
0 All Along The Watchtower
1 Soldier of Fortune
2 Light My Fire
3 While my guitar gently whe..
4 Yesterday
Intro
Verse
Chorus
5 Wish you were here

You can easily re-arrange songs by dragging them and placing on the desired position. Furthermore, you can sort them by name or by their program change numbers - click on **Edit** -> **Sort Songs by Name** or **Edit** -> **Sort Songs by PC Numbers** respectively.

Setlists can be duplicated and modified, for gigs that vary only slightly from a usual song order, or a custom setlist can be created for a specific gig. For example, if tomorrow's setlist is just a little different than this, the quickest thing is to duplicate this setlist and then modify it. Setlist operations (i.e. rename, duplicate, or remove) are easiest to select in the setlist contextual menu; to duplicate a setlist, choose the Duplicate Current Setlist... menu item, type in a name (i.e. Rock Setlist LA) and press Enter:


Setlist: Rock setlist LA

4 Soldier of Fortune
5 Angie
5 Intro
Verse
Chorus
Solo
6 Tears in Heaven
7 While my guitar gently whe..
8 Wish you were here


Setlist: Rock setlist

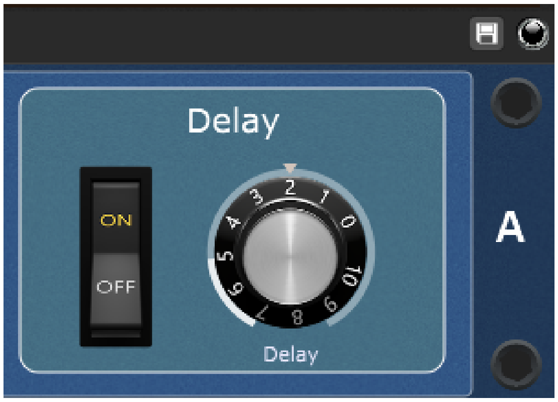
0 All Along The Watchtower
1 Angie
1 Intro
Verse
Chorus
Solo
2 Knocking on heavens door
3 Layla
4 Light My Fire

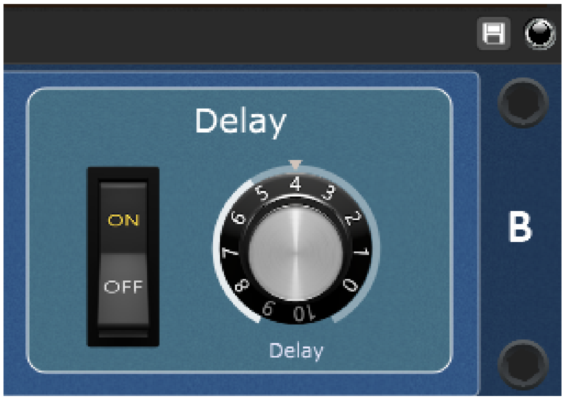
As can be seen from the screenshot above, the program change assignment for a song part is specific to the setlist; the same song can have a different program change assignment in each setlist. This lets you have consistency even when the setlist changes from gig to gig. Refer to the Song Part Properties chapter for more information on how to assign a program change number to a song part.

Another way to add a current song to a setlist is to right click on a song, expand **Add This Song To Setlist** and choose one of your defined setlists.

7.4 How to capture variation edits?

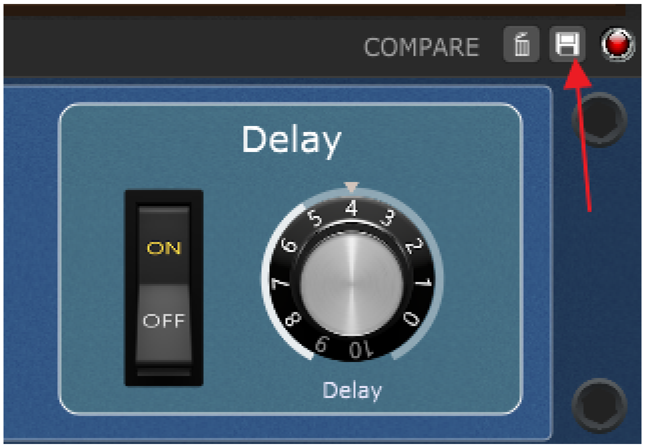
If you are in a song part and move your widgets (knobs, sliders, etc.) changing their values, and then switch away from that song part - all the changes in that song part will be lost and reset to the values of the underlying variation. For example, look at the screenshots below:





Let's assume that A shows widget values when you first select a song part. If you want to increase a delay a bit more (B), and select another view (i.e. Panels view) the delay value will be reset to A.

However, Gig Performer provides you with a mechanism to capture these changes and save them to the currently active song part. So, if you want to retain the amount of delay as shown in B, click on the **Capture variation** icon (indicated with the red arrow - refer to the Setlists view chapter for more information):



Clicking on this button allows you save edits you have made to a variation into the currently selected song part only. The changes are not saved to the underlying variation in the rackspace itself.

Notice that additional buttons are available. When the LED is red, it indicates that the song part has saved values different from the underlying variation. Click and hold the COMPARE momentary button to display the original widgets values in the corresponding variation; release to see captured changes in the song part (click and hold will display widget positions as shown in A, and widget positions indicated with B will be displayed when you release the mouse).

Click on the **Revert to original variation** button (indicated with the trash can icon) to remove captured changes and match the variation values.

If you like how your song part sounds with the increased delay (as shown in B), you can apply this change to the underlying variation so that all song parts associated with that variation have this amount of delay. From the Setlist contextual menu choose the **Push Song Part Changes to Rackspace** menu item. Notice that the LED indicator is no longer red and the Compare and Revert buttons disappear. Switching to the Panels view shows that widget's value (i.e. the amount of delay) has been updated and now has the value as indicated with B. All song parts that are attached to this variation will have this higher amount of delay (except for those that have their own captured changes).

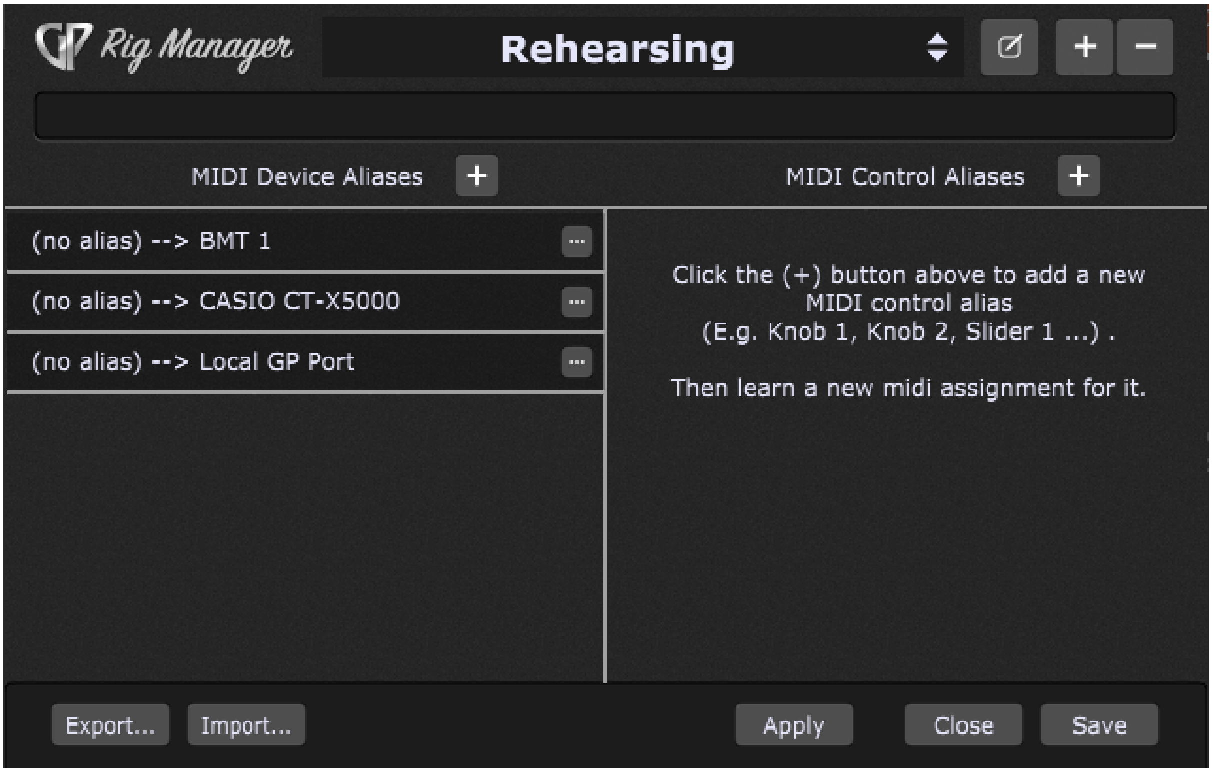
Note: If you edit values on the fly and like the changes, this is how you update the original variation with the changes. If you want to keep the original variation as well, make a duplicate of it before pushing song part changes.

8 Rig Manager

Basic Rig Manager concepts are covered in the Gig Performer user interface and concepts section. In this chapter you will learn more about the Rig Manager, how to create rigs, define aliases and associate them with your MIDI controllers.

8.1 How to create an alias for a MIDI device and a MIDI control?

Let's assume that you start with a clean slate. Open the Rig Manager and rename the default rig to a custom name, i.e. Rehearsing (refer to this chapter for more information about the Rig Manager window):



(no alias) --> BMT 1
(no alias) --> CASIO CT-X5000
(no alias) --> Local GP Port

Click the (+) button above to add a new MIDI control alias (E.g. Knob 1, Knob 2, Slider 1 ...) .

Then learn a new midi assignment for it.

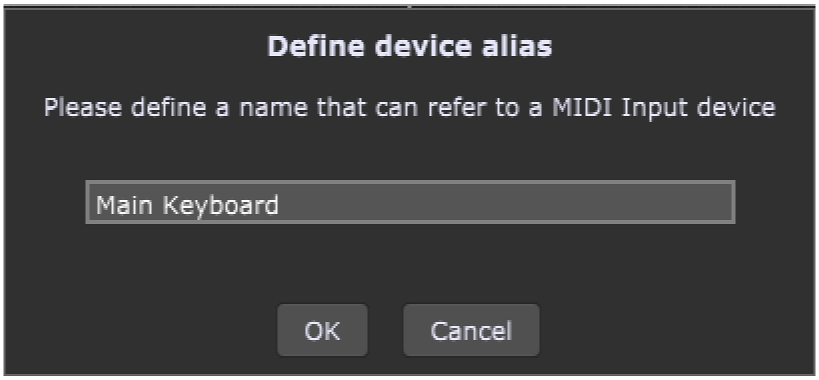
The main area of the window is divided into two columns. On the left are the MIDI Device Aliases - the list of aliases for physical control devices like keyboards, pad controllers, and control surfaces. In the screenshot above, none of the connected MIDI devices shown have been given aliases.

An alias is simply a name you can designate to represent a physical device (on the left) or a control (a knob, slider, button, etc.) associated with some device. If you use aliases for your MIDI In blocks and your widgets in your rackspaces instead of the actual devices, then you can easily switch your entire gig file to use a different set of physical controllers without having to update individual rackspaces.

Note: the Local GP Port is a new feature in Gig Performer 4. Refer to this chapter for more information.

The column on the right are MIDI Control Aliases - the list of aliases for controls i.e. sliders, buttons, faders, and knobs. In the screenshot above, there are no MIDI Control aliases defined yet.

To create an alias for a connected MIDI device, click on the plus button at the top of the MIDI Device Aliases list. In the dialog that appears, give the desired MIDI device an alias (i.e. Main Keyboard):

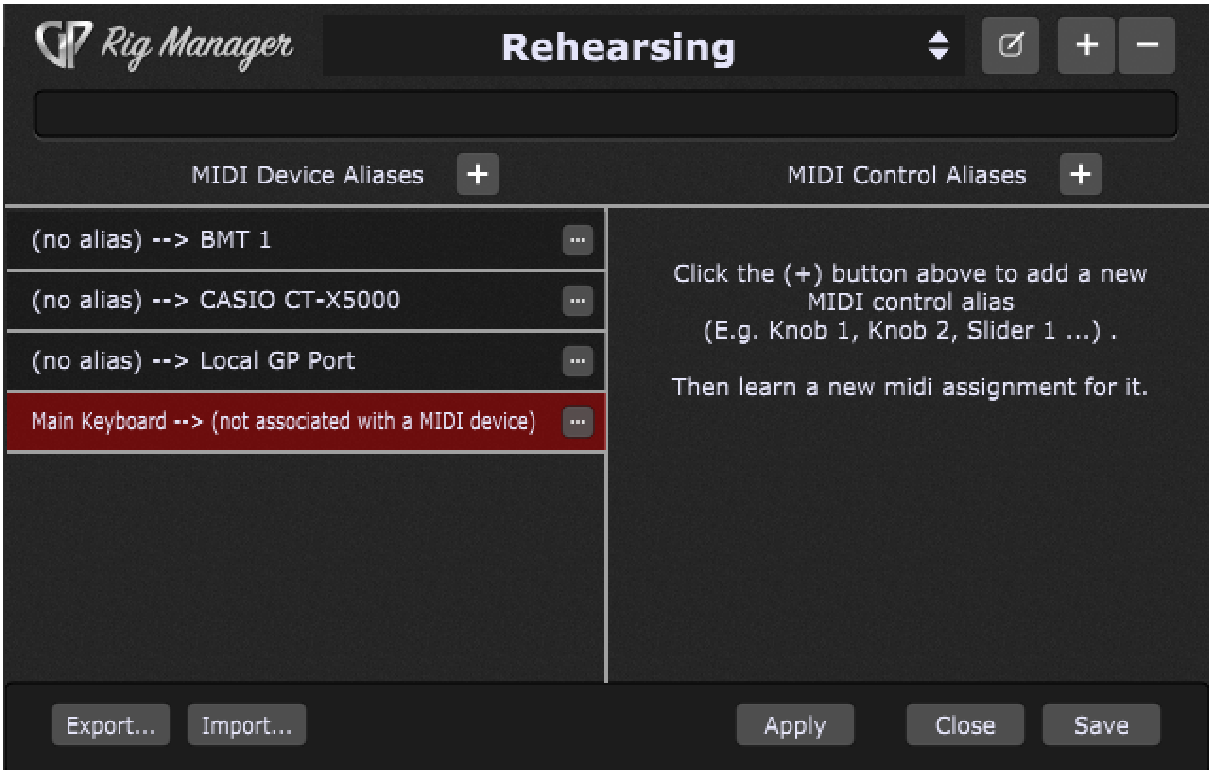


Define device alias

Please define a name that can refer to a MIDI Input device

Main Keyboard

The newly created alias needs to be linked to a physical MIDI device:



(no alias) --> BMT 1

(no alias) --> CASIO CT-X5000

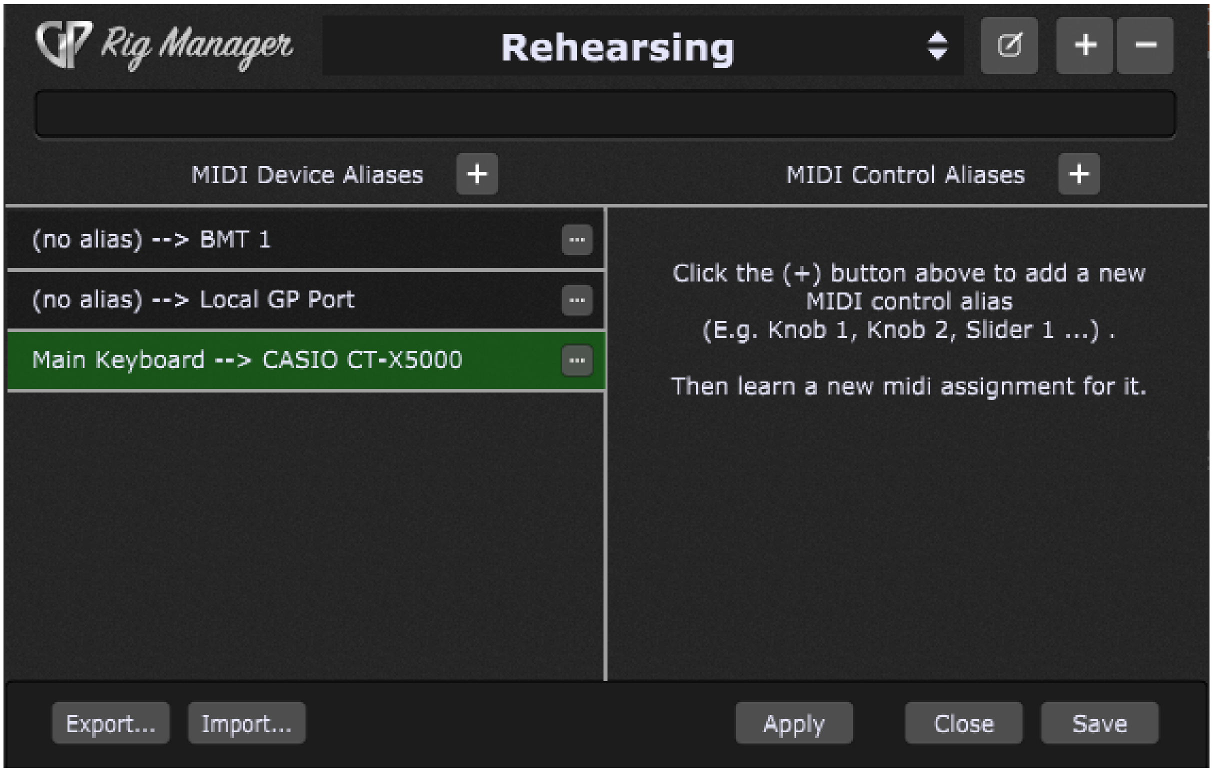
(no alias) --> Local GP Port

Main Keyboard --> (not associated with a MIDI device)

Click the (+) button above to add a new MIDI control alias (E.g. Knob 1, Knob 2, Slider 1 ...) .

Then learn a new midi assignment for it.

Click on the "three dots" button or right-click on the alias and choose a MIDI device from the Associate MIDI Device sub-menu; alternatively, you can click on the three dots button, then click on the **Learn MIDI device** menu item and use any control on your MIDI device to learn the desired MIDI device (instead of selecting it from the list). After you successfully associate an alias with a MIDI device, it will be highlighted green:



(no alias) --> BMT 1

(no alias) --> Local GP Port

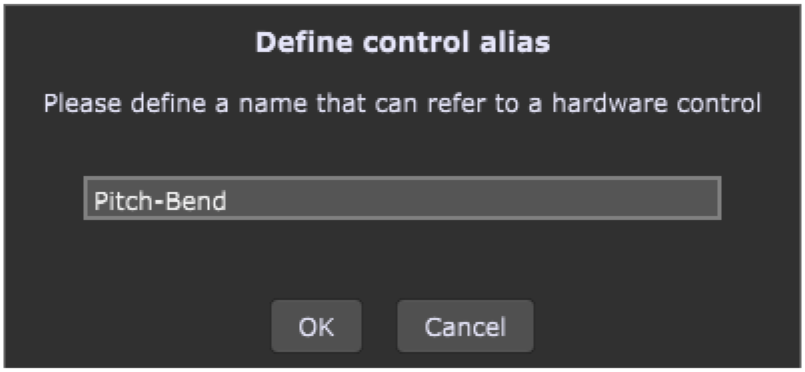
Main Keyboard --> CASIO CT-X5000

Click the (+) button above to add a new MIDI control alias (E.g. Knob 1, Knob 2, Slider 1 ...) .

Then learn a new midi assignment for it.

Another way to assign an alias to the specific MIDI device is to click on the "three dots" button for the desired MIDI device and select the **Define alias for this MIDI device...** menu item or right click the MIDI device and select the **Define alias for this MIDI device...** menu item.

To create an alias for the desired MIDI control, click on the plus button at the top of the MIDI Control Aliases list. In the dialog that appears, give the desired MIDI control an alias (i.e. Pitch-Bend):

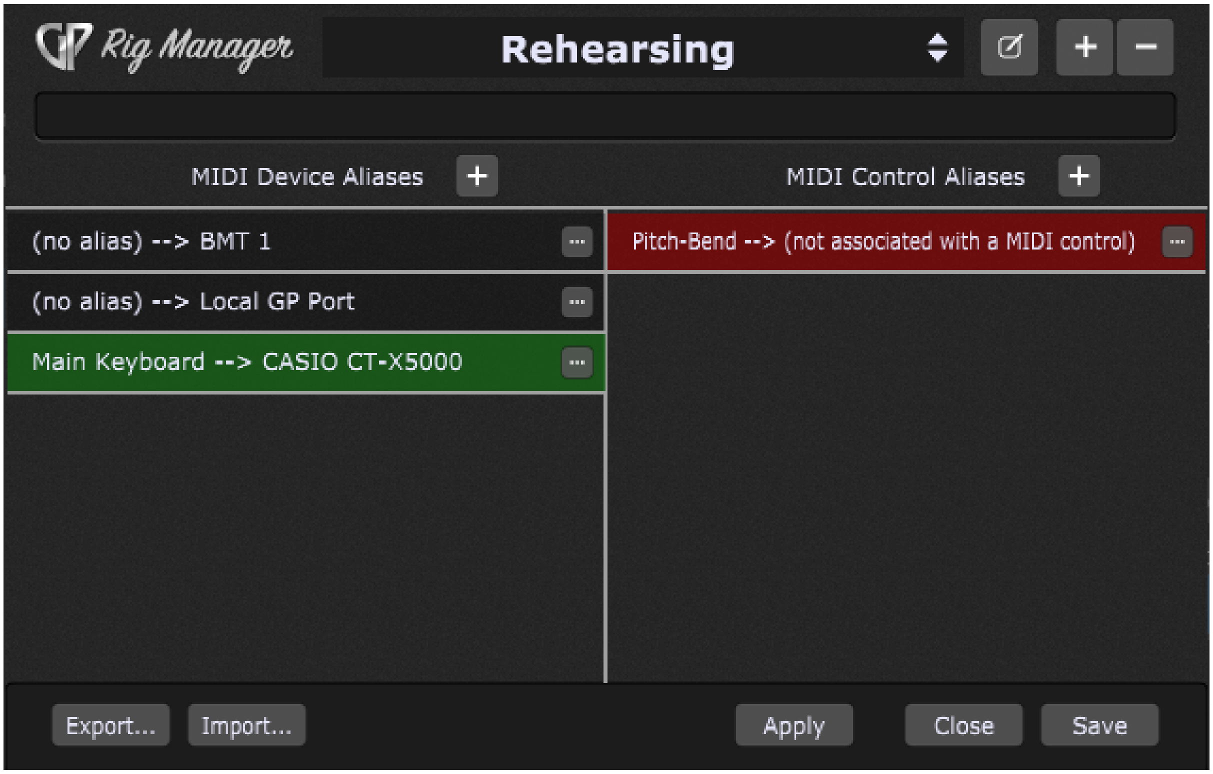


Define control alias

Please define a name that can refer to a hardware control

Pitch-Bend

When you create a MIDI Control alias, it needs to be associated with a MIDI control:



Rig Manager

Rehearsing

MIDI Device Aliases

(no alias) --> BMT 1

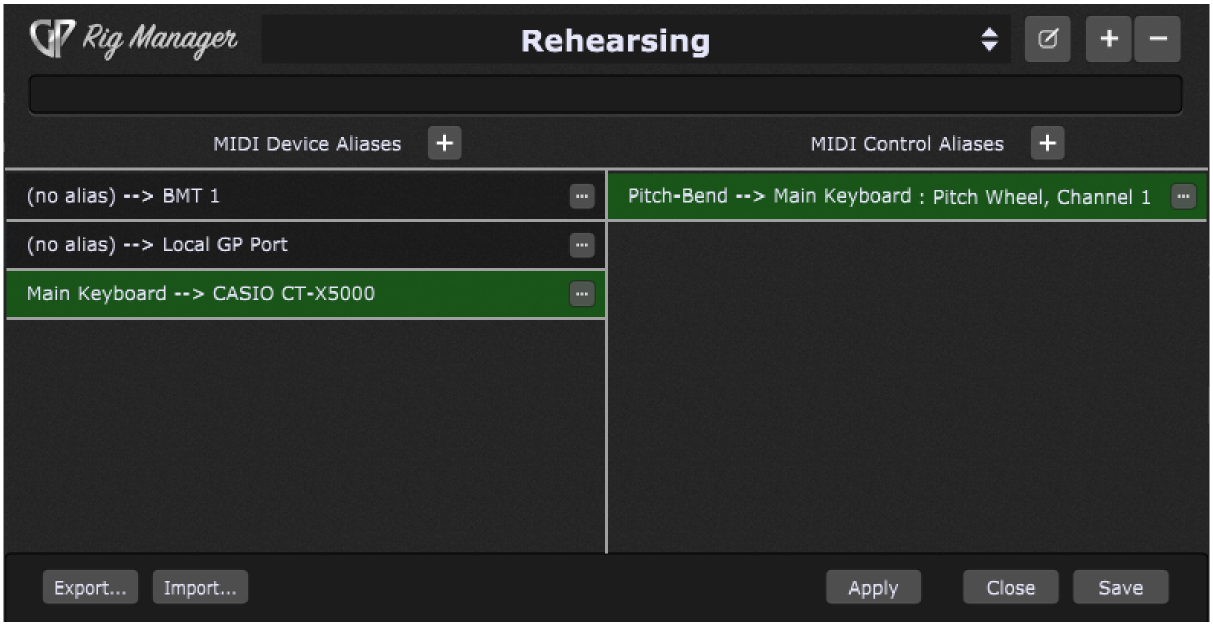
(no alias) --> Local GP Port

Main Keyboard --> CASIO CT-X5000

MIDI Control Aliases

Pitch-Bend --> (not associated with a MIDI control)

To map the newly created alias (virtual controller) to a physical control, double-click this alias to enter the Learn mode, or right-click it and choose **Learn MIDI control** from the popup menu. Move a knob, fader, pitch-bend or other physical control and it will be mapped to the alias:



(no alias) --> BMT 1

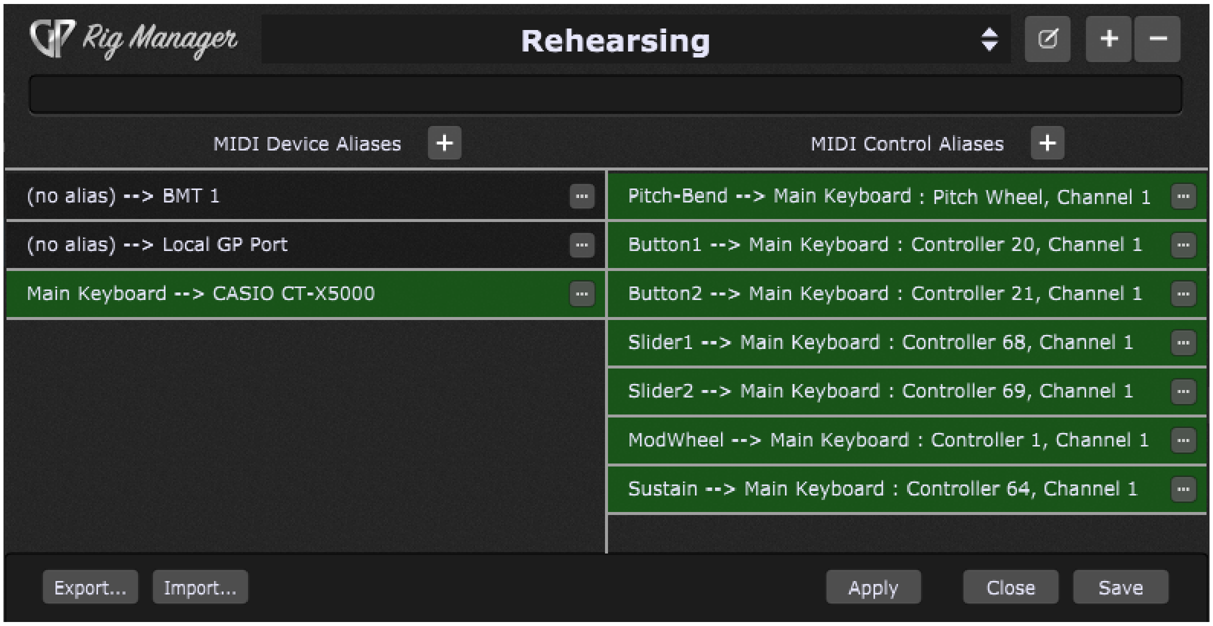
(no alias) --> Local GP Port

Main Keyboard --> CASIO CT-X5000

Pitch-Bend --> Main Keyboard : Pitch Wheel, Channel 1

Note: you can create a MIDI Control alias before creating a MIDI Device alias; in that case the full MIDI device name will be displayed in the MIDI control alias entry. When you assign an alias to that particular MIDI device, the corresponding MIDI Control alias entry will be updated.

Create other MIDI Control aliases and repeat the Learn MIDI control process for other controls:



(no alias) --> BMT 1

(no alias) --> Local GP Port

Main Keyboard --> CASIO CT-X5000

Pitch-Bend --> Main Keyboard : Pitch Wheel, Channel 1

Button1 --> Main Keyboard : Controller 20, Channel 1

Button2 --> Main Keyboard : Controller 21, Channel 1

Slider1 --> Main Keyboard : Controller 68, Channel 1

Slider2 --> Main Keyboard : Controller 69, Channel 1

ModWheel --> Main Keyboard : Controller 1, Channel 1

Sustain --> Main Keyboard : Controller 64, Channel 1

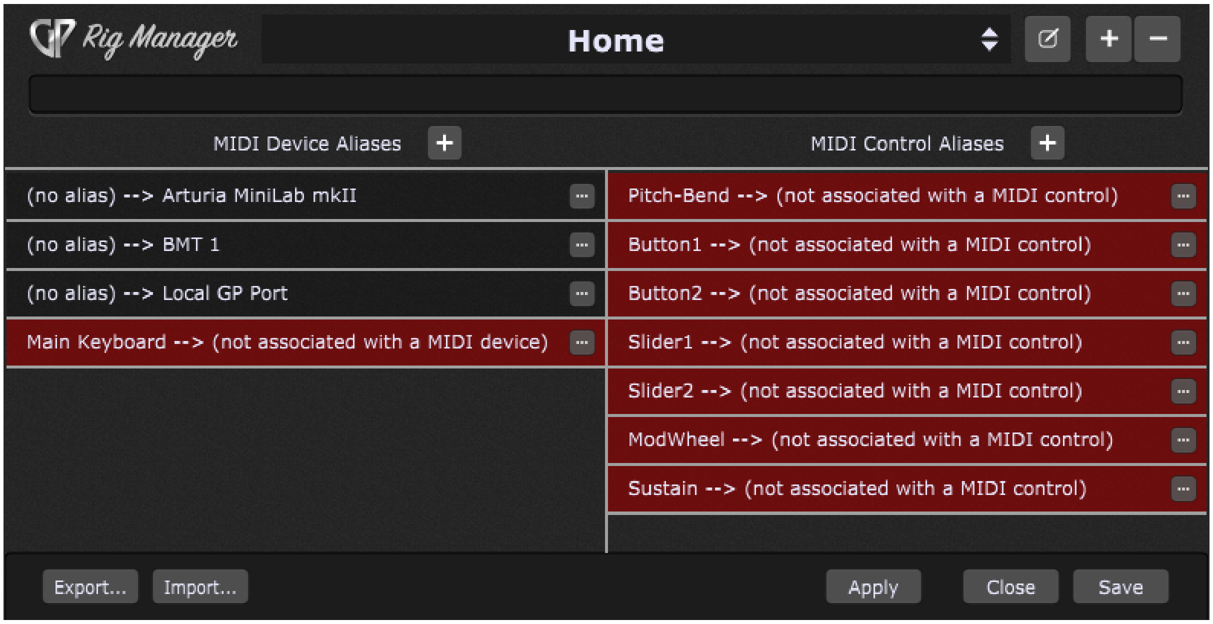
Don't forget to save your rig by clicking on the **Save** button. The best practice is also to export your Rig Manager configuration once you're done with the editing. Click on the **Export...** button to export your configuration to a rigsetup file.

Note: defined aliases in the Rig Manager don't apply to the MIDI outputs, only to MIDI inputs.

8.2 How to remap MIDI controls for a new MIDI device?

If you use different MIDI devices at home and while performing live, it's easy to associate your aliases to a different MIDI device and its controls. **Note**: this example builds on the previous chapter.

Open the Rig Manager, click on the "plus" button and click on the **Add new Rig...** menu item. Give it a custom name, i.e. Home:



MIDI Device Aliases:

(no alias) --> Arturia MiniLab mkII

(no alias) --> BMT 1

(no alias) --> Local GP Port

Main Keyboard --> (not associated with a MIDI device)

MIDI Control Aliases:

Pitch-Bend --> (not associated with a MIDI control)

Button1 --> (not associated with a MIDI control)

Button2 --> (not associated with a MIDI control)

Slider1 --> (not associated with a MIDI control)

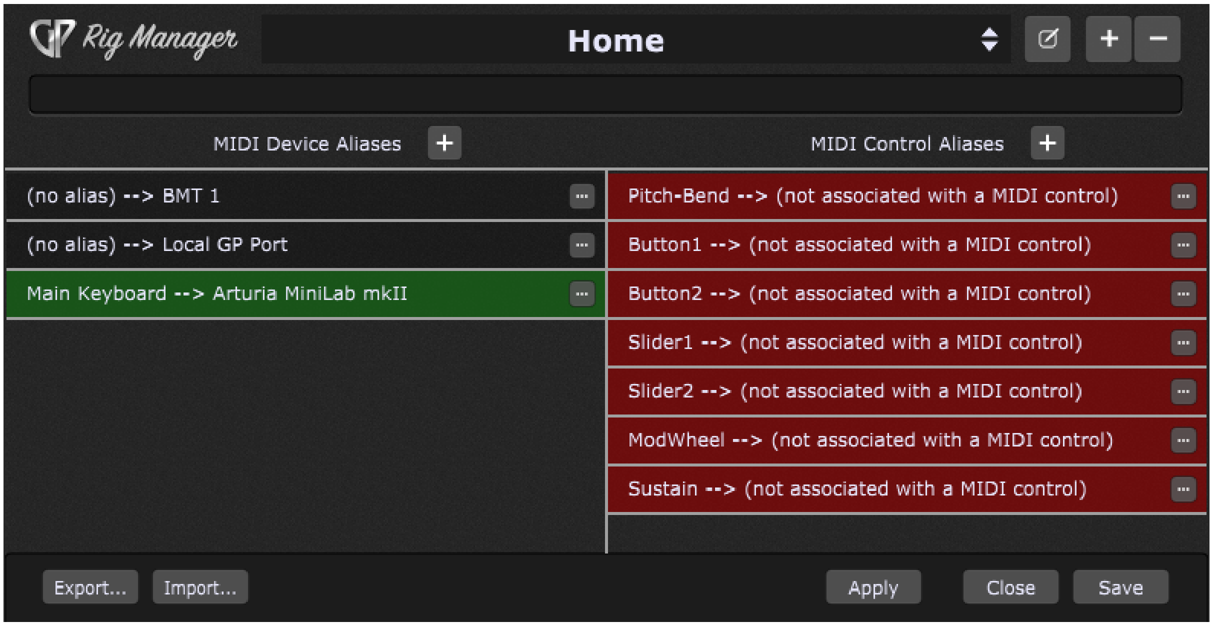
Slider2 --> (not associated with a MIDI control)

ModWheel --> (not associated with a MIDI control)

Sustain --> (not associated with a MIDI control)

Note that previously defined aliases are preserved while creating new rigs. You only need to remap them and you are all set.

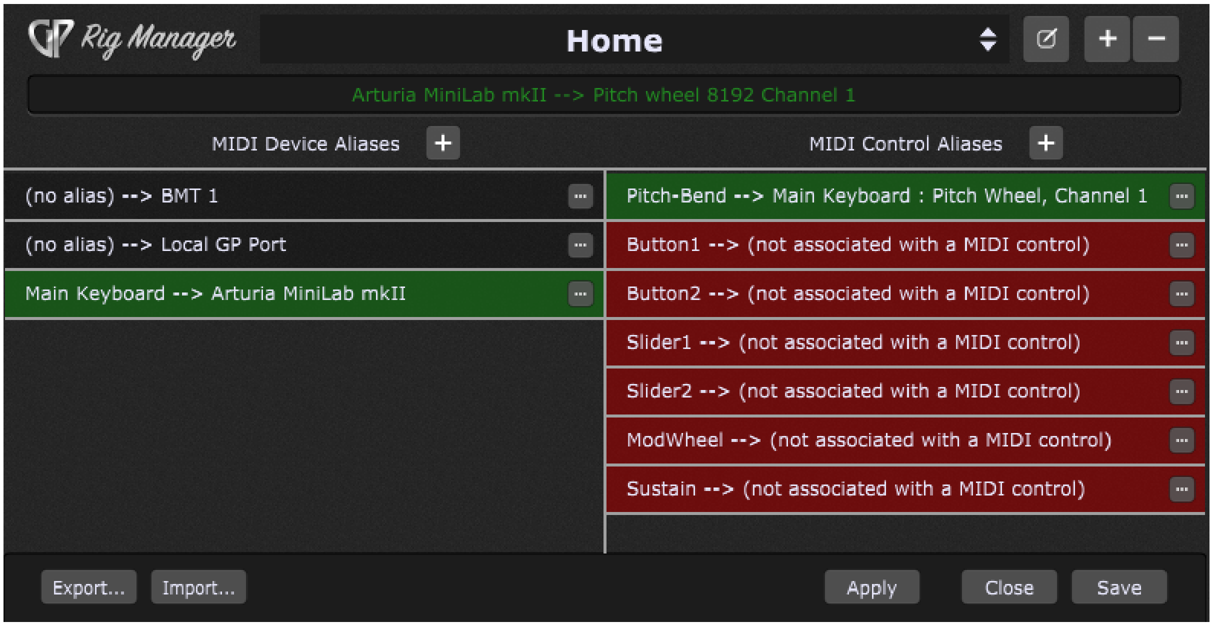
First, right click on the Main Keyboard alias, then expand the Associate MIDI Device sub-menu and select the desired MIDI device:



(no alias) --> BMT 1
(no alias) --> Local GP Port
Main Keyboard --> Arturia MiniLab mkII

Pitch-Bend --> (not associated with a MIDI control)
Button1 --> (not associated with a MIDI control)
Button2 --> (not associated with a MIDI control)
Slider1 --> (not associated with a MIDI control)
Slider2 --> (not associated with a MIDI control)
ModWheel --> (not associated with a MIDI control)
Sustain --> (not associated with a MIDI control)

Each MIDI Control alias must be trained for a new physical controller. Double-click on the first MIDI control alias and then move the desired physical control to learn it (note: you can also enter the Learn mode for a control by clicking the "three dots" button to the right of a control and choosing Learn MIDI control):



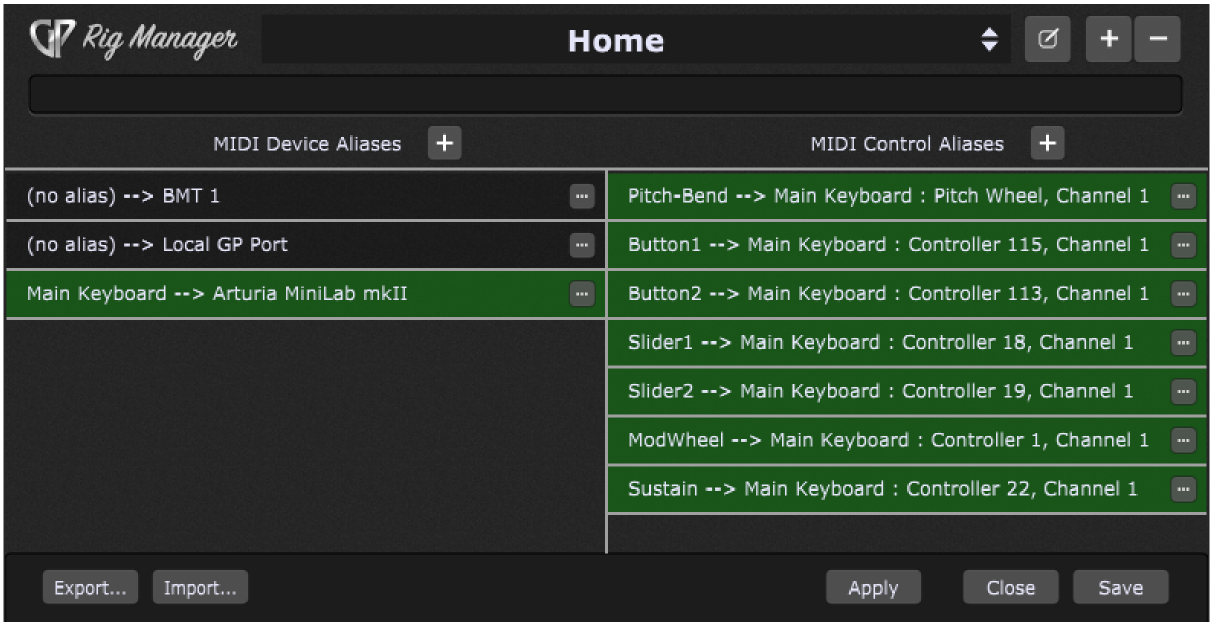
Arturia MiniLab mkII --> Pitch wheel 8192 Channel 1

(no alias) --> BMT 1
(no alias) --> Local GP Port
Main Keyboard --> Arturia MiniLab mkII

Pitch-Bend --> Main Keyboard : Pitch Wheel, Channel 1
Button1 --> (not associated with a MIDI control)
Button2 --> (not associated with a MIDI control)
Slider1 --> (not associated with a MIDI control)
Slider2 --> (not associated with a MIDI control)
ModWheel --> (not associated with a MIDI control)
Sustain --> (not associated with a MIDI control)

When MIDI events from the physical control are detected, the item lights up in the MIDI Device Aliases and MIDI Control Aliases lists, and the events that came in will be displayed at the top of the window.

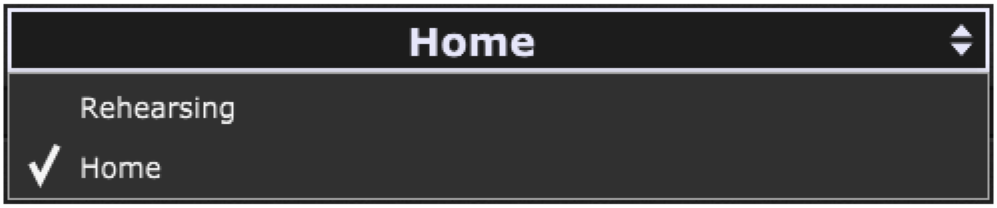
Repeat this step for the remaining aliases in the list to associate them to the desired controls:



(no alias) --> BMT 1
(no alias) --> Local GP Port
Main Keyboard --> Arturia MiniLab mkII

Pitch-Bend --> Main Keyboard : Pitch Wheel, Channel 1
Button1 --> Main Keyboard : Controller 115, Channel 1
Button2 --> Main Keyboard : Controller 113, Channel 1
Slider1 --> Main Keyboard : Controller 18, Channel 1
Slider2 --> Main Keyboard : Controller 19, Channel 1
ModWheel --> Main Keyboard : Controller 1, Channel 1
Sustain --> Main Keyboard : Controller 22, Channel 1

You can switch easily between your rigs by clicking on the rig drop-down menu:



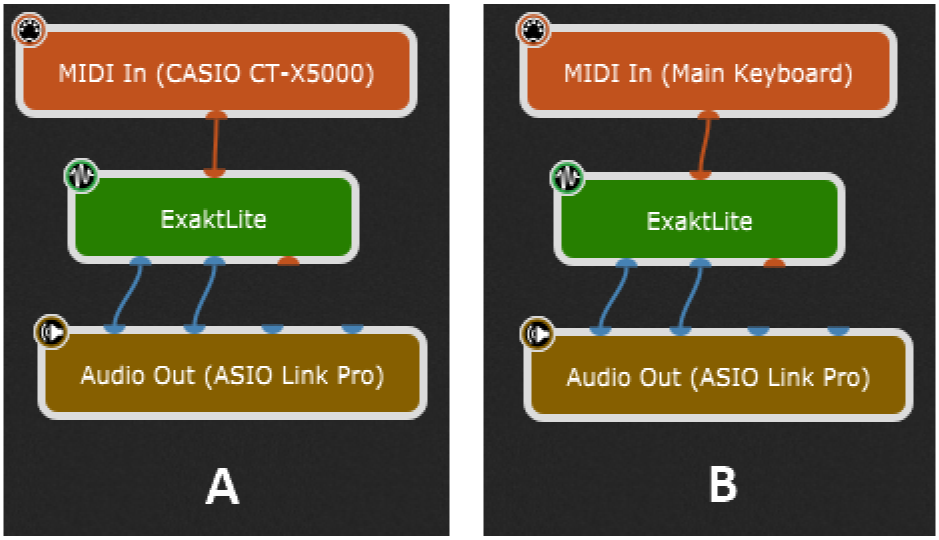
You can create new rigs for any environment you like i.e. Performing, Studio, or Local Gig and easily switch between them.

If you're sharing instruments with another performer and so have to use someone else's keyboard controller for your performance, simply remap the defined aliases as shown above and all of your widget controls and MIDI In blocks are reestablished (refer to the How to use aliases chapter for more information). That can be accomplished in a few minutes even during the sound-check if necessary.

Save your work when you finish with your rig configuration.

8.3 How to use aliases?

If you didn't create a MIDI device alias, then your MIDI device (MIDI In block) will be displayed with the full name in the Wiring View (indicated with **A**):

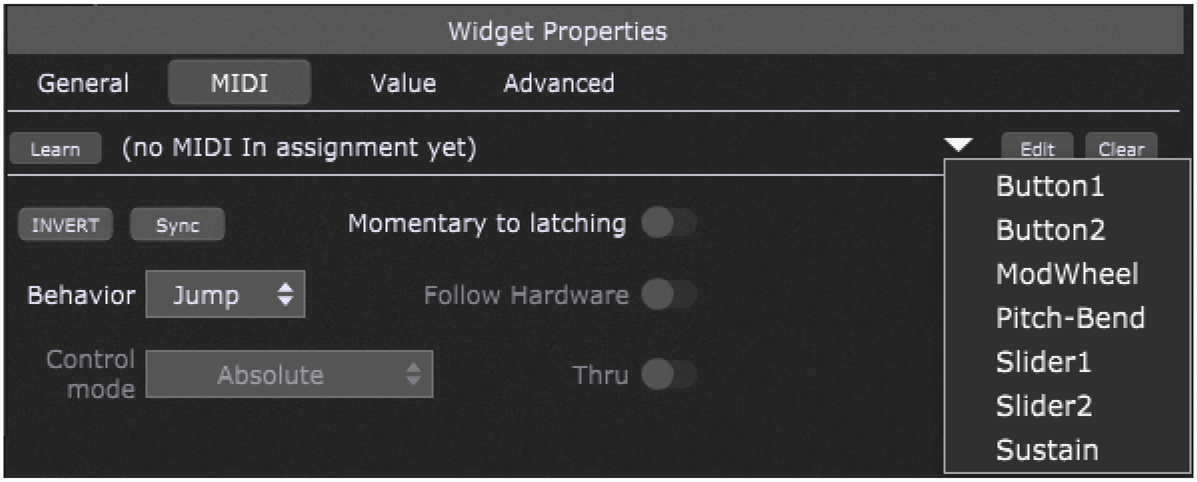


When you create an alias for this MIDI device (as shown in this chapter) in the Rig Manager, then the alias will be displayed instead (as indicated with B).

The benefit of using aliases for your MIDI devices (e.g. Main Keyboard, Controls Left, etc.) is that you don't need to rewire or replace your MIDI blocks to adapt to different MIDI devices, provided that you created rigs for them. Simply select the desired rig and you're all set. Rig Manager will automatically arrange the corresponding alias <--> MIDI device associations.

You can use the Rig Manager to help distinguish among multiple identical MIDI controllers. For example, if you use three Roland A800 keyboard controllers, they all have the same ID (as far as USB device names is concerned) and so when you power up, you don't know which keyboard will be associated with which device in Gig Performer. So if you name them (i.e. define MIDI device aliases) "Top", "Middle" and "Bottom" (describing where the three keyboards are located relative to each other) then when you show up at a gig and power up, you can just quickly re-associate each physical controller with the appropriate aliased name.

As for the MIDI control aliases, you can easily use them with widgets in the Edit Mode; select a widget in the Edit Mode and click on the MIDI tab in the Widget Properties inspector:



Widget Properties

(no MIDI In assignment yet)

Behavior Jump

Control mode Absolute

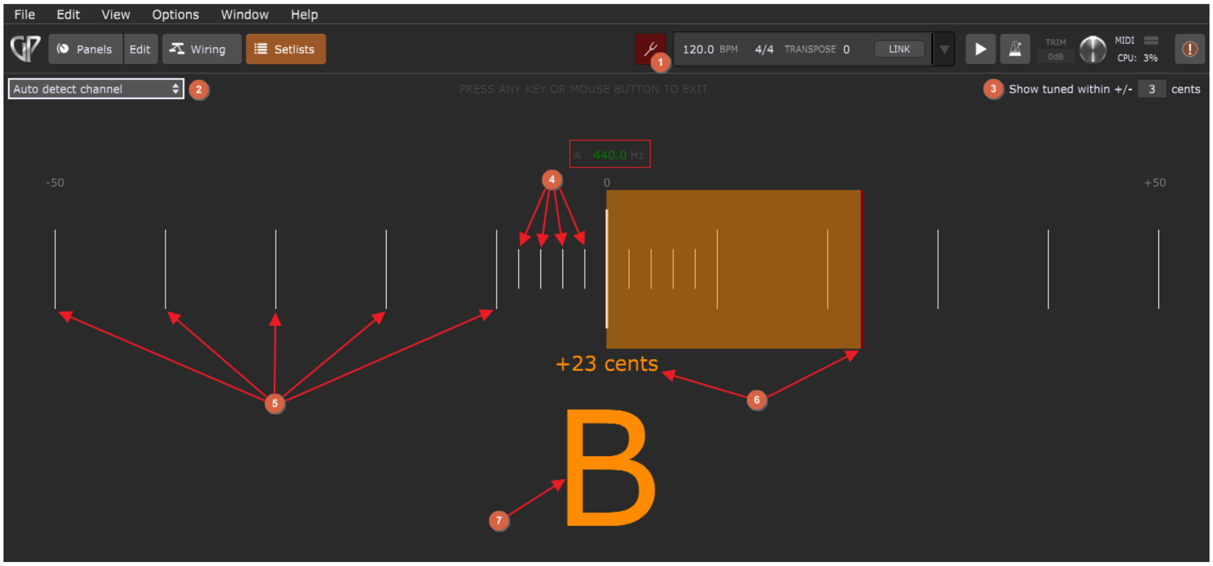
Click on the arrow to display the drop-down menu and simply choose one of the aliases (see the previous two chapters for more information). The benefit here is when you switch your rigs, this widget remains assigned to the corresponding MIDI control alias (e.g. Button1).

Thus, name your controllers (one per physical MIDI port) and your knobs/sliders, and then when you create new rackspaces, you can just select a knob or slider from the drop down menu in the MIDI tab (Learn area) so you don't have to keep relearning widgets, even if you're just using a single set of controllers - which is a time saver in itself.

It also makes it easier for you to change your associations, even for the same rig setup.

9 The Tuner

Gig Performer includes a built-in tuner:



Auto detect channel

Show tuned within +/- 3 cents

A 440.0 Hz

+23 cents

1. **Tuner button** - click on this button to show/hide the tuner.

2. **Channels list** - click here for a drop-down menu if you want to have the Tuner "listen" to signal coming from a specific input channel of your connected audio interface. The default is to have it listen to signals coming from all channels and auto detect the input channel.

3. **Show tuned within +/-** - allows you to specify a range within which the main display changes from yellow (out of tune) to green (in tune). Available values are +/- 1 cent to +/- 5 cents; default is +/- 3 cents.

4. **2 cents columns** - these smaller columns represent 2 cents (-2, -4, -6, -8 cents are pointed out with red arrows).

5. **10 cents columns** - larger columns represent 10 cents (-10, -20, -30, -40, -50 cents are pointed out with red arrows).

6. **Tuning indicator** - shows the current inaccuracy displayed in cents.

7. **Input pitch** - a large input pitch value. Yellow color indicates that your current pitch value is out of tune, and green indicates that it is in tune:

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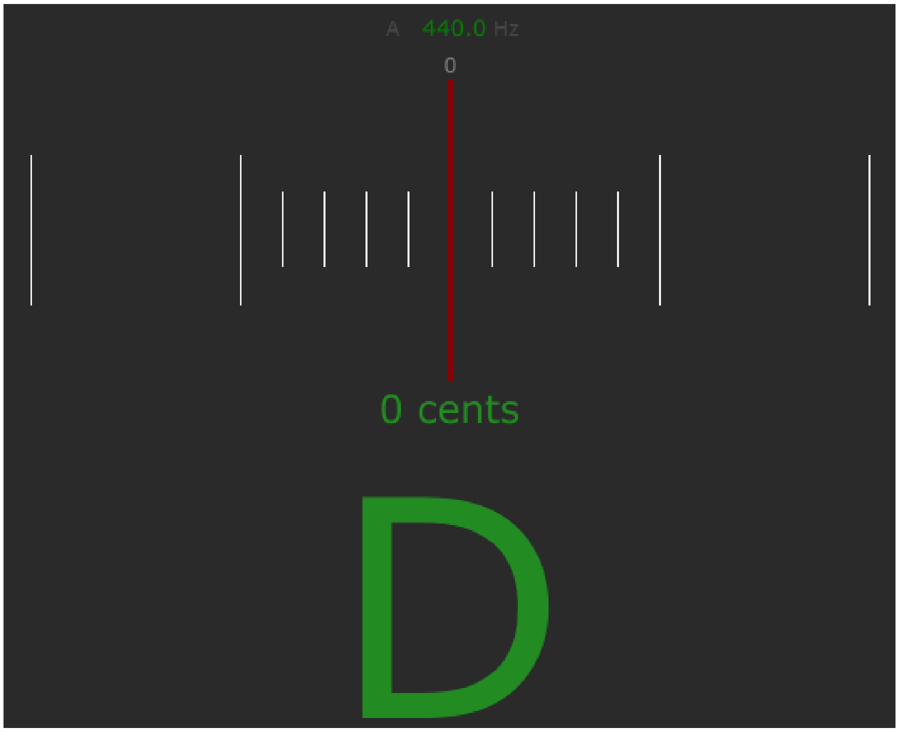
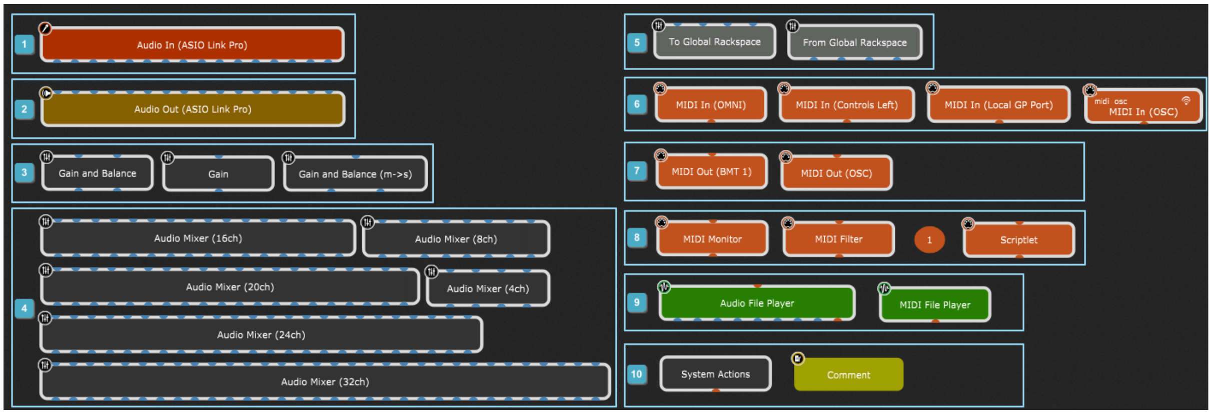


Note: you can change the A4 tuning frequency (indicated with the red rectangle), between 400 Hz and 480 Hz. The default value is 440 Hz.

