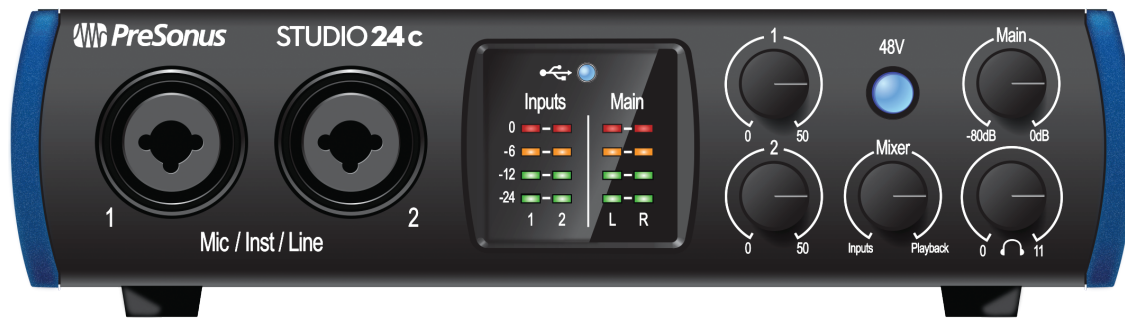


# Studio 24c

24-Bit, 192 kHz USB-C Audio Interface

Owner's Manual



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# 1 Overview

## 1.1 Introduction



**Thank you** for purchasing a PreSonus® Studio 24c audio interface. PreSonus Audio Electronics, Inc., has designed the Studio 24c utilizing high-grade components to ensure optimum performance that will last a lifetime. Loaded with high-headroom, Class A microphone preamplifiers; robust metering, high-definition 24-bit, 192 kHz conversion; and more, the Studio 24c breaks new boundaries for music performance and production. All you need is a computer with a USB-C or USB-A (2.0 or 3.0) connection, a few microphones and cables, powered speakers, and your instruments, and you are ready to record!

We suggest that you use this manual to familiarize yourself with the features, applications, and correct connection procedures for your Studio 24c audio interface before trying to connect it to your computer. This will help you avoid problems during installation and setup.

Throughout this manual you will find **Power User Tips** that can quickly make you a Studio 24c interface expert.

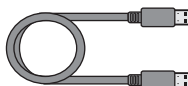
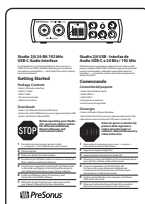
## 1.2 What is in the Box

Your Studio 24c package contains:

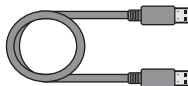
- Studio 24c 24-bit, 192 kHz audio interface



- Quick Start Guide



- 1M USB-C to C Cable



- 1M USB-C to A Cable



- PreSonus Health Safety and Compliance Guide

**Power User Tip:** All companion software and drivers for your PreSonus Studio 24c are available for download from your My PreSonus user account. **Please visit** <http://my.presonus.com> and register your Studio 24c to receive downloads and licenses.

### 1.3 Companion PreSonus Products

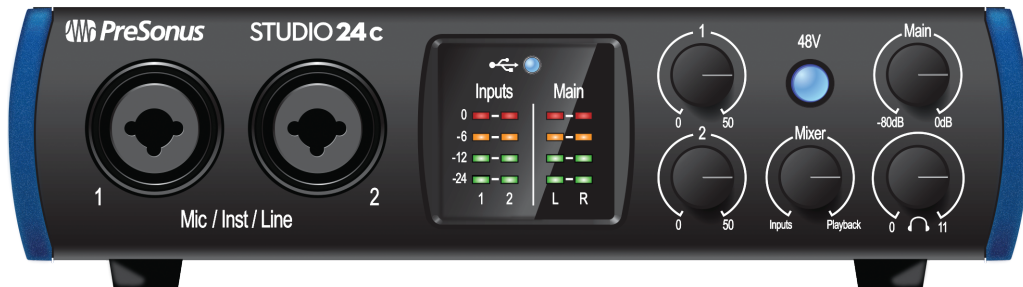
Thanks for choosing PreSonus! As a solutions company, we believe the best way to take care of our customers (that's you) is to ensure that you have the best possible experience from the beginning of your signal chain to the end. To achieve this goal, we've prioritized seamless integration throughout every design phase of these products from day one. The result is systems that communicate with each other as intended—straight out of the box—without excessive configuration hassles.

We're here for you. Find out more at [www.presonus.com](http://www.presonus.com).



## 2 Hookup

### 2.1 Front-Panel Connections



**Microphone Inputs.** Your Studio 24c interface is equipped with high-quality microphone preamplifiers for use with all types of microphones. The Studio 24c features XMAX-L solid-state microphone preamps that are optimized for bus powering.

Both input channels on your Studio 24c interface are equipped with combo jacks. This convenient connector accepts either a 1/4-inch or an XLR connector.

**Instrument / Line-Level Inputs.** The 1/4-inch connectors on Channels 1 and 2 can be used with passive instruments (guitar, bass, etc.) or line-level devices (synthesizers, signal processors, etc.).

*Please note: As with any audio input device, plugging in a microphone or an instrument, or turning phantom power on or off, will create a momentary spike in the audio output. Because of this, we highly recommend that you turn down the channel trim before changing connections or turning phantom power on or off. This simple step will add years to life of your audio equipment.*



**48 Volt Phantom Power.** The Studio 24c provides 48V phantom power for the microphone inputs. Pressing the 48V button switches phantom power on and off for all microphone inputs; the button will illuminate in blue when phantom power is available on the microphone preamplifiers.

**WARNING:** Phantom power is only required for condenser microphones and can severely damage some dynamic mics, especially ribbon mics. Therefore, switch phantom power off when it is not required. Consult the user documentation that came with your microphone before engaging phantom power.

**XLR connector wiring for phantom power:**

Pin 1 = GND Pin 2 = +48V Pin 3 = +48V



**Input Meters.** These LED meters show the input level of the analog inputs on your Studio 24c. The red Clip LED will illuminate when your input signal reaches -0.5 dBFS. At this level, the signal will begin to overload the analog-to-digital converters and exhibit signs of clipping. Use the gain controls to keep the signal below this level.



**Output Meters.** These meters display the signal level received from the first two driver returns (Main Left/Right). These meters have the same range as the input meters and display the signal level before the main output level control.



**Sync LED.** This light indicates if your Studio 24c is in sync with your computer. When no sync is available, this light will flash red.



**Input Gain Control.** These knobs provide 50 dB of variable gain (0 to +50 dB for microphones, -15 to 35 dB for line/instrument).



**Mixer.** The Mixer knob allows you to blend your input signals with the playback streams from your computer so that you can monitor your input signals without any latency (delay). If the knob is positioned at 12 o'clock, the input signal and the playback stream will be equally balanced. Turning the knob to the left will increase the level of the input signal relative to the playback stream; turning to the right will increase the level of the playback stream relative to the input signal as illustrated below:



**Headphone Level.** This knob controls the level of the rear panel headphone output.



**Main.** The main knob controls the output level for the main left/right outputs on the back of your Studio 24c and has a range of -80 dB to 0 dB. This control provides attenuation only.

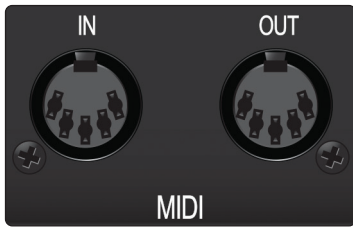
## 2.2 Back Panel Connections



**Headphone Output.** The rear-panel headphone output mirrors the same streams as the Main left/right outputs.



**Main Outs.** These are the Main outputs for the Studio 24c. The output level of the Main outputs is controlled by the Main level control on the front of the unit. Playback streams 1 and 2 are routed to these outputs.



