

## Using Multiple FireStudio Projects and FireStudio Tubes

The 3.3.1 driver enables multi-unit support for both the FireStudio Project and the FireStudio Tube and enables these devices to work together. For optimum performance, PreSonus recommends the following:

1. To begin the installation, first disconnect your FireStudio Project/Tube from your computer and uninstall the old driver.

Windows: Run the Uninstaller located in the PreSonus FireStudio folder in your Start menu.

Mac OSX: Delete the following files from your computer:

- MacHD/Applications/FireControl
- MacHD/Library/Audio/MIDI drivers/PAEFirestudioMIDIPlugin.plugin
- MacHD/Library/Receipts/PreSonus FireControl.pkg
- MacHD/Library/Receipts/PreSonus FireStudio Audio Driver.pkg
- MacHD/Library/Receipts/PreSonus FireStudio MIDI Driver Plugin.pkg
- MacHD/System/Library/PAEFireStudio.kext
- USER/Library/Preference/PreSonus

2. Reboot your computer and run the 3.3.1 driver installation, following the onscreen instructions.
3. Connect one of your FireStudio Projects/Tubes and let it sync to your computer. Windows users will need to run the Found New Hardware Wizard. When the wizard launches, select "No, not this time" and follow the on-screen instructions. This wizard will launch each time you connect a unit to the chain.
4. When the first unit displays a solid blue sync light, connect the second unit to the auxiliary firewire port on the back of the first unit. Allow the second unit to sync to your computer.
5. Connect additional units to your computer in this manner, one at a time, allowing each to sync before connecting another FireStudio Project/Tube.
6. Once all your units are connected and synced, launch the FireControl application. The devices will be shown in the Unit Select page in the order of their internal ID number. The unit with the lowest ID number will always be at the top of the list.



The driver will automatically assign one of the devices at the master clock and the others as "Slaved." To change the master device, simply select the unit you want to be the master clock and change its Clock Source to "Internal." The other units will automatically slave to it.

7. Double-click on the Name Box under the unit badge in the FireControl to change the unit's name to reflect both its order in the chain and to help you identify units.



Once you have renamed your FireStudio Projects/Tubes, power down each of the daisy-chained units. Note the name of the unit that is still synced to your computer and turn each of the daisy-chained units on, one at a time. Once you have indentified each unit, it is highly recommended that you reconnect the units in the order they show up in the FireControl (that is, the unit at the top of the list should be connected directly to the computer and subsequent units should be daisy chained from it). If your units are not daisy chained in the correct order, power them down and reconnect them using the procedure outlined in Steps 4 through 6. Connecting your units in this order will produce the best performance and will put your inputs and outputs in the correct order.

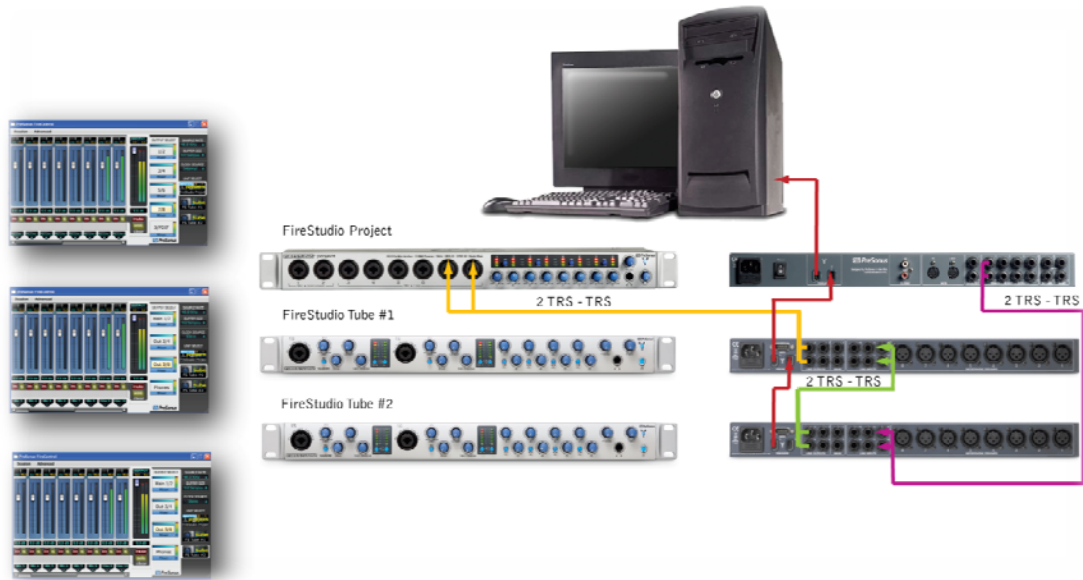
In the example shown above, we have a FireStudio Project and two FireStudio Tubes daisy-chained together. The FireStudio Project is at the top of list, so its inputs and outputs will be FireStudio Inputs/Outputs 1-10. The Inputs on the FireStudio Tube labeled "FS Tube Slave 1" are FireStudio Inputs 11-26. Its outputs are FireStudio Outputs 11-16. The FireStudio Tube labeled "FS Tube Master" will be FireStudio Inputs 27-42 and its outputs will be FireStudio Outputs 17-22.

The order of the inputs and outputs in your FireStudio chain cannot be altered.

It should also be noted that the inputs and outputs on each unit in the chain are independent from one another. This means that you cannot monitor the inputs from the first unit in the chain through the outputs on the second unit in the chain unless you create a mix from within your DAW application. To easily maintain zero-latency mixing between the daisy-chained units, dedicate a set of outputs and a set of inputs from each device in the chain to send a receive a mix in the FireControl application.

In the hook-up diagram below, you will see that a mix between the free inputs on the FireStudio Project and the returned mix from FireStudio Tube #1 is being routed out of FireStudio Project outputs 7 and 8. This mix is then combined with the free inputs on FireStudio Tube #2 and sent on to FireStudio Tube #1 completed the chain.

This may seem like a recipe for a feedback loop, but the DSP functionality of the FireControl application eliminates this problem. There will be a slight phasing on each of these mixes, so we recommend that the monitor mixes for each musician be sent from the unit to which that musician's instrument is connected, rather than from one of the chained units.



*Please Note: You can daisy-chain up to four FireStudio Projects or FireStudio Tubes in any combination. However, the ability to use more than two units simultaneously depends on your computer's specifications and optimizations. If you plan to use three or more units at the same time, installation of a dedicated firewire bus with a tested and approved firewire chipset and at least 2 GB of RAM is highly recommended. A list of approved chipsets can be found at [www.PreSonus.com](http://www.PreSonus.com).*