



Conductor Setup Guide

Learn more at **www.gofrontrow.com**

Welcome to FrontRow

Conductor is a powerful yet easy to use system for IP paging, intercom, bells, and emergency alerts.

This guide is designed for the person or team that will be installing and configuring the FrontRow equipment. The Admin Station Quick Setup, DRS5000 Configuration Guide, DRS-VM Configuration Guide, CM900 Installer Guide, CMP500 User Guide, and Conductor Pre-flight Checklist are the other companion documents to be used with this setup guide. **IMPORTANT: Conductor must be properly configured and programmed in accordance** with the user's system design. Failure to do so could impair Conductor's functionality, including emergency communication and alerts.

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 campus.

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Overview

The steps to creating a successful Conductor campus:

Section 1 - The Conductor System

Familiarize yourself with the components of the system and their roles.

Section 2 - Preparation and planning

This section will help to make sure you are as efficient as possible in your installation and configuration. This guide does not cover installation or configuration of the classroom and common area devices. Refer to their respective Installation Guides.

Section 3 - Setting up the Admin Station and DRS5000 server or DRS-VM virtual server

The Admin Station is the face of Conductor to the school, and the DRS5000 or DRS-VM is the brains. This is where the communication settings and control happen. For this section you will also reference the DRS5000 or DRS-VM Configuration Guide and the Admin Station Quick Setup page.

Section 4 - Setting Up Conductor

Now that everything is assembled and basic configuration is done, it's time to set up the software to meet the school's needs. Typically a school will want an automatic bell schedule, buttons for playing music or other audio, emergency alert buttons, the ability to easily page to any area of the school, and the ability to make or receive intercom calls.

1. The Conductor System

If you are not familiar with Conductor, this section will describe the components of the system and their roles.

1.1 Admin Station - located in the front office

The Admin Station is where the user (usually the office manager) can make intercom calls, change bell schedules, answer calls, and trigger emergency alerts. It usually consists of the FrontRow touch PC, UPS battery backup, wireless mouse and keyboard, push-to-talk microphone, and a CM900 master controller.



1.2 DRS Server - located in the MDF (server room)

The DRS5000 or DRS-VM is the heart of the Conductor system and runs the Conductor database, as well as the Maestro database, Encore license and update service, and CB6000 TimeSync. DRS-VM virtual server may be installed on a variety of virtual machine environments, as determined by your Network Administrator

<u>IMPORTANT</u>: To help ensure system performance in a variety of adverse conditions, FrontRow recommends supporting the integrity of the server with a secure location, an Uninterruptible Power Supply (UPS), a regular practice of server backups, and a backup server.*



*An ideal backup process includes restoring main server files to a backup server connected to the network with a different IP address. Should the main server ever fail, the IP address of the backup server can then be changed so that services are back online within minutes.

1.3 Conductor Audio Endpoints and Devices

(see the specific device installation guides for more information)



Classrooms:

Smart Receiver – audio over IP encoder/decoder, audio amplifier & control, IR microphone receiver. Provides classroom audio and device control, as well as intercom/paging support for Conductor.



Classrooms:

CM900 - Networked streaming/analog audio to classrooms and school common areas



Hallways and common areas: CM800 - audio over IP encoder/ decoder. Provides line level audio to an analog 25/70/100V paging amplifier.



Server room:

CMP500 – analog phone system to Conductor interface. Allows users to call into Conductor and make pages or trigger actions.



All endpoints:

POE Extractor – Provides power to the audio endpoint so that announcements can be heard during a general power failure.

2



Classrooms: Juno Connect – all-in-one classroom audio system with network audio and device control.



Classrooms: CB75/CB85 - talk back microphones for the classroom







1.4 Classroom solutions

Classrooms can be outfitted with the FrontRow low-installation solution Juno Connect, or as complete media and control systems using the ezRoom solution. ezRoom provides pre-wired components in ceiling or wall enclosures, as well as AV input solutions, control panels, and more.



1.5 Typical wiring diagram of an ezRoom classroom



1.6 Installation Overview

As part of a campus installation, Conductor uses the existing network for audio over IP communication with the classrooms and common areas. Since most hallways do not need to be zoned on a per speaker basis, you can use the existing analog 25/70/100V PA speakers for those areas, using a CM800 to convert the digital audio to analog for the PA amplifier.



2. Project Planning

Before You Begin

As a client-server software application, Conductor works directly with the FrontRow DRS5000 or DRS-VM server, along with a variety of FrontRow networked controller devices such as the Smart Receiver, Juno Connect, CM900 and CM800Si.

Since Conductor is designed to work with a networked server, for best results the Conductor software should be configured only after all of the following conditions have been met:

- 1. The site has achieved project stability regarding the audio over IP devices.
- 2. The site has a continuous and reliable network connection.
- 3. The FrontRow DRS5000 or DRS-VM server is installed and has an active network connection. To help ensure system performance in a variety of adverse conditions, FrontRow recommends supporting the integrity of the server with a secure location, an Uninterruptible Power Supply (UPS), a regular practice of server backups, and a backup server.

This guide assumes the above conditions have been met.

Gather Information

We suggest preparing one Excel workbook with a separate sheet for each school. List rooms in the school, installed devices (or planned devices) in each room, and any other important network information specific to the school and/or individual rooms.

Note that with the Device Discovery feature in Conductor, this document is more for your own records and notes, as Conductor can scan the network to find all the FrontRow devices and add them to the system. However, it is convenient to be able to refer to a document with all your key system IP addresses including the PCs, gateways, and time server, as well as projector models, etc.

You can also create your own document. It should look something like this:

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1	School	Jones High							
2	IP Router Address	X.X.X.X							
3	Subnet Mask	X.X.X.X							
4	Time Server IP Address	X.X.X.X							
5	Conductor Server IP Address	X.X.X.X							
6	Conductor Admin Touch Computer IP Address	X.X.X.X							
7	Conductor Admin CM3000 IP Address	X.X.X.X							
8	Conductor Admin CMP500 IP Address	X.X.X.X							
9		100-10							
10		Room Compone	ent IP Addresses	Pro	jector				
11	Room	FrontRow CB6000	FrontRow CM3000	Brand & Model	Control: Serial/IR				-11
12	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				- 11
13	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Serial				-11
14	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
15	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Serial				-11
16	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
1/	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
18	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
19	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
20	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
21	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-11
22	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Serial				-11
23	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Serial				-11
24	Room #	X.X.X.X	X.X.X.X	Brand X Model X	Senal				-4
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Information to gather before going on site

Network

• Ensure that the network is complete and tested before beginning the installation.

IP addresses, router/gateway address, Subnet Mask, Domains

- Get the list of static IP address (or range) from the IT department. In addition you will likely need IP routing information. Remember to inform the IT department that the Conductor audio over IP devices all need to be on the same range of IP addresses and that the Subnet Mask needs to be 255.255.255.0.
- Enter the network information into all devices before installation if possible, including the Conductor server.
- The Conductor server will need to sync up with the school's network time source. Be sure to gather the necessary network information from the IT department.
- Get the email SMTP server information to be used for email triggers.

Location discussion

- Discuss where to locate the Conductor Admin Station, the server and any CM800 devices.
- Allow for a mounting location for the Admin Station CM900.

Zones, Emergency plans, Maps

- Discuss with the school how the common areas will be zoned. These areas include the hallways, admin office locations, outdoor areas, cafeterias, gymnasiums, etc.
- Discuss with the school, setup items such as room naming conventions, possible emergency alerts scenarios, user permissions, etc.
- Acquire maps of the school or custom graphics to load into Conductor for paging via maps or images.

Bell schedule

• Get the bell schedules(s) from the school.

Files and documents

• Make sure that you have any configuration files, helpful software utilities, and installation documentation that you will need before going on site, as you may not have Internet access at the school.

Tools

• Besides the normal installation tools, bring a laptop as it is likely that at some point you will need this for programming, troubleshooting, etc.

CMP500 requirements

• This is the telephone interface and may be part of the project. Confirm that there is access to an analog port, and where it is located.

3. Setting up the Admin Station & DRS5000 or DRS-VM

Tip: To change IP address of a CM900 or the server, your computer may need to be on the same subnet as the target device. See Appendix A for setting your computer to a static IP address. Once you have changed the IP address of the target device, you may need to change your computer IP address again to be able to communicate with it. The IP address of your computer and the target device must be in the same range (ie: 192.168.1.xxx, or 10.12.65.xxx).

