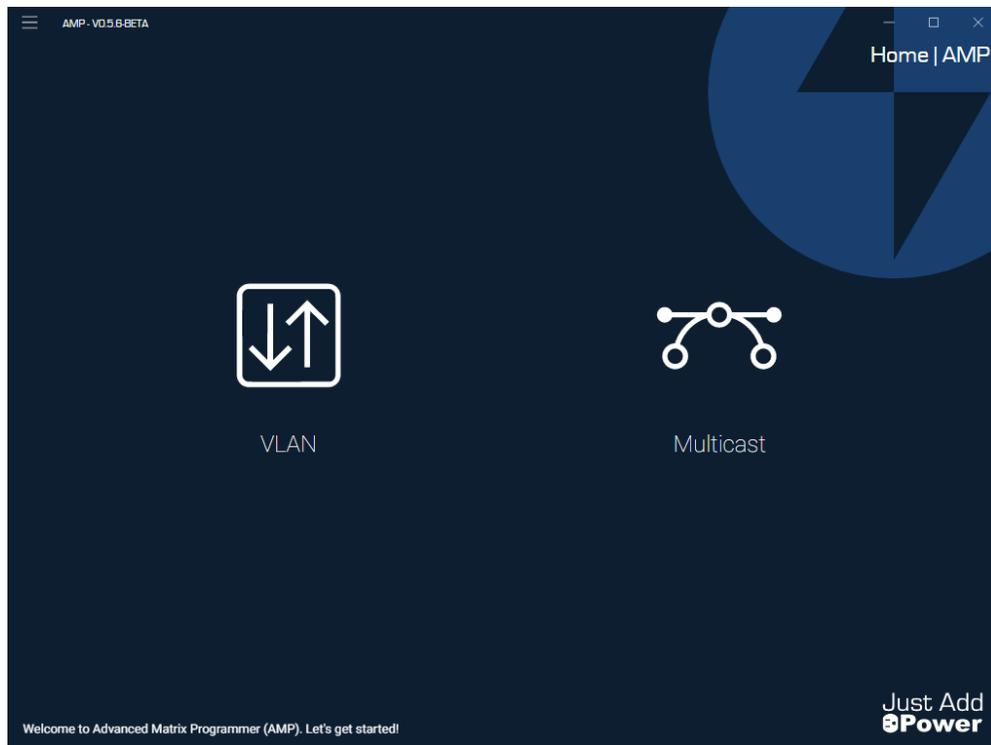


# Just Add **Power**

## AMP MANUAL



Updated v0.5.6

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# Overview

AMP – Advanced Matrix Programmer – is a software that configures 3G and MaxColor Just Add Power devices into an AV over IP system.

AMP is able to build 2 types of systems:

- [VLAN switching](#)
- [Multicast switching](#)

VLAN switching is preferred because AMP configures both the switch and all Just Add Power devices.

In Multicast switching, AMP configures the Just Add Power devices but **NOT** the switch.

Each system must choose one switching style based on the requirements of the jobsite. Again, we recommend **VLAN switching** for every system that meets the requirements.

Criteria	VLAN	Multicast
System Setup	Software does it all	Software does some Installer does some
Software Sets Up	J+P Devices <b>AND</b> switch	J+P Devices <b>ONLY</b> You configure the switch
Network Switches	Software-supported models	Minimum technical specs
Network Knowledge	Basic	Advanced
Data Network Impact	None Standardized by J+P	Unknown Varies by system capabilities
System Maintenance	Installer	Installer and/or IT Admin
Installation Type	Residential or Commercial	Corporate or Institutional.

# VLAN Switching

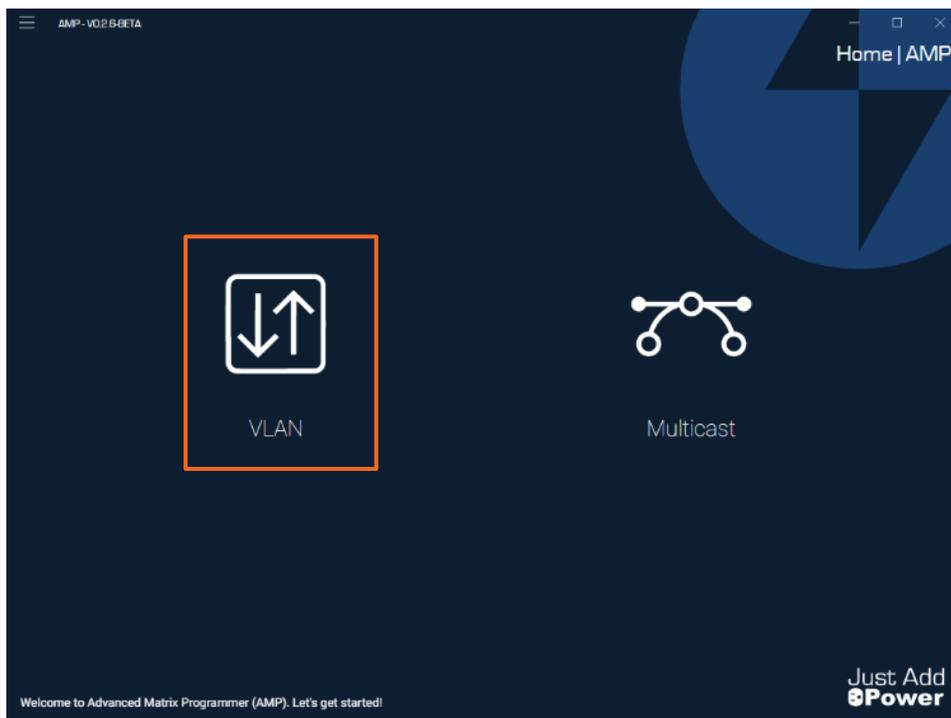
## VLAN Switching Overview

AMP VLAN will configure the switches and all Just Add Power devices. It is the **recommended** installation type for every system that meets these requirements:

- 3G Ultra or MaxColor Just Add Power devices
- Installation uses supported switches dedicated to Just Add Power devices:

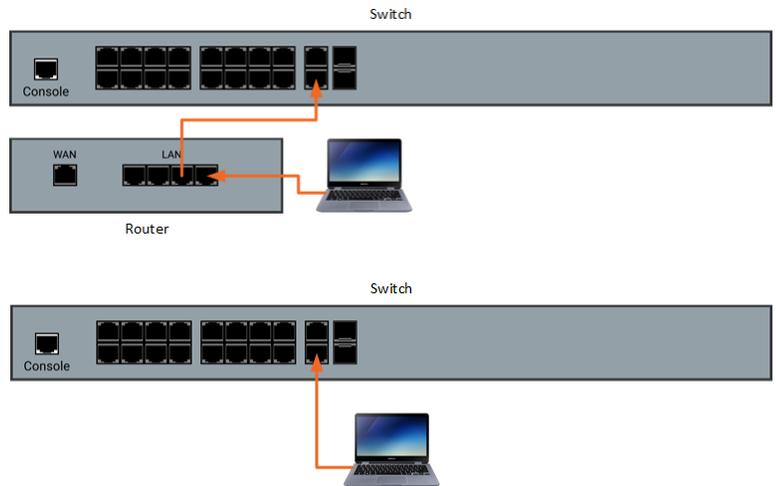
VLAN switching describes an AV over IP system that puts each Transmitter in its own unique VLAN to separate video signals.

AV traffic in a VLAN switching system does not interfere with the Data network, and is not even visible on a network scan. A **static route** must be set on the router before Data network devices – like the control system – can communicate with and control the Just Add Power system.

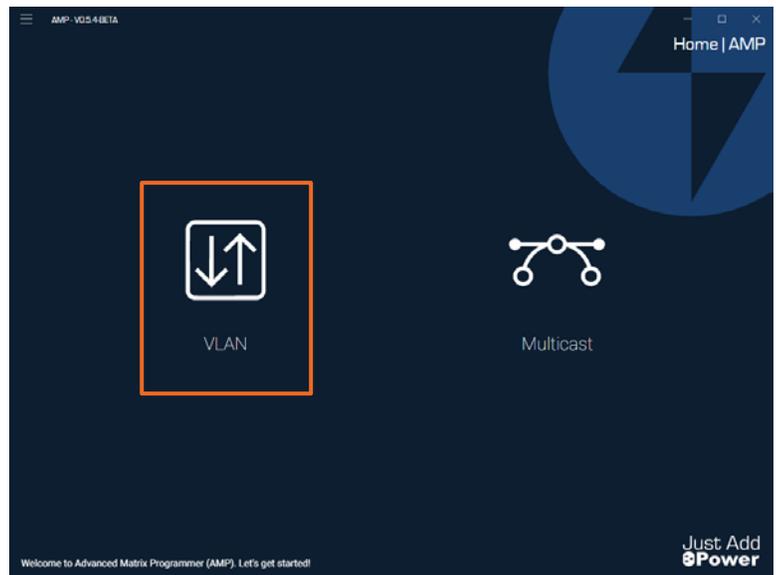


# Configure a System with a Single Switch

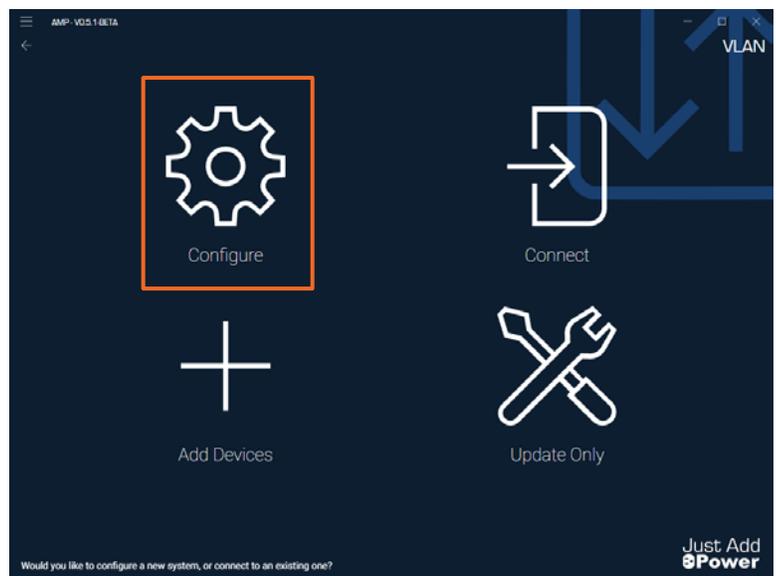
1. Connect the PC running AMP to the switch in 1 of 2 ways:
  - Connect the PC to the network, and connect the network to the **last port** of the switch
  - If the system is being configured off-site, connect the PC running AMP directly to the **last port** of the switch



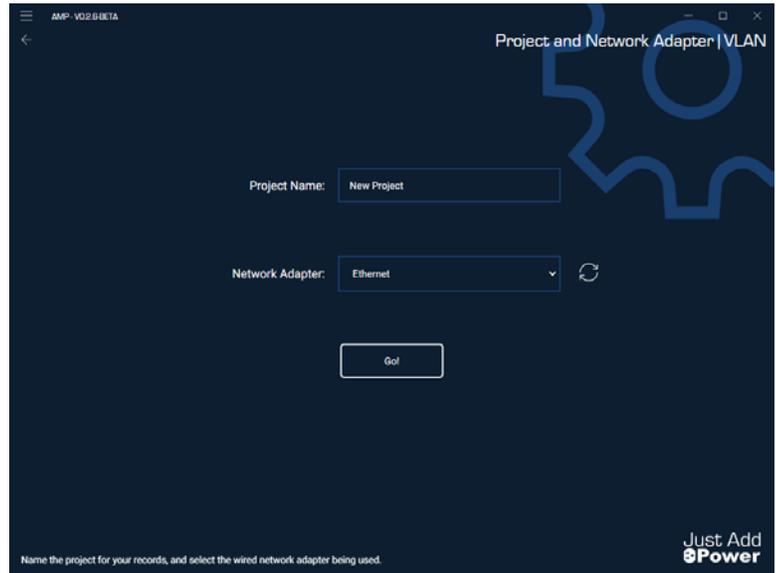
2. Open AMP and select the **VLAN** option.



