frontrow™

Juno Connect

CONFIGURATION GUIDE

YOU'RE ABOUT TO MAKE LEARNING MORE ACCESSIBLE

Welcome to FrontRow — the teacher- and tech-friendly way to improve the learning environment in every classroom.

To make your configuration of the FrontRow Juno Connect as efficient as possible, we recommend that you first read the section in this guide called **Before You Begin**.

If you follow the steps set out in this Configuration Guide and organize everything you need beforehand, you'll find setting up your FrontRow Juno Connect classroom communication system to be quite simple. Of course, if you run into any obstacles, you can always find contact information for our technical support representatives at www.gofrontrow.com/contact-us.

Thank you for choosing FrontRow! You're just steps away from a more productive classroom.
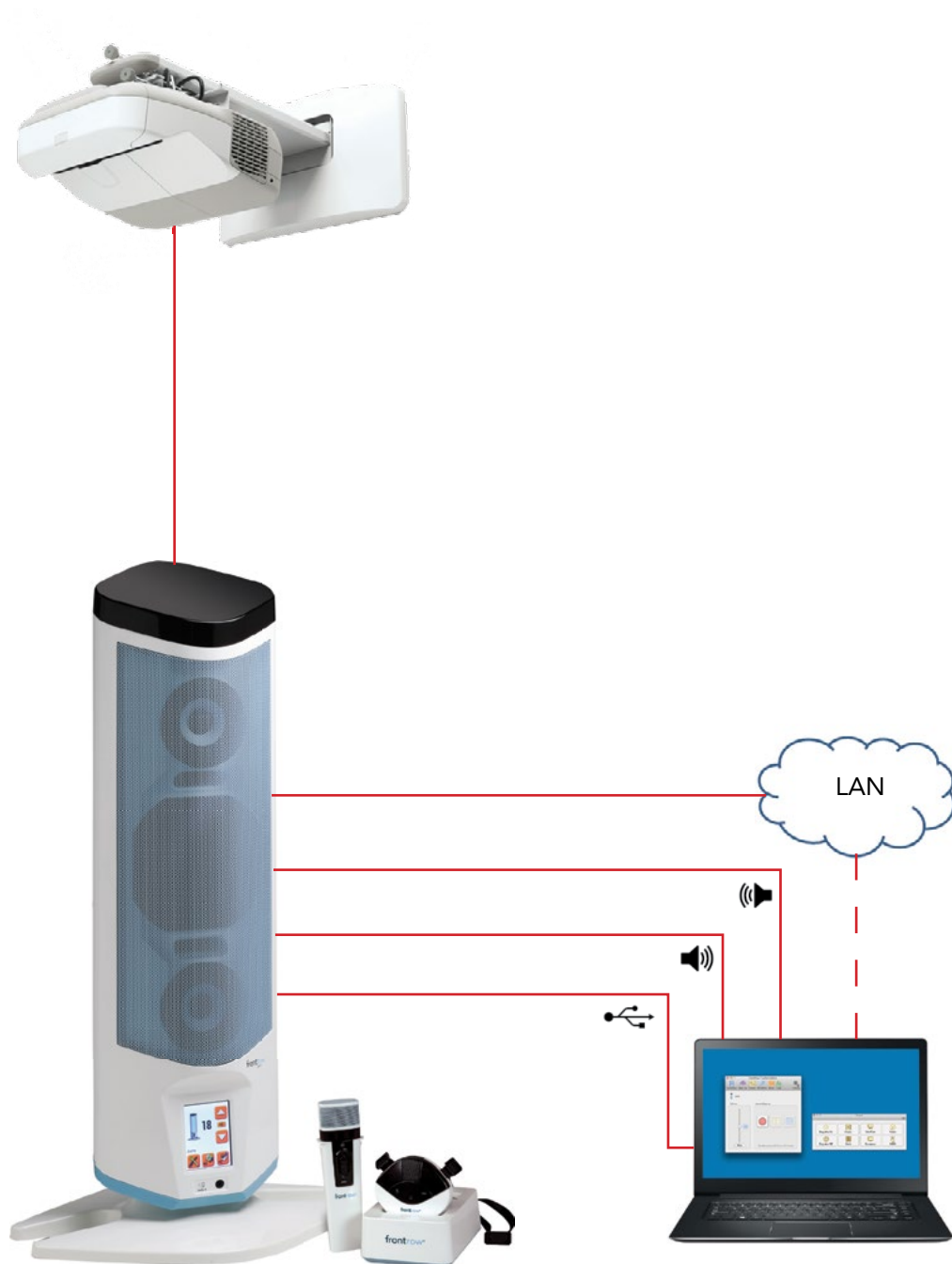
CONTENTS

Step 1: Before you begin

Make sure you've got everything you need to install your FrontRow Juno Connect. By taking the time to prepare, you'll help ensure the actual set-up is as quick and problem-free as possible.

1. Visualize your goal

When your FrontRow Juno Connect is installed, it may look something like this:

3. **What do you want to control? How do you want to control it?**

Your Juno Connect can let teachers control or communicate with practically any device or person. Now is the time to plan what you want to do.