Set up the server per the DRS5000 or DRS-VM Configuration Guide, including setting the IP address as necessary.

 Connect to the CM900 and set the IP address and name, and designate the device as a Master device. Make sure both options are checked for "Routing for Outgoing Streams." When using the CB-65 or CB-75 as a push-to-talk microphone, the recommended settings are: GPI Mode is set to "Rotary + Button" and Push to Talk Mode is set to "Always (Never Handsfree)." See the CM900 Installation Guide for more information.



2. Make the Admin Station connections per the Admin Station Quick Setup diagram (printed and included with the Touch PC, or see next page). If using another computer instead of the FrontRow-supplied touch PC, see the next section (3.1 PC Settings and Requirements) for information on configuring this computer. The FrontRow touch PC will be preconfigured with the appropriate settings and Conductor software from the factory. The only thing that must be done is to assign the appropriate IP address.

NOTE: As Conductor is an important system for the school, it is highly recommended that the touch computer is placed in an easily accessible location.

3. Make sure that the Push-to-Talk (PTT) mic switches located on the bottom of the CB65 microphone are set to **Momentary** and **PTT**.



Conductor Admin Station Quick Setup



NOTE: FrontRow recommends installing an Admin Kit in another location for redundancy and safety.

3.1 PC Settings and Requirements

You can use another computer to run the Conductor client instead of the FrontRow touch PC using the Conductor Admin Kit, but make sure it is very reliable and was purchased in the last few years. Conductor is the campus communication system for daily operations and emergency alerts. While it is certainly possible to run other applications on the same computer as Conductor, from an operations standpoint FrontRow recommends using a dedicated computer (ideally the FrontRow touch PC).

The Conductor software is available for download at www.gofrontrow.com/support.

Install the software on the PC by double-clicking on **Conductor Client Setup** and follow the instructions on screen. The installer may also install .NET 4.5.2 if not already installed on the PC. If you have a previous version of Conductor on the computer, you may install directly over it without first uninstalling.

If using another PC, here are some recommendations and requirements for configuring the PC:

- 1GB or more of hard drive space for Conductor and any audio files you want to add
- At least 8GB of memory (RAM)
- Windows 10 or later
- An Ethernet network connection
- If the device will have an internet connection, make sure it is set to automatically install security updates
- Set the power options to ensure the computer does not go to sleep or shutdown during school hours
- You can use external 8 Ohm speakers with the CM900 to hear intercom calls, or you can route the audio through the speakers on the PC.

Settings	- 0) × (setterps
G Home	Sound	⊛ Devi
Find a setting	P Output	
System	Choose your output device	I Nicmphe
	Speaker/HP (Realtek High Definition	Dissone
Display	Certain apps may be set up to use different sound devices than the one	_
40 Sound	selected here. Customize app volumes and devices in advanced sound options.	Volume
Notifications & actions	Device properties	0
	Master volume	-
J Focus assist	4	24 - 104
O Power & sleep	A Troubleshoot	
Battery	Manage sound devices	
⇔ Storage	Input	Related Set
D8 Tablet	Choose your input device	
H Multitasking	Microphone (USB Audio Device)	Sing Cet help
Projecting to this PC	Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound	
X Shared experiences	Device properties	
D Clipboard	Test your microphone	
	Ψ	

- 1. Plug in the USB adapter and connect to the CM900 as shown in the diagram.
- 2. Go to your Sound Settings.
- 3. Make sure **USB Audio Device** is selected for the **Input** device. (Keep your speakers as the Output device.)
- 4. Click Device Properties.



5. Click Additional Device Properties.

You can listen to a portable music player or other device through this Microphone jack. If you connect a microphone, you may hear readback.
Listen to this device: Phylosok through this device:
V Listen to this device Playback through this device:
Playback through this device:
Default Blavback Device
Derault riayback Derice
Power Management
Continue running when on battery power
O Disable automatically to save power

 On the Listen tab, check Listen to this Device.
 (Note: This setting may need to be checked again after Windows software updates.)

4. Setting up Conductor

TIP: throughout the Conductor interface you will see the buttons below.



4.1 Adding the Server

To get started with Conductor you first need to tell the client where to look for the server.* In the login screen, click the button to open the server list, then click + to add your DRS5000 or DRS-VM (your IP address may be different than shown), or modify the server already in the list to reflect the new IP address you gave your DRS5000 or DRS-VM.

The database login is cserv_admin, with a default password calypso.

The first time you log into Conductor as a *user* you will use the username **admin** and the password **admin4conductor**. When prompted to change the password, you can use **calypso** or whatever you want.

					Server Config	guration	x
Conductor Lo	gin X Conductor Server DRS5000 V User Name admin Password Remember password Login Exit	Manage Serve	rs DR55000 + 🔼 –		Server Config	Juration Name DRS5000 Database Server Address 192.168.1.99 Database Port 5432 Database Login cserv_admin Database Password Conductor Server Address (if different than Database Server Conductor Server Port 80	
				Close		URL Rewrite Mode	
						OK Can	cel

4.1.1 Notifier

Notifier is the Conductor app that listens for calls and alerts to the office and rings when one is received. Be sure to add the IP address of your server to the Notifier settings so it can receive calls and alerts. Right click on the Notifier icon in the lower right side of your screen and select **Options** to add the server to Notifier. (You will assign the intercom devices later.)



^{*}To help ensure system performance in a variety of adverse conditions, FrontRow recommends supporting the integrity of the server with a secure location, an Uninterruptible Power Supply (UPS), a regular practice of server backups, and a backup server.

4.2 Adding Devices

The next step in setting up Conductor is to add all your IP audio endpoints (devices) to the devices list so that Conductor can communicate with them. Before doing this step, ensure each FrontRow device has been assigned a unique IP address and name that identifies its location, to help with troubleshooting and testing of audio communications. **IMPORTANT**: Also ensure that your Base Address is set correctly in the System Options (see section 4.12.1. in this guide).



4.2.1 Device Discovery

Conductor can scan for the FrontRow audio devices on the network (on the same subnet) and import them automatically into the devices list. To use Device Discovery go to the **Devices** page, and select **Discover Devices**.



In the dialog that appears, click **Scan**, then make sure all the devices you want to add are checked. Then click **Create Devices**. Tip: To check or uncheck multiple rows at a time, use the Shift or Control key while clicking on rows to select them, then click **Check Selected** or **Uncheck Selected**.

Name	🔺 Туре	IP Address	Attributes	Zones	
Meeting Room 4 - CM3000	CM-3000	10.12.65.116		All Devices	
Meeting Room 3 - CM3000	CM-3000	10.12.65.112		All Devices	
Meeting Room 5 - CM3000	CM-3000	10.12.65.120		All Devices	

Before devices can be added to the device list they must be assigned to at least one zone. A zone is a group of one or more devices. Add a default zone called (for example) **All devices** by selecting **Defaults** from the bottom of the screen below. You can also edit each device individually by using the **Edit** button. When finished, press **Create** and it will add your devices to your device list.

Tip: The Create Devices window allows you to assign multiple devices to a zone at once, by selecting multiple rows then clicking Edit. This is the fastest way to add all your devices to zones if you already know what you want your zones to be. Create your zones before or during this step to avoid assigning zones one at a time later.



Click the **Refresh** button at the bottom of the Devices page to update the Master/Intercom status of your devices. There must be at least one master device in your Conductor setup in order to use the PA or Intercom.

4.2.2 Manually adding devices

Although Device Discovery will be your primary method to add devices, there still may be a need to manually add a device.

- Click on the **Devices** tab on the Conductor client
- Click on the + button to add a new device
- Give your device a name which will be easy for the users to understand. You can optionally add a description to help further identify the device, such as a physical location, IP address, etc.
- Enter the last octet of the device IP address (note the first three octets are greyed out and cannot be changed)
- Create a new zone for this device, if needed

Note that only devices that are valid audio endpoints will appear in your device list.

Conductor Console		- • ×
File Tools Help		
Tasks	frontrow	📫 🗿
BELLS		Zones
ALERTS	Room 140	Classrooms
	Location ect	Classrooms Classrooms
P.A.	IP Address	Classrooms Classrooms
	Add Zone 3	Classrooms All Devices
Configuration	Classrooms	All Devices All Devices
	Zones	Outside Areas All Devices
		All Devices
	Zone Group	
SCHEDULES	100 Coupy	
CALENDAR	+ + - * Creste Zone	
Tools	Intercom Control GPO Intercom Control	
	OK Cancel	
SYSTEM OPTIONS		
	+ → ∠ - ★ → ∰ Refresh @ Discover Devices Manage Attributes Q → Enter filter text D Ation D Ation D Ation	1.44 DM

If you have already created zones you can assign a device to one or more zones by selecting them from the menu in the zones section of the Add Device window.