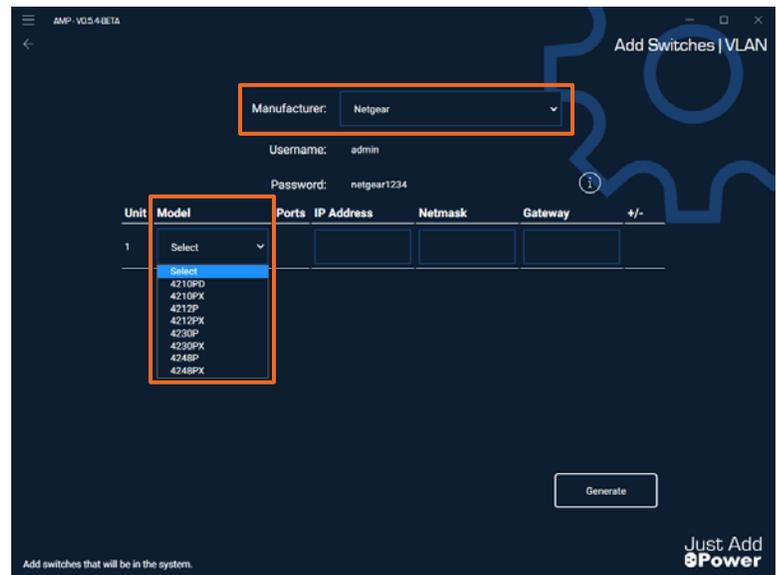
3. Select the **Configure** option.



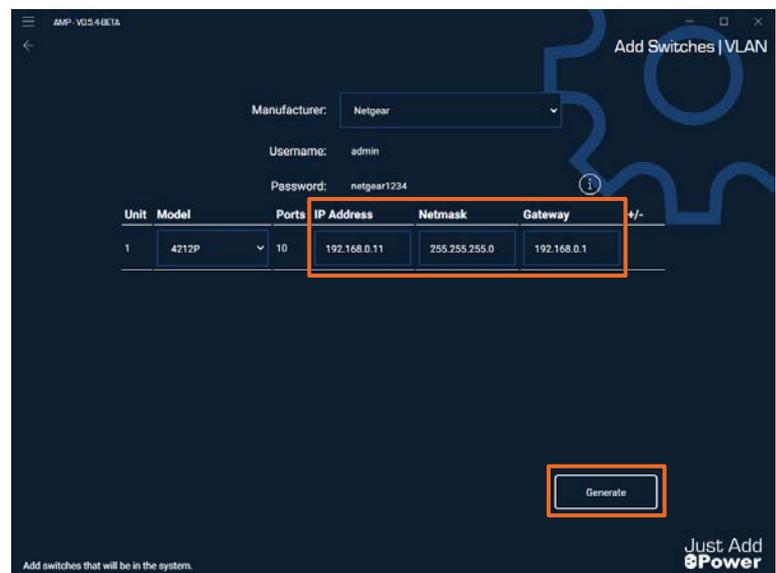
- Enter the **Project Name** and select the **wired** network adapter that the program will use to configure the system. The **Project Name** is only for your records



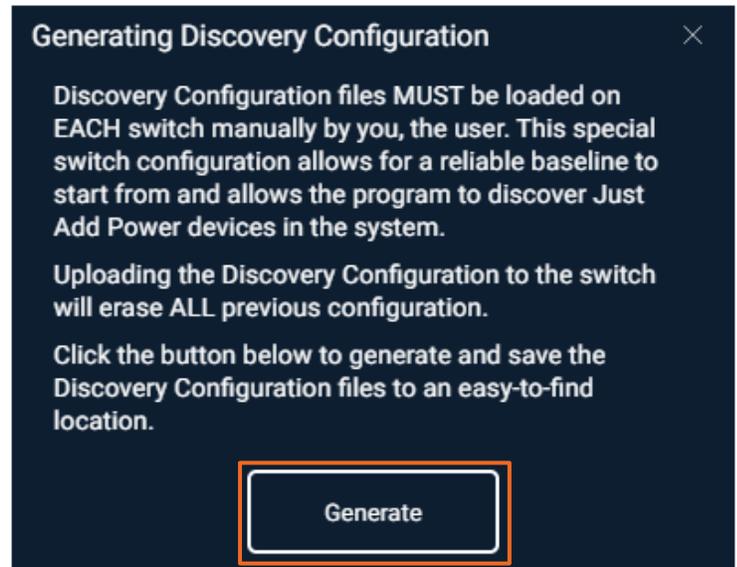
- Select the **Switch Manufacturer** that corresponds to the model of switch in the system.
- Select the **Model** of switch that corresponds to the switch in the system.



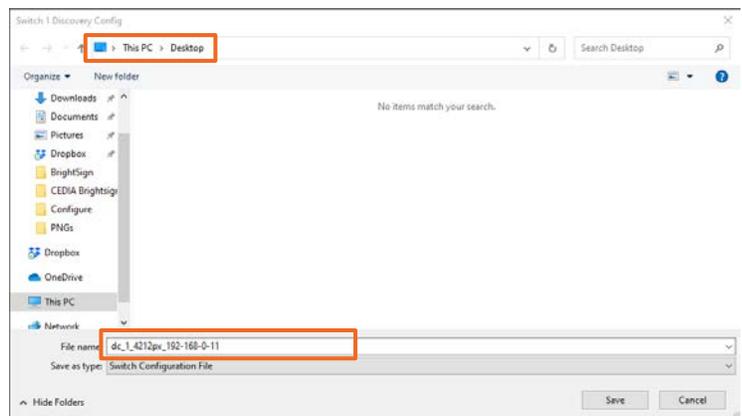
- Input the **IP Address**, **Netmask**, and **Gateway** for the switch.
  - The **IP Address** must be an open IP address on the network
  - The **Netmask** and **Gateway** must match the network that the switch is a member of.
- Click **Generate** once all switch details have been filled out.



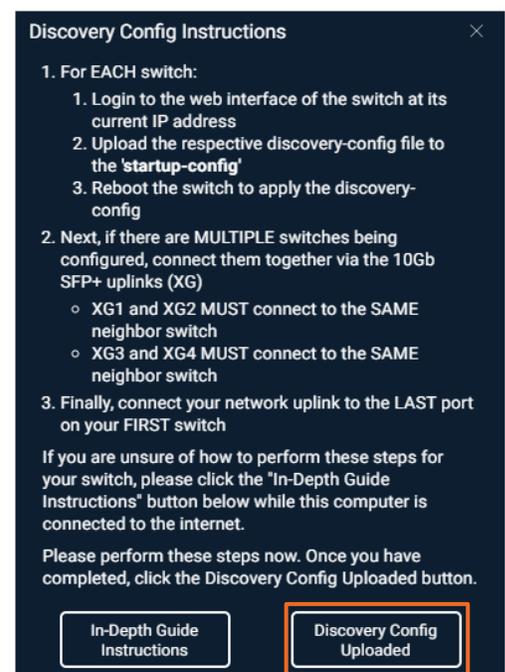
9. The program will create **Discovery Configuration Files** that must be loaded onto the switch before AMP VLAN can continue. Click **Generate** to open a **Save dialog**.



10. Save the **Discovery Configuration File** to an easy-to-find place – like the Desktop – as it will be used immediately.



11. When this popup appears:
- Login to the **switch webUI**
  - Upload the **Discovery Configuration File** through the **switch webUI**
    - For specific instructions for each switch model, click the **In-Depth Guide Instructions** button.
12. Once the Discovery Configuration File has been applied, click **Discovery Config Uploaded** to continue.



13. Assign Transmitters and Receivers for the **maximum** size of the system:

- **Receiver Count** for displays
- **Transmitter Count** for sources
- If there are plans for expansion or you think the customer will want more sources or displays in the future, it is **recommended** to increase the Counts now. Expanding will be much easier if additional ports are assigned at this step.



14. Click **Go!** to move to the next screen



15. Connect **Receivers** starting on **Port 1**.

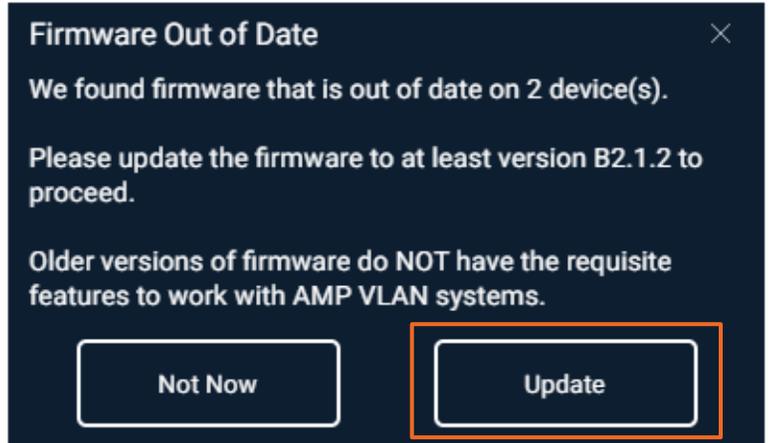
16. Connect **Transmitters** starting **after the last Receiver**.

17. The network should already be connected to the **last port** on the switch. In the diagram, that would be **Port 10**.

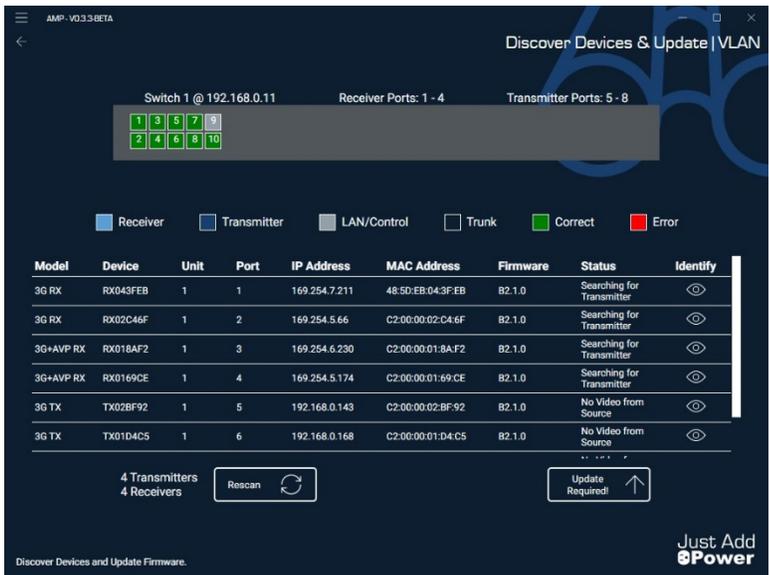
18. Click **Discover** once all devices are connected to the switch.



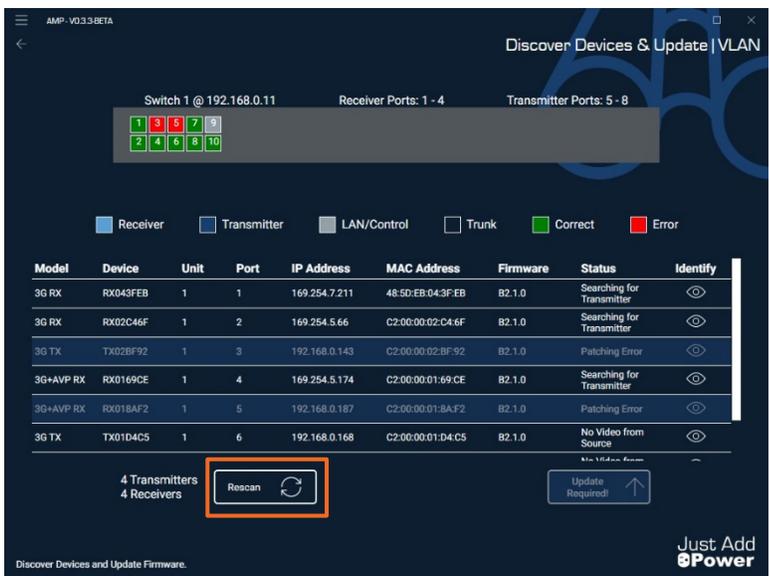
19. AMP will discover active devices connected to Transmitter and Receiver ports.
20. **Optional:** If devices are not on the minimum firmware version, a popup will ask you to update firmware. You must update before moving forward. Click **Update**.
  - Wait for the firmware update to finish. This will take about 8 minutes.