Example 1: Typical setup with projector

In this example, the Juno Connect works to turn a projector on and off, switch inputs or execute any command the projector has in it's control library, If FrontRow Conductor™ is being used in the school, the Juno Connect can also initiate intercom calls and trigger alerts. In combination with powerful tools like FrontRow Maestro™, this can allow you to 'network' and manage projectors that are otherwise not online. Below are the basic connections for controlling a projector serially.
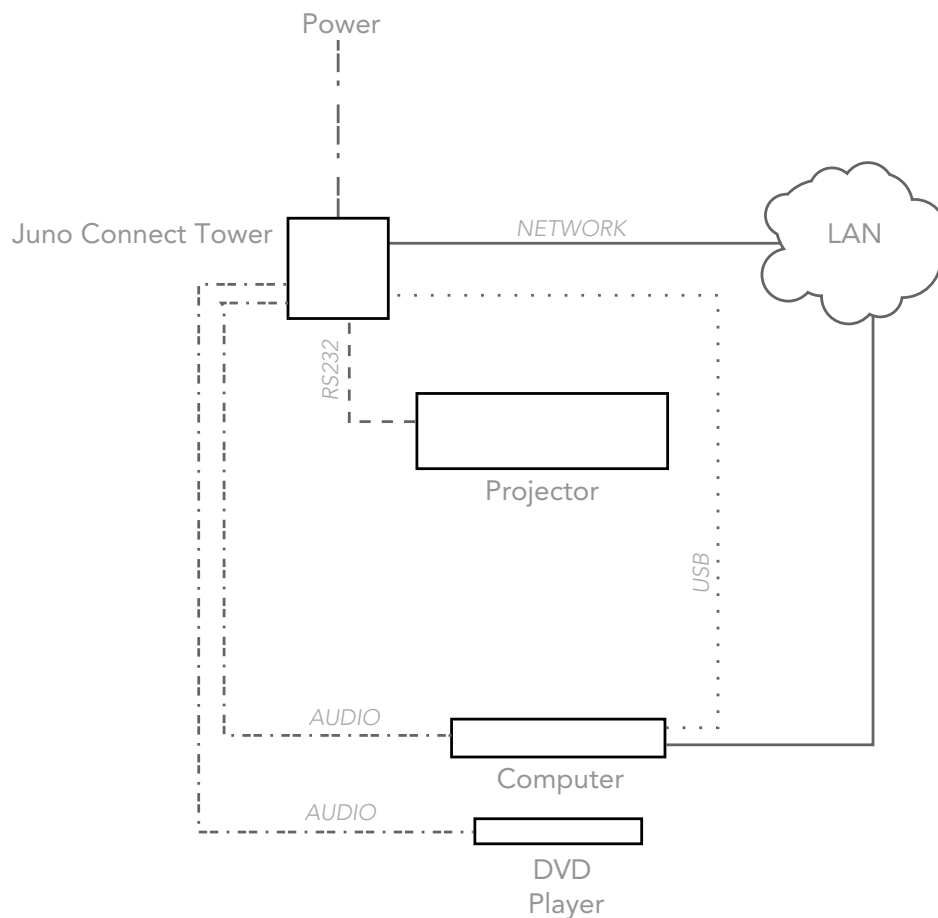
NOTE: This is a schematic illustration intended to clarify the relationship of components to each other. The location of jacks shown here may not reflect their true position on specific devices.

Cat 5 cable
Serial cable
USB cable
Audio Cable
Power

4. Gathering information

You will save a lot of time by working with the school to:

• Make a list of all rooms to be outfitted and the equipment to be controlled in each

• Set aside IP addresses for each Juno Connect, and any other FrontRow components or servers

To help organize this important information, we have a Project Planning Template available for you to download at www.gofrontrow.com/guides-resources. Of course, you can also create your own. It should look something like this:

Step 2: Getting Your Configuration Files

Your Juno Connect needs information about the other devices it needs to communicate with, and how. If your configuration — the collection of commands you want to issue from Juno Connect and the devices you want to control — is the same in each room in your installation, then you will need only one configuration base file which you will modify with specific IP addresses unique to each room. If the situation is different from room to room, you will need different base files that are tailored to each configuration.

There are several ways to create your configuration files:

- Go to gofrontrow.com/guides-resources and find the Configuration Files & Scripts section, then the Juno Connect heading. Each Base Configuration File stored here includes the control logic programming needed for the most common applications.

- If your configuration is uncommon enough that it's outside the scope of the configuration files, and you have some basic familiarity with programming, you can easily build your own user interface designs or control logic programming. When configuring your Juno Connect, we recommend using Chrome, Firefox or Safari browsers.

Step 3: Preparing for Configuration

Estimated time for this step: 5-10 minutes per Juno Connect

Here's where you wake up your Juno Connect and let it know what its mission is. You can of course reconfigure it at any point if your setup changes or you make a mistake — but it's best to plan ahead so that you don't have to (see Step 1).

For greatest efficiency, we recommend configuring all of your Juno Connect systems all at once in the office prior to going to the installation site, but you can also do it room by room at the school if you prefer.

1. Gather your configuration tools

To configure your Juno Connect systems you will need to collect:

• Your Juno Connect systems

• Enough Cat 5 cable to connect between the Juno Connect Tower and the computer you will use for configuring the device

• A computer with RJ45 connection and a web browser installed (Chrome, Firefox or Safari recommended)

• A completed ezRoom Installer Planning Template or other detailed information about the school's available IP addresses for your Juno Connect systems, and other components (see Step 1)

• Your Base Configuration File(s) (see Step 2)

2. Connect your configuration setup

Take your first Juno Connect and connect it to your configuration equipment as shown here.