To exit the tuner, click on the Tuner icon or click (or touch) anywhere on the tuner or press any key on the keyboard.

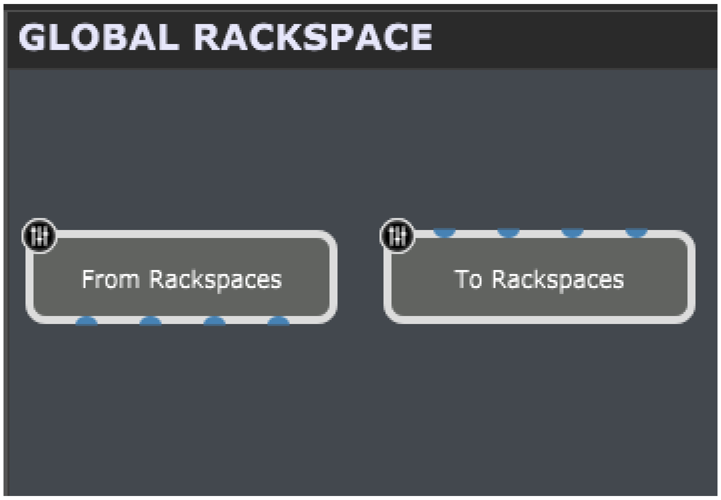
10 Built-in Plugins

This chapter covers all the plugins that are bundled with Gig Performer. To find out more about each built-in plugin, refer to the corresponding subchapter. All built-in plugins are shown in the screenshot below:



1. **Audio In**
2. **Audio Out**
3. **Gain Controls:** Gain and Balance Control, Gain Control (mono), Gain and Balance Control (mono to stereo).
4. **Audio Mixers:** Audio Mixer (4ch), Audio Mixer (8ch), Audio Mixer (16ch), Audio Mixer (20ch), Audio Mixer (24ch), Audio Mixer (32ch).
5. **Global Processing:** To Global Rackspace, From Global Rackspace.
6. **MIDI Inputs:** MIDI In (OMNI), MIDI In (OSC), MIDI In (Local GP Port) and any other MIDI devices that are attached to your computer will also be available as MIDI inputs. Note: "MIDI In (Controls Left)" indicates that the alias "Controls Left" is created for this MIDI device in the Rig Manager. When no alias is defined for the connected MIDI input, then the full name of that MIDI device appears (e.g. "CASIO CT-X5000").
7. **MIDI Outputs:** MIDI Out (OSC) and any MIDI output devices present on your computer. Note: defined aliases in the Rig Manager don't apply to the MIDI outputs, only to MIDI inputs. Hence "MIDI Out (BMT 1)", instead of "MIDI Out (Controls Left)".
8. **MIDI Processing and Monitoring**: MIDI Monitor, MIDI Filter, MIDI Channel Constrainer, Scriptlet.
9. **Media Players:** Audio File Player, MIDI File Player
10. **Miscellaneous:** System Actions, Comment

Additionally, there are two built-in plugins that are available only in the Global rackspace - **From Rackspaces** and **To Rackspaces**:



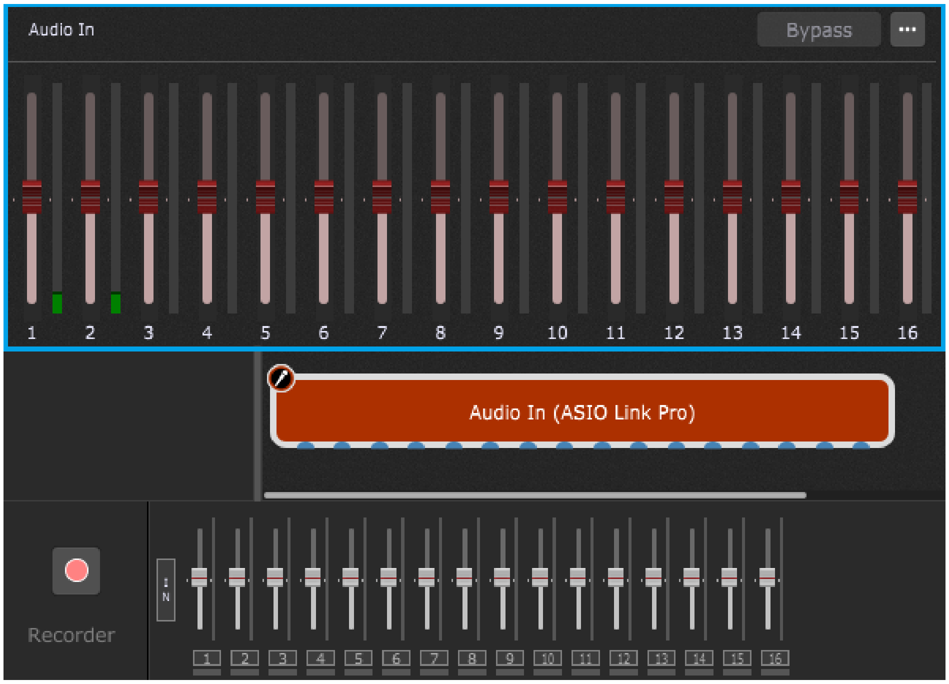
To add a built-in plugin onto the design surface, first make sure that you are in the Wiring View, and then either right click to open the contextual menu or press Ctrl + P (or Cmd + P on Mac) to open the Quick Plugin Finder, and then add the desired plugin onto the Wiring view surface.

Note: not all built-in plugins can be added to the design surface in the Wiring view. Check the subchapters to find out more about each plugin. To learn how to insert a plugin, refer to the Inserting and Wiring your plugins chapter.

The common parameters for most plugins are **Bypass Plugin** and **Open/Close Plugin Editor**; there are plugins that cannot be bypassed (i.e. Audio In plugin). Check corresponding subchapters to find out more about parameters available for each supplied plugin.

10.1 Audio In

The Audio In plugin represents the current connected physical interface used to receive audio or a virtual device, aggregating two or more physical interfaces (depending on your operating system):



Each plugin port represents one audio input. The actual number of these ports is a function of the capabilities of the interface connected to your system. For example, in the screenshot above, 16 ports are shown.

Double-clicking on the Audio In plugin opens its edit window, as indicated with the blue rectangle. You can adjust input levels by moving the corresponding sliders. The number of sliders matches the number of input ports. Moving any of these sliders will automatically update the corresponding slider in the bottom toolbar, and vice-versa.

However, as a matter of course, we encourage you to not adjust your levels through these global controls. It is usually better to insert Gain Controls into the Wiring view. The global input and output levels are really intended for emergency adjustments should you have a problem with FoH audio.

Note: when you create a new gig, this plugin is present by default in the Wiring view and cannot be removed from the design surface. However, you can specify different audio interfaces for Audio In. Navigate to Options -> Audio Setup to configure your audio interfaces.

Tip: if you need to change the selected interface or even the buffer size or sample rate, open or create an empty gig file first and change the audio interface there. This will be much faster as Gig Performer will not have to reset and possibly reload all your plugins. Further, some plugins don't "like" having their buffer size or sample rate changed after being loaded and may consequently crash when receiving such a request.

Audio In parameters

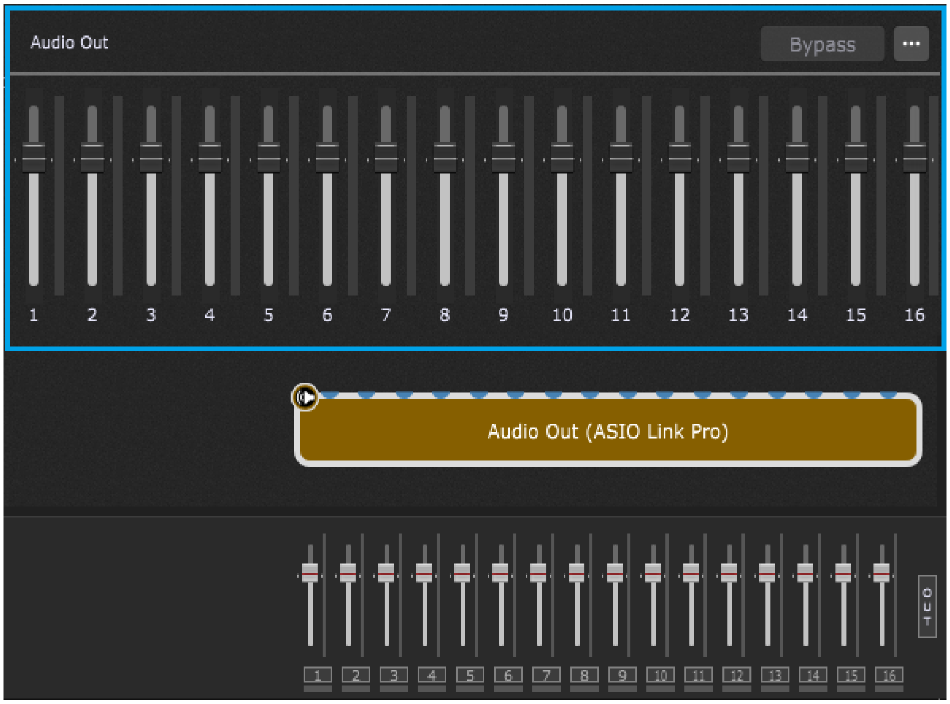
The following parameters are available for the Audio In plugin:

- **Number of channels** - allows you to get the current number of audio input channels.
- **Input Gain (Channel #)** - allows you to control the input gain for each input channel available.
- **Input Level (Channel #)** - allows you to display the input level for each input channel available (use with meter widgets).
- **Overall Input Level** - allows you to display the overall input level for all channels (use with meter widgets).
- **Channel # Muting** - mutes the specific channel (# represents the number of the channel).

Note: not all parameters are suitable for the widget control. Parameters such as *Number of channels* are suited for GPScript or OSC applications. Using scripting it can be determined how many channels the Audio In plugin offers and then the result can be used for other functions. Using OSC, you can e.g. create the exact number of VU-meters dynamically (if your OSC application supports this feature).

10.2 Audio Out

The Audio Out plugin represents the current connected physical interface used to send audio or a virtual device, aggregating two or more physical interfaces:



Each plugin port represents one audio output. The actual number of these ports is a function of the capabilities of the interface connected to your system. For example, in the screenshot above, 16 ports are shown.

Double-clicking on the Audio Out plugin opens its edit window, as indicated with the blue rectangle. You can adjust output levels by moving the corresponding sliders. The number of sliders matches the number of output ports. Moving any of these sliders will automatically update the corresponding slider in the bottom toolbar, and vice-versa.

Note: when you create a new gig, this plugin is present by default in the Wiring view and cannot be removed from the design surface. However, you can specify different audio interfaces for Audio Out. Navigate to Options -> Audio Setup to configure your audio interfaces.

Audio Out parameters

The following parameters are available for the Audio Out plugin:

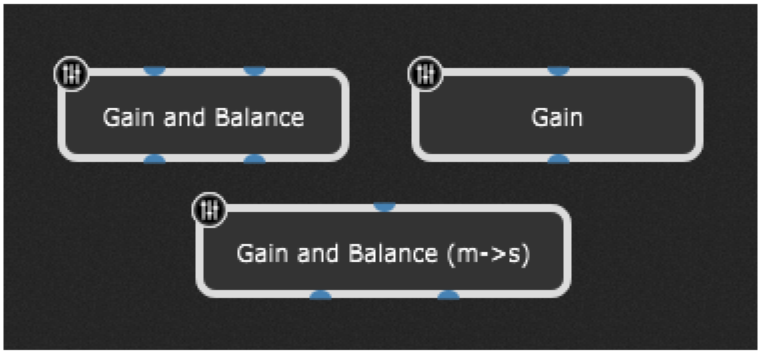
- **Number of channels** - allows you to get the current number of audio output channels.
- **Output Volume (Channel #)** - allows you to control the output volume for each output channel available.
- **Output Level (Channel #)** - allows you to display the output level for each output channel available (use with meter widgets).

- **Overall Output Level** - allows you to display the overall output level for all channels (use with meter widgets).
- **Channel # Muting** - mutes the specific channel (# represents the number of the channel).

Note: not all parameters are suitable for the widget control. Parameters such as *Number of channels* are suited for GPScript or OSC applications. Using scripting it can be determined how many channels the Audio Out plugin offers and then the result can be used for other functions. Using OSC, you can e.g. create the exact number of VU-meters dynamically (if your OSC application supports this feature).

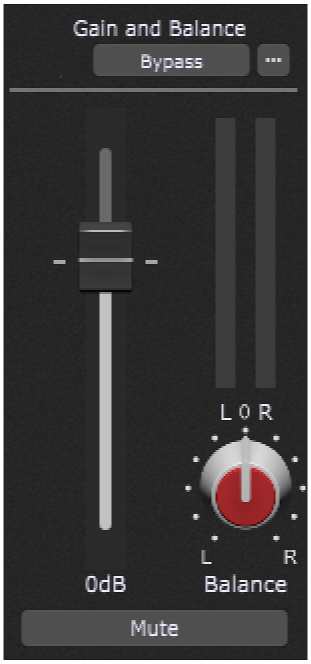
10.3 Gain Controls

The gain controls plugins include a Gain and Balance Control, a Gain Control (mono) and a Gain and Balance Control (mono to stereo).



10.3.1 Gain and Balance Control

This plugin provides stereo audio input pins and stereo audio output pins:



It allows the gain and Left/Right balance of a stereo audio signal to be adjusted. Clicking on the **Mute** button or setting the **Volume** slider to 0 causes the plugin to be muted (not bypassed). Click here for more information on the difference between muting and bypassing a plugin.

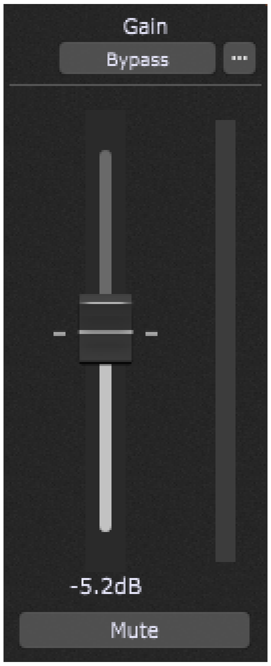
Gain and Balance Control parameters

Besides the common parameters **Bypass Plugin** and **Open/Close Plugin Editor**, the following parameters are provided for the Gain and Balance Control plugin:

- **Gain** - allows you to control the gain.
- **Balance** - allows you to control balance (left-right).
- **Channel # Magnitude** - magnitude parameters are used for level metering. Metering can be very helpful to verify proper gain structure and ensure that a signal is not being overloaded and distorted.
- **Muted** - mutes or unmutes this plugin block.

10.3.2 Gain Control (mono)

This plugin provides a single audio input pin and a single audio output pin:



It allows the gain of a mono audio signal to be adjusted. Clicking on the **Mute** button or setting the **Volume** slider to 0 causes the plugin to be muted (not bypassed). Click here for more information about the difference between muting and bypassing a plugin.

Gain Control parameters

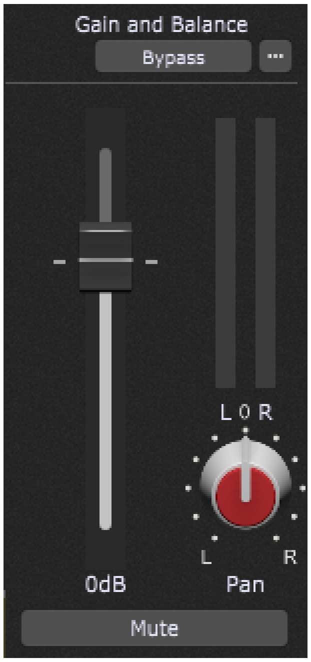
Besides the common parameters **Bypass Plugin** and **Open/Close Plugin Editor**, the following parameters for the Gain Control plugin are available:

- **Gain** - allows you to control the gain.
- **Muted** - mutes or unmutes this plugin block.
- **Magnitude** - the magnitude parameter is used for level metering. Metering can be very helpful to verify proper gain structure and ensure that a signal is not being overloaded and distorted.

The meter widgets provided by Gig Performer (available in both vertical and horizontal configurations) give you the ability to visually monitor levels at any point in the signal chain.

10.3.3 Gain and Balance Control (mono to stereo)

This plugin provides a single audio input pin and stereo audio output pins:



It converts a mono audio signal to stereo and allows its gain to be adjusted. Clicking on the **Mute** button or setting the **Volume** slider to 0 causes the plugin to be muted (not bypassed). Click here for more information about the difference between muting and bypassing a plugin. A balance control enables the incoming mono source to be panned across Left/Right channels.

Gain and Balance (m->s) parameters

Besides the common parameters **Bypass Plugin** and **Open/Close Plugin Editor**, the following parameters for the Gain and Balance (m->s) plugin are available:

- **Gain** - allows you to control the gain.
- **Balance** - allows you to control balance (left-right).
- **Channel # Magnitude** - magnitude parameters are used for level metering. Metering can be very helpful to verify proper gain structure and ensure that a signal is not being overloaded and distorted.
- **Muted** - mutes or unmutes this plugin block.

The meter widgets provided by Gig Performer (available in both vertical and horizontal configurations) give you the ability to visually monitor levels at any point in the signal chain.

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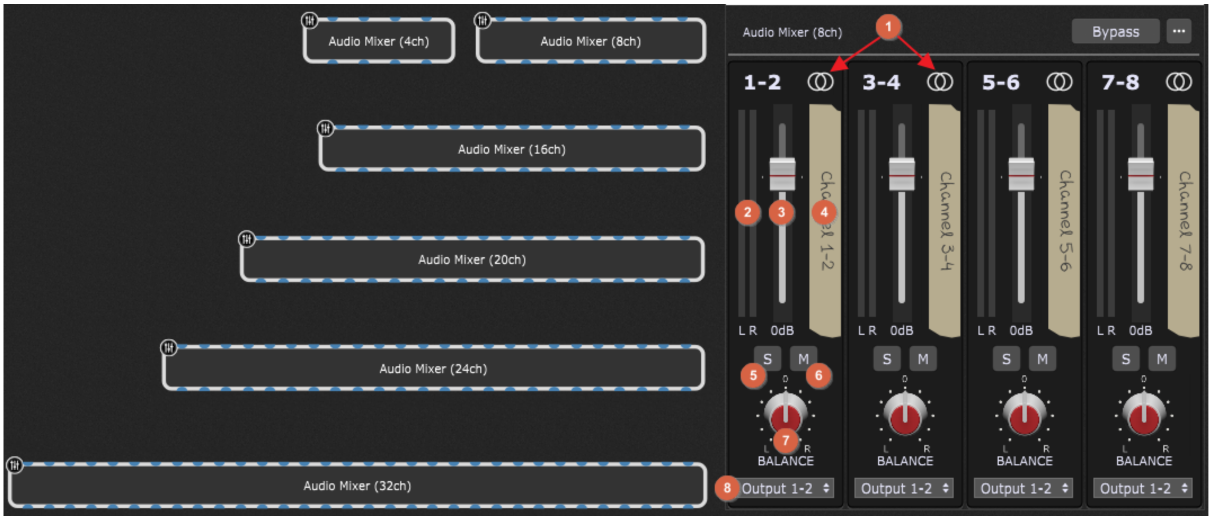
10.4 Audio Mixers

The Audio Mixer/Router is a flexible plugin that eliminates the need for a Gain plugin on the output of each source. Functions like level, mute, and output routing can be controlled from widgets so you can, for example, mute and unmute different sources, route channels to various effects devices connected to the outputs, or, of course, mix levels. Each input hosts a stereo channel pair, or can be switched to mono operation.

There are six versions of the plugin, with 2 inputs (4 channels), 4 inputs (8 channels), 8 inputs (16 channels), 10 inputs (20 channels), 12 inputs (24 channels), and 16 inputs (32 channels):



On the screenshot above are shown different versions of the audio mixer plugin and the plugin editor of the Audio Mixer (8ch) plugin; it has 4 stereo inputs and 8 channels. Elements in the plugin window are:

1. **Mono/Stereo channel switch** - click this icon to toggle the channel strip between mono (left channel) and stereo input.

2. **Channel level meter** - displays the post-fader output level from the channel.

3. **Channel level fader** - adjusts level from the channel to the selected output pair. Double-click the fader to return it to the0 dB position (alternatively, press Alt + click on Windows or Option + click on Mac). Press Ctrl (or Cmd) and drag the fader to adjust level in 0.1 dB steps.

4. **Channel label** - to edit a channel name, double-click the "tape strip".

5. **Channel Solo button** - solos the channel, effectively muting all others.

6. **Channel Mute button** - mutes the channel.

7. **Channel Balance/Pan knob** - for stereo channels, this is a left/right balance control, while on mono channels it is a pan control. Double-click on this control to return it to center (alternatively, press Alt + click on Windows or Option + click on Mac).

8. **Output channel select** - click this field to choose an output pair for a strip from the drop-down menu.

Tip: if you connect the audio outputs of multiple plugins to the input of another plugin, the signals will be mixed automatically. To create custom blends, insert one of the Audio Mixer/Router plugins and balance as desired. Audio Mixer/Router plugins can also be used to create reverb sends, where signal is routed to a reverb (or other type of signal processing plugin) from multiple sources. Simply insert an Audio Mixer/Router plugin and route the output of each source to its inputs and a pair of outputs to the reverb plugin.

Parameters

The following parameters are available for Audio Mixers:

- **Channel # volume** - adjusts the channel volume (indicated with **(3)** on the screenshot above).

- **Channel # balance** - adjusts the channel balance (indicated with **(7)** on the screenshot above).

- **Channel # solo** - toggles Soloed/Not soloed modes (indicated with **(5)** on the screenshot above).

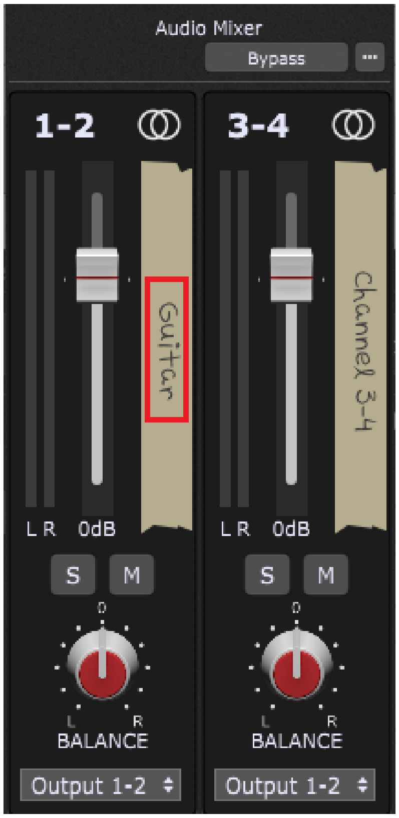
- **Channel # mute** - toggles Muted/Not muted modes (indicated with **(6)** on the screenshot above).

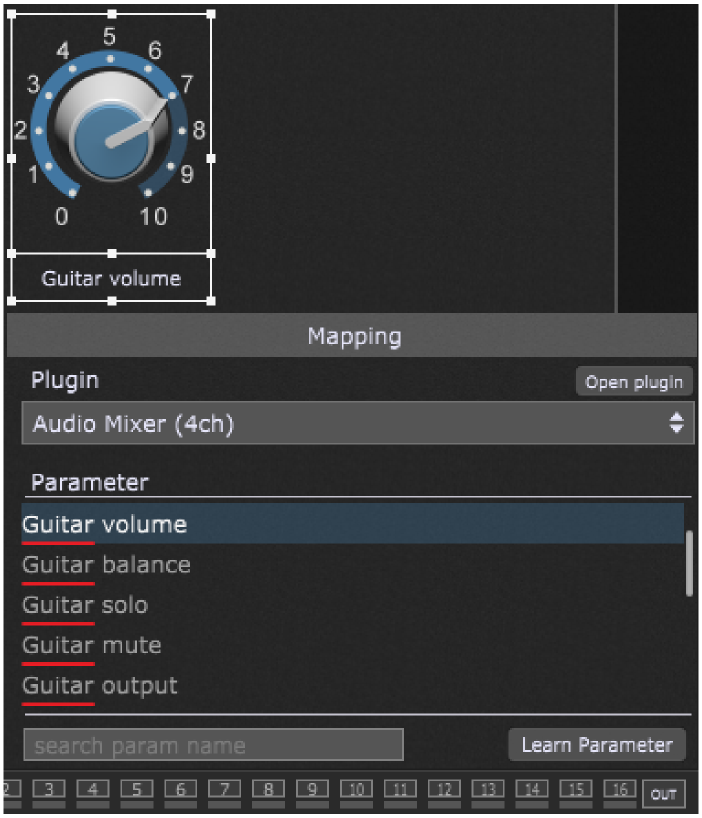
- **Channel # output** - changes the output channel (indicated with **(8)** on the screenshot above).

- **Channel # left meter** - displays the left meter (indicated with **(2)** on the screenshot above).

- **Channel # right meter** - displays the right meter (indicated with **(2)** on the screenshot above).

Note: names of these parameters may differ depending on the channel label (4); for example, if you rename the channel label from "Channel 1-2" (default) to "Guitar" (indicated with the red rectangle) then corresponding parameters will be named like shown in the screenshot below:





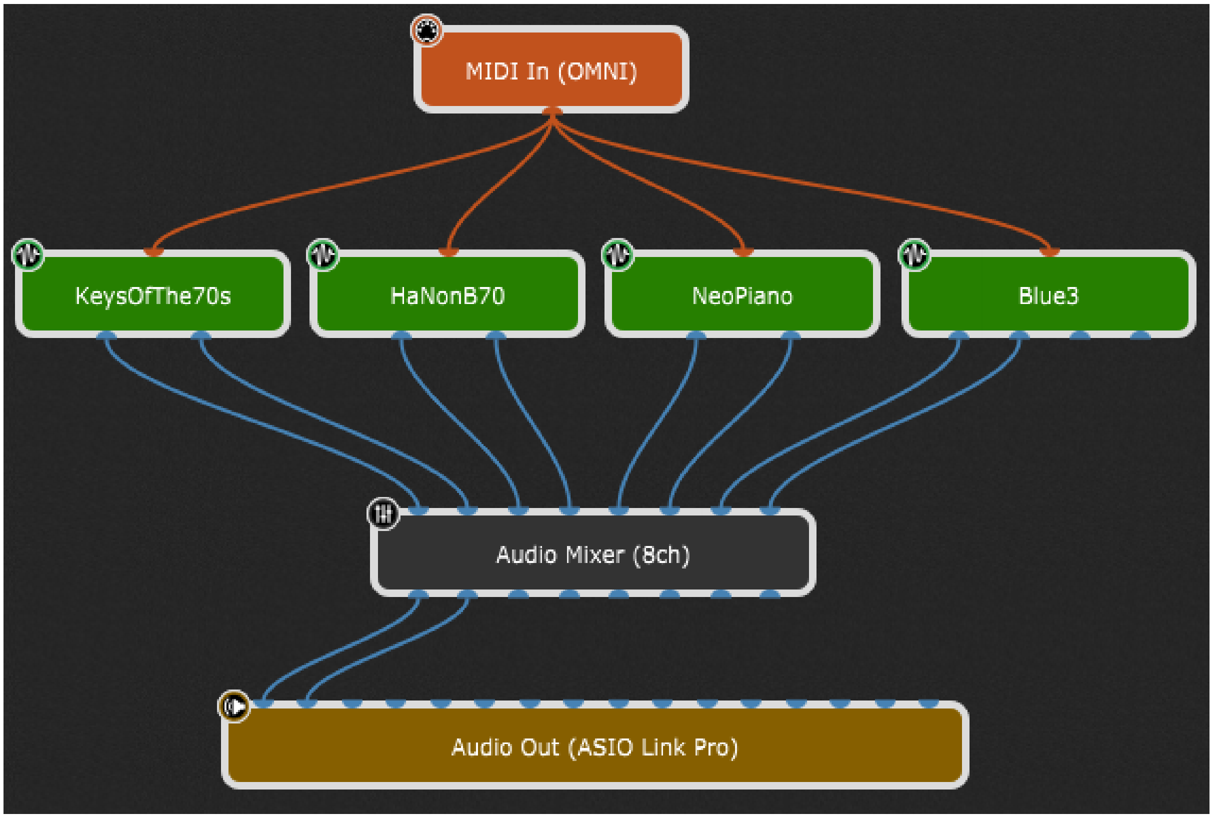
Plugin: Audio Mixer (4ch)

Parameter: Guitar volume

10.4.1 Audio Mixer applications

There are many tasks that can be accomplished with the Audio Mixer plugin. Here are a few examples to get you going.

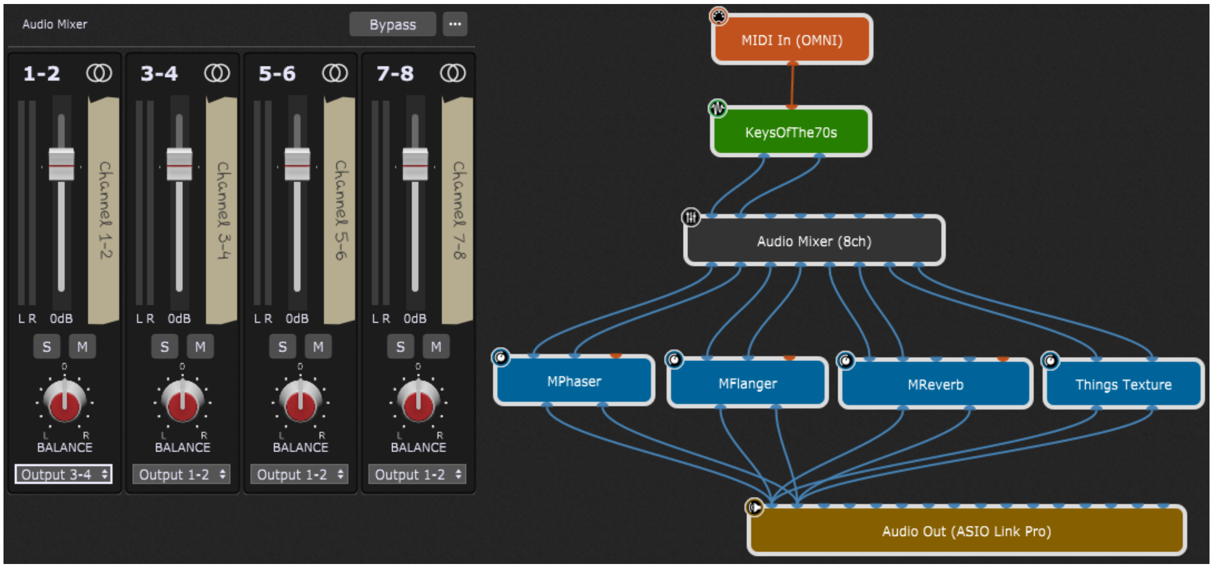
Simple Mixer



In this example we have four synths with stereo pair outputs feeding the audio mixer's eight inputs. Each input has gain and balance controls in the Audio Mixer plugin (so it is unnecessary to add gain and balance plugins on each individual synth output). All the inputs feeding the audio mixer are then routed to outputs 1 and 2 of the mixer plugin, which is connected to the first stereo pair of audio interface outputs.

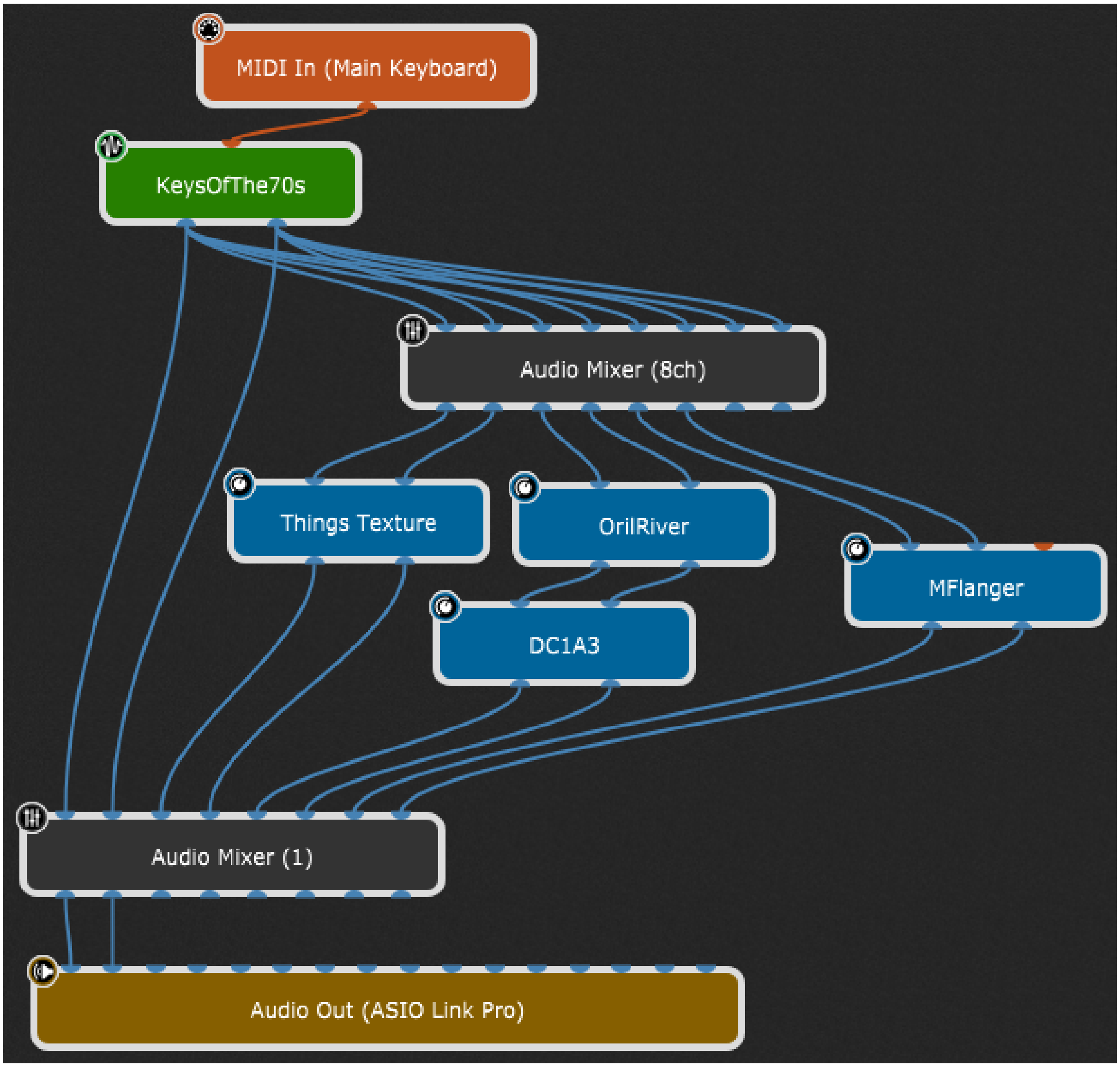
Each channel pair can be soloed or muted as desired and of course these can be controlled from front panel widgets (and so from your keyboard controller, once you map them to those widgets) as needed.

Input router



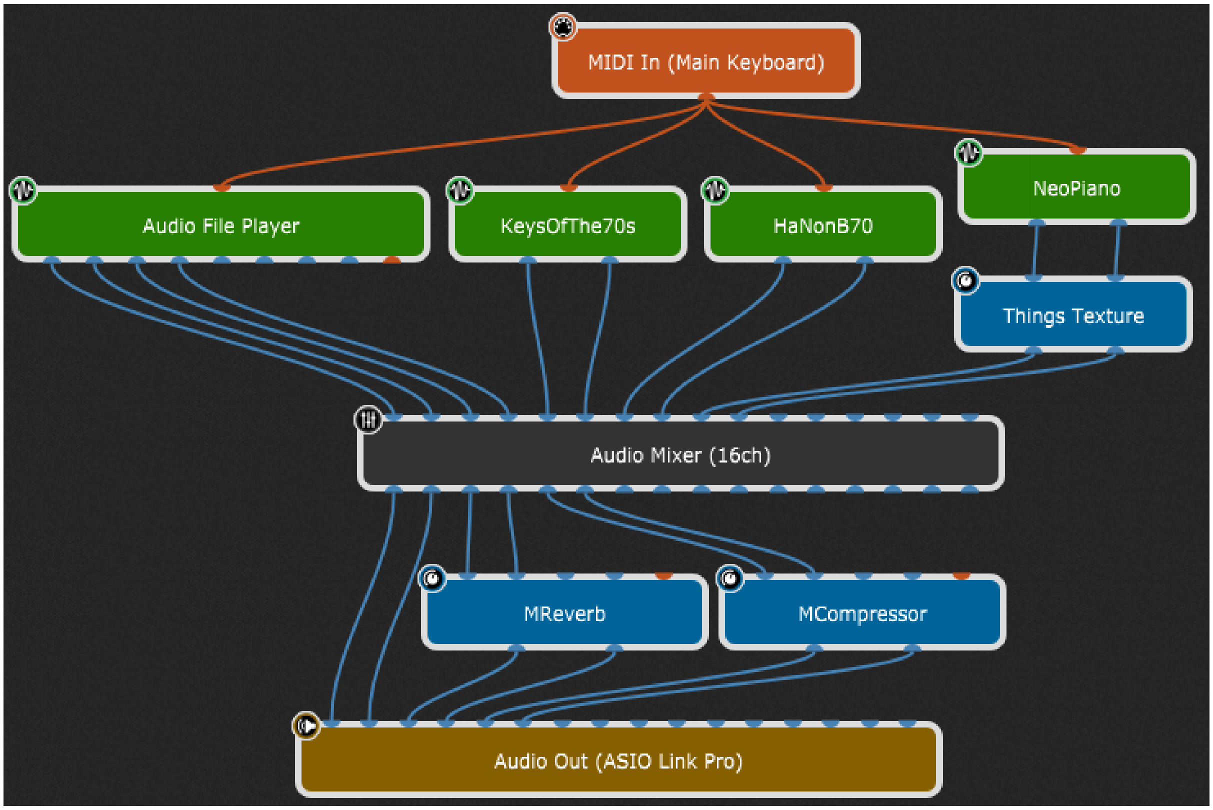
On the right, in the Wiring view of a rackspace, you can see that we have a single synth (the KeysOfThe70s) connected to the Audio Mixer (8ch). The four output pairs of the Audio Mixer are connected to the inputs of four different effects. If you look at the first channel strip in the Audio Mixer editor window (on the left), the KeysOfThe70s is currently being routed to Output 3-4, which feeds the Flanger plugin. By changing the output routing, you can quickly switch from one effect to another. Output routing also can be attached to a slider, knob, or switch widget, letting you control effects switching from your controller.

Feed multiple effects (aux sends)



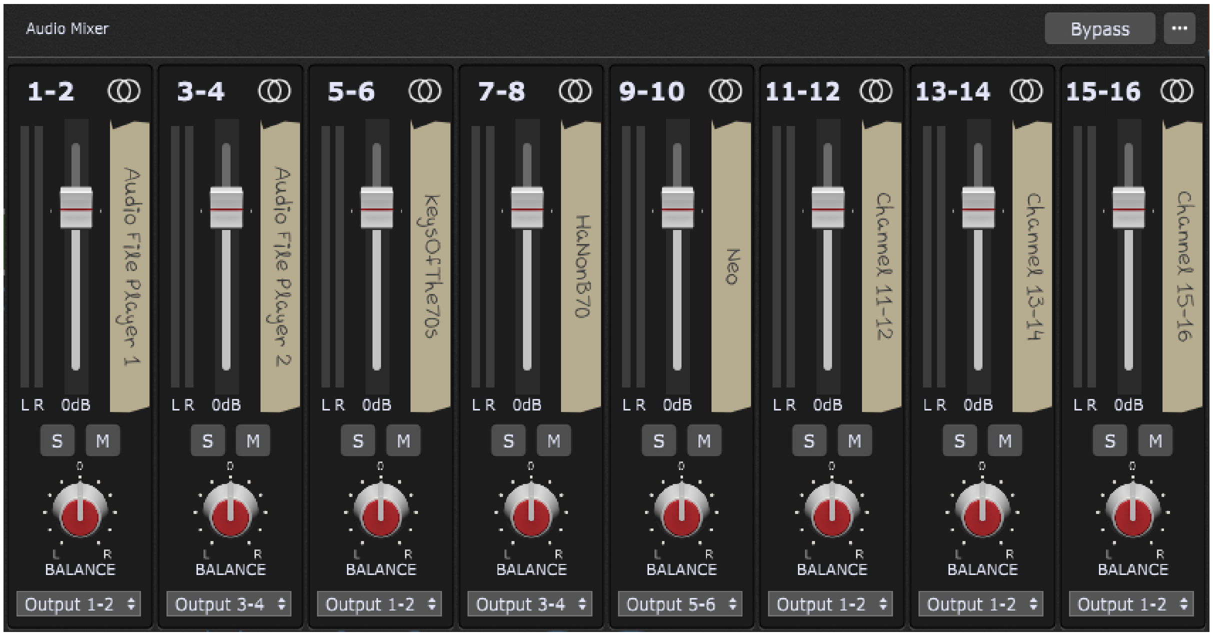
Assigning the source synth plugin to all of the inputs turns the mixer into a bank of aux sends. Each channel sends the source signal to one pair of outputs, with a separate level control for each. In this case, the outputs of the effects and the original synth source are all mixed at the end through another eight-channel mixer.

Multiple submixers in one plugin

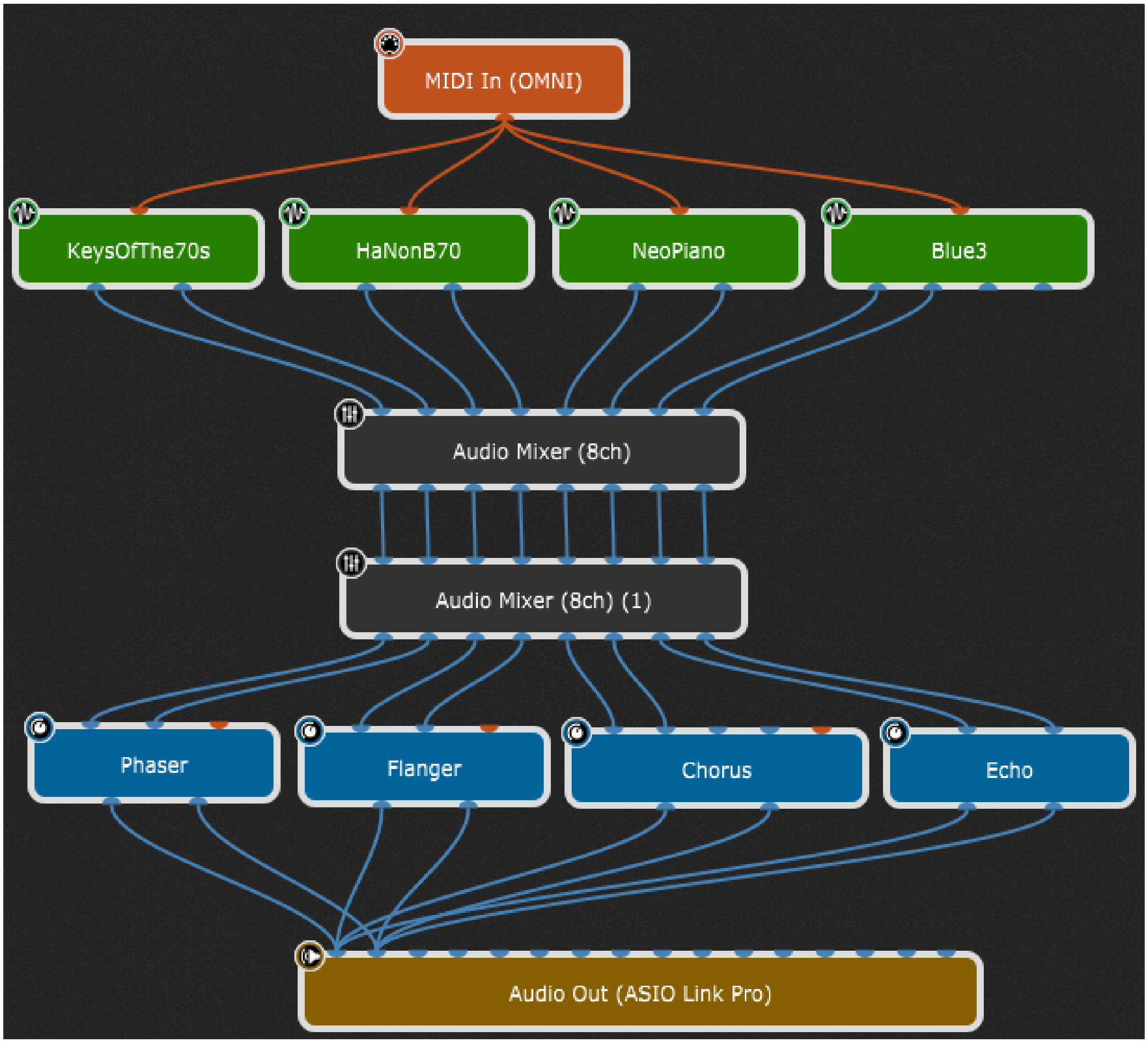


Since inputs can be independently assigned to outputs, a single 16-channel mixer can be used as if it were a few small submixers in one package.

The first and third channel strips (channels 1-2 and 5-6) feed one mix; the second and fourth strips (channels 3-4 and 7-8) feed another mix. The fifth strip (channels 9-10) is routed to the third output pair that feeds an effect:



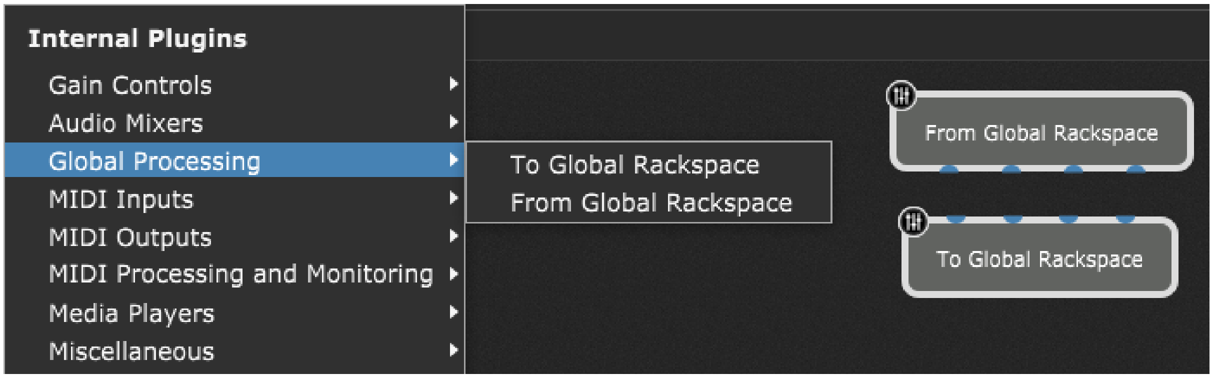
Mixer and Router Together



In this example, we can instantly route combinations of inputs to combinations of outputs so you can route KeysOfThe70s to the phaser and chorus while routing Blue3 to chorus and echo. By using rackspace variations in Gig Performer you can instantly switch among arbitrary combinations, using a controller to switch, if you like.

10.5 Global Processing

Global Processing plugins encompass **To Global Rackspace** and **From Global Rackspace** plugins:

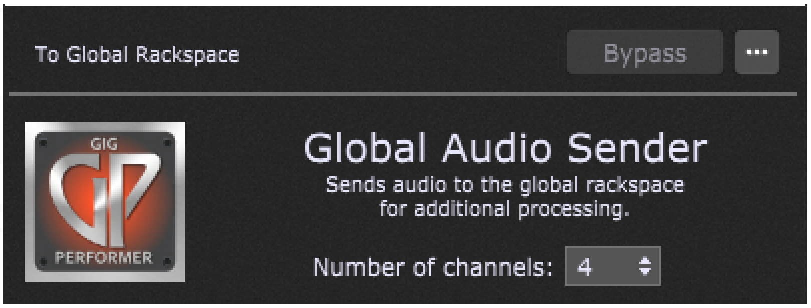


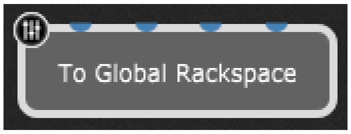
To Global Rackspace is used to send audio signals from regular rackspaces to the Global rackspace. **From Global Rackspace** is used to receive audio signals from the Global Rackspace to rackspaces.

Refer to the Global Rackspace chapter for more information.

10.5.1 To Global Rackspace

To Global Rackspace is used to send audio signals from regular rackspaces to the Global rackspace for additional processing. By default, this plugin provides four input pins:





Double-clicking this plugin opens its edit window where the number of channels can be selected. You can select up to 64 channels for this plugin.

Important note: changing the number of channels will update all the global plugin blocks in all rackspaces. Affected plugins are:

- To Global Rackspace
- From Global Rackspace
- From Rackspaces
- To Rackspaces

From Rackspaces and To Rackspaces plugins are present in the Global rackspace only, and will be addressed separately since they are not the part of the Global Processing plugins' group.

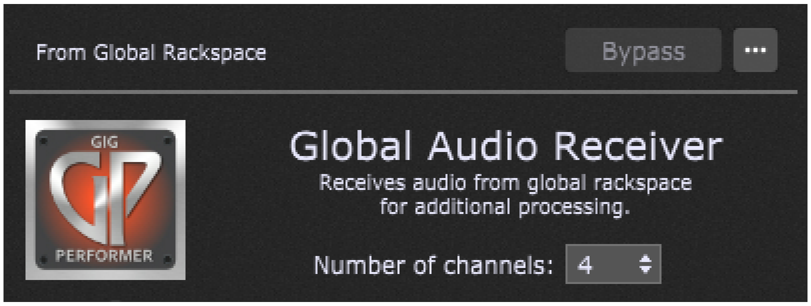
See more information on how to connect **To Global Rackspace** plugin in the Global Rackspace chapter.

Parameters

The To Global Rackspace plugin provides 128 available and initially empty slots; to occupy a specific slot you have to set the Global Parameter Assignment in the Widget Properties inspector for a global widget. Refer to this chapter to learn more.

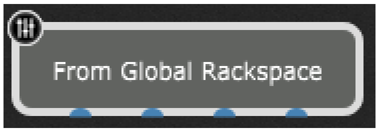
10.5.2 From Global Rackspace

From Global Rackspace is used to receive audio signals from the Global rackspace to regular rackspaces for additional processing. By default, this plugin provides four output pins:



Receives audio from global rackspace for additional processing.

Number of channels: 4



Double-clicking this plugin opens its edit window where the number of channels can be selected. You can select up to 64 channels for this plugin.

Important note: changing the number of channels will update all the global plugin blocks in all rackspaces. Affected plugins are:

- To Global Rackspace
- From Global Rackspace
- From Rackspaces
- To Rackspaces

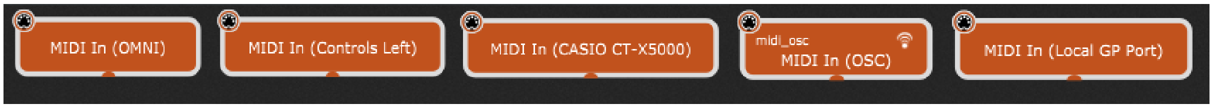
From Rackspaces and To Rackspaces plugins are present in the Global rackspace only, and will be addressed separately since they are not the part of the Global Processing plugins' group.

Parameters

The From Global Rackspace plugin provides 128 available and initially empty slots; to occupy a specific slot you have to set the Global Parameter Assignment in the Widget Properties inspector for a global widget. Refer to this chapter to learn more.

10.6 MIDI Inputs

These plugins are used to receive incoming MIDI messages and pass them on to other plugins; they provide a single MIDI output pin:



The image above will be different for your setup as it depends on the currently connected MIDI devices and aliases that you might have configured for your currently connected MIDI devices.

1. **MIDI In (OMNI)** - receives MIDI messages coming from any MIDI Input port on your system. The MIDI In (OMNI) is a generic plugin that "listens" to all incoming MIDI messages coming from all connected controllers, on all channels and on all ports. It is the default MIDI input block in any new rackspace. You can delete it if you don't need it (for example, if you are using plugins to process incoming audio signal only, from a guitar or a microphone) and add it later if you need it. You can also duplicate this plugin if needed. This block is designed for simple setups - use this when you're getting started. Once you start working with multiple keyboards and/or control surfaces, you should switch to MIDI In blocks associated specifically with each device so that you can route MIDI appropriately.
   Note: if you are using a virtual MIDI Port (such as the built-in IAC port in Mac), then you must not use OMNI blocks as you will get feedback (click here to learn more).

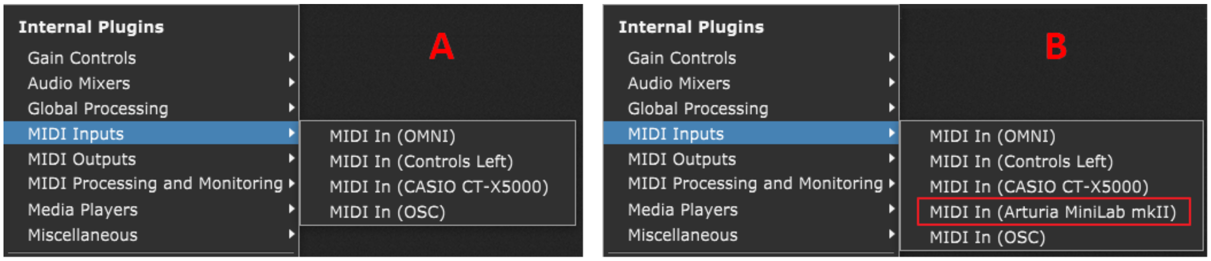
2. **MIDI In (Controls left)** - "Controls left" is a custom alias that this author defined in the Rig Manager for the specific MIDI input device. This alias is tied to the specific MIDI Input port on this author's computer and this block receives MIDI events only from the that input port. Refer to the Rig Manager chapter to find out more about aliases.

3. **MIDI In (CASIO CT-X5000)** - for this connected MIDI input device an alias has not been defined. The text in brackets is the full name of the MIDI device and it depends on the MIDI device's manufacturer. This block receives MIDI events only from the specific input port where this MIDI device is connected.

4. **MIDI in (OSC)** - receives MIDI messages only from OSC sources. For more information on OSC, click here.

5. **Local GP Port** - this block is intended for very advanced setups. Check the Local GP Port chapter to learn more.