**MIDI I/O.** This is the MIDI input and output connections.

MIDI stands for “Musical Instrument Digital Interface.” However, MIDI can be used for many things other than instruments and sequencing. The MIDI inputs and outputs allow connection to a variety of MIDI-equipped hardware, such as keyboard controllers, and can be used to send and receive MIDI Machine Control and MIDI Time Code.

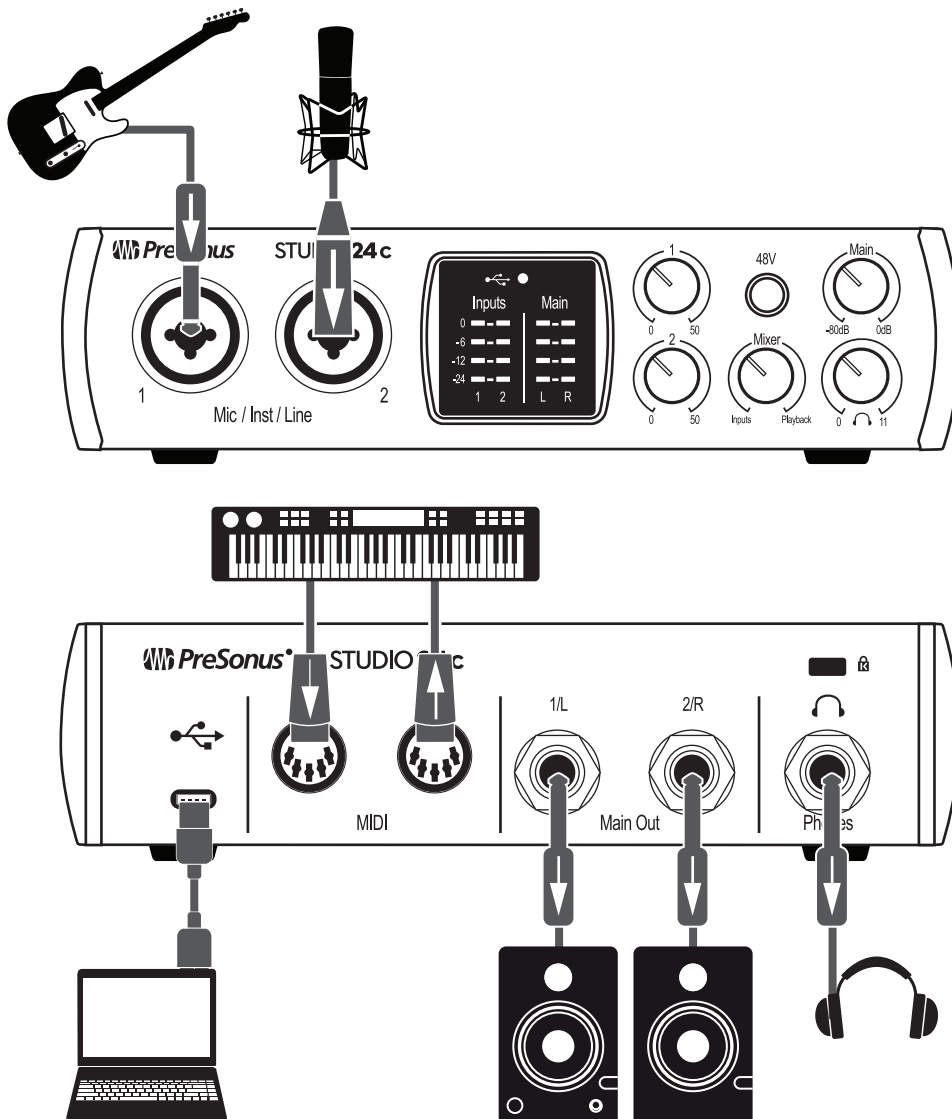
*Note: MIDI does not carry audio signals but is frequently used to trigger or control an audio source, such as a virtual instrument or hardware synthesizer. You should ensure that MIDI data is correctly sent and received by the appropriate hardware or software. You may also need to route hardware sound sources’ audio to the inputs of your Studio-series interface. Please consult the User’s Manual of your MIDI devices for help with MIDI setup and usage.*



**USB-C Port.** Use this port to connect your Studio 24c to your computer. While the Studio 24c connects using USB-C, it is fully compatible with USB 2.0 and 3.0 connections. Use the USB-C to A cable that came with your Studio 24c if your computer has a USB-A connection rather than a USB-C connection.

*Please note: The Studio 24c is backward compatible with USB 2.0 and USB 3.0 speed connections. USB 1.1 is not supported.*

## 2.3 Connection Diagram





## 3 Connecting to a Computer

Before connecting your Studio 24c to a computer, please visit [www.presonus.com](http://www.presonus.com) to verify the latest system requirements.

**Note:** The speed of your processor, amount of RAM, and capacity, size, and speed of your hard drives will greatly affect the overall performance of your recording system. A faster processor and more RAM can reduce signal latency (delay) and improve overall performance.

The Universal Control installers for macOS and Windows are available from your My PreSonus user account. The Windows installer also includes the Windows ASIO driver. No driver installation is necessary for macOS. To begin, you must first visit <http://my.presonus.com>, create or log into your user account, and register your Studio 24c. Once registered, all software downloads will be available from within your My PreSonus user account including Studio One Artist and the Studio Magic bundle.

### 3.1 Installation for Windows

Download the Universal Control installer from your My PreSonus account. Connect your Studio 24c to an available USB-C or USB-A (2.0 or 3.0) port and launch the installer. The installer will take you through each step of the installation process. This application will install the ASIO and WDM drivers, as well as Universal Control. Please read each message carefully.

It is recommended that you quit all applications before you start the installation.

The Universal Control installer will take you through each step of the installation process. **Please read each message carefully** so that you do not connect your Studio 24c too soon.

**Power User Tip:** It is recommended that you temporarily disable or turn off any anti-virus programs you have running to prevent installation issues.

#### 3.1.1 Universal Control (Windows)



Universal Control is a powerful hardware-management application for all PreSonus interface products. It allows you to view any PreSonus interface product connected to your computer or your computer's network.

When Universal Control is launched, you will see the Launch window. From this window, you can manage all the ASIO driver settings.



**Sample Rate.** Changes the sample rate.

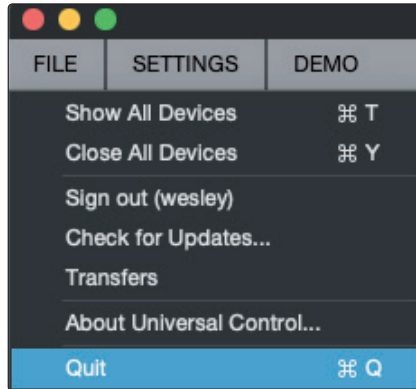
You can set the sample rate to 44.1, 48, 88.2, 96, 176.4, or 192 kHz. A higher sample rate will increase the fidelity of the recording but will increase the file size and the amount of system resources necessary to process the audio.



**Block Size.** Sets the buffer size.

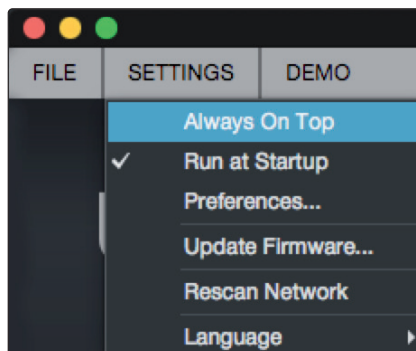
From this menu, you can set the buffer size. Lowering the buffer size will lower latency; however, this will also increase performance demands on your computer. In general, you will want to set the buffer size as low as your system can safely support. If you begin to hear pops, clicks, or distortion in your audio path, try raising the buffer size.