• Connect your laptop computer's LAN port to the Juno Connect LAN port with a CAT-5, or network, cable.

• Change the IPv4 address on your laptop to static address 192.168.1.100. See Step 3 for instructions.

Juno Connect Back

3. Give your computer a static IP address

For the duration of the configuration, your computer needs to have a specific IP address. Here's how to change your computer's wired network adapter from automatic (DHCP) to fixed (static):

a. Windows XP

1. Open **Windows Start** menu.

2. Open **Control Panel**.

   • Classic view: Open **Network Connections**

   • Category view: Select **Network and Internet Connections**, and then **Network Connections**.

3. Double-click on your active LAN or Internet connection.

4. Click **Properties**. This opens the Local Area Connections Properties window. Proceed to 3c.

b. Windows 7

1. Open **Windows Start** menu. Type "network and sharing" into the Search box in the Start Menu and select **Network and Sharing Center** when it comes up.

2. When the Network and Sharing Center opens, click on **Change adapter settings**.

3. If you have a wireless internet connection active, right-click on the icon and temporarily disable this connection for best results.

4. Right-click on your active LAN or Internet connection and select **Properties**. This opens the Local Area Connections Properties window.

c. Windows 8

1. Invoke the charms bar and click Search. Type "network and sharing" into the Search box and select **Network and Sharing Center** when it comes up.

2. When the Network and Sharing Center opens, click on **Change adapter settings**.

3. If you have a wireless internet connection active, right-click on the icon and temporarily disable this connection for best results.

4. Double-click on your active LAN or Internet connection then select **Properties**. This opens the Local Area Connections Properties window.

d. Windows 10

1. Right-click the Windows start icon in the lower left of the screen then click **Network Connections**.

2. If you have a wireless internet connection active, right-click on the icon and temporarily disable this connection for best results.

3. Double-click your active LAN (Ethernet) connection then select **Properties**. This opens the Local Area Connections Properties window.

e. Local Area Connections Properties (Windows)

1. In the General tab, highlight the **Internet Protocol Version 4 (TCP/IPv4)** or **Internet Protocol (TCP/IP)** item, and click **Properties**.
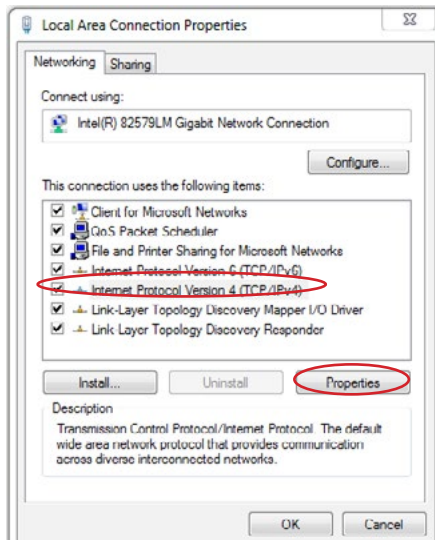
This opens the Internet Protocol (TCP/IP) Properties window.

6. In the General tab, click **Use the following IP address**, and enter:

   - IP address: 192.168.1.100

   - Subnet mask: 255.255.255.0

   - Default gateway: Leave blank

   NOTE: We recommend 192.168.1.100 as the standard IP address; however, you may need to use a different address if you are using a local switch already using this address

7. Leave the **Use the following DNS server addresses** fields blank

8. Click **OK**.
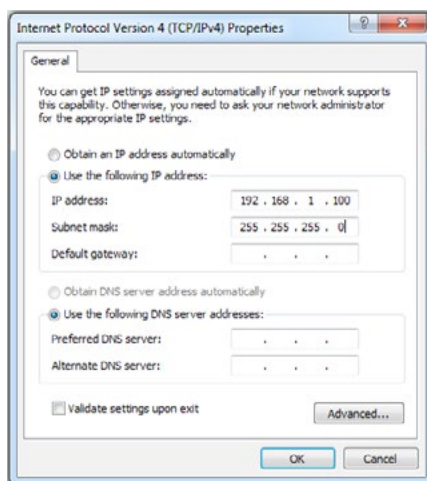
9. Click **OK** to close each window

NOTE: to change your computer back to DHCP follow the same process but select "Obtain an IP address automatically" from the General network page.

f. Mac OS X

1. Click the **Apple** icon in the upper left hand corner of your screen.

2. Click the **System Preferences** option.

3. In the **Internet & Network** section click the **Network** icon.

4. Select the network connection you use to connect to the internet — the one that has a green dot in front of it. The green dot means the connection is active.

5. Click the **Configure** button which is close to the bottom of the screen.

6. Click the **Configure IPv4** drop down box and select the **Manually** option.

7. Enter:
   - IP address: 192.168.1.100
   - Subnet mask: 255.255.255.0
   - Router: Leave blank

   NOTE: We recommend 192.168.1.100 as the standard IP address; however, you may need to use a different address if you are using a local switch already using this address.