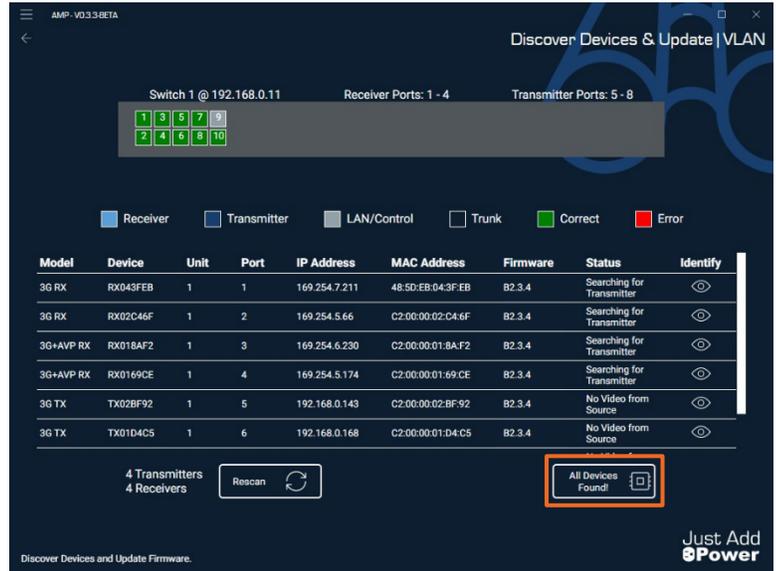
21. Active devices will show up on the Discover Devices list, along with a diagram of how they are connected.
  - A device that is ready to be discovered will have a solid Power light and a blinking Data light
  - A device that has been discovered will show a solid green Power light and an unlit Data light on the front of the device.



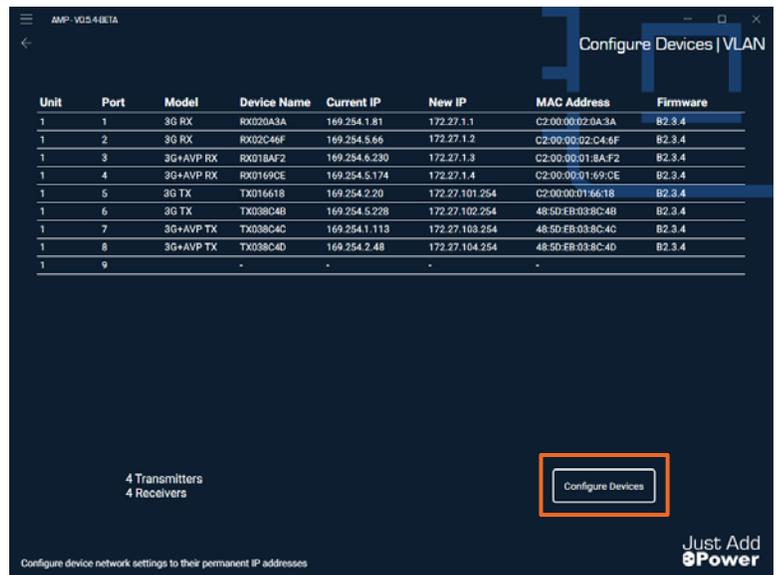
**Note:** If devices are connected incorrectly, the port will show red. Fix any devices that are incorrect and then hit **Rescan**.



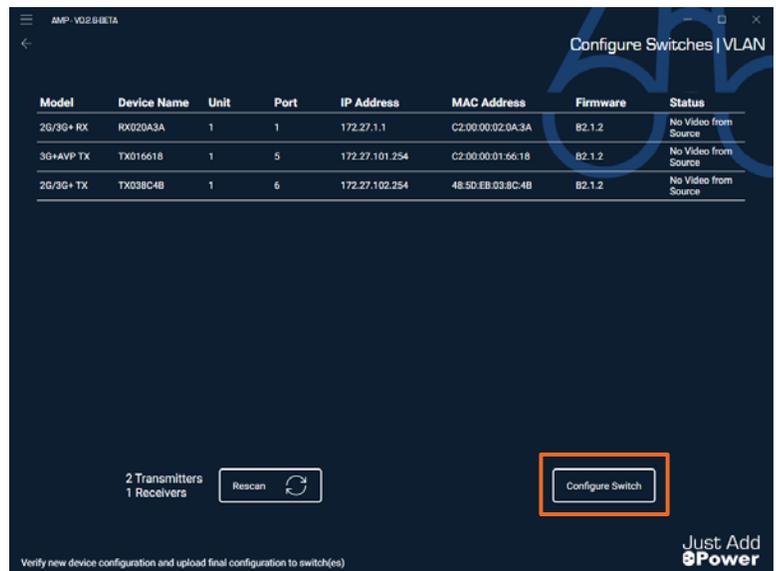
22. When all devices are on the list, click **All Devices Found!** to move forward.



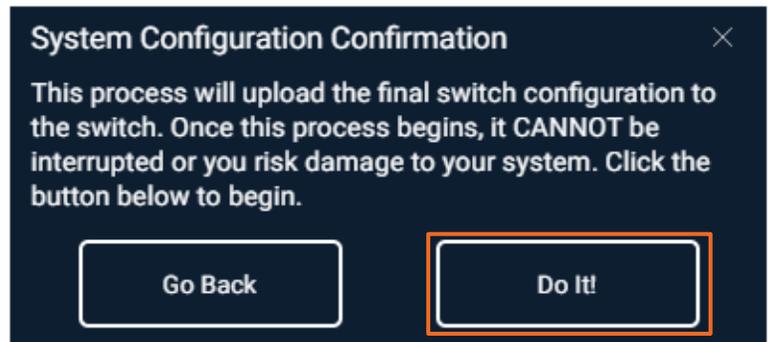
23. All active devices show the **New IP** and their connection to the switch. Click **Configure Devices** to move forward and assign IPs to active devices.



24. The next window will show active devices will show with their new **IP Address**. This means the devices have been configured. Click **Configure Switch** to move forward.



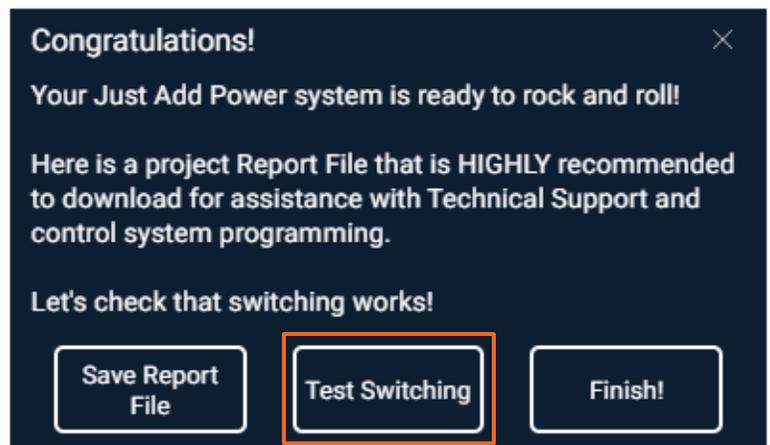
25. The popup asks you to confirm that you are done with device configuration and are ready to configure the switch. Once you move forward from this point, there is no going back. Click **Do It!**



26. Once switch configuration is complete, click **Save Report File** to get a printout of all the settings applied to the devices and the switch.



27. To jump straight to the Matrix Control screen, click the **Test Switching** button. This requires a static route to function (step 29).



28. Once the Report File has been saved, click **Finish!** The switch and all Just Add Power devices are configured, but **we're not done yet!** Continue on...



29. To control the system, a Static Route **must** be applied to the router (the device providing internet access). You can find the details for the Static Route in the Report File.

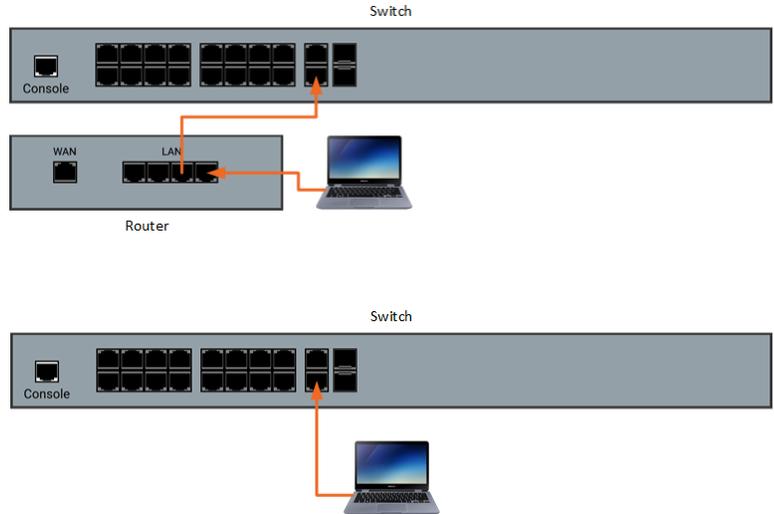
System Details									
Project Name:	A Project								
Date:	Feb 15 2022								
Switch Family:	Luxul								
Username:	admin								
Password:	admin								
Switch Total:	1								
Receiver Total:	4								
Transmitter Total:	4								
<b>Static Route:</b>									
	Destination IP	Netmask	Gateway						
	172.27.0.0	255.255.0.0	192.168.0.11						
Switch	RX Count	TX Count	IP Address	Netmask	Gateway	Model			
1	4	4	192.168.0.11	255.255.255.0	192.168.0.1	XMS/AMS-1208			
=== Receivers ===									
Output	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware	
1	1	1	172.27.1.1	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:40	B2.1.2	
2	1	2	172.27.1.2	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:41	B2.1.2	
3	1	3	172.27.1.3	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:42	B2.1.2	
4	1	4	172.27.1.4	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:43	B2.1.2	
=== Transmitters ===									
Input	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware	
1	1	5	172.27.101.254	255.255.0.0	172.27.101.1	3G TX	48:5D:EB:03:8C:4B	B2.1.2	
2	1	6	172.27.102.254	255.255.0.0	172.27.102.1	3G TX	48:5D:EB:03:8C:4C	B2.1.2	
3	1	7	172.27.103.254	255.255.0.0	172.27.103.1	3G TX	48:5D:EB:03:8C:4D	B2.1.2	
4	1	8	172.27.104.254	255.255.0.0	172.27.104.1	3G TX	48:5D:EB:03:8C:4E	B2.1.2	

30. Log into the router through the webUI, find the Static Routing section, and enter the Destination IP, Netmask, and Gateway for the Just Add Power system. The Gateway will **always** be the IP address of the Just Add Power switch.

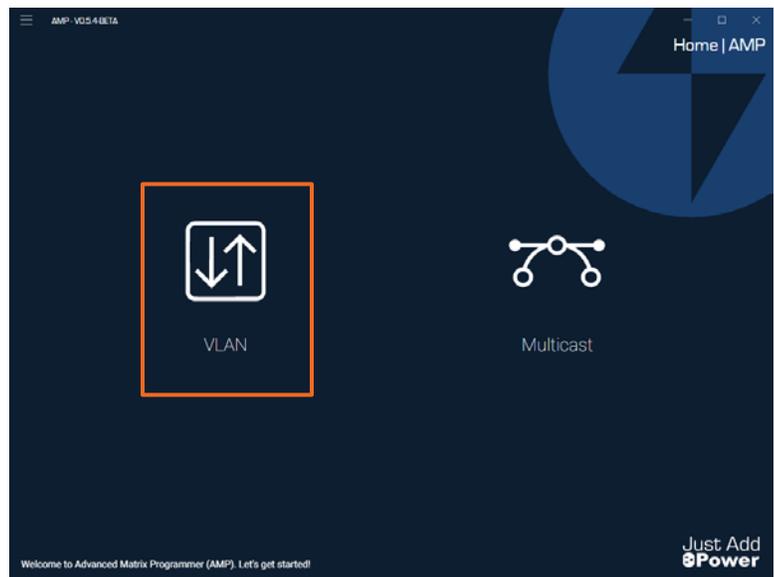


# Configure a Multi-Switch System

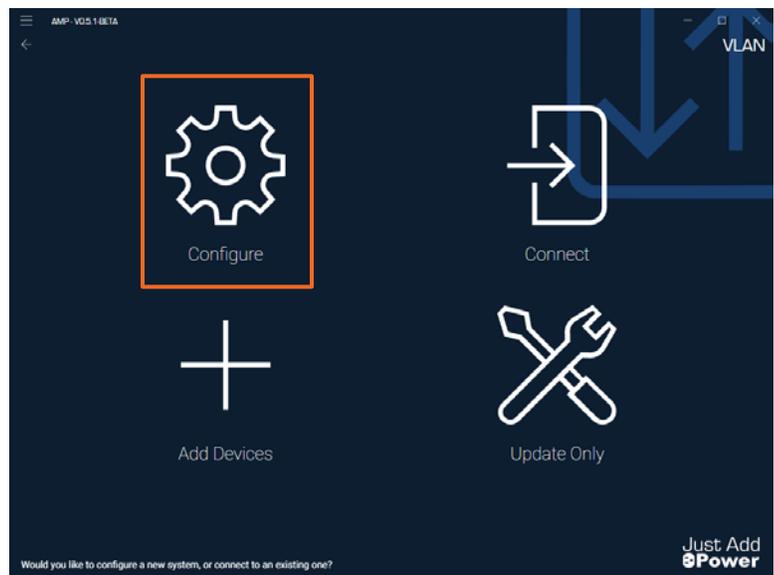
1. Connect the PC running AMP to the **first switch** in 1 of 2 ways:
  - Connect the PC to the network, and connect the network to the **last port** of the first switch.
  - If the system is being configured off-site, connect the PC running AMP directly to the **last port** of the first switch.