**Loopback (Windows only).** The Studio 24c ASIO driver provides two loopback streams to record audio from one application to another. *See Section 3.1.2 for more information.*



**File Menu.** Manages devices connected to Universal Control.

- **Show All Devices.** Launches all control windows for all supported devices connected to your computer.
- **Close All Devices.** Closes all open control windows.
- **Sign Out.** Signs out of your My PreSonus user account.
- **Check for Updates...** Connects to your My PreSonus user account to check for updates for Universal Control.
- **Transfers.** Displays recent downloads from your my PreSonus user account.
- **About Universal Control.** Displays version and build date information.
- **Quit.** Quits the Universal Control application and all hardware control windows.



**Settings Menu.** Provide customization options to personalize your Universal Control experience.

- **Always on Top.** Keeps the Universal Control Launch window on top whether it is the currently active application or not.
- **Run at Startup.** Launches Universal Control automatically when your computer boots.
- **Preferences.** Sets language and appearance options (see below).
- **Rescan Network.** Scans the network and local transport bus (USB or FireWire) for all supported PreSonus products.
- **Language.** Sets the language (English, French, German, Korean, Simplified Chinese, or Spanish).

### 3.1.2 Loopback Recording (Windows only)

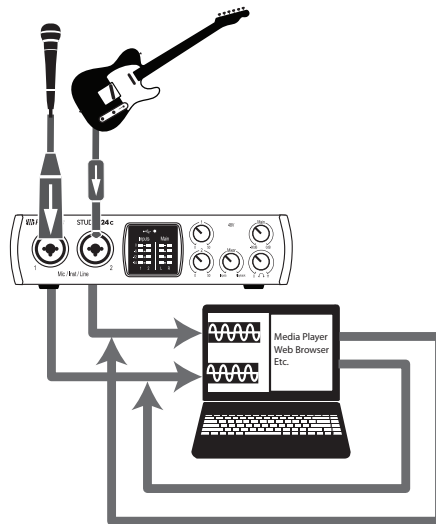
The Windows drivers for the Studio 24c provides two virtual streams that allow you to record the output of one audio application in another application. Loopback can be useful in a variety of situations:

- Recording the audio from a video game or YouTube video for a podcast or livestream.
- Recording a vocal in real time over a karaoke track played from a web browser or media player.

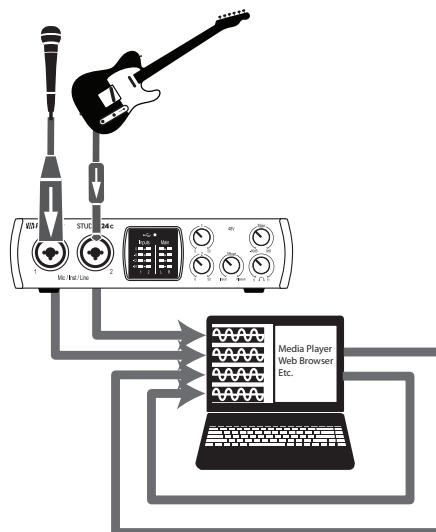
**Power User Tip:** Because the Studio 24c is a class compliant Core Audio device, these virtual streams are not available in macOS. However, there are several third-party applications that provide this functionality in macOS.

From Universal Control, you can enable or disable Loopback and pick the streams on which the loopback audio will be recorded.

When Loopback is enabled and "Merge Loopback with 1/2" is selected, the audio from another application will be recorded with the audio source connected to analog inputs 1 and 2 on your Studio 24c.



When Loopback is enabled and "Dedicated Loopback Inputs" is selected, the audio from another application will be recorded on the last pair of driver inputs (3/4).



**Power User Tip:** When using either option, you will need to select Outputs 1 and 2 in the audio application you want to record. Make sure to select Outputs 3 and 4 in the audio application in which you are recording to avoid a feedback loop.

## 3.2 Installation for macOS

Your Studio 24c is a class-compliant Core Audio device in macOS. No driver installation is necessary. Installing Universal Control for your Studio 24c is optional.

## 3.3 Using the Studio 24c with Popular Audio Applications

Complete setup instructions for Studio One Artist and a brief tutorial on its features can be found in Section 4 of this manual. However, you can use your Studio 24c with any audio-recording application that supports Core Audio or ASIO. Please consult the documentation that came with your audio application for specific instructions on how to select the Studio 24c driver as the audio-device driver for your software.

Below are basic driver-setup instructions for a few popular audio applications.

### Steinberg Cubase 4+

1. Launch Cubase.
2. Go to Devices | Device Setup.
3. Select "VST Audio System" from the Devices column in the Device Setup.
4. Select your Studio 24c from the ASIO Driver dropdown list.
5. Click "Switch" to begin using the Studio-series Driver.
6. Once you have successfully changed the driver, go to Devices | VST Connections to enable your input and output buses.

### Ableton Live 5+

1. Launch Ableton Live.
2. Go to Options | Preferences | Audio.
3. Choose Driver Type: ASIO | Audio Device: ASIO Studio 24c
4. Go to Input Config : Enable and select the desired Input channels.
5. Go to Output Config : Enable and select the desired Output channels.
6. You may now select your Studio 24c inputs and outputs for each track created in Live.

### Apple Logic Pro/Express 7+:

1. Launch Logic Pro/Express.
2. Go to Logic | Preferences | Audio.
3. Click on the Devices Tab.
4. On the Core Audio tab, check Enabled.
5. Select your Studio 24c from the device menu.
6. You will be asked if you'd like to relaunch Logic. Click "try (re)launch."
7. Your Studio 24c features custom I/O labels for faster work flow. To enable these labels for use in Logic, go to Options | Audio | I/O Labels.
8. The second column in the pop-up window will be named "Provided by Driver." Activate each of these labels for your Studio 24c. When you are done, close this window.
9. You are now ready to use your Studio 24c.

#### **Avid Pro Tools 9+**

1. Launch Pro Tools.
2. Go to Setup | Hardware and select your Studio 24c from the Peripherals list. Click OK.
3. Go to Setup | Playback Engine and select your Studio 24c from the menu at the top of the window. Click OK.

#### **Cakewalk Sonar 6+**

1. Launch Sonar.
2. Go to Options | Audio... and click on the Advanced tab.
3. Change the Driver Mode to "ASIO."
4. Click the "OK" button.
5. Restart Sonar.
6. Go to Options | Audio... and click on the Drivers tab.
7. Highlight all input and output drivers beginning with your Studio-series product name.
8. Go to Options | Audio... and click on the General tab.
9. Set the Playback Timing Master to "Studio 24c ... DAW Out 1."
10. Set the Recording Timing Master to "Studio 24c ... DAW Out 2."

## 4 Studio One Artist Quick Start



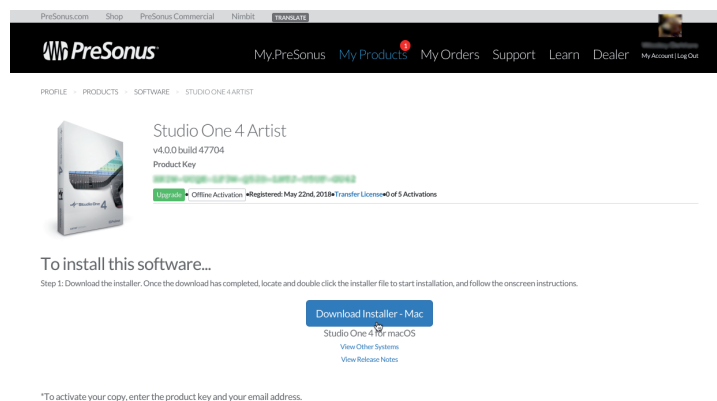
All PreSonus professional recording products come with Studio One Artist recording and production software. Whether you are about to record your first album or your fiftieth, Studio One Artist provides you with all of the tools necessary to capture and mix a great performance.