8. Click **Apply Now**.

Step 4: Configuring Juno Connect

Your Juno Connect has several parameters that can be configured to tell it how to communicate with other devices in an ezRoom or Conductor installation. While each installation is different most of the default parameters will be appropriate.

Open a web browser on your laptop and in the URL field type the IPv4 address 192.168.1.103 and press enter. This is the default static IP address of the Juno Connect and will likely be changed when you configure it per the school's IP addressing scheme.

- You will be connected to your Juno Connect and see a screen like this:
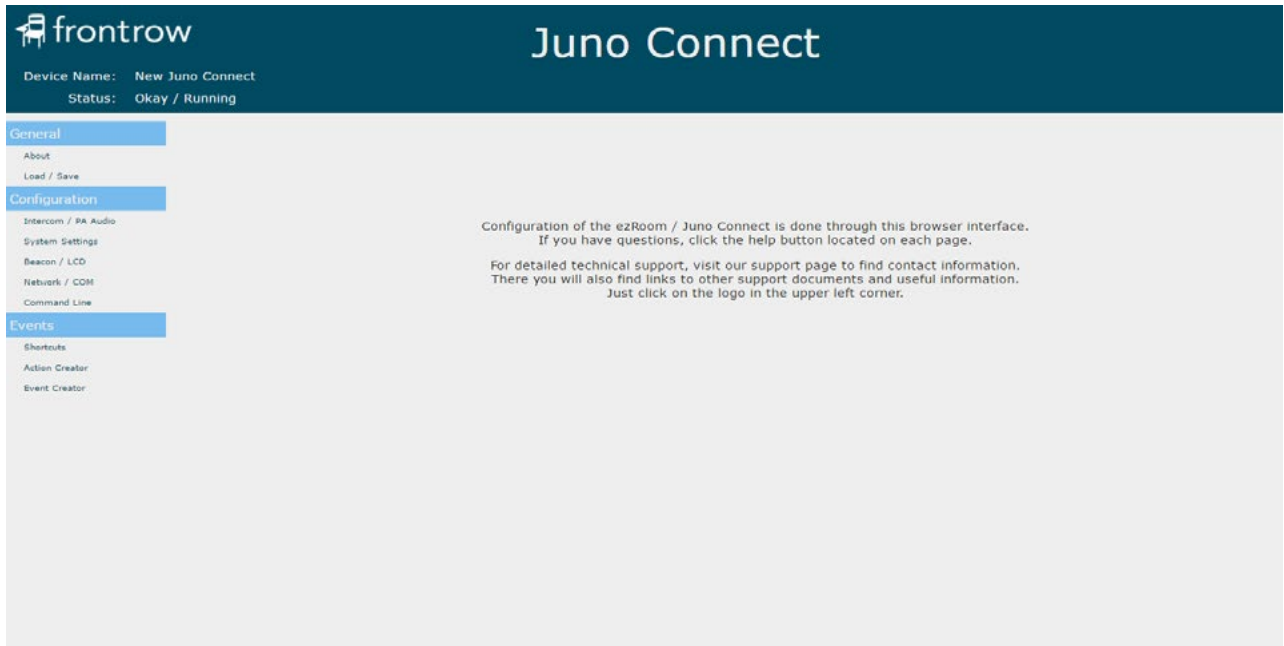
2. About

Device Information

The name you choose should contain meaningful information, such as the classroom number, so that a person accessing the device remotely will have appropriate context. Also on this screen you can see the device MAC address and firmware version.

Password

If the project requires it you can password-protect the Juno Connect configuration screens by setting a password. If setting a password for the first time, the "old password" is **calypso.** Choose a new one based on the school's guidelines and record the information. The user name is always **admin.**

Audio Subsystem Information

Displays information about the audio subsystem including serial number and firmware version.

3. Load/Save

The set of configuration parameters created in this interface can be saved in a file for use with other Juno Connects. In this section you would "save" a configuration file or "load" a file from a location on your computer. Some of the parameters would still need to be changed (e.g., the IP address).

Load Configuration

Browse for a previously saved Juno Connect configuration file an load it on this device.
NOTE: Configuration files created on FrontRow devices (e.g. Smart Receiver, CM3000) are not compatible between device types.

Save Configuration

Save the configuration file from this device for use on other Juno Connects.
NOTE: Configuration files created on FrontRow devices (e.g. Smart Receiver, CM3000) are not compatible between device types.

4. Intercom / PA Audio

These settings are for use when installed with the Conductor IP-based Paging, Intercom and Bell system or with a 29V, 70V, or 100V analog paging system.

Incoming Audio

The **PA volume** is the volume of incoming audio from Conductor (pages, bells and intercom) and does not affect the volume of the local (in room) audio. **PA Release** is the amount of time it takes for the local (in room) audio to return to normal volume after an incoming audio stream from Conductor.

Outgoing Audio (talk-back)

Gain setting for the audio sent back to the front office from the in-room intercom microphone, i.e. the wall (CB75) or ceiling (CB85) unit. The gain setting for the pendant microphone when used as the intercom microphone is fixed.

Push to Talk Mode

When used with a CB75 push-to-talk microphone, the push button can be configured in one of three ways:

- Disabled - audio from the in-room microphone can be heard in the front office with no action from the user in the room.

