

# Focusrite Control

## User Guide (*Scarlett 3rd Gen. Edition*)



Focusrite®  
[www.focusrite.com](http://www.focusrite.com)

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# INTRODUCTION

This is the User Guide for Focusrite Control, the software application that has been developed specifically for use with the Focusrite Scarlett 3rd Generation range of USB audio interfaces.

If you've just become the owner of a Scarlett 3rd Generation interface, you'll need both this User Guide and the User Guide for your hardware. You can download the hardware User Guide from <http://uk.focusrite.com/downloads>.

The combination of the Scarlett's excellent audio performance and professional build quality with Focusrite Control's simple and intuitive interface will, in conjunction with the Digital Audio Workstation (DAW) of your preference, provide you with a highly versatile computer recording system.

While we have designed Focusrite Control to be as intuitive and task-oriented as possible, all users will benefit from reading through this Guide, as a full understanding of the software's features can only be gained by considering it in partnership with the connected hardware.

## **IMPORTANT**

The Scarlett range of interfaces consists of several different models, all of which use Focusrite Control. The fundamental difference between these models lies in the number of inputs and outputs that each provides, plus the number of features that can be controlled directly from Focusrite Control.

Focusrite Control will recognise the particular Scarlett hardware to which your computer is connected, and configure itself accordingly. Therefore you will only see on-screen references to the inputs and outputs that your hardware actually supports.

Because of this automatic configuration, this User Guide is applicable to all the models in the Scarlett range, though its primary application is with the larger models in the Scarlett range, i.e., Scarlett 4i4 and above (also see NOTE below). We felt it would be confusing to illustrate the Guide with screenshots from more than one model, therefore we have settled to use the Scarlett 18i20 as the "reference" model. If your Scarlett is an 18i20, the screenshots in this Guide will exactly match what you see on your screen. If you've got a different model, the only significant differences in screen appearance will be in the numbers of available inputs and outputs, and software-controlled features.

## **NOTE: Scarlett 2i2 and Solo Users only**

Although software control is limited in these models, installation of Focusrite Control is still necessary to enable full device functionality at sample rates higher than 48 kHz, and also to permit firmware updates. However, for general operation, you do not need have Focusrite Control running on your computer in order to use the hardware interface. Note that additional software controlled features will become available in the future.

## System Requirements

### **IMPORTANT**

Please visit the following link for up-to-date information on computer and operating system compatibility for Focusrite Control and all Scarlett products:

[www.focusrite.com/downloads/os](http://www.focusrite.com/downloads/os)

## Software Installation

All software required by the Scarlett – and several powerful and useful extras – are available for download from the Focusrite website ([www.focusrite.com/register](http://www.focusrite.com/register) and [www.focusrite.com/downloads](http://www.focusrite.com/downloads)). Focusrite Control can either be downloaded as part of the interactive online setup process, but it can also be found on the downloads page if you choose not to follow the online setup process.

### **Installation during online setup process**

When first connecting your Scarlett (as detailed in its own User Guide), it will initially be in MSD mode and will guide you through the online setup process.

1. Double click on the 'Scarlett' device which is displayed when you connect your Scarlett to your computer, and select **Click here to get started**.
2. You will then begin the interactive online setup process.
3. On the **Ok, Let's install the essential software** page you will be given a link to download Focusrite Control.
4. Download and install the version of Focusrite Control (Mac or Windows) appropriate for your computer. Follow all on-screen instructions to install the software.
5. If on Windows, restart your computer following installation.
6. Following this, you should then see the message below appear:

**Your Scarlett is currently in MSD mode (Quick Start). Please click OK to restart your Scarlett and complete the online setup process. (Cancel/OK)**

This will take the device out of MSD mode and update the firmware if necessary.

7. Once back to the online setup webpage, please complete the Scarlett setup procedure.

### **Installation independent of online setup process**

1. Go to [focusrite.com/downloads](http://focusrite.com/downloads).
2. From here select your product from the dropdown list (all 3rd Generation Scarletts use Focusrite Control).
3. Download and install the version of Focusrite Control (Mac or Windows) appropriate for your computer. Follow all on-screen instructions to install the software.
4. Once your computer has restarted, Focusrite Control should correctly identify your Scarlett model, allowing you to control the internal settings of the device.

This information is accurate as of June 2019, however we are constantly striving to improve the customer experience and as a result this process is subject to change. If anything appears to have changed please refer to [www.focusrite.com/get-started](http://www.focusrite.com/get-started) for the latest info.

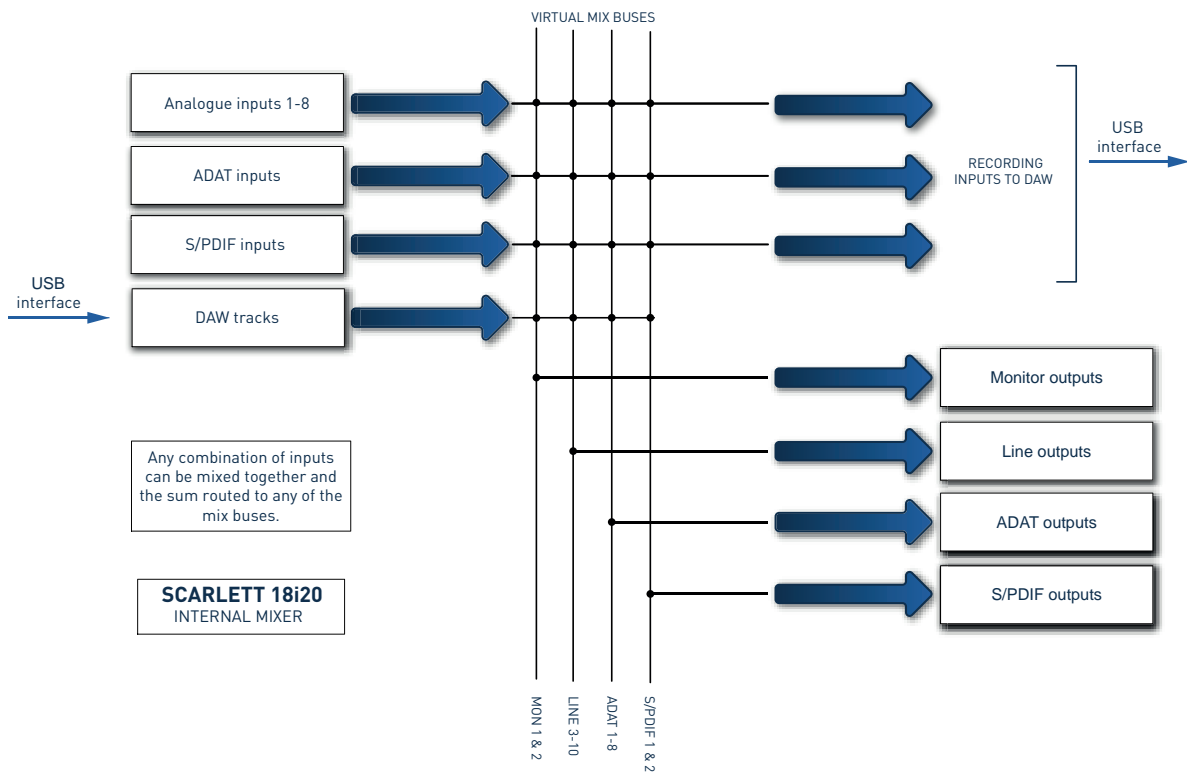
## The Scarlett Mixer – basic principles

Your Scarlett interface contains an internal audio mixer which allows you to create one or more mixes of the various audio sources in your system, and send them to the physical outputs of your interface. These sources include tracks that you have recorded on your DAW as well as the sources connected to the Scarlett's various physical inputs. Before starting to use Focusrite Control, it is a good idea to gain an understanding of the basic principle of this mixer.

### IMPORTANT

The Maximum simultaneous mixing capacity for the Scarlett 18i20 is:  
24 inputs to 12 outputs.