-		
t	All Devices	
	Bus Loading Zone	
	Gymnasium	
	Hallways	
	Teachers Lounge	

4.2.3 Importing and Exporting

You also have the option of importing and exporting device information using CSV (Comma Separated Value) files. CSV files can be opened or created by spreadsheet programs such as Microsoft Excel. Exporting a file can be very useful for delivering a spreadsheet of device information to the end user. Importing is not as likely to be used due to the addition of Device Discovery, but may still be useful in certain unique situations.



4.2.4 Jumping to a device web page

During configuration, you may need to change the settings on a particular FrontRow device. To open the settings for any specific device, simply right-click on the device in the Devices list and select **Open Device Web Page** or select a device then press CTRL + W. Conductor will launch the default browser and open a web page which displays the settings for that device. You can also do this manually by typing in the IP address of a FrontRow device into the browser.

•	NOOTH 4			10.12.
	Room 5			10.12.
•	Room 6			10.12.
	Hallways _			10.12.
•	Main Offi	Open Device Web Pa	age	10.12.
•	Computer l	ab		10.12.
	Gymnasiun	ı		10.12.

4.2.5 Assigning the PA/Intercom device

The next step is to assign a microphone as the one you will use for paging and intercom. Select **Options** from the **Tools** menu.

🕤 Con	ductor Co	onsole	2-2		1.000		
File	Tools						
Tasks	Ai Ai	udio Conversio udio Sequence	on & Reco es	ording	es		
	ж о	ptions	1 - 11				
	😑 Room 6						
Л	ALERTS Room 1						

Assign your master CM900 device (which will usually have a CB65 PTT microphone attached) as both the PA Device and Intercom Device.

Options	📰 Select Devices	×
General Intercom Devices P.A. Devices Configure the devices you can use to make intercom calls when using this computer. Main Office	Name Location Main Office 3sudent Station	
Use PC Mic + + OK Cancel	Q, v Enter filter text X OK Cancel	

4.2.6 Assigning the Intercom device in Notifier

In order for Notifier to talk to a caller, you will also need to add the master device as an intercom in the Options for Notifier. Again, right-click on the Notifier icon in the tray and select **Options**, then add your master CM900 to the Intercom Devices.



4.3 Adding, deleting or editing a Zone

Zones allow the user to speak to multiple locations at once. For example, the speaker may only want to address certain grades, or just the outside locations. Zones may also be used to select areas of the campus on a map, so create your zones based on both geographical (Building 2) and logical (1st Grade) organization.

Select **Zones**

- To Delete a zone, select it from the list of zones, then click the button.
- To Edit the zone name, color, or device list, select the zone and click the edit (pencil icon) button.
- To Add a zone, click the + button.

😪 Conductor Console				×
File Tools Help				
Tasks	Zones	fron	trow"	📫 🕕
🔔 BELLS	Name 🔺 Group	Description		
	All Devices			
ALERTS	Classrooms			
0	Gymnasium			
INTERCOM	Outside Areas			
P.A.				
Configuration				
SCHEDULES				
CALENDAR				
	+ 🖉 - 🎇 Zone Groups	Q.▼ Enter filter text		
User: user 🔒 Bells: 0	P.A's: 0 Intercoms:	0		● 1:23 PM

When the + button is clicked you will see this screen:

Add Zone		3	
	Zone Name		Provide a logical name for a
÷	Description		 zone such as hallway or K-3 classrooms
	Zone Group		
	(No Group) -	•	Option to place zones in groups
	Devices		
	Name A Location		
	Add or delete locations (devices)		
	+ – OK Cancel]	

Clicking on the + symbol brings up the screen in which you can see all the available devices (usually named by room). Click on the one or more devices that you want to add to the zone. You can select multiple devices at once by holding down the Shift button. Select **OK** and these devices will now be added to your zone. You can easily remove devices from the zone by highlighting the device and selecting the – button.

4.4 Managing Audio Files

Conductor includes a number of audio files for easy setup and configuration, but many schools like to add their own sounds, music, and voice recordings to customize their campus experience. This section explains how to:

- Convert music files to be playable in Conductor
- Record your voice or other audio source
- Create audio sequences

To use any audio file, you must first create an audio sequence. Sequences are used because sometimes you may want to play multiple audio files in succession, or repeat a sound multiple times.

4.4.1 Adding an audio file to Conductor system:

Audio is converted and recorded using a separate application called **Audio Tools**. This tool converts other audio files such as MP3 and WMA files into the WAV format required for Conductor (sometimes even certain WAV files need to be converted using this tool). To use the built-in sounds for Conductor, skip to section 4.4.3.

To import an audio file:

1. In the Conductor Tools menu select Audio Conversion & Recording.

Conductor Console			
File Tools Help			
Tasks	🗙 System Options	frontrow	📫 🕕
🔔 BELLS	General		
ALERTS	Click to make changes.		
	Base Network 10 🗼 . 12	x v v , 65 x v , 0 x	
	Buttons & Triggers		
	Trigger Scripts & Actions		_

- 2. To import an audio file from your desktop (or other location) select Convert Audio.
- 3. Navigate to where your audio file is located.
- 4. Select your file and then click on Convert.
- 5. Give your file a name (avoid special characters such as \$, %, etc.)
- 6. Select Save and your file will be converted and saved on your computer.
- 7. Click on **Upload to Server** and now this file will be available to be used in Conductor system. (If you have more than one Conductor server, you may select which server to save the file. This is useful if managing audio files for a district.)



4.4.2 Recording an audio file:

- 1. Open the Audio Tools and select Record Audio.
- 2. Select the output file location, give the file a name, and click **Save**. (Note that only letters, numbers, and the underscore character are allowed in the file name).
- 3. Select a recording device. This can be the computer's internal microphone or an external type.
- 4. Select **Record** to start the recording. Select **Stop** to end the recording.
- 5. Select Upload to Server to add this new audio file to the server's audio list.

NOTE: the quality of the recording depends very much on the equipment being used, the speaker's experience and the environment. For the best results you may want to record the audio in a location equipped with audio products dedicated to high-quality voice recordings.

Recording H C:\Users\pet so	ile Name p\Desktop\test.wav	
▶ Play	Upload to Server	
Recording I	Device	
Primary Sound	I Capture Driver 👻	
e Rec	ord	

4.4.3 Creating an Audio Sequence:

- 1. Click on Audio Sequences (from the Tools menu or in System Options).
- 2. Select + to create a new sequence.
- **3.** Name the sequence and set the priority. **IMPORTANT:** Conductor can keep track of which audio sequences are more important than the others. Audio sequences for Alert buttons should be set to a **High** priority so that they override other audio in progress (such as bells and music). PA and intercom sessions will override everything, so that spoken communication can always take place.
- 4. If Play Continuously is checked, the sequence will keep playing until stopped manually.
- 5. The Play Count determines how many times Conductor will play through the entire sequence.
- 6. Select + to add one or more files to the list. In the dialog that appears, you can select and play audio files (through the computer speakers), set a specific duration, or add delays to the sequence.

😙 Conductor Console				X
File Tools Help				
Tasks 🕺	System Options	fro	ontrow	📫 🕕
🔔 BELLS	Manage Audio Sequences			*
ALERTS	Name 🔺 Priority	Description		
	Annoucement Medium	Add Audio Se	quence	23
	Attention Medium			
	Ding Medium	Send a din	Sequence Name	
P.A.	Fire Medium		New Alert	
	Intercom Medium		Description	
CONTROL	Morning Bell Medium			E
-	My song Medium			
Configuration	National Anthem Medium		Priority	
	test Medium		Medium	
DEVICES	Wake Up! Medium		Rise Continuously	
	Welcome Medium			
ZONES			Play Count	
			1	
SCHEDULES			Audio	
_	+ 🛍 🖉 🗕 🕨 Test		Audio File Duration	
CALENDAR			alert1.wav Complete	
Tools				
~h~	Users & User Groups			
ZOS ACTIVITY				
	User passwords expire after 90	🔶 da		
SYSTEM OPTIONS	Enable API Security (Password required)		+ ∠ -	T +
	Password		OV	ancel
	, asserta		ŬK (ancer
User admin D Palls 0	DA's 0 Statescome 0 NA-t	ione: 0 di) 11/12		2,20 044
User: admin 🔠 Bells: U	P.A S: U Intercoms: U Act	ions: 0 400 11/13		• 3:30 PM .::

4.5 Creating Bell Schedules

The Conductor system makes creating and managing bell schedules easy for schools. There are two parts to creating bell schedules.