- After push - audio from the in-room microphone can be heard in the front office with no action from the user in the room until the button is pushed. Thereafter, the user must push the button in the room to activate the microphone.

- Always - audio from the in-room microphone will not be heard until and unless the user in the room is pushing the button.

Analog Page Override

For use with 25V, 70V and 100V analog paging systems. The Juno Connect will mute all audio in the room when an announcement is made over the facility's paging system. Analog page override requires a connection to the facility's PA system. For information about connecting the page override function to the PA system, see Page Override Module Installation Guide.

Attenuation. Set the attenuation level applied to the audio in the classroom when an announcement is made over the school PA system. The default setting (10) mutes the in-room audio when an announcement is made.

PA Release. Sets how quickly the in-room audio returns to its previous level after the announcement is complete

Sensitivity. Sets how sensitive the trigger will be for muting the system. The lower the setting, the lower the sensitivity will be. While music is playing in the classroom, make a long announcement over the PA system. Adjust the sensitivity control until you just mute the music. When the announcement stops, the music should return to full volume.

4. System Settings

These settings affect the local audio in the room (microphones and auxiliary sources) and other device settings

Volume

Adjusts the master volume of all the inputs together (microphones and auxiliary sources). Individual volumes can be adjusted based on relative volume of devices or microphones. Note that this is not a permanent setting — it will change when the volume is changed in other ways, e.g., using Teacher Edition or Encore software, via voice commands, or via control devices such as the CB6000, or even the knob on a CB75.

Microphone Volume

Each microphone in the room can have a different volume setting. For example, student microphones can be set at a lower volume than the teacher's microphone. Adjusting the master volume will keep the same relative difference between the microphones.

Aux Input Volume

Adjusts the individual volumes of the auxiliary inputs. Each input can have a different volume setting. For example, a DVD player can be set at higher volume than the teacher's computer. Adjusting the master volume will keep the same relative difference between the inputs.

OptiVoice

OptiVoice is a tool that strengthens consonant sounds critical to conveying meaning in speech. For low background noise environments and for a more natural reproduction of voice, use the low setting. For environments with higher background noise that can mask consonant sounds, use the mid or high setting.

PrioriTeach

Enable this setting to give the teacher microphone priority over all other in-room audio.

Command Channel

Set the channel (A or B) for which channel the teacher mic is using as the command channel for voice commands.

Equalizer

Control individual aspects of the sound from your audio devices such as the bass, middle and treble frequencies.

Microphone Button Mode

The teacher microphone button can be configured to trigger any defined event or to control the system with voice commands. If using to trigger an event, choose Mic button press as the Trigger when defining an event. For voice control, choose the triggers in quotes (e.g. "Power Up", "Freeze screen", etc.) when defining the events (for more information on defining events, see section 8 - Event Creator).

5. Beacon / LCD

Overview

This page is where you set the color and behavior for the device's LCD screen, as well as any tone associated with a given alert state.

Select a primary color or Do Nothing. Do Nothing will leave the LCD screen unchanged from its current color. In the Pattern column, select Solid or a second color that will alternate with the primary color.

IMPORTANT: The **ALERT FUNCTIONS** should be configured in accordance with the school's Emergency Preparedness Plan. Download and review the FrontRow Guidelines for a Successful Conductor Deployment at gofrontrow.com/guides-resources for more information.

System Functions

System On: Displayed when the system is powered on and an audio signal is present (after 30 minutes of no activity the LCD screen will turn off).

Voice Command: When holding down the mic button, lets teachers know that the system is ready to receive the voice

command. Only available if the system has been set to Voice command mode (see System Settings page).
Recording: Active when a lesson capture has been initiated using Teacher Edition software. Requires a USB connection to the computer. Helps teachers understand that a recording is in progress.

Recording Paused: When the lesson capture is paused, the LCD screen will show this state.

Intercom: Lets teachers know that a two-way intercom call is active between the classroom and the office, muting all other audio sources. (When used with Conductor)

Paging: Lets teachers know that a one-way PA announcement is being played through the system, muting all other audio sources. (When used with Conductor)

Alert Functions

Alert Delivered: When a Conductor HTTP alert call is sent, usually by pressing a button in the classroom (on the wall, in software, or using the mic), this automatically confirms to teachers that the alert was delivered to the Conductor Notifier over the network.

Alert Acknowledged: When a person presses the "Acknowledge" button in the Conductor Notifier, this state is activated on the device that sent the alert (or is acting as the alert proxy). By default, this function returns to the normal System On state after 5 minutes (not user changeable). In this way, a teacher can see that a person has seen their alert.

Campus Attention: When an alert is triggered from a classroom, it may be useful to let other classrooms know that this has occurred, so that they can be better prepared for instructions. By sending a command to the broadcast IP address of the subnet that Conductor is on, all supported devices will activate this function for a period of 4 seconds. To enable this to happen automatically, add a network command action to the event that makes the Conductor HTTP alert call. For example:

#NET[F2, I192.168.1.255, P7262, '#PAS["CAS"];'];

To make this a manual function that is initiated by the office manager or other personnel, create a button in Conductor which sends the #PAS['CAS']; command to the broadcast IP address (e.g., 192.168.1.255) of the subnet that Conductor is on.