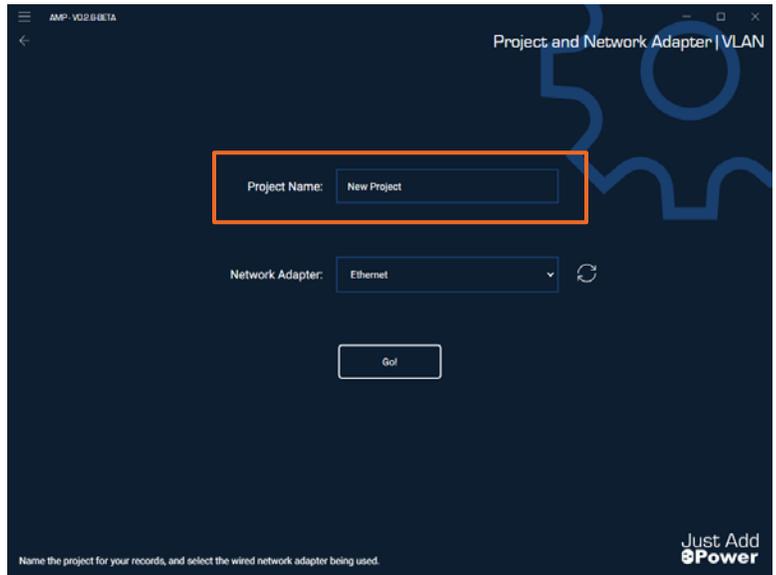
2. Open AMP and select the **VLAN** option.



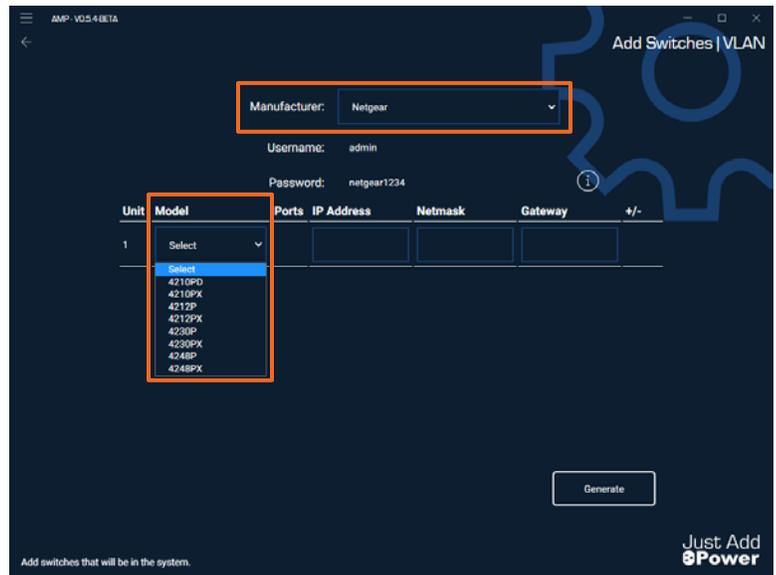
3. Select the **Configure** option.



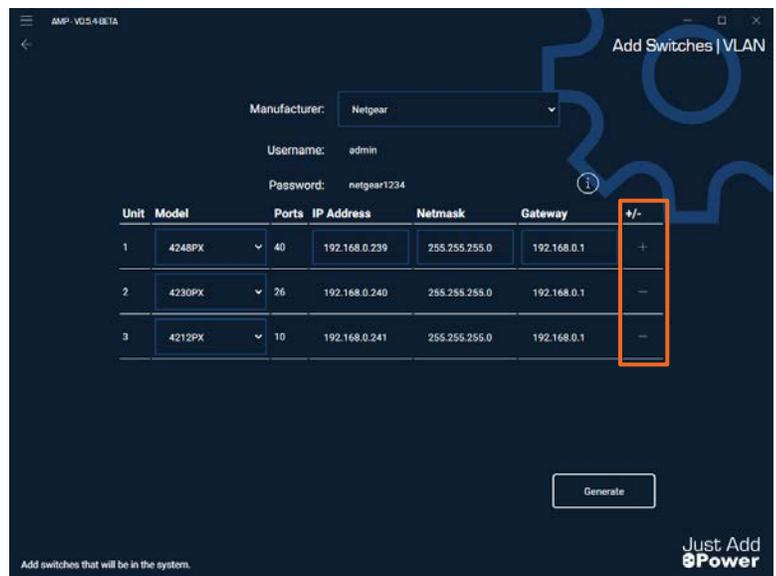
4. Enter the **Project Name** and select the **wired** network adapter that the program will use to configure the system. The **Project Name** is only for your records



5. Select the **Switch Manufacturer** for the switches in the system.
6. Select the **Model** of switch 1.

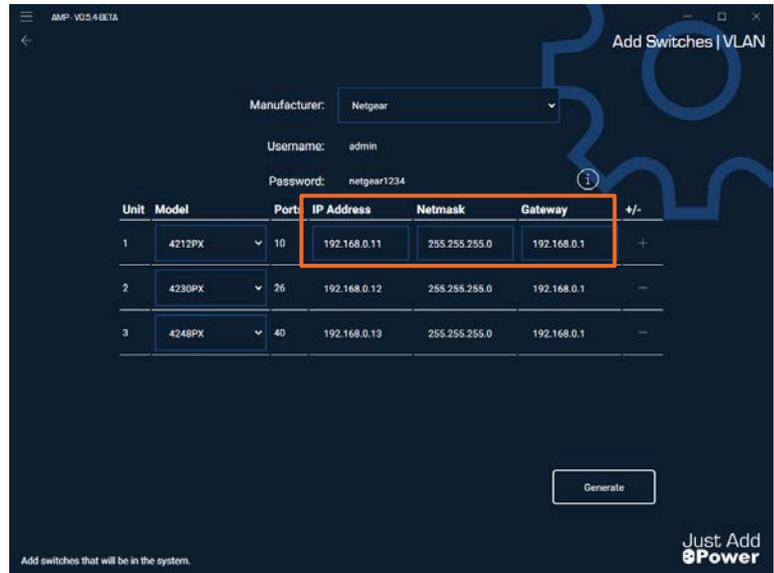


7. Click the **+ sign** on the far right to add more switches.
  - To remove a switch, click the **- sign**
8. Select the **Model** for each switch.
  - A system can mix **different models** among the switches
  - A system must use the **same manufacturer** for all switches

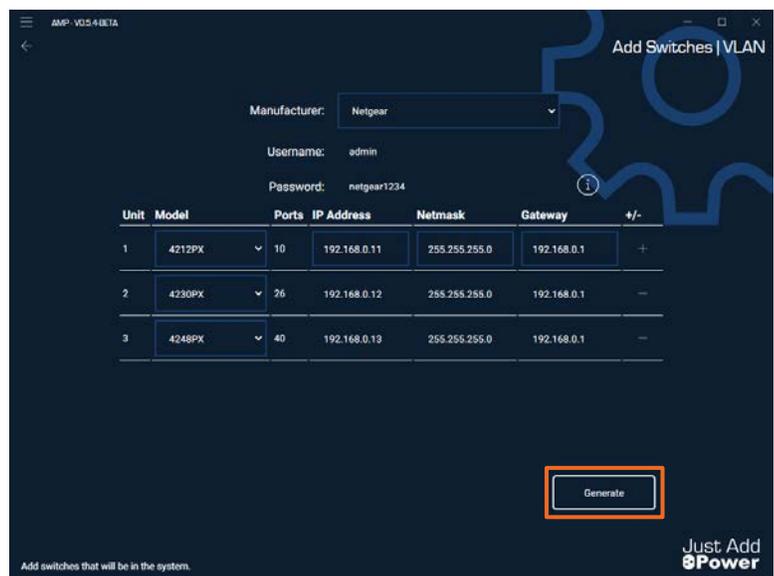


9. Once all switches have been added, input the **IP Address**, **Netmask**, and **Gateway** for Switch 1.

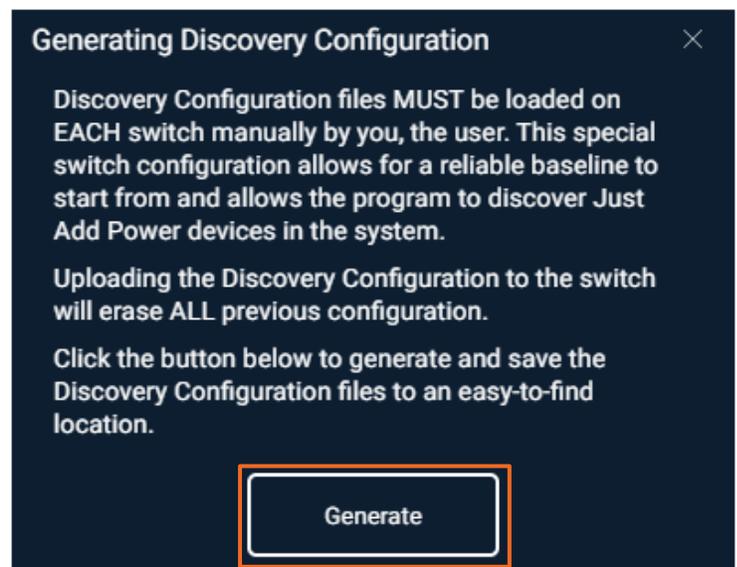
- The **IP Address** must be an open IP address on the network
- The **Netmask** and **Gateway** must match the network that the switch is a member of.
- The network details of all other switches in the system will be automatically filled. Switch IP addresses are assigned sequentially.



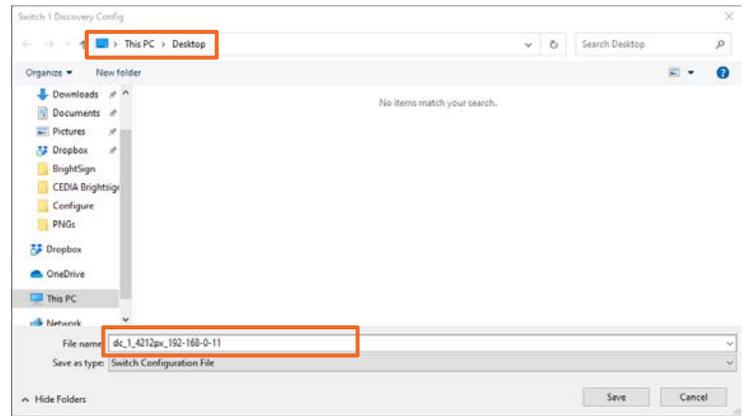
10. Click **Generate** when all switch details have been filled out.



11. The program will create a **Discovery Configuration File** for **EACH** switch in the system. It must be uploaded to the switch before AMP VLAN can continue. Click **Generate** to open a **Save dialog**.