**Power User Tip:** As a valued PreSonus customer, you are eligible for a discount upgrade to Studio One Professional. For more details on the Studio One upgrade program for PreSonus customers, please visit <https://shop.prusonus.com/products/software/studio-one-prods>.

### 4.1 Installation and Authorization

Once you have installed the drivers for your audio interface and connected it to your computer, you can use the included PreSonus Studio One Artist music-production software to begin recording, mixing, and producing your music. To install Studio One Artist, log into your My PreSonus account and register your interface. Your product key for Studio One Artist will automatically be registered to your My PreSonus account, along with your hardware registration.

#### Downloading and Running the Studio One Installer



To install Studio One Artist, download the Studio One Artist installer from your My PreSonus account to the computer on which you will use it.

**Windows:** Launch the Studio One Artist installer and follow the onscreen instructions.

**Mac:** Drag the Studio One Artist application into the Applications folder on your Mac hard drive.

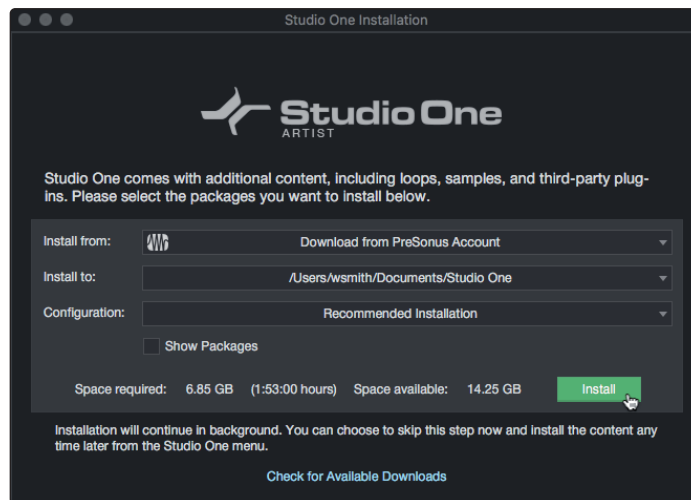
## Authorizing Studio One

When Studio One is launched for the first time on your computer, it will communicate with your My PreSonus account and verify your registration. To ensure a seamless authorization process, make sure to download your installer to the computer on which you will be using it, and be sure that your computer is connected to the Internet when you launch the application for the first time.

**Power User Tip:** You may be prompted to enter your My PreSonus user account information. Clicking “Remember Credentials” will allow you to have immediate access to any content you purchase from the PreSonus Marketplace.

## Installing Bundled Content for Studio One Artist

Studio One Artist comes bundled with an array of demo and tutorial materials, instruments, loops, and samples. The Studio One Artist bundle includes all that you need to begin producing music.



The first time you launch Studio One Artist, you will be prompted to install its companion content. Select the content you wish to add and click “Install.” The content will automatically begin to download and install from your My PreSonus user account.

**Power User Tip:** To select only a portion of the available content, click on “Show Packages.” From here you can customize your content installation.

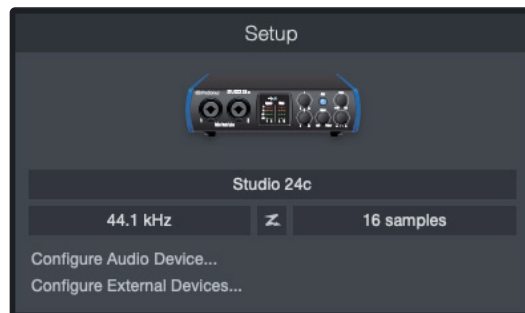
## 4.2 Setting Up Studio One

Studio One Artist was designed to work with PreSonus interfaces and provides unique interoperability and simplified setup. When Studio One Artist is launched, by default you will be taken to the Start page. On this page, you will find document-management and device-configuration controls, as well as a customizable artist profile, a news feed, and links to demos and tutorials from PreSonus. If your computer is connected to the Internet, these links will be updated as new tutorials become available on the PreSonus Web site.

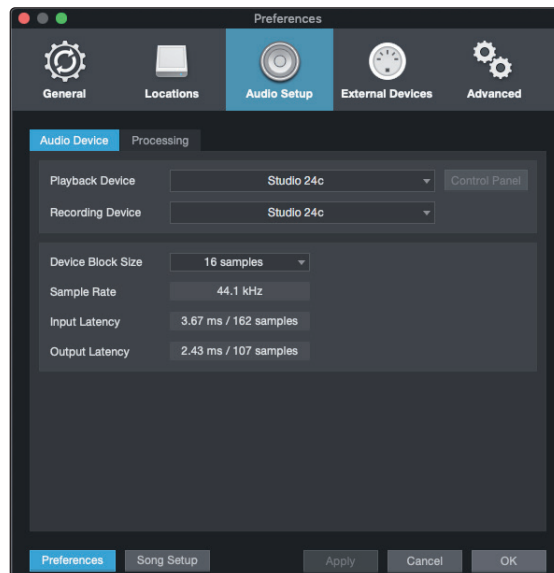
Complete information on all aspects of Studio One Artist is available in the Reference Manual PDF located within Studio One. The information in this tutorial covers only the basic aspects of Studio One Artist and is intended to get you set up and recording as quickly as possible.

### 4.2.1 Configuring Audio Devices

In the middle of the Start page, you will see the Setup area. Studio One Artist automatically scans your system for all available drivers and selects a driver. By default, it will choose a PreSonus driver if one is available.



If you do not see your device listed on the Start page when you launch Studio One, click on the Configure Audio Devices link in the Setup area to open the Options window.



In the Options window, click on the Audio Setup tab and select your device driver from the pull-down.

### 4.2.2 Configuring MIDI Devices

From the External Devices window in Studio One Artist, you can configure your MIDI keyboard controller, sound modules, and control surfaces. This section will guide you through setting up your MIDI keyboard controller and sound modules. Please consult the Reference Manual located within Studio One for complete setup instructions for other MIDI devices.

If you are using a third-party MIDI interface or USB MIDI-controller keyboard, you must install any required drivers for these devices before beginning this section. Please consult the documentation that came with your MIDI hardware for complete installation instructions.

***If you do not have any MIDI devices, please skip to Section 4.3.***



### Setting up an External MIDI Keyboard Controller from the Start Page

A MIDI keyboard controller is a hardware device that is generally used for playing and controlling other MIDI devices, virtual instruments, and software parameters. In Studio One Artist, these devices are referred to as Keyboards, and they must be configured before they are available for use. In some cases, your MIDI keyboard controller is also used as a tone generator. Studio One Artist views the controller and tone-generation functions as two different devices: a MIDI keyboard controller and a sound module. The MIDI controls (keyboard, knobs, faders, etc.) will be set up as a Keyboard. The sound modules will be set up as an Instrument.

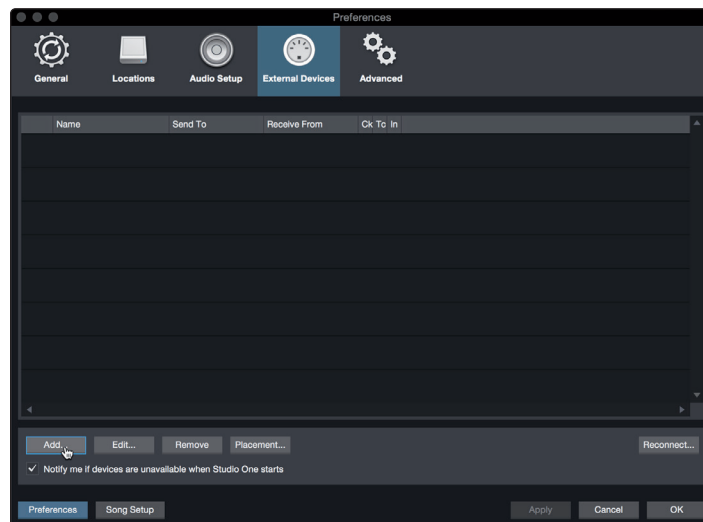
You can set up your external MIDI devices from the Setup area in the Start page. Before setting up a new Song for recording, take a moment to configure external devices.