- 1. Schedules A schedule is list of events (such as bells) that will happen at specified times.
- 2. Calendar Each calendar day can run one schedule. This is where you assign which schedules will run on which days.

4.5.1 Creating a new schedule:

- 1. Click on the left + button to add a new schedule.
- 2. Give it a name and assign it a color. Assigning a color makes it easy to see which schedule (also known as a template) is running for each day.
- **3.** Click on the right **+** to add a timed event:
 - give it a name
 - select a start time
 - choose the appropriate audio sequence
 - select the zones where the audio will play
 - click **OK** to add the event to the schedule
- 4. Add more timed events as needed (tip: use the duplicate button to repeat an event multiple times in the day).

Note that Conductor can play different audio sequences for different zones at the same time, should that be necessary.

File Tools Help				
Tasks	🚨 Schedules		frontrow ⁻	Ń
L BELLS	Templates		Add Event 🔯	
ALERTS	Early Release	8 am	am Name Colour	
		9 am		
Р.А.			Audio Sequence	
		10 am	am Zones	
Configuration		11 am		
(DEVICES		11 dill		
		Noon		
SCHEDULES			+ • - * Create Zone Trigger Script	
CALENDAR		1 pm	(No Trigger) v	
Tools		2 pm	OK Cancel	
SYSTEM OPTIONS		3 pm	m	
	+ 📾 🖉 -			

P Conductor Console _ 🗆 🗙 File Tools Help frontrow^{*} Tasks Schedules A BELLS Templates 8 am Early Release 8:05 AM: Start of school ALERTS Audio: Morning Bell Zones: All Devices INTERCOM 9 am 9:00 AM: Second Period Audio: Ding Zones: All Devices 8 P.A. 10 am 10:00 AM: Third Period Configuration Audio: Ding Zones: All Devices ZONES 11 am 11:00 AM: Fourth Period Audio: Ding Zones: All Devices SCHEDULES CALENDAR 12:00 PM: Lunch Noon Audio: Ding Zones: All Devices 1:00 PM: Fifth Period 1 pm Audio: Ding Zones: All Devices 2:00 PM: Sixth period 2 pm Audio: Ding Zones: All Devices 3 pm 3:00 PM: End of school Audio: Ding Zones: All Devices 4 pm + 🖻 🖉 -+ 🖻 🖉 -🔒 Bells: 0 P.A's: 0 S Intercoms: 0 ▷ Actions: 0 动) 12/13 🔵 3:13 PM User: user

Below, there are two schedules: Early Release and Normal Bells.

4.5.2 Adding schedules to the Calendar

You now need to assign the schedules you created to the days of the school year.

The fastest way to do this is to use the **Edit Range** feature to assign the normal schedule to all the school weekdays, then go back and assign any exceptions (early release, holidays) to those specific calendar days.

You can also select a range of days by drag-selecting an area of days, or using shift/control-clicking for multiple selections.

To assign or change a template to a specific day, highlight the template, highlight the day and then click on **Assign** (near the bottom left side).

Day Template	
Regular Day	
Days	
Week Days 🔹	
Date Start	
Friday , January 03, 2014 🗐 🖛	
Date End	
Friday , June 06, 2014 🗐 🔻	
Overwrite Existing	



4.6 Creating Alert Buttons

An alert button can be used in an emergency to warn people about a fire, intruder, weather, or other scenario. An alert can not only play audio, but can also trigger other actions such as digital signage, door locks, emergency lighting, or activate other devices that can be controlled over the network, serial, IR, or relays. For example, projectors can be made to display evacuation maps using a command to display a stored image.

IMPORTANT: System design and proper implementation is the responsibility of user or user's agents. Conductor must be properly configured and programmed in accordance with the user's system design. Failure to do so could impair Conductor's functionality, including emergency communication and alerts. To help ensure system performance in a variety of adverse conditions, FrontRow recommends supporting the integrity of the server with a secure location, an Uninterruptible Power Supply (UPS), a regular practice of server backups, and a backup server.

4.6.1 Creating an alert button:

- 1. Click on System Options (accessing this section may require admin privileges).
- 2. Select Buttons and Triggers > Emergency Alert Buttons.
- **3.** Click on **+** to add an alert button.
- 4. Fill in the caption that will be displayed on the button and choose an icon for the button.
- 5. Select or enter a category for the button.
- 6. Add an audio sequence to be played when this alert is initiated.
- 7. Optionally, depending on your permissions, you can choose to have an email sent and a defined trigger event. A trigger event can be something like *lock all outside doors*.
- 8. Checking **Confirm Activation** will prompt are you sure? when the button is pressed.
- **9.** If **Output to All Zones** is not checked, the user will be prompted to select where they want the audio to be played when the button is pressed.
- **10.** Click on **OK** to save the button.

😙 Cond	luctor Console				- 🗆 X
File	Tools Help				
Tasks		💥 System Options	frontrov	N" tor	📫 🚺
1	BELLS	Click to make changes.			1
1	ALERTS	Base Network 10	Edit Emergency Alert Buttons		
٩,	INTERCOM	Buttons & Triggers	BELL Buttons Category: Emergency	Add Button	8
	P.A.	Trigger Scripts & Action		BELL Flood	
\triangleright	CONTROL	Emergency Alert Buttons	Category: Drills	Description	
Config	guration	Audio	Intruder Weather		
(())	DEVICES	Audio Files Annunciators		Icon	
	ZONES	Intercom Starting Inter	rom	Category	
	SCHEDULES	P.A. Starting Atter	tion + -	Emergency Audio Sequence To Play	• •
	CALENDAR	Intercom Busy Ding	Button Size Normal	(No Audio Sequence) Send Email	-
Tools		Security	Show Icons	(Do Not Send Email)	
3	ACTIVITY	Users & User Groups		(No Trigger)	
*	SYSTEM OPTIONS	User passwords expire after Enable API Security (Passwor	90 days d required)	Confirm Activation	
*	DIAGNOSTICS	Password		OK Cano	cel
User: adr	min 🔒 Bells: 0	P.A's: 0 Intercoms: 0	> Actions: 0 単)) 11/13		• 1:49 PM

4.6.2 Using alert buttons with ezRoom ClassLight

If your site is using Conductor with rooms equipped with a ClassLight (ELEVATE, Smart Receiver), the alert buttons can be configured to give visual notification by displaying colors and/or a strobe light in classrooms when an alert button is pressed in Conductor. (Juno Connect will display the colors on the LCD screen).

To set up the ClassLight notification in Conductor:

Create an Action

1. Click on Systems Options (accessing this section may require admin privileges).

2. Select Trigger Scripts and Actions.

- 3. Select Actions.
- 4. Click on the + to create an Action



5. Create a Control Command Action



- 6. Name the action and add an optional description
- **7.** Create one of five options for different alert types to be displayed by the ClassLight (for more on programming the CM900, ICR-01 Smart Receiver, or Juno Connect, see the respective Setup Guides).
- 8. In the Command Text box, enter **#PAS["HPS",M1]**; for the Priority Alert 1 colors to be displayed
- **9.** For the different Priority Alert color versions, change the number following the **M** to **1**, **2**, **3**, **4** or **5**. You can also send #PAS["OFF"]; as a command to any or all ezRooms to turn off the ClassLight alert.

10. In the Send To dropdown choose Specified IP address.

11. Using the base network address for the FrontRow endpoints, change the last three digits to 255 (this will send the action as a broadcast to all devices in the IP range)

Add Action	×
	Name
/	Priority Alert 1
5	Description
	Used to send control action to Smart Receiver or Juno Connect to display color indicating a Priority Alert 1 has been activated
	Command Text
	#PAS["HPS",M1]; & ▼
	Send To
	Specified IP Address 🗸
	IP Address
	10 🔹 . 12 🔹 . 132 🔹 . 255 🔹
	Port
	7262
	Protocol
	O TCP
	UDP
	Wait Time
	400 🚔 milliseconds
	OK Cancel

12. Select **UDP** as the protocol and click **OK**.

Create a Trigger Script

1. Click Trigger Scripts and Actions

- 2. Click + to create a new Trigger Script
- 3. Click + to add an Action (created in steps 5 9 above)
- 4. Click one of the Actions and click OK (this can be combined with other Actions that will be triggered at the same time)
- 5. Name the Trigger Script, add an optional description and click **OK**.
- 6. Add the Trigger Script to an Alert Button. Follow the directions for creating an Alert Button in section 4.6.1

NOTE: For more on creating Actions and Trigger Scripts, see section 4.10



4.7 Creating Bell Buttons

Bell buttons are used for playing a tone, pre-recorded music, or voice message manually at any time. This might be used for the national anthem, a tone to warn students to get back to class, or before a sports event.