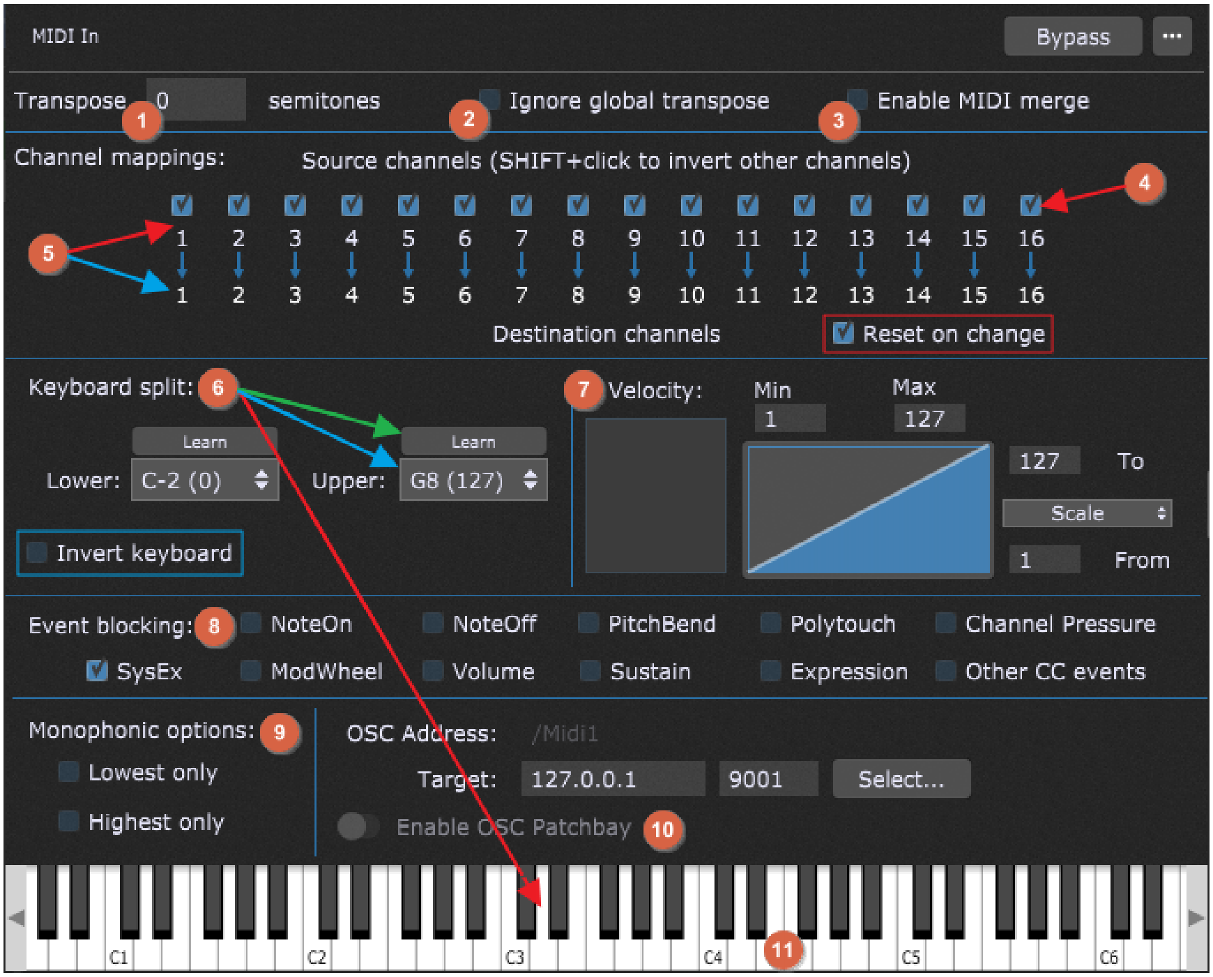
If you connect one or more MIDI controllers to your system, Gig Performer automatically generates additional controller-specific MIDI In blocks; right click on the empty surface in the Wiring view to open the contextual menu:



Then expand the MIDI Inputs sub-menu to see the list of all connected MIDI In devices. On the screenshot above note the state before (A) and after (B) connecting your MIDI device. The actual name of your connected MIDI device (indicated with the red rectangle) depends on the device's manufacturer.

These can (and, in most cases, should) be substituted for the generic MIDI In (OMNI) plugin. Because they "listen" to specific MIDI controllers and/or ports, their usage is generally preferable, especially if your rig contains multiple keyboards or controllers. Using specific MIDI In blocks makes it easy for you to route incoming MIDI from each device to different plugins.

Double-clicking a MIDI in plugin opens its editor window:



Transpose 0 semitones □ Ignore global transpose □ Enable MIDI merge

Channel mappings: Source channels (SHIFT+click to invert other channels)

☑ 1 → 1, ☑ 2 → 2, ☑ 3 → 3, ☑ 4 → 4, ☑ 5 → 5, ☑ 6 → 6, ☑ 7 → 7, ☑ 8 → 8, ☑ 9 → 9, ☑ 10 → 10, ☑ 11 → 11, ☑ 12 → 12, ☑ 13 → 13, ☑ 14 → 14, ☑ 15 → 15, ☑ 16 → 16

Destination channels ☑ Reset on change

Keyboard split: Learn Lower: C-2 (0) Learn Upper: G8 (127) □ Invert keyboard

Velocity: Min 1 Max 127 127 To Scale 1 From

Event blocking: □ NoteOn □ NoteOff □ PitchBend □ Polytouch □ Channel Pressure ☑ SysEx □ ModWheel □ Volume □ Sustain □ Expression □ Other CC events

Monophonic options: □ Lowest only □ Highest only

OSC Address: /Midi1 Target: 127.0.0.1 9001 Select... ○ Enable OSC Patchbay

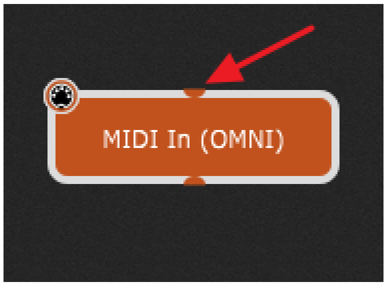
The MIDI In plugin editors provide the following functionality:

1. **Key transposition** - transpose incoming note messages over a range of +/- 127 semitones. Each MIDI In block can set its own transpose value. This is particularly useful when you use keyboard splits where you want to position (say) a piano at the bottom two octaves of your keyboard but obviously you want the actual notes to be pitched at higher octaves. Normally the MIDI In block's transpose value is added to the global transpose since you generally want to transpose all your instruments by the same amount.

2. **Ignore global transpose** - checking this option ignores the global transpose that is set in the upper toolbar of the main Gig Performer window (refer to [The main Gig Performer window](#) chapter, bullet item 8 for more information). For example, if you are using a particular MIDI In block to control percussion or sound effects in a sampler, you generally do not want the transpose to be changed and so you can configure individual MIDI In blocks to ignore the global transpose value.

3. **Enable MIDI merge** - this option has a very specialized purpose as it lets you feed in MIDI events from other plugins that produce MIDI (arpeggiators, MIDI file players, MIDI sequencers etc.) after which point they can be processed by other parameters available here as well as by GPScript, for example.

After you enable this option, a MIDI input block (e.g. the MIDI In (OMNI) in the screenshot below) will display the MIDI input pin:



This way you can leverage some of the MIDI In block's functionality. For example, it's an easy way to do channel remapping (instead of using multiple MIDI Channel Constrainer plugins) and you can use it to block certain kinds of events, etc.

4. **Channel blocking** - specified MIDI channels can be blocked by simply unchecking the box above the desired source channel. Hold the Shift key and click on a channel to disable/enable all other channels.

5. **Channel mapping** - a source channel (indicated with the red arrow) can be mapped to a different destination channel (indicated with the blue arrow); click on the destination channel and type in a number to map to the different destination channel. The **Reset on change** checkbox (indicated with the red rectangle) is checked by default and allows you to stop all pending notes after any channel change.

6. **Keyboard split** - enables you to create keyboard splits by specifying lower and upper note of the split. Notes below the Lower value and/or above the Upper value are blocked; only notes between those values are allowed through. The Lower and Upper values can be entered in one of these ways:

a) click on the Lower note or Upper note field and choose the desired note from the corresponding drop-down menu (indicated with the blue arrow).

b) click on the Learn button (indicated with the green arrow) above the Lower note or Upper note field and play the desired note on your MIDI controller. Click the Learn button again to complete the setting.

c) click on the Learn button above the Lower note field and click on the desired low note on the plugin's virtual keyboard (indicated with the red arrow); then click the Learn button above the Upper note field and click the desired high note on the plugin's virtual keyboard. Remember to click the Learn button again after the note is learned to exit Learn mode.

It is easy to see the valid split range because notes below the Lower note and above the Upper note are grayed out. Check out our blog article How to create keyboard and velocity splits for in-depth guidelines.

Note: the keyboard in the MIDI In block plugin shows the physical key being pressed when you play your controller, rather than the output value, which might be transposed.

Ticking the **Invert keyboard** checkbox (indicated with the blue rectangle) allows you to produce lower notes when playing higher up the keyboard (and vice-versa). This is a nod to Joe Zawinul who famously inverted the ARP 2600 keyboard when he performed Black Market. It makes it easy to do certain counterpoint as you can use the same fingering on both hands.

7. **Velocity** - the old *Velocity Layering and Scaling* options have been replaced by the *Velocity Curve* which gives you much more flexibility to map your input velocities. You can implement the following features:

a) **Velocity layering** - velocities below the MIN value and/or above the MAX value are blocked; only velocities between those values are allowed through. If the same value is entered for MIN and MAX, all incoming notes will have their velocity changed to that value. This allows you to create velocity layers by specifying whether notes are heard depending on how hard (or soft) you press a key.

b) **Velocity scaling** - by selecting "Scale" in the drop-down box and entering "From" and "To" values, the velocity of all incoming note messages is adjusted so as to reduce their dynamic range (i.e. softer notes will be heard louder, or louder notes will be heard more softly).

c) **Velocity constraining** - by selecting "Constrain" in the drop-down box, any incoming note messages with a velocity below the "From" value are given that value exactly; at the same time, any incoming note messages with a velocity above the "To" value are given that value exactly. For example, if you enter a "From" value of 60, and a "To" value of 80, all incoming note messages with velocities of 60 or less are given a velocity of 60 exactly, while all incoming messages with velocities of 80 or more are given a velocity of 80 exactly; only velocity values from 61 - 79 are preserved. Constraining allows you to create hard velocity splits.

The MIDI In plugin editor's velocity range control is particularly useful if you want to have multiple sounds available but hear only some when you play softly and others when you play harder. If connected to a piano plugin, for example, you can opt to only hear the piano sound when you play the keyboard forcefully.

Tip: after you have defined a velocity range, you may want to change the actual velocities that are sent to your sound-generating plugin. For example, you may have created a piano sound that you only want to be heard if the velocity value is greater than 80. However, you may still want the piano to respond as if it was being played quietly. In such a case, set the Min/Max velocity values to 80 and 127 respectively so that you only hear the piano when you hit the keys hard. Then choose Scale and set the From/To values to 1 and 50 respectively. As a result, notes received with a velocity of 80 will produce notes with velocity of 1, while notes received with a velocity of 127 will produce notes with a velocity of 50. Notes in-between those values will be mapped somewhere in between.

8. **Event Blocking** - sometimes it is desirable to block certain note or continuous controller messages coming from a controller. Although the MIDI Filter plugin is capable of this kind of filtering and much more, MIDI In blocks include an event blocking section that conveniently provides basic blocking capabilities to reduce the number of situations requiring the MIDI Filter plugin.

A common scenario is that your controller has one or more knob, button, or other physical controls that are not being used, and so not assigned to a plugin parameter. If this unassigned control accidentally gets nudged, it could create an unintentional change to a plugin value. Blocking the MIDI messages coming from that control prevents this accidental modification. You might also want to use the Sustain pedal associated with another physical keyboard but you do not want notes played on that other keyboard to come through (you'll route them to some other synth).

The **Other CC events** box, when checked, blocks all continuous controller messages except for the ones that have their own boxes (i.e. ModWheel (CC1), Volume (CC7), and Sustain (CC64)). SysEx (System Exclusive) messages are blocked by default. Uncheck this box if you want to pass these messages to the MIDI In block.

9. **Monophonic options** - this area at the bottom of the editor filters the note messages from the controller down to a monophonic stream of notes.

- The **Lowest only** box, when checked, produces a mono part extracted from the lowest note as played on the instrument.

- The **Highest only** box, unsurprisingly, produces a mono part extracted from the highest note as played on the instrument.

These options can be useful for doubling melodies, or extracting a bass part from what might have been written as a piano part. Most often, users choose to check one or the other of these boxes, but you could check both, in which case you would be extracting lines from both the top and bottom of what is being played. Check out this blog article to see an example using Monophonic options.

10. **Enable OSC Patchbay** (this section shows up when the *Enable MIDI In OSC Patchbay* option is enabled in OSC Options) - turn on this toggle button if want to send out incoming MIDI messages as OSC messages to another application to be modified. The external application must send back modified messages otherwise no sound will be produced from the MIDI In block. Type in the OSC address prefix for this patchbay and IP address and port for the remote device (target) to which you want to send the message (alternatively, click on the **Select...** button to easily select an OSC target from the list that must be previously set in OSC Options). This is an advanced option and not required for normal use.

Warning: if you enable the OSC Patchbay and you do not have an external application that is sending back modified messages, no MIDI messages will be sent to connected plugin blocks.

11. **Virtual keyboard** - the virtual keyboard is used to help you set and display the current keyboard split and to let you generate Note messages allowing instrument plugins to be played even when an external MIDI controller is not connected. You can click on this virtual keyboard to play a key or use the computer keyboard instead. The MIDI channel used for these note messages is determined by the lower field associated with channel 1 in the Channel Mapping section.

MIDI In parameters

The following parameters for MIDI In plugins are available:

- **Channel 1-16 Output** - allows you to change MIDI channel blocking or remapping in real time.
- **MinNote** - allows you to change the keyboard split minimum (lower) note setting.
- **MaxNote** - allows you to change the keyboard split maximum (upper) note setting.
- **Transpose** - allows you to alter the key transposition. Caution: do not change this setting while holding notes, or stuck notes may result. If you do get a stuck note, don't panic - just click on the Panic icon to turn all notes off.
- **StopAllNotes** - issues a "turn all notes off" message, along with a sustain OFF message and a Center PitchBend message, same as the Panic button except that it only applies to the specific MIDI In block.

- **StickyNoteChannel** - determines the MIDI channel for the sticky note. Sticky notes allow you to trigger loops or sample playback from a widget. It works by sending Note On events only, as if you played a note but didn't release it. To use sticky notes, create an on-off widget (i.e. a switch or a button) and assign it to the MIDI In plugin and a Note On parameter. Then add a second continuous (knob or slider) widget and assign it to the MIDI In plugin as well, but to the StickyNoteVelocity parameter. When you activate the switch or button widget, a note will play continuously in the connected sound-generating plugin, with the knob widget determining the velocity of the MIDI note message.

- **StickyNoteVelocity** - determines the velocity of the sticky note.

- **Note On C-2 through G8** (MIDI note numbers 0 - 127) - toggles On/Off (SendNoteOn/SendNoteOff); default velocity is 64.

- **MinNoteVelocity** - allows you to pass through only notes with velocities equal or greater than the minimum note velocity.

- **MaxNoteVelocity** - allows you to pass through only notes with velocities equal or less than the maximum note velocity.

- **MinScaledNoteVelocity** - the lowest actual velocity will be adjusted to the minimum scaled velocity.

- **MaxScaledNoteVelocity** - the highest actual velocity will be adjusted to the maximum scaled velocity. All notes between are scaled according to the scale curve.

- **OutputVelocityMode** - allows you to change between Scaled and Constrained velocity (to scale or constrain incoming velocity values; the latter puts a hard min/max limit).

- **PC** (Program Change) - allows widget movements to send MIDI program change messages to plugins to call up different presets - note that not all plugins support this and some require initial configuration to be able to respond to PC events.
  Important note: sending PC events prevents Patch Persist from working and can result in stuck notes depending on the plugin implementation. For those reasons, this feature is not recommended for normal use.

- **CC** 0-127 - sends out CC (Continuous Controller) message with the value controlled by a widget.

- **Pitchbend** - sends a pitch-wheel message.

- **Aftertouch** - sends an aftertouch (also known as *channel pressure*) messages.

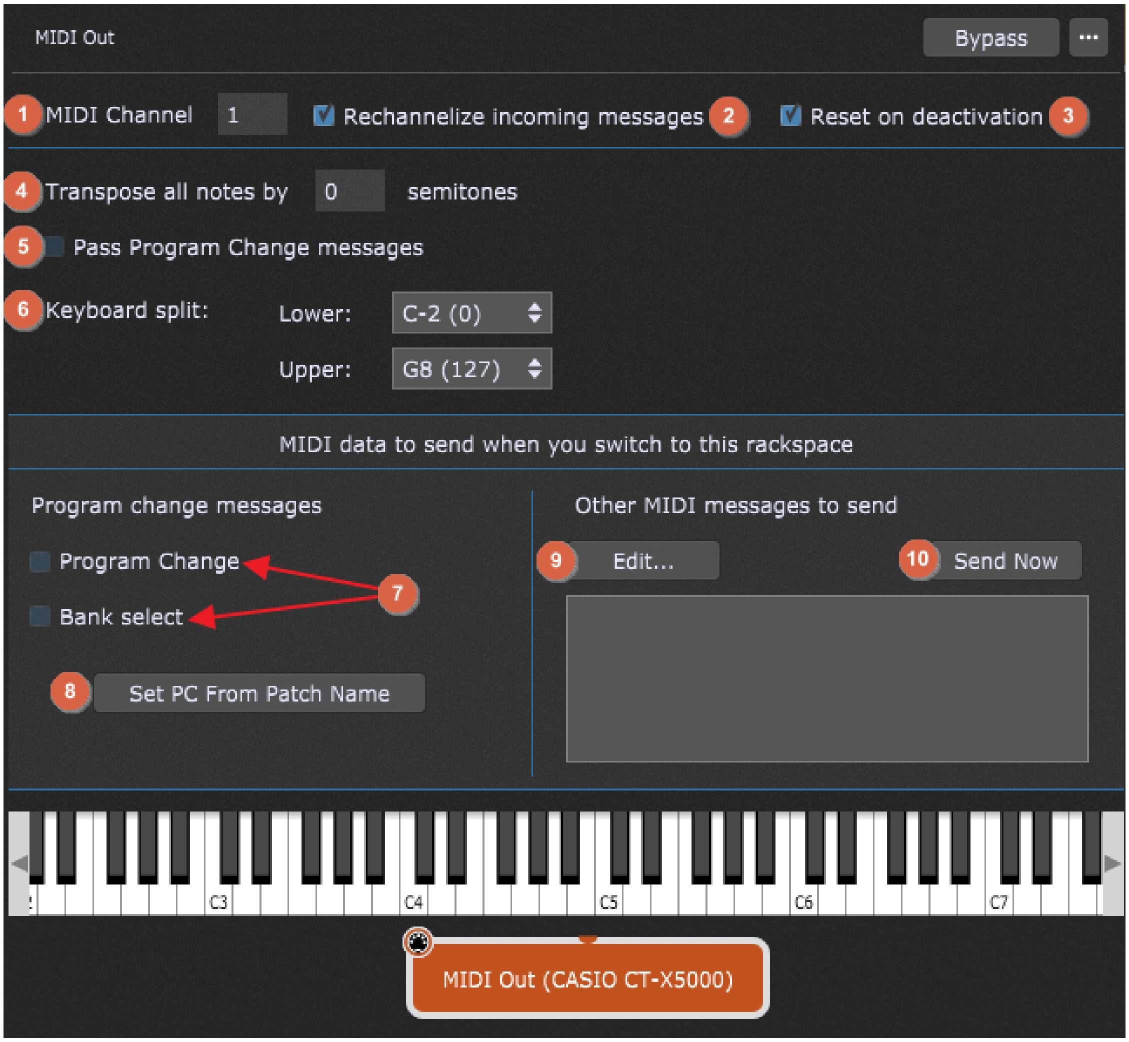
- **MonoLowestOnly** - allows only the lowest note of a chord to pass through.
- **MonoHighestOnly** - allows only the highest note of a chord to pass through.
- **BlockNoteOn** - blocks incoming Note On messages.
- **BlockNoteOff** - blocks incoming Note Off messages.
- **BlockPitchbend** - blocks incoming Pitchbend messages.
- **BlockAftertouch** - blocks incoming aftertouch messages.
- **BlockPolytouch** - blocks incoming polytouch messages.
- **BlockAllOtherControllers** - blocks all CC messages not covered by listed parameters.
- **BlockModWheel** - blocks CC1 messages.
- **BlockVolume** - blocks CC7 messages.
- **BlockSustain** - blocks CC64 messages.
- **BlockExpression** - blocks CC11 messages.
- **BlockSysex** - blocks incoming SysEx messages (these messages are blocked by default for compatibility with Gig Performer 3).
- **NoteFollow** - toggles the NoteFollowValue Off/On.
- **NoteFollowValue** - when on, sets the note number to the most recently played note. Attach a widget to this parameter and then group a second widget attached to an arbitrary plugin parameter which will then follow the note being played.
- **VelocityFollow** - toggles the VelocityFollowValue Off/On.
- **VelocityFollowValue** - when on, sets the velocity to whatever was last played. Use this in a similar manner as NoteFollow.
- **ReleaseFollow** - toggles the ReleaseFollowValue Off/On.
- **ReleaseFollowValue** - when on, sets the release value to whatever was last played. Not all keyboard controllers support Release values.
- **OSCPatchbay** - toggles Off/On the OSC Patch bay (must be enabled in OSC options)
- **IgnoreGlobalTranspose** - enables you to not transpose incoming MIDI notes based on global transpose (useful when playing drums or effects samples).

- **TransposeUp** - increments the transpose by one step.
- **TransposeDown** - decrements the transpose by one step.
- **InvertKeyboard** - inverts the keyboard: higher incoming MIDI notes produce lower outgoing MIDI notes.
- **StopAfterChannelChange** - sends all notes off whenever you change a channel (to prevent stuck notes).

Note: the MIDI Controller plugin right-click menu is the same as other plugins, but with the addition of the **Change MIDI Input Device** sub-menu; this menu allows you to reassign the MIDI In or MIDI Out block to the MIDI controller chosen from the menu.

10.7 MIDI Outputs

This plugin is created only for connected MIDI controllers that offer one or more MIDI outputs. It provides a single MIDI input pin and is used to send MIDI messages to external devices such as synthesizers or samplers:



MIDI Channel 1

☑ Rechannelize incoming messages

☑ Reset on deactivation

Transpose all notes by 0 semitones

□ Pass Program Change messages

Keyboard split: Lower: C-2 (0) Upper: G8 (127)

MIDI data to send when you switch to this rackspace

Program change messages

□ Program Change

□ Bank select

The MIDI Out plugin editors provide the following functionality:

1. **MIDI Channel** - sets the channel of the MIDI output.
2. **Rechannelize incoming messages** - turns on channel mapping so that incoming MIDI channel events have their channel changed to the specified channel. Note that program change transmission (described below) is still associated with the specified MIDI channel even if this box is checked.
3. **Reset on deactivation** - stops all pending notes when deactivating (switching away from) this rackspace. Note: disabling this option can lead to stuck notes.
4. **Transpose all notes by** - allows you to alter the key transposition of the MIDI output.
5. **Pass Program Change messages** - if this option is checked, then incoming program change messages are passed through to external MIDI devices.

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6. **Keyboard split** - allows you to set up keyboard splits for each MIDI Out block. Notes below the Lower value and/or above the Upper value are blocked; only notes between those values are allowed through. **Note**: you can use the virtual keyboard to create a keyboard split; hold the Shift key and click on the desired key on the virtual keyboard to set a low note. Hold the Alt key (Option key on Mac) and click on the desired key on the virtual keyboard to set an upper note.

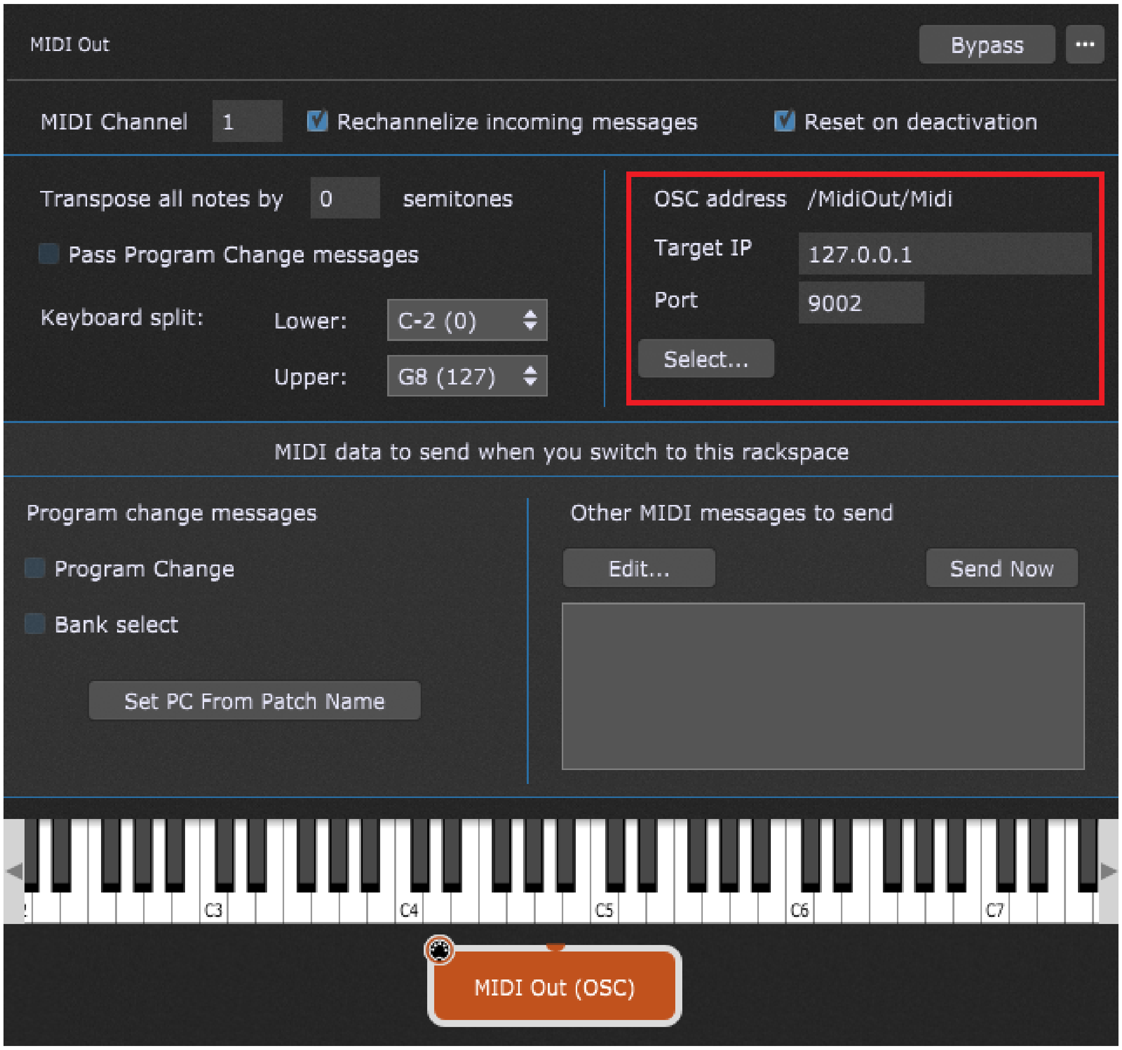
7. **Program Change** and **Bank Select** - allow Gig Performer to automatically transmit a program change and/or Bank Select message every time a rackspace containing the MIDI Out block is activated so that each of your external MIDI devices (keyboard and rack-mount synths, drum machines, etc.) load with the correct sounds and are instantly ready for use.

8. **Set PC From Patch Name** - rather than just using PC numbers, clicking on this button allows you to select the PC number to be sent out using patch names defined in instrument definition file (INS file) if available for your hardware synth when switching to the current rackspace.

9. **Edit...** - clicking on this button opens the MIDI Helper Tool which allows you to send arbitrary sequences of MIDI messages (including SysEx) when you switch to this rackspace. Basically, this is the same mechanism that is in the Song Part Properties dialog that allows you to send an arbitrary sequence of MIDI messages when switching to a song part; in the MIDI Out block the MIDI Helper Tool won't let you change the output device but otherwise works exactly the same way.

10. **Send Now** - clicking on this button allows you to send the selected MIDI messages to this MIDI out device.

The **MIDI Out (OSC)** block includes additional options, as indicated with the red rectangle:



MIDI Channel 1

☑ Rechannelize incoming messages

☑ Reset on deactivation

Transpose all notes by 0 semitones

□ Pass Program Change messages

Keyboard split: Lower: C-2 (0) Upper: G8 (127)

OSC address /MidiOut/Midi

Target IP 127.0.0.1

Port 9002

Program change messages

□ Program Change

□ Bank select

1. **OSC address** - allows you to enter OSC address for this block.

2. **Target IP** - address of the remote device to which you want to send the message.

3. **Port** - port number of the remote device to which you want to send the message.

4. **Select...** - clicking this button allows you to easily select an OSC target from the list that must be previously set in OSC Options.

The MIDI Out (OSC) block is mainly intended to send OSC wrapped MIDI messages from Gig Performer to other applications that can respond to such OSC messages. Check out this blog article to learn how to use MIDI OSC blocks to send MIDI to the Global rackspace.

Note: if you are using the MIDI Helper Tool in a MIDI Out (OSC) block, then the selected MIDI messages will be send out over OSC. The output device will display OSC rather than MIDI Out.

MIDI Out parameters

The following parameters for the MIDI Out plugin are available:

- **ChannelNumber** - allows you to alter the MIDI output channel number (1-16).
- **MinNote** - allows you to alter the Lower note setting for the keyboard split.
- **MaxNote** - allows you to alter the Upper note setting for the keyboard split.
- **Transpose** - allows you to alter the key transposition. Caution: Do not change this setting while holding notes, or stuck notes may result. If you do get a stuck note, don't panic - just click on the Panic icon to turn all notes off.
- **CC** 0-127 - allows you to transmit the specified CC (control change) message as the widget is moved.
- **Force MIDI Channel** - causes all MIDI events being transmitted to be mapped to a specific MIDI channel.
- **PC** - allows widget movements to send MIDI program change messages to external MIDI tone generators in order to call up different patches.
- **Pass through incoming PC messages** - toggles the *Pass Program Change messages* setting in the MIDI Out plugin editor.
- **Reset On Switch** - allows to stop all pending notes when switching away from this rackspace.

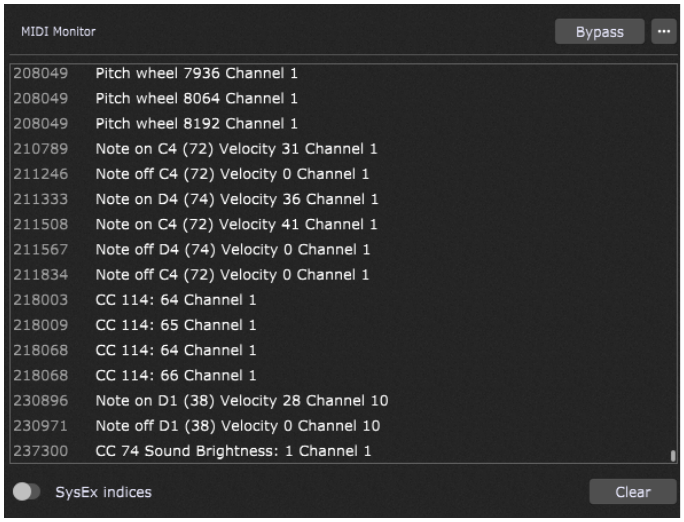
Refer to this blog article How to send program change messages out to hardware devices and other applications for in-depth guidelines and examples.

10.8 MIDI Processing and Monitoring

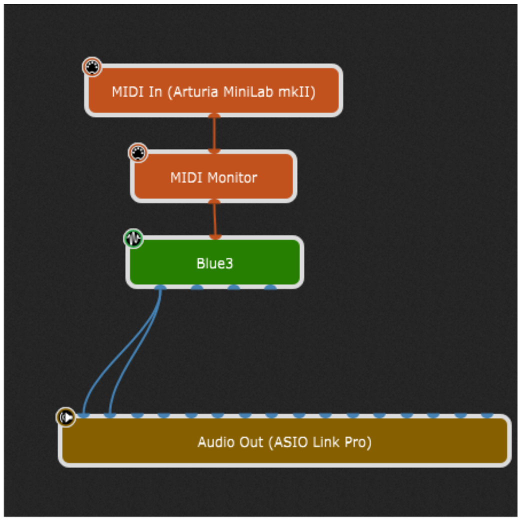
In this chapter find out more about internal plugins that help you with monitoring, blocking and redirecting MIDI messages. Check this blog article The most flexible MIDI processing to learn more about various ways to process MIDI in Gig Performer.

10.8.1 MIDI Monitor

This plugin provides a single MIDI input pin and a single MIDI output pin. It displays MIDI messages from the plugin block which is connected to it and it is intended primarily for diagnostic purposes:



```
208049   Pitch wheel 7936 Channel 1
208049   Pitch wheel 8064 Channel 1
208049   Pitch wheel 8192 Channel 1
210789   Note on C4 (72) Velocity 31 Channel 1
211246   Note off C4 (72) Velocity 0 Channel 1
211333   Note on D4 (74) Velocity 36 Channel 1
211508   Note on C4 (72) Velocity 41 Channel 1
211567   Note off D4 (74) Velocity 0 Channel 1
211834   Note off C4 (72) Velocity 0 Channel 1
218003   CC 114: 64 Channel 1
218009   CC 114: 65 Channel 1
218068   CC 114: 64 Channel 1
218068   CC 114: 66 Channel 1
230896   Note on D1 (38) Velocity 28 Channel 10
230971   Note off D1 (38) Velocity 0 Channel 10
237300   CC 74 Sound Brightness: 1 Channel 1
```



Optionally, turn on the **SysEx indices** toggle button to display the position of each byte of a SysEx message (this feature is intended for advanced users as a helper when writing GPScript functions that manipulate SysEx messages).

Note: double-click an entry in this window to copy it to the clipboard. Hold the Shift key while double-clicking on any entry to copy all entries to the clipboard.

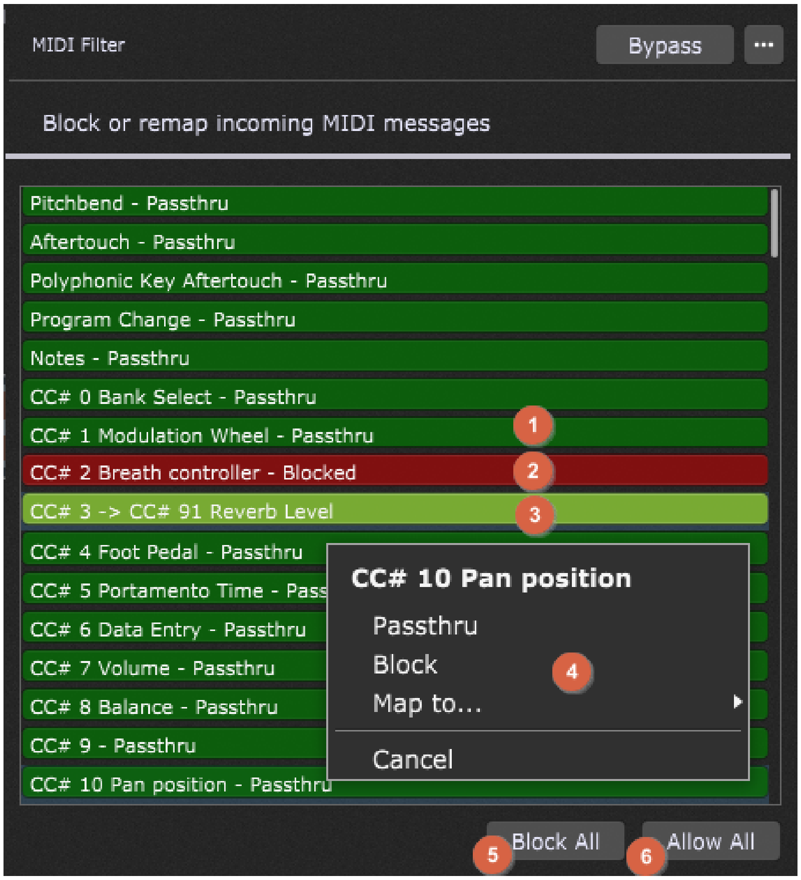
MIDI Monitor parameters

Apart from the common parameters **Bypass Plugin** and **Open/Close Plugin Editor**, the MIDI Monitor plugin provides no other parameters.

Note: If you want to monitor all incoming MIDI messages, see the Global MIDI Monitor chapter.

10.8.2 MIDI Filter

The MIDI Filter plugin can be used either to block specific MIDI messages or to remap them to other messages. Some messages can only be blocked (MIDI note messages and Active Sense). This plugin provides a single MIDI input pin and a single MIDI output pin:



Block or remap incoming MIDI messages

Pitchbend - Passthru
Aftertouch - Passthru
Polyphonic Key Aftertouch - Passthru
Program Change - Passthru
Notes - Passthru
CC# 0 Bank Select - Passthru
CC# 1 Modulation Wheel - Passthru
CC# 2 Breath controller - Blocked
CC# 3 -> CC# 91 Reverb Level
CC# 4 Foot Pedal - Passthru
CC# 5 Portamento Time - Pass
CC# 6 Data Entry - Passthru
CC# 7 Volume - Passthru
CC# 8 Balance - Passthru
CC# 9 - Passthru
CC# 10 Pan position - Passthru

Double-clicking this plugin opens its plugin editor:

1. **Passthru MIDI message** - indicates that this MIDI message is passed through this plugin.

2. **Blocked MIDI message** - indicates that this MIDI message is blocked.

3. **Remapped MIDI message** - indicates that this MIDI message is remapped (converted into messages of another type).

4. **Contextual menu** - clicking on any line in the MIDI Filter plugin editor opens a contextual menu where you can make one of four choices: Passthru, Block, Map to... or Cancel. Hovering over the Map to... item expands the menu item, allowing you to select the desired MIDI message.

5. **Block All** - blocks all MIDI messages. If you enable this option, everything, including Notes, will be blocked. This can be very useful if you use multiple variations and want to allow MIDI messages to go to some plugins but not others, depending on which variation is selected. You should, however, exercise caution when doing this in real time as you could get left with a hanging note if you block notes before the Note Off

message is sent out. If this occurs, don't panic - just click on the Panic icon in the main toolbar to turn all notes off.

6. **Allow All** - allows all MIDI messages. By default, all MIDI messages are allowed.

This plugin is typically inserted between a MIDI In plugin and a sound-generating plugin, where common usages include blocking sustain pedal messages, converting modulation wheel messages into volume messages, and mapping aftertouch messages to mod wheel messages.

MIDI Filter parameters

The following parameters for the MIDI Filter plugin are available:

- **Pitchbend** - allows you to control Pitchbend messages (passthru, block or remap).
- **Aftertouch** - allows you to control Aftertouch messages (passthru, block or remap).
- **Polyphonic Key Aftertouch** - allows you to control Polyphonic Key Aftertouch messages (passthru, block or remap).
- **Program Change** - allows you to control Program Change messages (passthru, block or remap).
- **Notes** - allows you to control Notes messages (passthru or block only).
- **CC#** (0-127) - allows you to control Control Change messages (passthru, block or remap).
- **Note On** - allows you to control Note On messages (passthru or block only).
- **Note Off** - allows you to control Note Off messages (passthru or block only).
- **Active Sense** - allows you to control Active Sense messages (passthru or block only).

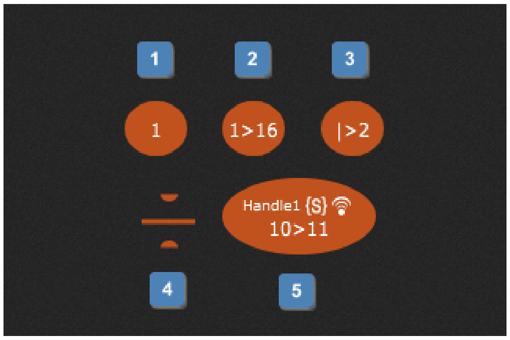
Like every plugin, every MIDI Filter plugin parameter can be widget-controlled. When using on-off widgets (i.e. switches or LED buttons), the selected parameter will be passthru when in the OFF position, and blocked when in the ON position.

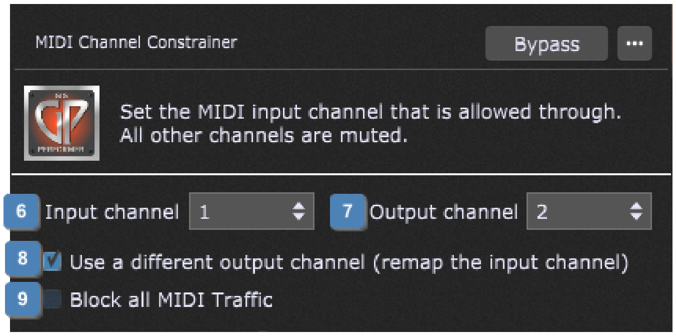
The use of continuous widgets (knobs and sliders) allows you to scroll through all remapping options in the in-between settings (the minimum setting will pass through the selected message, while the maximum setting will block the message).

Tip: refer to this chapter to learn how you can remap MIDI messages without using the MIDI Filter plugin.

10.8.3 MIDI Channel Constrainer

The MIDI Channel Constrainer is the only plugin that isn't shaped rectangularly; this plugin provides a single MIDI input pin and a single MIDI output pin:




MIDI Channel Constrainer

Bypass ···

Set the MIDI input channel that is allowed through.
All other channels are muted.

6 Input channel: 1

7 Output channel: 2

8 ☑ Use a different output channel (remap the input channel)

9 □ Block all MIDI Traffic

The MIDI Channel Constrainer allows you to set the MIDI input channel that is allowed through, remap the input channel, or block all MIDI traffic that goes through this plugin.

1. **Input channel is the same as the output channel** - this is the default setting for all MIDI Channel Constrainer plugins and this is how they look like when you insert them onto the design surface.

2. **Input channel is remapped** - X > Y (in this case 1 > 16) indicates that option **(8)** is activated and the input channel is remapped to a different output channel.

3. **OMNI input channel is remapped** - "|" indicates that OMNI input channel is selected; it must be remapped to the desired output channel.

4. **MIDI traffic is blocked** - selecting the option **(9)** in the plugin's window causes that this plugin changes its visual representation.

5. **Elliptic shape** - when OSC and/or GPScript are activated for this block and with a defined handle name, this plugin adjusts its shape to include that information.

6. **Input channel** - this plugin provides 16 input channels and a OMNI input. By default, the input channel is the same as the output channel. This channel is allowed through and all other channels are muted.

7. **Output channel** - ticking the option **(8)** allows you to remap the input to the specified output channel (1 - 16).

8. **Use a different output channel** - tick this check box if you want to remap the input to a different output channel.

9. **Block all MIDI traffic** - when selected, all incoming MIDI events to this plugin will be blocked.

MIDI Channel Constrainer parameters

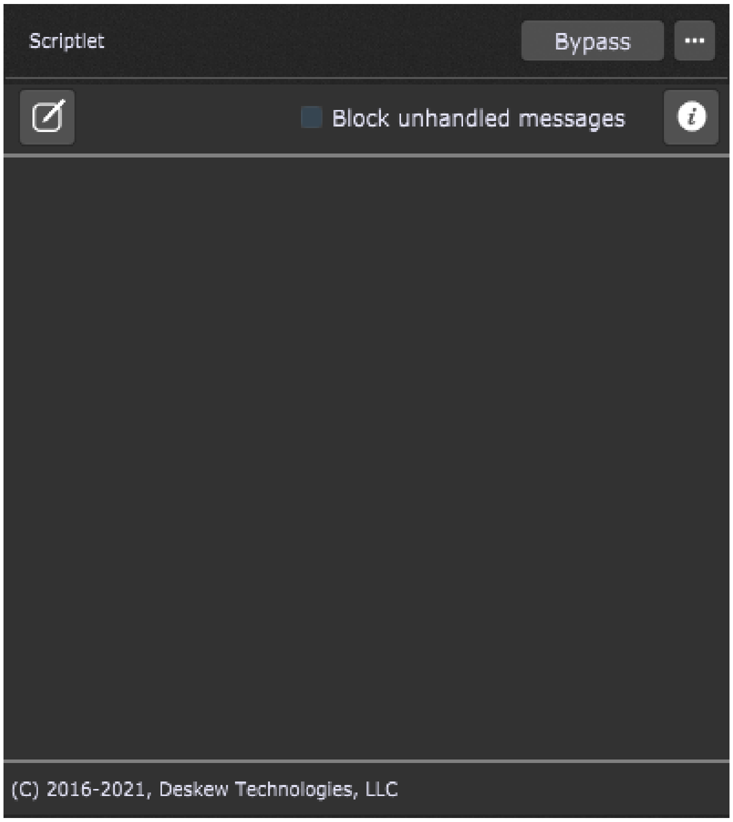
The following parameters are available for this plugin:

- **InputChannel** - allows you to change the input channel (1-16).
- **OutputChannel** - allows you to change the output channel (1-16).
- **BlockAll** - allows you to pass through or block all MIDI traffic.
- **RemapChannel** - toggles remapping the input channel.
- **OmniMode** - toggles the OMNI mode for the input channel.

Check out this blog article to learn more.

10.8.4 Scriptlet

The Scriplet plugin allows you to create your own MIDI processor plugins. This plugin provides a single MIDI input pin and a single MIDI output pin:


Scriptlet
Bypass
···
□ Block unhandled messages
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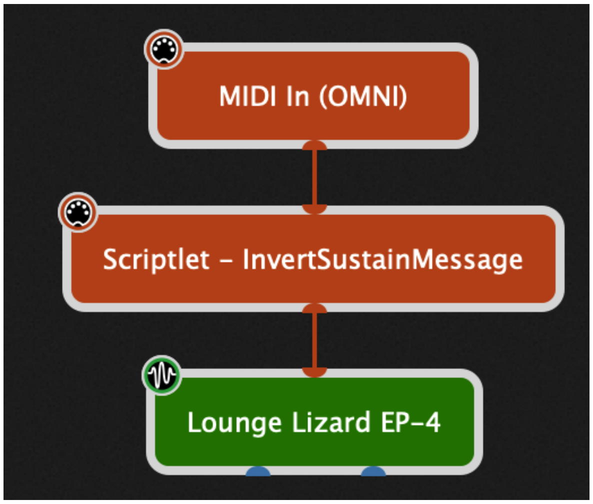
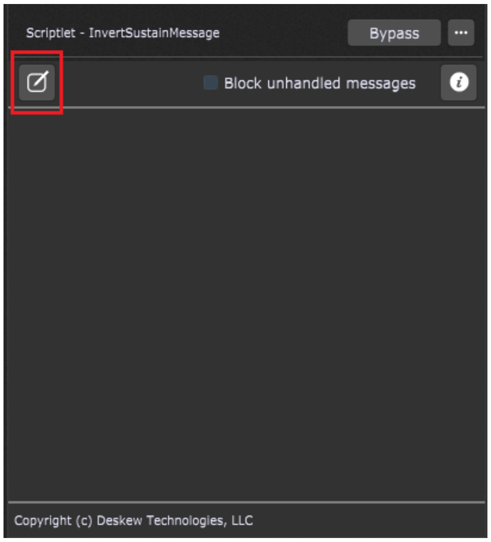
For example, if you have a sustain pedal that is producing CC messages the wrong way round (0 when pressed, 127 when released) then one of the solutions to fix this issue can be a simple scriptlet:



This scriptlet receives the MIDI In events from the MIDI In block, then captures CC64, inverts it, and lets everything else through.

If you want to see the underlying script behind this scriptlet, either click on the **Edit Script** button in the Scriptlet plugin editor (indicated with the red rectangle), or hold the Shift key while double-clicking the scriptlet block (which will open both the scriptlet's plugin editor and the script editor):



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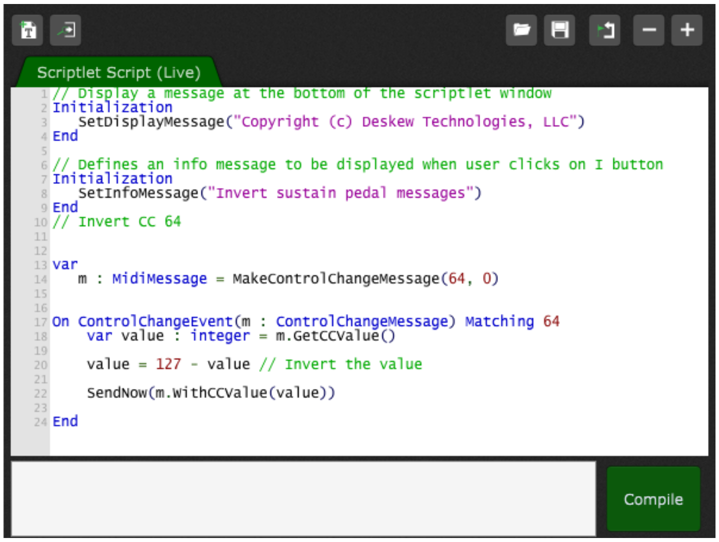
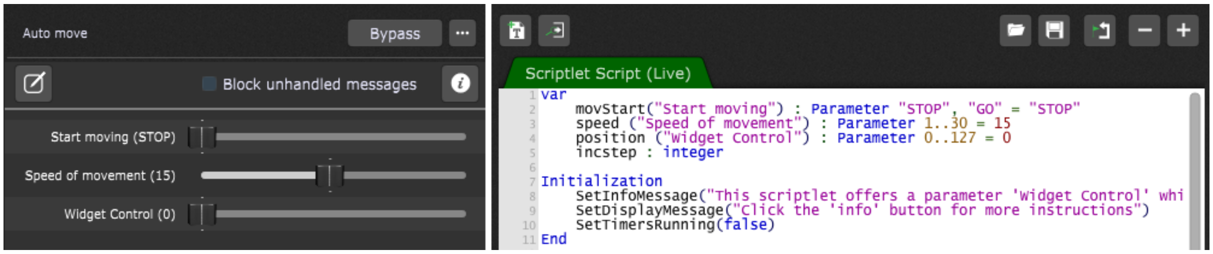


```
// Display a message at the bottom of the scriptlet window
Initialization
   SetDisplayMessage("Copyright (c) Deskew Technologies, LLC")
End

// Defines an info message to be displayed when user clicks on I button
Initialization
   SetInfoMessage("Invert sustain pedal messages")
End
// Invert CC 64


var
   m : MidiMessage = MakeControlChangeMessage(64, 0)


On ControlChangeEvent(m : ControlChangeMessage) Matching 64
    var value : integer = m.GetCCValue()

    value = 127 - value // Invert the value

    SendNow(m.WithCCValue(value))

End
```

Using the script editor, scripts can be entered or modified; refer to the GPScript chapter to learn more.

You are also provided with the option that controls whether unhandled MIDI messages are passed through (the default) or blocked (when this option is checked).

Scriptlets can also have their parameters, which are then displayed in the scriptlet's plugin editor, like shown in the screenshot below:



□ Block unhandled messages

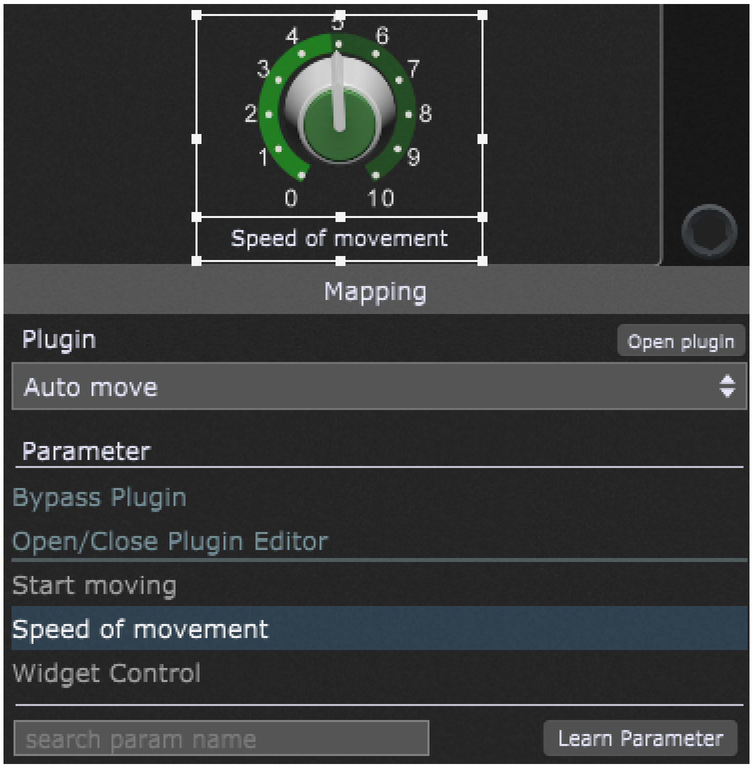
Start moving (STOP)

Speed of movement (15)

Widget Control (0)

```
var
    movStart("Start moving") : Parameter "STOP", "GO" = "STOP"
    speed ("Speed of movement") : Parameter 1..30 = 15
    position ("Widget Control") : Parameter 0..127 = 0
    incstep : integer

Initialization
    SetInfoMessage("This scriptlet offers a parameter 'Widget Control' whi
    SetDisplayMessage("Click the 'info' button for more instructions")
    SetTimersRunning(false)
End
```

Moreover, these parameters can be learned and controlled by widgets:



Refer to the How to connect a widget to a plugin parameter chapter to learn more.

Scriplet parameters can also be captured in the Probabilistic Sound Designer.

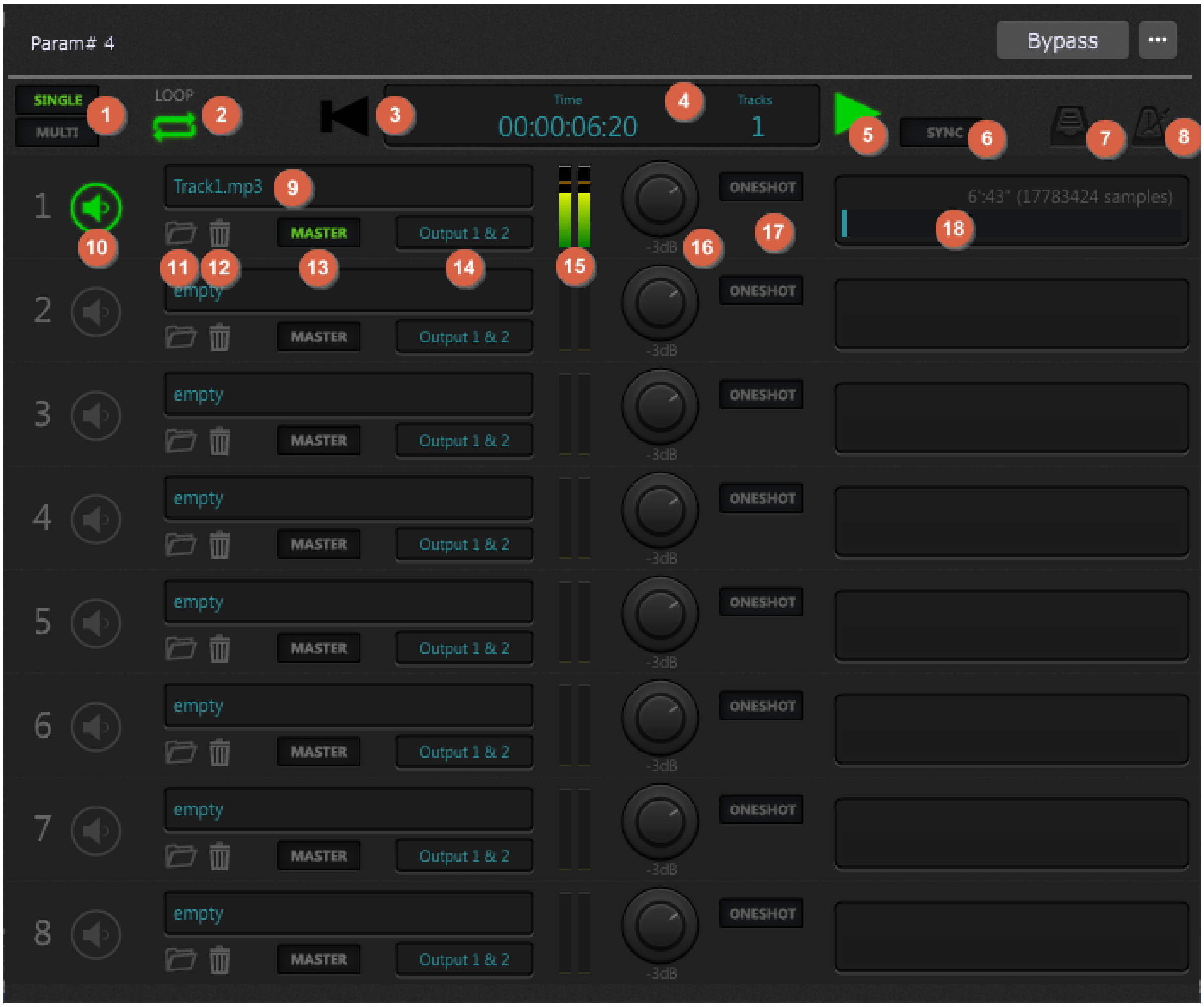
Click *Help* -> *Support* -> *Community Shared Gigs, Rackspaces and More* to check out many Community generated content, including scriplets.