**NOTE:** This mixer capacity allows a maximum of 6 custom mixes in mono or stereo

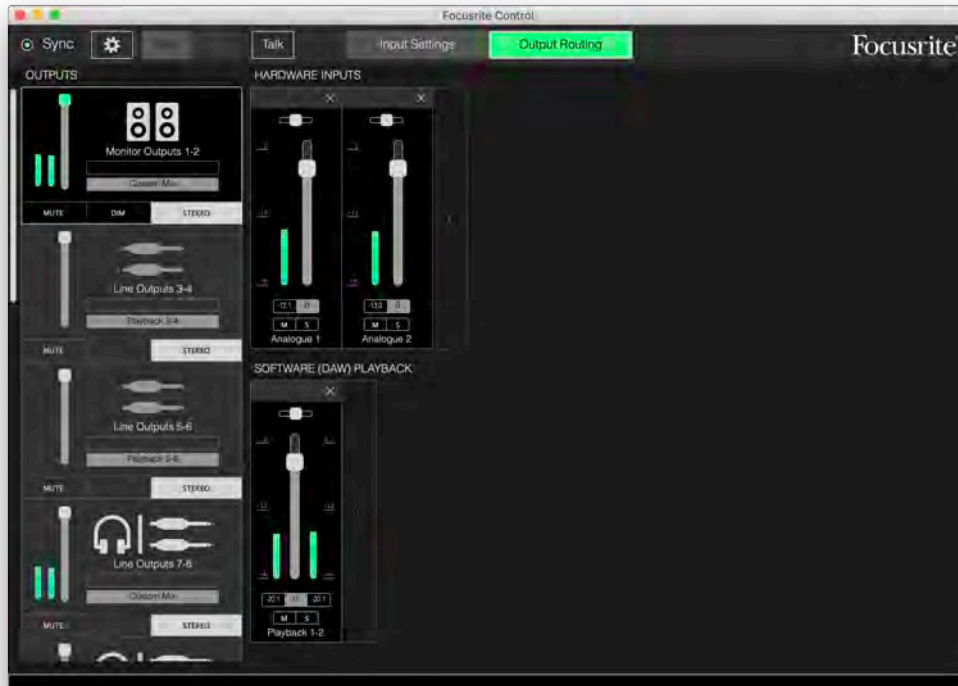


## MIXING & ROUTING PAGE



Installing Focusrite Control on your computer will place an FC icon on the desktop (Windows) or in the Applications folder (macOS).

Click the icon to launch Focusrite Control. You should see a screen similar to that below:



### NOTE

If instead you get a warning message stating **No Hardware Connected**, this means that the computer has been unable to establish communication with the Scarlett hardware.

In this case, please check:

- that the USB cable is correctly plugged in at both ends, and that the cable or connectors are not damaged in any way,
- that the Scarlett interface is turned on.

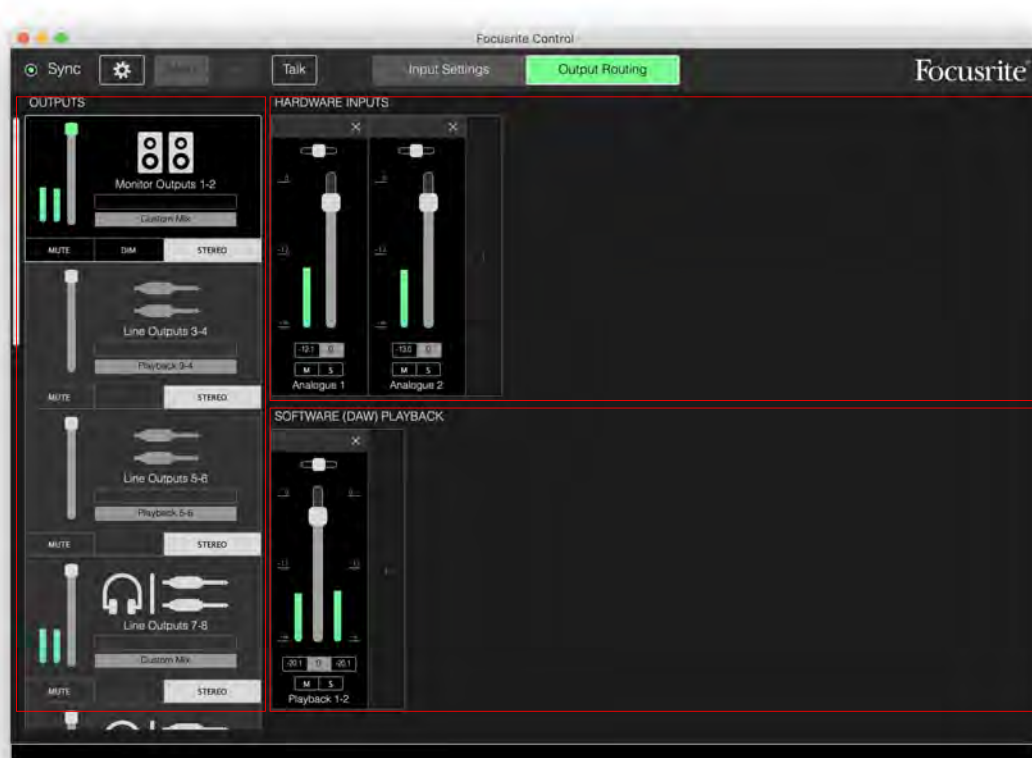
The green **sync** 'LED' at the screen top left should be illuminated; this confirms that the Scarlett device is locked to a valid clock source. See page 31 for further information.


## Configuring and controlling the mixer

### NOTE

To help you use the software effectively, Focusrite Control provides a comprehensive set of tool tips; when you hover the cursor over any of the controls, a description of what the control does appears in the status bar at the bottom of the window.

Click **File > Presets > Empty**. There are other Presets available which load up pre-configured mixer configurations – these are often useful starting points for the task you’re performing. But **Empty** loads a “blank” template, with no input channels visible.



Focusrite Control only has two pages – **Input Settings** and **Output Routing**. These are selected by the tabs at the top of the window. There is also a **Device Settings** pane which opens when you click the “cog” icon  at the top of the window – this is covered later in the manual.

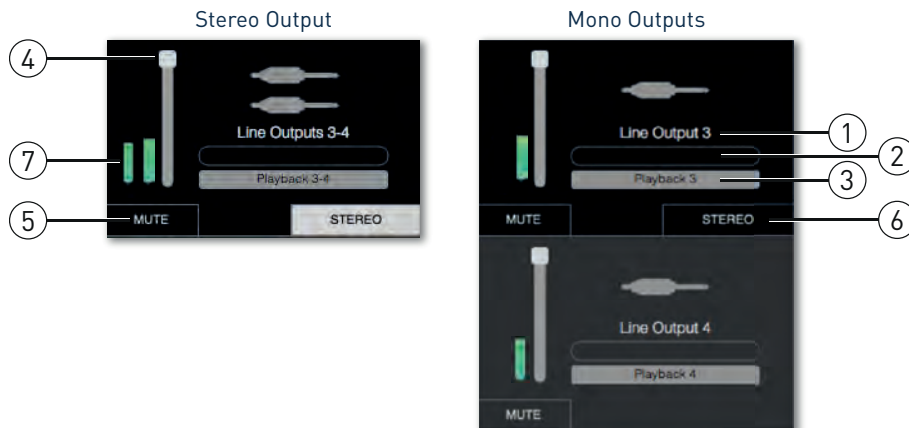
The Output Routing page is divided into three areas:

- **OUTPUTS** arranged vertically to the left.
- **HARDWARE INPUTS** to the right, occupying the upper half of the page.
- **SOFTWARE (DAW) PLAYBACK** to the right, occupying the lower half of the page.

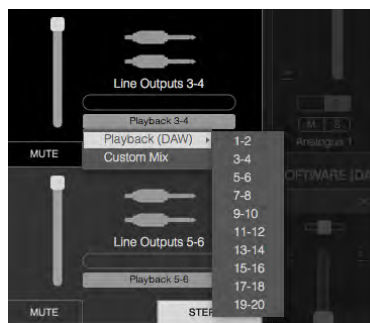
## The Output section

Let's look at the Output section first, as this is always fully visible while the Output Routing page is selected.