Make sure you have connected the MIDI Out of your external MIDI controller to a MIDI In on your PreSonus audio interface (if available) or other MIDI interface. If you are using a USB MIDI controller, connect it to your computer and power it on.

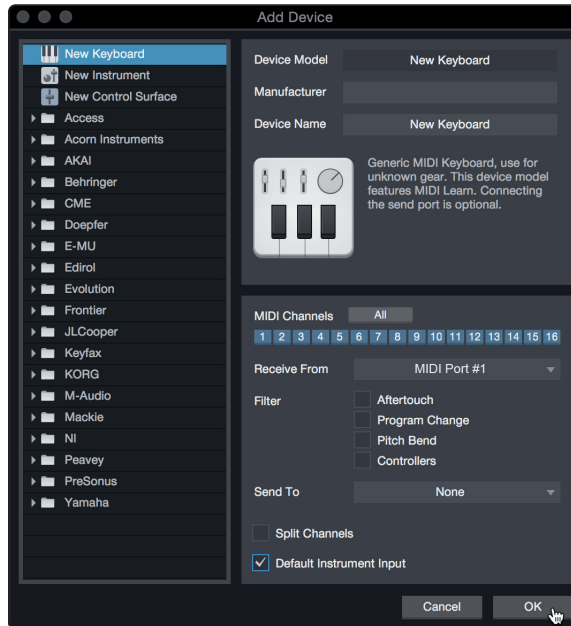
1. Click on the Configure External Devices link in the Setup area on the Start page to launch the External Devices window.



2. Click the Add button. This will launch the Add Device window.



- From the menu on the left, select your MIDI controller from the list of manufacturers and models. If you do not see your MIDI controller listed, select New Keyboard. At this point, you can customize the name of your keyboard by entering the manufacturer and device names.



- You must specify which MIDI channels will be used to communicate with this keyboard. For most purposes, you should select all MIDI channels. If you are unsure of which MIDI channels to choose, select all 16.
- Studio One allows you to filter out specific control functions. If you would like Studio One to ignore Aftertouch, Pitch Bend, Program Change, or all CC messages, enable filtering for any or all of these messages.
- In the Receive From drop-down menu, select the MIDI interface input from which Studio One Artist will receive MIDI data (that is, the MIDI port to which your keyboard is connected).

**Power User Tip:** In the Send To drop-down menu, select the MIDI interface output from which your Studio One Artist will send MIDI data to your keyboard. If your keyboard controller doesn't need to receive MIDI data from Studio One, you can leave this unselected.

- If this is the only keyboard that you will use to control your external synthesizers and virtual instruments, you should check the box next to Default Instrument Input. This will automatically assign your keyboard to control all MIDI devices in Studio One Artist.
- Click "OK."

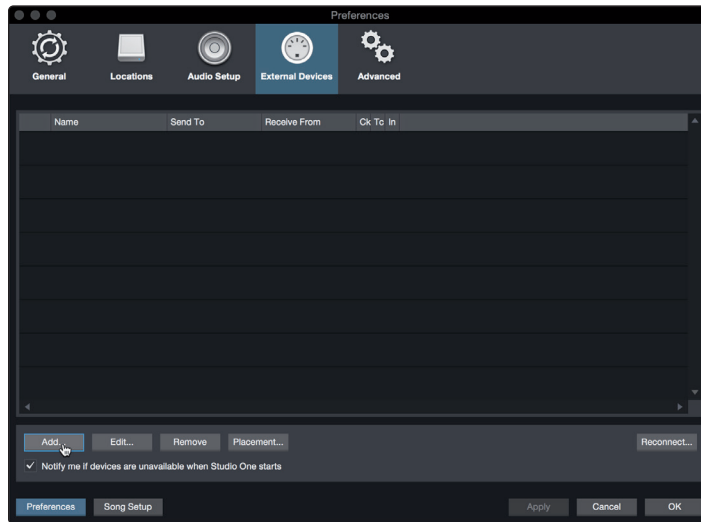
If you have a sound module that you'd like to connect, leave the External Devices window open and proceed to the next part of this section. If not, you can close the window and skip to the next section.

### Setting up an External MIDI Sound Module from the Start Page

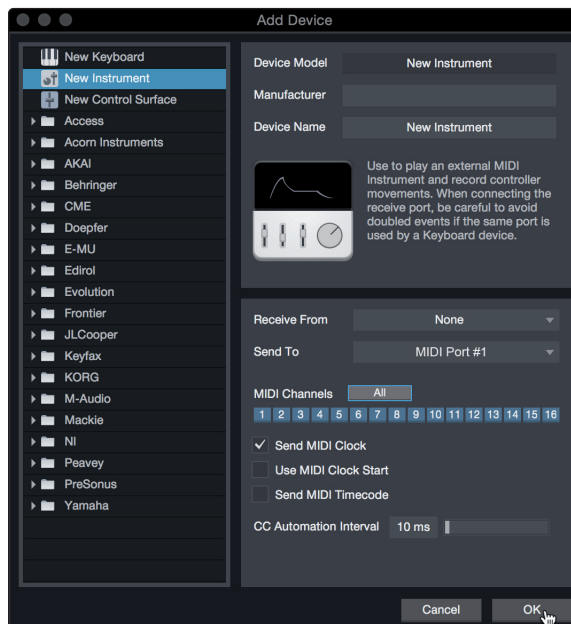
MIDI instrument controllers (keyboards, MIDI guitars, etc.) send musical information, in the form of MIDI data, to tone modules and virtual instruments, which respond by generating sound as instructed. Tone modules can be standalone sound devices or can be integrated into a MIDI instrument, such as a keyboard synthesizer. Studio One Artist refers to all tone generators as Instruments. Once you have set up your MIDI keyboard controller, take a moment to configure your sound module.

Make sure you have connected the MIDI In of your external sound module to the MIDI Out of your MIDI interface.

1. In the External Devices window, click the Add button.



2. Select your device in the menu on the left. If your device is not listed, select New Instrument. At this point you can customize the name of your keyboard by entering the manufacturer and device names.



3. Specify which MIDI channels will be used to communicate with this sound module. For most purposes, you should select all MIDI channels. If you are unsure of which MIDI channels to select, we suggest you select all 16.

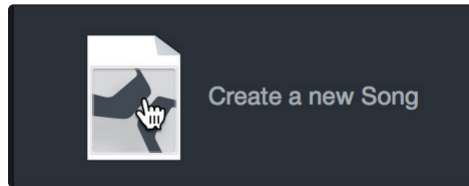
- In the Send To menu, select the MIDI interface output from which Studio One Artist will send MIDI data to your sound module. Click "OK" and close the External Devices window. You are now ready to start recording in Studio One Artist.

The rest of this Quick Start Guide will go over how to set up a Song and will discuss some general workflow tips for navigating through the Studio One Artist environment.