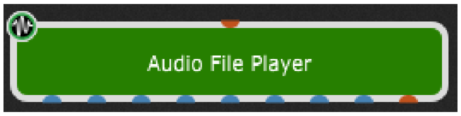
10.9 Media Players

In this chapter find out more about the integrated media player plugins in Gig Performer - Audio File Player and MIDI File Player.

10.9.1 Audio File Player

The Audio File Player plugin provides a MIDI input pin, eight audio output pins, and a MIDI output pin:





It allows you to load and play up to eight audio files (in AIF, FLAC, MP3, OGG or WAV formats), either one at a time or simultaneously. You can use this plugin as a backing track player or for looping short samples, switching seamlessly from one to another while running. Up to eight audio output channels are available, singly or in pairs.

The Audio File Player plugin provides eight "lanes" for playback. You can think of these as roughly equivalent to tracks on a DAW although each lane could have an entire song on it. Its editor provides controls that enable the following operations:

1. **Single/Multi** - allows you to switch between playing back one audio file at a time versus multiple files simultaneously.

2. **Loop** - turns looping on or off for all lanes.

3. **Go To Beginning** - allows you to instantly go to the beginning of all audio files.

4. **Time/Tracks display** - displays the current time, in hours/minutes/ seconds/hundredths of a second, as well as the number of tracks (channels) loaded with audio files.

5. **Play/Pause** - allows you to start or pause file playback. The "pause" function does not return the file to the beginning - it simply pauses it wherever it is. Clicking on the button a second time resumes playback from the point at which it was stopped.

6. **Sync** - when turned on (lit green), Gig Performer will play and pause the Audio File Player automatically when its button is engaged. This allows you to begin playback of audio files at the same time you start a drum machine emulation plugin, for example.

7. **Load Full Directory** - loads a full folder of audio files at once, up to the number of available (empty) lanes. If, for example, you have six empty lanes and you try loading eight files using this button, only the first six files will get loaded, into lanes 3 - 8. With this feature, you can create a directory with all of the files you will need, then load the entire player with them at the gig by invoking only a single command.

8. **Metronome** - clicking on this icon provides a number of additional controls that allow you to create a MIDI click track in sync with the tempo of your Master track. See the MIDI metronome chapter for more details.

In addition, the Audio File Player editor offers the following lane-specific controls:

9. **File name** - displays the name of the file currently loaded in the lane.

10. **Play/Silence this lane** - enables or mutes playback of the file loaded into the lane.

11. **Load New Audio File** (file cabinet icon) - click this to load an audio file into the lane.

12. **Remove Audio File** (trashcan icon) - click this to delete the audio file from the lane.

13. **Master indicator** - when lit, indicates that the file in the lane is being used as the Master, determining the actual playback length of all other files. Note that this is not a parameter that can be changed; instead, Gig Performer automatically designates the lane loaded with the longest audio file as the Master. If you load other lanes with new files, the Master designation may change accordingly (if the new files are longer than the one in the currently designated Master lane).

14. **Output assignment** - allows you to set the output for that lane's playback. A stereo file should ideally be set to a pair of outputs (i.e. Output 1&2, Output 3&4, etc.) but if it is sent to a mono output, the two channels will automatically be mixed to mono. Conversely, sending a mono file to a pair of outputs will result in the same signal being routed to both outputs.

15. **Level indicators** - shows the current playback level for that lane.

16. **Volume control** - allows you to adjust the volume of the lane.

17. **Oneshot on/off** - allows you to turn looping off for that lane, even if the master Loop button is on (lit). Clicking on the Oneshot button (causing it to light) during playback will cause the file in that lane to play to the end and then stop. If you then turn Oneshot for that lane off again, the file will resume playback when the file loaded into the Master lane ends.

18. **File duration** - displays the duration in seconds and samples of the file currently loaded in the lane.

To load audio files, do any of these:

- Click the Load New Audio File button in a lane and navigate to the desired file.
- Drag and drop the file from the OS X Finder or Windows Explorer onto the lane into which you want it loaded.
- Click the Load full directory button and navigate to a source folder of audio files to be loaded in the Audio File Player.

To play audio files:

a) to play a single audio file, be sure the Single/Multi button is set to single and that the lane is play-enabled, then click the Play/Pause button to start playback.

b) To play multiple files simultaneously:

   i. Load all of the files you want to play.

   ii. Set the Single/Multi button to Multi. This allows you to enable or mute multiple lanes.

   iii. Set muting for tracks you don't want to hear.

   iv. Click the Play/Pause button to start playback.

Things to note about the Audio File Player:

- The Audio File Player designates the longest file loaded as the Master, whether or not it is play-enabled. The duration of the Master track becomes the loop length when loop playback is enabled.
- The MIDI metronome is generated based on the length of the Master track, and information **you** supply about the number of bars in the loop and the number of beats in each bar.
- Lanes can be muted and enabled in real-time while the player is in playback. As this is muting, not stopping playback, all files always stay in sync with the master track's location, so if a lane is muted during playback and then enabled 10 seconds later, it resumes playing 10 seconds later than the point at which it was muted.
- When a file is muted, you will still be able to see "ghost" meter activity for it.
- Beneath the file duration on the right of each lane is a progress bar that turns blue as the file plays. The length of the bar represents the full duration of the file in that lane and the progress through it of the play cursor. So, while working in Multi mode, in 10 seconds, the blue bar in a lane with a 20 second-long file is filled to one half, where as the blue bar for a two-minute loop running at the same time in another lane is only filled 1/12th of the way across, just a small chunk.
- To move the playhead to different locations in the Master file other than the start, create a knob or slider widget and map it to the Playhead position parameter of the Audio File Player.
- The Audio File Player allows files of different sample rates to be loaded into separate lanes and played simultaneously.

Audio File Player parameters

The following parameters are available for the Audio File Player plugin:

- **Play/Pause** - allows you to start or pause playback.
- **Play From Beginning** - causes playback to start from the beginning in response to a widget movement.
- **Play From Marker** - causes playback to start from the marker position (see the "Marker position" below) in response to a widget movement.
- **LOOP On/Off** - allows you to turn looping on/off.
- **Playhead position** - allows you to change the playback start point from a widget. Using a continuous widget (such as a knob or a slider) for this purpose enables you to seek particular points or even to "scrub" one or more tracks while they are playing.
- **Marker Position** - allows you to change the marker position from a widget.
- **Set Marker now** - allows you to set the marker position "on the fly" from a widget.
- **Click Generation On/Off** - allows you to use a widget to turn the MIDI click track on or off.
- **Play Mode (single/multi)** - allows you to use a widget to switch between Single and Multi playback.
- **Lane 1-8 Playing** - allows you to use a widget to start playback from the specified lane (1-8).
- **Lane 1-8 One Shot On/Off** - allows you to use a widget to turn the Oneshot mode on or off for the specified lane.
- **Lane 1-8 Volume** - allows you to use a widget to adjust the volume of the specified lane.
- **Lane 1-8 Output Assignment** - allows you to use a widget to change the output assignment for the specified lane.
- **Lane 1-8 Filename** - displays the name of the song (file name without path or extension).

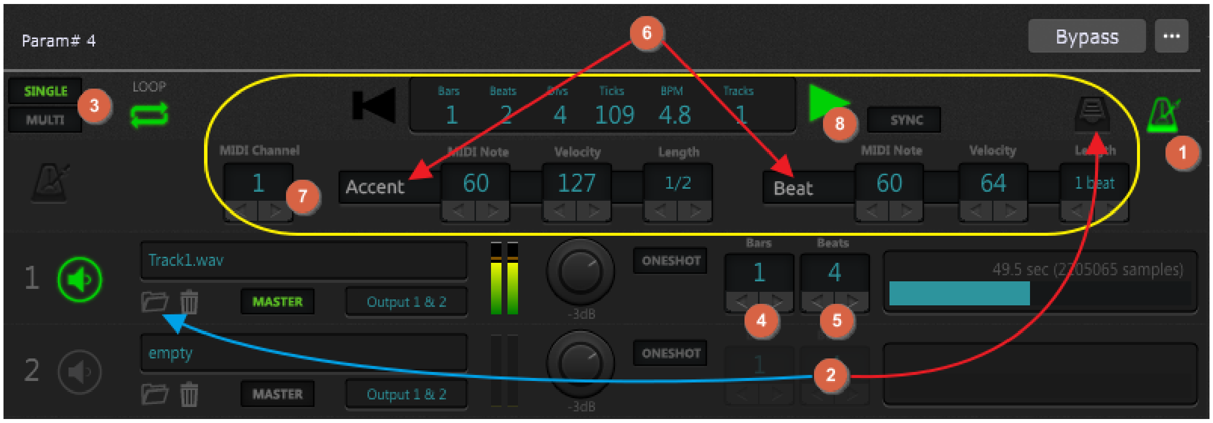
- **Lane 1-8 Length** - displays the lane length in seconds (the underlying parameter - always between 0.0 and 1.0 - represents a percentage of 10 hours).
- **Largest Lane Length** - displays the length of the largest lane in the Audio File Player (the underlying parameter represents a percentage of 10 hours).

Note: we recommend the use of on-off widgets, such as one of the LED buttons, for real-time control over most Audio File Player parameters. However, **Playhead position**, **Marker position**, **Lane 1-8 Volume**, and **Lane 1-8 Output Assignment** are better controlled with continuous widgets such as knobs and sliders.

10.9.1.1 MIDI metronome

Included in the Audio File Player plugin is a MIDI metronome optimized for working with short loops. Tell the MIDI metronome the musical length of a loop and it will generate MIDI notes for a metronome. The MIDI metronome does not do tempo detection and is unrelated to the audio metronome.

MIDI metronome settings can be seen on the screenshot below (indicated with the yellow rounded rectangle):



Follow these steps to use the MIDI metronome:

1. Click on the **Metronome** button **(1)** to show MIDI channel and note settings for the metronome (indicated with the yellow rounded rectangle).
2. Load a sound file into the audio player **(2).** You can either load a single sound file (indicated with the blue arrow) or load a full directory of audio files into sample lanes (indicated with the red arrow). **Note**: if you want to play multiple sample lanes in

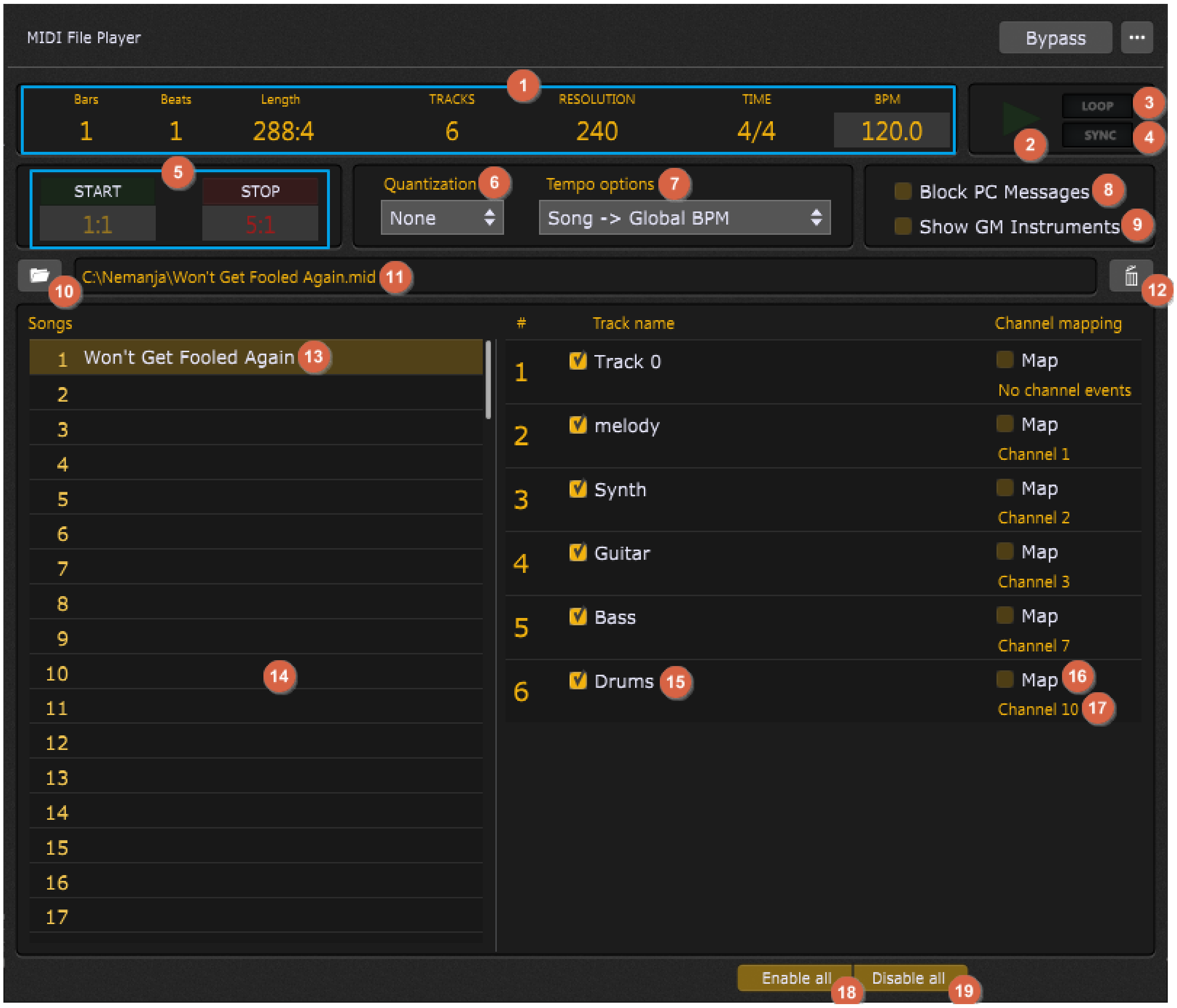
parallel, click on the **Multi** button **(3)**. In Multi mode, the longest file will be designated as the Master and used to calculate the metronome.

3. Enter the duration of the loop in bars into the **Bars** field **(4)** on the lane of the Master track, by typing it in directly or using the +/- arrows beneath the field.
4. Enter the number of beats per bar in the loop into the **Beats** field **(5)** on the lane of the Master track, by typing it in directly or using the +/- arrows beneath the field.
5. Choose or add a plugin as the sound source for the metronome. Choose the sound you want to use for the metronome and set a MIDI channel for it. Don't forget to make audio connection from the sound source to your interface outputs.
6. In the Wiring view, connect the MIDI Out port of the Audio File Player to the MIDI In port of the plugin you want to use to generate the metronome sound.
7. Define the *MIDI note*, *velocity*, and *duration* (Length) to be used for both the **Accent** and **Beat** metronome sounds **(6)**.
8. Set the **MIDI Channel** field to the channel number of the metronome sound **(7)**.
9. Click the **Play/Pause** button and the metronome will play, along with the audio files **(8)**.

Note: The MIDI metronome assumes the loop contains an exact number of bars, with the beginning of the file being bar 1, beat 1. If this is not the case, the metronome may not sync correctly with the Master track.

10.9.2 MIDI File Player

The MIDI File Player provides one MIDI output pin:



Bars	Beats	Length	TRACKS	RESOLUTION	TIME	BPM
1	1	288:4	6	240	4/4	120.0

START	STOP
1:1	5:1

Quantization: None

Tempo options: Song -> Global BPM

☐ Block PC Messages

☐ Show GM Instruments

C:\Nemanja\Won't Get Fooled Again.mid

Songs	
1	Won't Get Fooled Again
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	

#	Track name	Channel mapping
1	☑ Track 0	☐ Map No channel events
2	☑ melody	☐ Map Channel 1
3	☑ Synth	☐ Map Channel 2
4	☑ Guitar	☐ Map Channel 3
5	☑ Bass	☐ Map Channel 7
6	☑ Drums	☐ Map Channel 10

The MIDI File Player plugin can load up to 128 songs. For each song you can easily select which tracks to play and optionally map them to specific channels. A looping feature is also supported, where you can further specify both start and stop positions.

Double-clicking this plugin opens its editor window, which provides controls that enable the following operations:

1. **Information display** - displays the information about the selected song (and its corresponding MIDI file):

   a. **Bars** - displays the current bar in the song.

   b. **Beats** - displays the current beat within a bar in the song.

   c. **Length** - displays the total length of a song, expressed in bars and beats (e.g. 288:4 implies 288 bars and 4 beats).

   d. **Tracks** - displays the number of tracks in the selected song.

   e. **Resolution** - displays the resolution of the current song, expressed in the number of ticks.

   f. **Time** - displays the time signature of the current song.

   g. **BPM** - displays the initial beats per minute of the current song. This field can be edited with a custom value (up to 640 BPM).

2. **Play MIDI file** - clicking on this button plays the current song. Click again to stop playing and go to the beginning of the song.

3. **Loop** - clicking on this button enables you to loop the MIDI file continuously; for this feature to work, you need to specify the loop length - clicking on the Stop button and specifying the stop position is mandatory (see **(4)**).

4. **Sync** - clicking on this button synchronizes playback with the global playback in the main toolbar. Use this feature If you use multiple MIDI and/or audio file players and you want them to play or stop at the same time. Find out more about the global play button in this chapter.

5. **Start/Stop** - this section allows you to enable start and stop options for the song. If the Loop option is not enabled, specifying the Stop position will stop the MIDI File Player when that position is reached. Start and stop positions are expressed in bars and beats (5:1 implies 5 bars and 1 beat). If you specify the stop position e.g. at 5:1, the playing actually stops at the last "tick" before 5:1 (i.e. 4:4). Note that you only need to specify the end position for the loop feature to work. In that case the loaded MIDI file will be played from the beginning of the file until the specified End position.

6. **Quantization** - clicking on this drop-down list allows you to choose the desired quantization (None, 1, 1/2, 1/4, 1/8, 1/16). If you need a more sophisticated quantization function such as triplets or a certain amount of "humanize", then you should perform such operations on the MIDI file using your DAW and set the Quantization in this plugin to None.

7. **Tempo options** - allows you to select the desired tempo option:

   a. **Song Tempo** - allows the MIDI file to be played at its own tempo without impacting anything else.

   b. **Song -> Global BPM** - clicking on this option sets the global tempo from the song tempo.

c. **Global BPM -> Song** - selecting this option sets the song tempo from the global tempo.

d. **Manual BPM** - selecting this option allows you to set a custom BPM value for a song.

e. **Manual BPM -> Global BPM** - selecting this option sets the global tempo to the manually defined tempo.

8. **Block PC messages** - checking this option blocks program change events found in tracks from being sent out.

9. **Show GM Instruments** - a General MIDI file typically has 16 tracks for various instruments and there is a convention about the channel numbers. For example, drums are always on the channel 10. This option assumes the loaded MIDI file is a GM file and will display GM instrument names based on the program changes found in the tracks.

10. **Load a new MIDI file button** - loads a new MIDI file (both .midi and .mid file extensions are supported).

11. **Location display** - displays a location of the loaded MIDI file for the currently selected song.

12. **Unload selected file** - clicking on this button unloads the selected MIDI file.

13. **Song name** - displays the name of the selected song.

14. **Songs list** - the MIDI File Player plugin supports loading up to 128 songs.

15. **Track name** - shows the track name in the current song. By default, all tracks are enabled in the loaded MIDI file. Click on the corresponding checkbox to disable/enable a track.

16. **Map channel** - checking this option allows you to map all MIDI events to the specified channel (by default, channel 1).

17. **Channel information** - shows the assigned channel per the loaded MIDI file. You can remap this channel by checking the Map channel check box **(16)**.

18. **Enable all tracks** - clicking on this button enables all tracks in the selected song (by default, all tracks are enabled).

19. **Disable all tracks** - clicking on this button disabled all tracks in the selected song. Use this feature if you want to select only a few tracks to play.

MIDI File Player parameters

The following parameters are available for the MIDI File Player plugin:

- **SongNumber** - allows you select one of the available songs in slots 1-128.
- **SongDisplayMode** - allows you to select how the song name will be represented. You can choose between "Song name" (e.g. Won't be fooled again), "Song index" (e.g. 1) and "Both" (e.g. 1 - Won't be fooled again).
- **Play** - allows you to start or pause file playback.
- **PrevSongName** - displays the name of the previous song.
- **NextSongName** - displays the name of the next song.
- **GotoPrevSong** - goes to the previous song.
- **GotoNextSong** - goes to the next song.
- **Loop** - toggles the loop mode on/off.
- **MidiTempo** - allows you to select the desired tempo option (see the bullet item **(7)**).
- **Quantization** - allows you to choose the desired quantization (see the bullet item **(6)**).
- **StartStopSync** - starts or stops the Sync feature (see the bullet item **(4)**).
- **LoopStart** - toggles the Start setting (disabled/enabled).
- **LoopEnd** - toggles the End setting (disabled/enabled).
- *Reserved* - these parameter slots are not currently used.
- **BlockProgramChanges** - toggles blocking program change messages (Yes/No).
- **GeneralMidiMode** - toggles the General MIDI mode (Yes/No).
- **BarBeatDisplay** - displays bars and beats for a song.
- **CurrentPosition** - displays the current position (expressed in bars and beats).
- **TrackEnable_#** - allows you to enable or disable the specified track (# represents a number between 1-128).

- **TrackName_#** - displays the name of the specified track (# represents a number between 1-128).
- **MappingEnable_#** - allows you to enable or disable the channel mapping (# represents a number between 1-128).
- **MapChannelNumber_#** - allows you to specify the channel number (between 1 and 16) if the mapping is enabled (# represents a number between 1-128).

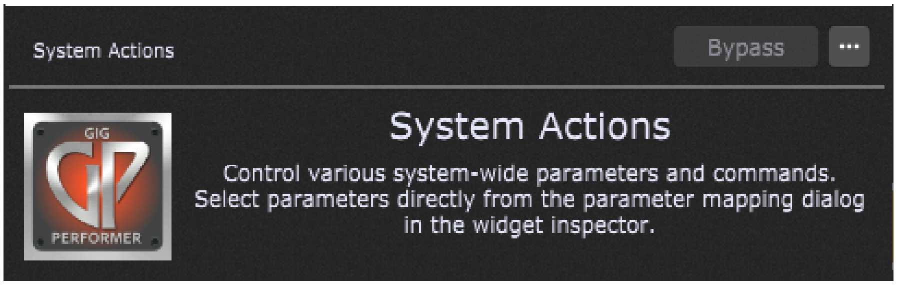
Use parameters such as PrevSongName, TrackName, or BarBeatDisplay with label widgets; insert a label widget into a rackspace (or the Global rackspace) and map it with these parameters to see the name displayed.

10.10 Miscellaneous

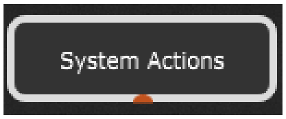
In this chapter are presented the built-in plugins that belong to the Miscellaneous group: System Actions and Comment.

10.10.1 System Actions

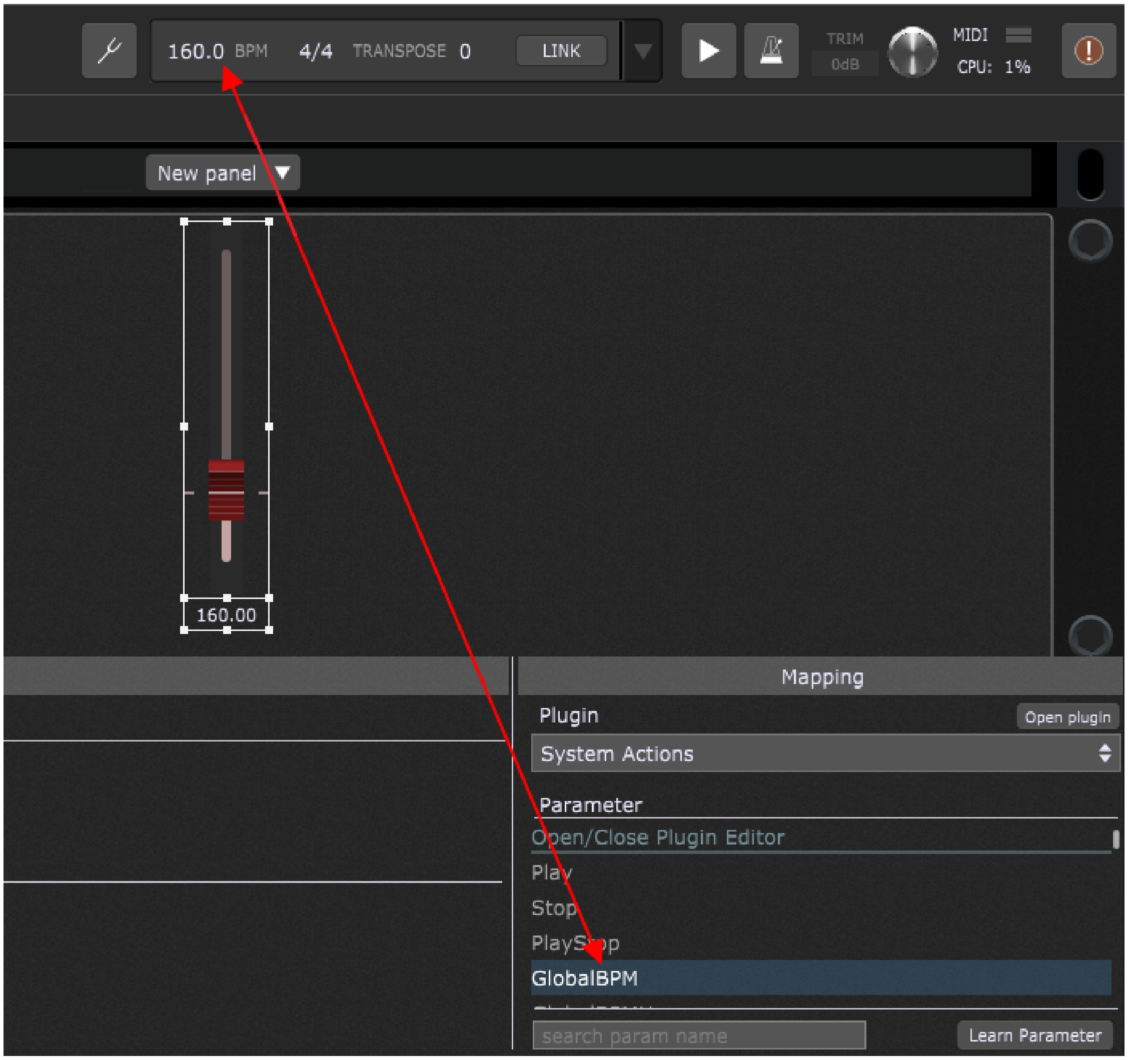
The System Actions plugin allows you to control various system-wide parameters and commands using widgets (and therefore through your MIDI controllers). This plugin provides one output pin:



Control various system-wide parameters and commands. Select parameters directly from the parameter mapping dialog in the widget inspector.



The plugin editor for the Systems Actions does not have any configurable parameters. Select parameters directly from the parameter mapping dialog in the Widget Properties Inspector:



You can, for example, set up the Red Slider widget to control your global tempo, as indicated on the screenshot above. Using a scaling curve with a small vertical range gives you the ability to easily push or pull the speed very slightly.

Check this blog article How to create a custom metronome with visual feedback to see an example of using the System Actions block.

System Actions parameters

The following parameters are available for the System Actions plugin:

- **Play** - turns on the global playhead (value greater than 0.5).
- **Stop** - turns off the global playhead (value greater than 0.5).

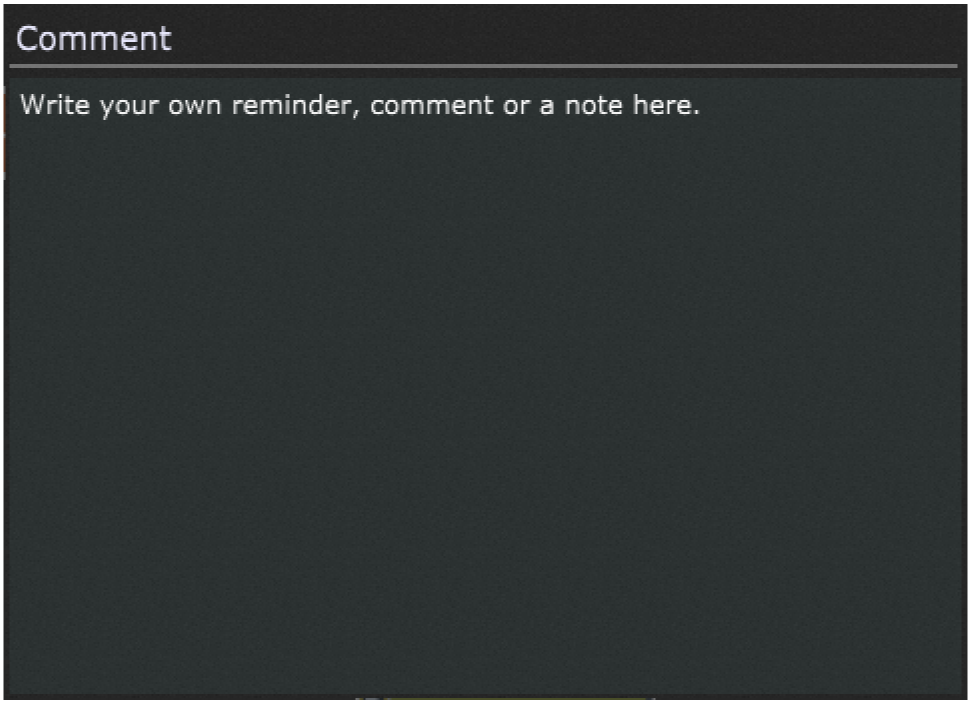
- **PlayStop** - value greater than 0.5 turns on the global playhead and value less than 0.5 turns off the global playhead.
- **GlobalBPM** - allows you to set or view the global BPM.
- **GlobalBPMUp** - a value greater than 0.5 increases the beat by 1 BPM.
- **GlobalBPMDown** - a value less than 0.5 decreases the beat by 1 BPM.
- **GlobalTranspose** - allows you to set or view the global transpose.
- **GlobalTransposeUp** - a value greater than 0.5 increases the transpose by 1 semitone.
- **GlobalTransposeDown** - a value greater than 0.5 decreases the transpose by 1 semitone.
- **MasterTrim** - allows you to set or view the master trim value.
- **Metronome** - turns the metronome on or off.
- **MetronomeVolume** - allows you to set or view the metronome value.
- **TapTempo** - a value greater than 0.5 generates a tap message.
- **AbletonLink** - turns AbletonLink on or off.
- **RackspaceName** - displays the name of the current rackspace (use in a label).
- **VariationName** - displays the name of the current variation (use in a label).
- **Rackspace-Variation-Name** - displays the name of the current rackspace and the current variation (use in a label).
- **SongName** - displays the name of the current song (use in a label).
- **SongpartName** - displays the name of the current song part (use in a label).
- **Song-Songpart-Name** - displays the name of the current song and the name of the current song part (use in a label).
- **ProgramChange** - if used in a label, it displays the last received PC value. If used in a knob (use in the Global rackspace), it will switch rackspaces.
- *Reserved1* - reserved for future use.
- *Reserved2* - reserved for future use.

- **BeatMode** - Off; Countoff only (1 to 16 beats); On - Always.
- **Beat** - value will briefly go to 1 when non-first beat occurs (attach to a pad widget to see a visual beat).
- **Accent** - value will briefly go to 1 when accent occurs, i.e. the first beat (attach to a pad widget to see a visual beat).
- **MidiBeat** - controls whether MIDI Note messages should be sent out on beats.
- **MidiBeatNoteNumber** - sets the note number for regular beat.
- **MidiBeatNoteVelocity** - sets the velocity of the regular beat.
- **MidiBeatAccentNoteNumber** - sets the note number for the accent beat.
- **MidiBeatAccentNoteVelocity** - sets the note number for the accent beat.
- **Tuner** - a value greater than 0.5 toggles the tuner mode.
- **Panic** - a value greater than 0.5 triggers the panic message.
- **Next** - a value greater than 0.5 moves to the next variation or rackspace (depending on options).
- **Prev** - a value greater than 0.5 moves to the previous variation or rackspace (depending on options).
- **NextRackspace** - a value greater than 0.5 moves to the next rackspace.
- **PrevRackspace** - a value greater than 0.5 moves to the previous rackspace.
- **NextVariation** - a value greater than 0.5 moves to the next variation.
- **PrevVariation** - a value greater than 0.5 moves to the previous variation.
- **NextSong** - a value greater than 0.5 moves to the next song.
- **PrevSong** - a value greater than 0.5 moves to the previous song.
- **NextSongpart** - a value greater than 0.5 moves to the next song part.
- **PrevSongpart** - a value greater than 0.5 moves to the previous song part.
- **SelectPartOrVar** - allows you to select any variation or song part (up to 128 values) of the current rackspace or song respectively.

- **SelectPartOrVar1-24** - allows you to directly select a song part or rackspace variation (1 to 24) of the current rackspace or song respectively.
- **Songkey** - displays the current song key.
- **ChordProPageOffset** - controls the position and allows scrolling in the Song Lyrics/Chords Editor window (when the View tab is active). **Note**: this feature works as a proportion of the overall length of your ChordPro file and it does not jump to song parts (it simply allows scrolling the lyrics file from the Global rackspace).
- **ScrollFrontPanel** - allows you to scroll the front panel. **Note**: attach to a global knob widget or learn a MIDI control.
- **PrevSongName** - displays the name of the previous song.
- **NextSongName** - displays the name of the next song.
- **RecordAudio** - allows you to easily start or stop recording. Attach it to (say) the *LED Button Red* in the Global rackspace and optionally learn a MIDI control on your MIDI device or surface.
- **TogglePanelSetlistView** - allows you to toggle between Setlist view and Panels view (note: don't use it in a local rackspace - use it from the Global rackspace).
- **RecompileAllScripts** - allows you to recompile all scripts (experimental).

10.10.2 Comment

The Comment plugin allows you to write your own reminder, comment or a note; use it to keep notes about your rackspace design, for example. No input and output pins are available for this plugin:



Comment

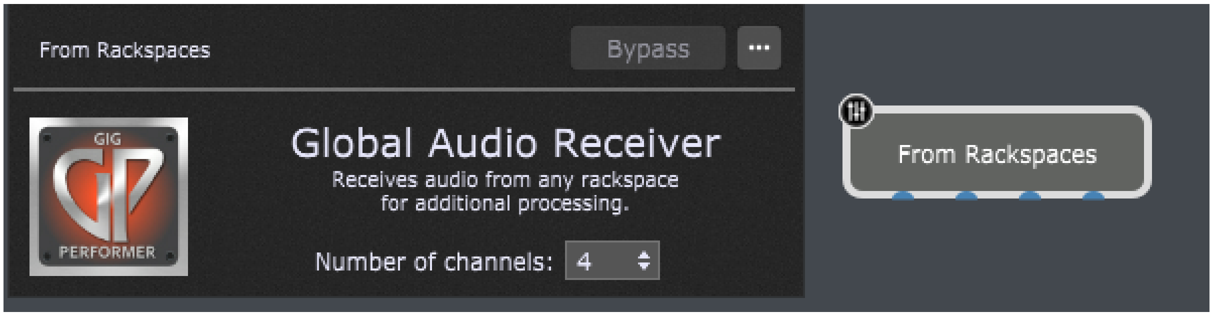
Write your own reminder, comment or a note here.

Comment parameters

Apart from the common parameter **Open/Close Plugin Editor**, the Comment plugin provides no other parameters.

10.11 From Rackspaces

The From Rackspaces block is used to receive audio signals from any rackspace to the Global rackspace for additional processing. By default, this plugin provides four output pins:



Global Audio Receiver

Receives audio from any rackspace for additional processing.

Number of channels: 4

Double-clicking this plugin opens its edit window where the number of channels can be selected. You can select up to 64 channels for this plugin.

Important note: changing the number of channels will update all the global plugin blocks in all rackspaces. Affected plugins are:

- To Global Rackspace
- From Global Rackspace
- From Rackspaces
- To Rackspaces

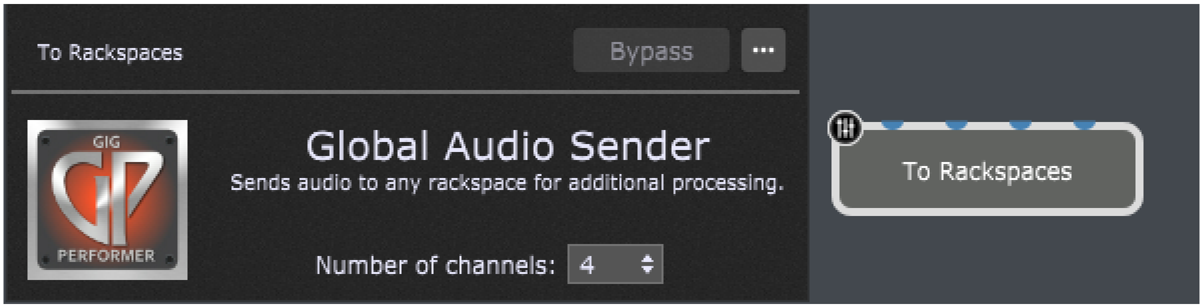
See more information on how to connect the From Rackspaces plugin in the Global Rackspace chapter.

From Rackspaces parameters

Apart from the common parameter **Open/Close Plugin Editor**, the From Rackspaces plugin provides no other parameters.

10.12 To Rackspaces

The To Rackspaces block is used to send audio signals from the Global rackspace to any rackspace for additional processing. By default, this plugin provides four input pins:



Number of channels: 4

Double-clicking this plugin opens its edit window where the number of channels can be selected. You can select up to 64 channels for this plugin.

Important note: changing the number of channels will update all the global plugin blocks in all rackspaces. Affected plugins are:

- To Global Rackspace
- From Global Rackspace
- From Rackspaces
- To Rackspaces

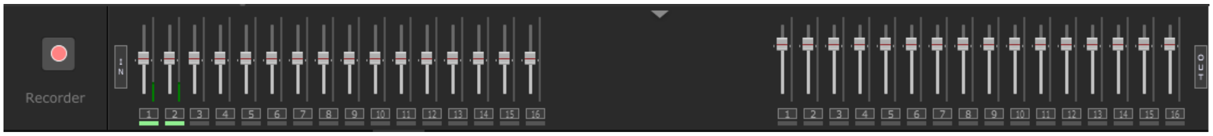
To Rackspaces parameters

Apart from the common parameter **Open/Close Plugin Editor**, the To Rackspaces plugin provides no other parameters.

11 Recording your performance

Gig Performer includes a built-in recording feature that allows you to capture not only audio arriving at your audio interface's inputs, before it has passed through any of the plugins, but also outputs and all incoming MIDI messages.

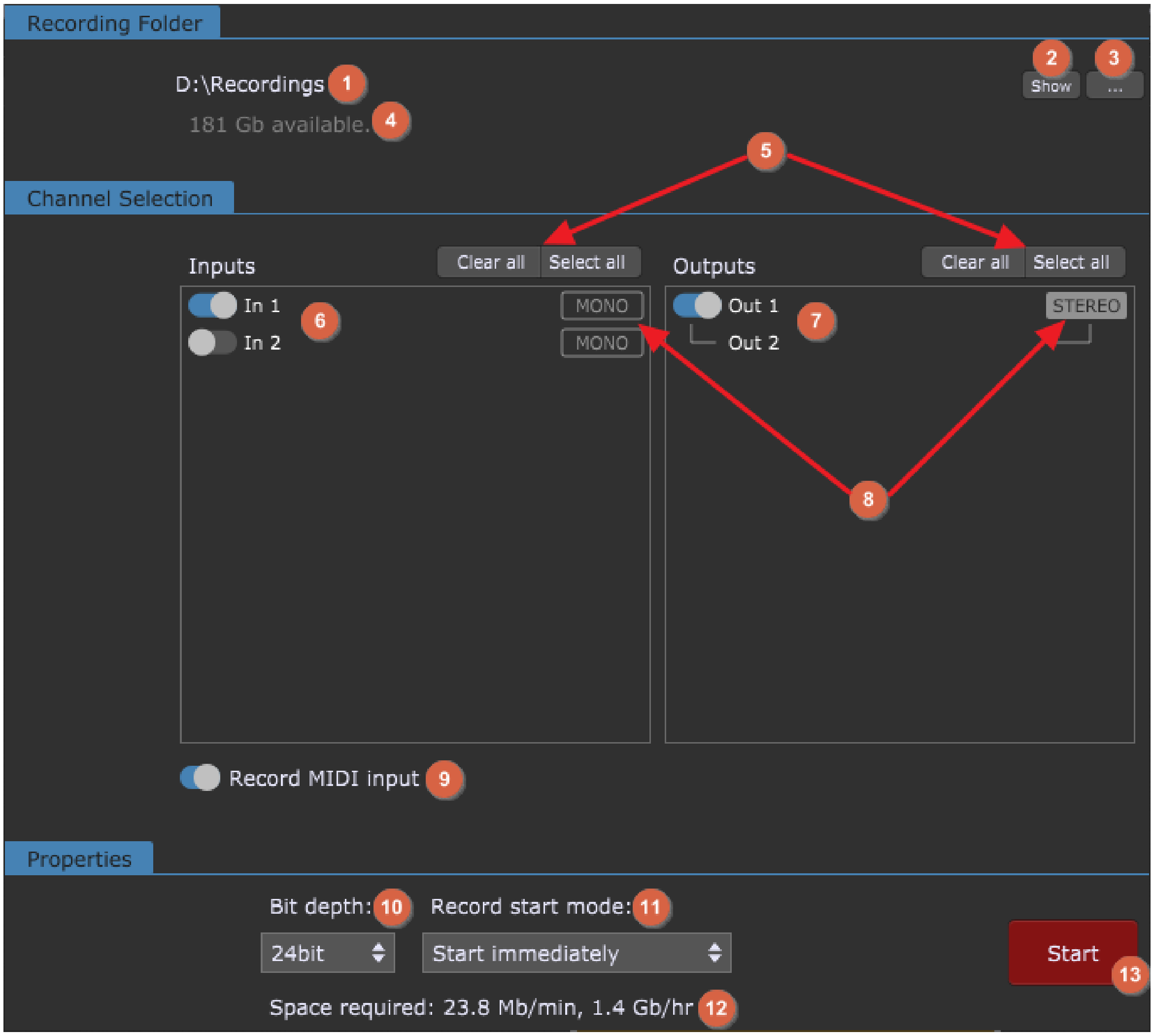
By capturing the audio and saving your gig, you can replicate the performance and modify it in post-production. To access the Recorder, just click the **Recorder** button in the bottom toolbar:



Files are recorded in WAV format. Each time you start the recorder, a subfolder is created within the (master) recording folder and named with the date of the recording (see the File locations in Gig Performer chapter for more information about default locations in Gig Performer). All files from your recording are placed within that subfolder. This makes it very easy to organize recordings made at different performances during a tour.

11.1 Recorder settings

When you click on the Record button, the following dialog opens:



D:\Recordings

181 Gb available.

Bit depth: 24bit

Record start mode: Start immediately

Space required: 23.8 Mb/min, 1.4 Gb/hr

1. **Recording folder** - all files are recorded into subfolders of this recording folder. Subfolders are named with the date of the recording.

2. **Show button** - clicking this button opens the recording folder.

3. **Set master folder button** - clicking this button brings up a file browser that enables you to choose the (master) folder for your recordings.

4. **Available space display** - shows the amount of recording space available on the drive where the master folder is located.

5. **Clear All and Select all buttons** - clicking the *Clear All* button deselects all inputs (or outputs) so that no channels will be recorded. When you only need to record a few channels, it will be quicker to Clear all and then select only the ones you need. Clicking the *Select All button* enables all input or output channels for recording. When you want

to record most or all channels, it will be quicker to select all channels and then deselect the ones you do not need.

6. **Input channels** - click a toggle button to select an input channel for recording. On the screenshot above, one channel is selected for recording ("In 1").
7. **Output channels** - click a toggle button to select an output channel for recording. On the screenshot above, both channels are selected for stereo recording.
8. **Mono/Stereo buttons** - you can record either in mono or stereo. To create a stereo pair, click on the first of two consecutive mono channels.
9. **Record MIDI Input** - when checked, MIDI input from all physical MIDI devices is recorded at the same time as audio. A separate track is created for each device. The resulting MIDI file contains all the MIDI events separated into tracks by device name. These files are easily imported into any DAW with MIDI capabilities or other MIDI sequencing software.
10. **Bit depth field** - click this to select 8, 16, 24, or 32-bit (floating point) depth for recording. Note that choosing a higher bit depth results in larger files.
11. **Record Start mode** - see the next section for more information about this option.
12. **Space required** - shows the amount of disk space required to record the selected channels per minute or per hour. This display adjusts as you select or deselect channels.
13. **Start button** - clicking this button immediately starts recording all selected input and/or output channels.

This dialog is similar to the Recording Options window where settings for recording can be configured.

11.2 How to use the Recorder?

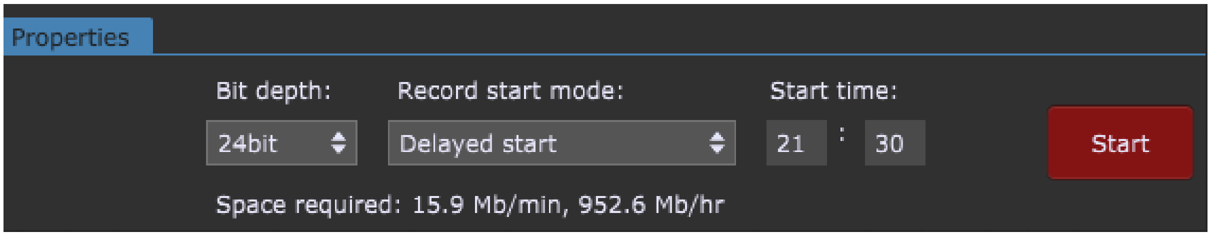
To record your performance:

- First make sure that there is enough free space on the drive where the (master) recording folder is located,

- Select the audio input and/or output channels that you want to record; if you also want to record MIDI input, turn on that option in Recorder settings,

- Select the desired bit depth and check again if space required for an hour (or couple of hours) of your gig can fit onto your drive,

- Choose the record start mode: **Start immediately** or **Delayed start**; the **Start immediately** mode allows you to begin recording as soon as the red **Start** button is clicked. The **Delayed start** mode activates some extra options and allows you to enter a start time in the minutes and seconds fields, as seen below:


Properties

Bit depth: 24bit

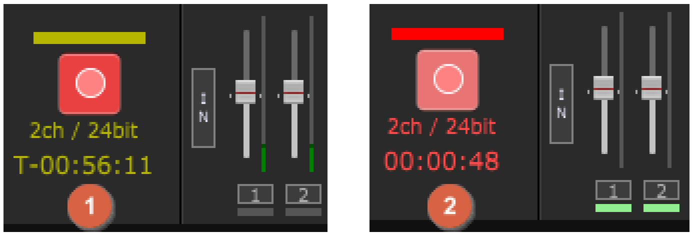
Record start mode: Delayed start

Start time: 21 : 30

Space required: 15.9 Mb/min, 952.6 Mb/hr

This feature is useful if you want to configure and test the Recorder at soundcheck and then set it to start recording just before the performance begins.

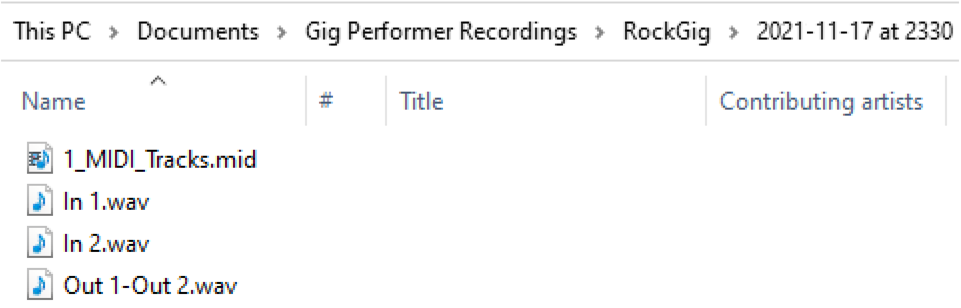
- Click on the **Start** button; note how the record button changes depending on the **Record start mode**:



If Record start mode is set to **Delayed start**, it will blink yellow and show you how much time is remaining until the recording process starts **(1)**. If the **Start immediately** mode is selected, it will blink red and show you elapsed time **(2)**.

- Clicking on the Recorder button will either stop the recording process, or cancel the scheduled recording countdown.

- To access your recording, navigate to your master folder (see default locations on Windows and Mac here) and then enter the subfolder with the same name as your gig file (or Untitled, if you didn't save your gig); note another subfolder (or subfolders if you made multiple recordings) automatically named with date and time, i.e. "2021-11-17 at 2330":



This PC > Documents > Gig Performer Recordings > RockGig > 2021-11-17 at 2330

Name	#	Title	Contributing artists
1_MIDI_Tracks.mid			
In 1.wav			
In 2.wav			
Out 1-Out 2.wav			

The name of each WAV file matches the name of each selected audio input and/or output. Note: "Out 1-Out 2.wav" implies that outputs are recorded stereo.

Note: incoming MIDI events from all MIDI devices known to Gig Performer are recorded, each device to its own track in a Type 1 Standard MIDI File. Generally, each MIDI device corresponds to a physical MIDI port. Incoming messages are recorded using a resolution of 480 ppq (ticks per quarter note).

All real-time Gig Performer tempo changes are captured as Meta Tempo events in the MIDI file.

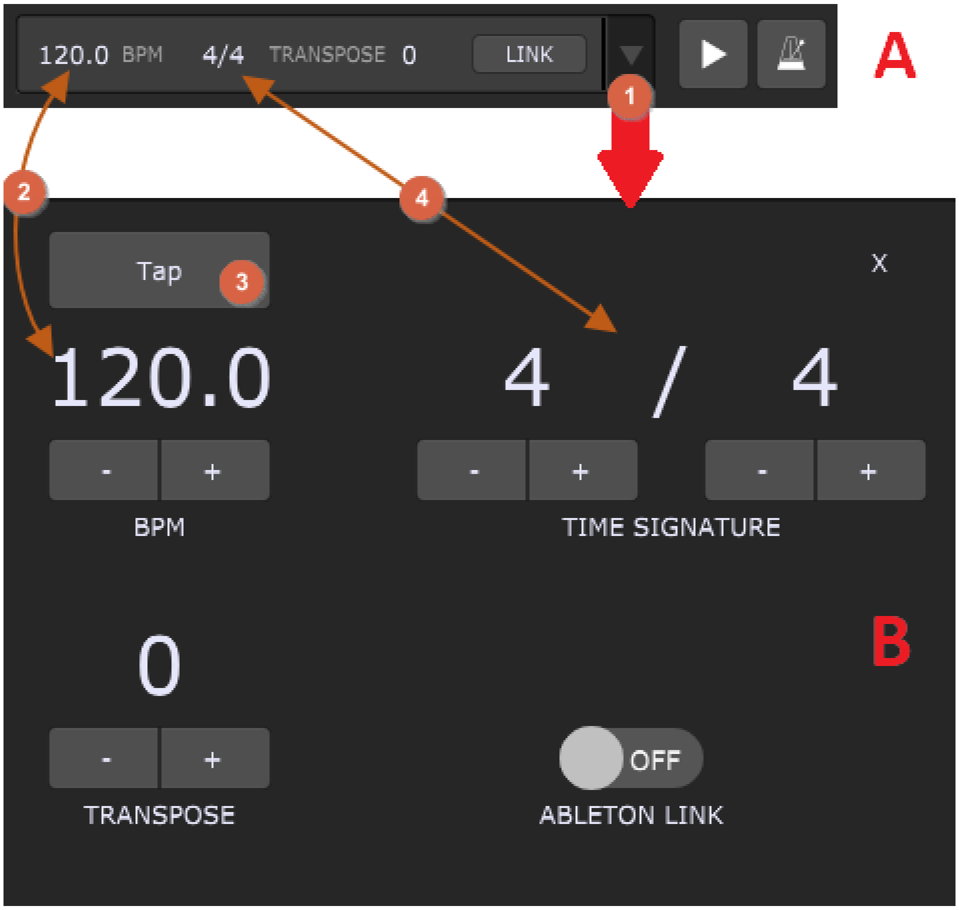
Note: the System Actions block has a parameter called *RecordAudio* and it allows you to easily start or stop recording. Attach it to (say) the *LED Button Red* in the Global rackspace and optionally learn a MIDI control on your MIDI device or surface.

12 Time controls

In this chapter, you will learn more about time controls in Gig Performer, how to set tempo and time signature, use the metronome and activate Ableton Link.

12.1 Tempo and Time signature

Tempo and time signature settings are always visible on the upper toolbar (A) and can be adjusted using the drop-down window (B):



1. **Dropdown menu button** - click on this button or anywhere other than the actual BPM or Time Signature edit fields to open the drop-down menu window (B).

2. **Global tempo** - this is the tempo of Gig Performer's playhead. It can be edited directly in the upper toolbar (A) by typing in the desired value, or in the drop-down window (B), where you can either type in the desired value or use -/+ buttons to decrease/increase

the tempo value. The maximum tempo value is 640 BPM. If the metronome is enabled, its speed and accents will be defined by the global tempo and time signature settings.

3. **Tap tempo** - click or tap (if you are using a touch screen device) on the Tap button at least twice to set a corresponding tempo. Keep clicking/tapping to see how the tempo changes, based on your clicking/tapping speed. **Note**: once you start tapping, the BPM display will display the current tempo that has been detected.

4. **Global time signature** - this is the time signature of Gig Performer's audio metronome. It cannot be edited directly in the upper toolbar (A), only it the dropdown menu window (B). Click on the numerator and type in the number of beats per measure and then click on the denominator and type in the number of beats per measure. Alternatively, use -/+ buttons to decrease/increase their values. **Note**: you can choose any time signature, up to 32/16.

All plugins that respond to global tempo can be synchronized to the current tempo. You will generally need to enable "sync" to external tempo on individual plugins for this to work. Please check your plugin documentation for more information.

Note: there are tempo settings in the Song Properties and Song Part Properties dialogs, besides the global tempo, and these settings are accompanied by the Override toggle button that makes that tempo active. Selecting a song that has a tempo specified and the Override toggle button turned on sets the global tempo to that song tempo. The global tempo will revert to its default when you switch to a song part that does not override the global tempo. A song part with a tempo specified and the Override toggle button turned on is the highest priority and overrides both global and song tempos when the song part is selected.