Priority Alerts: As schools may want to have different colors and behavior for different types of situations, there are 5 different Priority Alert modes. Typically these will be programmed into various alert buttons in Conductor, using a control action in a trigger script. The commands to use in the control actions are shown below. For all FrontRow devices to receive the command at once, set the control action to be sent to the broadcast IP address of the subnet Conductor is on (e.g., 192.168.1.255).

Testing

Press the "**Test**" button to see a 5 second example of your alert settings (note that the tone will not be played). This test uses the values currently selected on the web page, not the saved values.

You can also use the Command Line page to test your alert settings. The commands are shown below in order of priority. For example, a Priority Alert will override an Alert Delivered function, changing the state of the device's LCD screen. All Priority Alerts have the same priority and the device will display the most recent one received.

Campus Attention	#PAS['CAS'];
Alert Delivered	#PAS['ADS'];
Alert Acknowledged	#PAS['AAS'];
Priority Alert, mode 1	#PAS['HPS']; or #PAS['HPS',M1];
Priority Alert, mode 2	#PAS['HPS',M2];
Priority Alert, mode 3	#PAS['HPS',M3];
Priority Alert, mode 4	#PAS['HPS',M4];
Priority Alert, mode 5	#PAS['HPS',M5];
Alert (any type) off	#PAS['OFF'];

NOTE: The FrontRow alert notification feature is not intended to nor can it prevent emergencies. FrontRow Calypso LLC, its agents, employees, subsidiaries, affiliates and parent companies are not responsible for individual applications of the alert notification feature or related equipment, and shall be exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly from said application. In the event of misuse or malfunction of the equipment or any of its components or features, FrontRow Calypso LLC, its agents, employees, subsidiaries, affiliates or parent companies shall be exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly therefrom.

6. Network / COM

Network Configuration

Automatic IP Configuration (DHCP) Use this setting to have this device request an IP address from a DHCP server; this should be enabled only if the IT department has a DHCP server online and has set up static (fixed) IP address reservations for FrontRow devices; otherwise manually enter the IP address reserved for the device in the IP Address field. It is highly recommended that static IP addresses be used.

IP Address The field displays and also enables entering (changing) the IP address for the device; while the default address is 192.168.1.103. You must use the address provided by the IT department and ensure that each device has a unique address.

IP Subnet Mask Provided by the IT department; if used as part of a Conductor system, the subnet mask must be 255.255.255.0.

Router IP Address Required when this device is in a network in which router switches determine connectivity across subnets. Provided by the IT department.

Primary NameServer IP Address Optionally provided by the IT department. Rarely used with this device, only enter an IP address here if specifically requested by the IT department.

Secondary NameServer IP Optionally provided by the IT department. Only enter an IP address here if specifically requested by the IT department.

Network ports (CNAP, HICP) Under rare conditions, it may be necessary to change the network communication ports used by other devices and software to communicate with this device. If a such a change is necessary, please direct your browser to the /cfg/advanced.htm page for this device and refer to the help there.

Serial Port Configuration

Baud Rate Specifies the data speed at which this device should communicate with the attached serial device; while 9600 and 19200 are typical for projectors, data speeds vary by manufacturer.

Stop Bits Specified by the manufacturer of the connected serial device, but is typically 1.

Parity Specified by the manufacturer but is typically None.

7. Command Line

Enter Command

Use this section to test commands sent to a device to verify that it performs the action desired. Use the drop down list to select examples of FrontRow command protocols.

8. Shortcuts

Shortcuts

Shortcuts are name substitutions. Defining Shortcuts makes deployment of multiple FrontRow devices of the same type easier. Use Shortcuts in defining actions that represent the IP addresses of the devices you'll control. This means that your configuration file can be written as a template with IP addresses explicitly defined in only one place (the Shortcut), needing to be changed only once rather than repeatedly throughout your Actions. This saves a tremendous amount of labor as you re-use the configuration file to control new devices from room to room.

9. Action Creator

Actions are specific instructions that are sent to specific devices (e.g. to turn a projector on or change inputs on a projector). Once defined, you will link them to various Events which can be triggered in a variety of ways, including voice commands.

To create an Action:

1. Click New
2. Name the Action
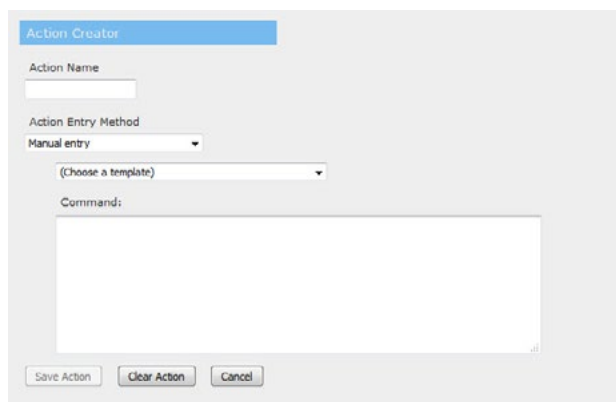
3. Enter the action string or Command

Actions can be created using two methods:

1. Using a wizard
   - Select an Action Type using the drop-down list
   - Enter the syntax necessary to build the specific action

2. Using a Template
   - Select an Template using the drop-down list
   - Edit the syntax necessary to build the specific action (e.g. IP address)

10. Event Creator

With your collection of discrete Actions defined, you can now specify what Events will cause one or more of those Actions to be executed. Events can be triggered in a variety of ways, via Voice Command, Encore and Teacher Edition software, FrontRow Control panels, a FrontRow push button (CB75 microphone or CB50) or from a non-FrontRow GPI trigger.