**OUTPUTS** has a vertical scroll bar; if your hardware interface has more outputs than can be fitted on the screen, scroll down to see the rest. Each output (or pair of outputs if in stereo mode) has its own tab, each of which has the following features:



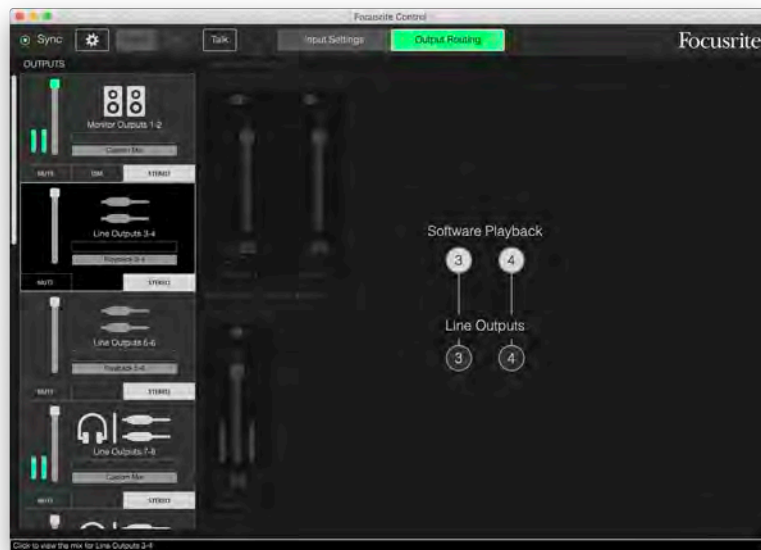
1. Output identifier (e.g., **Line Outputs 3-4**) and icon – in addition to the name of the output, icons are used to aid identification: you'll notice speaker and headphone symbols as well as jack plug, phono plug and Toslink symbols.
2. Custom name – you can click this field and enter a name of up to 11 characters.
3. Current source – this field will display the name of the signal currently feeding the output. In many setups, particularly when using Focusrite Control's presets, this will be by default, just one input or a stereo pair of inputs. Clicking on the field opens a drop-down list letting you select:
  - **Playback (DAW)** – lets you route any of the DAW tracks to the output (in pairs when the output is stereo). Playback (DAW) 1-2 will be the main output of most DAWs and software applications, e.g., your web browser and media applications.



- **Custom Mix** – lets you create a fresh mix of all available inputs (both hardware and those from the DAW) to the selected output. Note that if all your custom mixes have already been assigned this option is not available.
- **Hardware Input** – this lets you specify a hardware input which will be routed directly to this output.
- **Custom Mix + Talkback** (Scarlett 18i20 only) - this is the same as **Custom Mix**, but additionally routes the unit's internal mic is to this output when **TALKBACK** is activated.



You'll see that as you change the source selection for an output, the right hand side of the window displays a graphic illustrating the routing. For simple one-to-one routings, the graphic looks like this:



4. **Fader** – use this to adjust the signal level at the output. Note that all output levels are set to maximum as a default (unity gain). If the fader “knob” is green, it means that control of the output level is assigned to the physical **MONITOR** control on the Scarlett’s front panel. This assignment is made on the **Device Settings** page; see page 29. Note that digital outputs do not have faders.
5. **MUTE** – click this button to mute/unmute the output.
6. **STEREO** – assigns the output to be either one of a stereo pair or an individual mono output. In stereo mode, all output functions apply to both outputs forming the stereo pair.
7. **Meters** – a bargraph meter (two if configured for stereo operation) is provided indicating the audio level at the output. A red audio overload icon appears when the output level clips. This icon can be cleared by clicking anywhere in the meter bar.

As well as all the functions above, the Monitor Outputs also have one additional control, a **DIM** button – this is only applicable to outputs assigned to the Monitor control on the 18i8 and 18i20. This button becomes available only if control of the Monitor Outputs is assigned to the front panel hardware controls in **Device Settings**. When active, **DIM** reduces the level in the monitors (the amount of reduction is determined by the Scarlett device connected).

## The Mixer section

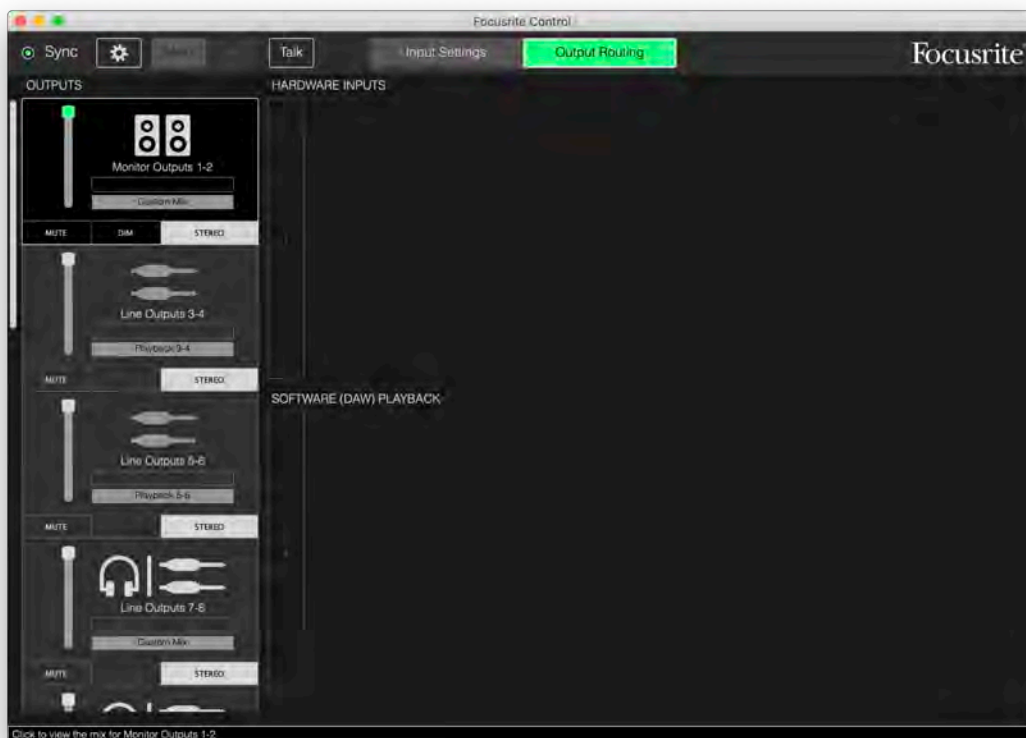
The Input section is divided into two: **HARDWARE INPUTS** and **SOFTWARE (DAW) PLAYBACK**. The two halves of the Input area are where you control the inputs to your mix for the selected output.

It is important to remember that you can create a different mix for each output, and you can have as many mixes as your Scarlett's internal mixer allows. This is incredibly useful when recording a group of musicians, as it means that each musician can have their own mix, personalised to their requirements (assuming there are enough headphones and headphone amps to go round!) The mixer whose input channels will be displayed is selected by clicking anywhere in the relevant output tab.

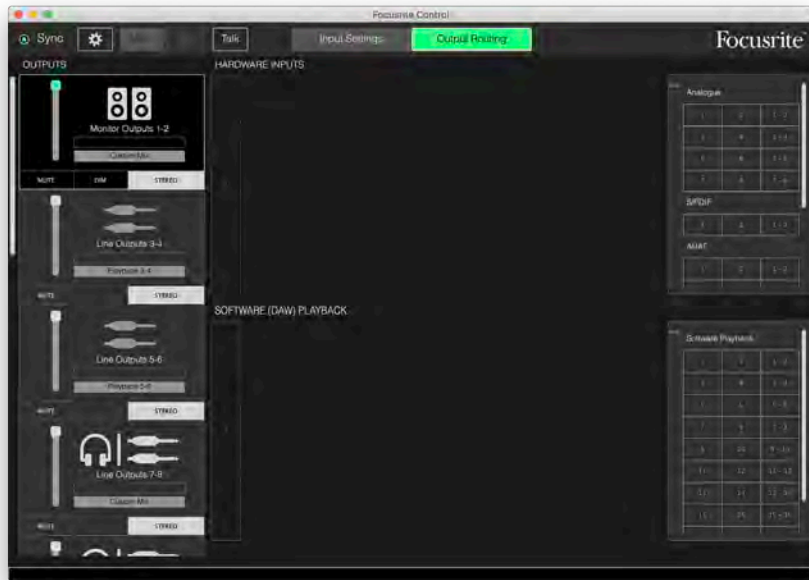
### IMPORTANT

It is not possible for the mixers for each output to be made up of a different set of inputs. The set of input channels in use is 'global' – that is, they will be applied across all outputs in the Scarlett unit. However, individual mixes, with individual levels, are possible as it is a simple matter to mute unwanted channels.