12.2 Metronome

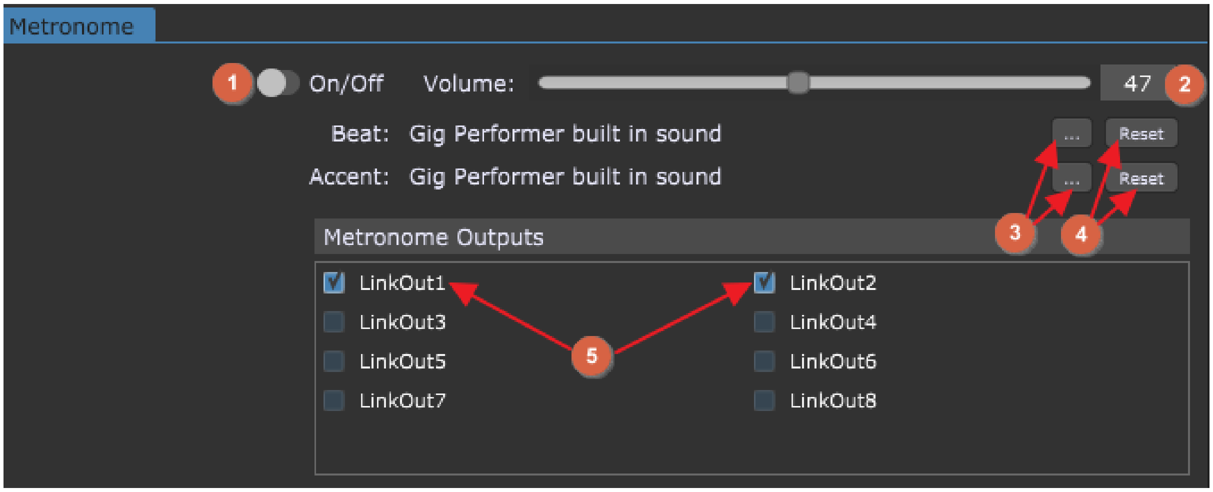
Gig Performer offers two separate metronomes: Audio Metronome and MIDI Metronome.

Note: the MIDI metronome is a feature of the built-in Audio File Player plugin. Refer to the MIDI metronome chapter for more information about the MIDI metronome.

Please visit this blog article to learn how to create a custom metronome with visual feedback.

12.2.1 Audio metronome

Setup for the audio metronome is done through the General Options window. Choose *Options* -> *General* or, press Ctrl + , (or Cmd + , on Mac) to open General options, and then note the Metronome section:



On/Off

Volume: 47

Beat: Gig Performer built in sound

Accent: Gig Performer built in sound

☑ LinkOut1 ☑ LinkOut2
☐ LinkOut3 ☐ LinkOut4
☐ LinkOut5 ☐ LinkOut6
☐ LinkOut7 ☐ LinkOut8

1. **On/Off button** - click this toggle button to activate/deactivate the metronome.
2. **Metronome playback volume** - to set the volume of the metronome, drag the slider or click in the field and enter the value directly.
3. **Metronome sound select area** - click the "..." buttons to select a custom sound file (aif, wav, mp3 and ogg files are supported) for Beat and Accents sections respectively.
4. **Reset Metronome sound to default** - clicking on the Reset buttons resets the Beat and Accent sounds to Gig Performer's default sounds.
5. **Metronome outputs** - click on the check boxes for each output to which you want the metronome routed.

The audio metronome is simple to use: set the outputs to which you want the metronome routed in the General tab (refer to the screenshot above, indicated with **(5)**). Then set the desired global tempo and time signature in the top toolbar, and activate the metronome.

Note: the metronome on/off buttons in the top toolbar and on the General tab have identical purposes; changing one changes the other as well.

The first beat of each bar is accented.

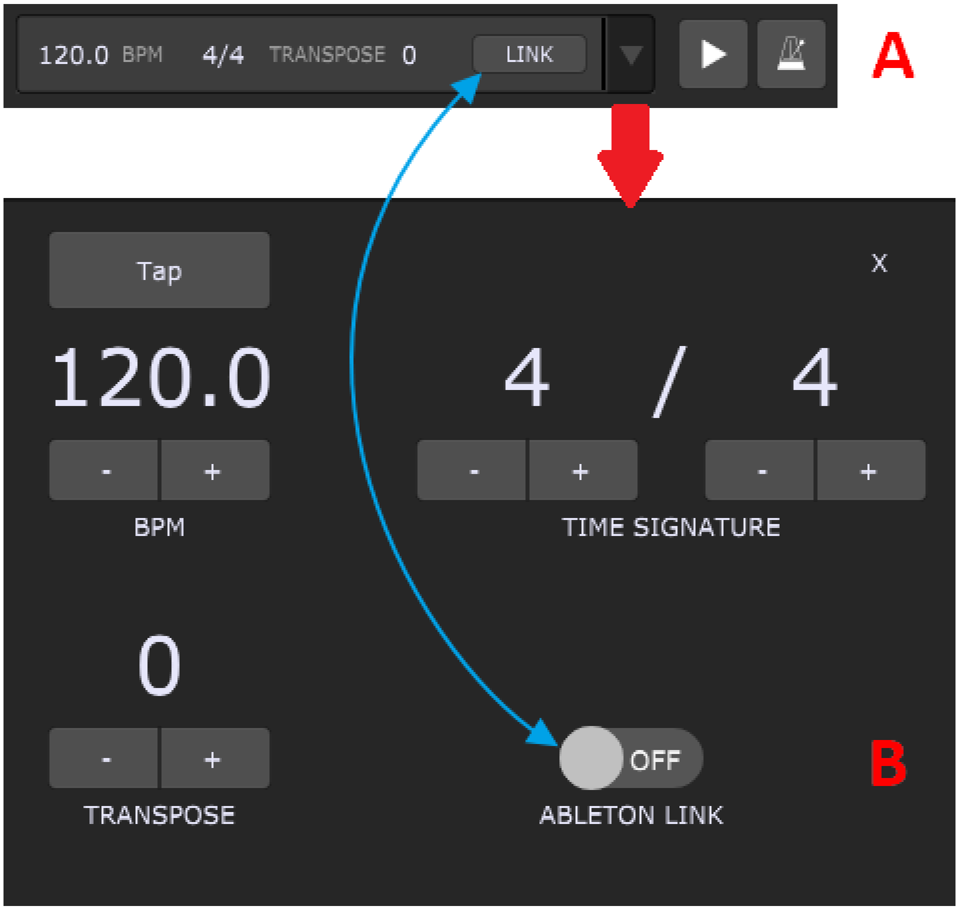
To learn more about setting the tempo and time signature, refer to the Tempo and Time

signature chapter.
To see more about the buttons in the top toolbar, refer to The main Gig Performer Window chapter.

12.3 Ableton Link support

Ableton Link is a system for synchronizing multiple music applications, which may be running on different devices, by providing unified, real-time tempo control. Link-enabled programs find each other automatically when they are on the same network. Any "player" in the network can change the tempo and the others follow.

To enable Gig Performer to sync to Ableton Link, click on the Link button in the upper toolbar (A) or enable the toggle button in the drop-down menu window (B):

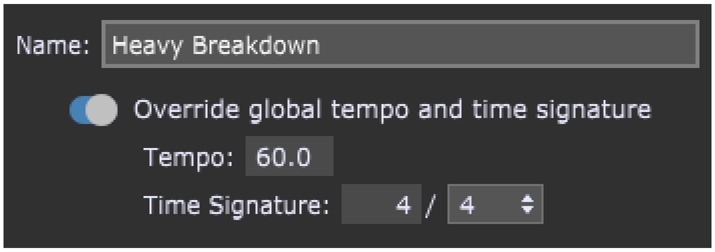


No configuration of any kind is necessary, just turn it on.

Visit this blog article to learn how to synchronize Gig Performer's tempo to an external MIDI clock or Link-enabled products.

12.4 Rackspace or Song tempo overrides

The global tempo and time signature can be overridden by custom tempo and time signature that can be set for each rackspace:



Name: Heavy Breakdown

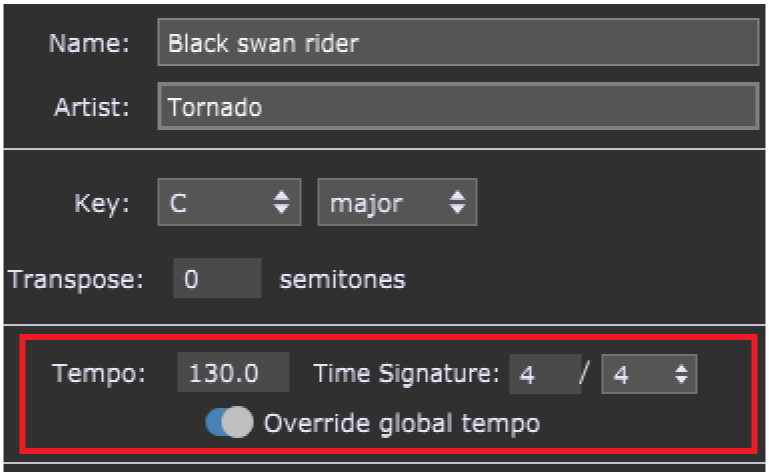
Override global tempo and time signature

Tempo: 60.0

Time Signature: 4 / 4

Check the Rackspace Properties chapter for more information.

When you enter the Setlists view, global tempo and time signature can be overridden by custom tempo and time signature that can be set for each song:



Name: Black swan rider

Artist: Tornado

Key: C major

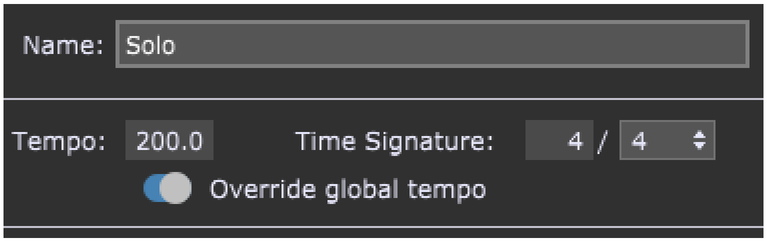
Transpose: 0 semitones

Tempo: 130.0 Time Signature: 4 / 4

Override global tempo

Refer to the Song Properties chapter to learn more.

Song parts can also have their overrides and they represent the highest priority in the override order:



Name: Solo

Tempo: 200.0 Time Signature: 4 / 4

Override global tempo

This option is configured in the Song Part Properties dialog.

When the Override toggle button is not turned on, the specified tempo is inactive and has no effect.

13 OSC and Gig Performer

Gig Performer provides extensive support for OSC (Open Sound Control) - a protocol for communication among various multimedia devices and applications, with a particular focus on applications used by artists and performers. In Gig Performer you can associate OSC names with plugins and widgets and then send messages to them from any remote device, such as Android phone or tablet, iPhone, iPad or other laptop to control their operation. Learn more about OSC support in Gig Performer here.

Every parameter available in your VST, VST3 and AU plugin (if you're on OS X) can be controlled by widgets in Gig Performer, and every widget can be controlled just with a tap of or sliding your fingers on your favorite mobile phone via OSC protocol. Other OSC capable devices, like various digital mixers for example, can be controlled directly from Gig Performer using widgets and OSC. Gig Performer's proprietary programming language (GPScript) also supports the OSC protocol.

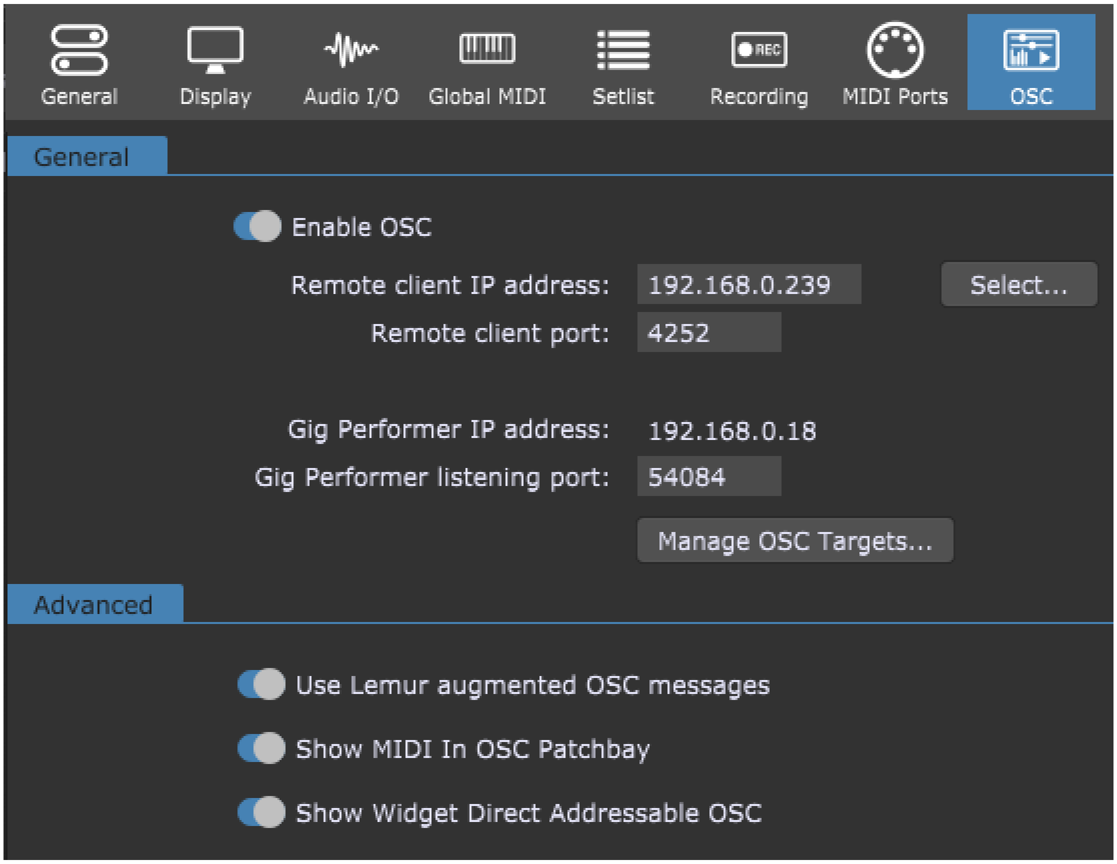
For example, you can use OSC to change the output levels of each plugin independently or adjust the cutoff frequency of a synth plugin. It can also be used to set Tap Tempo, turn Tuner View on and off, and select the desired rackspace and variation. In addition to well-known OSC products like Lemur and TouchOSC, it is also possible to use programming tools like Max/MSP, Ableton Live, and Plogue Bidule (to name just a few) to create very sophisticated applications that can also work interactively with Gig Performer.

For the most current version of Gig Performer's OSC implementation, see Help -> Documentation -> OSC Commands.

13.1 How to set up OSC

For Gig Performer and an OSC application to work with one another, make sure that both your computer and the device running the OSC application are connected to the same local network.

Launch Gig Performer and then click Options -> OSC setup:



Enable OSC

Remote client IP address: 192.168.0.239

Remote client port: 4252

Gig Performer IP address: 192.168.0.18

Gig Performer listening port: 54084

Use Lemur augmented OSC messages

Show MIDI In OSC Patchbay

Show Widget Direct Addressable OSC

Enable OSC by clicking on the **Enable OSC** button. Type in the IP address and the port of the device running the OSC application in the **Remote client IP address** and **Remote client port** boxes respectively. Alternatively, click on the **Select...** button to easily select an OSC target from the list that must be previously set by clicking on the **Manage OSC Targets...** button. Check the OSC Options to learn more.

Note that the **Gig Performer IP address** value cannot be changed, as this is defined by your computer's network configuration. The address is displayed to make it easier for you to configure your remote device to connect to Gig Performer. The **Gig Performer listening port** can be changed to a custom value. **Note**: make sure that Gig Performer is not blocked by any kind of software firewall.

When you perform live, you might want your FoH engineer to have access to your controls, too. In cases when OSC applications are running on multiple devices (i.e. a tablet, a smartphone or another computer) and you want to use multiple devices onstage, there is a simple way to accomplish that; if you simply set three last digits of the OSC applications IP address to 255 (i.e. 192.168.0.255) then **Broadcast Mode** is activated. Broadcast Mode enables Gig Performer to send OSC messages and communicate simultaneously with all listening clients on the specified port (i.e. 4252) on the same local network. Click here to access our Knowledge Base article with more information.

If you are using an OSC application such as Lemur or another OSC application that allows detailed control, turn on the **Use Lemur augmented OSC messages** toggle button. If you are using TouchOSC or any other application with a more basic OSC implementation, leave it turned off.

Other advanced options include MIDI In OSC Patchbay and Widget Direct Addressable OSC. Check the OSC Options chapter for more information.

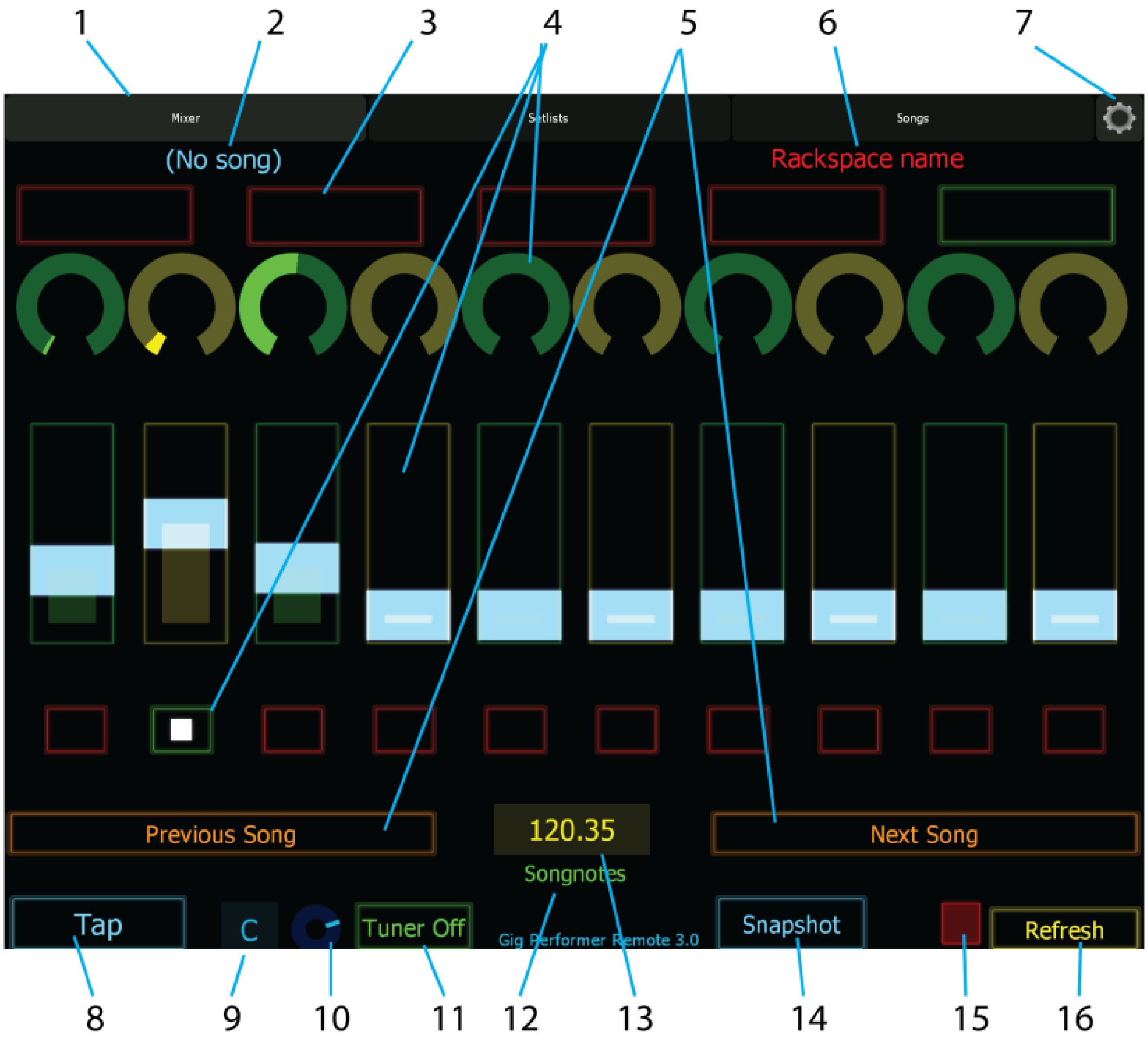
Gig Performer's supplied MIDI In (OSC) plugin is designed to receive MIDI messages from remote OSC sources. One of the requirements of OSC is that each object in both the host computer and remote device must have matching unique case-sensitive names comprised of characters only (no spaces). These names must be unique within a single Gig Performer rackspace, although they can be reused in different rackspaces.

If you're using Lemur or TouchOSC, you can download a basic Gig Performer template. For your convenience, we have created templates that make it easy to control Gig Performer widgets from the popular OSC apps Lemur and TouchOSC. If you are using either of these apps, click here to download the Lemur file, or click here to download the TouchOSC file. Note that these templates merely provide a starting point for your own OSC programming and you certainly are not required to use them - in fact, we encourage you to construct your own custom OSC environments. Deskew Technologies does not provide official support for these templates.

The OSC related topics are extensively covered in the Gig Performer blog, through applications such as Lemur, TouchOSC, Open Stage Control and Oscar. Check out our blog for more tutorials, and also visit our Community for more tips on using OSC.

13.2 The Lemur and TouchOSC Templates

The Mixer page of the Lemur template (as viewed on a tablet or a smartphone) looks like this:



1. **Template page tabs** - touch these tabs to switch between the Lemur template's Mixer, Setlists, and Songs pages.
2. **Current song name** - when a song is loaded, the name is displayed here.
3. **Song part tiles** - when a song is loaded, these tiles show the names of song parts. Clicking on a tile loads the indicated part.
4. **Lemur controls** - these rows of knob, fader, and button controls get mapped to widgets in your rackspaces.
5. **Previous/Next Song buttons** - touch one of these to move to the next or previous song in the current setlist.

6. **Current rackspace name** - each song part is associated with a rackspace variation. The name of the current rackspace is displayed here.

7. **Settings menu** - touch here to drop down a menu that allows you to load and save projects, plus access Lemur settings.

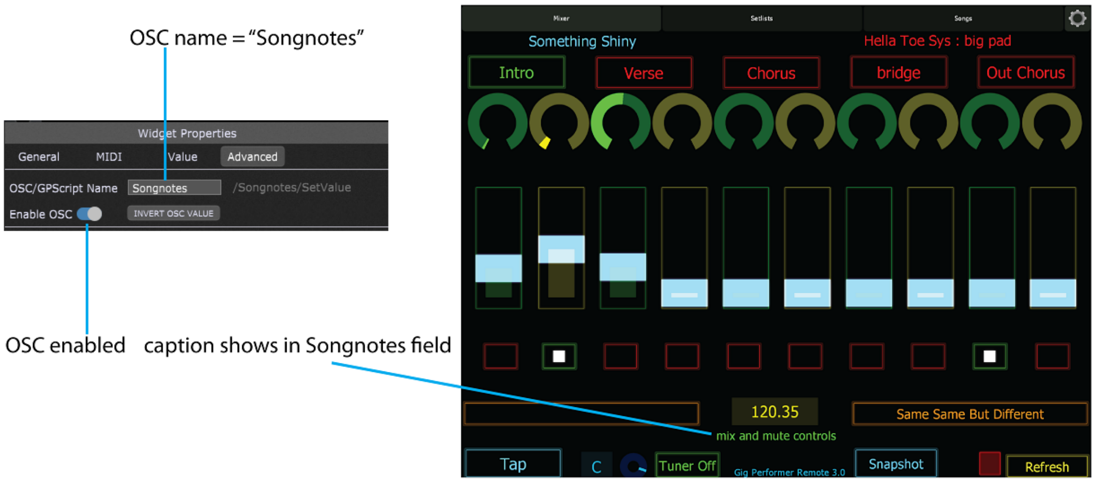
8. **Tap Tempo button** - the Tap Tempo button is always active and has the highest priority, so it can be tapped at any time to set a tempo. This can be useful for syncing delays to the tempo of a live performance.

9. **Tuner current note display** - when the tuner is on, the note currently detected from the input is displayed here.

10. **Tuner current intonation display** - when the tuner is on, this display shows how sharp or flat the note currently detected from the input actually is from the note displayed.

11. **Tuner on/off button** - touch this button to bring up Gig Performer's Tuner view for tuning. Touch it again to hide the tuner.

12. **Songnotes display** - a small display for a reminder or any short message you would like to have shown on the Lemur screen. Create a label on a panel in Gig Performer, check the Customize caption box in the Widget Properties area. and enter as the caption the text you want displayed in Lemur. In the OSC Name field, enter "Songnotes", and then check the Enable OSC box. The caption for that label will now appear in Lemur in place of the Songnotes label.



OSC name = "Songnotes"

OSC/GPScript Name: Songnotes /Songnotes/SetValue

Enable OSC

OSC enabled

caption shows in Songnotes field

13. **Tempo field** - displays Gig Performer's current tempo.

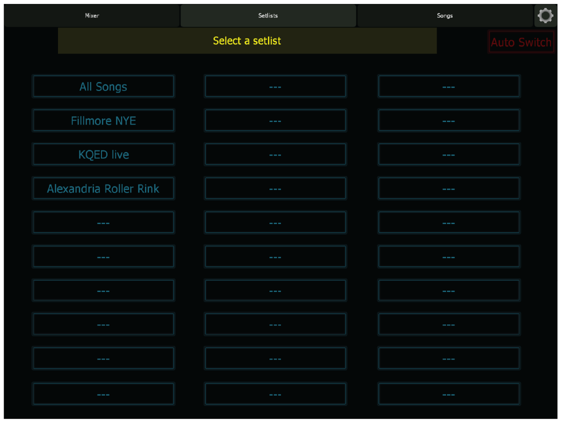
14. **Snapshot button** - this is the same as the **Capture variation into this part** button just above the panel in the Setlist/Song view. It captures any changes you may have made to widget settings since recalling the rackspace variation associated with the song part, and stores the changes with the part, so they are recalled each time that part is.

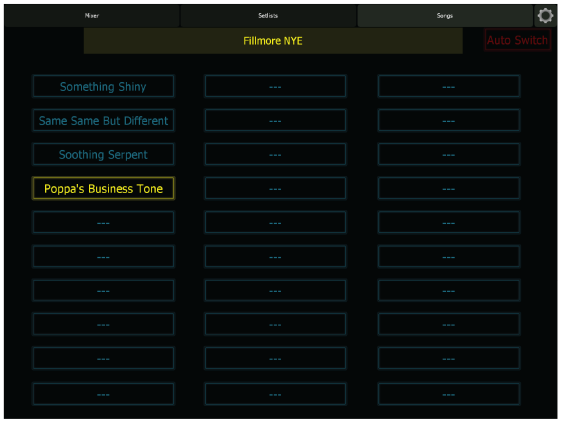
15. **Snapshot indicator** - when a snapshot is taken, this indicator turns red to show that the variation has been edited. Touching the red button recalls the variation as stored. Changes to widget values are lost.

16. **Refresh button** - touch this button after making changes to a Gig Performer rackspace to update the Lemur display with the changes.

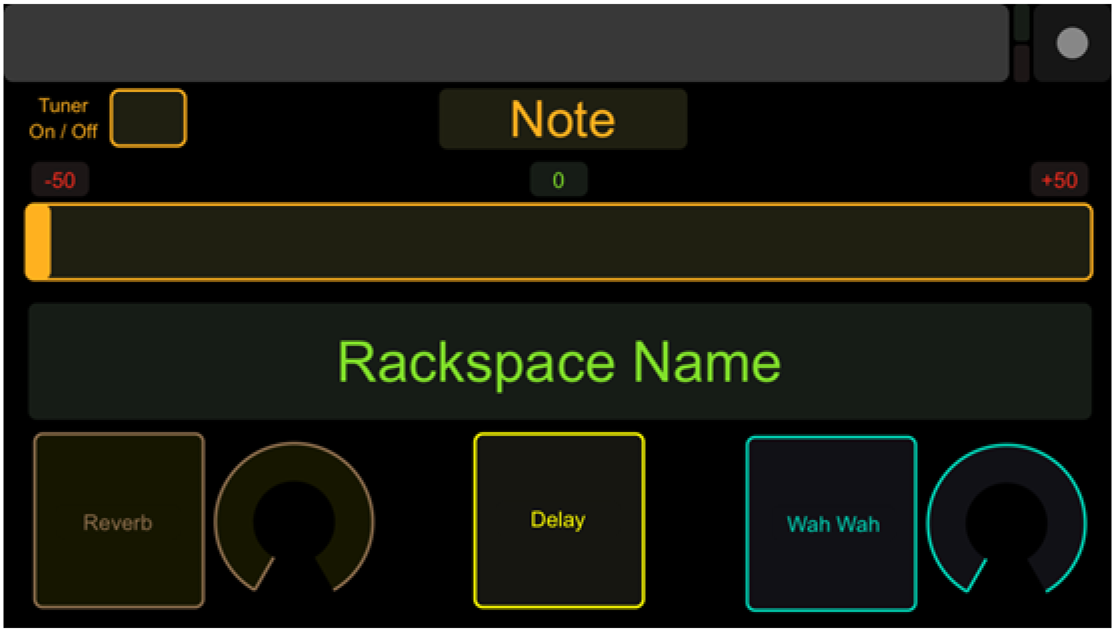
The Setlists and Song pages in the Lemur template offer quick touch access to, of course, your setlists and songs.

Note: this template assumes that you have defined up to 10 knobs whose handles are Knob1, Knob2, ...Knob10, 10 sliders with handles Slider1, Slider2, ... Slider10 and 10 buttons with handles Button1, Button2, ... Button10.





The TouchOSC template, as viewed on an iPhone, looks like this:



Note that our Lemur template has been designed for general use, while the TouchOSC template has been designed specifically for guitarists (an instructional video about using the Lemur template can be found here, and an instructional video about using the TouchOSC template can be found here). Both templates display the currently selected rackspace and variation prominently; the Lemur template also displays the caption of a text label in the "Songnotes" field.

If you would like to experiment with either template, relaunch Gig Performer and then touch the Tuner On/Off button in the template. Gig Performer should immediately open the Tuner (if for some reason the Tuner On/Off button doesn't work, double-check the communication between the device running your OSC app and the computer running Gig Performer).

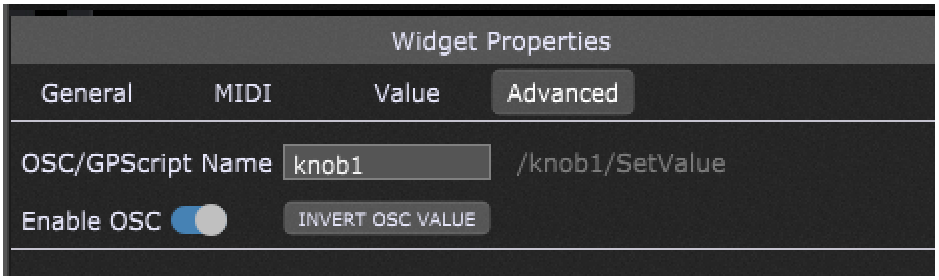
In Lemur, if you have a microphone or instrument connected to one or more inputs of your audio interface, the virtual dial to the left of the Tuner On/Off button will move and the note number to the left of that knob will change to reflect the note coming in on the channel(s) Gig Performer is currently "listening" to. In TouchOSC, the box at top center will display the note coming in, and the slider below it will show the tuning offset in cents, with the center position indicating that you are exactly in tune.

Touch the Tuner On/Off button again to return Gig Performer to Panel View. If you are using Lemur, touch the "Tap" button presented by the template several times. You should see the Tempo display in the upper-right hand corner of Gig Performer's screen change the BPM value as you do so; the shorter the intervals between taps, the higher (faster) the BPM value.

Note: give your widgets the appropriate OSC names. One of the requirements of OSC is that each object in both the host computer and remote device must have matching unique case-sensitive names. You can make up any names you like, as long as they are comprised of ASCII characters only, with no spaces. If you are running Lemur or TouchOSC, here are the OSC names used in the templates we have created:

Object	Lemur template	TouchOSC template
Rotary knobs (Reverb and WahWah in TouchOSC template)	"Knob1" through “Knob 10”	"knob1" and "knob2"
Sliders / drawbars	"Slider1" through "Slider10"	(none)
Buttons (Reverb, Delay, WahWah in TouchOSC template)	"Button1" through "Button 10"	"button1", "button2" and "button3" respectively
Text label caption	"Songnotes"	(none)

To use the templates, simply put Gig Performer into Edit mode, select a widget, and in the Widget Properties inspector, enable the Enable OSC option, enter one of the OSC names in the "Name" field, **then press Enter (this is important)**:



OSC/GPScript Name knob1 /knob1/SetValue

Enable OSC

For example, if you are using the Lemur template, add a knob widget and name it "Knob1"; if you are using the TouchOSC template, name the knob widget "knob1".

Then take Gig Performer out of edit mode and move the knob widget with your mouse. As you do so, the identically named knob in the Lemur or TouchOSC screen changes the same way. Because OSC is bi-directional (meaning that changes can be made in either the device running the OSC app or the host computer running the target software - in this case, Gig Performer), the opposite occurs too: You can move the onscreen knob in Lemur or TouchOSC and the knob widget in Gig Performer changes the same way.

Do the same with a switch or LED button widget, changing its OSC name to Button1 (for use with the Lemur template) or button1 (for use with the TouchOSC template). Exit Edit mode and test to make sure that touching the corresponding button in your tablet or smartphone turns the associated Gig Performer widget on or off, and vice versa.

To use OSC in rackspaces, make your existing rackspaces OSC-compatible. It's easy to make any rackspace OSC-compatible: all you have to do is assign OSC names to your widgets that match the names being used in the environments you create in your OSC app editor. For example, load any of the templates while starting Gig Performer, then open the Edit mode, and select each widget in turn. The only change you have to make to each is in the "Name" field in the Properties area of the inspector and checking the Enable OSC box below it; all MIDI device and plugin parameters remain the same. The only difference is that you can now move these widgets remotely from the tablet or smartphone running your OSC app, and vice versa (i.e. any widget adjustments you make from your laptop or from a connected MIDI controller are reflected in the tablet/smartphone screen).

Please note that this only scratches the surface of what can be accomplished when using an OSC app with Gig Performer. Again, the Lemur and TouchOSC templates provided on our website make good jumping-off points towards constructing your own custom OSC environments. Consult the documentation of your OSC app for more information.

13.3 Communication Between Lemur and Gig Performer

The first step is to provide Lemur and Gig Performer with the contact information of each other. The contact information consists of two parts: the IP address of the device and the port number to which the application is listening for messages. When configured properly the communication can be established.

Important note: Deskew Technologies cannot provide support for either the Lemur application or wireless communications in general. However, we offer the information below to try and facilitate Gig Performer users getting the two applications working together.

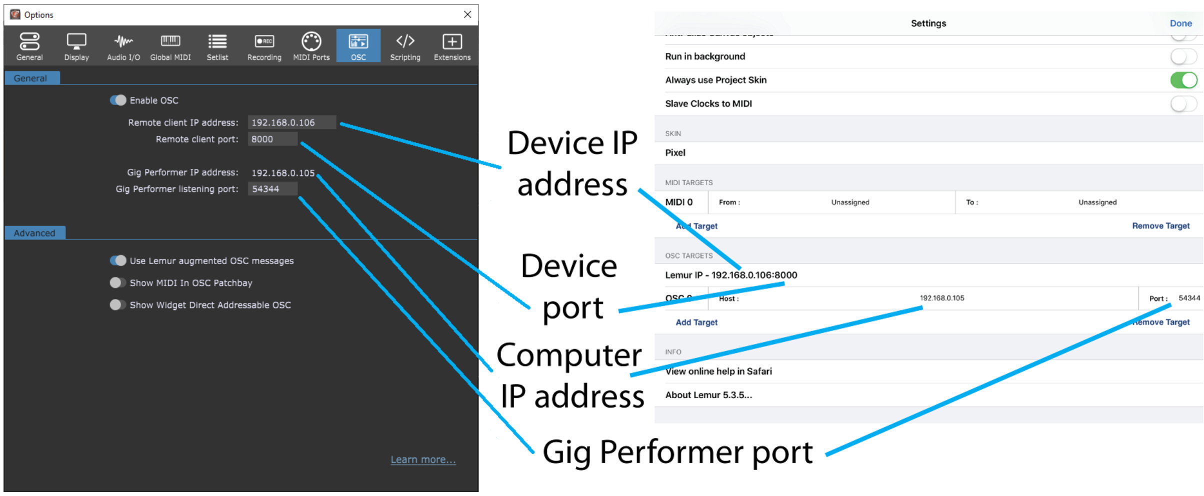
1. In Gig Performer, choose the Options -> OSC Setup command. The OSC Options open.
2. The IP address of the computer running Gig Performer is shown in the Gig Performer IP address display. The port to which Gig Performer is listening for OSC messages is shown in the Gig Performer listening port field.
3. In the Lemur app, open the Settings menu and choose the More Settings… command.
4. In the OSC Targets area, enter the IP address of the computer running Gig Performer into the Host field, and the port in the Port field.

5. The Lemur IP display shows the IP address of the device running Lemur. The right-most segment, after the colon (":") is the port. Enter this into the Remote client IP address field in the OSC Options in Gig Performer.

6. Enter the port portion of the Lemur IP display into the Remote client port field.

7. Turn on the Use augmented Lemur messages toggle button in the OSC Options. This enables Gig Performer to send more detailed OSC messages, which Lemur can handle (turn it off when using Gig Performer with TouchOSC or other more basic OSC applications).

8. For the most reliable communications, launch Lemur first, then launch Gig Performer.



General

● Enable OSC

Remote client IP address: 192.168.0.106

Remote client port: 8000

Gig Performer IP address: 192.168.0.105

Gig Performer listening port: 54344

Advanced

● Use Lemur augmented OSC messages

○ Show MIDI In OSC Patchbay

○ Show Widget Direct Addressable OSC

Run in background ○

Always use Project Skin ●

Slave Clocks to MIDI ○

SKIN

Pixel

MIDI TARGETS

MIDI 0 From : Unassigned To : Unassigned

Add Target Remove Target

OSC TARGETS

Lemur IP - 192.168.0.106:8000

OSC 0 Host : 192.168.0.105 Port : 54344

Add Target Remove Target

INFO

View online help in Safari

About Lemur 5.3.5...

14 Multi-instance support

In previous versions of Gig Performer, you needed to explicitly enable multi-instance support by clicking at the corresponding checkbox in Options. In Gig Performer 4, multi-instance support is always enabled.

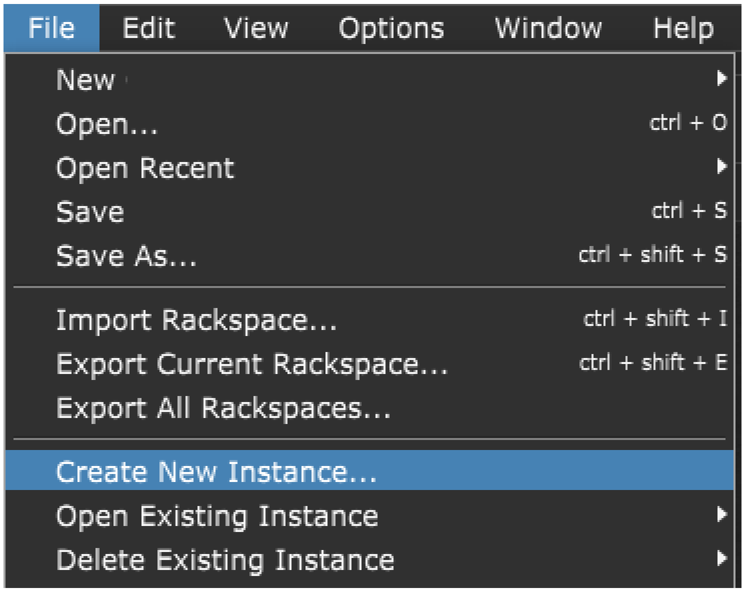
Multi-instance support means that you can run Gig Performer multiple times in the same computer, with each such "instance" operating independently.

This has many different practical applications. For example, each band member can have the ability to change the rackspace affecting their particular instrument without changing the rackspaces affecting different instruments; they can even use separate MIDI controllers or pedal-boards to do so.

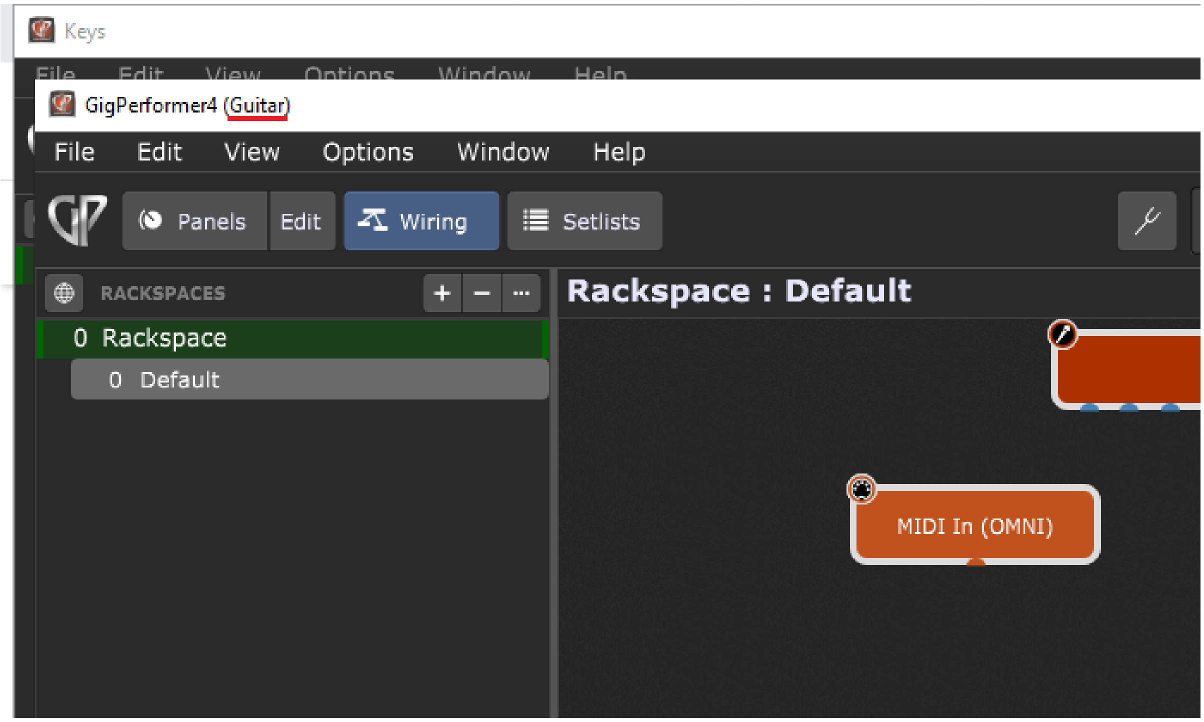
There are also many advanced usages: for example, you can use a MIDI In plugin to send program change messages from one instance to another so that one instance can be used to change the rackspace in another instance.

The number of instances you will be able to successfully have open at any one time is dependent upon your system's RAM and CPU resources. Each instance can access entirely different plugins and MIDI In blocks. Separate instances can also access different audio interfaces.

Instances are managed through the File menu, where you can create new instances, and open or delete existing instances:



Creating another instance of Gig Performer is easy. Just select **File** -> **Create New Instance...** type in a name, e.g. Guitar, and you are all set:



Note: do not open the same instance twice as both opened instances will respond to the same MIDI and OSC commands and changing any settings in one of the instances will change it for both, but only one will get the change immediately.

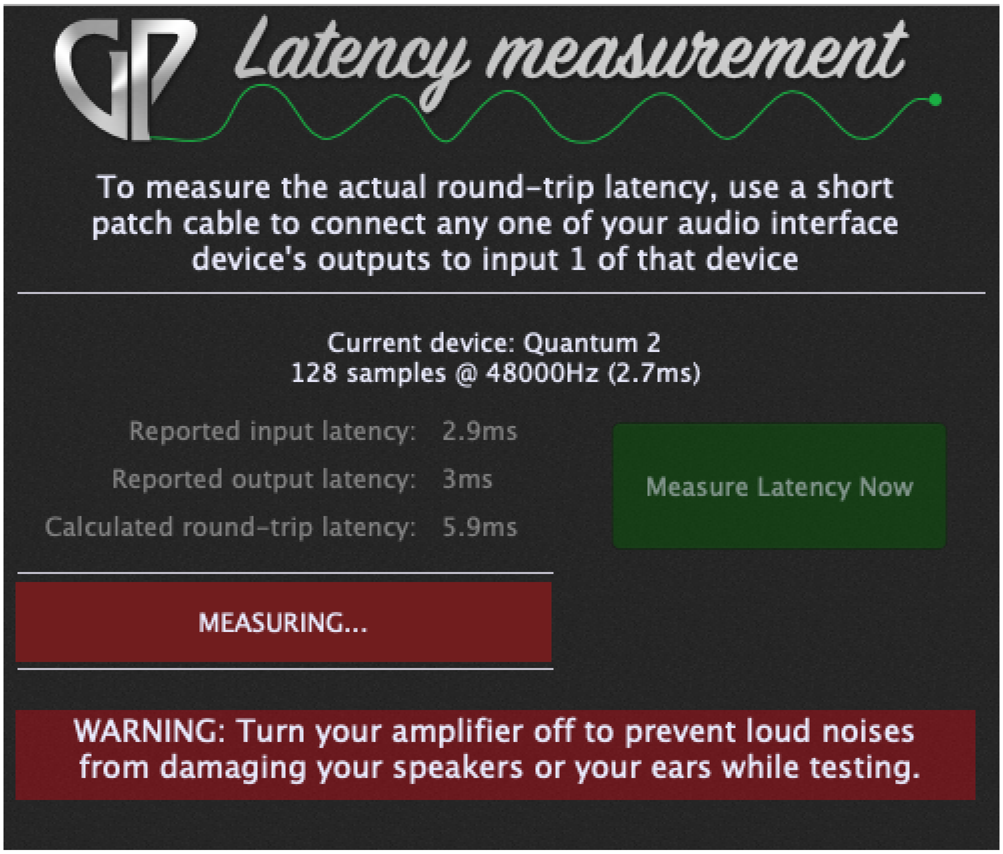
If you want to use two or more instances with the same audio interface, make sure to set the same sample rate in Audio Options otherwise one of the instances will have a sound that's slightly out of tune and will sound incorrect.

Note: some Windows ASIO drivers still allow only one application to use the audio interface at a time; these are known as single-client drivers. Multi-client audio drivers started coming out years ago, but, there are still many single-client drivers in place. Two instances of Gig Performer count as two applications, which is a problem when running on a single-client driver. Read this blog article to find out how to run multiple instances of Gig Performer with a single-client ASIO driver on Windows.

15 Latency measurement tool

One of the factors that impacts your overall latency is the additional latency introduced by your audio interface. Not all audio interfaces are created equal. Some have low internal latency for both A/D and D/A conversions while others add more latency than perhaps you might like, so you have to lower your buffer size to get the overall desired latency.

To find out how much extra latency your interface introduces - you can use the built-in Latency Measurement Tool. Click **Window** -> **Measure Device Latency...** to measure actual round-trip latency:



To measure the actual round-trip latency, use a short patch cable to connect any one of your audio interface device's outputs to input 1 of that device

Current device: Quantum 2
128 samples @ 48000Hz (2.7ms)

Reported input latency: 2.9ms
Reported output latency: 3ms
Calculated round-trip latency: 5.9ms

WARNING: Turn your amplifier off to prevent loud noises from damaging your speakers or your ears while testing.

To measure, follow these steps:

1. Mute your speakers or turn them all the way down.
2. Connect a physical patch cable from any output from your audio interface to input 1 of the interface.
3. Click the **Measure Latency Now** button.
4. The result will appear in the Measured round-trip latency display.

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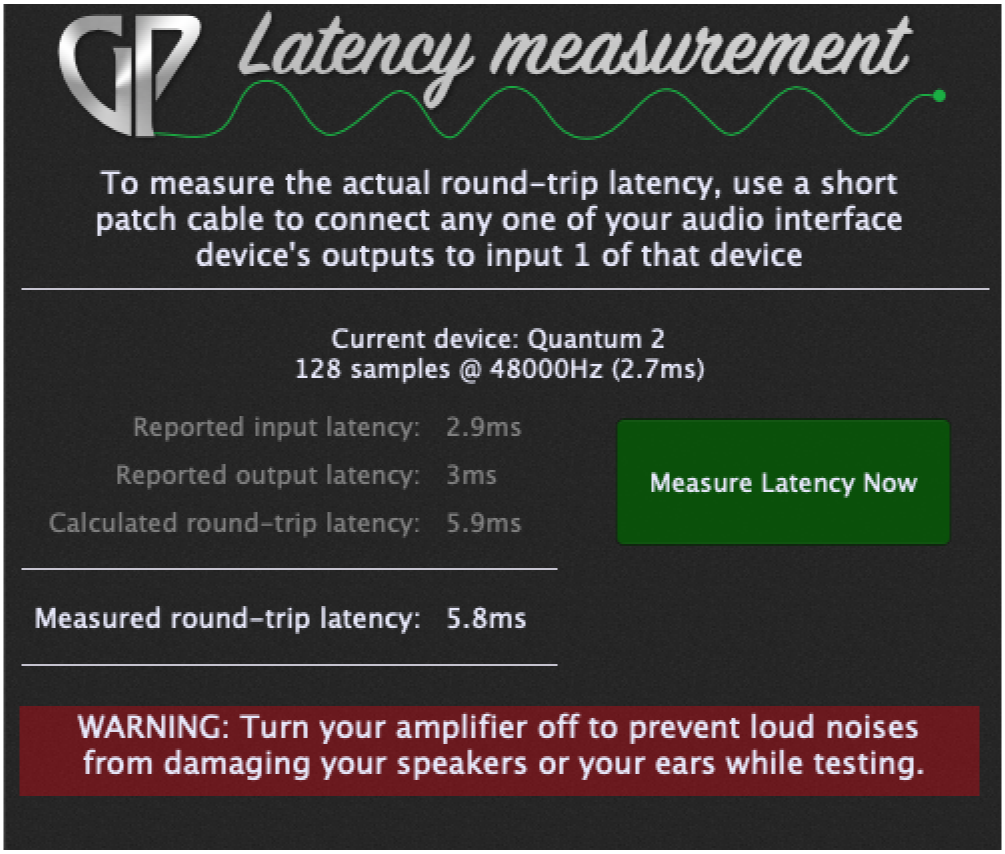


To measure the actual round-trip latency, use a short patch cable to connect any one of your audio interface device's outputs to input 1 of that device

Current device: Quantum 2
128 samples @ 48000Hz (2.7ms)

Reported input latency: 2.9ms

Reported output latency: 3ms

Calculated round-trip latency: 5.9ms

Measured round-trip latency: 5.8ms

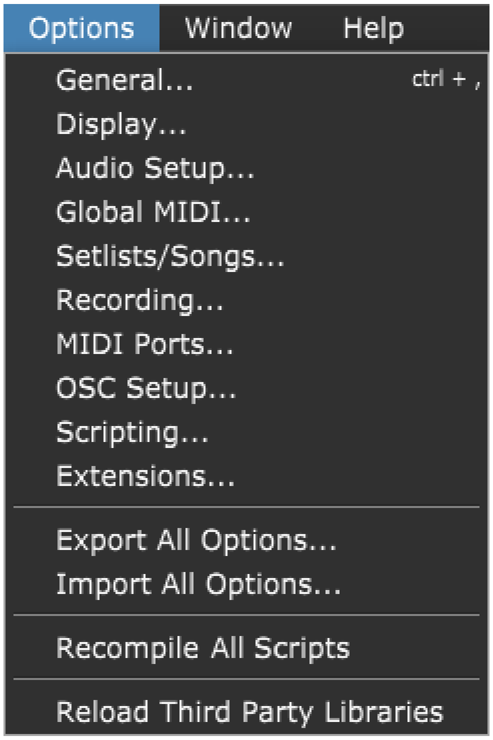
WARNING: Turn your amplifier off to prevent loud noises from damaging your speakers or your ears while testing.

Note: make sure you do not use any plugins or connections while measuring (or simply create a new empty gig before using this tool), and that your input signal is not too low.

Find out more about latency, sample rate and buffer size in our free e-book The Ultimate Guide to Optimize your Windows PC for the Stage.

16 Options and preferences

In this chapter you will learn about all the options and preferences that you can adjust in Gig Performer. To open Options, simply click on the Options menu and select the desired menu item:



Selecting any menu item will open the Options window where you can also navigate through tabs to configure different options. Refer to the following subchapters for more information.

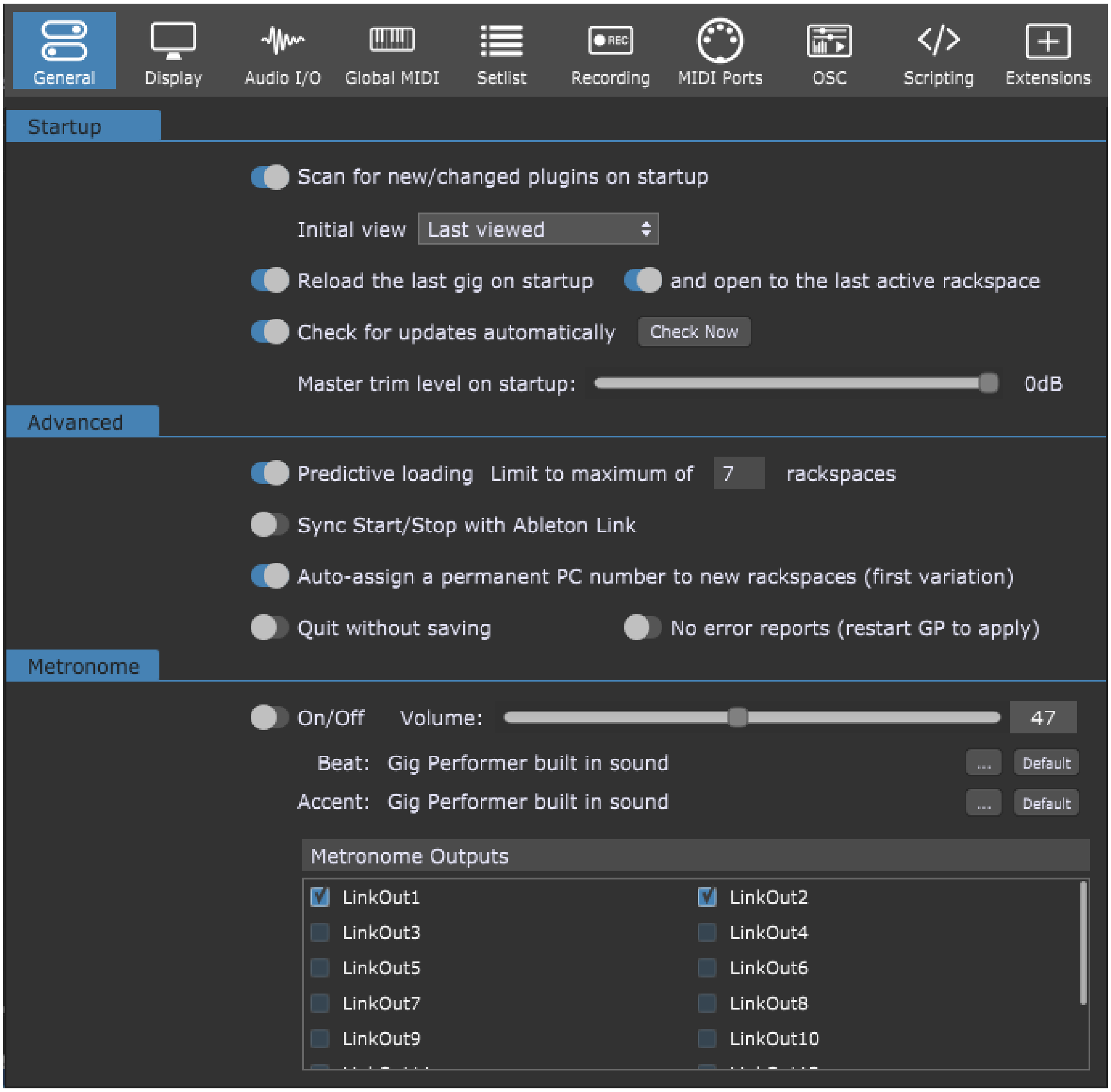
After you configure Gig Performer options and preferences to your taste, you can export them to a **gpsettings** file. Simply click on the **Export All Options...** menu item and save your gpsettings file; you can later import that file to any Gig Performer installation by clicking on the **Import All Options..** menu item and selecting the previously saved gpsettings file.