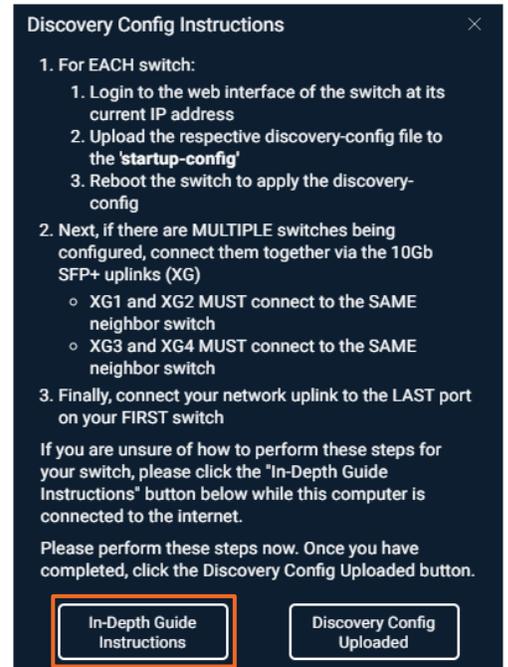


12. Save the **Discovery Configuration File** to an easy-to-find place – like the Desktop – as it will be used immediately.

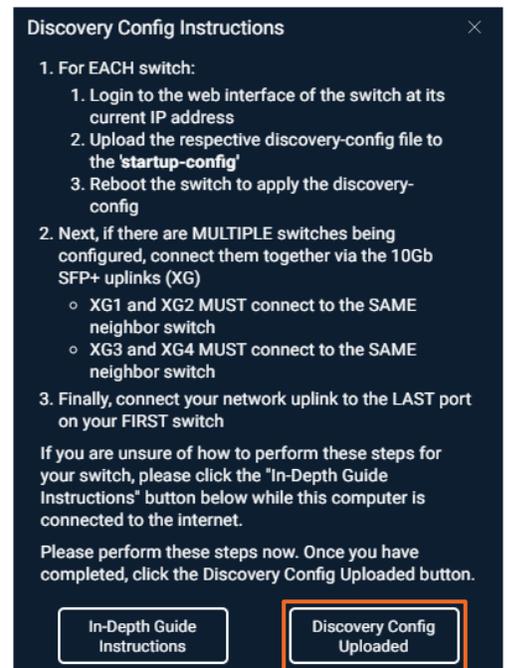


13. When this popup appears:

- Leave AMP open, but open a new web browser.
- Login to the **switch webUI** for switch 1
- Upload **Discovery Configuration File 1** through the **switch webUI**
  - For specific instructions for each switch model, click the **In-Depth Guide Instructions** button.
- Move the network connection to the **last port** of the next switch and upload **Discovery Configure File 2**
- Repeat for each switch in the system
- Return the network connection to the **last port of switch 1** when finished.

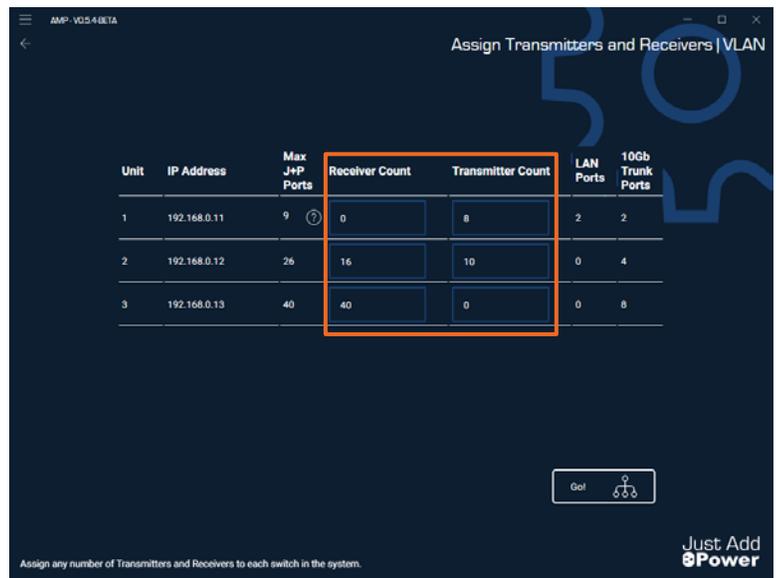


14. Once the **Discovery Configuration File** has been applied to all switches, click **Discovery Config Uploaded** to continue.

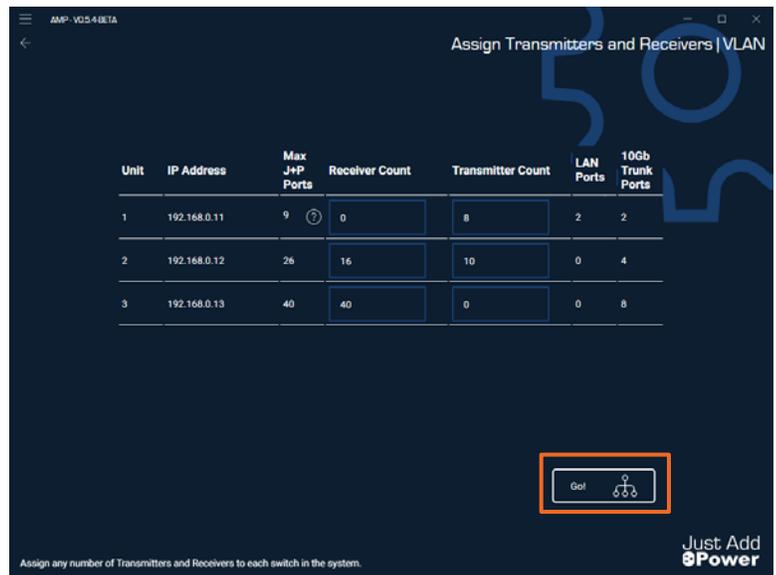


15. Assign Receivers and Transmitters to each switch in the system:

- **Receiver Count** for displays
- **Transmitter Count** for sources
- Each switch can have any number of Receivers and Transmitters
- If you plan to add devices later, it is **highly recommended** to increase the Counts now. Expanding will be much easier if extra ports are assigned at this step.



16. Click **Go!** when devices have been assigned that reflect the maximum system size.



17. Connect **Receivers** starting on **Port 1**.

18. Connect **Transmitters** starting **after the last Receiver**.

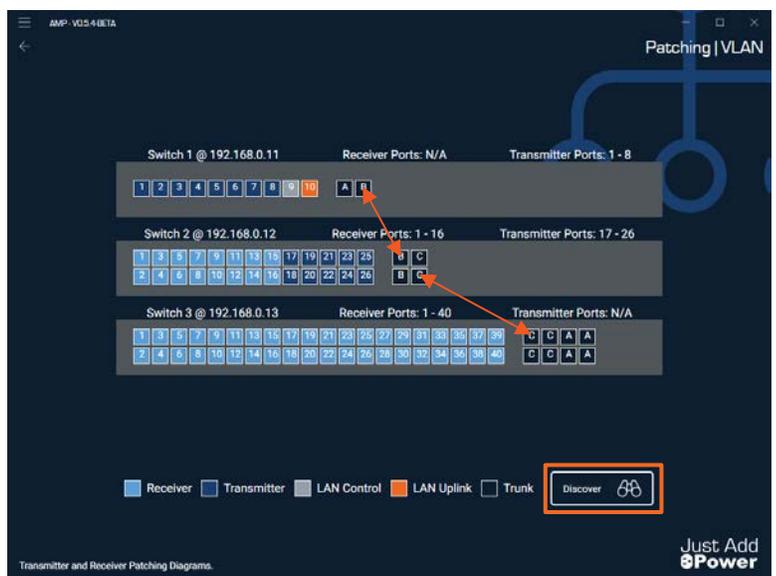
- This pattern continues for all switches

19. The network should already be connected to the **last port** on switch 1.

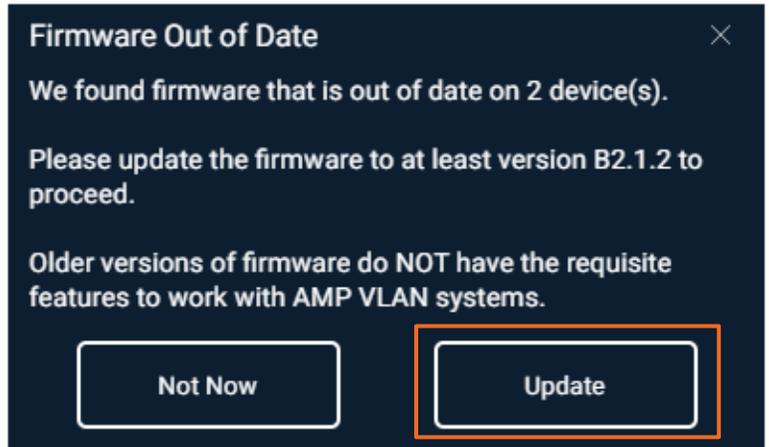
20. Connect SFP+ cables between the switches.

- Match the letter for the port on the SFP+ connector.

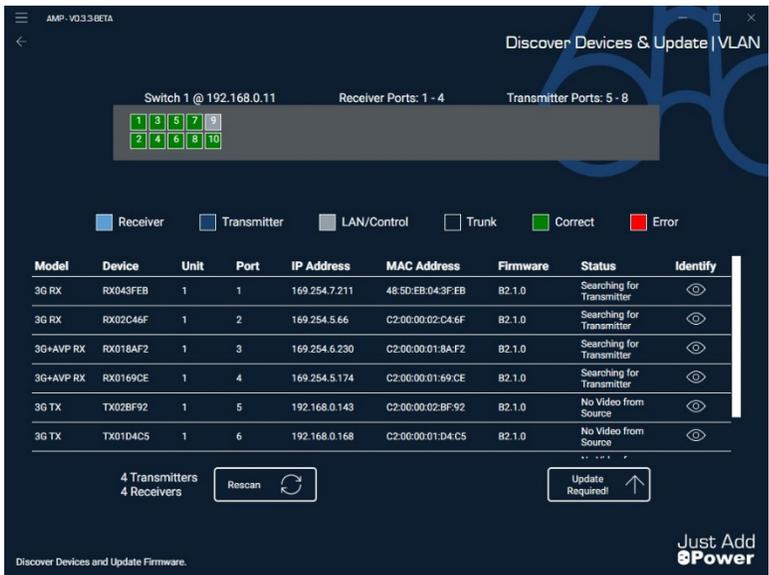
21. Click **Discover** once all devices are connected to the switches and the switches are connected together.



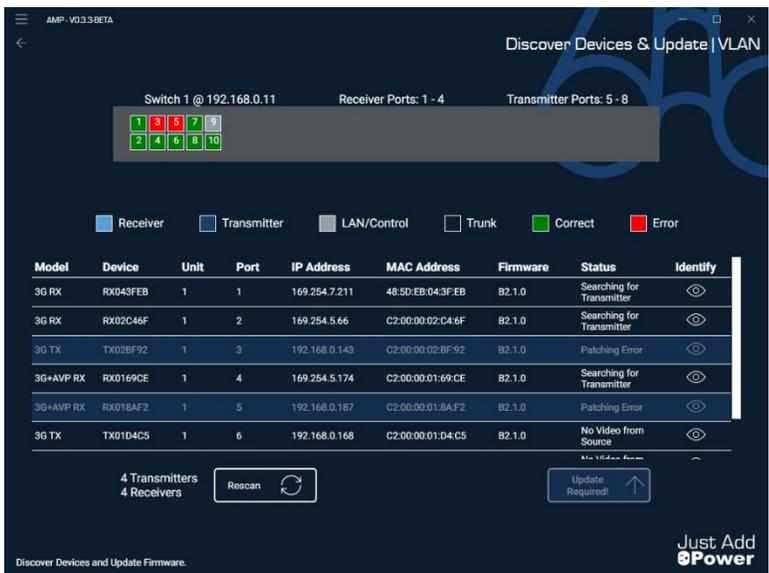
22. AMP will discover active devices connected to Transmitter and Receiver ports.
23. **Optional:** If devices are not on the minimum firmware version, a popup will ask you to update firmware. You must update before moving forward. Click **Update**.
  - Wait for the firmware update to finish. This will take about 8 minutes.