For some situations the simple one-to-one direct routing Focusrite Control sets up (as in the previous example) will be adequate. This is where the outputs on your DAW are directly routed to the hardware outputs on your Scarlett interface (i.e., no internal mixing within the unit). But in many cases, you will want to set up the mix yourself. To create a new mix, first click the current source button in the Output tab for the output that you want the mix to be fed to, and select **Custom Mix**. This will clear the current fixed routing for the output and display the Input mix area (this area will be empty if the **Empty** preset was selected earlier in this manual):



You can now “build” the mixer that will feed the selected Output by clicking on the two ‘+’ tabs. Each will open a selection box: the **HARDWARE INPUTS** half of the area lists all the Scarlett’s physical inputs (see page 13 for details of available hardware inputs for your Scarlett device), while in the **SOFTWARE (DAW) PLAYBACK** area, the selection box lists the available DAW tracks. You can repeat this process as many times as you like, adding channels up to the maximum capacity of your Scarlett hardware. Note that you may need to resize the window or use the horizontal scroll bar when the number of channels starts to exceed the window size.

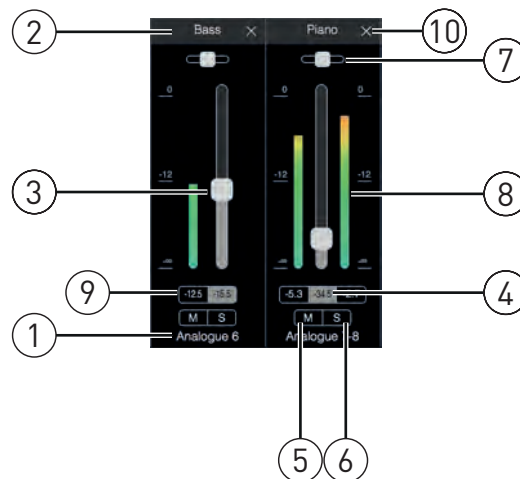


Note that in both boxes, each input is listed twice: individually (mono) and as half of a stereo pair. Selecting a stereo pair of inputs creates a stereo input channel.



In the example above, we might be doing an overdub: several DAW tracks have already been recorded, two additional tracks are going to be recorded and we wish to create a stereo foldback mix for one of the musicians.

Each input channel has the following features:



1. Input identifier – this is the actual physical input to the channel.
2. Custom name – you can click this field and enter a name – e.g., the instrument in question – of up to 11 characters.
3. Fader – use this to adjust the level of the signal in the mix. Note that the default setting for all faders is 0 dB, while “fader max” is at +6 dB. Double-clicking in the fader “slot” will set the fader at 0 dB.
4. Fader value – a numeric readout of the current fader position.
5. **m** – click this button to mute/unmute the channel.
6. **s** – Solo button. Clicking this will let you hear just this channel, replacing the mix that was there previously. This is very useful function during recording as it allows the engineer to check the instrument being recorded without the distraction of the rest of the tracks. The Solo function does not alter any other signal routings, and does not interrupt the signal being recorded into the DAW.
7. Pan slider. This control is only available when the mix is being routed to a stereo output. Its default position is central, and the signal in the channel is then sent at equal levels to both outputs of the stereo pair. Moving the slider either way sends a higher signal level to one output than the other, thus making it possible to “position” individual instruments at particular place in the stereo image. Double-clicking in the slider “slot” will set the control in the central position.
8. Signal level meter. This indicates the signal level coming into the channel, i.e., pre-fade. It is scaled in dBFS units, with 0 dBFS at the top of the scale. 0 dBFS corresponds to digital clipping, which sounds very unpleasant; levels should always be adjusted to avoid this situation. Stereo channels have two meters, one either side of the fader.
9. Peak level display – a numerical readout of the maximum signal level reached. Stereo channels have two displays. If a signal reaches clip level, **CLIP** is displayed in red; this may be cleared by clicking on it, or by selecting **Clear all meters** from the **File** menu.
10. Close – click on the cross to remove the signal from the mix and the channel from the screen.

## Hardware Inputs available on Scarlett devices

Your Scarlett interface provides a wide range of audio inputs, however the number available depends on what operating sample rate it is set to (see page 30 for further details). Doubling the sample rate halves the number of ADAT channels available. The tables below provide details of what inputs are available to you when operating at different sample rates.

| 44.1 kHz - 48 kHz |                |               |              |              |
|-------------------|----------------|---------------|--------------|--------------|
| Input             | Scarlett 18i20 | Scarlett 18i8 | Scarlett 8i6 | Scarlett 4i4 |
| 1                 | Input 1        | Input 1       | Input 1      | Input 1      |
| 2                 | Input 2        | Input 2       | Input 2      | Input 2      |
| 3                 | Input 3        | Input 3       | Input 3      | Input 3      |
| 4                 | Input 4        | Input 4       | Input 4      | Input 4      |
| 5                 | Input 5        | Input 5       | Input 5      | Loopback 1   |
| 6                 | Input 6        | Input 6       | Input 6      | Loopback 2   |
| 7                 | Input 7        | Input 7       | S/PDIF In 1  |              |
| 8                 | Input 8        | Input 8       | S/PDIF In 2  |              |
| 9                 | Loopback 1     | S/PDIF In 1   | Loopback 1   |              |
| 10                | Loopback 2     | S/PDIF In 2   | Loopback 2   |              |
| 11                | S/PDIF In 1    | Loopback 1    |              |              |
| 12                | S/PDIF In 2    | Loopback 2    |              |              |
| 13                | ADAT In 1.1    | ADAT In 1.1   |              |              |
| 14                | ADAT In 1.2    | ADAT In 1.2   |              |              |
| 15                | ADAT In 1.3    | ADAT In 1.3   |              |              |
| 16                | ADAT In 1.4    | ADAT In 1.4   |              |              |
| 17                | ADAT In 1.5    | ADAT In 1.5   |              |              |
| 18                | ADAT In 1.6    | ADAT In 1.6   |              |              |
| 19                | ADAT In 1.7    | ADAT In 1.7   |              |              |
| 20                | ADAT In 1.8    | ADAT In 1.8   |              |              |

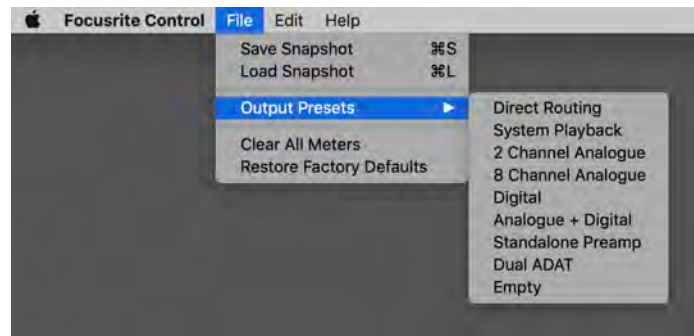
| 88.2 kHz - 96 kHz |                |             |               |              |              |
|-------------------|----------------|-------------|---------------|--------------|--------------|
| Input             | Scarlett 18i20 |             | Scarlett 18i8 | Scarlett 8i6 | Scarlett 4i4 |
|                   | ADAT mode      | S/PDIF mode |               |              |              |
| 1                 | Input 1        | Input 1     | Input 1       | Input 1      | Input 1      |
| 2                 | Input 2        | Input 2     | Input 2       | Input 2      | Input 2      |
| 3                 | Input 3        | Input 3     | Input 3       | Input 3      | Input 3      |
| 4                 | Input 4        | Input 4     | Input 4       | Input 4      | Input 4      |
| 5                 | Input 5        | Input 5     | Input 5       | Input 5      | Loopback 1   |
| 6                 | Input 6        | Input 6     | Input 6       | Input 6      | Loopback 2   |
| 7                 | Input 7        | Input 7     | Input 7       | S/PDIF In 1  |              |
| 8                 | Input 8        | Input 8     | Input 8       | S/PDIF In 2  |              |
| 9                 | Loopback 1     | Loopback 1  | S/PDIF In 1   | Loopback 1   |              |
| 10                | Loopback 2     | Loopback 2  | S/PDIF In 2   | Loopback 2   |              |
| 11                | ADAT In 1.1    | S/PDIF In 1 | Loopback 1    |              |              |
| 12                | ADAT In 1.2    | S/PDIF In 2 | Loopback 2    |              |              |
| 13                | ADAT In 1.3    | ADAT In 1.1 | ADAT In 1.1   |              |              |
| 14                | ADAT In 1.4    | ADAT In 1.2 | ADAT In 1.2   |              |              |
| 15                | ADAT In 2.1    | ADAT In 1.3 | ADAT In 1.3   |              |              |
| 16                | ADAT In 2.2    | ADAT In 1.4 | ADAT In 1.4   |              |              |
| 17                | ADAT In 2.3    |             |               |              |              |
| 18                | ADAT In 2.4    |             |               |              |              |

| 176.4 kHz - 192 kHz |                |               |              |              |
|---------------------|----------------|---------------|--------------|--------------|
| Input               | Scarlett 18i20 | Scarlett 18i8 | Scarlett 8i6 | Scarlett 4i4 |
| 1                   | Input 1        | Input 1       | Input 1      | Input 1      |
| 2                   | Input 2        | Input 2       | Input 2      | Input 2      |
| 3                   | Input 3        | Input 3       | Input 3      | Input 3      |
| 4                   | Input 4        | Input 4       | Input 4      | Input 4      |
| 5                   | Input 5        | Input 5       | Input 5      |              |
| 6                   | Input 6        | Input 6       | Input 6      |              |
| 7                   | Input 7        | Input 7       | S/PDIF In 1  |              |
| 8                   | Input 8        | Input 8       | S/PDIF In 2  |              |
| 9                   | S/PDIF In 1    | S/PDIF In 1   |              |              |
| 10                  | S/PDIF In 2    | S/PDIF In 2   |              |              |

## Using Output Presets

Focusrite Control comes with some useful Output Presets, which have been designed to get you started on a recording task as quickly as possible. Selecting an Output Preset automatically configures output routing and the mixer for you, setting up various useful combinations of input channels.