To create an Event:

1. Click **New**
2. Name the Event
3. Choose a Trigger. A trigger is a way to invoke the event you are building.

   Triggers can be physical devices such as a non-FrontRow push button connected to the GPI (GPI open / close), or a FrontRow device connected to the RJ45 intercom jack (Wall knob press, release, turn right, or turn left). A voice command can also be a trigger. Voice commands are the words in quotes ("Power up", "Shut down", etc.). The Mic button press trigger is on the Teacher worn microphone. A press and hold will trigger the defined event. In order for this functionality to work, the microphone must be programmed for trigger mode. This is done via the System Settings page. A system with the trigger function enabled, will have the voice command function disabled. You can have multiple Events with the same input trigger. When that defined trigger is detected by the device all the matching Events will be executed in no particular order. For each such Event, the Actions for the Event will execute according to that Event's mode setting (see below); however, Actions for different Events may be intermingled with each other. If you care about the order in which Actions happen, put them all in a single Event and set the mode to Each (in order).

4. **Choose a Mode.** The mode determines how and in what order each action in the event will be invoked.

   All (in parallel): All actions for the event will be executed but in no particular order. When order does not matter but you want things to happen as quickly as possible, this is the recommended choice.

   Each (in order): Actions for the event will be executed in the order listed. This is useful when the order matters to you; for example, turning off a projector before retracting a projector screen. To change the order of the actions in the event, drag actions up or down with the three lines next to the action name.

   One per call (in sequence): The actions will be treated as a loop, executing the next Action in the series each time the Event is initiated (e.g., with 2 actions: Action 1 on the first button press, Action 2 on the second button press, Action 1 on the third button press, etc.). This is useful for toggle functions like power or mute.

5. **Add Actions**
   Actions can be added and will be invoked according to the mode chosen in step 4. To add actions, select them and click Add Selected. Actions can be reordered by clicking and dragging the lines to the left of the action name in the Current Action List.

Appendix A: Control commands for the Juno Connect

The following commands can be used in Actions to control how a Juno Connect handles audio:

ICR-01 Smart Receiver / Juno Connect Master Volume Commands*				
Syntax: #AUDn[Mute,Volume];				
Name	**Required/Optional**	**Data Type**	**Format**	**Description**
n	Required	Constant	1	Denotes the sub-device. Since the Juno Connect has only one sub device, this is always 1
Mute	Optional	Variant	M*Command* where *Command* is 0, 1, or +	Audio mute: • off (0); • on (1); or • toggle (+)
Volume	Optional	Variant	V*Command* where Command is an integer from 1 to 100, +, or -. The + or - may be followed by a single digit (1-9) indicating the change in volume steps to be made. If no digit is entered, the volume will increment by one.	Sets the audio volume to: • the percentage of maximum volume corresponding to the integer used; • an increase in volume (+) by *n* steps (+*n*); or • a decrease in volume (-) by *n* steps (-*n*)
Examples: Unmute and increase volume: #AUD1[M0,V+]; Unmute and decrease volume by 2 steps: #AUD1[M0,V-2]; Set volume to 10% of maximum: #AUD1[V10]; Mute: #AUD1[M1]; Unmute: #AUD1[M0]; Toggle mute: #AUD1[M+]; Query current settings (returns value of input, mute, and volume): #AUD1[];				

For complete programming guidance, refer to the Calypso Action Control Language (CACL) manual found on the Guides and Resources page. www.gofrontrow.com/guides-resources.

Network (NET) Commands*

Syntax: #NET[Connection, String Type. Device 'Command'];

Name	Required/Optional	Data Type	Format	Description
Connection	Required	Variant	Fn where n is 1 or 2	Defines the connection type: • TCP/IP (1) • UDP (2)
String Type	Optional	Variant	Tn where n is 1 or 2	Defines the string type: • ASCII string (1) • HEX string (2) If you leave StringType blank, a default of T1 is assumed
Device	Required	Variant	If using Shortcuts (recommended): @{shortcutname} For explicit device references: I*Address*, P*Port* Default port is 7267	A string expression that is the valid name of a shortcut (see section 8) or the IP address and port of the device being controlled.
Command	Required	Variant	Specific to device. For device commands, see manufacturers instructions	A string expression that contains the command.

Example: (increments the audio input channel of a Juno Connect by one over TCP/IP protocol using an ASCII string):
#NET[F1,@{shortcutname},'#AIN1[I1,L+];'];

Intercom (HTP Commands

Syntax:#HTP[http://Server/calypso/conductor/?/call/Device];

Name	Required/Optional	Data Type	Format	Description
Server	Required	Variant	If using Shortcuts (recommended): @{shortcutname} For explicit device references: IP address of the Conductor server	A string expression that is the valid name of a shortcut (see section 8) or the IP address of the Conductor server.
Device	Required	Variant	If using Shortcuts (recommended): @{shortcutname} For explicit device references: IP address of Juno Connect or Smart Receiver	A string expression that is the valid name of a shortcut (see section 8) or the IP address of a Juno Connect or Smart Receiver located on the network.