Note: a gpsettings file stores not only all settings in the Options screens, but also all global settings including global MIDI assignments, and the entire Rig Manager setup.

Visit this chapter to learn more about various Gig Performer file extensions and this chapter to learn more about the default file locations in Gig Performer.

16.1 General

The General tab appears when the General menu item is chosen in the Options menu, or when its keyboard shortcut is used (Ctrl + , on Windows or Cmd + , on Mac):



Startup

● Scan for new/changed plugins on startup

Initial view: Last viewed

● Reload the last gig on startup ● and open to the last active rackspace

● Check for updates automatically

Master trim level on startup: 0dB

Advanced

● Predictive loading Limit to maximum of 7 rackspaces

○ Sync Start/Stop with Ableton Link

● Auto-assign a permanent PC number to new rackspaces (first variation)

○ Quit without saving ○ No error reports (restart GP to apply)

Metronome

○ On/Off Volume: 47

Beat: Gig Performer built in sound

Accent: Gig Performer built in sound

Metronome Outputs

☑ LinkOut1	☑ LinkOut2
□ LinkOut3	□ LinkOut4
□ LinkOut5	□ LinkOut6
□ LinkOut7	□ LinkOut8
□ LinkOut9	□ LinkOut10

Scan for new/changed plugins on startup - when enabled, Gig Performer will check for new or updated plugins every time it starts. The best practice is to leave this enabled unless you're certain that your plugins have not been updated since you last used Gig Performer. If you're wondering why your latest plugin or update has not shown up in the plugin list, not scanning for plugins is the most probable cause (see the Troubleshooting chapter for more information).

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Initial view - clicking on this drop-down list enables you to select the default view that shows up when you start Gig Performer. The **Last Viewed** menu item is the default (the other possibilities are the Panels view, the Wiring view, or the Setlists view).

Reload the last gig on startup - when enabled, Gig Performer will automatically load the last gig file that was used; you can also choose whether you want to open to the last active rackspace (default) or - if disabled - to load the first rackspace. **Note**: you can temporarily prevent Gig Performer from loading the last gig file by holding down the Shift key while starting Gig Performer and turning off the *Load last gig file* toggle button (click here for more information).

Check for updates automatically - unless you're actually on tour, it's recommended that you keep this option enabled so that you are informed of new updates. **Note**: updating any critical software while on tour or otherwise engaged in a production project is strongly discouraged until you have time to thoroughly test the update to ensure that it is functioning correctly. That applies not only to Gig Performer, but to any plugin and even other applications or operating system updates. We recommend that you do not update anything on your computer within 3 weeks of a show so that you have time to address any issues without stress.

Check Now - click on this button to manually check for updates. **Note**: this requires an Internet connection.

Master trim level on startup - the master trim is normally reset to 0db when you start Gig Performer. You can change that initial startup value by adjusting this slider.

Predictive loading - turn on this toggle button to activate the Predictive loading feature. Check the Predictive loading chapter to learn more.

Limit to maximum of - this field appears when the Predictive loading feature is enabled. Check the Predictive loading chapter to learn more.

Sync Start/Stop with Ableton Link - synchronizes start/stop with Ableton Link.

Auto-assign a permanent PC number to new rackspaces (first variation) - enable this option to auto-assign a new PC number to the first variation when creating a new rackspace. **Note**: if explicit PC numbers are not used in variations the last selected variation will be called when using the PC for that rackspace (as when you click the rackspace with your mouse).

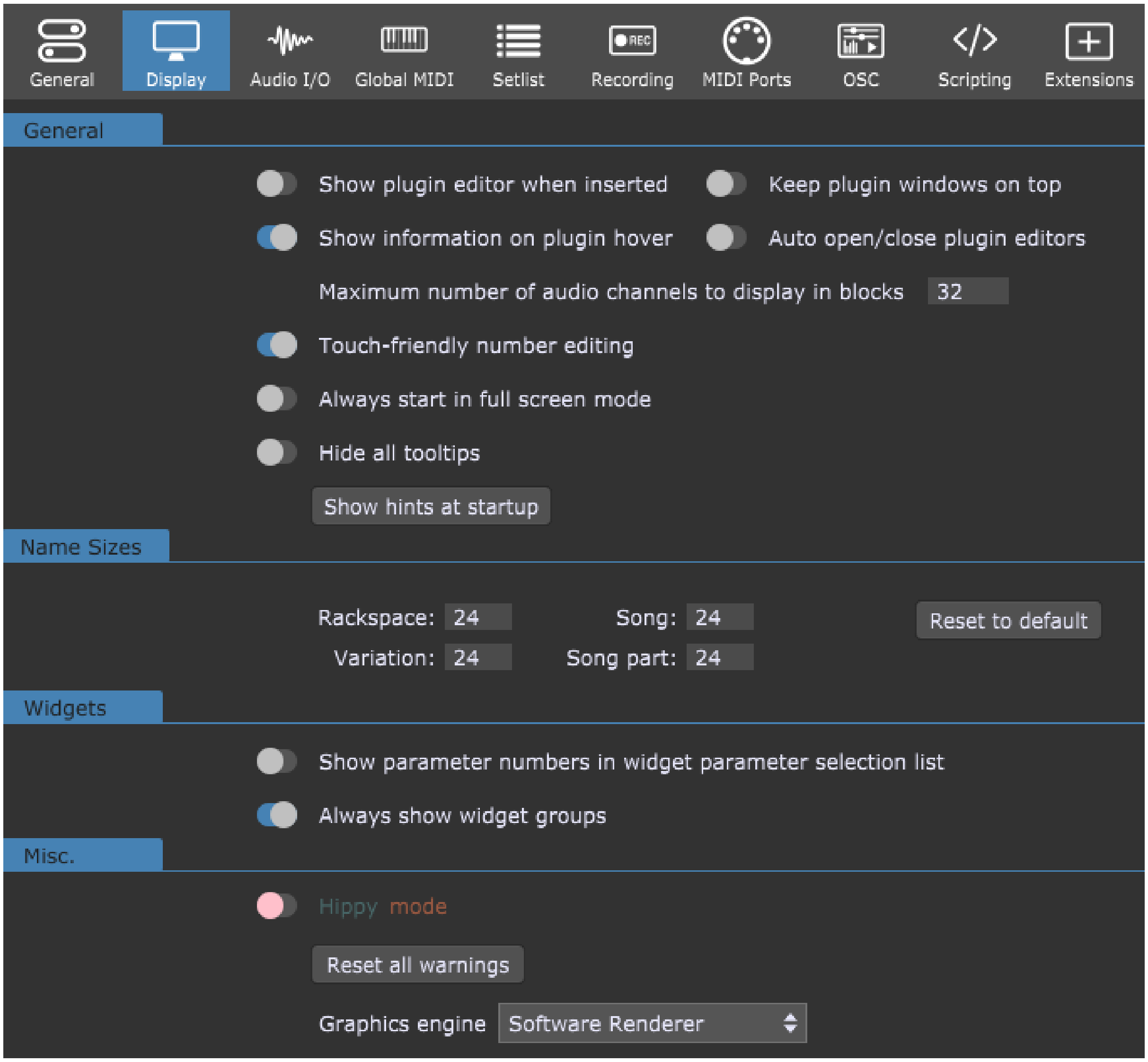
Quit without saving - enable this if you want to quit Gig Performer without prompting you to save any changes. This can be useful if you're running Gig Performer on a headless computer and just need it to shut down automatically at the end of a show.

No error reports - enable this if you don't want to send error reports to Gig Performer development team (not recommended). If you enable this toggle button, restart Gig Performer for changes to take effect.

Metronome - this complete section is covered in more detail in the Audio metronome chapter.

16.2 Display

The Display tab appears when the Display menu item is chosen in the Options menu:



General

○ Show plugin editor when inserted ○ Keep plugin windows on top

● Show information on plugin hover ○ Auto open/close plugin editors

Maximum number of audio channels to display in blocks 32

● Touch-friendly number editing

○ Always start in full screen mode

○ Hide all tooltips

Show hints at startup

Name Sizes

Rackspace: 24 Song: 24

Variation: 24 Song part: 24

Reset to default

Widgets

○ Show parameter numbers in widget parameter selection list

● Always show widget groups

Misc.

○ Hippy mode

Reset all warnings

Graphics engine Software Renderer

Show plugin editor when inserted - when checked, the plugin editor window will open automatically whenever a plugin is inserted. Disable this feature if you prefer to insert and route your plugin blocks first and edit them all later.

Keep plugin windows on top - when enabled, open plugin window editors always appear on top of other windows.

Show information on plugin hover - when enabled, moving the mouse over blocks in the Wiring view will cause a pop-up tooltip to appear with the information about the plugin.

Auto open/close plugin editors - enabling this toggle button opens/closes plugin editors automatically as you switch from one rackspace to another. Note that this option doesn't open/close editor windows of all plugins in a rackspace, but only the currently opened ones.

Maximum number of audio channels to display in blocks - this option prevents plugins from showing more than a specified number of audio channels. Some plugins have a large number of audio channels, most of which may never be used, making their blocks unwieldy to view and causing them to take up a lot of horizontal space in the Wiring View. Note that the value entered here does not apply to the audio interface Audio In and Audio Out blocks. You can also configure the maximum number of audio channels available on individually inserted plugins (check this chapter to learn more).

Touch friendly number editing - if you run Gig Performer on a device such as Microsoft Surface, you may want to activate this option as it shows a large key pad for some dialogs and allows you to enter the desired values easier with your finger.

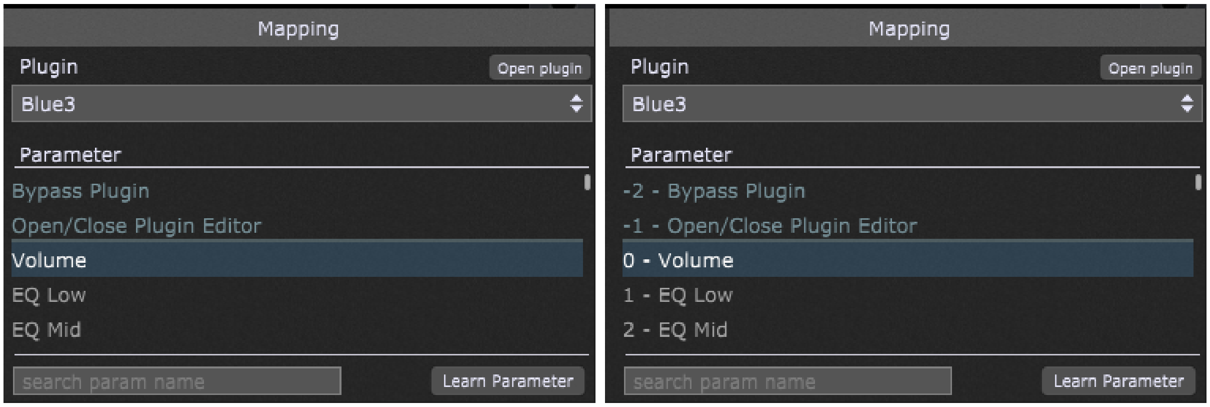
Always start in full screen mode - enable this option if you want to always start Gig Performer in full screen mode. Press the Esc key or use the key combination Ctrl+Alt+F (or Cmd+Option+F on Mac) to exit the full screen mode.

Hide all tooltips - when you move your mouse over some item (a button, a slider, or an option, for example), a little tooltip window will pop up to explain the purpose of that item. Once you become well acquainted with Gig Performer or if you find pop-up tooltips to be annoying, you can choose to prevent them from being displayed by checking this box. **Note**: all tooltips are hidden except the one that shows up when you hover over the plugin block in the Wiring view and which can be disabled separately (see *Show information on plugin hover*).

Show hints at startup - enabled by default, every time you create a new gig a hint dialog pops up. You can browse through many useful hints and tips in that dialog. Turn off this toggle button to disable showing hints at startup.

Name sizes - in this section you can configure the name size of rackspaces, variations, songs, and song parts (from 12 to 48). Click the **Reset to default** button to reset all fields to 24.

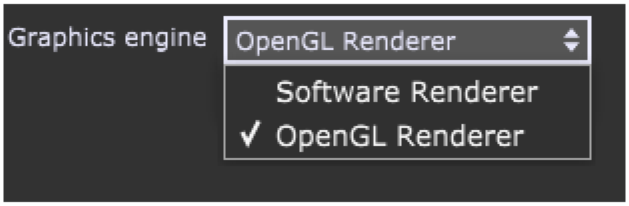
Show parameter numbers in widget parameter selection list - by default, when you view a plugin parameter list you see only the names of the parameters. If you enable this toggle button, then each parameter name is displayed prefixed with its unique parameter number. This can be useful if you need to control parameters from GPScript or OSC. In both of these cases, parameter numbers rather than names are used:



Always show widget groups - when you gang multiple widgets together, the widget group to which they belong (lettered A through Z) is displayed on the top left of the widget while editing. If you would like that widget group name to stay on while not editing, enable this option.

Reset all warnings - clicking this button will reset all "Don't show again" warnings in various dialogs.

Graphics engine - this section is available on Windows (macOS users always use the CoreGraphics renderer). Clicking on this dropdown menu allows you to select the graphics library that Gig Performer uses for its displays:



- **Software Renderer** - this choice means that Gig Performer uses your computer's CPU to render the display without the help of any graphics library optimizations. Windows users without high-performance graphics in their machines will likely get the best results with this setting.

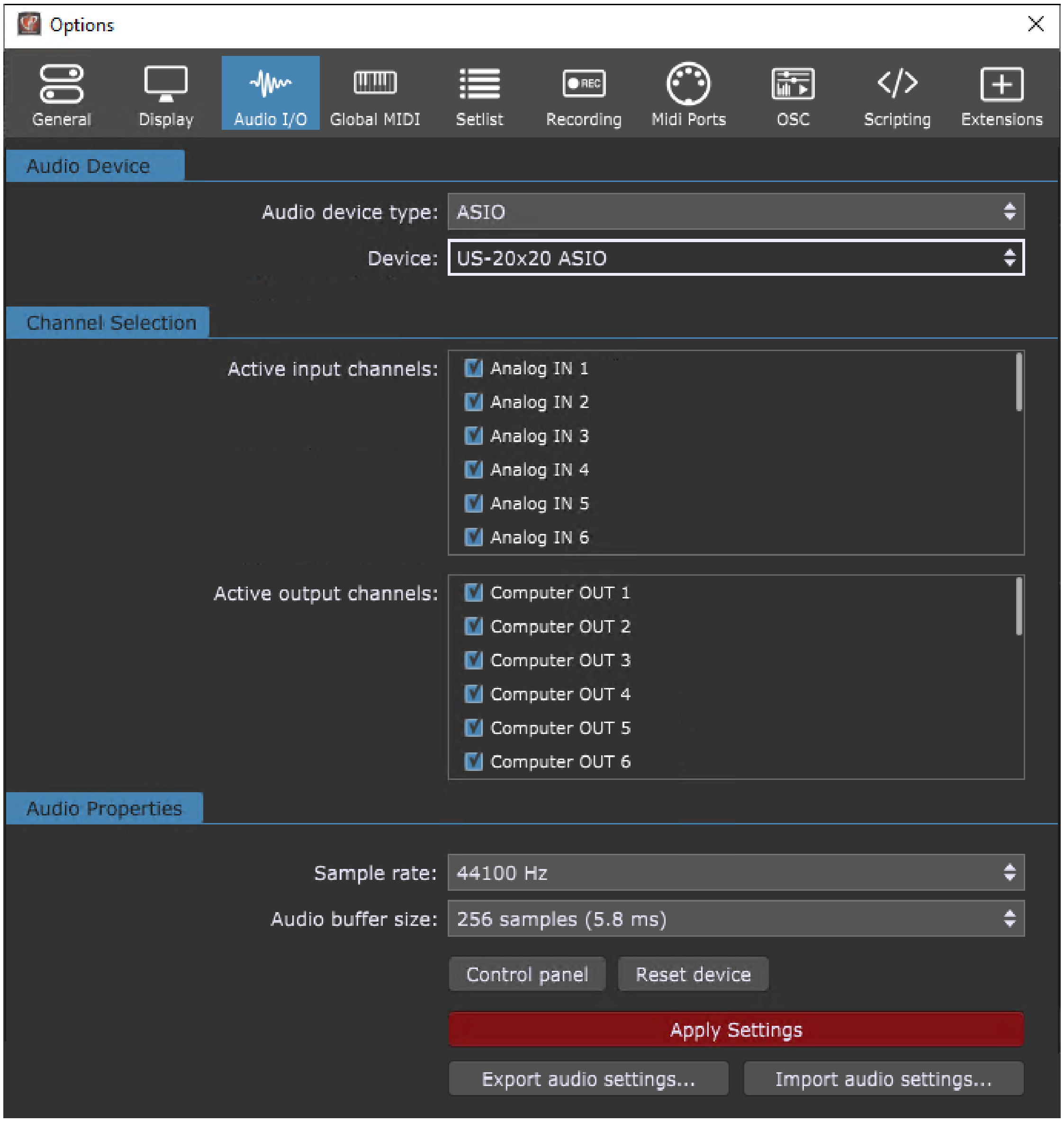
- **OpenGL Renderer** - on systems with high-performance graphics capabilities, OpenGL may provide better visual quality, as such cards are often optimized to run OpenGL.

Depending on the graphics card in their machine, Windows users may find that OpenGL Renderer delivers better quality than Software Renderer.

16.3 Audio I/O

The Audio I/O tab appears when the Audio setup menu item is chosen in the Options menu; this window is slightly different on Windows and macOS:

Windows:



Audio Device

Audio device type: ASIO

Device: US-20x20 ASIO

Channel Selection

Active input channels:
☑ Analog IN 1
☑ Analog IN 2
☑ Analog IN 3
☑ Analog IN 4
☑ Analog IN 5
☑ Analog IN 6

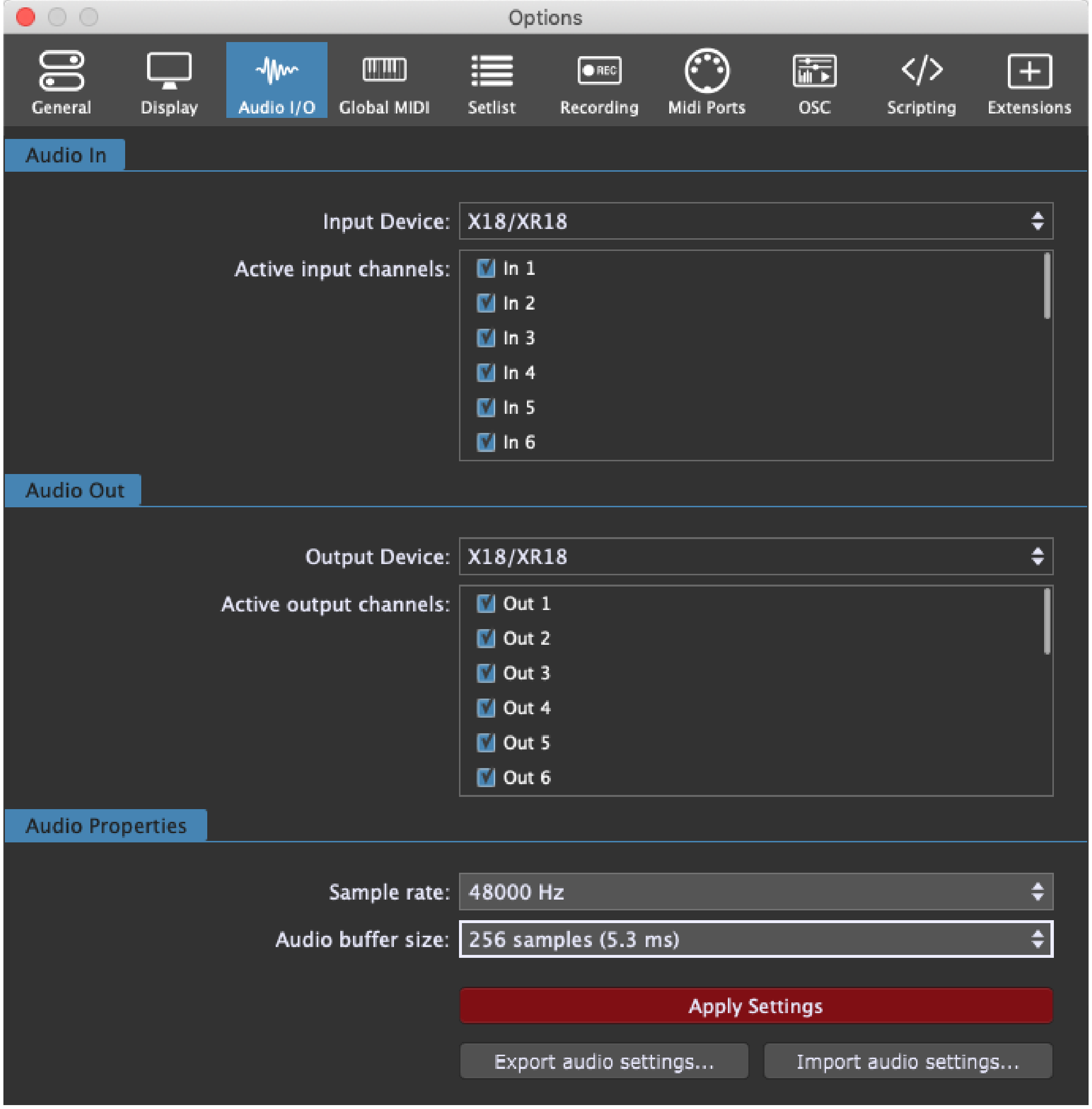
Active output channels:
☑ Computer OUT 1
☑ Computer OUT 2
☑ Computer OUT 3
☑ Computer OUT 4
☑ Computer OUT 5
☑ Computer OUT 6

Audio Properties

Sample rate: 44100 Hz

Audio buffer size: 256 samples (5.8 ms)

MacOS:



Audio In

Input Device: X18/XR18

Active input channels:
☑ In 1
☑ In 2
☑ In 3
☑ In 4
☑ In 5
☑ In 6

Audio Out

Output Device: X18/XR18

Active output channels:
☑ Out 1
☑ Out 2
☑ Out 3
☑ Out 4
☑ Out 5
☑ Out 6

Audio Properties

Sample rate: 48000 Hz

Audio buffer size: 256 samples (5.3 ms)

On macOS you can separately select the input and output device and there is no device type selector as there is always just one type (Core Audio); on Windows, the audio device type selector is included and one device must be used for both input and output.

Audio device type - for best results on Windows, make sure that you always select ASIO driver.

Device - this drop-down menu allows you to select one of the connected audio interfaces or an aggregate device (consisting of multiple interfaces) such as ASIO4ALL or ASIO Link Pro (if installed). On Mac this section is split into Input Device and Output Device (any aggregate devices created in the Audio MIDI Setup utility will appear here as options as well).

Active input channels/Active output channels - determines how many input and output channels are to be made available to Gig Performer. If you are using an audio interface with many channels, you may not want to access them all. For example, you may have an interface with 8 analog output channels and another 16 Lightpipe (ADAT optical) channels that you're not using. So instead of displaying audio IN/OUT blocks with 24 or more channels, you can disable the ones you don't need by unchecking them in the list.

Tip: holding the Shift key down while clicking on an input or output checkbox will set all of them to the inverse of the one you selected.

Sample rate - the sample rate determines the quality of the audio signal. Typical values in the live world are 44.1kHz and 48kHz. Note that there is a tradeoff between higher sample rates, latency and CPU utilization. To view our website article about audio latency, buffer size, and sample rate, click here.

Audio buffer size - the buffer size determines how often samples are actually processed. The smaller the buffer size (or the higher the sample rate), the lower (better) the latency but at the cost of higher CPU utilization. Depending on your plugins and your computer, you may need to find a compromise that gives you the best tradeoff between CPU utilization and latency. If you start using too many CPU cycles, you will begin to hear clicks and other noise in the output. To view our website article about audio latency, buffer size, and sample rate, click here.

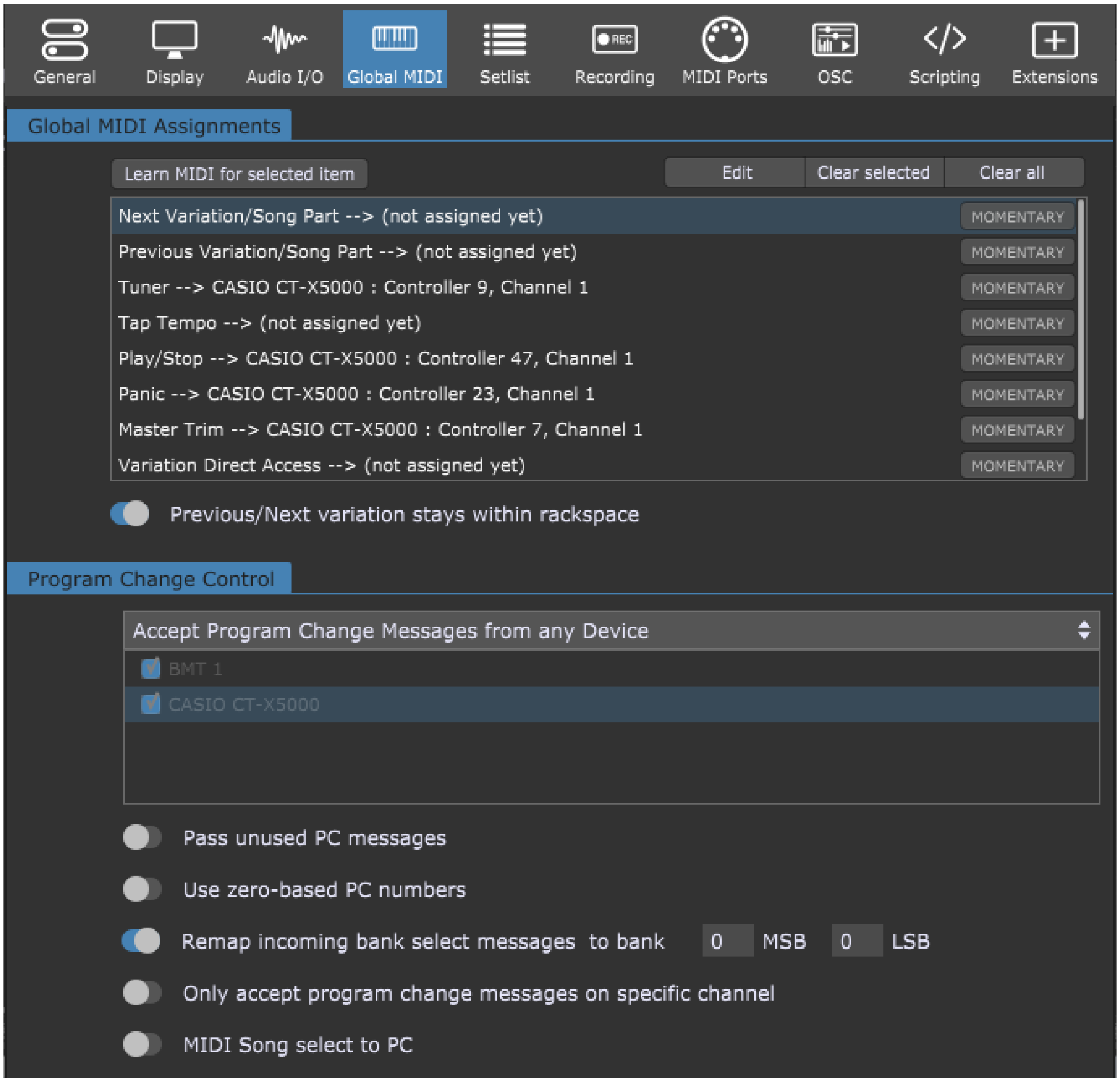
Apply settings - this button will appear if you make any changes to the parameters in this dialog. Click on it to accept the changes, or simply close the Options dialog to maintain the current settings.

Export audio settings and **Import audio settings** buttons - Gig Performer allows you to export your audio settings and import them back in again. This feature makes is useful for supporting multiple audio configurations. Visit this chapter to learn more about various Gig Performer file extensions and this chapter to learn more about the default file locations in Gig Performer.

Note: changing the audio input or output device requires all plugins to be reset and so will cause your entire gig file to be reloaded immediately. Further, some plugins don't properly handle having their sample rate or buffer size changed after they have been loaded and may crash. Therefore, we recommend that you make such changes using an empty gig file. If you are changing your audio configuration (device, sample rate, buffer size, etc.), it can be useful to start Gig Performer with the Shift key held down, which opens the Temporary Startup Options dialog. Turning off the *Load last gig file* toggle button temporarily prevents Gig Performer from loading your previous gig file (this applies if the *Reload last gig on startup* option is enabled in the General Options).

16.4 Global MIDI

The Global MIDI tab appears when the Global MIDI menu item is chosen in the Options menu:



Global MIDI Assignments

- Next Variation/Song Part --> (not assigned yet) MOMENTARY
- Previous Variation/Song Part --> (not assigned yet) MOMENTARY
- Tuner --> CASIO CT-X5000 : Controller 9, Channel 1 MOMENTARY
- Tap Tempo --> (not assigned yet) MOMENTARY
- Play/Stop --> CASIO CT-X5000 : Controller 47, Channel 1 MOMENTARY
- Panic --> CASIO CT-X5000 : Controller 23, Channel 1 MOMENTARY
- Master Trim --> CASIO CT-X5000 : Controller 7, Channel 1 MOMENTARY
- Variation Direct Access --> (not assigned yet) MOMENTARY

● Previous/Next variation stays within rackspace

Program Change Control

Accept Program Change Messages from any Device

☑ BMT 1
☑ CASIO CT-X5000

○ Pass unused PC messages

○ Use zero-based PC numbers

● Remap incoming bank select messages to bank 0 MSB 0 LSB

○ Only accept program change messages on specific channel

○ MIDI Song select to PC

The Global MIDI Assignments section of this dialog is where Gig Performer can learn (or you can manually create/edit) MIDI messages, either from a continuous controller or a momentary switch (in which case you'll normally need to click on the accompanying "Momentary" button so that it is enabled) to accomplish the following actions:

Next Variation/Song Part - moves to the next variation/song part in the current rackspace (or to the first variation of the next rackspace if you are at the last variation of the current rackspace and the "Previous/Next variation stays within rackspace" toggle button is disabled).

Previous Variation/Song Part - moves to the previous variation/song part in the current rackspace (or to the last variation of the previous rackspace if you are at the first variation of the current rackspace and the "Previous/Next variation stays within rackspace" toggle button is disabled).

Tuner - toggles the Tuner view.

Tap Tempo - Gig Performer can receive taps from a pedal or button on a connected MIDI controller and use that information to set the tempo of delay, echo, or looping plugins so that they can be synced to the tempo in which you are playing. To enter Tap Tempo, click on the **Learn MIDI for selected item** button and tap on the button or pedal you want to use for setting tempo (you will most likely need to enable the Momentary option as well).

Once you start tapping, the BPM display at the main toolbar will display the current tempo that has been detected. All plugins that respond to the global tempo will now synchronize to this tempo (it may be necessary to enable "sync" to external tempo on individual plugins. Please check your plugin documentation for more information). **Note**: the tempo used by connected plugins is always the global tempo unless it has been overridden by individual rackspaces or songs.

Play/Stop - starts or stops the global playhead. This will typically start or stop playback of audio files from the supplied Audio File Player plugin or from a third-party media player plugin.

Panic - generates "All Notes Off" messages on all MIDI channels, along with a Sustain Off message and a Center PitchBend message, thus stopping stuck notes in their tracks. This performs the same action as clicking on the MIDI panic button in the upper right-hand corner of the screen.

Master Trim - Gig Performer's master trim can be remotely controlled by a MIDI controller by clicking the **Learn MIDI for selected item** button and moving the physical control. Note: when controlling the Master Trim remotely, you cannot raise the value higher than 0dB.

Variation Direct Access - Direct access allows you to use a slider or knob to switch between variations in a rackspace. If you had a pedalboard with five MIDI switches, each switch would be set to the same channel and controller number, but assigned a different control value. This value would select a variation in a rackspace, so if the five pedals were assigned values of 0, 1, 2, 3, and 4, they would recall the first five variations. This is a legacy feature and it's generally better to use setlist mode and song parts.

Previous Rackspace/Song - moves to the previous rackspace/song. This function is useful when you wish only to move between rackspaces, not between variations in a rackspace.

Next Rackspace/Song - moves to the next rackspace/song. This function is useful when you wish only to move between rackspaces, not between variations in a rackspace.

Note: double-clicking a MIDI assignment puts that assignment in the Learn mode (you'll notice that the **Learn MIDI for selected item button** turns red). Double-clicking a MIDI assignment while holding the Shift key (or clicking the Edit button) opens the **Edit MIDI message** dialog where you can manually select the desired device and the desired MIDI message.

The only CC messages that cannot be learned by Gig Performer are CC 0 and CC 32 as these two messages are reserved for bank selection.

Other options:

Previous/Next variation stays within rackspace - if this option is enabled, previous/next messages are restricted to the current rackspace.

Clear selected - clicking on this button clears the selected MIDI assignment. **Note**: Holding the Shift key down while clicking on the **Learn MIDI for selected item button** also clears the selected MIDI assignment.

Clear all - clicking on this button clears all learned MIDI assignments.

The Program Change Control section of this dialog provides for the following options:

Accept Program Change Messages from any Device - determines whether Gig Performer should respond to MIDI program change messages from all external devices, or only from specific external devices.

Pass unused PC messages - when enabled, unused MIDI program change messages will be passed onto the active rackspace. By *unused* we mean that a particular program change message has not been associated with any rackspace or song part in Gig Performer. An unused PC message passed on to the rackspace is passed on to the MIDI In blocks as any other message. So any OMNI MIDI In blocks or MIDI In blocks for the device that generated the PC message will all receive the PC message and can pass it on to any plugins connected to them. If you are having trouble getting a particular program change message to arrive at a plugin, make sure that message is not already associated.

Use zero-based PC numbers - causes Gig Performer to display program change message numbers in the range 0-127 instead of 1-128.

Remap incoming bank select messages - enabling this toggle button causes Gig Performer to ignore incoming MIDI program bank select messages when selecting variations/song parts; note that also "to banks # MSB   # LSB" shows up, enabling you to manually select the specified bank numbers that should always be used.
Note: When this toggle button is turned on, Gig Performer is not actually converting/remapping MIDI events (you can check this with MIDI monitors). This feature applies only in the context of selecting variations/song parts and how Gig Performer is interpreting incoming bank select messages to select variations/song parts. Therefore, if you pass PC/bank messages to plugins these messages will not be modified in any way.

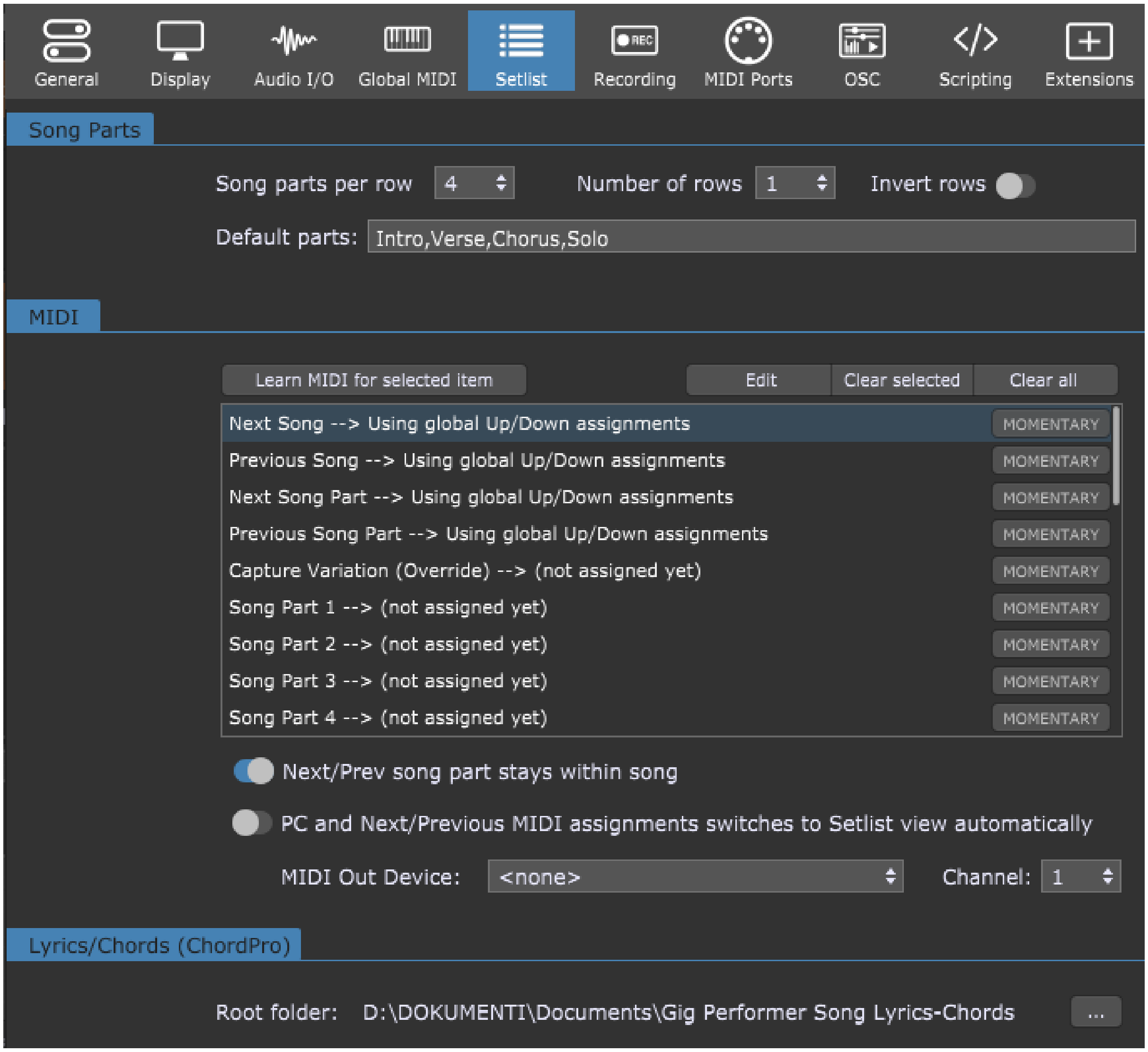
Only accept program change messages on specific channel - Gig Performer can change variations, rackspaces, and even instances in response to incoming MIDI program change messages. Enabling this toggle button limits Gig Performer to responding only to program change messages using the channel specified in the box.

MIDI Song select to PC - enable this toggle button if you want to interpret incoming MIDI song select messages as program change messages; note that also "and use MIDI channel #" shows up, enabling you to manually select the MIDI channel that you want to use when converting song select messages. This is because MIDI song select messages do not have channel numbers. This conversion is done at a very low level for efficiency purposes and so be aware that when this option is enabled, the Global MIDI Monitor will see incoming song select messages as program changes and display them as such.

Note: mappings to physical controllers made in the Widget Properties inspector override Global MIDI Assignments.

16.5 Setlists

The Setlist tab appears when the Setlists/Songs menu item is chosen in the Options menu:



Song Parts

Song parts per row 4 Number of rows 1 Invert rows ○

Default parts: Intro,Verse,Chorus,Solo

MIDI

Next Song --> Using global Up/Down assignments
Previous Song --> Using global Up/Down assignments
Next Song Part --> Using global Up/Down assignments
Previous Song Part --> Using global Up/Down assignments
Capture Variation (Override) --> (not assigned yet)
Song Part 1 --> (not assigned yet)
Song Part 2 --> (not assigned yet)
Song Part 3 --> (not assigned yet)
Song Part 4 --> (not assigned yet)

● Next/Prev song part stays within song

○ PC and Next/Previous MIDI assignments switches to Setlist view automatically

MIDI Out Device: <none> Channel: 1

Lyrics/Chords (ChordPro)

Root folder: D:\DOKUMENTI\Documents\Gig Performer Song Lyrics-Chords

Song parts per row - choose a value (between 3 and 8) from the drop-down menu to set the number of tiles per row in the song part bar (see the Setlist view chapter for more information).

Number of rows - choose a value (between 1 and 3) from the drop-down menu to set the number of rows of tiles in the song part bar.

Invert rows - flips the vertical order of the rows of tiles in the song part bar; instead of 1-2-3, when this toggle button is enabled the bar shows the rows 3-2-1.

Default parts - a semicolon or comma-separated list of song part names that will be added automatically when a new song is created. If no names are defined here, a single part called "Part 1" will appear instead.

Learn MIDI for selected item button - setlist operations (i.e. Next Song or Next Song Part) in the MIDI list can be mapped to MIDI controllers. Select the item in the list, then click on this button, and use the MIDI controller you want mapped to it. Clicking on this button while holding the Shift key clears the selected assignment.

Momentary button - if the physical control you are mapping is a momentary switch (rather than a latching/toggle switch), click on this button.

Setlist operation --> MIDI controls list - this list shows setlist operations that can be externally controlled and the MIDI events they are mapped to. To map a control, select it in the list and click the **Learn MIDI for selected item** button. Double-clicking a setlist operation activates the Learn mode; Double-clicking a setlist operation while holding the Shift key (or clicking on the Edit button) opens the **Edit MIDI message** dialog where you can manually select the desired device and the desired MIDI message.

Clear Selected button - clicking this button removes the MIDI mapping from a selected setlist operation.

Clear All button - clicking this button removes MIDI mappings from all setlist operations.

Next/Prev song part stays within song - with this toggle button is enabled, the MIDI controller assigned to Next and Previous operations will never move to a different song. When the first song part in a song is reached, the Previous operation has no further effect; when the last song part is reached, the Next operation has no further effect. **Note**: this checkbox has no effect when using arrow keys on the computer keyboard to move between song parts; they will still move to the next or previous song.

PC and Next/Previous MIDI assignments switches to setlist view automatically - when this toggle button is enabled, any incoming MIDI program change (PC) messages or Next/Previous Song Part or Song commands cause Gig Performer to switch to Setlist view immediately. **Note**: enabling this option will prevent you from switching your rackspaces directly using MIDI controllers; if such a MIDI message arrives - Gig Performer will switch to the Setlist view automatically.

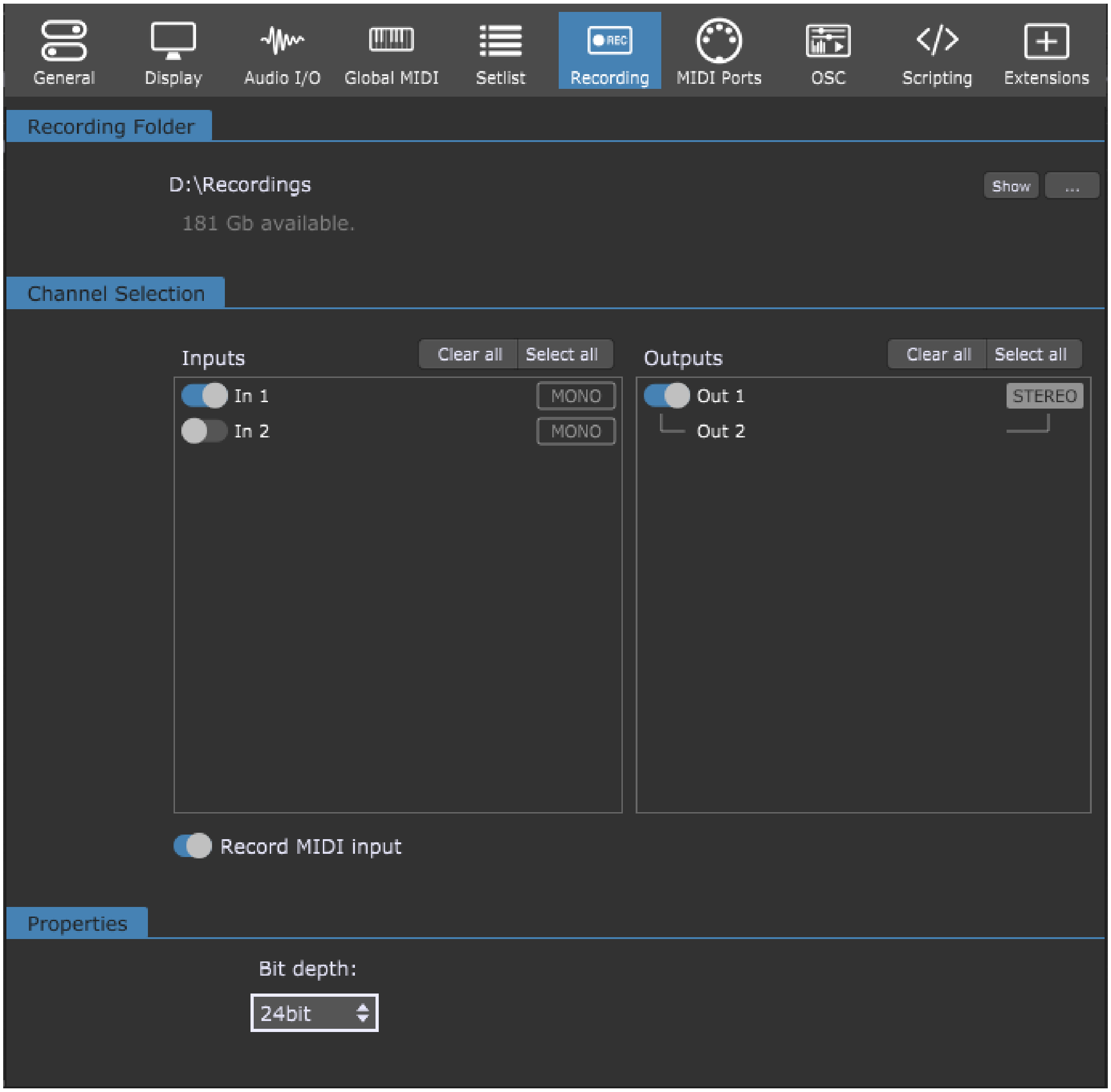
MIDI Out Device and Channel - these settings define a single MIDI Output device to where program change messages are sent on song changes. Choose a MIDI device from the drop-down menu and a corresponding Channel from its drop-down menu. If you need to send multiple MIDI messages to different physical devices or to plugins via any MIDI In block when you select a song part, you can do this from the Song Part Properties dialog.

Root folder - this field holds the path to the default ChordPro file folder (root folder) for Gig Performer. The Chords/Lyrics editor can only open ChordPro files located in this folder.

"..." button - opens a dialog for locating the folder you want to designate as the root folder. Refer to the ChordPro chapter for more information.

16.6 Recording

The Recording tab appears when the Recording menu item is chosen in the Options menu:



Recording Folder

D:\Recordings

181 Gb available.

Channel Selection

Inputs

In 1 MONO

In 2 MONO

Outputs

Out 1 STEREO

Out 2

Record MIDI input

Properties

Bit depth:

24bit

Details on this dialog are in the Recorder chapter.

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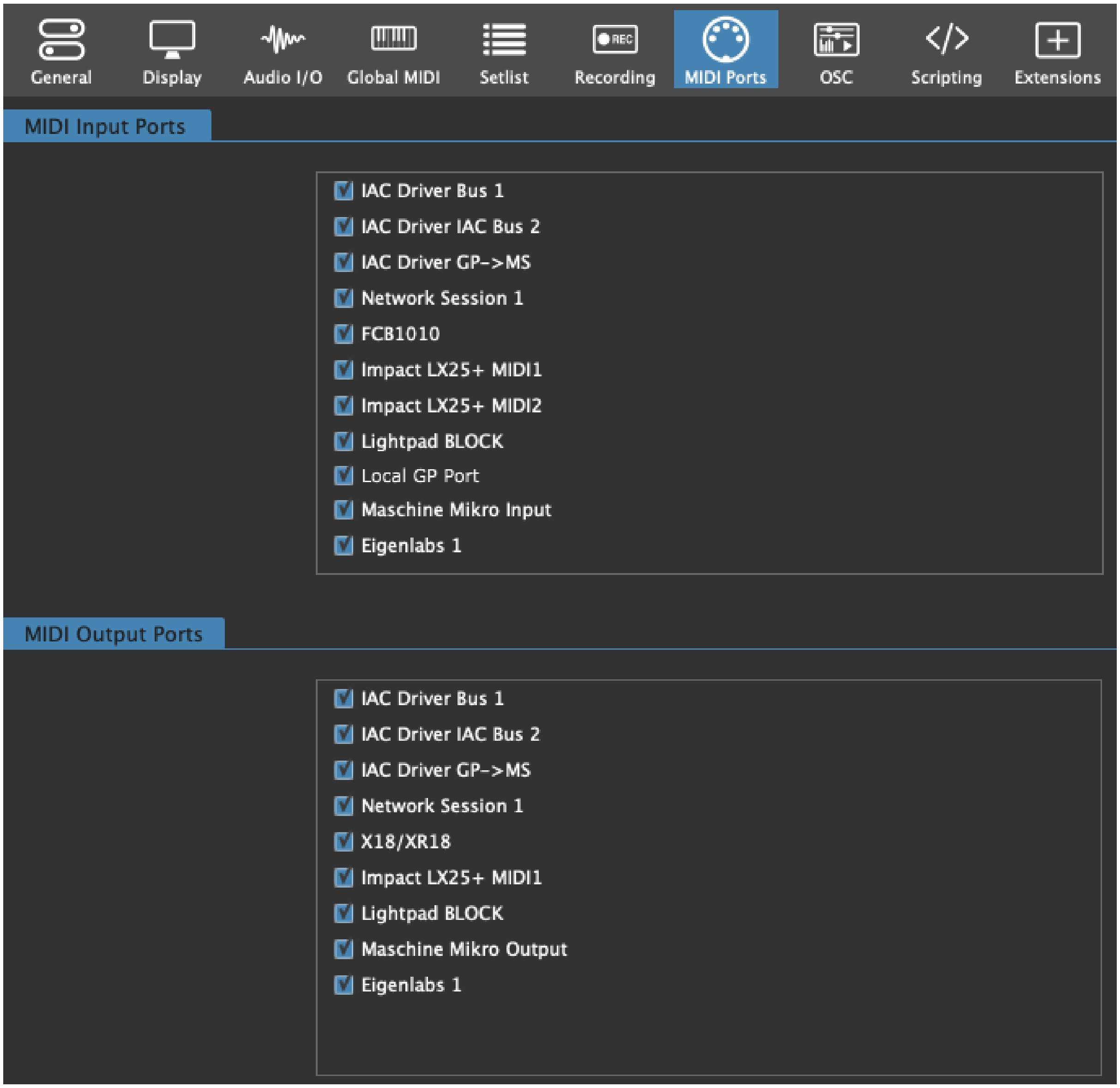
16.7 MIDI Ports

The MIDI Ports tab appears when the MIDI Ports menu item is chosen in the Options menu:



MIDI Input Ports

☑ IAC Driver Bus 1
☑ IAC Driver IAC Bus 2
☑ IAC Driver GP->MS
☑ Network Session 1
☑ FCB1010
☑ Impact LX25+ MIDI1
☑ Impact LX25+ MIDI2
☑ Lightpad BLOCK
☑ Local GP Port
☑ Maschine Mikro Input
☑ Eigenlabs 1

MIDI Output Ports

☑ IAC Driver Bus 1
☑ IAC Driver IAC Bus 2
☑ IAC Driver GP->MS
☑ Network Session 1
☑ X18/XR18
☑ Impact LX25+ MIDI1
☑ Lightpad BLOCK
☑ Maschine Mikro Output
☑ Eigenlabs 1

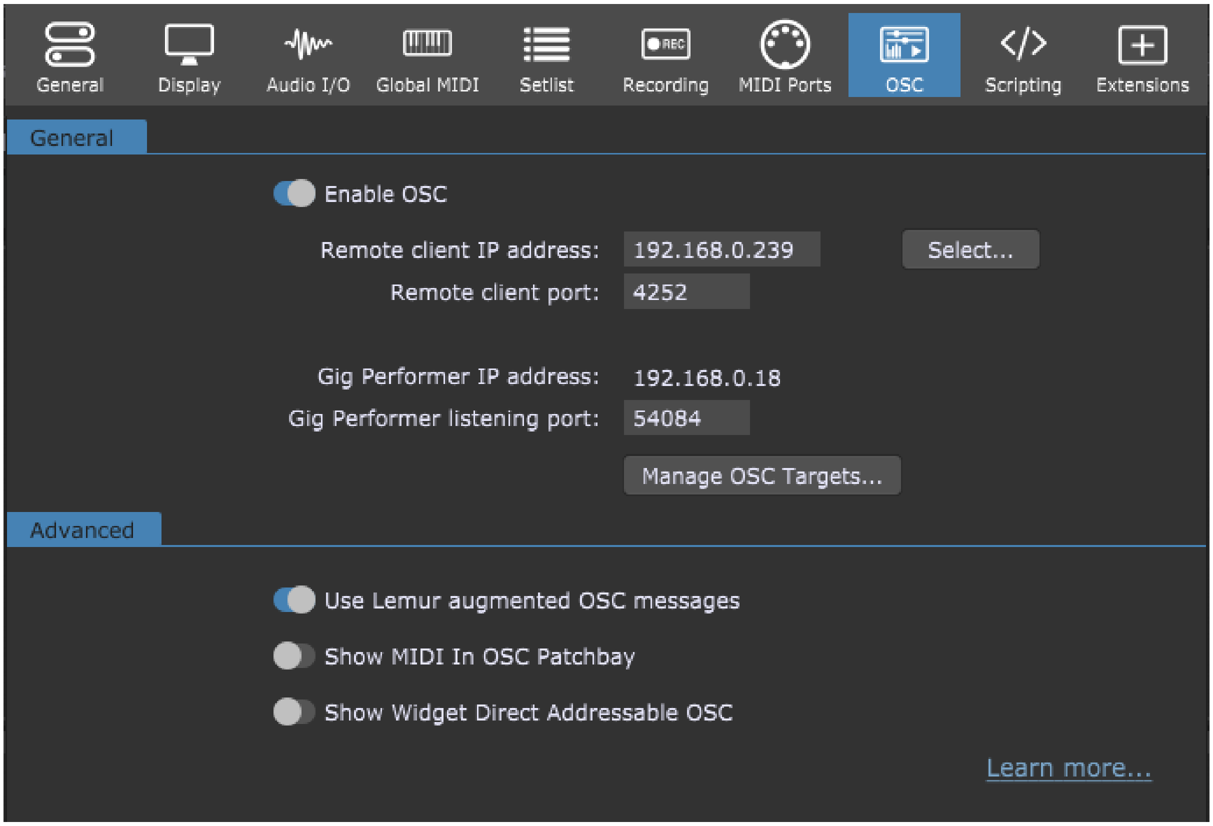
Normally, Gig Performer will open all MIDI input and output ports automatically. On OS X this is never an issue. However, many Windows MIDI drivers do not allow multiple applications (and that includes multiple instances of Gig Performer if enabled) to access the same MIDI port. If you need to run some other application that needs access to a MIDI port, you will need to disable that port in Gig Performer so that it can be opened by the other application.

This also applies to special plugins inserted into Gig Performer which themselves need to open a MIDI port to communicate with some specialized hardware.

In the MIDI Input Ports and MIDI Output Ports sections, simply uncheck the port or ports that you do not want Gig Performer to use. Normally, you would uncheck both the Input and Output ports but there may be special cases where you want to allow communication in one direction.