Output Presets are selected from the **File** menu; select **Output Presets** from the drop-down list. The Output Presets available with the Scarlett 18i20 are shown below:



## Direct Routing

With complex mixing sessions, it is sometimes desirable to perform the final mix in a separate, physical mixing console. The **Direct Routing** Output Preset configures the Scarlett for this task, as it routes DAW playback tracks in numerical order to all the available Scarlett outputs.



Direct routing connections for the Scarlett range are as follows:

| 44.1 kHz - 48 kHz |                |                |              |                     |                  |                 |
|-------------------|----------------|----------------|--------------|---------------------|------------------|-----------------|
| DAW track         | Scarlett 18i20 |                |              | Scarlett 18i8       | Scarlett 8i6     | Scarlett 4i4    |
|                   | S/PDIF         | Optical S/PDIF | Dual ADAT    |                     |                  |                 |
| 1                 | Output 1       | Output 1       | Output 1     | Output 1 (S/PDIF L) | Output 1 (HP 1L) | Output 1        |
| 2                 | Output 2       | Output 2       | Output 2     | Output 2 (S/PDIF R) | Output 2 (HP 1R) | Output 2        |
| 3                 | Output 3       | Output 3       | Output 3     | Output 3            | Output 3 (HP 2L) | Output 3 (HP L) |
| 4                 | Output 4       | Output 4       | Output 4     | Output 4            | Output 4 (HP 2R) | Output 4 (HP R) |
| 5                 | Output 5       | Output 5       | Output 5     | Headphones 1L       | S/PDIF Out 1     |                 |
| 6                 | Output 6       | Output 6       | Output 6     | Headphones 1R       | S/PDIF Out 2     |                 |
| 7                 | Output 7       | Output 7       | Output 7     | Headphones 2L       |                  |                 |
| 8                 | Output 8       | Output 8       | Output 8     | Headphones 2R       |                  |                 |
| 9                 | Output 9       | Output 9       | Output 9     |                     |                  |                 |
| 10                | Output 10      | Output 10      | Output 10    |                     |                  |                 |
| 11                | S/PDIF Out 1   | S/PDIF Out 1*  | S/PDIF Out 1 |                     |                  |                 |
| 12                | S/PDIF Out 2   | S/PDIF Out 2*  | S/PDIF Out 2 |                     |                  |                 |
| 13                | ADAT Out 1.1   | ADAT Out 1.1   | ADAT Out 1.1 |                     |                  |                 |
| 14                | ADAT Out 1.2   | ADAT Out 1.2   | ADAT Out 1.2 |                     |                  |                 |
| 15                | ADAT Out 1.3   | ADAT Out 1.3   | ADAT Out 1.3 |                     |                  |                 |
| 16                | ADAT Out 1.4   | ADAT Out 1.4   | ADAT Out 1.4 |                     |                  |                 |
| 17                | ADAT Out 1.5   | ADAT Out 1.5   | ADAT Out 1.5 |                     |                  |                 |
| 18                | ADAT Out 1.6   | ADAT Out 1.6   | ADAT Out 1.6 |                     |                  |                 |
| 19                | ADAT Out 1.7   | ADAT Out 1.7   | ADAT Out 1.7 |                     |                  |                 |
| 20                | ADAT Out 1.8   | ADAT Out 1.8   | ADAT Out 1.8 |                     |                  |                 |

\*RCA and Optical



| 88.2 kHz – 96 kHz |                |                |              |                         |                     |                  |                 |
|-------------------|----------------|----------------|--------------|-------------------------|---------------------|------------------|-----------------|
| DAW track         | Scarlett 18i20 |                |              |                         | Scarlett 18i8       | Scarlett 8i6     | Scarlett 4i4    |
|                   | S/PDIF         | Optical S/PDIF | Dual ADAT    | Dual ADAT Output Preset |                     |                  |                 |
| 1                 | Output 1       | Output 1       | Output 1     | Output 1                | Output 1 (S/PDIF L) | Output 1 (HP 1L) | Output 1        |
| 2                 | Output 2       | Output 2       | Output 2     | Output 2                | Output 2 (S/PDIF R) | Output 2 (HP 1R) | Output 2        |
| 3                 | Output 3       | Output 3       | Output 3     | Output 3                | Output 3            | Output 3 (HP 2L) | Output 3 (HP L) |
| 4                 | Output 4       | Output 4       | Output 4     | Output 4                | Output 4            | Output 4 (HP 2R) | Output 4 (HP R) |
| 5                 | Output 5       | Output 5       | Output 5     | Output 5                | Headphones 1L       | S/PDIF Out 1     |                 |
| 6                 | Output 6       | Output 6       | Output 6     | Output 6                | Headphones 1R       | S/PDIF Out 2     |                 |
| 7                 | Output 7       | Output 7       | Output 7     | Output 7                | Headphones 2L       |                  |                 |
| 8                 | Output 8       | Output 8       | Output 8     | Output 8                | Headphones 2R       |                  |                 |
| 9                 | Output 9       | Output 9       | Output 9     | Output 9                |                     |                  |                 |
| 10                | Output 10      | Output 10      | Output 10    | Output 10               |                     |                  |                 |
| 11                | S/PDIF Out 1   | S/PDIF Out 1*  | S/PDIF Out 1 | ADAT Out 1.1            |                     |                  |                 |
| 12                | S/PDIF Out 2   | S/PDIF Out 2*  | S/PDIF Out 2 | ADAT Out 1.2            |                     |                  |                 |
| 13                | ADAT Out 1.1   | ADAT Out 1.1   | ADAT Out 1.1 | ADAT Out 1.3            |                     |                  |                 |
| 14                | ADAT Out 1.2   | ADAT Out 1.2   | ADAT Out 1.2 | ADAT Out 1.4            |                     |                  |                 |
| 15                | ADAT Out 1.3   | ADAT Out 1.3   | ADAT Out 1.3 | ADAT Out 2.1            |                     |                  |                 |
| 16                | ADAT Out 1.4   | ADAT Out 1.4   | ADAT Out 1.4 | ADAT Out 2.2            |                     |                  |                 |
| 17                |                |                | ADAT Out 2.1 | ADAT Out 2.3            |                     |                  |                 |
| 18                |                |                | ADAT Out 2.2 | ADAT Out 2.4            |                     |                  |                 |