4.7.1 Creating a bell button:

1. Click on System Options (accessing this section may require admin privileges).

2. Select Buttons and Triggers > Bell Buttons.

- **3.** Click on the **+** button to add a button.
- 4. Fill in the caption that will be displayed on the button and choose an icon for the button.
- **5.** Select or enter a category for the button.
- 6. Add an audio sequence to be played when the button is pressed.
- 7. Confirm Activation will prompt are you sure? when the button is pressed.
- 8. If **Output to All Zones** is not checked, the user will be prompted to select where they want the audio to be played when the button is pressed.
- 9. Click on **OK** to save the button.

Conductor Console			×
File Tools Help			
Tasks	💥 System Options	frontrow	📫 🕕
L BELLS	Click to make changes.		
	Base Network 10 🔭 . 12	Edit Bell / Tone Buttons	
	Buttons & Triggers	BELL Buttons Category: Bells Add Button	2
P.A.	Trigger Scripts & Actions Bell Buttons	Artention Caption Ception Ception	
	Emergency Alert Buttons	National Ar Game Day	
Configuration	Audio		
DEVICES	Audio Files	Icon	
	Intercom Starting	•	
SCHEDULES	P.A. Starting Attention Intercom Ringing Intercom	Category Bells	-
CALENDAR	Intercom Busy Ding	Button Size Audio Sequence To Play Normal (No Audio Sequence)	•
Tools	Security	Show Icons Send Email (Do Not Send Email)	
	Users & User Groups	Trigger Script	
SYSTEM OPTIONS	User passwords expire after 90 Enable API Security (Password required)	days Confirm Activation	
DIAGNOSTICS	Password	Output To All Zones	Cancel
User: admin 🔒 Bells: 0	P.A's: 0 Intercoms: 0 > Actions	s: 0 ===================================	1:54 Pl

4.8 Adding Maps and Images

Conductor allows you to import maps and images in BMP, JPG, PNG, and TIFF formats, so that users can call a specific area by clicking on a map, or use a custom graphic with buttons to page or intercom to a specific zone or classroom.

File Tools Help				
Tasks	P.A.		frontrow	
🔔 BELLS	To start your announ Tip: Hold down the Si	cement, choose one of t HIFT or CTRL key while s	ne buttons on the right to specify the Zones you want to speak to. electing rows to choose multiple zones.	Call Using a
ALERTS	Name	Group	Description	
	All Devices			Speak To All Zo
	Classrooms			
S INTERCOM	Outside Areas			Speak To Selected
a	Gymnasium			
🥑 Р.А.	Blank			Use Advanced Sel
CONTROL				
0				
Configuration				

4.8.1 Adding maps and images

- 1. Select System Options and scroll to the bottom of the window.
- 2. Select Maps and Images.
- 3. Click on the + button to add a map or image.
- 4. Browse and select an image file, then give it a name and click **OK**.

Tasks	💥 System Options	frontrow	
🔔 BELLS	Users & User Groups		
	User pas Manage Maps &	Images 🛛	
	Enable A Passwor	image Name	_
P.A.		Add Map or Image	
	Scheduler Day Start	Name Name New Mapl	
Configuration	8:00:00 AM	Console	
(O)) DEVICES	SMTP Email		
	User Name		
SCHEDULES	Use TLS/		
CALENDAR	Server R Email Lists	Select	
Tools	Administra	OK Cancel	
		- @ View	
	+ 1	Close	
	Information		
	Text Notes	Maps & Images	

4.8.2 Editing the maps and image list

- 1. Click Edit (pencil icon) to change the name of the map.
- 2. Reorder the maps by selecting the **up** and **down arrows**.
- 3. Click **View** to bring up the hotspot editor.

Manage Map	os & Images	-	
	Image	Name	
		Мар	
		Console	
	+ ∠ -	♥ View	Close

4.8.3 Example of a custom graphic

You can use a custom graphic created in Adobe Photoshop or similar program to make a *console* for the user that offers a button for each of their favorite zones they will be paging. The graphic might include the school name, school colors, logo, or mascot. (An example in the PSD PhotoShop file format is included on the Flashback USB drive.)

📴 View Map: Console 60% (Fit to Window)					
Actual S	🗅 Actual Size 🖶 Fit 🔍 🔍 🔍 Add Hotspot 🔤 🖉 Close				
		FrontRo	w School		
	Kindergarten	1st Grade	2nd Grade	3rd Grade	
	4th Grade	5th Grade	6th Grade	7th Grade	
	_		_		
	All Inside	All Outside	K-4	5-7	

4.8.4 Creating hotspots

Each map hotspot can be assigned to either a zone or a device. If assigned to a zone it will be available for paging (one-way). If assigned to a device it will be available for intercom (two-way). Shown below is a map with several hotspots (the colored boxes) already created.

To add a hotspot:

- 1. Click Add Hotspot.
- 2. Drag a rectangular box around the area you wish to assign to a device or zone.
- 3. In the window that appears, assign a color, name, and a device or zone.

Tip: To make a non-rectangular area selectable with a single click, create multiple hotspots with the same color and assign them to the same zone.



4.9 Managing Users, Permissions and Security

The school may assign responsibility for communications to multiple people, each accessing Conductor for the same or different purposes. Whether there are multiple computers running Conductor or just one, each person should have their own login and password, with the appropriate permissions enabled. This section shows how to set up multiple users. (**NOTE:** Editing the database (bell schedule, device list) on multiple computers simultaneously is not supported.)

4.9.1 To Add a New User:

- 1. Click on System Options (accessing this section may require admin privileges).
- 2. Under Security click on Users & User Groups. A user group is a collection of users with similar privileges.
- 3. Double-click a group to open the list of users in that group (to create a new group click the + button).
- **4.** In the **Edit User Group** window, select the **+** button, then give the new user a User Name, Full Name, Description (optional), Password and set the options for the user's login rules.
- 5. Click on **OK** to save the new user.
- **6.** When this user logs into a Conductor system they will now be presented with only the items that they have permission to access. (Note the group permissions for each group these affect what is displayed in Conductor for those users when logged in.)

IMPORTANT: A lost or forgotten password can complicate FrontRow's ability to diagnose problems and help you use Conductor most effectively. Be sure to record and manage all designated passwords carefully!

😜 Conductor Console			×
File Tools Help			
Tasks	🗙 System Options		11
BELLS	Click to make changes.	Edit User Group	
ALERTS	Base Network 10 🔭 . 12 👘 . 65	Name Users	
	Butt User Groups	Description	!
P.A.	Name Description Administrators Preinstalled admin	Users Sers Sers Description	
	Users	user user	
Configuration	Audi		E
		+ 🖌 – 🍦 🖋 Change Password	
		Group Permissions Image: Use bells & tones	
CALENDAR		✓ Use emergency alerts✓ Use the P.A.	E -
Tools	Secu + ∠ -	 ✓ Use the intercom ✓ Manage users & user groups 	
ΑCΤΙΛΙΤΛ		Manage audio sequences Manage devices	
	Enable API Security (Password required)	Manage zones	~
	Password	ОК	Cancel
	Scheduler		
	Day Start Day End		
	8:00:00 AM 4:00:00 PM		-
User: admin 🔒 Bells: 0	🖪 P.A's: 0 🔨 Intercoms: 0 🕞 Actions: 0	(i) 10/13	12:40 PM _:

4.9.2 Passwords

From the file menu the user can also change their password. Use caution when changing passwords!

🕤 Conductor Console		
Fie Tools Help		
. 粥 Change Password	3/	
Logout	X System Options	
Exit	Click to make ch	
ALERTS	Base Network	
	Buttons & Triggers	
INTERCOM	Trigger Scripts & ,	
Р.А.	Bell Button:	
	Emergency Alert E	
	Audio	

Set Password	X
	Please enter a new password.
<u>श</u> ी म् <u>य</u>	Current Password
	New Password
	Retype New Password
1	OK Cancel

4.10 Triggers and Actions

Triggers Scripts

The Conductor has the ability to send and receive commands. These commands can be attached to emergency buttons, activated from a third party device, etc. Because of this feature the Conductor adds even greater value to a school's safety and security communications.