16.8 OSC

The OSC tab appears when the OSC Setup menu item is chosen in the Options menu:



● Enable OSC

Remote client IP address: 192.168.0.239

Remote client port: 4252

Gig Performer IP address: 192.168.0.18

Gig Performer listening port: 54084

● Use Lemur augmented OSC messages

○ Show MIDI In OSC Patchbay

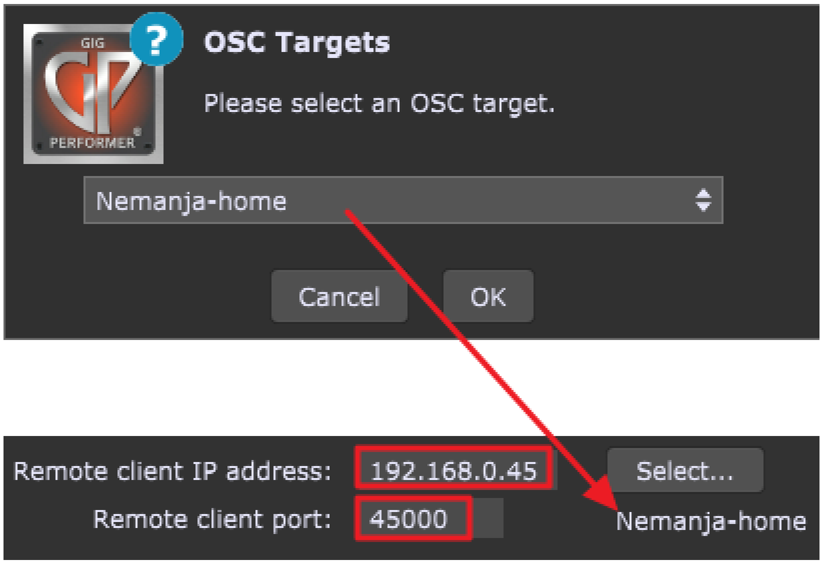
○ Show Widget Direct Addressable OSC

Enable OSC - click on this toggle button to turn on the OSC functionality.

Remote client IP address - the address of the remote device that is running an OSC application.

Remote client port - the port on the remote device that is listening for OSC messages over UDP (User Datagram Protocol).

Select... - instead of typing the Remote client IP address and port, you can click on this button to select one of the previously defined OSC targets:


OSC Targets

Please select an OSC target.

Nemanja-home

Remote client IP address: 192.168.0.45

Remote client port: 45000

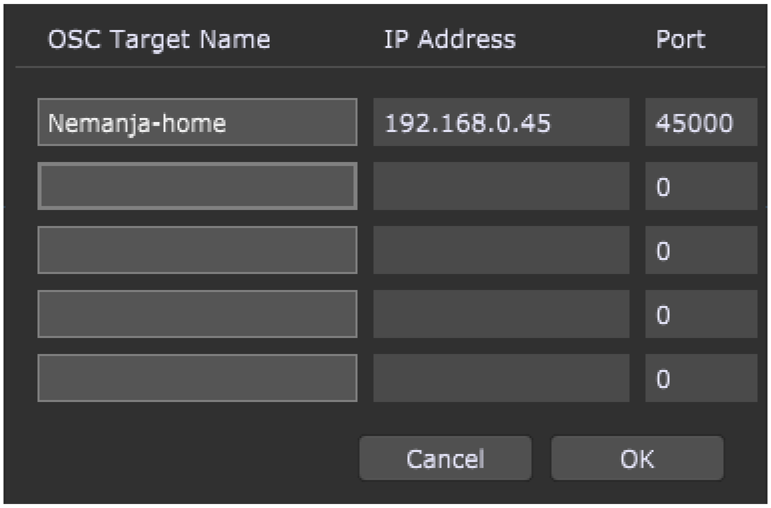
Nemanja-home

Simply select the desired OSC target from the list and click on OK. Note that Remote client IP address (as indicated with the red rectangles) and port changed to match the selected target. Additionally, the name of the selected target will appear under the Select... button (as indicated with the red arrow).

Gig Performer IP address - the address of the computer on which is Gig Performer running. Configure your remote device to use this IP address to connect to Gig Performer.

Gig Performer listening port - the port on which Gig Performer is listening for incoming OSC messages over UDP (User Datagram Protocol). Note: while listening port in Gig Performer v3 was permanently set to 54344, in Gig Performer v4 you can change this port.

Manage OSC Targets... - click on this button to create new OSC targets:



OSC Target Name	IP Address	Port
Nemanja-home	192.168.0.45	45000
		0
		0
		0
		0

Type in the name of a target and then its IP address and port. Click on OK to save the changes. Afterwards, the defined OSC targets will be available when you click on the **Select...** button (not only in this window, but also on other locations that provide a selection of an OSC target).

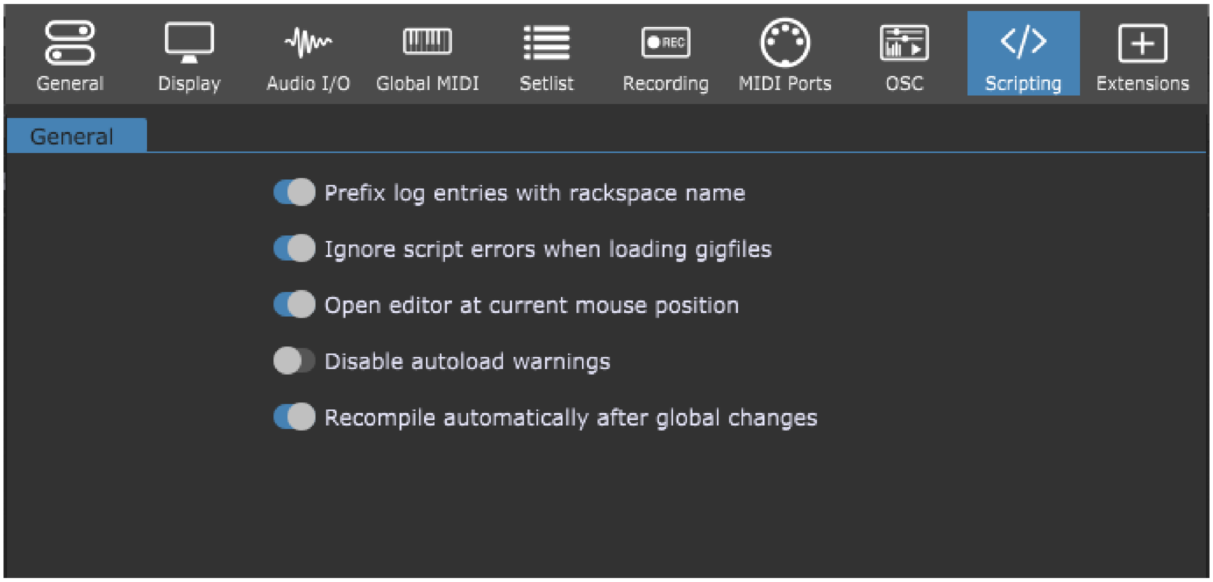
Use Lemur augmented OSC messages - if you are using Lemur or another OSC application that supports scripting, enable this option to cause Gig Performer to transmit parameterized OSC messages. Disable this option if you are using TouchOSC or other applications that are not programmable.

Show MIDI In OSC Patchbay - the idea behind this concept is to leverage applications like MaxMSP to modify incoming MIDI events. So, if the patchbay is enabled, an incoming MIDI message will not be sent out. Instead, it will be wrapped as an OSC message and sent to some remote listener (like MaxMSP, Ableton, or other OSC supporting application). A remote listener application could then examine the incoming message, modify it and/or create new MIDI messages, which would then be wrapped up in OSC and sent back to the MIDI In Block patchbay in Gig Performer which would then extract the MIDI from the OSC wrapper and send it on. Unless you have experience using and configuring OSC in other applications, you should not enable this feature as misconfiguration will cause incoming MIDI events to get lost.

Show Widget Direct Addressable OSC - widget direct OSC enables support for the individual OSC devices which are bound to the specific IP address/port that can be set up for each widget. It is not bidirectional at this point. Refer to the Widget Properties inspector chapter for more details.

16.9 Scripting

The Scripting tab appears when the Scripting menu item is chosen in the Options menu:



● Prefix log entries with rackspace name
● Ignore script errors when loading gigfiles
● Open editor at current mouse position
○ Disable autoload warnings
● Recompile automatically after global changes

Prefix log entries with rackspace name - enabling this toggle button causes messages in the Script Logger window to be identified by the rackspace that generated them. Since there is only one log window for all rackspace scripts, troubleshooting is greatly aided when the log is formatted this way.

Ignore script errors when loading gig files - normally, attempting to load a rackspace that has an invalid script triggers a warning dialog. Checking this option removes this warning.
CAUTION: this is an expert function. Enabling this toggle button is not recommended unless you know exactly what you're doing, as a rackspace with a broken script may behave in unexpected ways or fail to work at all.

Open editor at current mouse position - clicking on this toggle button centers the window of a script editor or the logger over the current mouse position when you open them (either by clicking the corresponding menu items or using their key combinations).

Disable autoload warnings - turning on this toggle button disables the warning when system scripts are not found.

Recompile automatically after global changes - turn on this toggle button to automatically recompile all scripts after changes made in the Rig Manager.
Note: to manually recompile all scripts, click on the **Options** menu and then click the **Recompile All Scripts** menu item.

These menu items are related to script editing:

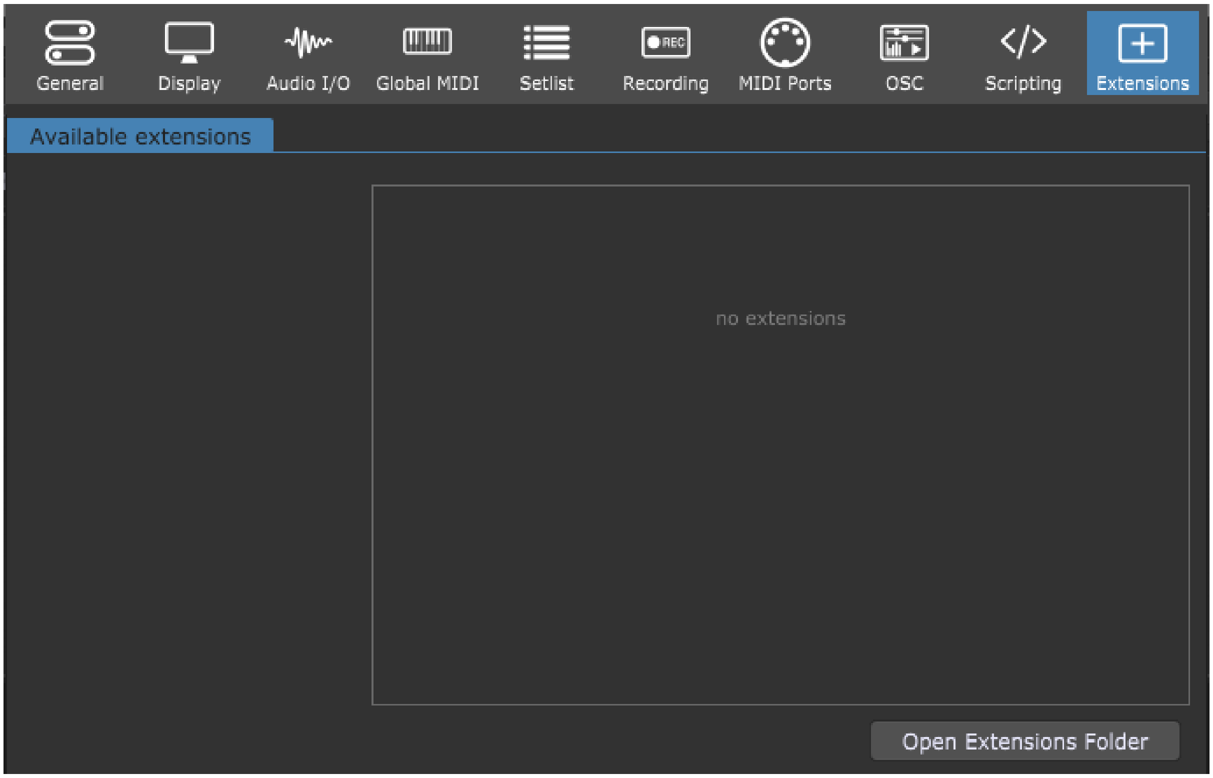
File - Open Script From File (available when a Script Editor is opened)
File - Open Recent Script File
File - Save Script to File

Edit - Show Script Helper
Options - Recompile All Scripts
Window - Show Current Rackspace Script Editor
Window - Show Global Rackspace Script Editor
Window - Show Song Script Editor
Window - Show Gig Script Editor
Window - Show Script Logger

Gig Performer uses a language called GPScript which was explicitly designed for Gig Performer. Refer to the GPScript chapter for more information.

16.10 Extensions

The Extensions tab appears when the Extensions menu item is chosen in the Options menu:



no extensions

This window allows you to easily enable or disable extensions for your devices.

Refer to the Extensions chapter for more information.

17 Keyboard shortcuts

In this chapter find out more about keyboard shortcuts that you can use in Gig Performer. Besides the common keyboard shortcuts such as Ctrl+C, V, D (Cmd+C, V, D on Mac) for copy, paste, and duplicate respectively (works for plugins, panels, and widgets), check other useful shortcuts in the tables below.

File management

Mac OS X	Windows	Function
Cmd+O	Ctrl+O	Opens a .gig file
Cmd+S	Ctrl+S	Saves the current .gig file
Shift+Cmd+S	Ctrl+Shift+S	Saves the current work to a .gig file with a new name
Shift+Cmd+I	Ctrl+Shift+I	Imports a single rackspace from a file
Shift+Cmd+E	Ctrl+Shift+E	Exports the current rackspace to a file

Screen management

Mac OS X	Windows	Function
Cmd+T	Ctrl+T	Cycles between the Panels and Wiring views
Cmd+E	Ctrl+E	Toggles Panels view/Panels view Edit mode
Cmd+Shift+L	Ctrl+Shift+L	Activates the Setlist view
Cmd+Option+F	Ctrl+Alt+F	Toggles Full Screen
Cmd+,	Ctrl+,	Opens the General Options dialog

Rackspace management

Mac OS X	Windows	Function
Shift+Cmd+N	Ctrl+Shift+N	Adds a new rackspace

Shift+Cmd+D	Ctrl+Shift+D	Duplicates the selected rackspace
Shift+Cmd+Backspace	Ctrl+Shift+Backspace	Deletes the selected rackspace
Shift+Cmd+E	Ctrl+Shift+E	Exports the selected rackspace
Cmd+N	Ctrl+N	Adds a new variation to the selected rackspace
Cmd+Backspace	Ctrl+Backspace	Deletes the selected variation
Cmd+J	Ctrl+J	Opens the Quick Rackspace/Variation Finder
Cmd+G	Ctrl+G	Shows/Hides the Global rackspace

Wiring and plugin management

Mac OS X	Windows	Function
Cmd+P	Ctrl+P	Opens the Quick Plugin Finder (Gig Performer will switch to the Wiring View automatically if you are currently in the Panels View)
Shift+I	Shift+I	Zooms in the Wiring view surface
Shift+O	Shift+O	Zooms out the Wiring view surface
Shift+F	Shift+F	Zooms blocks to fit
Cmd+Shift+F	Ctrl+Shift+F	Fit blocks to the current view

Song/Setlist management

Mac OS X	Windows	Function

Shift+Cmd+N	Ctrl+Shift+N	Adds a new song
Shift+Cmd+D	Ctrl+Shift+D	Duplicates the selected song
Shift+Cmd+Backspace	Ctrl+Shift+Backspace	Removes the selected song
Cmd+L	Ctrl+L	Locks/unlocks the selected song
Cmd+N	Ctrl+N	Adds a new song part to the selected song
Cmd+D	Ctrl+D	Duplicates the selected song part
Cmd+Backspace	Ctrl+Backspace	Removes the selected song part
Cmd+J	Ctrl+J	Opens a dialog that allows you to assign a rackspace/variation
Cmd+F	Ctrl+F	Opens the Quick Song Finder
Shift+Cmd+F	Cmd+Shift+F	Opens a dialog that allows you to add song(s) to the current setlist

Gig Performer Window Management

Mac OS X	Windows	Function
Cmd+Shift+P	Ctrl+Shift+P	Opens the Plugin Manager
Cmd+R	Ctrl+R	Opens the Rig Manager
Cmd+M	Ctrl+M	Opens the Global MIDI Monitor
Cmd+H	Ctrl+H	Opens the Song Lyrics/Chord Editor
Cmd+Shift+1	Ctrl+Shift+1	Shows the current Rackspace script editor
Cmd+Shift+5	Ctrl+Shift+5	Shows the Global rackspace script editor
Cmd+Shift+2	Ctrl+Shift+2	Shows the Song script editor
Cmd+Shift+3	Ctrl+Shift+3	Shows the Gig script editor

Cmd+Shift+4	Ctrl+Shift+4	Shows the Script Logger
Cmd+W	Ctrl+W	Closes the active plugin window
Cmd+Shift+W	Ctrl+Shift+W	Closes the active non-plugin window

18 GPScript

Most users will find everything they need in Gig Performer's extensive feature set, but there are always some users that require sophisticated custom functions that go beyond Gig Performer's main feature set. For those users, we have created a proprietary programming language called GPScript. GPScript enables you to perform incredible transformations and perform complex tasks. While any language takes some understanding of programming, GPScript is written to be accessible. If you can program spreadsheet macros or in a language such as VBA, you are likely to be comfortable with GPScript.

GPScript can now be used to implement your own MIDI processing plugin filters using the new Scriptlet plugin in Gig Performer 4. While it has always been possible to create scripts for individual rackspaces, you can now create scripts at the song level and at the gig level. The Gig level script has some powerful features for efficiently rerouting incoming MIDI events, creating system wide keyboard macro shortcuts and for sending commands out to hardware when songs or rackspaces change.

Because GPScript will not be needed by most people and requires substantial documentation of its own, we will not cover it in this manual in great detail. However, if you are interested, check out this simple example to get started: How to control multiple parameters with a single widget.

Additionally, you can find an introduction to the GPScript language in this blog entry: The GPScript programming language.

GPScript documentation can be found here (also accessible via the Help menu-> Documentation):

- System function list
- Language manual

For discussion of GPScript and help getting it to do what you need, check out the GPScript section in the Gig Performer Community.

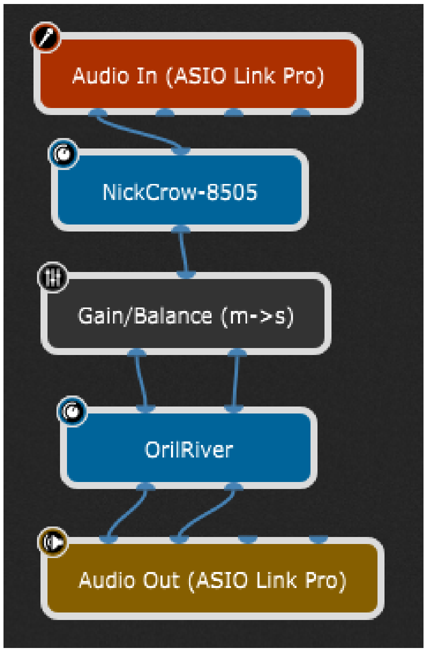
18.1 How to control multiple parameters with a single widget?

In Gig Performer, you can control multiple plugin parameters simultaneously:

- using widget groups,
- by assigning the same MIDI control to multiple widgets,
- using GPScript to control any number of parameters with a single widget.

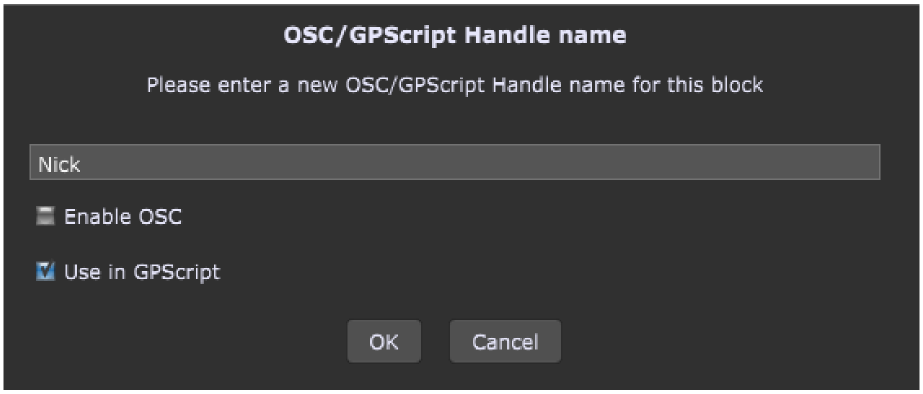
In this chapter, we'll focus on a simple script that will allow you to control multiple parameters with a single widget.

Start Gig Performer and create a new empty gig. First, click on the Wiring view and create a simple layout. In this example, besides built-in plugins we are using two plugins - Nick Crow 8505 and OrilRiver:



Refer to this blog article for more information on how to get these plugins, insert them and connect them.

Let's say that you want to control two parameters with a single widget: one parameter from the NickCrow plugin and the second parameter from the OrilRiver plugin. To use a plugin in scripting, you need to define a GPScript handle for it. Right click on the NickCrow plugin to open its contextual menu, then expand **OSC/GPScript Handle** and select **Set Handle...** :



OSC/GPScript Handle name

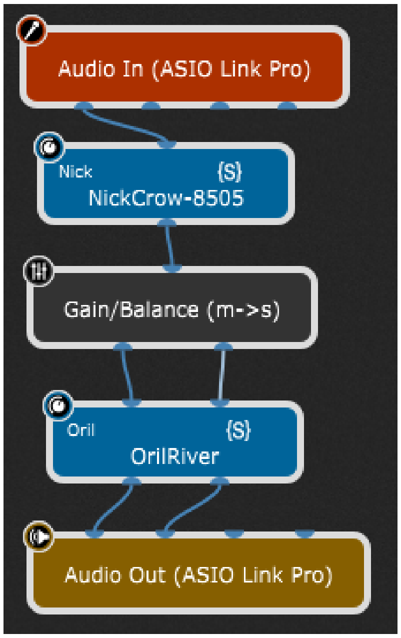
Please enter a new OSC/GPScript Handle name for this block

Nick

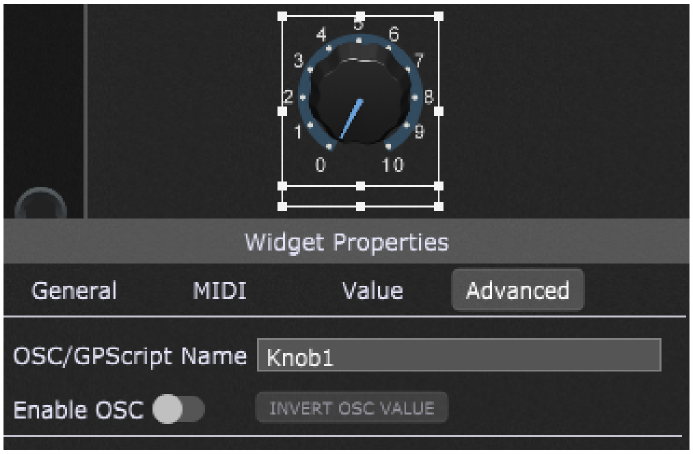
□ Enable OSC

☑ Use in GPScript

Type in a GPScript handle name (i.e. Nick) and check the **Use in GPScript** check box. Repeat the same steps for the OrilRiver plugin and set a handle name (i.e. Oril) and check the **Use in GPScript** check box. Now your layout looks like this:



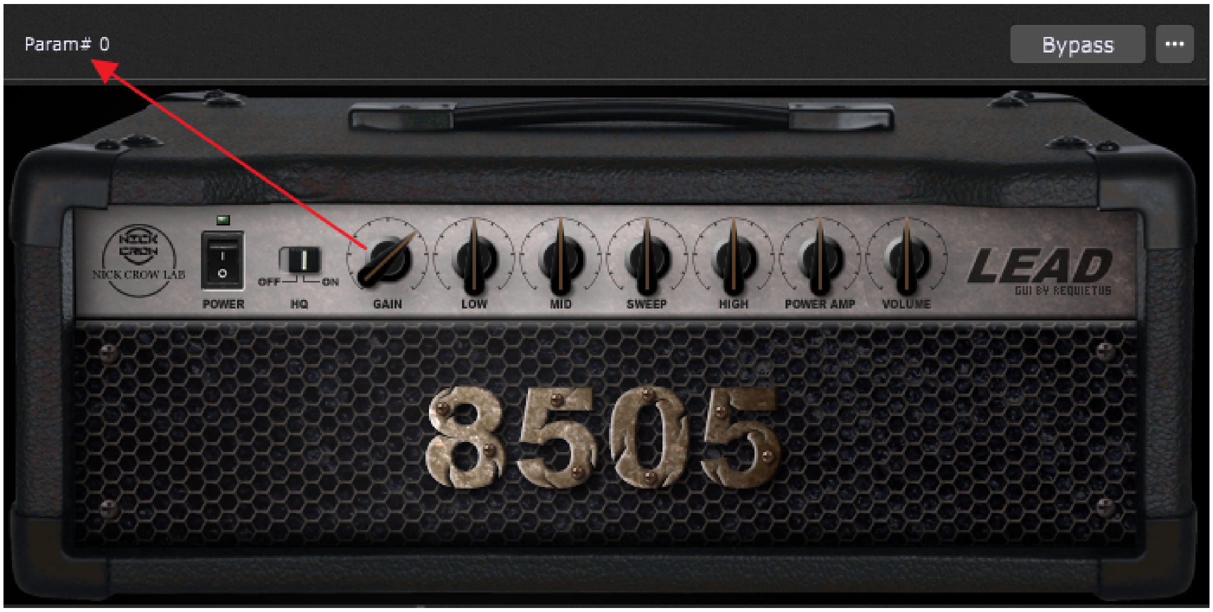
The next step is to insert a widget and assign it a GPScript name so you can use it in scripting. Open the Panels View in Edit mode and insert the Plastic Blue Knob onto the panel (refer to this chapter for more information):



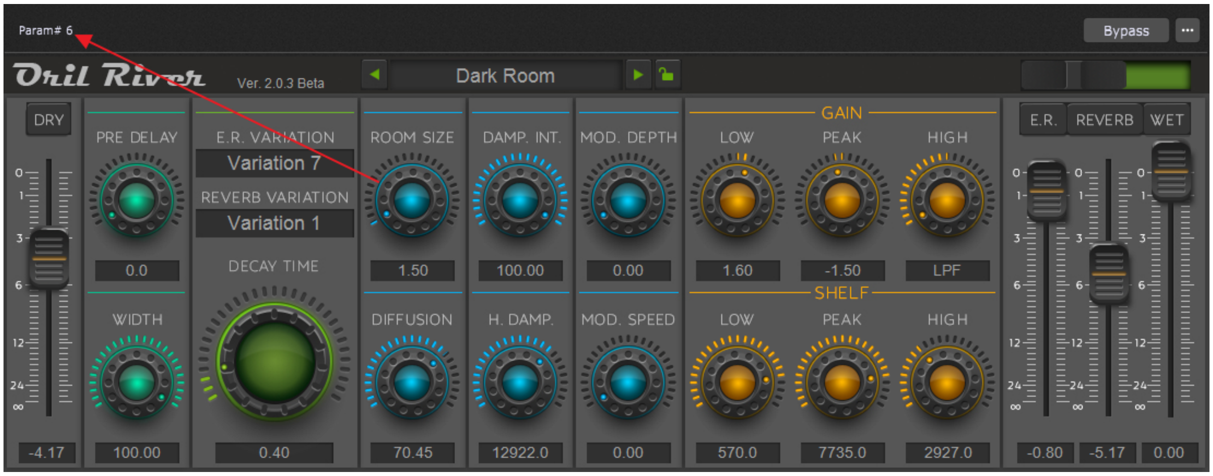
OSC/GPScript Name: Knob1

In the Widget Properties inspector, click on the Advanced tab and enter a GPScript name for this widget (i.e. Knob1).

The last information you need is a parameter number that you want to control with this widget. Click on the Wiring View and double-click on the Nick Crow plugin to open its plugin editor:



Move the desired control (i.e. the Gain knob) and you'll immediately see its parameter number (indicated with the red arrow). Repeat the same steps for the OrilRiver plugin and note the parameter number of e.g. the Room Size knob (indicated with the red arrow):

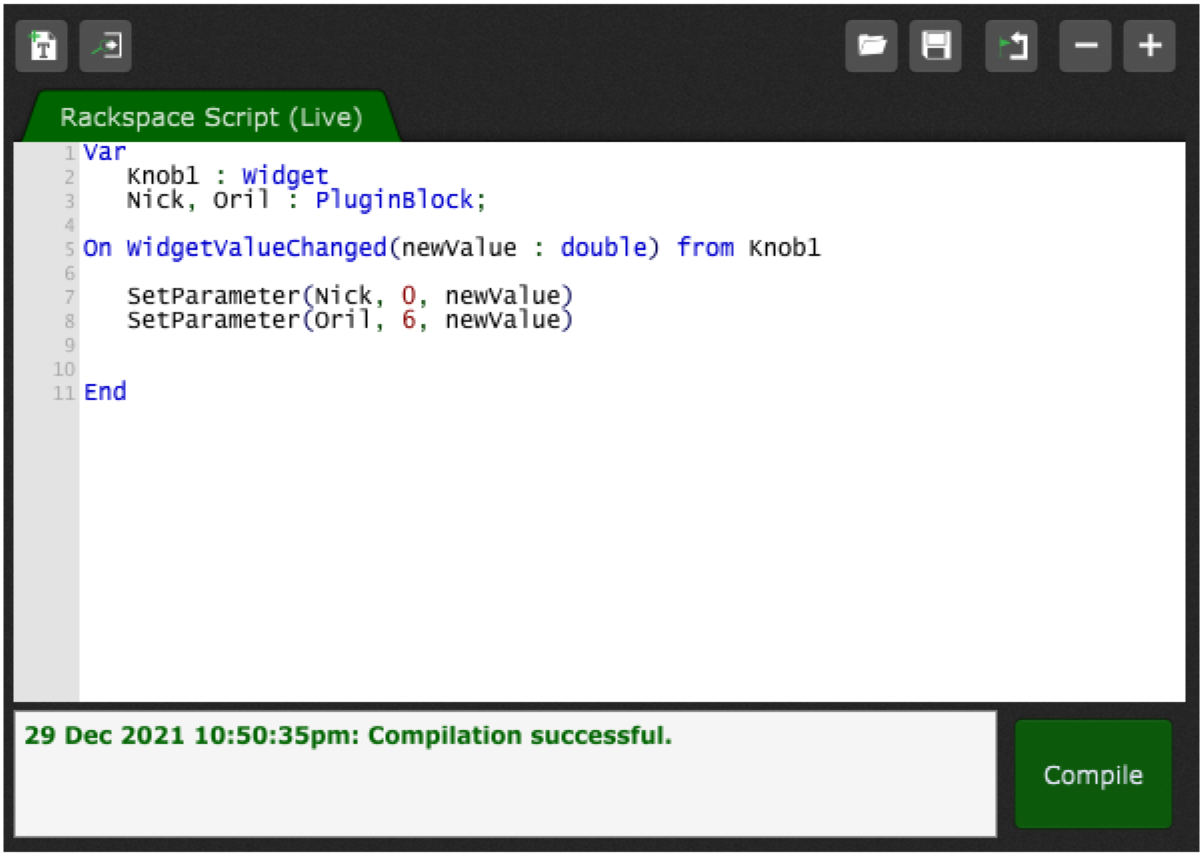


Click on the **Window** menu and select the **Show Rackspace Script Editor** menu item and insert this code:

```
Var
   Knob1 : Widget
   Nick, Oril : PluginBlock;

On WidgetValueChanged(newValue : double) from Knob1

   SetParameter(Nick, 0, newValue)
   SetParameter(Oril, 6, newValue)
```

```
    End
```

Now click on the **Compile** button:

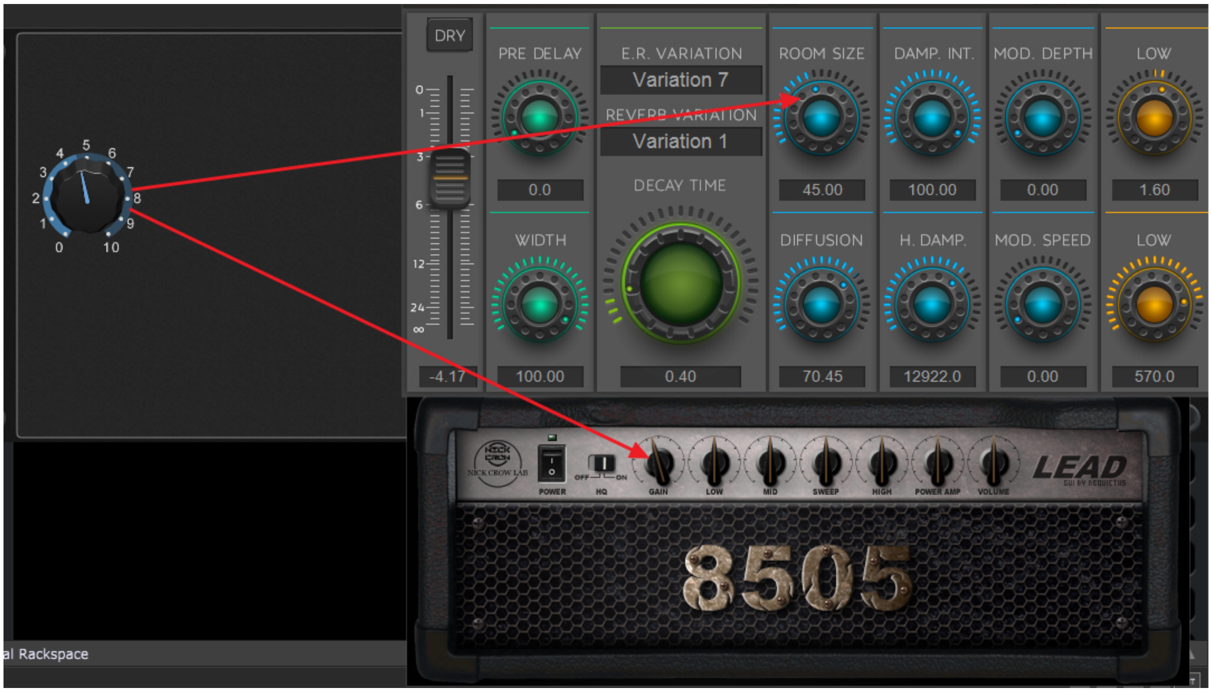


```
Var
   Knob1 : Widget
   Nick, Oril : PluginBlock;

On WidgetValueChanged(newValue : double) from Knob1

   SetParameter(Nick, 0, newValue)
   SetParameter(Oril, 6, newValue)


End
```

29 Dec 2021 10:50:35pm: Compilation successful.

If your script contains no errors, you'll receive a note that compilation is successful.

Open the Panels View and move the widget; you'll notice how the chosen parameters change accordingly:



Let's take a look at the code.

In the **Var** section you simply declare your variables based on the GPScript names you had previously given to them and specify their type (i.e. Knob1 : Widget or Nick, Oril : PluginBlock). If you want to control more parameters from different plugins, simply give those plugins the corresponding GPScript names and declare them in the Var section.

GPScript language is event-driven. The next section "On WidgetValueChanged(newValue : double) from Knob1" tells the compiler what event to monitor and on which widget. The **newValue** parameter is updated with the new value every time you move the knob (i.e. the widget value changes). Any function in GPScript that run when a certain event occurs is called a callback (another example is *On Activate* which runs when a rackspace activates).

The section of code inside the callback simply tells the compiler what to do when the event is detected; in this example we want to set the parameter in the plugin with the name "nick" and on the parameter number "0", with the value "newValue" (the current value of the knob widget).

This is a very basic demonstration of GPScript which provides you with the virtually unlimited flexibility to create sophisticated setups for your live performance.

If you are interested in learning more, join our Community to see how users incorporate GPScript into their setups.

18.2 Local GP Port

The Local GP Port feature is a very advanced feature intended for the most sophisticated Gig Performer users.

The Local GP Port exists only inside Gig Performer. You can create MIDI In blocks that receive MIDI events from the Local GP Port and widgets can be associated with MIDI events arriving at this port, just like any physical MIDI Input port.

Note: this is not a virtual MIDI port that is visible to other applications.

The purpose of this feature is to allow widgets to be able to respond to incoming SysEx messages. GPScript lets you define a callback that will respond to incoming System Exclusive messages. If you use this callback, you can detect the changing bytes (which could be one, two or more, depending on the particular message) from the SysEx message and generate standard MIDI channel messages out of them. If you then inject such messages into the new Local GP Port, then widgets can learn those messages and then control plugin parameters as usual.

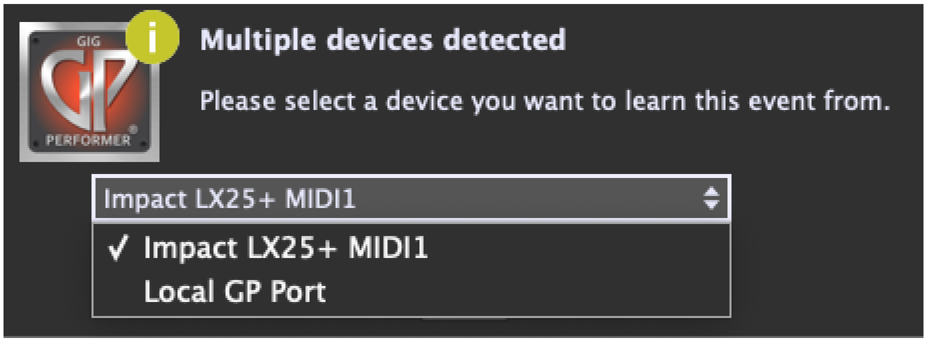
Note: this is the reason the MIDI Monitor windows have the ability to display SysEx indices. It makes it easier for you to see which values in the incoming message need to be detected and captured.

MIDI events can be injected into the Local GP Port from GPScript using the *InjectMidiEvent* function.

To use this feature:

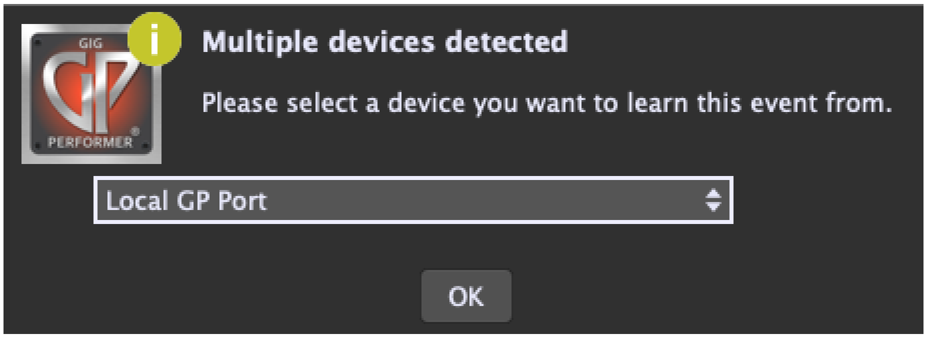
1. Use GPScript (in a rackspace, scriptlet or the global GigScript) to create a MIDI channel event (e.g. CC 42) and inject that message into the Local GP Port.
2. Open the Rig Manager and define a control that responds to that new CC event.
3. Have your widget learn the message in the usual fashion.

Note: if your trigger is another MIDI message coming from some other physical port - you will get a popup in the Rig Manager indicating that multiple devices were detected while learning your control:


Multiple devices detected

Please select a device you want to learn this event from.

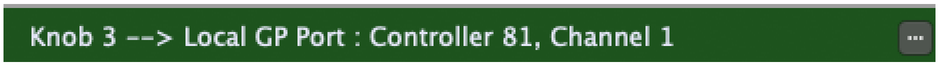
Simply select the Local GP Port as your device:


Multiple devices detected

Please select a device you want to learn this event from.

Local GP Port

The resulting entry in the Rig Manager:


Knob 3 --> Local GP Port : Controller 81, Channel 1

Here is a simple script that injects everything that comes into a Scriplet plugin back into the Local GP Port:

```
On MidiEvent(m : MidiMessage)
    InjectMidiEvent("Local GP Port", m)
End
```

If you want to name the "Local GP Port" in the Rig Manager to e.g. GP1 - you can then use the following function:

```
InjectMidiEventViaRigManager("GP1", m)
```

Now simply drop a widget in and in the MIDI tab select the defined "Knob 3" for example.

19 Important workflow tools and tips

In this chapter you will learn more about workflow tools and tips that will help you get things done quicker.

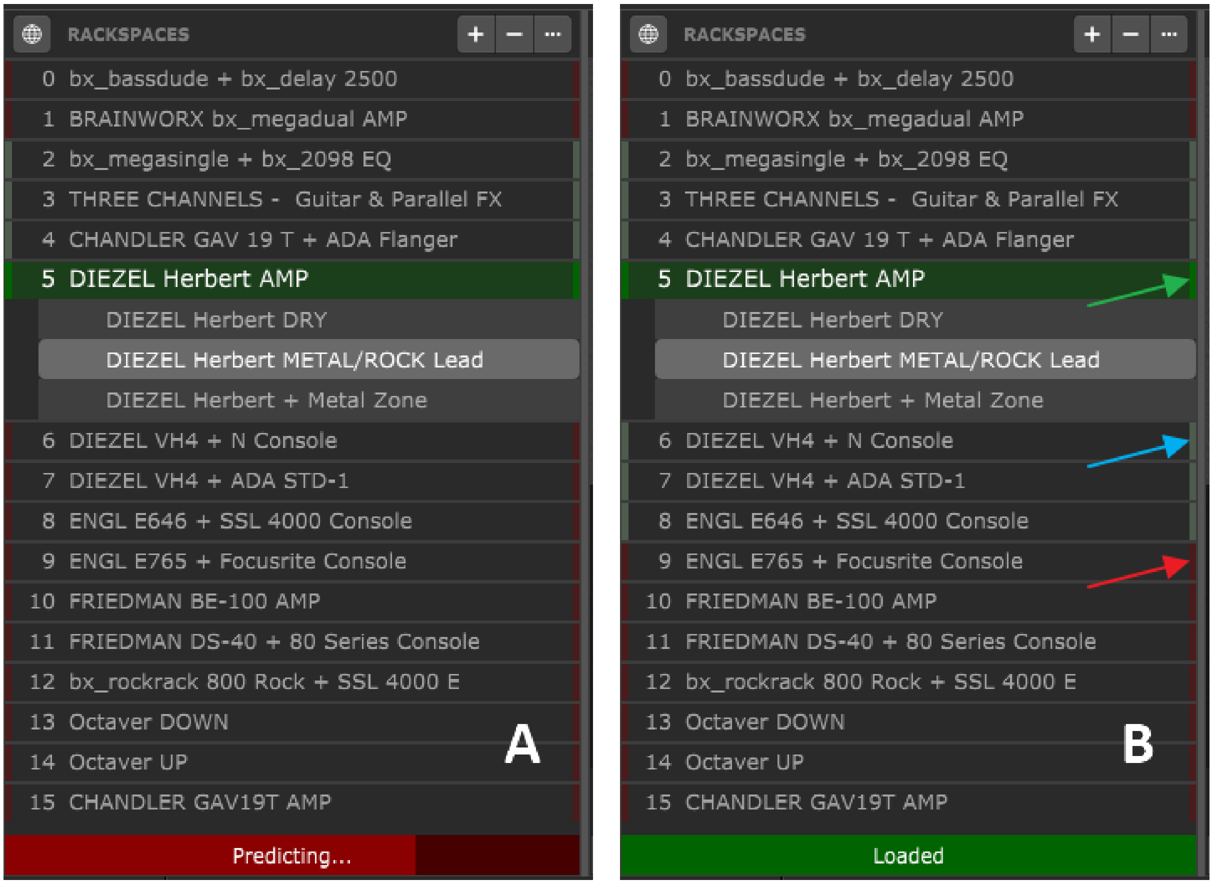
19.1 Predictive loading

One of the biggest problems for live performers is how much memory and CPU cycles are required to keep all the desired plugins available. In particular, plugins that use a significant number of samples can use many gigabytes of RAM to hold the required data.

In normal operation, Gig Performer loads all plugins for all rackspaces and does some optimization to reduce the impact of hosting a large number of plugins simultaneously while still allowing you to switch quickly from one rackspace to another. However, this comes at the cost of RAM and CPU usage, which may create issues in systems with limited resources and/or significant audio hosting requirements. The possible alternative - loading just one rackspace (i.e. one set of plugins) at a time - would certainly reduce RAM and CPU requirements considerably, but at the cost of having to wait while each new rackspace is loaded.

Gig Performer's predictive loading feature provides a creative solution: preload only those rackspaces that will be needed in the immediate future (e.g. while playing the current song). Other rackspaces are not loaded and will therefore not consume any memory. As an added benefit, startup time is significantly shortened since not all plugins need to be loaded. You may also see some reduced overall CPU utilization.

To activate this feature, open the General Options and turn on the **Predictive loading** toggle button. When this feature is activated, the **Limit to maximum of** field appears; here specify the maximum number of rackspaces that will be pre-loaded around the currently selected rackspace; you can select an odd value between 3 and 49. If your value is 7, that means that the current rackspace as well as the next three and previous three rackspaces are also loaded and instantly accessible:



RACKSPACES

0 bx_bassdude + bx_delay 2500
1 BRAINWORX bx_megadual AMP
2 bx_megasingle + bx_2098 EQ
3 THREE CHANNELS - Guitar & Parallel FX
4 CHANDLER GAV 19 T + ADA Flanger
5 DIEZEL Herbert AMP
DIEZEL Herbert DRY
DIEZEL Herbert METAL/ROCK Lead
DIEZEL Herbert + Metal Zone
6 DIEZEL VH4 + N Console
7 DIEZEL VH4 + ADA STD-1
8 ENGL E646 + SSL 4000 Console
9 ENGL E765 + Focusrite Console
10 FRIEDMAN BE-100 AMP
11 FRIEDMAN DS-40 + 80 Series Console
12 bx_rockrack 800 Rock + SSL 4000 E
13 Octaver DOWN
14 Octaver UP
15 CHANDLER GAV19T AMP

A

Predicting...

RACKSPACES

0 bx_bassdude + bx_delay 2500
1 BRAINWORX bx_megadual AMP
2 bx_megasingle + bx_2098 EQ
3 THREE CHANNELS - Guitar & Parallel FX
4 CHANDLER GAV 19 T + ADA Flanger
5 DIEZEL Herbert AMP
DIEZEL Herbert DRY
DIEZEL Herbert METAL/ROCK Lead
DIEZEL Herbert + Metal Zone
6 DIEZEL VH4 + N Console
7 DIEZEL VH4 + ADA STD-1
8 ENGL E646 + SSL 4000 Console
9 ENGL E765 + Focusrite Console
10 FRIEDMAN BE-100 AMP
11 FRIEDMAN DS-40 + 80 Series Console
12 bx_rockrack 800 Rock + SSL 4000 E
13 Octaver DOWN
14 Octaver UP
15 CHANDLER GAV19T AMP

B

Loaded

In the example above, each time you click on a rackspace the *Predicting...* status appears, as indicated with **(A)**; when seven rackspaces are loaded (the current rackspace plus three rackspaces before and three rackspaces after) the status changes to *Loaded*, as indicated with **(B)**. The current rackspace is indicated with the green arrow, predicted rackspaces are indicated with the blue arrow, and rackspaces that are not currently loaded are indicated with the red arrow.

The optimal use of this feature assumes you will be moving from your current rackspace to rackspaces that are close to it (within two, if the default value of 5 is being used). As you move to a new rackspace, Gig Performer will then load and unload other rackspaces so that there are always two available before and two after where you are. This happens in the background and does not affect your audio.

When using setlists, predictive loading prioritizes what gets loaded. The current song is always fully loaded, after that are loaded, in order: the next song, previous song, and any further songs until the limit imposed by the *Limit to maximum* setting is reached.

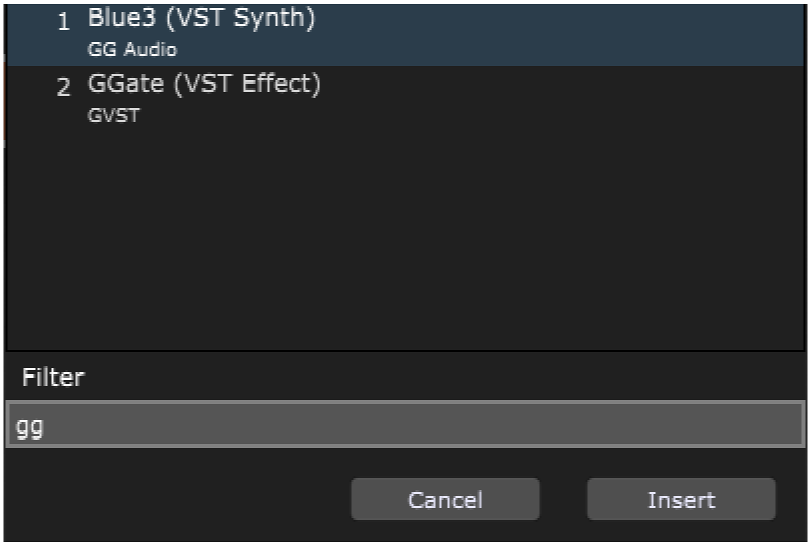
Predictive loading provides glitch-free instant switching among those rackspaces that are currently loaded, but with the tradeoff that you might not always be able to jump to an arbitrary rackspace without a short delay, depending on the particular plugin requirements. As a result, when using this option, you should configure your rackspaces in such a way that they are in rough order of when they will be needed in a performance, i.e. song intro -> first verse -> first chorus, etc. In that way, you can best ensure that you will never have to "jump" to another rackspace that is farther away that the specified number of loaded rackspaces (defined with the *Limit to maximum* field).

Note: rackspaces can easily be reordered by dragging them up and down using your mouse or trackpad; holding down the Shift key while doing so results in the dragged rackspace not being loaded, making it more efficient to do setlist reordering without having to wait for each rackspace to load.

More details about predictive loading can be found on the Gig Performer website: click here.

19.2 Quick plugin finder

The Ctrl+P (or Cmd+P on Mac) keyboard shortcut provides a more efficient way to create a plugin than right-clicking since it opens the Quick plugin finder dialog (shown below), which allows you to type a partial plugin or company name, with the resultant list restricted to those that match:



1 Blue3 (VST Synth)
GG Audio

2 GGate (VST Effect)
GVST

Filter

gg

Type in a partial string, such as "gg" to quickly find all plugins containing that name or their developers name. You can also type in e.g. "synth" to display all your synth plugins. You can enter multiple substrings. For example, if you have the Arturia Modeling Collection installed, you could type "art dx" to restrict the list to the Arturia DX7 plugins. Using the substring "presets" or "favorites" will restrict the view to presets and favorites that you have created.

Click on the **Insert** button to insert the selected plugin.

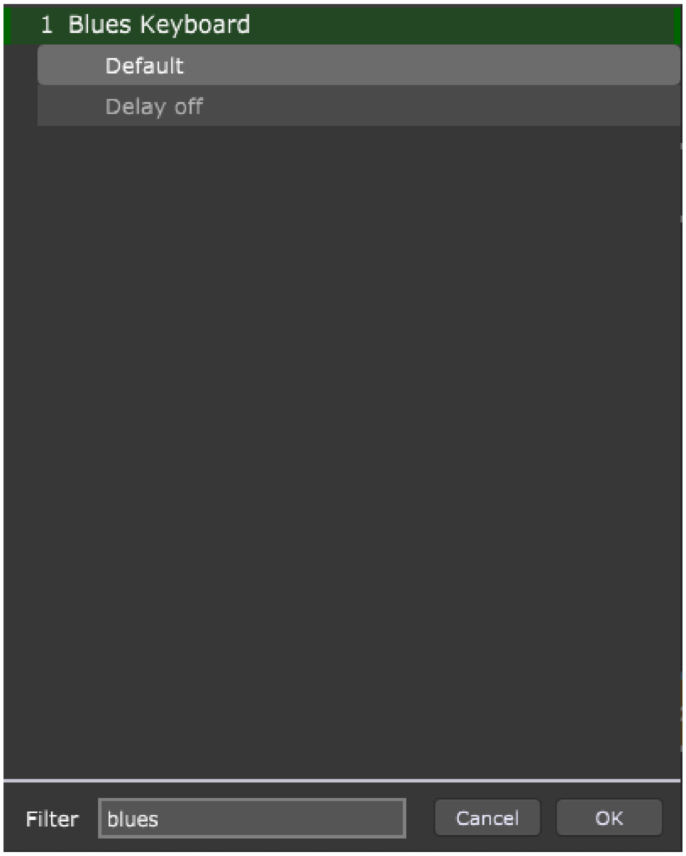
19.3 Quick Rackspace/Variation finder

The Quick Rackspace/Variation Finder is a fast way to switch to a specific rackspace and variation, great for jamming and improv performances, or assembling setlists. It can be opened by using any of these three methods:

- Using the Ctrl + J (or Cmd + J) key combination,

- Edit menu -> Quick Jump to Rackspace/Variation...

- More... button -> Quick Jump to Rackspace/Variation...



1 Blues Keyboard
Default
Delay off

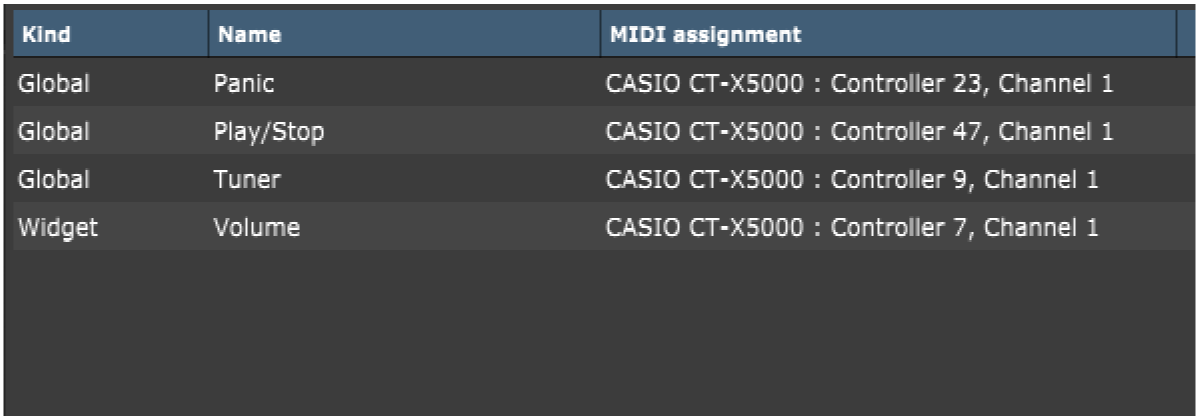
Filter: blues

To switch to a different rackspace, open the Quick Jump to Rackspace/Variation... window, then click the variation you want to select, and click the OK button (or simply double-click the variation in the list).

Search terms can be entered in the Filter field to help find the variation you want, as indicated in the screenshot above.

19.4 MIDI Assignment List window

Clicking on **Window** -> **Show MIDI Assignments** opens the MIDI Assignments List window:



Kind	Name	MIDI assignment
Global	Panic	CASIO CT-X5000 : Controller 23, Channel 1
Global	Play/Stop	CASIO CT-X5000 : Controller 47, Channel 1
Global	Tuner	CASIO CT-X5000 : Controller 9, Channel 1
Widget	Volume	CASIO CT-X5000 : Controller 7, Channel 1

This window displays the information from the Global MIDI Assignments section in the Global MIDI Options, MIDI assignments in Setlist Options, and widget MIDI assignments. If you are wondering why some note is not playing or some MIDI CC message doesn't seem to be working as expected, check this assignment list to make sure that you didn't accidentally assign the message to a widget, thereby preventing it from being passed through to a MIDI In block.