\*RCA and Optical

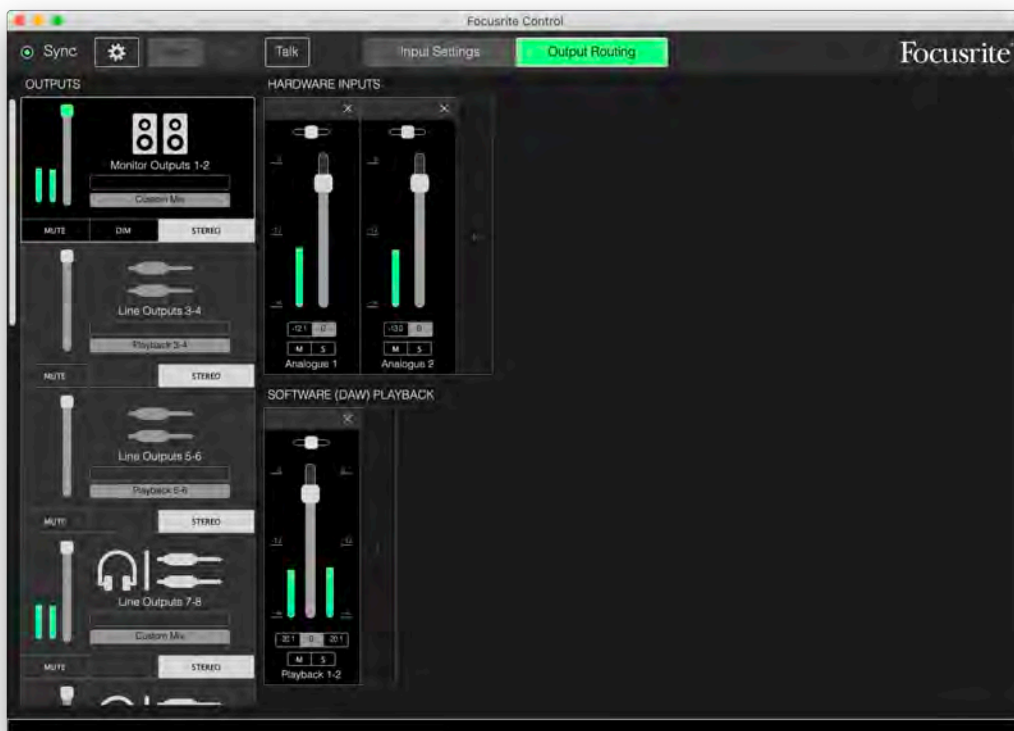
| 176.4 kHz – 192 kHz |                |                |           |                     |                  |                 |
|---------------------|----------------|----------------|-----------|---------------------|------------------|-----------------|
| DAW track           | Scarlett 18i20 |                |           | Scarlett 18i8       | Scarlett 8i6     | Scarlett 4i4    |
|                     | S/PDIF         | Optical S/PDIF | Dual ADAT |                     |                  |                 |
| 1                   | Output 1       | Output 1       | Output 1  | Output 1 (S/PDIF L) | Output 1 (HP 1L) | Output 1        |
| 2                   | Output 2       | Output 2       | Output 2  | Output 2 (S/PDIF R) | Output 2 (HP 1R) | Output 2        |
| 3                   | Output 3       | Output 3       | Output 3  | Output 3            | Output 3 (HP 2L) | Output 3 (HP L) |
| 4                   | Output 4       | Output 4       | Output 4  | Output 4            | Output 4 (HP 2R) | Output 4 (HP R) |
| 5                   | Output 5       | Output 5       | Output 5  | Headphones 1L       | S/PDIF Out 1     |                 |
| 6                   | Output 6       | Output 6       | Output 6  | Headphones 1R       | S/PDIF Out 2     |                 |
| 7                   | Output 7       | Output 7       | Output 7  | Headphones 2L       |                  |                 |
| 8                   | Output 8       | Output 8       | Output 8  | Headphones 2R       |                  |                 |
| 9                   | Output 9       | Output 9       | Output 9  |                     |                  |                 |
| 10                  | Output 10      | Output 10      | Output 10 |                     |                  |                 |

To use the Output Preset to its full extent with a traditional analogue console, a suitable ADAT-equipped D-to-A converter and a two-channel D-to-A converter with an S/PDIF input would be required. However, many modern digital mixers are able to accept ADAT and S/PDIF signals directly as well as analogue.

## 2 Channel Analogue

This is the Output Preset to use when using the Scarlett as your analogue recording “front end”. The Preset configures the Scarlett’s routing with Analogue Inputs 1 and 2 available as **HARDWARE INPUTS** and DAW tracks 1 and 2 available as a stereo channel in the **SOFTWARE (DAW) PLAYBACK** section.

For example, on the Scarlett 18i20, the summed output of these input channels is routed to Monitor Outputs 1 and 2, and also to Line Outputs 7 and 8, and 9 and 10, as a stereo pair in all cases. On this model, Headphone Outputs 1 and 2 follow Line Outputs 7/8 and 9/10 respectively, with their own front panel headphone levels controls. This setup is ideal for recording a guitarist and a vocalist to a computer drum track, for example, as it enables each to have an individual mix of the drums and each other.



As more tracks are recorded, simply add additional DAW playback tracks to the mix.

All other Scarlett outputs are sourced directly from the corresponding DAW playback tracks, as per the Direct Routing table on page 16.

## 8 Channel Analogue

Use this Output Preset as a starting point when recording a band. On the Scarlett 18i20, this Preset enables eight mixer channels, one for each of the hardware analogue inputs. DAW tracks 1 & 2 are also enabled as a stereo channel.



As with the 2 Channel Analogue Preset, the summed output of the mixer is routed to Monitor Out 1 and 2, and Line Outs 7 to 10 as a stereo pair.

All other Scarlett outputs are sourced directly from the corresponding DAW playback tracks, as per the Direct Routing table on page 16.

## Digital

This Output Preset is a useful starting point when using a separate ADAT-equipped microphone pre-amplifier such as the Scarlett OctoPre. When used with the Scarlett 18i20 it enables ten digital input channels, eight sourced from the ADAT input port and two from the S/PDIF input. DAW tracks 1 and 2 are also enabled as a stereo channel. The sum of the inputs is routed to the same pairs of outputs as with the analogue Presets described previously.



All other Scarlett outputs are sourced directly from the corresponding DAW playback tracks, as per the Direct Routing table on page 16.

## Empty

This may often be the most convenient Output Preset to use as it clears all existing setups to allow the user to start building their own configuration as required.

On the Scarlett 18i20, Monitor Out 1 and 2 and Line Outs 7 to 10 (paralleled as the headphone outputs) are set to receive a custom mix; all other outputs are sourced from individual DAW tracks, as with the other Presets.

## Examples of Use

### Recording and Tracking

Recording a band or just recording yourself is basically the same process as far as Focusrite Control is concerned – the only difference is the number of mixer channels you'll have on screen.

Connect the instruments to be recorded to the Scarlett interface, either directly using the INST or LINE inputs, or - for acoustic instruments and vocals - with microphones connected to the MIC inputs. Each instrument or microphone will be routed to your DAW via the USB cable, and will be recorded - by default - on the track with the same number as its hardware input. Set the recording levels by adjusting the gain controls on the Scarlett front panel. Your DAW will allow you to alter the track assignment if you wish.

Focusrite Control lets you create a monitor mix of everything being recorded. The mix you hear in your monitors or headphones can be anything you want, and is completely independent of the signal levels being recorded.

All Focusrite Control channels start out with the fader position at zero, so you will hear a rough mix as soon as you have everything connected up. You can then tweak the mix to suit your requirements.

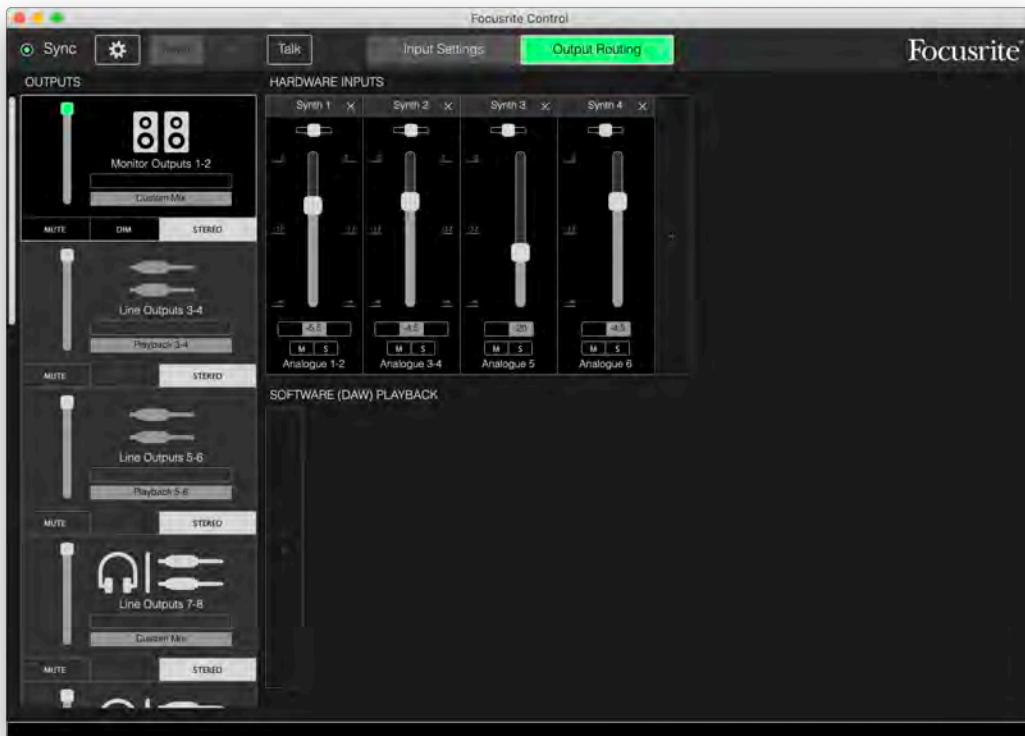


When loading any of the Output Presets other than **Direct Routing**, the mix available at your headphone outputs will be identical to your main monitor mix. However they are independent and are controlled separately. For example, if you want to use the headphones for a musician's foldback, you will probably need to set up a different mix. Just select the output tab for the headphones (**Line Out 7-8** in the Scarlett 18i20 example shown) and change the mix. By the same principle you can create further, different mixes for as many other musicians by using further Line Out tabs and selecting **Custom Mix** (or **Custom Mix + Talkback** in the case of the Scarlett 18i20).