There are two fundamental parts to this feature:

Trigger Script – think of this as a *super macro* where one or many individual actions can be combined together under a single named event.

Actions – these are the individual commands or activities that can be added to the Trigger Script. Because a Trigger Script relies on Actions, the Actions must be created first.

4.10.1 Creating an Action:

Select System Options \rightarrow Trigger Scripts & Actions \rightarrow Actions \rightarrow Select the + button to add an action type.

Action types

- Control Command Action used to send control commands to an IP address
- Pause Action used to add pauses in between commands
- System Command Action used to invoke a command on the DRS server OS
- Play Audio Sequence Action causes an audio sequence to play to specified locations
- Intercom Action use this action to create an Intercom trigger from an external interface
- P.A. Action use this action to create a paging action from an external interface (such as the CMP500)
- Email Action this action allows for email messages to be attached to triggers, such as LOCKDOWN

File Tools Help		
Tasks	System Options frontrow	M (
🔔 BELLS	Conductor	
	Click to make changes. Base Network 192 0 168 0 0 0	
P.A.	Buttons & Triggers Trigger Scripts & Actions	
CONTROL	🖬 Manage Trigger Scripts	×
Configuration	Name A Enabled Description	
(DEVICES	Aud Fire Manage Actions	×
	SendMail Name A Type Description	
SCHEDULES	Acknowledge Comma Attention All Clear Play	
CALENDAR	ConductorMail_Alert Email Fire Play	
Tools	Lockdown Play	
ΑCTIVITY	Sec. PASoff Comman.	
	Pause Action System Command Action	
DIAGNOSTICS	Play Audio Sequence Action Intercom Action P.A. Action Email Action Email Action + • Test	
	7:00:00 AM Add Action	Close
	Email	
	SMTP Port smtp.mail.yahoo.com 465	
	User Name Password frontrowcalypso@yahoa.	

Below is an example of creating a **Control Command Action** to pulse a relay on a CM800. An example usage of this command would be to send a trigger to an automated locking system that would cause a lockdown script to be initiated. An Action cannot be initiated directly (other than to test) and must be added to a Trigger Script, even if there is only a single Action.

Edit Comman	id Action
	Name
\geq	Lockdown Relay Pulse
-	Description
	send trigger to lockdown system
	Command Text close relay 1 for approx 1/2 sec (4.4ms x 120)
	#GP01["CLOSE",D120];
	Send To
	Specified IP Address
	IP Address send command to either a defined
	192 🗼 . 168 🔿 . 1 🔄 . 125 🚔 👉 device or to a specific IP address
	Port
	7262
	Protocol
	● TCP
	© UDP
	Wait Time
	400 milliseconds
	OK Cancel

The options in the submenu for displaying text and graphics are for use with the FrontRow CB6000 touch control panel. This might be used to show messages, a red alert graphic, the state or national flag, school logo, or anything else the school can come up with.

dd Action		
\triangleright	Name	
	Description	3
	Command Text	**
	Send To	Display Text
	Specified IP Address	Store Text
	IP Address 10 🖕 . 12 🖕 . 132 🖕 . 17 🖕	Clear Stored Text Display Stored Text
	Port	Display Stored Graphic
	7262	
	Protocol © TCP © UDP	
	Wait Time	
	400 millisseands	

The control action can also be used to send text patterns to the IP addresses of computers running FrontRow Encore software. Encore can be configured to display full screen pop-up messages when it receives those messages, making it very useful for pop-up alerts in the event of an emergency. See the *Encore User Guide* for more information on using patterns. (Also be sure that the Firewall rules for the PC are setup correctly to allow inbound connections to the same port used by Encore to receive the pattern.)

Add Action	
	Name Encore Pop-UP
	Description
	Sends the pattern "lockdown" to Encore on the teacher's computer
	Command Text
	lockdown 😽 🔻
	Send To
	Specified IP Address 🔻
	IP Address 10 12 132 17
	Port
	© TCP
	O UDP
	Wait Time
	400 milliseconds
	OK Cancel

Similar to the commands used to program the CM900 or CB6000 devices, you can use the FrontRow syntax to send a network command to any device. However, since the IP address and port is specified in this dialog, you only need to enter the actual command in the Command Text field.

For example, if you wanted to tell a projector attached to the serial port of a CM900 to turn on, the commands for each scenario might look like the below chart (note that the **POWR1 \r** string is only an example and may vary depending on manufacturer):

Action command in a CB6000 or CB2000	Action command in the CM900	Command Text in Conductor Control Action dialog
#NET[F1, @{CM900}, P7262, '#COM1[T1,"POWR1 \r"];'];	#COM1[T1,"POWR1 \r"];	#COM1[T1,"POWR1 \r"];

For a network command, you only need to enter the actual text to send to the network device. For example, to mute the audio from a CM900, you would enter:

#AUD1[M0]

in the Command Text field.

4.10.2 Creating a Trigger Script

Select **Trigger Scripts and Actions** \rightarrow + to add a Trigger Script \rightarrow Name the script (note that spaces are not allowed in the name), select the + to add the Actions you've created to this script.

🕤 Conductor Console		
File Tools Help		
Tasks	X System Options frontrow.	👔 🕕
🔔 BELLS	General	-
ALERTS	Click to make changes.	
	Reger Trigger Scripts	
P.A.	But PepRally V Name Name	
	Fire V Description	=
Configuration		
(C)) DEVICES	Aur	
ZONES	Actions Alert Email Staff	
SCHEDULES		
CALENDAR		
Tools	+ % ∠ - ▷ Actions	
ACTIVITY	+ - ▷ Edit Actions	++
SYSTEM OPTIONS	User passwords expire after 90 ± days	er/Storm
	Enable API Security (Password required) Password OK	Cancel
	Scheduler	
User: admin 🔒 Bells: 0	P.A's: 0 Intercoms: 0 > Actions: 0 40 10/13	● 11:04 AM:

Note that there is a URL associated with the trigger script. This URL can be loaded into the FrontRow CB6000 or CB2000 control panels, or the Encore or Teacher Edition control software, to allow the trigger to be executed from those sources. This is useful if you want the teachers to be able to trigger the lockdown or alert (to save time).

Any administrator can also add a bookmark to their smartphone home screen associated with this URL, allowing them to trigger the alert from wherever they are on campus by clicking the link!

Note that if API security is enabled in System Options then the URL will need to have the password added. (i.e: if the API password is **frontrow** then the string might look like http://192.168.1.99:80/calypso/conductor/:frontrow/trigger/Fire).

4.11 Receiving Calls and Alerts

Conductor Notifier can receive call requests and alerts from classrooms or any location. Notifier should be installed on the admin station PC, and also on any administrator's PC or Mac. (The Mac version of Notifier is a separate installer.) Notifier is part of the Windows Conductor installer and can be installed without the main application. You may want to turn off **Receive Intercom Notifications** in the Notifier Options for all computers except the Admin Station computer, so that the other administrator only receive emergency alerts.

The format for sending a call request to Conductor Notifier is:

http://192.168.1.99/calypso/conductor/call/192.168.1.103

- 192.168.1.99 represents the address of the server.
- 192.169.1.103 represents the address of the audio device that is initiating the call. If the device sending the call is the actual audio device (i.e: Juno Connect) you do not need to add this IP address to the string. If using a classroom CB6000 to send the call request, then this IP address would refer to the Smart Receiver, CM900 or Juno Connect for that classroom.
- From a FrontRow networked device, use an #HTP command in the action or event: #HTP[http://192.168.1.99/calypso/conductor/call/192.168.1.103];

X
Answer

A call request received by Notifier

The format for sending an alert to Conductor Notifier is:

http://192.168.1.99/calypso/conductor/alert/192.168.1.103/Send%20help

- 192.168.1.99 represents the address of the server.
- 192.168.1.103 represents the address of the audio device sending the call. This part of the string is optional, but if included the device name (often the room name) will be shown in the **location** area of the **Notification** window.
- The characters after the alert/ part of the string will be shown in the Notifier window. Use this to show which room is sending the alert. The %20 characters will result in a space when shown in Notifier.
- From a FrontRow networked device, use an #HTP command in the action or event: #HTP[http://192.168.1.99/calypso/conductor/alert/Send%20help];

Conductor Notifier	×
Alert: PM5 308 ICR	10:21:24
Alert from PMS 308	
Acknowledge	Answer



When the alert is received on an Admin station equipped with FrontRow intercom functionality, it can be answered directly from the Notifier application or the alert can simply be acknowledged*, in both cases this will stop the alarm tone. Once someone answers or acknowledges an alert, all other instances of Notifier running on other user's computers will stop ringing, and only then can users **Dismiss** the alert.