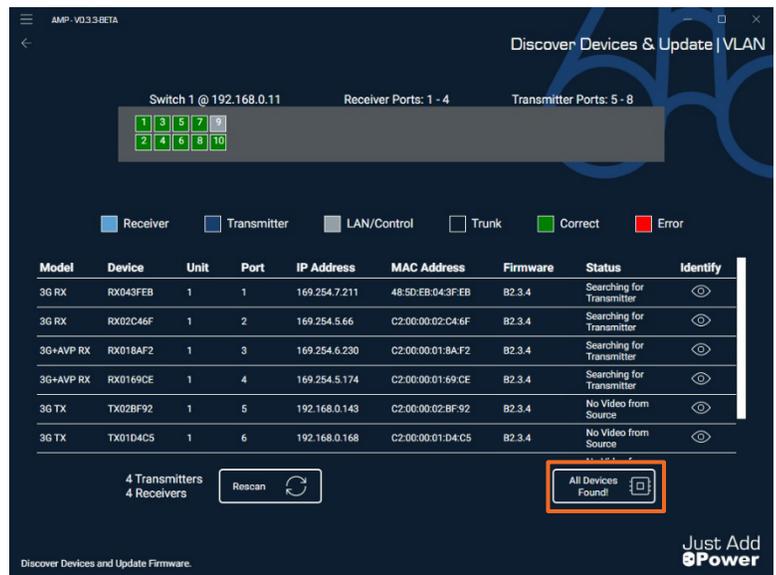
24. Active devices will show up on the Discover Devices list, along with a diagram of how they are connected. An active device on this list will have a solid Power light and no Data light on the front of the device.



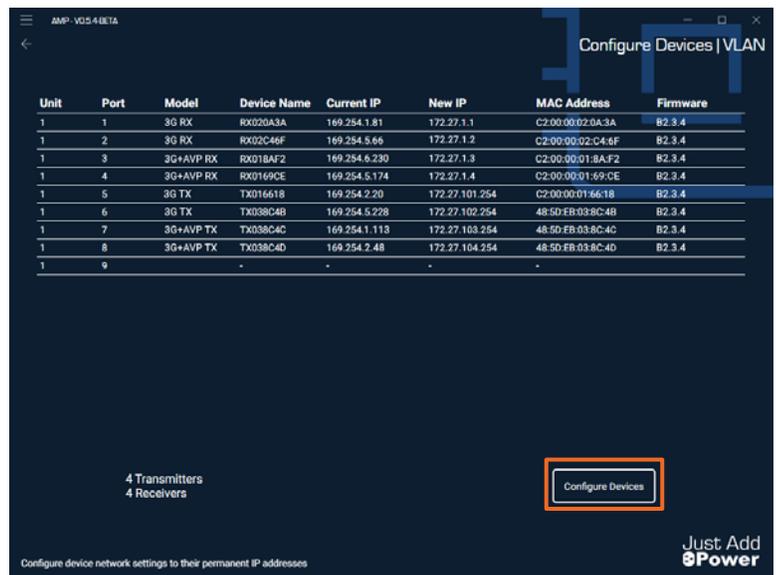
25. If devices are connected incorrectly, the port will show red. If devices are missing, the port will show the color of the expected device. Fix any devices that are incorrect and then hit **Rescan**. A device that is ready to be discovered will have a solid Power light and a blinking Data light, and the Data light will go off when the device is discovered.



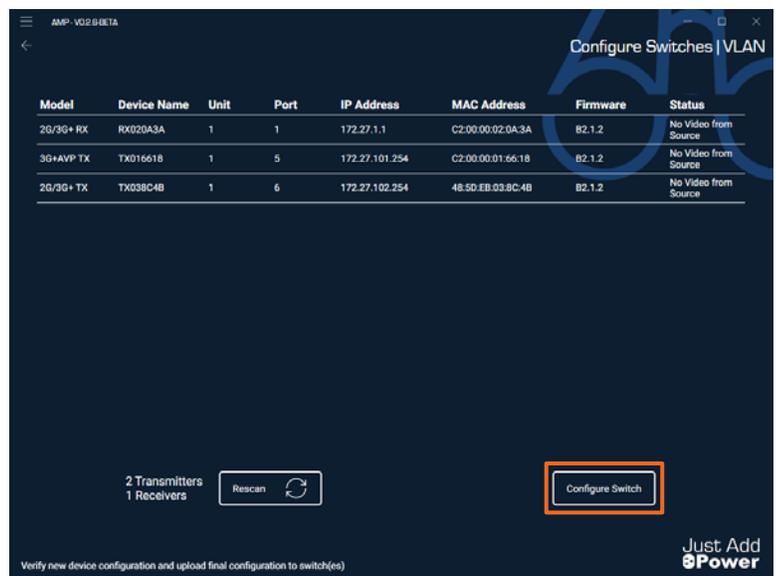
26. When all devices are on the list, click **All Devices Found!** to move forward.



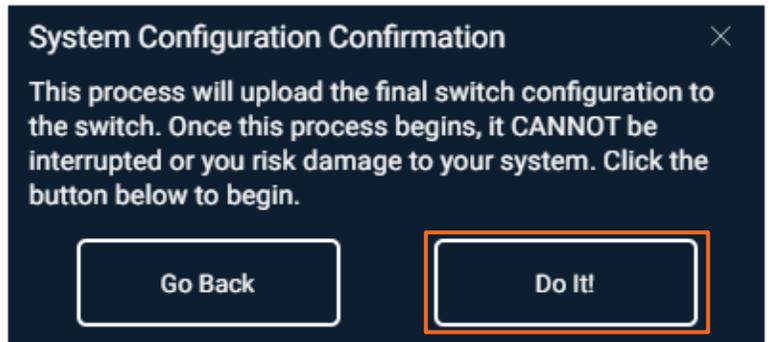
27. All active devices show the **New IP** and their connection to the switch. Click **Configure Devices** to move forward and assign IPs to active devices.



28. Active devices will show with their new **IP Address**. Click **Configure Switch** to move forward.



29. The popup asks you to confirm that you are done with device configuration and are ready to configure the switch. Click **Do It!**



30. Once switch configuration is complete, click **Save Report File** to get a printout of everything the program did to the devices and the switch.



31. To jump straight to the Matrix Control screen, click the **Test Switching** button. This requires a static route to function (step 33).



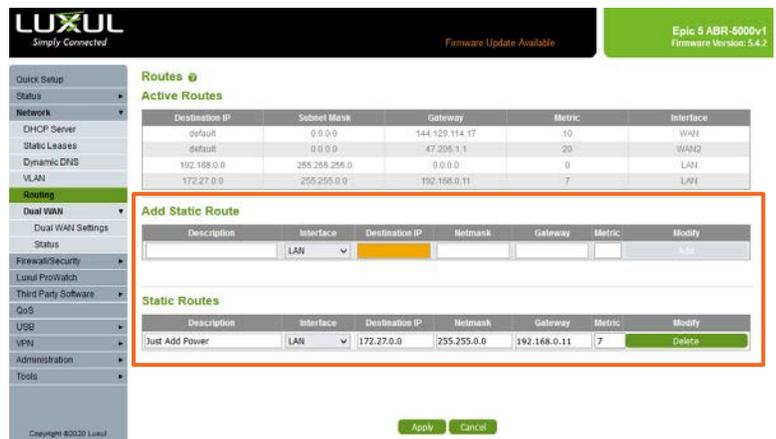
32. Click **Finish!** The switch and all Just Add Power devices are configured, but **we're not done yet!** Continue on...



33. To control the system, a Static Route must be applied to the router. You can find the details for the Static Route in the Report File. Without a Static Route, **no control is possible.**

System Details								
Project Name:	A Project							
Date:	Feb 15 2022							
Switch Family:	Luxul							
Username:	admin							
Password:	admin							
Switch Total:	1							
Receiver Total:	4							
Transmitter Total:	4							
Static Route:	Destination IP	Netmask	Gateway					
	172.27.0.0	255.255.0.0	192.168.0.11					
Switch	RX Count	TX Count	IP Address	Netmask	Gateway	Model		
1	4		192.168.0.11	255.255.255.0	192.168.0.1	XMS/AMS-1208		
=== Receivers ===								
Output	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
1	1	1	172.27.1.1	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:40	B2.1.2
2	1	1	172.27.1.2	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:41	B2.1.2
3	1	1	172.27.1.3	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:42	B2.1.2
4	1	1	172.27.1.4	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:43	B2.1.2
=== Transmitters ===								
Input	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
1	1	1	172.27.101.254	255.255.0.0	172.27.101.1	3G TX	48:5D:EB:03:8C:4B	B2.1.2
2	1	1	172.27.102.254	255.255.0.0	172.27.102.1	3G TX	48:5D:EB:03:8C:4C	B2.1.2
3	1	1	172.27.103.254	255.255.0.0	172.27.103.1	3G TX	48:5D:EB:03:8C:4D	B2.1.2
4	1	1	172.27.104.254	255.255.0.0	172.27.104.1	3G TX	48:5D:EB:03:8C:4E	B2.1.2

34. Log into the router through the webUI, find the Static Routing section, and enter the Destination IP, Netmask, and Gateway for the Just Add Power system. The Gateway will **always** be the IP address of the Just Add Power switch.



## Connect to a System

Connecting to a VLAN system has 2 main purposes:

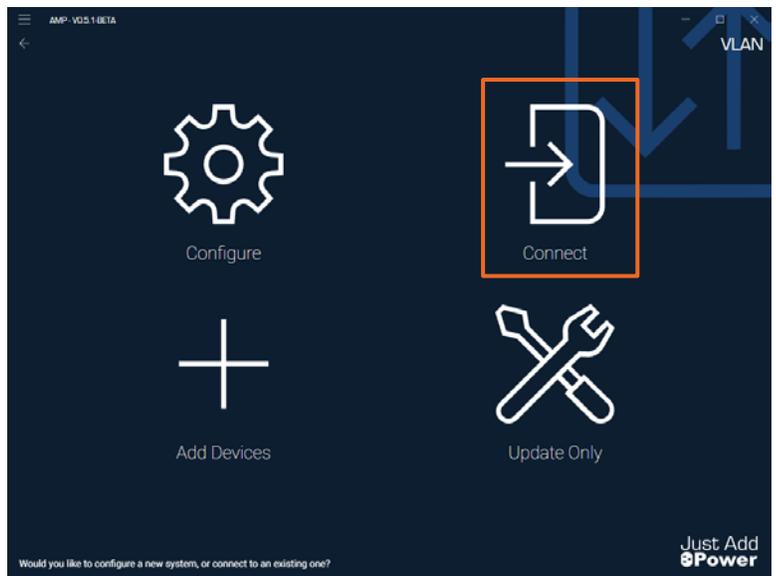
- Using Matrix Control – switch displays to watch different sources – before the control system is setup
- Compare control system programming to AMP VLAN programming so that Transmitters and Receivers are mapped correctly to the control system

Follow the instructions below to Connect to a VLAN system:

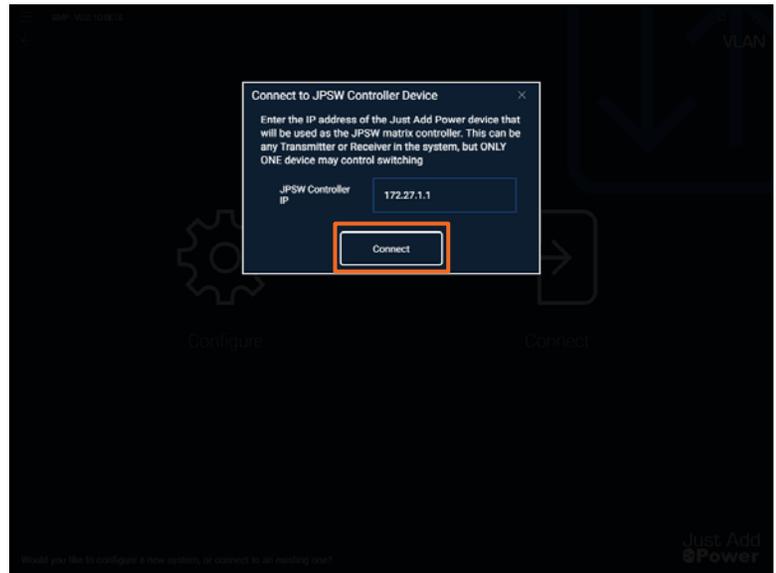
1. Open AMP and select the **VLAN** option.