## Stand-alone mixer (8i6, 18i8 and 18i20 interfaces only)

Once the Scarlett's internal mixer has been configured by Focusrite Control, that configuration is retained by the hardware even after you remove the USB cable and switch the unit off. This means that you can make use of the Scarlett's excellent analogue performance in a live situation, without necessarily needing to connect a computer.

An example of this application would be as an on-stage keyboard mixer. Multiple keyboards can be connected to the Scarlett's inputs, and mixed together to the Monitor Outputs. The relative levels of each keyboard can be adjusted from the front panel.



The setup shown above would configure the mixer as described; because the Scarlett retains its last configuration, the unit can then be switched off, and used at the venue as a stand-alone unit.

## Using the Loopback feature



Focusrite Control's Loopback feature lets you record other audio sources from within your computer (e.g., the audio output from a web browser). Loopback uses the Scarlett's "virtual" inputs, which have no physical connectors on the hardware interface itself, but may be selected in the DAW as signal sources for recording in the same way as any other.

Thus by selecting the Loopback output as the recording source on a mono or stereo DAW track, you can record from another software application into your DAW. Note that your computer will assign DAW 1 and DAW 2 as the default sound output channels.

An example of configuring Loopback in Focusrite Control is given below:

1. In the Loopback output tab, select the audio source you wish to loop back into your DAW. Default is Playback 1-2.
2. In your DAW, ensure that the Loopback tracks are enabled for recording.
3. Create a new audio track.
4. **Important!** - MUTE THE DAW CHANNEL. If you are routing the output of the channel you are recording back to DAW 1 & 2, a feedback loop will be created, potentially damaging for your speakers, or worse – your ears.
5. Check that the Loopback output is not muted.
6. Set the DAW channel to record enable.
7. Now, any audio playing on your computer, e.g., a separate audio replay program or from an Internet browser, will be routed into your DAW ready for recording. Hit record in your DAW to capture the audio.



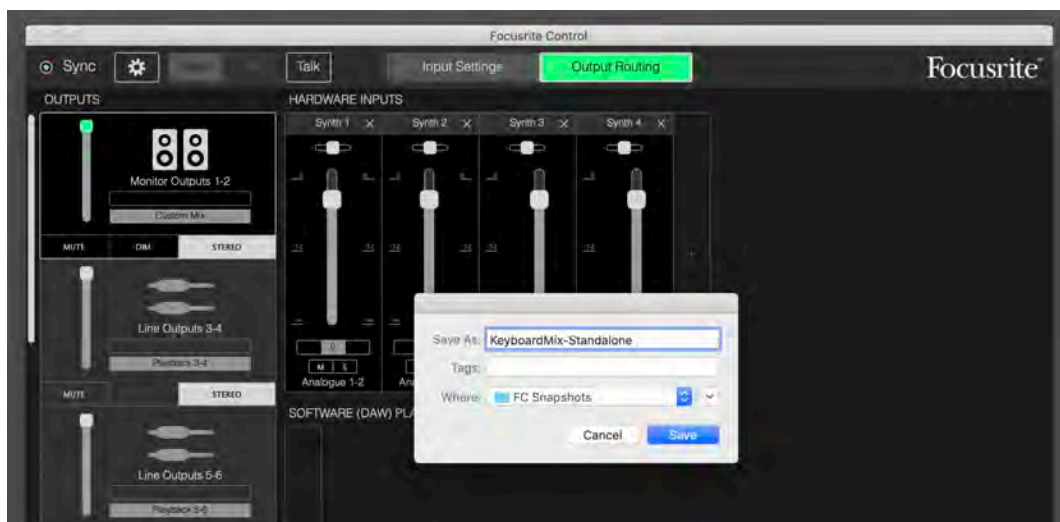
## Snapshots

The mixer in your Scarlett interface retains the last Focusrite Control settings at all times. However, you may wish to save your session settings so that you can get back to them at a later time, perhaps when working on a similar project or with a different, compatible hardware device.

Focusrite Control includes a Snapshot facility for this purpose, which does just that – it effectively takes a “snapshot” of the entire mixer and lets you save it on your computer for later recall. The table below summarises what settings are saved in a snapshot:

| Custom name         | Mix Name | Output Stereo Link | Monitor Mute | Hardware control settings |
|---------------------|----------|--------------------|--------------|---------------------------|
| Air in/out          | Mix Gain | Output Source      | Monitor Dim  | S/PDIF source             |
| Pad on/off          | Mix Pan  | Output Mute        |              | Digital I/O Mode          |
| Line/Inst selection | Mix Mute | Output Name        |              |                           |
|                     | Mix Solo | Output Gain        |              |                           |

To save the current mixer settings, click **File > Save Snapshot**.



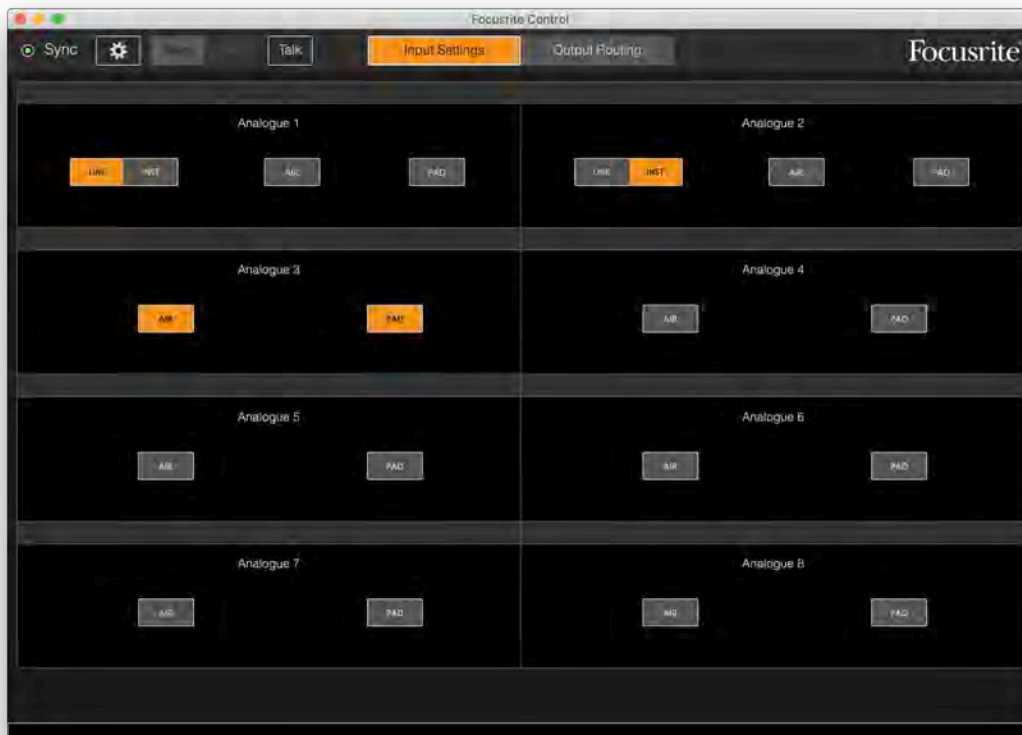
The session file is saved with a \*.**ff** file extension. To recall the session, click **File > Load Snapshot**, which opens a standard File Open box; navigate to the where you saved the file and open in the usual way.