*In rooms that are equipped with a ClassLight, the system can be configured to give visual and/or audible notification that an alert was received by Conductor. When an alert is acknowledged by a person using the Notifier application, the color of the ClassLight can be configured to change, letting people in the classroom know that a person has seen the alert.

4.12 Other Options

4.12.1 General section of systems options

The General section of System Options displays the base network address, which is basically just the default IP address for new devices and other dialogs that Conductor displays. In order to prevent accidental changing of this network there is a lock button. Make sure this is set to the proper subnet.

💥 System Options	frontrow
General	
Click to make changes.	
Base Network 10 A	▲ ↓ 0 ▲ ▼ ⋅ 0 ▲
Buttons & Triggers	

4.12.2 Activity

When an activity is occurring within the Conductor (such as playing a bell or song) there will be a small red circle by the **Activity** tab to let the user know this status. Sometimes it is necessary to manually halt an activity. To do so select the **Activity** tab and then click on the **red X** under the stop button.



4.12.3 Control buttons

You can add buttons to the Conductor interface under the **Control** view that can initiate actions that may not make sense in other areas. For example you may want a button to *Lock Doors* or *Shut down all projectors*.

Control buttons can be by clicking on **Control Buttons** in the **System Options** and selecting a trigger script that the button should execute when pressed.

Conductor Console				- D X
File Tools Help				
Tasks	💥 System Options	frontrow"		M 🕕
A BELLS	General			
ALERTS	Click to make changes.			
	Base Network 10 🛕 . 12 🛕 .	65 🔹 . 0 🛓	it Control Buttons	X I
Р.А.	Buttons & Triggers Trigger Scripts & Actions		BELL Buttons Category: All Controls Shut down all projectors	
	Bell Buttons	P.A. Buttons	Lock Doors	Edit Button
Configuration	Emergency Alert Buttons	Control Buttons		BELL Lock Doors
(DEVICES	Audio			Description
	Audio Files Annunciators	Audio Sequences		
	Intercom Starting Intercom P.A. Starting Attention	• •		Icon
CALENDAR	Intercom Ringing Intercom	•	+ ∠ -	Category
Tools	Intercom Busy Ding	•	Button Size Normal	All Controls Trigger Script
	Security		Show Icons	Fire
	User passwords expire after 90	days	UK	OK Cancel
	Enable API Security (Password required) Password			
	Scheduler			
User: admin 🔒 Bells: 0	P.A's: 0 Intercoms: 0 DActions: 0	助) 10/13		● 11:42 AM



4.12.4 Email and Text Message Notifications

The Conductor allows you to send emails to a mailing list as part of a trigger script action. This can be very useful for alerting administrative personnel (or even law enforcement) to let them know that an incident has occurred.

The email options can be found in **Systems Options** → **Email**

Step 1 In the window below, enter your SMTP email server and port information.

NOTE: 465 is typically used with SSL transport. 587 is used with TLS transport. Port 25 is usually associated with no TLS or SSL. Check with the school IT department for the appropriate Email settings information.

Enter the User Name and Password required by the school for sending email. Then click + to create your email list.

CALENDAR	Email SMTP Email Server SMTP Port	
Tools	smtp.myschool.com	
	User Name Password	
	Use TLS/SSL Encryption Server Requires STARTTLS Command Email Lists	
DIAGNOSTICS	Administrators	
	+ 🖻 🖉 –	

- Enter the name of the email list. This list can be a single email address or a group.
- Click + to add en email recipient's address (repeat as needed for all recipients)
- Enter the **Reply To Address** (required)
- Enter the **Message Body** for the Email Trigger

Edit Email		23
A	Name	
	Administrators	
	Email Addresses	_
	principal@myschool.com	
	+ ∠ -	
	Reply To Address	
	admin@myschool.com	
	Message Body	
	A lockdown has been initiated at My School.	7
	OK Cancel	

Step 2 Create a Trigger Script that includes this newly created email list

Set this up as you would any other Trigger Script (as described in the Trigger Script section). This time the action that you will be creating is an **Email Action**.

Add the mailing list to the action.

	Name	🔺 Туре	Description	
	Alert	Play		
	Email Principal	Email		
	Email Staff	Email	Edit Emai	I Action
Annu	Lighting	Email		Name
	Lock Doors	Email		> Email Principal
				Desciption
				Email List
by I				Administrators
	+- 🖻 🖉 -	Test		OK Cancel

Sending Text Messages

You can also use the email notification feature of Conductor to send text messages to mobile phones using the email-to-text feature provided by every wireless carrier. For example, if your phone number on Verizon Wireless is 707-555-1234, you would send an email to 7075551234@vtext.com.

Here are the email-to-text address formats for common US carriers:

- AT&T cellnumber@txt.att.net
- Verizon cellnumber@vtext.com
- T-Mobile cellnumber@tmomail.net
- Sprint PCS cellnumber@messaging.sprintpcs.com
- Virgin Mobile cellnumber@vmobl.com
- US Cellular cellnumber@email.uscc.net
- Nextel cellnumber@messaging.nextel.com
- Boost cellnumber@myboostmobile.com
- Alltel cellnumber@message.alltel.com

lit Email		●●●●○ T-Mobile Wi-Fi 🗢 12:19 PM	1 % 🔳
A	Name	Kessages (1) 950-7	Details
	School Alert	Text Message Today 12:15 PM	
-	Email Addresses	sepe@cofrontrow.com (School	
	7075551234@tmomail.net	Alert (Conductor server) / Message from Conductor server: A fire has been detected! Please follow evacuation procedures.	
	+ Z - Reply To Address		
	sepe@gofrontrow.com		
	Message Body		
	A fire has been detected! Please follow evacuation procedures.		
	OK Cancel	-	

For other carriers, including international carriers, search for **email to text** on the carrier's web site, or try this list: <u>http://www.livejournal.com/tools/textmessage.bml?mode=details</u>

To use text messaging in Conductor, simply get the phone number and carrier name from each person you want to send messages to, then add the appropriate addresses to the Email Lists in Conductor.

Tip: An easy way to find the wireless carrier for a particular phone number is to use a web site such as: www.freecarrierlookup.com

Remember that text messages have a character limit (120-160 depending on the country) so keep your email name and message short. Test your email to make sure nothing is truncated.

4.12.5 Text notes

Conductor allows you to place text notes and images within the interface that can be toggled ON/OFF. This can be very useful to instantly access important information such as, what are the procedures to follow in the event of a lockdown?

Conductor Console			×
File Tools Help			\frown
Tasks	💥 System Options	frontrow	Text Notes
L BELLS	Users & User Groups		Aschool Notes
ALERTS	User passwords expire after	days	
	Enable API Security (Password r Manager Password	ge Text Notes	
P.A.		School Notes	Put instructions here for emerge procedues, contact information, reminders on how to use certain
	Day Start Day En		features.
Configuration	8:00:00 AM		
DEVICES	SMTP Email Server		
	smtp.myschool.com User Name Passwo		
SCHEDULES	Use TLS/SSL Encryption		
CALENDAR	Server Requires STARTTLS Com Email Lists		
Tools	Administrators	+ / - + +	
ΑCΤΙΛΙΤΥ		Close	
SYSTEM OPTIONS	+ % 2 -		J
DIAGNOSTICS	Information Text Notes	Maps & Images	
User: admin 🔒 Bells: 0	P.A's: 0 Nitercoms: 0 D Act	cions: 0 ຟ(ເ) 10/13	T2:49 P

4.12.6 Diagnostics

The Conductor maintains a continuous log of activities and allows for this information to be exported as a troubleshooting aid if needed. Using this section should be done with the guidance of FrontRow tech support.

To access this section select the **Diagnostics** tab. In this area you will see the log of activity and can export the log file to a preferred location. This file would then be sent to Frontrow technical support in the event of a troubleshooting session that cannot be resolved using the standard techniques.



4.13 Setting Up the Conductor Mobile App

The Conductor Mobile App lets you use an iOS mobile device to activate your most important Conductor Trigger Scripts and Actions that you set up in Section 4.11. This can be extremely useful for school administrators who may be moving about campus and can't always be near a Conductor console.