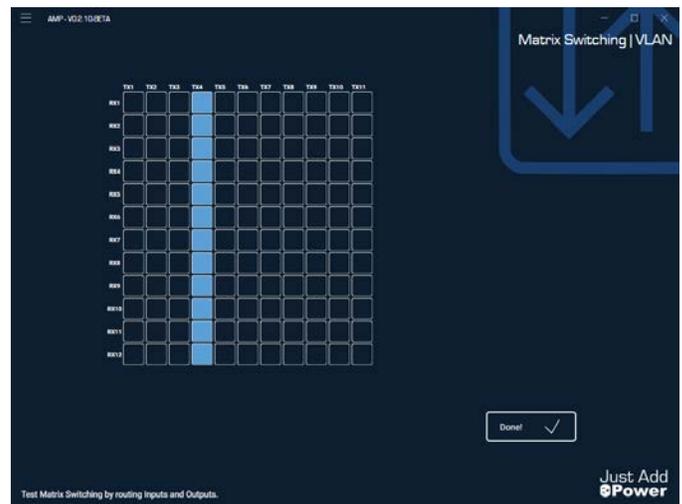
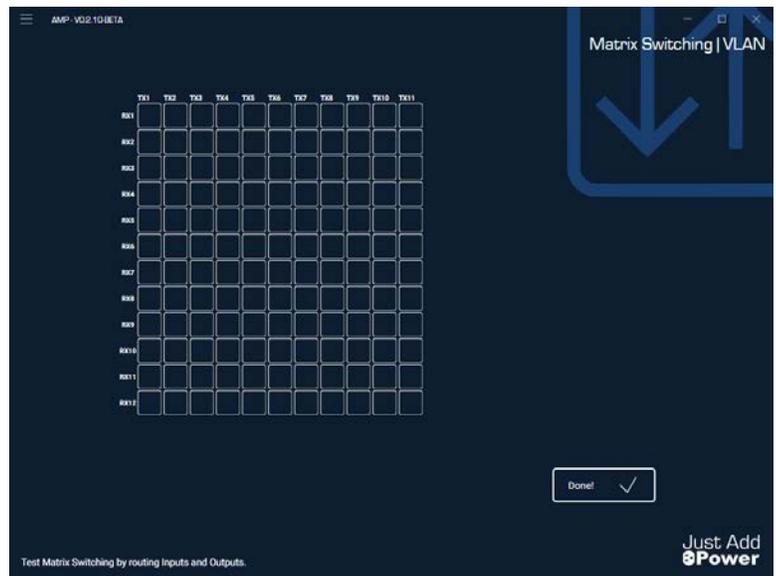
2. Select the **Connect** option.



3. Input the IP address of the Receiver in the system being used for Matrix Control. In most systems, this is **172.27.1.1**
4. Click **Connect**.



5. A grid will appear that matches the system size. Control the system by:
  - Clicking a box to switch that Receiver to watch that Transmitter.
  - Clicking a TX title at the top to switch all Receivers to that Transmitter.
6. Active boxes will light up when selected.
7. Click **Done!** when finished.



## Add Devices On-site

**Add Devices On-Site** configures a single or group of devices to add to an AMP VLAN system. The ports already exist on the switch and the PC has access to the network that the Just Add Power system is on. The **On-Site** option reads the current system and assigns devices to open ports.

Add Devices On-Site will:

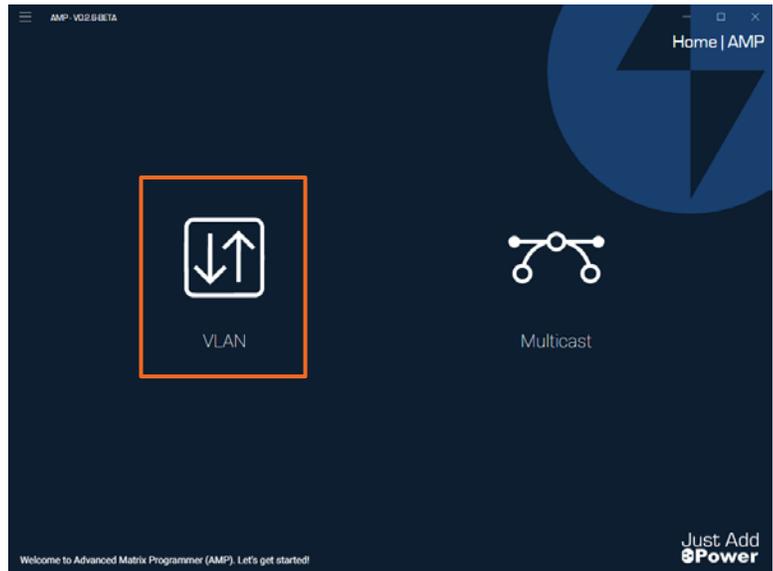
- Read the system size
- Let you select an empty port on the switch for the new device to be added to
- Assign IP settings and firmware to the new device to match the system

Add Devices On-Site will **NOT**:

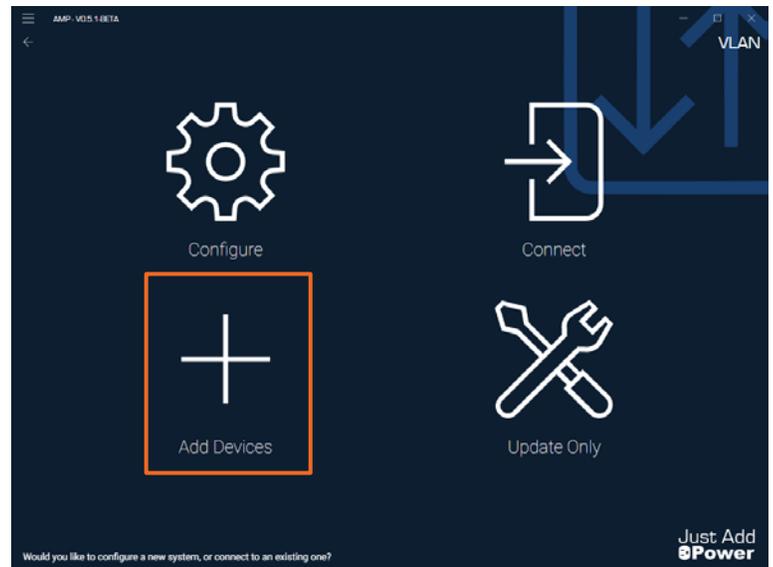
- Change a data port into a Transmitter or Receiver port
- Change the switch configuration or system size in any way

Follow the instructions below to add a **new device** to an **already-configured system while on-site**:

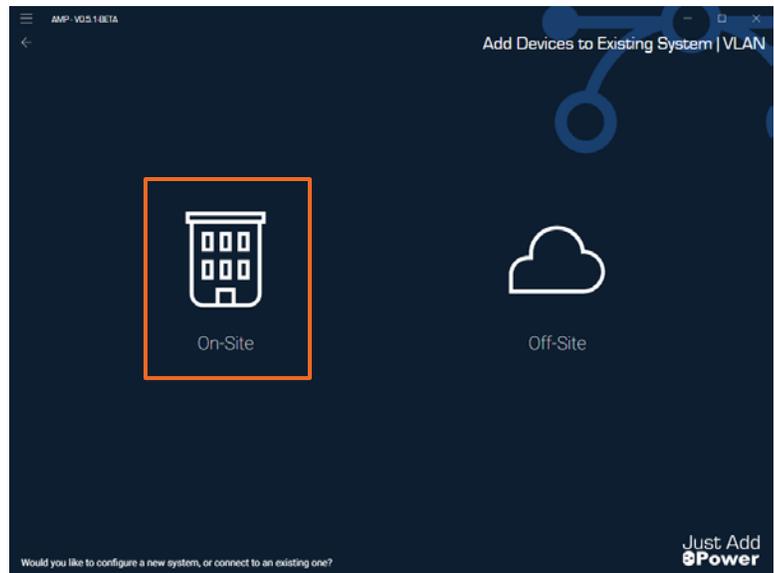
1. Open AMP and select the **VLAN** option.



2. Select the **Add Devices** option.

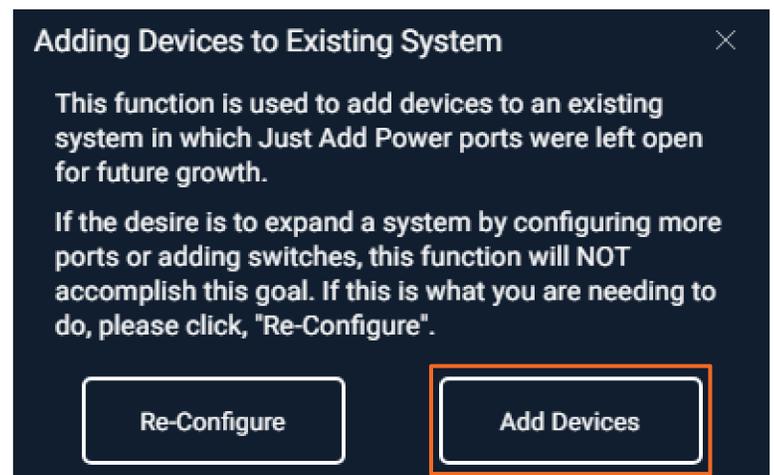


3. Select the On-Site option



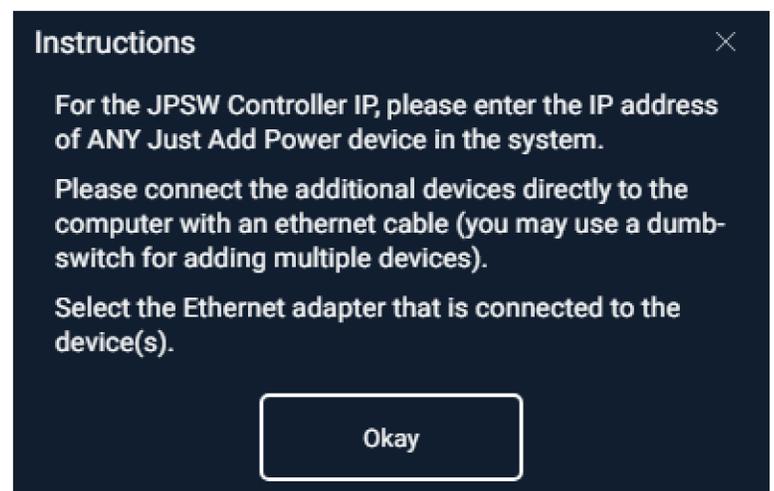
4. The popup confirms that you are intending to **add devices** to **empty ports** that were previously configured for Just Add Power devices. Click **Add Devices** to move forward.

**Note:** If the intention is to **add ports** to a system, then you have selected the wrong function. Click the **Re-Configure** button to move to **Configure a New System** instead.