Example: (initiates an intercom request to the admin station located in the office):
#HTP[http://@[servername]/calypso/conductor/?/call/@][roomedevicename}];

For network (NET) commands, we recommend using UDP ("F2") as the preferred protocol as it tends to be faster.

Serial (COM) Commands*

Syntax: #COMn[*StringType*,"*Command*"];

Name	Required/Optional	Data Type	Format	Description
n	Required	Variant	Use 1 for COM1; use 2 for COM2.	Denotes the COM port to be used, corresponding to the serial device to be controlled.
StringType	Optional	Variant	T*n* where *n* is 1 or 2	Defines the string type: • ASCII string (1) • Hexadecimal (2) If you leave *StringType* blank, a default of T1 is assumed.
Command	Required	Variant	Specific to device.	A string expression that contains the command.

Example (turns on a projector via COM 1 using an ASCII string command): #COM1[T1,"PWR ON\r"];

IR-Out Universal Commands*

Syntax: #XROn[F2,"*Command*"];

Name	Required/Optional	Data Type	Format	Description
n	Required	Variant	Use 1 for IR port 1.	Denotes the IR port to be used.
Command	Required	Variant	Specific to device.	A string expression that contains the command.

Example (turns on a DVD player):
#XRO1[F2," 40000300015430309DA03F508FC03A704D6039...3A704D803F808FC03A704D403A104FB03A704D903"];

Alarm Commands*

Syntax: #ALM["*Command*",D*Time*];

Name	Required/Optional	Data Type	Format	Description
Command	Required	Variant	Use **ON** to start the alarm. Use **OFF** to stop the alarm.	Starts/stops the beep.
Time	Required	Variant	Integer representing multiples of 4ms duration.	Sets the duration

Example (turns on the beep with a 200ms duration): #ALM["ON",D50];

Appendix B: Configuration File Settings

Setting	Saved in Configuration File
About	
Custom Device Name	Yes
Password Required	Yes
Password	Yes
Intercom / PA Audio	
Incoming Audio Settings	Yes
Outgoing Audio Settings	Yes
Push to Talk Mode	Yes
Analog Page Override Settings	Yes
System Settings	
Master Volume	No
Microphone Volumes	No
Aux Input Volumes	No
OptiVoice	No
PrioriTeach	No
Command Channel	No
Speaker EQ Calibration	No
Equalizer	No
Microphone Button Mode	Yes
Beacon Brightness (Smart Receiver only)	Yes
Beacon / LCD	
System On	Yes
Backup PoE Power	Yes
Voice Command	Yes
Recording	Yes
Recording Paused	Yes
Intercom	Yes
Paging	Yes
Alert Delivered	Yes
Alert Acknowledged	Yes
Campus Attention	Yes
Priority Alert, mode 1:	Yes
Priority Alert, mode 2:	Yes
Priority Alert, mode 3:	Yes
Priority Alert, mode 4:	Yes
Priority Alert, mode 5:	Yes
Network / COM	
Network Configuration	Yes
Serial Port Configuration	Yes
Shortcuts	
Shortcuts	Yes
Action Creator	
Actions	Yes
Event Creator	
Events	Yes

Appendix C: Troubleshooting

I can't remember what IP address I changed the Juno Connect to, and now I can't communicate with it

1. Remove the four slot connector from the COM port
2. Disconnect the serial cable (if connected) from the connector
3. Build a shorting plug by connecting the TX and RX lines of connector
4. Power down the Juno Tower
5. Insert the shorting plug (connector) into the COM port
6. Power up the Juno Tower and remove the shorting plug within 3 to 4 seconds
7. If the reset was not successful try again with a shorter or longer time duration before pulling out the plug.
8. A hardware reset changes the IP address back to the default (192.168.1.103)
9. The web-access password will be reset back to 'calypso' (login name remains admin), though the state of password protection will not change (active or in-active as before). No other settings are changed.

I can't remember what web access password I set for the Juno Connect, and now I can't log onto it

- Reset the Juno Connect to its default web access password ('calypso') by following steps 1 - 9 above.

I've connected a new Juno Connect to my computer for configuration but can't communicate with it

- If you are using a Windows® computer, clear the ARP cache. From the command prompt, enter: ARP -D *IPADDRESS* (e.g., ARP -D 192.168.1.104)

I've connected the serial cable from the Smart Receiver to the projector and I've verified that baud rate and other settings are correct, but I still can't control the projector.

- Try switching the TX and RX wires. In a 9-pin connector the standard is to use pins 2 and 3 for TX and RX, but there is no standard as to which is which. Most manufacturers use pin 2 for TX and pin 3 for RX, but over 10% use the reverse.

I've forgotten my password and need to reset the device.

- Resetting your Smart Receiver involves the same procedure as that for many FrontRow devices: briefly shorting the RX and TX terminals.

  1. Create a shorting connector by inserting the ends of a piece of wire into a Phoenix connector where the RX and TX will be when plugged in to the serial control port, and tighten the screws.

  2. With the device powered down, insert the shorting connector into the serial control port.

  3. Power up your Smart Receiver.

  4. After 3 seconds remove the shorting connector.

  5. If the you still find that the password has not been reset, repeat the procedure with slightly more time or slightly less time.

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