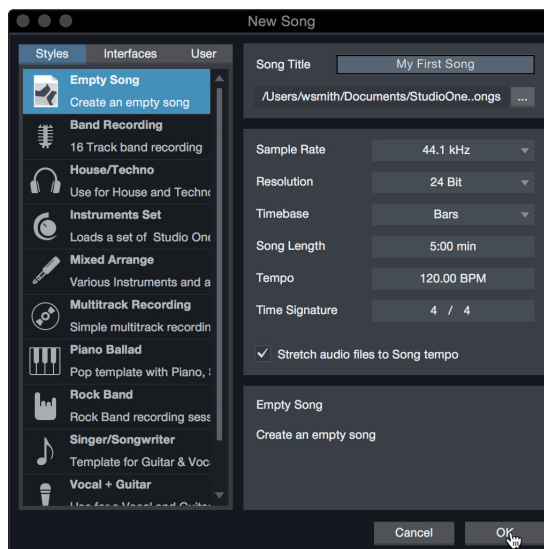
### 4.3 Creating a New Song

Now that you've configured your audio and MIDI devices, let's create a new Song. We'll start by setting up your default audio I/O.

- From the Start page, select "Create a New Song."



- In the New Song window, name your Song and choose the directory in which you'd like it saved. You'll notice a list of templates on the left. These templates provide quick setups for a variety of devices and recording situations. The section will describe creating a Song from an empty session.

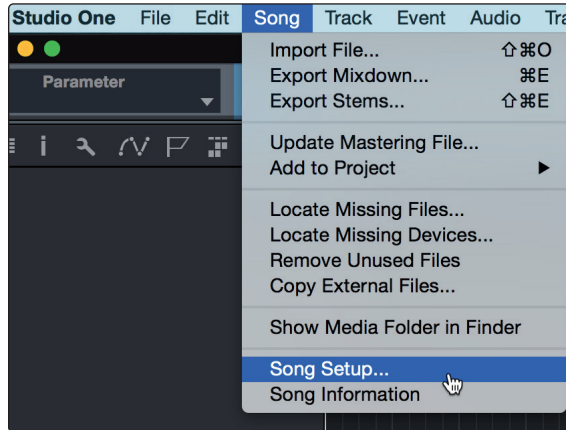


- Select "Empty Song" from the Templates list. At this point, you should give your Song a name and select your preferred sample rate and bit depth for recording and playback. You can also set the length of your Song and the type of time format you would like the timeline to follow (notation bars, seconds, samples, or frames). Click the OK button when you are finished.

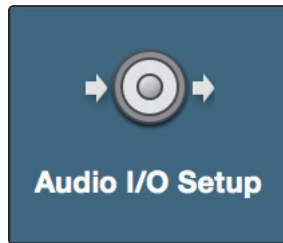
**Power User Tip:** If you plan to import loops into your Song, make sure that the Stretch Audio Files to Song Tempo option is selected. This will automatically import loops at the correct tempo.

### 4.3.1 Configuring Your I/O

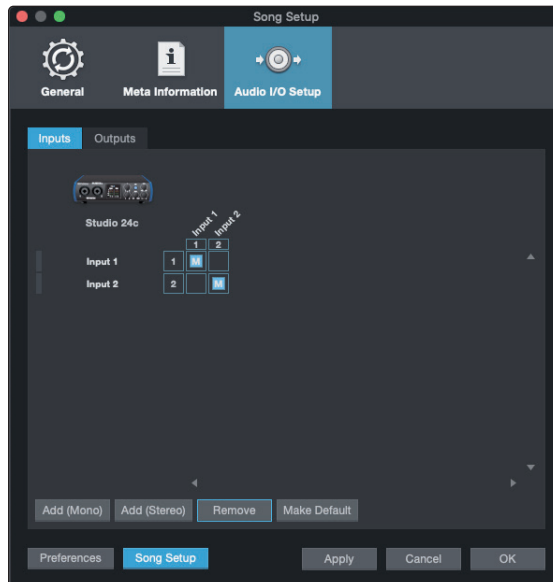
1. Click on Song | Song Setup to set your sample rate and resolution and configure your audio I/O.



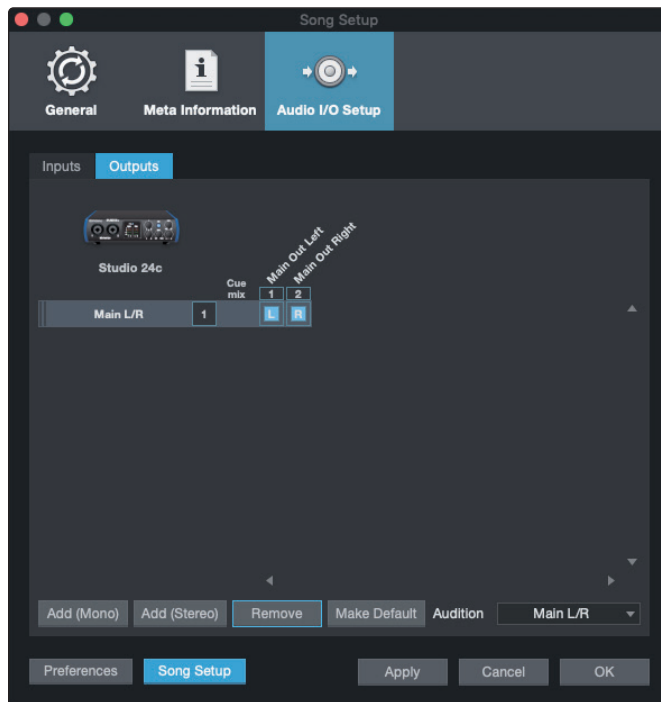
2. Click on the Audio I/O Setup tab.



3. From the Inputs tab, you can enable any or all of the inputs on your PreSonus Studio 24c that you'd like to have available. We recommend that you create a mono input for each of the inputs on your interface. If you plan on recording in stereo, you should also create a stereo input as well.



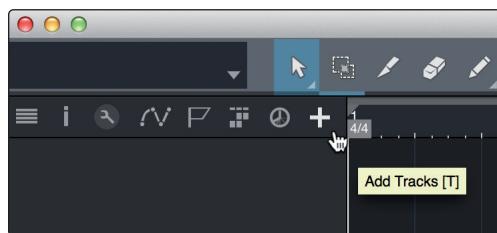
- Click on the Outputs tabs to enable any or all of the outputs on your Studio-series audio interface. In the lower right corner, you will see the Audition Select menu. This allows you to choose the output from which you will audition audio files prior to importing them into Studio One Artist. In general, you will want this to be the main output bus.



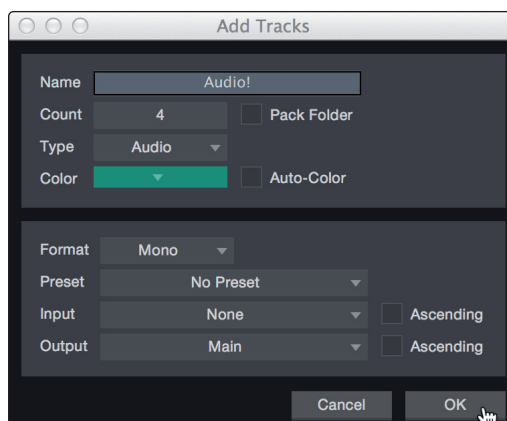
**Power User Tip:** If you would like this I/O configuration to be the same every time you open Studio One, click the Make Default button.

### 4.3.2 Creating Audio and Instrument Tracks

- In the upper left corner of the Arrange window, you will notice several buttons. The button furthest to the right is the Add Tracks button. Click on this button to open the Add Tracks window.

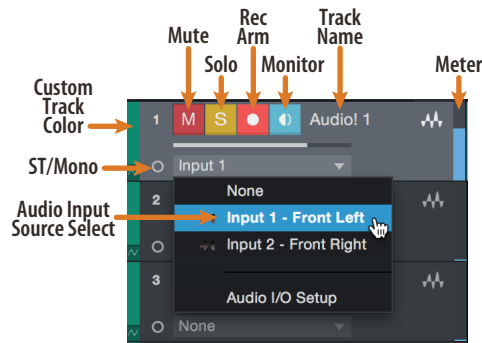


- In the Add Tracks window, you can customize the track name and color, add a preset rack of effects, and set the physical source for the input and output of your audio tracks. Most important, you can select the number and type of tracks you'd like to create.