Widget MIDI assignments are always displayed for the currently active rackspace (not all rackspaces in a gig file).

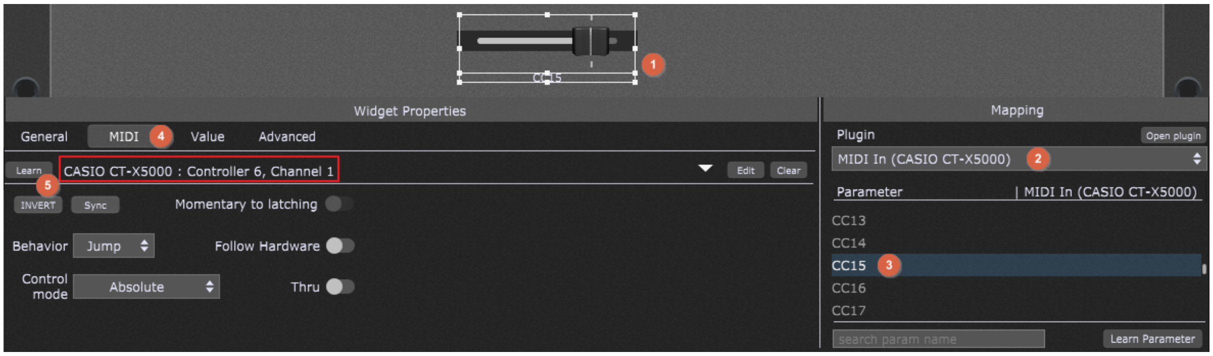
Note: mappings to physical controllers made in the Widget Properties inspector override Global MIDI Assignments.

19.5 Remap MIDI messages without using the MIDI Filter plugin

Like other plugins, a MIDI In block has numerous parameters that can be controlled by widgets. These parameters include any MIDI note or continuous controller message. This makes it possible to remap MIDI messages coming from a physical controller without using the MIDI Filter plugin. Perform these steps to remap MIDI messages:

- First make sure that your MIDI device is connected to your computer and that you added the corresponding MIDI In block onto the surface in the Wiring view.
- In the Panels view Edit mode, create a new widget, e.g. a Black Slider (Horizontal) and click on it to select it **(1)**.
- In the widget mapping area, choose the MIDI In block that corresponds to your desired MIDI device **(2)**.

- Choose a note or continuous controller from the Parameter list in the Mapping section **(3)**.
- In the widget properties area, click on the MIDI tab **(4)**, then click on the Learn button **(5)** and move the physical controller.



CASIO CT-X5000 : Controller 6, Channel 1

Momentary to latching

Behavior: Jump

Follow Hardware

Control mode: Absolute

Thru

Plugin: MIDI In (CASIO CT-X5000)

Parameter | MIDI In (CASIO CT-X5000)

CC13
CC14
CC15
CC16
CC17

Note that this area indicated with the red rectangle changed from "(no MIDI In assignment yet)" to something else (depends on the MIDI device you used and what physical controller you moved).

Incoming messages from the physical controller (e.g. Controller 6, Channel 1) are now remapped to the note or continuous controller you chose (e.g. CC15).

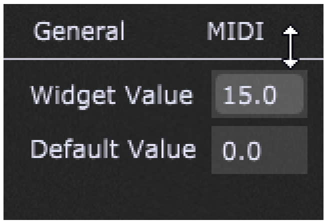
Of course, this incoming CC could as easily be remapped to pitchbend, aftertouch, or mod wheel messages.

19.6 Additional tips

In this section you will learn more about useful tips that may help you to get things done quicker.

Entering values

You can easily set values in various fields by clicking on the field and moving the mouse up or down:

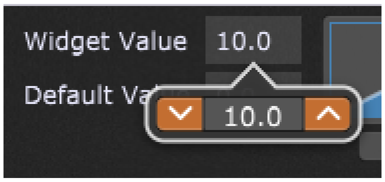


Widget Value 15.0

Default Value 0.0

Additionally, if you also hold the Shift key, values are increased or decreased by 0.1. Note that the dragging speed is also taken into account; moving your mouse faster will make greater changes in values.

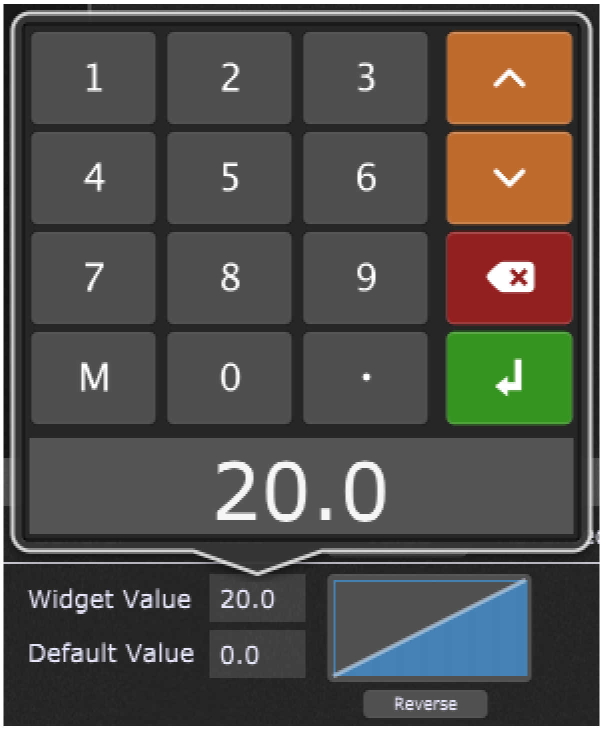
By default, clicking on the field opens a mini pad for entering values:


Widget Value 10.0

Default Va

Click on up/down arrows to change value by 1, hold the Shift key to change value by 0.1, or simply type in the desired value.

Turning on the *Touch-friendly number editing* toggle button in Display Options shows a larger keypad instead of the mini pad:



Widget Value 20.0

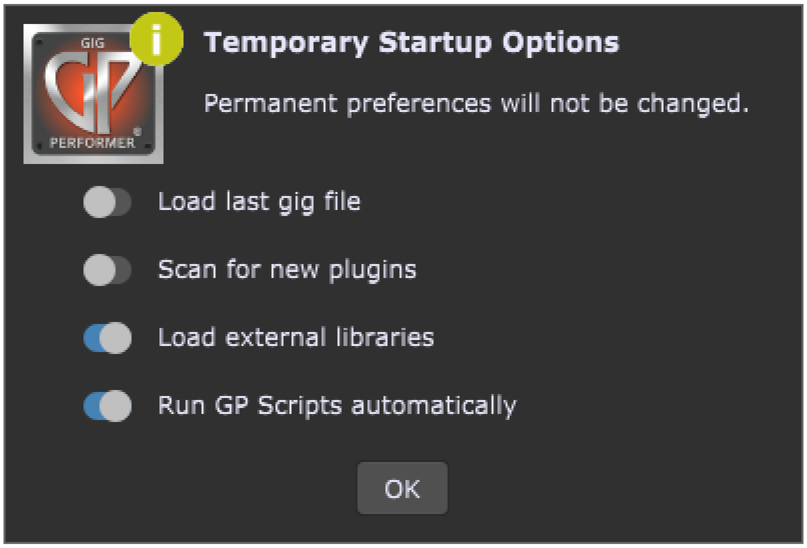
Default Value 0.0

Use this option if you run Gig Performer on a touchscreen device such as a Microsoft Surface tablet.

Note: you can also directly enter values using MIDI numbers, by adding the letter "m" at the end of the value. For example, if you type in "64m", Gig Performer will interpret it as an exact value of 50.39 (roughly 50% of the maximum MIDI value of 127).

Temporary Startup Options

Hold the Shift key down while Gig Performer is starting and it will open the Temporary Startup Options dialog:



Temporary Startup Options

Permanent preferences will not be changed.

- ○ Load last gig file
- ○ Scan for new plugins
- ● Load external libraries
- ● Run GP Scripts automatically

This is a one-time menu, and permanent options and preferences will not be changed. For example, Gig Performer will not load the previous gig file, even if you have the toggle button "Reload the last gig startup" turned on in the General Options window. Visit this blog article to learn more.

Dragging rackspaces and songs

Holding the Shift key while dragging rackspaces (or songs in the Setlists view) prevents the dragged rackspace/song from being activated (this can be very useful for adjusting your setlist order when Predictive Loading is enabled).

Quick stereo connection

To make a quick stereo connection, you can either hold the Shift key down and drag a wire from an output port of one plugin to the input port of another plugin or hold the Shift key down while dragging a plugin until its output pins touch the input pins of another plugin, then release (unclick) the mouse. If there is already a connection, this operation will cause it to be removed instead.

Fine control

Hold down the Cmd (Mac OS X) or Ctrl (Windows) key for fine control while adjusting a widget.

MIDI In plugin channel toggling

In the MIDI In plugin editors, if you hold the Shift key down while enabling or disabling individual MIDI channels by clicking on their respective check boxes, the other check boxes will be set to their opposite states. This is a convenient way to quickly enable a single channel while blocking all others.

Global MIDI options and Setlist options learn buttons

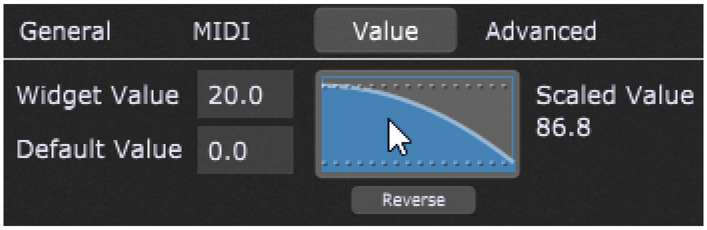
Holding the Shift key while clicking on the *Learn MIDI for selected item* buttons in Global MIDI Options and Setlist Options dialog clears the MIDI assignment.

Quickly assign multiple widgets to a group

To quickly assign two or more selected widgets to a widget group "N", select all widgets and press the keyboard key N while holding the Alt key (or Option on Mac).

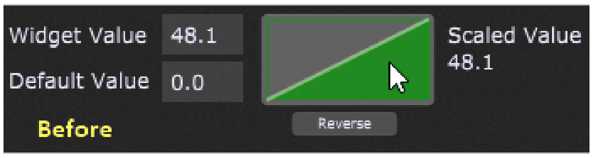
Copy and paste curves

If you hold the Shift key down while clicking on the scaling curve (of a widget, Probabilistic Sound Designer, or velocity curves in MIDI In blocks), the curve settings will be copied to the clipboard:

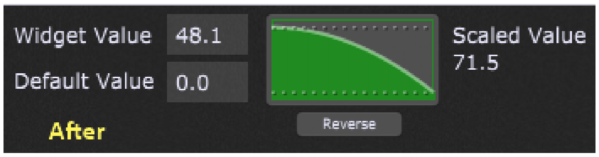


Widget Value 20.0
Default Value 0.0
Scaled Value 86.8

If you then hold down Shift + Ctrl (or Shift + Cmd on Mac) and click on another curve, the previously copied settings will replace settings of that curve:



Widget Value 48.1
Default Value 0.0
Scaled Value 48.1



Widget Value 48.1
Default Value 0.0
Scaled Value 71.5

Pasting Global widgets

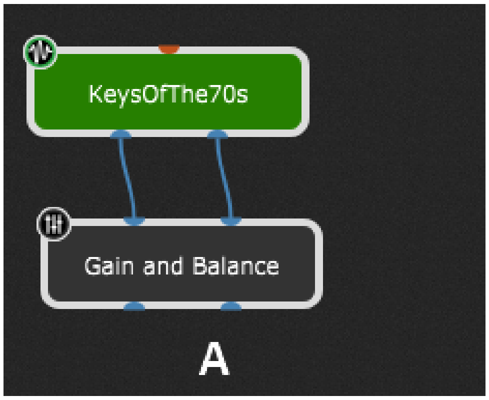
You can already copy widgets from the Global rackspace and then paste them into a local rackspace using the Copy and Paste menu options. However, if a global widget is mapped to a parameter in the plugin in the Global rackspace, then if you hold down the Shift key while performing the paste into a local rackspace, (e.g. right mouse click on a panel → Paste or click on the Edit menu → Paste), the pasted widget will be automatically mapped to the actual parameter values of the widgets in the Global rackspace. If it doesn't already exist, this action will automatically insert a "To Global Rackspace" plugin into the local rackspace.

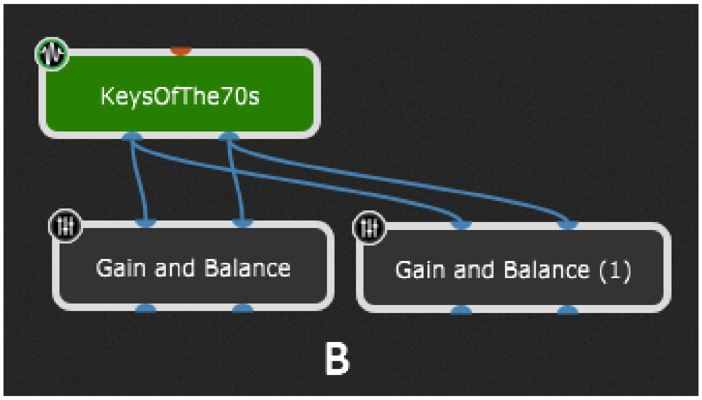
Widget actions menu

If you click on a widget while holding the Shift key in the Panels view, the Widget actions menu will appear; check the Widget contextual menu chapter to learn more.

Duplicate a plugin with inputs

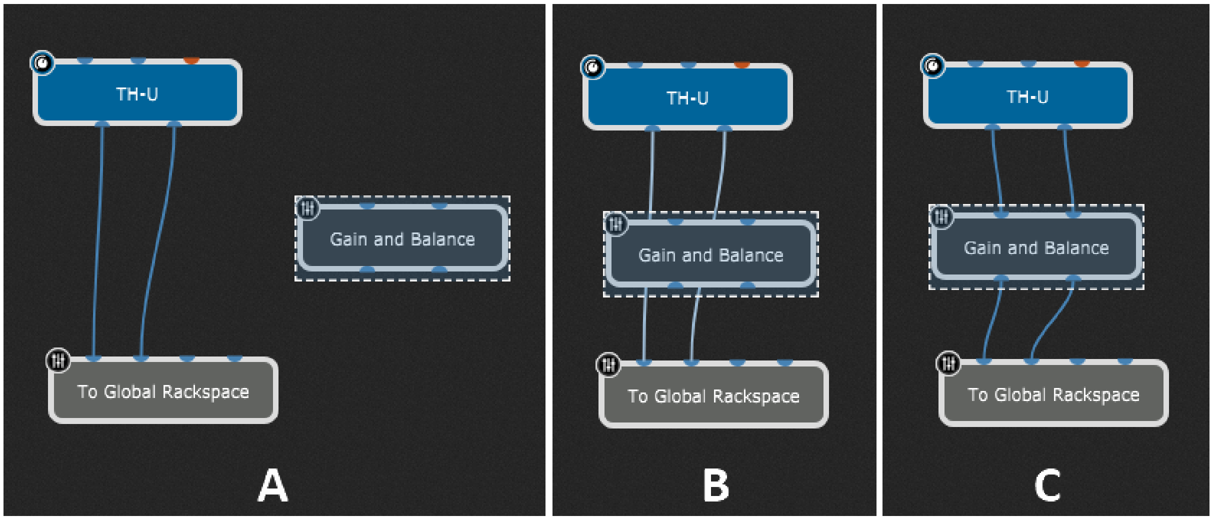
If you right click on a plugin while holding the Shift key in the Wiring view, you'll notice the *Duplicate with inputs* menu item. Clicking on this menu item will preserve connections with the plugin inputs. For example, if you duplicate with inputs the Gain and Balance plugin block in **(A)**, then the duplicate will preserve the connections, as indicated with **(B)**:





Insert a plugin block into audio or MIDI path

Plugin blocks can be inserted into an Audio/MIDI path automatically by holding down the Shift key while dragging the block over the connection wires. Simply hold Shift and click on the desired plugin block **(A)**, then drag it onto connection wires until they light up **(B)**, and then release the click **(C)**.



Hold Shift and drag an already inserted block to remove that block from the path.

20 Extensions

In this chapter you will learn more about extensions and how to enable or disable them.

20.1 What are extensions?

Extensions are basically libraries (.dll files on Windows and .lib files on MacOS) that Gig Performer can load and provide the additional support for a hardware device. Extensions provides your hardware device with the closer integration with Gig Performer features communicating directly with it and not with e.g. by MIDI or OSC messages.

For example, if you had a keyboard with a display and the keyboard's manufacturer created an extension for Gig Performer (with our SDK), Gig Performer would be able to communicate directly with your keyboard, and show various parameters, such as Song name, Rackspace name or Tempo on the display (or assign buttons and knobs with functions in Gig Performer).

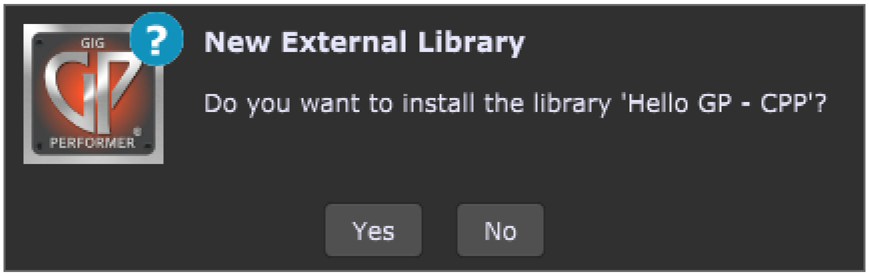
Additionally, extensions may also provide panels and menu items that may help to use them better.

If you are a manufacturer and want to create extensions to allow Gig Performer to support your hardware devices, feel free to contact us about our software development kit.

20.2 Enabling/disabling extensions

If you obtained a Gig Performer extension, first make sure to place it in the Extensions folder (refer to the File locations in Gig Performer chapter for more information). If it is supplied as an archive (i.e. a ZIP archive), extract it directly into the Extensions folder.

Afterward, launch Gig Performer:

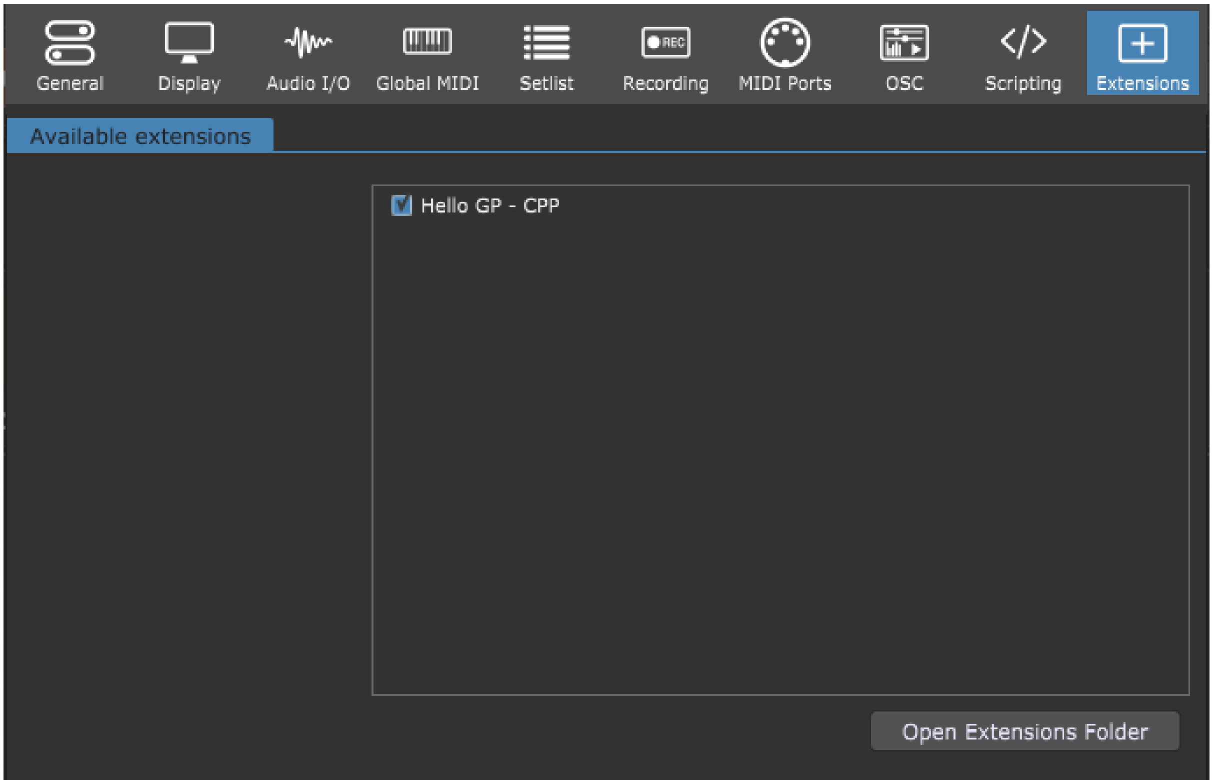


New External Library

Do you want to install the library 'Hello GP - CPP'?

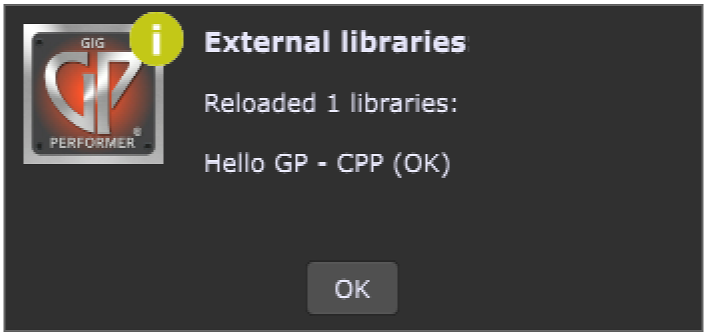
The New External Library dialog will appear, allowing you to install the found external library.

Installed extensions are enabled by default. To manage installed extensions open the Extensions Options:



☑ Hello GP - CPP

If you want to reload your enabled extensions, click Options -> Reload Third Party Libraries:

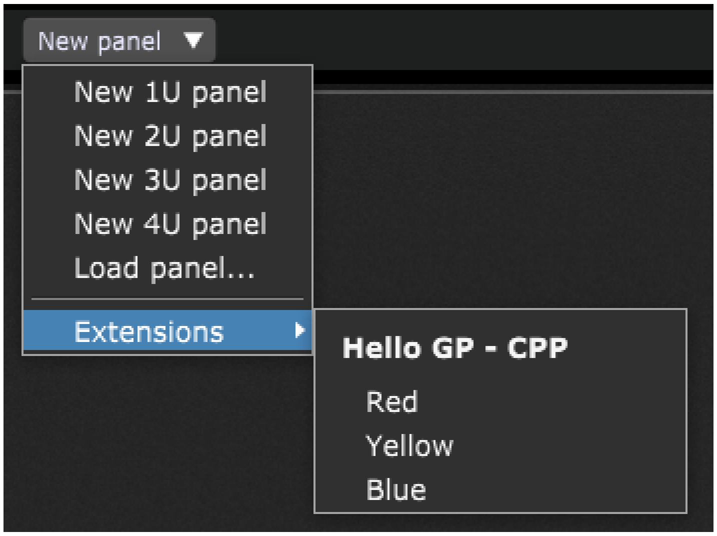


External libraries

Reloaded 1 libraries:

Hello GP - CPP (OK)

If an extension provides one or more custom panels, they will be displayed under the **New panel** drop-down list in the **Extensions** sub-menu (which is otherwise hidden if there aren't extensions that provide additional panels):



Expand the Extensions sub-menu and select the desired panel. Alternatively, open the panel contextual menu and expand the Extensions sub-menu (which is hidden if there aren't extensions that provide additional panels) and select the desired panel.

Note: if you suspect that an extension is preventing Gig Performer to start normally, you can temporarily disable extensions in the Temporary Startup Options. Check the Additional tips chapter to learn more.

21 Optimizing your computer for a glitch-free audio performance

In this chapter find out more about latency, sample rate, buffer size and what settings are acceptable for performing live. Also you will learn more about how to optimize your operating system (Windows or MacOS) to ensure its maximum performance and stability.

21.1 Latency explained

In this chapter we introduce some basic terms such as audio latency, buffer size and sample rate and suggest recommendations for live use.

Audio latency is simply the amount of time that passes between the sound being generated and then perceived by your brain. Basically, it is a delay.

For example, if you are 10ft away from the speakers, and since the speed of sound is approximately 1,000 ft/s in air it means that it takes 10 ft : 1000 ft/s = 0.1 seconds (or 10 milliseconds) for sound to travel from the speakers to your ears. The latency here is about 10 ms.

Buffer size is basically the number of samples that will be collected before your audio plugins get to process them. Your audio interface is an analog-to-digital as well as digital-to-analog converter. It takes any audio input, converts that into digital form (numbers) and then on the output side – converts those numbers back to analog audio.

Sample rate determines how many samples your audio interface will capture every second and do the above-mentioned conversions. A common sampling frequency for live use is 44.1 KHz.

For example, if your buffer size is **256** and your sampling rate is **44.1 KHz** (44,100 times per second, as Hz means cycles per second) then your latency will be 256/44,100 seconds which is 0.0058 seconds or **5.8 ms**.

If your buffer size is **256** and the sample rate is **96 KHz** you will get 256/96,000 = **2.7 ms** latency.

You can experiment with this: If you change the buffer size to **128** and leave the sampling frequency at **44.1 KHz** – your latency will be **2.9 ms** and so on.

These values directly affect the performance of your PC, as smaller latency values require your computer to respond more quickly to process all those samples in time without producing any glitches.

It has been shown that people can perceive differences between 3 ms – 10 ms, and that our brain cannot distinguish anything below 3 ms.

Therefore, for live performance, many musicians use a buffer size of 256 or 128 and a sample rate of 44.1 KHz. We are not discussing here a recording scenario, which should be done slightly differently.

Generally speaking, using higher buffer sizes or lower sample rates lets your computer run at lower temperatures and allows you to run more intensive plugins in parallel without crackles or pops, but the trade-off will be higher latency or lower quality respectively.

Another factor is the additional latency introduced by your audio interface. Not all audio interfaces are created equal. Some have low internal latency for both A/D and D/A conversions while others add more latency than perhaps you might like, so you have to lower your buffer size to get the overall desired latency.

To find out how much extra latency your interface introduces - you can use Gig Performer's built in Latency Measurement Tool.

Note: Gig Performer 4 also provides you with a feature to see how much latency every new plugin adds to your setup. Simply hover over your plugin block to show a tooltip look for the Latency information. Find out more in the Plugins chapter.

The point is to create sufficient CPU headroom to ensure a glitch-free live performance. You can also set smaller buffer sizes if that does not impact your live performance, but at the cost of less CPU capacity for processing more plugins.

21.2 Optimizing your Windows PC for maximum performance and stability

To get the most from your Windows operating system for digital audio processing, many Windows settings and features can be configured to achieve better performance and stability.

Deskew Technologies, LLC provides you with a free e-book The Ultimate Guide to Optimize your Windows PC for the Stage, that will help you to avoid issues like crackles, dropouts, audio glitches, high latency and configure your PC to be a great audio platform.

21.3 Optimizing your MacOS

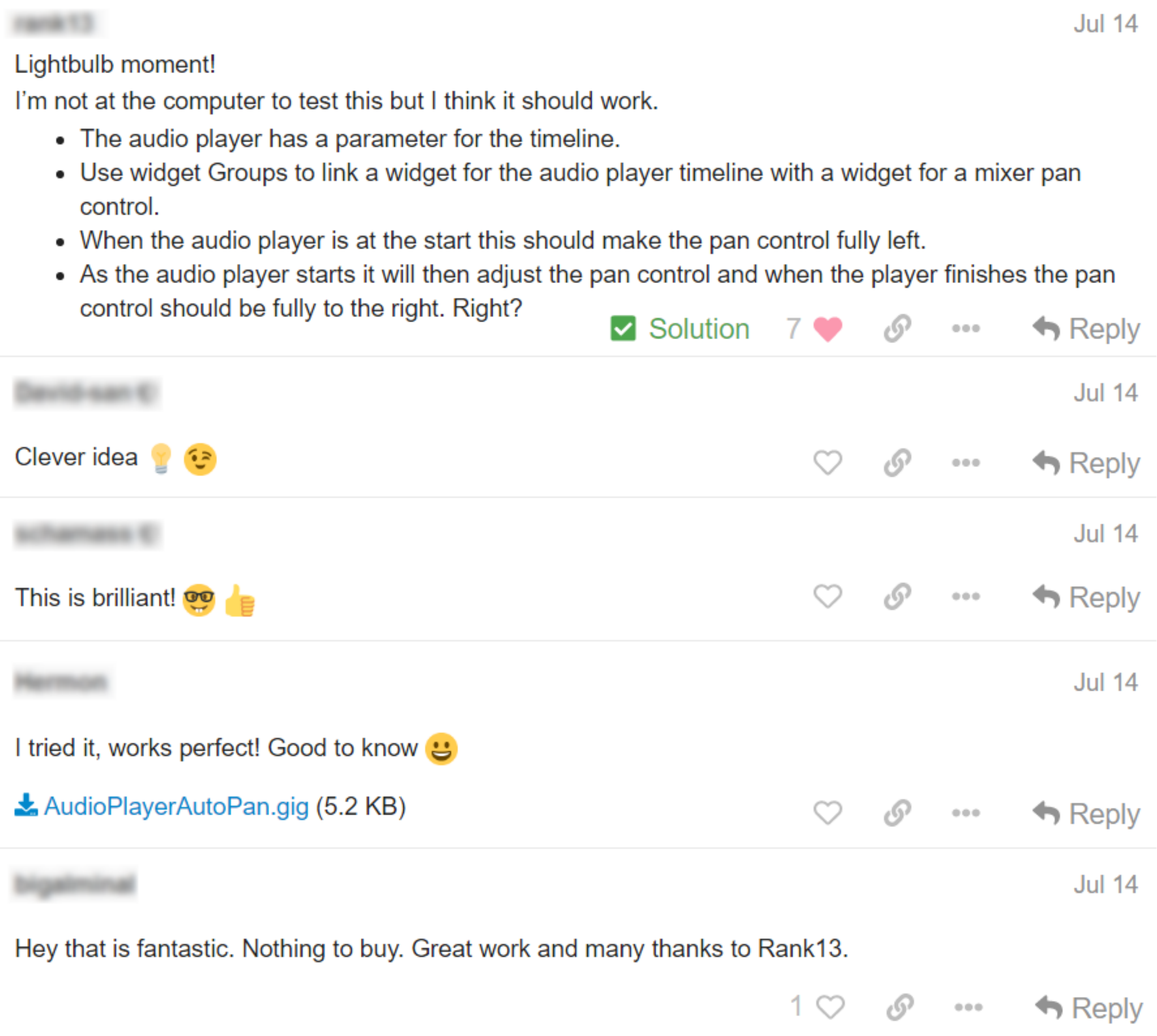
MacOS has real-time audio and MIDI functionality built-in. Multiple applications can use audio and MIDI at the same time. You can also aggregate multiple audio interfaces into a single unified "large" audio interface.

We have compiled a list of tips to fully prepare your Mac for your live performance. Visit this blog article to learn more: Optimize your Mac for a gig.

22 Join our community

Many music professionals worldwide rely on Gig Performer as their audio plugin host of choice for live performance. The official community for Gig Performer users is located at: https://community.gigperformer.com/

We encourage you to join our growing community and share your experiences with the best Gig Performer experts. Besides community moderators and our active members, Gig Performer developers are actively engaged in the community discussions as well. If you have a problem with Gig Performer, your audio setup, or just need some advice - no problem: many gigging musicians with ton of live performing experience will try help you, suggesting tips or possible solutions:



[redacted] Jul 14

Lightbulb moment!
I'm not at the computer to test this but I think it should work.

- The audio player has a parameter for the timeline.
- Use widget Groups to link a widget for the audio player timeline with a widget for a mixer pan control.
- When the audio player is at the start this should make the pan control fully left.
- As the audio player starts it will then adjust the pan control and when the player finishes the pan control should be fully to the right. Right?

[redacted] Jul 14

Clever idea 💡 😉

[redacted] Jul 14

This is brilliant! 🤓 👍

[redacted] Jul 14

I tried it, works perfect! Good to know 😃

AudioPlayerAutoPan.gig (5.2 KB)

[redacted] Jul 14

Hey that is fantastic. Nothing to buy. Great work and many thanks to Rank13.

The Community is organized and split into different categories; whether you want to e.g. discuss Gig Performer on Windows or MacOS, plugins, hardware, OSC or customizing your setup using scripts, simply select the corresponding category and open a new thread. If you want to find a specific issue i.e. "virtual audio ports latency", use the integrated search option.

Save your time, learn the best practices, and share your experiences with us at community.gigperformer.com.

23 A word from the Gig Performer creators

Since the very first release of Gig Performer® in 2016 we have tried to stay true to the main goals we set for ourselves before we wrote a single line of code. Those goals included stability, flexibility, performance, powerful features and ease of use for musicians, including ourselves, rather than for technicians.

- We wanted to be able to create our "sounds" without having to be distracted by having to figure out routings, buses, inserts, sends and other constrains imposed by a channel strip paradigm. That drove our decision to use a visual metaphor for connecting plugins together.
- We wanted to be able to get up on stage and not be stressed out by whether pushing a certain button or turning a knob would crash the system.
- We wanted to make sure Gig Performer was suitable for all kinds of musicians, and not biased towards keyboard players.

David is primarily a keyboard player and Nebojsa is primarily a guitarist. This allowed for two very different perspectives on how a plugin host out to work so as to meet such disparate needs. The combined requirements resulted in a system that can be used by almost any kind of musician who wants to work with technology.

We feel that we have managed to stay true to these goals in Gig Performer 4 while providing numerous new and important features. It has been two years since we've had a major release of Gig Performer® and this, our fourth iteration, is packed with new functionality and powerful improvements on all fronts.

As touring musicians, we have a deep understanding of what it means to go on stage and perform in front of a live audience. We have tried to make Gig Performer® be transparent and invisible in your performance. In the end – it all comes down to your artistic skills and expressions and the technology around it is simply a tool that allows you to express yourself. We know deeply that on stage everything just “has to work”.

We are confident that you will Own the Stage® with Gig Performer 4.

We could not have done this without our **awesome** beta group. You may recognize some of these names / handles from our forums.

@pianopaul – Thaddäus: There's no way we could have found some of the bugs you did.

@schamass – Erik: Nothing really escapes your watchful eye.

@rank13 – Kieran: Thank you for all the user interface improvements.

@David-san – David: Thank you for suggesting things and always pushing back when needed.

@keyman – Antonio: There's no way we could have moved forward so fast without your input.

@jazzundso – Lukas: Thanks for your brilliant insights.

@jpt – John: Thank you for all your contributions.

@speed12 – Mark: You've been helping us for a long time. Thanks for your support.

@simon – Simon: Always great feedback.

@LeeHarvey – Markus: Thanks for your honest and direct comments.

@tonycore – Tony: Thanks for all your efforts in bringing people aware of GP.

@brandon : Great insights.

@elucid – Chris: Thanks for testing!

@chris_g – Chris: Thank you for the great templates.

@KCummings – Keith: Nice templates – thanks!

Rob Neal: Thank you for a wonderful design of a sustain pedal in GP4

David Jameson & Nebojsa Djogo,
Co-founders, Deskew Technologies, LLC.

24 Appendix

In this chapter review the license agreement and find out more information about the basic terminology used in Gig Performer, file extensions and many other topics that organized as subchapters.

24.1 License agreement

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24.2 Licensing and support options

Gig Performer 4 is available directly from Deskew Technologies, LLC. It is also available in several editions through Plugin Alliance.

The Plugin Alliance version is available in two editions:

1. **Locked** — this edition is included with PA's Mega Bundle subscription and will only load plugins that are are part of the Plugin Alliance plugin collection.
2. **Unlocked** — this edition is sold separately and will work with any plugin.

The Plugin Alliance version of Gig Performer 4 uses PA's licensing system whereas the Deskew Technologies version uses its own proprietary licensing system.

All support, licensing, upgrading questions or other issues related to the Plugin Alliance version of Gig Performer (locked or unlocked) should be directed to Plugin Alliance support.

24.3 Basic terminology

In this chapter we present an alphabetical list of basic terms used in Gig Performer's world.

Control Change
Most commonly referred to as a "CC". A CC message consists of a controller number and a value between 0-127. Expression pedals, knobs, faders and buttons typically send these types of messages. Synth modules might also send these messages out when you adjust certain parameters.

Curves
Also known as scale curves, curves are used to adjust how widgets move as a function of incoming MIDI messages. Curves are also used to define velocity mappings for keyboards.

Extensions
Extensions are basically external libraries that Gig Performer can load and provide the additional support for a hardware device. Extensions provides your hardware device with the closer integration with Gig Performer features communicating directly with it and not with e.g. by MIDI or OSC messages.

Gig
A Gig Performer file containing all the data you have created - rackspaces, variations, and all widgets and widget groups.

Global Rackspace
A special always running rackspace that can be used to manage common plugins needed by most or all rackspaces. For example, you might have a compressor or final EQ that you want all rackspaces to use. Or you might want to run a looper plugin that needs to stay running regardless of which rackspace is running. If you use the same instrument (an acoustic piano perhaps) in almost all your rackspaces, you might insert that instrument in the global rackspace instead, making your other rackspaces easier to manage.

Host automation
The old approach of controlling plugin parameters is through the direct MIDI controller mapping to these parameters. However, the modern approach of controlling plugin parameters is through the plugin's host automation support. This means that a host (Gig Performer) can automate (manage) plugin's parameters through widgets.

Instance
Multiple copies of Gig Performer can be launched and run simultaneously on a single computer. Each of these independent copies, running in its own window, is called an “instance” of Gig Performer. This is useful for applications like giving different band members the ability to change the rackspace affecting their particular instrument without changing the rackspaces affecting other instruments.

MIDI
An acronym for Musical Instrument Digital Interface—a standard protocol for the interchange of musical information between computers, controllers, and hardware-based electronic musical instruments such as synthesizers and samplers. Visit this blog article to

learn how Gig Performer enables you to have the most flexible MIDI processing.

MIDI controller
A physical device such as a keyboard or pedalboard typically connected to your computer via USB.

OSC
Acronym for Open Sound Control—a communications protocol that is optimized for modern networking technology.

Panel
In Gig Performer, an area (visually similar to hardware rack-mounted sound modules and signal processors) containing widgets used to control the plugins in the rackspace containing the panel. A rackspace can contain multiple panels, each containing one or more widgets.

Panels View
The Gig Performer screen containing the panels and widgets used to control your sounds during performance.

Pin
Plugins are connected by connecting virtual wires to their pins (also called plugin ports). Plugins may have one or more input/output pins. MIDI pins are colored orange and audio pins are colored blue. See the chapter Wiring view for more information on plugin pins.

Plugin
Also referred to as a plugin block or just "block". A package of functionality that can be employed by any compatible audio host software. There is a tremendous variety of plugins available in the audio/music marketplace, but many popular plugins are software emulations of physical instruments or hardware devices. Originally developed for use within DAW (Digital Audio Workstation) applications, some plugins (called “virtual instruments”) generate audio, for example, emulations of musical instruments and synthesizers, while effects plugins alter incoming audio signals, such as from a microphone, electric guitar, or virtual instrument, offering processes like equalization, filtering, compression, limiting, reverb, delay, flanging, chorusing, phasing, and the like.

Port
An alternate name for a MIDI input or output device.

Probabilistic Sound Designer

A new tool in Gig Performer 4 that is available for all your plugins to help you create new sounds.

Program Change
Also referred to as a "patch change" (or "PC", when talking about MIDI messages; don't confuse this with "computer"). These messages are commonly used to prompt hardware or software to change a preset (or "patch"). If General MIDI is being used, the program change number indicates a particular sound. Since this standard isn't obligatory, manufacturers may list patches in any order they wish. See this blog article for more information to find out how to use PCs with song parts.

Rackspace
A collection of interconnected plugins, along with one or more panels containing widgets to control plugin parameters in real time. A rackspace can actually be pretty much anything you like: It could represent a single sound or all the elements you need for an entire song - or even just one part of a song. You can switch from one rackspace to another instantaneously - and with no interruption of sound - either from your laptop, with up/down pedals, or via MIDI program change messages.

Rig
In Gig Performer, a "Rig" is a collection of three sets of information: a set of physical MIDI controllers, a set of virtual controllers that can be attached to widgets, and a map that relates the two sets, thereby connecting your physical controller, through widgets, to parameter controls.

Rig Manager
A mechanism that allows you to quickly change your connected MIDI hardware so your rackspaces are not dependent on specific devices. The Rig Manager is also used to help you distinguish multiple identical MIDI controllers.

Scriplet
A proprietary plugin in Gig Performer that executes GPScript code to implement specialized MIDI transformations.

Setlist
A collection of songs arranged in a desired order. Setlists are assembled from the library of available songs; you might have one setlist for a set you perform regularly and other setlists for individual performances requiring different songs or a different order. A song in a setlist is made active simply by clicking on it.

Song
A collection of song parts arranged in a desired order. Songs can execute actions when they are made active, such as sending out a MIDI program change message, overriding the current tempo with the song tempo, or opening a ChordPro file showing chords and lyrics. A library of songs can be built up, making them available to be used in setlists.

Song Part
An individual section of a song, such as a verse, chorus, bridge, or interlude. A song part consists of a reference to a rackspace along with some other properties. Selecting a song part makes its associated rackspace variation active, and can perform other actions like overriding the current tempo or sending out a custom string of MIDI messages. As the lowest level building block of setlists, song parts can be easily accessed by MIDI program change commands from an external controller, the large song part tiles in the Setlist/Song view, or by song part tiles in the Gig Performer Lemur template (or another custom OSC template).

Variation
These are essentially rackspace presets, all containing the same plugins and interconnections, but with different widget settings. For example, you can create a rackspace to add phasing to a piano sound, and then add several variations, each with different degrees of phase intensity. Since variations actually store widget settings, every parameter you want stored in a variation must be assigned to a widget on a rack panel. As with rackspaces, you can switch from one variation to another instantaneously - and with no interruption of sound - either from your laptop, with up/down pedals, or via MIDI program change messages.

Widget
A virtual object (such as a knob, slider, button, or meter) used to control and/or display plugin settings. Widgets can be operated either with your laptop's mouse or trackpad, or remotely from a MIDI controller. With the use of OSC, widgets can also be operated from iOS / Android tablets or smartphones.

Widget group
A collection of widgets that operate ganged together, where changing one widget in the group changes all of the others in the group, as well. This is a powerful method for controlling multiple plugin parameters simultaneously. For example, you could create several slider widgets that control the volume of various plugins and then raise or lower the volume of all of them by moving any one of them. In addition, individual widget scaling allows simple implementation of effects such as cross-fading. For more information, see the widget group reference section.

Wiring View
Formerly called the Connection view, the Wiring view is where you create your plugins and connect them together.

24.4 File extensions used in Gig Performer

In this section find out more about file extensions that are used in Gig Performer.

File extension	Description
gig	a gig file contains all the data you have created: rackspaces, variations, and all widgets/widget groups
gpaudiosettings	exported Gig Performer audio settings are stored in this format
gpc	this extension indicates a compiled GPScript file
gpfav	used for storing the plugin or selection of plugins saved as favorites
gppanel	a Gig Performer panel template file extension
gpp_audiounit	saved presets of AU plugins are stored in this format
gpp_internal	saved presets of built-in plugins are stored in this format
gpp_vst	saved presets of VST plugins are stored in this format
gpp_vst3	saved presets of VST3 plugins are stored in this format
gppsd_audiounit	Probabilistic Sound Designer file extension addressing AU plugins
gppsd_vst	Probabilistic Sound Designer file extension addressing VST plugins
gppsd_vst3	Probabilistic Sound Designer file extension addressing VST3 plugins
gpscale	stores the widget's curve scaled value
gpsettings	exported Gig Performer settings are stored in this format
gpsong	songs are stored in this format
rackspace	this format is used to store the exported rackspace
rigsetup	the Rig Manager setup is exported to this file format

24.5 File locations in Gig Performer

In this section find out more about default file locations that are used in Gig Performer.

MacOS	Windows	Description
/Applications	C:\Program Files\Gig Performer 4	Installation folder
/Users/Shared/Gig Performer/Extensions	C:\Users\Public\Documents\Gig Performer\Extensions	third-party extensions folder
/Users/Username/Documents/Gig Performer/Favorites	C:\Users\Username\Documents\Gig Performer\Favorites	Favorites folder
/Users/Username/Documents/Gig Performer/Presets	C:\Users\Username\Documents\Gig Performer\Presets	Presets folder
/Users/Username/Documents/Gig Performer/PSD	C:\Users\Username\Documents\Gig Performer\PSD	Probabilistic Sound Designer folder
/Users/Username/Documents/Gig Performer Song Lyrics-Chords	C:\Users\Username\Documents\Gig Performer Song Lyrics-Chords	Root folder for ChordPro files
/Users/Username/Documents/Gig Performer Recordings	C:\Users\Username\Documents\Gig Performer Recordings	Default master folder for the Recorder. Each set of recordings will be in time stamped sub folders
/Users/Username/Documents/Gig Performer/ScalingCurves	C:\Users\Username\Documents\Gig Performer\ScalingCurves	Saved scaling curves
/Users/Username/Documents/Gig Performer/Scripts	C:\Users\Username\Documents\Gig Performer\Scripts	Scripts folder
/Users/Username/Documents/Gig Performer/Rigs	C:\Users\Username\Documents\Gig Performer\Rigs	Exported rigs folder
/Users/Username/Documents/Gig Performer/AudioSettings	C:\Users\Username\Documents\Gig Performer\AudioSettings	Exported audio settings folder
/Users/Username/Documents/Gig Performer/GlobalOptions	C:\Users\Username\Documents\Gi	Exported all options folder

	g Performer\GlobalOptions	

24.6 Cross-Platform Usage

Files created by Gig Performer can be opened by both macOS and Windows computers. If the computer you're using to access the file is missing some of the plugins that were present when the original file was created, Gig Performer will create a "chameleon" plugin that mimics all the properties of the original plugin except the actual processing. This will allow you to modify the file, save it and later re-open it on a computer that has all required plugins installed.

Similarly, if the audio interface connected to the current system does not have enough inputs or outputs to accommodate the setup utilized by the file, Gig Performer will prompt you to create "Virtual channels" that produce no input or output but retain all connections. Doing so will allow you to modify the file, save it and later reopen it on a computer that is connected to the original audio interface.

If you plan to use Gig Performer on both macOS and Windows, you may want to consider just using VST plugins on macOS rather than AU plugins. This will make it easier for you to use the same gigs on both platforms, assuming of course you have the plugins themselves on both platforms.

24.7 Troubleshooting

No sound

Test your audio system to make sure it is receiving signal from your connected audio interface.

Make sure one or more plugins have connections from their audio output(s) to one or more audio input(s) on your connected audio interface.

If you have multiple audio interfaces connected to your system, make sure the correct one is selected in Audio Options.

If you are running Gig Performer on Mac OS X 10.14 or above, you will be prompted to allow access to the "microphone"; check the Before you start chapter to learn more.

Gig Performer isn't finding my plugins

Normally Gig Performer scans only certain "standard" folders for plugins, such as (in macOS systems) Library/Audio/Plug-ins/VST or (in Windows systems) C:\Program Files\VstPlugins. However, some plugin and DAW manufacturers install their plugins in different folders. If Gig Performer isn't finding your plugins, that's the likely cause. To instruct it to scan different folders, open the Plugin Manager and click on the *Manage* button in the bottom left-hand corner, then select *Set VST folders for scanning...* and *Set VST3 folders for scanning...* In these dialogs you can easily add or delete folders to the list of those scanned by Gig Performer.

If you are a Mac user and your Mac uses the new M1 processor, please check this blog article to learn more how to resolve possible problems with missing plugins.

Audio interface does not appear in the Wiring view

In most cases, Gig Performer will automatically detect all audio interfaces connected to your system. If it does not, check to make sure that the interface is connected and powered on, and relaunch Gig Performer. If your audio interface still does not appear, take the following steps:

- **MacOS**: start up the Audio MIDI Setup app in the Utilities folder and make sure that your interface appears in the list of input and output devices on the left-hand side of the Audio Devices window. If it does not appear, consult the documentation for your interface.

- **Windows**: go to Control Panel -> Hardware and Sound -> Sound and make sure that your interface appears in the list of playback and recording devices. If it does not appear, consult the documentation for your interface.

MIDI controller does not appear in the Wiring view

In most cases, Gig Performer will automatically detect all MIDI controllers connected to your system via USB. If it does not, check to make sure that the controller is powered on, and relaunch Gig Performer. If your MIDI controller still does not appear, take the following steps:

- **MacOS:** go to Utilities -> Audio MIDI Setup and select Show MIDI Studio from the Window menu, then make sure that your controller appears in the window and is not grayed out. If it is grayed out or does not appear, consult the documentation for your controller.

- **Windows:** press the key combination Win key + X and then select the Device Manager; make sure that your controller appears in the "Sound, video and game controllers" category. If it appears with a yellow question mark or exclamation point, right-click and choose the Update Driver Software option. If it does not appear, consult the documentation for your controller.

Widget not working

Double-click on the widget to open the Widget Properties inspector and make sure that it is assigned to a plugin and a plugin parameter.

Note: If your question is not answered here, please check our website's Knowledge Base and troubleshooting tips. If your problem is still not addressed, feel free to open a new thread in our Community or reach out to us through our support page.

24.8 OSC messages

In this section learn more about Gig Performer OSC command messages. The messages can be sent to Gig Performer which will then respond appropriately, perhaps also returning an OSC message or bundle with information.
Last updated: March 2021.

Non-realtime OSC messages

Address	Arguments	Description
/GigPerformer/GetSetLists		Returns a list of available setlists
/GigPerformer/SelectSetList	Integer	Switch to a specific set list
/SetList/GetSongList		Returns a list of available songs in the current setlist
/SetList/GetSongParts		Returns a list of available song parts for the current song
/Song/GetSongParts		Returns a list of available song parts for the current song
/Window/ToFront		Bring the main GP window to the front

/Window/ToBack		Send the main GP window to the back
/Window/FullScreen		Make GP be fullscreen
/Actions/PanelView		Switch to the Panel view
/Actions/WiringView		Switch to the Wiring view
/Actions/SetlistView		Switch to the Setlist view
/GigPerformer/SwitchToProgramNumber	Integer(program number)	Switch to a specific rackspace using program number
/GigPerformer/SwitchToProgramNumber	Integer(MSB), Integer(LSB), Integer(Program number)	Switch to a specific rackspace using bank select values and program number
/Tap		Emulate tap tempo
/SetMasterFader	Double (0.0 .. 1.0)	Set the master fader volume
/SetGlobalTranspose	Integer	Set the global transpose value
/GetGlobalTranspose		Returns the current global transpose value
/RecordInputs	Integer(0, 1)	Enables or disables recording
/GetRecordStatus		Returns whether recording is enabled
/GetAbletonLinkStatus		Returns whether Ableton Link is enabled
/SetAbletonLinkStatus	Integer(0, 1)	Enable or disable Ableton Link
/SetBPM	Double(bpm)	Set the global BPM
/AdjustBPM	Double(offset)	Adds the offset to the current global BPM
/GetCurrentBPM		Returns the global BPM
/Play	Integer(0, 1)	Enable or disable the global playhead
/Panic		Emulate MIDI Panic

/RackSpace/ListOSCPlugins		Returns the list of OSC enabled plugins
/RackSpace/ListOSCWidgets		Returns the list of OSC enabled widgets
/GigPerformer/ListAllRackspaces		Returns a list of all rackspaces
/GigPerformer/ListAllVariations		Returns the list of all variations of the current rackspace
/Refresh		Ask Gig Performer to resend status messages (useful if OSC connection is flakey)
/TunerView/SetValue	Integer(0, 1)	Switch in or out of Tuner View
/SongPart/TakeSnapshot		Take a snapshot of the current widget overrides in a song part
/SongPart/ClearSnapshot		Clear the snapshot, thereby resetting widgets to the original rackspace values

Realtime OSC messages

Address	Arguments	Description
/SelectSongByIndex		
/GigPerformer/SwitchToSong	Integer	Switch to another song based on its index
/SelectSongPart		Deprecated - use /Song/SwitchToPart
/Song/SwitchToPart	Integer	Switch to another song part
/Song/MoveDown		
/Song/MoveUp		

/GigPerformer/NextSong		
/GigPerformer/PrevSong		
/Song/NextPart		
/Song/PrevPart		
/RackSpace/SetVariation	Integer	Switch to the (zero based) variation
/GigPerformer/SwitchToRack	Integer [Integer]	Switch to the (zero based) rackspace and optionally to a variation in that rackspace
/GigPerformer/SwitchToRackSpace	Integer [Integer]	Switch to the (zero based) rackspace and optionally to a variation in that rackspace
/GigPerformer/SwitchToRackSpace	String [Integer]	Switch to the named rackspace and optionally to a variation in that rackspace
/GigPerformer/MoveDown		
/GigPerformer/MoveUp		
/GigPerformer/NextRackSpace		Switch to the next RackSpace
/GigPerformer/PrevRackSpace		Switch to the previous RackSpace
/RackSpace/NextVariation		Switch to the next variation
/RackSpace/PrevVariation		Switch to the previous variation

MIDI messages - replace "oscHandle" with the handle of the MIDI In Block

Address	Arguments	Description
/oscHandle/Midi	1 to 3 MIDI bytes	Send an arbitrary MIDI message - (NB sysex currently not supported)

/oscHandle/NoteOn	Integer(Note number), Integer(Velocity), Integer(1..16)	Send a MIDI Note On message on the given channel
/oscHandle/NoteOff	Integer(Note number), Integer(Release), Integer(1..16)	Send a MIDI Note Off message on the given channel
/oscHandle/Note	Integer(Note number), Integer(Velocity), Integer(1..16), Integer(delay in ms)	Send a Note On message and then later send a matching Note Off message
/oscHandle/CC	Integer(Controller number), Integer(value), Integer(1..16)	Send a CC message
/oscHandle/PP	Integer(Note number), Integer(pressure), Integer(1..16)	Send a polyphonic aftertouch message
/oscHandle/PB	Integer(pitchbend amount), Integer(1..16)	Send a pitchbend message
/oscHandle/AT		
/oscHandle/PC		
/oscHandle/AT	Integer(aftertouch amount), Integer(1..16)	Send an aftertouch (channel pressure) message
/oscHandle/PC	Integer(0..127)	Send a program change message

Widget control - replace "oscHandle" with the handle of the widget

Address	Arguments	Description
/oscHandle/SetValue	Double(0.0 .. 1.0)	Set the value of a widget
/oscHandle/SetResetValue	Double(0.0 .. 1.0)	Set the default reset value for a widget
/oscHandle/GetResetValue		Returns the default reset value for a widget
/oscHandle/Reset		Set the widget to its default value (same as double-clicking on widget)

/oscHandle/SetCaption	String	Set the caption of a widget
/oscHandle/GetValue		Returns the current value of the widget
/oscHandle/GetCaption		Returns the current widget caption

Plugin parameter control - replace "oscHandle" with the handle of a plugin block

Address	Arguments	Description
/oscHandle/SetParam	Integer(Parameter Number), Double(0.0 .. 1.0)	Set the parameter value of the specified parameter
/oscHandle/SetPreset	Integer	Switch to a different plugin preset (NB some plugins do not support this)
/oscHandle/GetParamCount		Returns the number of parameters in a plugin
/oscHandle/GetParam	Integer(Parameter Number)	Get the value of the given parameter number

Note: some of these commands send back a lot of information. You may want to use a tool such as OSCShark or Max to view the response messages.