# INPUT SETTINGS

Scarlett interfaces have a variety of hardware functions that are operated from Focusrite Control, rather than by physical controls on the unit itself.

Clicking on **Input Settings** gives you access to these functions. The page for the Scarlett 18i20 looks this:



If you have a different Scarlett model, most of the functionality will be the same, but fewer switches may be visible because your interface includes channels that require software to switch between settings, e.g., Scarlett's 4i4, 8i6, 18i8 and 18i20 use software switching to change between Line and Instrument inputs and to select the Pads and AIR mode. The following screengrab demonstrates this with the 18i8 **Device Settings** page.

## Inst/Line

Some of the channels on your interface will be configurable as dedicated instrument inputs for connecting electric guitars and basses directly. Selecting **INST** for these channels switches the ¼" jack contacts of the input to a high impedance, unbalanced input to configure it for direct connection of electric guitars/basses. Selection of INST mode is confirmed by a red LED on the unit's front panel. Depending on the Scarlett model you have, you may be able to select INST or LINE from the front panel of the unit as well.

The alternative switch position for these channels is **LINE**; in this mode, the inputs are suitable for a standard balanced line level signal.

Use a 2-pole (TS) ¼" jack when using the inputs in INST mode, and a 3-pole (TRS) ¼" jack when using them in LINE mode with a balanced source.

All the channels on your interface are able to accept dynamic or condenser microphones. The Combo-type connectors sense either an XLR plug or a jack plug, and reconfigure the pre-amplifier for mic or line operation automatically. The channels which additionally have the INST function use the same connector. If you are connecting a microphone with an XLR plug, the **INST/LINE** switch will have no effect.

## Pad


Some of the channels on your Scarlett interface (model dependent) may have a PAD function: when selected, the signal level fed to your DAW is reduced by 10 dB. You will find this useful if the output level of your source is particularly “hot”, when you might notice clipping or the gain halo turning red, even at minimum gain. On the Scarlett 18i20 you can also select PAD from the front panel. Each channel with the PAD function has a green **PAD** LED which illuminates when PAD is active.

## Air

An important feature of all 3rd Generation Scarlett interfaces is Focusrite’s exclusive AIR function. Individually selectable on all mic input channels, AIR subtly modifies the preamp’s frequency response to model the sonic characteristics of our classic transformer-based ISA microphone preamps. When recording with good quality microphones, you will notice an enhanced clarity and definition in the important mid to high frequency range, just where it is most needed for vocals and many acoustic instruments.

On some Scarlett models, you can also select AIR from the front panel of the interface. Each channel with the AIR function has a front panel yellow **AIR** LED to indicate when AIR is selected.

# DEVICE SETTINGS

Click on the cog icon  to open the Device Settings pane, which slides out from the left of the screen; click the icon again to close it. The Device Settings pane lets you make various global settings to the hardware interface which will remain in force until you change them. The pane for the Scarlett 18i20 is shown below:



## Monitor Controls

It is very convenient (and traditional!) to adjust your master monitoring volume with a conventional rotary control. Scarlett interfaces have a **MONITOR** control on the front panel for this purpose. However, further configuration of this control is available for the 18i20 and 18i8 when using Focusrite Control.

Normally (i.e., by default), the MONITOR control adjusts the level at Monitor Outputs 1 and 2 while also providing Mute and Dim control. If you are using some of the Scarlett's other outputs for secondary speakers – typically nearfield, though also in LCR or surround setups – you can assign the rotary control, Mute and DIM switches to affect them as well. Note that on the Scarlett 18i20, the interface also has physical Mute and DIM switches on the front panel.



The options are:

- 1-2 – Monitor Outputs 1 & 2 (default setting)
- 1-4 – Monitor Outputs 1 & 2 and Line Outputs 3 & 4
- 1-6 - Monitor Outputs 1 to 4 and Line Outputs 5 & 6 – Scarlett 18i20 only
- 1-8 - Monitor Outputs 1 to 4 and Line Outputs 5 to 8 – Scarlett 18i20 only
- All – Monitor Outputs 1 to 4 and Line Outputs 5 to 10 – Scarlett 18i20 only
- None – The rotary control is disabled; output levels may still be controlled from the software faders.

**NOTE:** Assigning outputs 7-8 and 9-10 to monitor control will affect the level of the headphone outputs as they are shared.

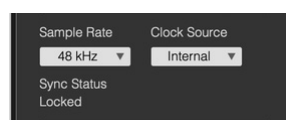
In the Output tabs on the **Output Routing** page, the fader “knob” will be green for the outputs assigned to the hardware rotary control. This means that the on-screen fader is inoperative and you have to adjust the level of those outputs from the front panel. However, the on-screen fader position, plus Mute and Dim status will reflect the hardware control’s operation.

## Speaker Switching

The Scarlett 18i8 and 18i20 support Speaker Switching, which lets you swap between two pairs of monitoring speakers very easily.

To use Speaker Switching, first click on **Speaker Switching > Enable**, and then select **MAIN** or **ALT** at the top of the main page. On the Scarlett 18i20, you can also use the **ALT** button the front panel of the interface. The **ALT** LED illuminates when ALT is selected. When **MAIN** is selected, the **ALT** Outputs are muted, and vice-versa. Note that on disabling Speaker Switching, both **MAIN** and **ALT** outputs will be muted: also any additional outputs which have been assigned to the rotary **MONITOR** control will be muted. This is a safety feature and the outputs will need to be unmuted (in the Output tabs) as they are required.

## Sample Rate

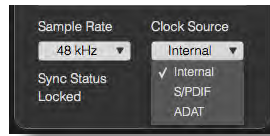


Your Scarlett interface is able to operate at any of six sample rates: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz. The default sample rate is 48 kHz. Select an alternative sample rate if needed. Higher sample rates will generally reduce the total number of channels available – see your interface User Guide for more information.

### **IMPORTANT**

Note that the optical input is disabled when sample rates of 176.4/192 kHz are in use. Custom mixes are also disabled at these sample rates.

## Clock Source



Interconnected digital audio equipment must always use the same reference clock source. Your Scarlett interface is able to synchronise from three sources:

- **Internal** – the internally generated reference clock. This is the default selection.
- **S/PDIF** – the embedded clock signal in a signal at the S/PDIF IN connector. (Note that S/PDIF may be applied to either the RCA connector or an optical port on the Scarlett 18i8 or 18i20. Ensure that if you are using the optical port to receive S/PDIF, the signal from device you are connecting has embedded clock.)
- **ADAT** – the embedded clock signal in a signal at the OPTICAL IN connector.

Whichever source is selected, the clock signal is available at the Scarlett's **WORD CLOCK OUT** rear panel BNC socket to allow synchronisation with other digital equipment (only on 18i20).

## Digital Inputs



Scarlett models 18i8 and 18i20 have an additional selection available to determine how the S/PDIF and/or ADAT modes are to be used.

### **IMPORTANT**

Your interface will need to be restarted (i.e., power-cycled) after changing the Digital Inputs setting in order for input reconfiguration to take place.

**18i8 only – S/PDIF Source:** this model accepts a S/PDIF signal at either the RCA connector or the optical ADAT input port. Note that when the optical port is used for an S/PDIF input, it cannot be used for ADAT inputs. Also note that the optical ports are disabled at sample rates of 176.4 and 192 kHz.

**18i20 only – Digital I/O Mode:** this model supports three different Digital I/O Modes, which determine how the interface’s S/PDIF input and output, and the four optical ports, function. The mode to be used is selected from the **Digital I/O Mode** dropdown. The three modes are:

- **S/PDIF RCA** – this is the default mode: the 18i20 will send and receive S/PDIF signals via the coaxial connectors.
- **S/PDIF Optical** – use this mode if you need the 18i20 to send or receive S/PDIF signals via an optical connection. If you have selected S/PDIF as the clock source (see above), then the 18i20 will use an S/PDIF signal applied optically at an ADAT port as the clock source.
- **Dual ADAT** – this mode lets you send and receive eight channels of audio via the ADAT ports at 88.2 or 96 kHz sample rate. Note that in this mode, S/PDIF I/O is disabled at all sample rates, and will not be available at either the RCA connector nor via an optical port.

Further details can be found in the section “Digital I/O Modes” in the Scarlett 18i20 User Guide.

## TROUBLESHOOTING

For all troubleshooting queries, please visit the Focusrite Help Centre at [support.focusrite.com/](https://support.focusrite.com/) where you will find articles covering numerous troubleshooting examples.

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