- **Audio.** Use this track type to record and playback audio files.
- **Instrument.** Use this track to record and playback MIDI data to control external MIDI devices or virtual instrument plug-ins.
- **Automation.** This track type lets you create automated parameter controls for your session.
- **Folder.** This track helps you to manage your session as well as to quickly edit multiple tracks at once.

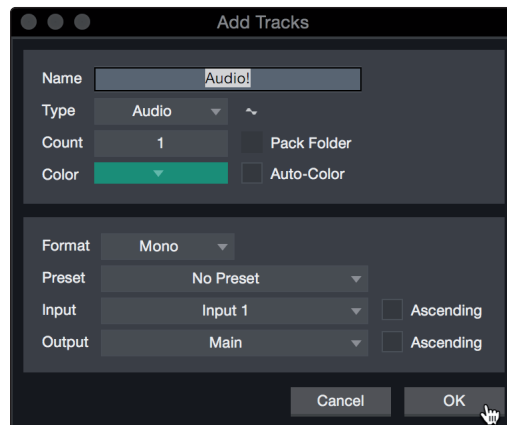
**Power User Tip:** If you would like to add an audio track for each of the available inputs, go to *Track | Add Tracks for All Inputs*.



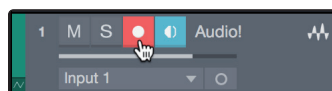
**Note:** Instrument tracks are nearly identical to audio tracks. The Input Source list for Instrument tracks lists available external MIDI devices as well as any virtual instruments that have been added to the Song.

### 4.3.3 Recording an Audio Track

1. To begin recording, create an audio track from the Add Tracks window, set its input to Input 1 on your Studio 24c, and connect a microphone to the same input.



2. Select Record Enable on the track. Turn up the Input 1 level on your audio interface while speaking/singing into the microphone. You should see the input meter in Studio One Artist react to the input. Adjust the gain so the input level is near its maximum without clipping (distorting).



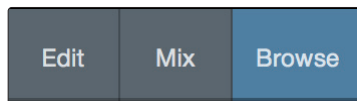
You are now ready to start recording. For complete instructions, please consult the Studio One Reference manual located in *Help | Studio One Reference Manual*.



### 4.3.4 Adding Virtual Instruments and Effects

You can add plug-ins and instruments to your Song by dragging-and-dropping them from the browser. You can also drag an effect or group of effects from one channel to another, drag in customized effects chains, and instantly load your favorite virtual-instrument preset without ever scrolling through a menu.

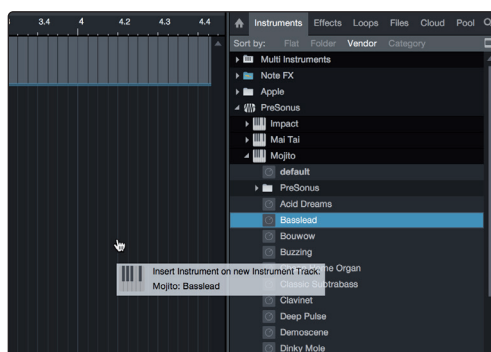
#### Opening the browser.



In the lower right corner of the Arrange window are three buttons:

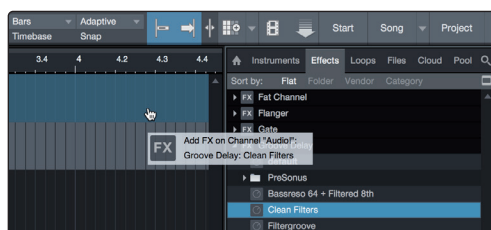
- The Edit button opens and closes the audio and MIDI editors.
- The Mix button opens and closes the Mixer window.
- The Browse button opens the browser, which displays all of the available virtual instruments, plug-in effects, audio files, and MIDI files, as well as the pool of audio files loaded into the current session.

#### Drag-and-Drop Virtual Instruments



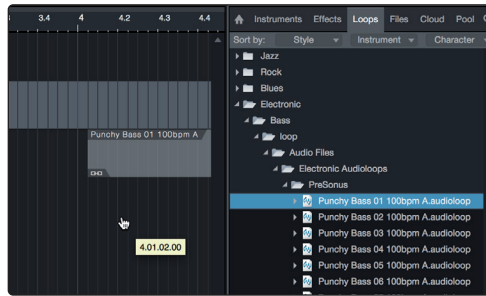
To add a virtual instrument to your session, open the browser and click on the Instrument button. Select the instrument or one of its patches from the Instrument browser and drag it into the Arrange view. Studio One Artist will automatically create a new track and load the instrument as the input.

#### Drag-and-Drop Effects



To add a plug-in effect to a track, click the Effects button in the browser and select the plug-in or one of its presets in the effects browser. Drag-and-drop the selection over the track to which you would like to add the effect.

### Drag-and-Drop Audio and MIDI Files



Audio and MIDI files can be quickly located, auditioned, and imported into your Song by dragging them from the file browser into the Arrange view. If you drag the file to an empty space, a new track will be created with that file placed at the position to which you dragged it. If you drag the file to an existing track, the file will be placed as a new part of the track.

## 5 Technical Information

### 5.1 Specifications

#### General

Sample Rates	44.1, 48, 88.2, 96, 176.4, or 192 kHz
Converter Resolution	24 bit
Converter Dynamic Range	108 dB
Converter Dynamic Range	108 dB

#### Microphone Inputs

Maximum Level	+10 dBu (balanced, min gain)
Gain Range	50 dB
Frequency Response	20Hz - 20kHz (+/- 0.1dB, min gain, 48kHz)
Dynamic Range	106 dB (A-wtd, min gain)
THD + N	0.005% (1kHz, -1 dBFS, unity gain)
EIN	-128 dBu (max gain, 150Ω, A-wtd)
Input Impedance	1.4K Ω
Phantom Power	+48 VDC (10mA total)

#### Line/Instrument Inputs

Maximum Level	+10 dBu (balanced, min gain)
Gain Range	50 dB
Frequency Response	20Hz - 20kHz (+/- 0.1dB, min gain, 48kHz)
Dynamic Range	106 dB (A-wtd, min gain)
THD + N	0.005% (1kHz, -1 dBFS, min gain)
Input Impedance	750K Ω

#### Main Outputs

Maximum Level	+10 dBu (balanced)
Frequency Response	20Hz - 20kHz (+/- 0.1dB, unity gain, 48kHz)
Dynamic Range	106 dB (A-wtd)
THD + N	0.003% (1kHz, -1 dBFS)

#### Headphone Outputs

Maximum Power	40 mW/channel (56Ω load)
Frequency Response	20Hz - 20kHz (+/- 0.2dB, 56Ω load, 48kHz)
Dynamic Range	83 dB (A-wtd, 56Ω load)
THD + N	0.005% (1kHz, -1 dBFS, no load)
Impedance Working Range	32Ω to 300Ω

## 6 Warranty

### 6.1 Warranty Information

PreSonus' warranty obligations for this hardware product are limited to the terms set forth below:

#### How Consumer Law Relates To This Warranty:

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). OTHER THAN AS PERMITTED BY LAW, PRESONUS® DOES NOT EXCLUDE, LIMIT OR SUSPEND OTHER RIGHTS YOU MAY HAVE, INCLUDING THOSE THAT MAY ARISE FROM THE NONCONFORMITY OF A SALES CONTRACT. FOR A FULL UNDERSTANDING OF YOUR RIGHTS YOU SHOULD CONSULT THE LAWS OF YOUR COUNTRY PROVINCE OR STATE.