4.13.1 Getting the App

Search for, download, and install the FrontRow Conductor Mobile App from the App Store (if using an iOS device).

4.13.2 Understanding the App

The *FrontRow Conductor Mobile App* lets you create up to 6 buttons that, when pressed, will activate any Conductor Trigger Scripts and Actions that you set up in Section 4.11. There are two ways that the app can communicate with the Conductor server to activate these:

- 1. When your mobile device is on the same **wireless LAN** as the Conductor server. This is generally the fastest method, but of course has the limitation of needing to be within range of the campus wireless network to function.
- 2. Via the **telephone network**, when you have installed a FrontRow CMP500 phone interface as part of your Conductor implementation. This is the slower method (since the app needs to first dial a phone number and make connection with the CMP500, then trigger the Conductor script/action from there); however, this method is more flexible since it allows the app to function wherever the mobile device may be so long as it is within cellular network range. It also of course makes it easier to use the app to initiate voice paging. For these reasons, we strongly recommend incorporating the CMP500 in your Conductor architecture if you intend to use the app for critical communication and actions.

To ensure successful triggers using the CMP500, you may use two methods:

- 1. Create a Conductor trigger specifically for the CMP500. These triggers use a prefix defined in the CMP500 settings. Detailed steps can be found in the CMP500 Configuration Guide
- 2. Create a CMP500 Event to invoke any Conductor trigger. This technique is similar to how you would invoke Conductor triggers through other FrontRow devices (i.e. CB6000, CB2000) and are usually "#HTP" or "#NET" commands.

4.13.3 Basic Set Up

1. We strongly recommend that you use the *Conductor Mobile App's* **geolocation monitoring** feature for maximum performance, especially if you have not installed the CMP500 phone interface in your Conductor deployment (see Section 4.12.2).

The geolocation feature prompts the app to reconnect to your Conductor server in the background whenever your device enters the location radius you set in Step 6 below. This can help keep the app ready for fastest response when you're in wireless LAN range.

Some mobile phones may terminate the *Conductor Mobile App* when inactive, so if you choose not to enable the geolocation-based checking for a server connection, it's more likely that you will need to manually reconnect to the server, even when you re-enter wireless range. (When starting the app, a notice will appear at the top warning you of a loss of server connection; tap this to attempt a reconnection.) Note that the app can still function even without connection to the server as long as you have installed the CMP500 phone interface as part of your Conductor implementation and have cellular service (see Section 4.13.2).

When you first launch the iOS app, you will be prompted for Notifications and Location permissions. Accept **both** if you plan to use the geolocation monitoring feature.

- 2. Tap on the **Settings** icon in the top right of the app.
- 3. Enter your Conductor server IP address.
- 4. If you have a CMP500 (Phone Interface) installed for paging and other actions via the telephone system, enter the Conductor Phone Number and Call-in Security Passcode (if enabled). Be sure the passcode includes the # key at the end.

Carrier 🗢	10:11 AM					
Cancel	Settings	Save				
CONDUCTOR SERVER						
192.168.1.253						
Conductor Phor	e Number					
Call-in Security I	Passcode					
To use the Conduc school network and Conductor server.	tor app, this device mu d have a route to the Fr	ist be on the ontRow				
API SECURITY						
API Password						
Use only if API Sec	urity is enabled in Con	ductor.				
CHECK FOR SERVE	R CONNECTION AT A	LOCATION				
Enabled						
Specify the location the boundary acco the campus. The ap access the Conduc	n of your campus, and rding to the WiFi cover op requires WiFi acces ttor server	set the size of age area for s in order to				

- 5. If your server has API security enabled, enter the key into the **API Security** field.
- 6. Set up your geofence (recommended; see Step 1):
 - a. For iOS devices:
 - 1. Make sure **Check for Server Connection** at a Location is enabled.
 - 2. Tap on Location.
 - 3. The app should automatically zoom into your current location. For best results, choose a location that's at the center of your campus' wireless network coverage.
 - 4. Set your desired radius in meters. Note that the geofence should ideally correspond to the size/location of your campus' wireless coverage; not necessarily the campus' physical boundaries.
 - 5. Click **Add**.



Radius (m) 50

- 7. Choose the number of buttons you would like. The minimum is 1; the maximum is 6.
- 8. Configure each button as follows:
 - a. The name can be anything you like (but we recommend being consistent with the name shown in the Conductor console). Text and emoji both work.
 - b. The script is the name of a Trigger Script you defined in Conductor (see Section 4.11) not the entire URL. The name must exactly match the name of the script used in Conductor.
 - c. Enable confirmation if you would like a confirmation pop up before activating the trigger. (Helps reduce the likelihood of accidental activation.)
 - d. Choose the color of the button.
 - e. If you are using the CMP500 phone interface to support your ability to activate this Trigger Script even when out of wireless LAN range, it can be helpful to enter the call-in activation code. The call-in activation code is the numeric code that corresponds to the event set up in the CMP500 webpage settings. Be sure the activation code includes a **#** key at the end. With this filled out, Conductor Mobile will automatically create a phone number with pauses and this key that you can call into without having to manually enter these keys.

arrier 🗢	1:29 PM	
Cancel	Settings	Save
NUMBER OF BUTT	ONS	
6		- +
BUTTON 1		
Morning Announ	cements	
MorningAnnound	e	
Ask For	Confirmation	
Color		Blue
Call-in Activation		
BUTTON 2		
Fire		
fire		
Ask For	Confirmation	
Color		Red
Call-in Activation	Code	

Appendix

A. Setting your Computer to a Static IP Address

- 1. Regardless of the Windows version you are using, your goal is to get to the screen shown below, where you will input a static IP address at the Use The Following IP Address radio button in the Internet Protocol Version 4 (TCP/IPv4) Properties window.
- 2. Type in the following default IP address: 192.168.1.100 (or 192.168.1.98)
- 3. The Subnet Mask area should automatically fill in 255.255.255.0
- 4. If it does not automatically fill, type it in. Then click **OK**.

NOTE: The Windows computer must be in the same range as the server. If the school is already using a local switch with this IP address, you will need to use a different IP address.

IMPORTANT: The default IP address for the FrontRow DRS5000 or DRS-VM server is 192.168.1.99 Also see *Appendix B* for FrontRow default IP addresses for networked devices.

General							
You can ge this capabi for the app	et IP settings as: ility. Otherwise, propriate IP sett	signed autor you need to ings.	matically if y ask your r	your ne network	twork su adminis	upports strator	;
Obtai	in an IP address	automatica	ly				
🕘 Use t	he following IP a	address:				_	
IP addre	ess:	(192 . 16	8.1	. 100		
Subnet	mask:		255 . 25	5 . 255	5.0		
Default	Default gateway:						
Obtai	in DNS server ac	ldress autor	natically				
🕘 Use t	he following DNS	S server add	resses:				
Preferre	ed DNS server:			00	3		
Alternat	te DNS server:		•		<u>.</u>		
🔲 Valid	late settings upo	on exit		[Adva	nced	
						12100	

If you are not sure how to get to the Internet Protocol Version 4 (TCP/IPv4) Properties window shown above, follow the following steps for your Windows version:

Windows 10

Bring up the Windows **Control Panel** by right clicking the lower left corner of the screen where you will see the Windows logo for the **Start menu**. Go to **Control Panel>Network and Sharing Center**.

- 1. Click on Change Adapter Settings.
- 2. Select Local Area Connection (LAN).
- 3. Right click and select Properties.
- 4. Select Internet Protocol Version 4 (TCP/IPv4).
- 5. Select Properties.
- 6. Proceed to Final Step: Give Your Computer a Static IP Address on the previous page of this guide.



Troubleshooting

Can't initiate a page or intercom because the buttons are grayed out.	Make sure you have added the master CM900 as the device for the PA and Intercom in the Options (for both Conductor and Notifier.
Scanning devices doesn't find any.	Check that you can reach any device by going to its IP address in a browser. If not, then there is a network connectivity issue, the device is offline, or it is on a different subnet.
Audio is too loud and distorted in the classroom	Go to the master device web page and turn off Boost on the Mic and Intercom levels on the Audio Codec/EQ page. You may then need to adjust the gain up to balance levels.
When I open a device to edit it, the IP address changes	Check your Base default IP address in the System Options and make sure it is set correctly (to the same subnet as all the FrontRow audio endpoints).



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