#### PreSonus Products And EU Statutory Warranty:

When you purchase PreSonus products, European Union consumer law provides statutory warranty rights in addition to the coverage you receive from the PreSonus limited warranty. A summary of the EU Statutory Warranty and the PreSonus Limited Warranty is below:

	EU Consumer Law	PreSonus Limited Warranty
Repair or Replacement Coverage For	Defects present when customer takes delivery	Defects arising after customer takes delivery
Warranty Period	2 years (minimum) from original date of purchase (unless superseded by PreSonus)	1 year from original date of purchase (unless superseded by PreSonus)
Cost of Coverage	Provided at no additional cost	Included at no additional cost
Who to contact to make a claim	The seller	PreSonus technical support for your region

#### What This Warranty Covers:

PreSonus Audio Electronics, Inc., ("PreSonus") warrants defects in material and workmanship in PreSonus-branded products under normal use. This Limited Warranty applies only to hardware products manufactured by or for PreSonus that can be identified by the PreSonus trademark, trade name, or logo affixed to them.

#### Exclusions and Limitations:

This warranty does not cover the following:

1. Damage caused by accident, abuse, improper installation, failure to follow instructions in the applicable owner's manual or improper operation, rental, product modification, alteration, or neglect.
2. Damage from improper grounding, faulty wiring (AC and signal), faulty equipment, or connection to a voltage range outside published specifications (see applicable owner's manual).
3. Damage to drivers or diaphragm assemblies found to have burnt voice coils from over/under driving or signal surge from another device.
4. Damage occurring during shipment or improper handling.
5. Damage caused by repair or service performed by persons not authorized by PreSonus.
6. Products on which the serial number has been altered, defaced, or removed.
7. Products purchased from an unauthorized PreSonus dealer (products that have transferable warranties are excluded from this provision, provided the customer and the product are registered with PreSonus).

**Who This Warranty Protects:**

This Warranty protects only the original retail purchaser of the product (products that have transferable warranties are excluded from this provision provided the customer and the product are registered with PreSonus).

**How Long This Warranty Lasts:**

The Warranty begins on the original date of purchase from the retail purchaser, and the duration is as follows:

1-Year Limited Warranty		
Product Category	Model	Transferable
Recording Interfaces	AudioBox® iOne, AudioBox iTwo, AudioBox Stereo, AudioBox Studio, AudioBox USB, AudioBox VSL (1818, 44, 22), FireStudio™ Project, FireStudio Mobile, FireStudio Mobile Studio, Studio 192, Studio 192 Mobile, Studio-series (1824/1824c, 1810/1810c, 68/68c, 26/26c, 24/24c), Quantum, and Quantum 2	No
Preamplifiers	ADL600, ADL700, BlueTube DP V2, DigiMax D8, DigiMax DP88, Eureka, RC500, Studio Channel, TubePre V2	No
StudioLive® Mixers	Series III (32, 24, 16, 32R, 24R, and 16R) ,16.0.2, 16.4.2AI, 24.4.2AI, 32.4.2AI, AR8, AR12, AR16, AR22, RM16AI, RM32AI	No
Monitoring & Controlling	ATOM, Eris®, Central Station PLUS, FaderPort™, HP4, HP60, EarMix, Monitor Station, Monitor Station V2, R-Series, Sceptre®, Temblor®	No
Accessories	Covers, Dolly, PRM1 mic, Sub Pole, breakout cables, power supplies, M10 Kit	No
3-Years Limited Warranty		
Product Category	Model	Transferable
Live Sound	StudioLive AI 328, 312, 315, 18S, ULT10, ULT12, ULT15, ULT18, AIR10, AIR12, AIR15, AIR15S, AIR18S	Yes

**What PreSonus Will Do:**

PreSonus will repair or replace, at our sole and absolute option, products covered by this warranty at no charge for labor or materials. If the product must be shipped to PreSonus for warranty service, the customer must pay the initial shipping charges. PreSonus will pay the return shipping charges.

**How to Get Warranty Service (USA):**

1. You must have an active user account with PreSonus, and your hardware must be on file with your account. If you do not have an account, please go to: <http://www.presonus.com/registration> and complete the registration process.
2. Contact our Technical Support Department at (225) 216-7887 or log a support ticket at: <http://support.presonus.com>. TO AVOID THE POSSIBILITY OF SENDING IN A PRODUCT THAT DOES NOT HAVE A PROBLEM, ALL SERVICE REQUESTS SHALL BE CONFIRMED BY OUR TECH SUPPORT DEPARTMENT.
3. The return authorization number as well as shipping instructions shall be provided after your service request is reviewed and confirmed.
4. The product should be returned for service in the original product packaging. Products may be shipped in a manufactured “flight”- or “road”-style cases but PreSonus will NOT cover any shipping damage to these cases. Products that are not shipped in the original product package or a manufactured case may not receive a warranty repair, at PreSonus’s sole discretion. Depending on the product model and the condition of your original packaging, your product may not be returned to you in the original packaging. The return shipping box may be a generic box that has been fitted for that model tested if the original gift box is not available.

### How to Get Warranty Service (outside of USA):

1. You must have an active user account with PreSonus and your hardware must be on file with your account. If you do not have an account, please go to: <http://www.presonus.com/registration> and complete the registration process.
2. Contact the Technical Support/Service Department for your region at [http://www.presonus.com/buy/international\\_distributors](http://www.presonus.com/buy/international_distributors) and follow procedures provided by your PreSonus contact.

### Limitation of Implied Warranties:

ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

Some states, countries, or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

### Exclusion of Damages:

PRESONUS'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT PRESONUS'S SOLE OPTION. IF PRESONUS ELECTS TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. IN NO EVENT WILL PRESONUS BE LIABLE FOR DAMAGES BASED ON INCONVENIENCE, LOSS OF USE, LOST PROFITS, LOST SAVINGS, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, AND, TO THE EXTENT PERMITTED BY LAW, DAMAGES FOR PERSONAL INJURY, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, EVEN IF PRESONUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states, countries, or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

If you have any questions about this warranty or service received, please contact PreSonus (USA) at +1 (225) 216-7887 or one of our authorized international distributors at: [http://www.presonus.com/buy/international\\_distributors](http://www.presonus.com/buy/international_distributors).

Product features, design, and specifications are subject to change without notice.

## Added bonus: PreSonus' previously Top Secret recipe for...

# Red Beans and Rice

### Ingredients:

- 1 lb dried Red Kidney Beans
- 1 large onion (diced)
- 3 celery stalks (diced)
- 1 large green bell pepper (diced)
- 6-8 C vegetable stock
- 1 Tbs. Old Bay seasoning
- ½ fresh parsley
- 2 tsp. kosher salt
- 2 Tbs. olive oil
- 1 smoked ham hock (optional)

### Cooking instructions:

1. Rinse red beans in cold water.
2. In a pressure cooker, heat olive oil on medium high. Sauté onion, celery, bell pepper, beans, and ham hock (if using) until onions are translucent.
3. Stir in Old Bay, parsley, and salt.
4. Add vegetable stock until beans and vegetables are covered.
5. Close pressure cooker and bring to full pressure on high heat.
6. Reduce heat to low while maintaining full pressure. Cook for 40 minutes.
7. Allow pressure to drop naturally (20-30 minutes).
8. Remove lid and crush with a potato masher until creamy.
9. Correct seasoning with salt and pepper if necessary.
10. Serve over rice with hot sauce and grilled Andouille sausage (optional).



# Studio 24c

## 24-Bit, 192 kHz USB-C Audio Interface

### Owner's Manual



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[www.presonus.com](http://www.presonus.com)

Part# 70-12000127-A