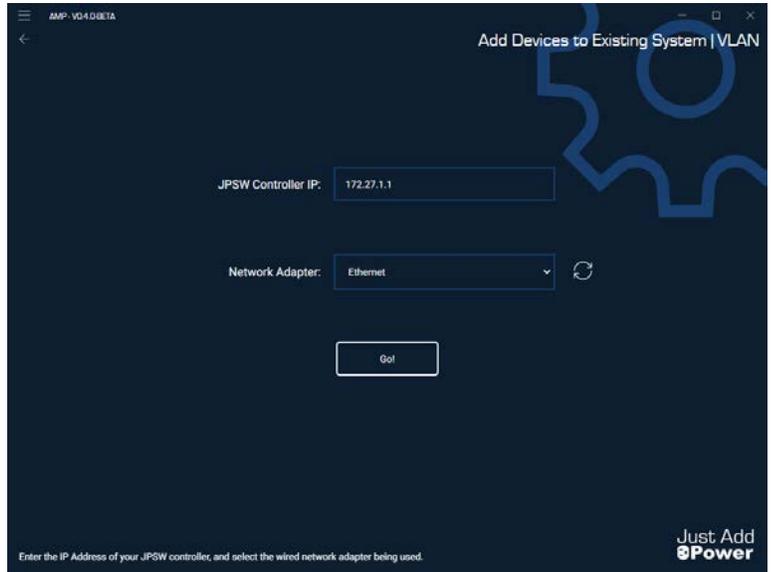


5. The next popup gives instructions for how to prepare for the next step. Please do these 3 things, then click **Okay**:

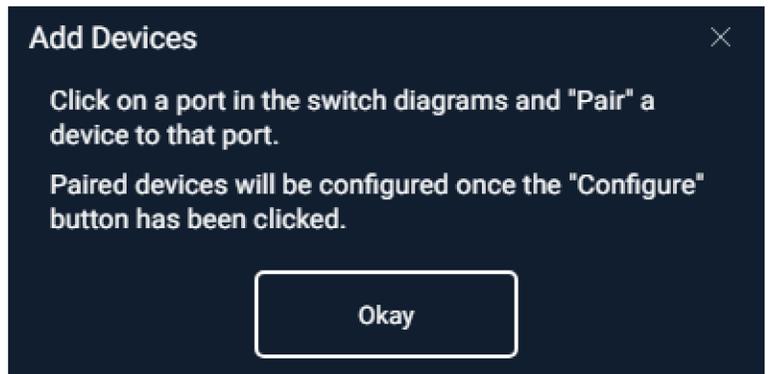
- Find the IP address for an active device in the system (it will be entered on the next page)
- Connect the new devices to power and to a **data port** on the network. **DO NOT** connect them to ports configured for Just Add Power.
- Connect your PC's wired network to a **data port** on the network.



- Enter the IP address for an active device in the system – any Transmitter or Receiver previously configured and working in the system. The default IP of Receiver 1 is **172.27.1.1**.
- Select the wired network adapter on your PC that is connected to the data network.

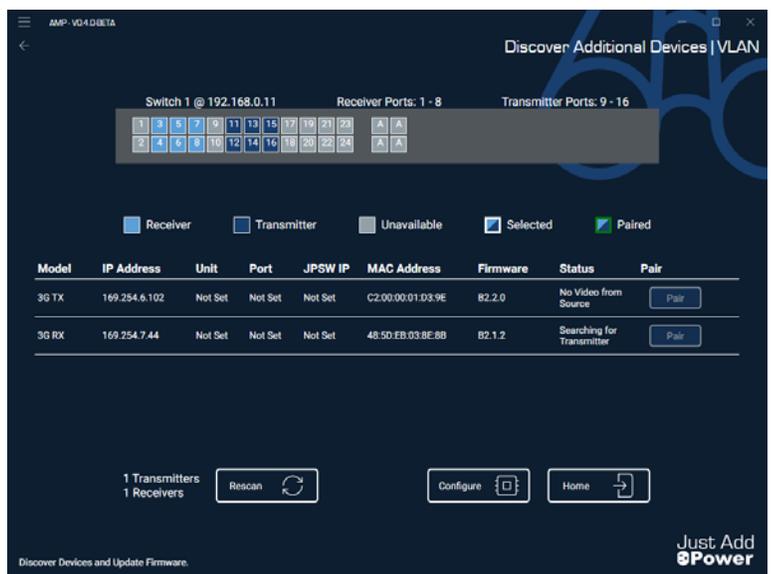


- The program will login to the active device and read the size of the system and which ports are open for new devices.
- The popup instructs you to click on a port and **Pair** a device to the port. Click **Okay** to move on.

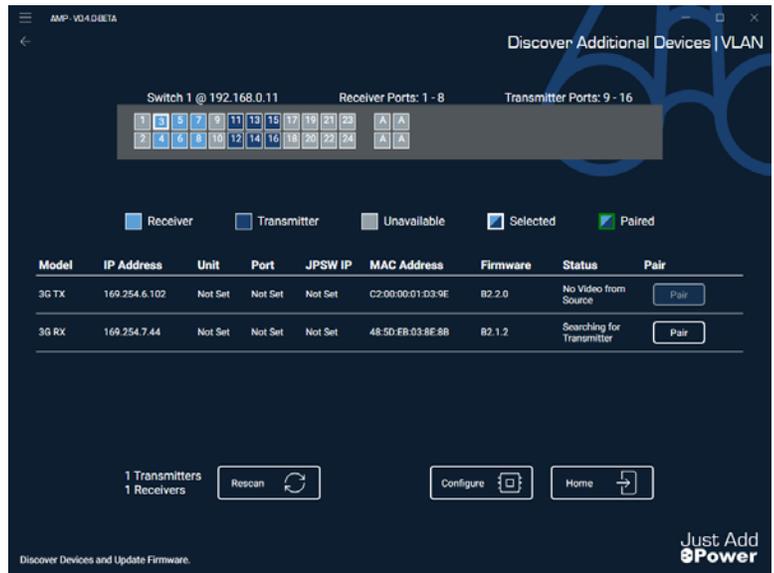


- Once the switch diagram appears, the program will search for new devices on **data ports**. If new devices do **NOT** show up after a few seconds, confirm that they have a solid Power light and are connected to a **data port**. Devices connected to Transmitter and Receiver ports **WILL NOT** show up in the list.

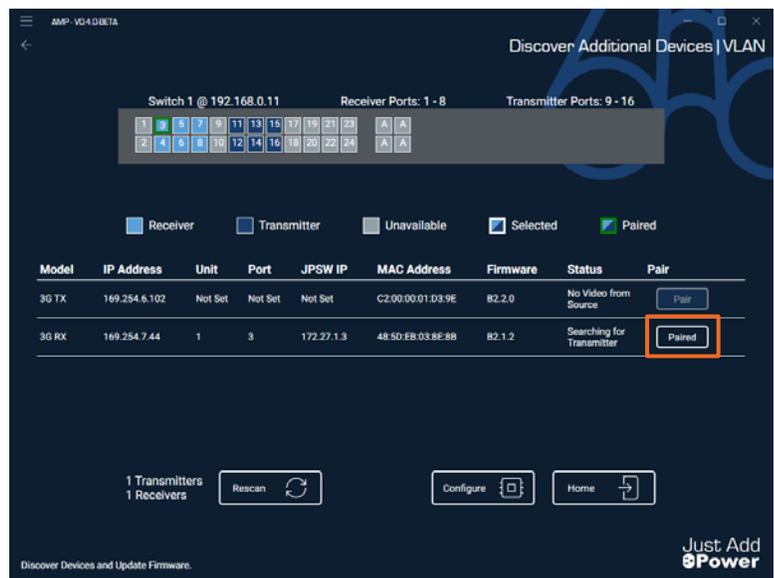
**Note:** In the picture here, ports 1, 2, 9, and 10 are occupied by active devices. New devices should be connected to ports 17-23. If new devices are connected to ports 3-8 or 11-16, they **WILL NOT** show up in the list.



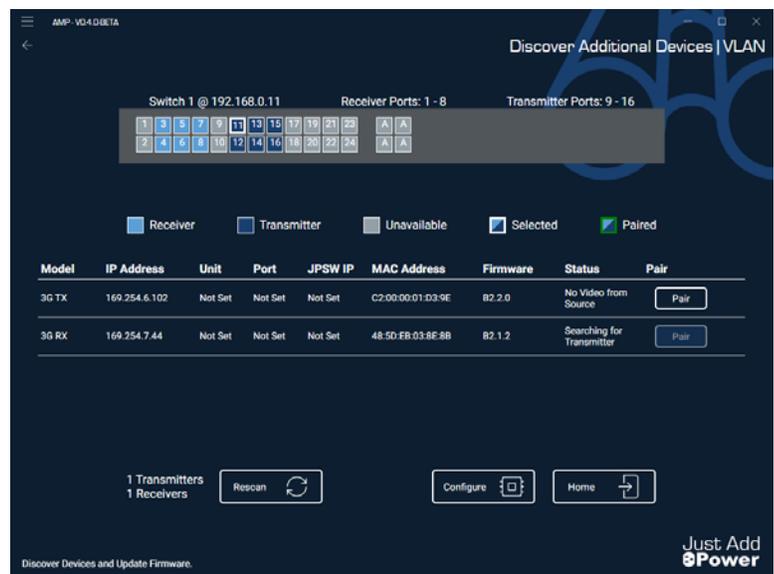
11. To add a Receiver, select a Receiver port on the switch diagram. It will highlight white.



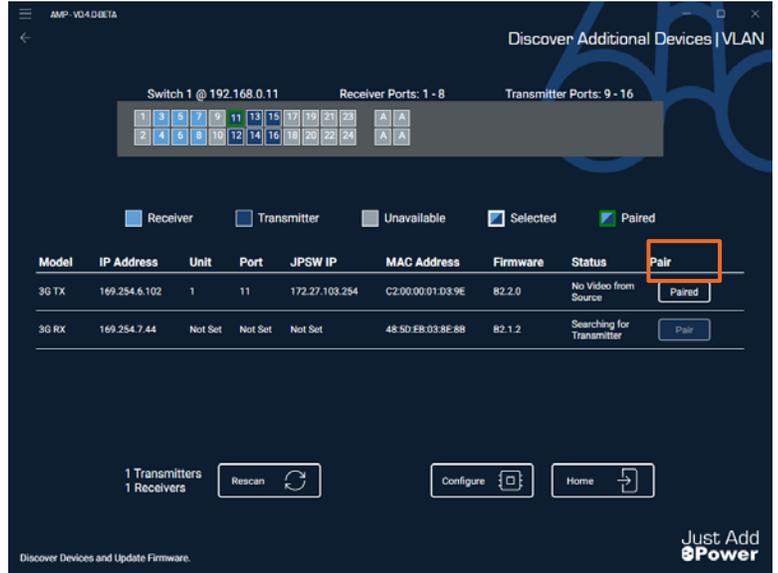
12. With the Receiver port selected, click **Pair** on the line with the new Receiver to be added. The button will change to read **Paired** and the port on the switch will turn green.



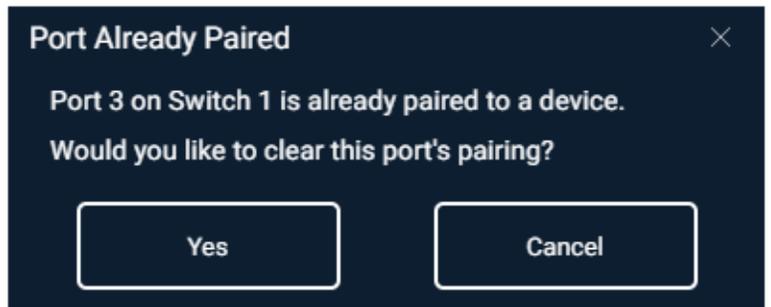
13. To add a Transmitter, select a Transmitter port on the switch diagram. It will highlight white.



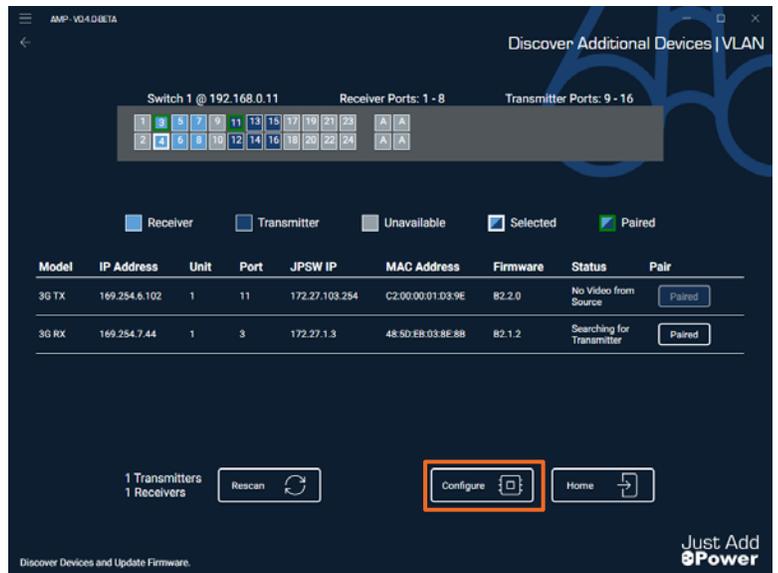
14. With the Transmitter port selected, click **Pair** on the line with the new Transmitter to be added. The button will change to read **Paired** and the port on the switch will turn green.



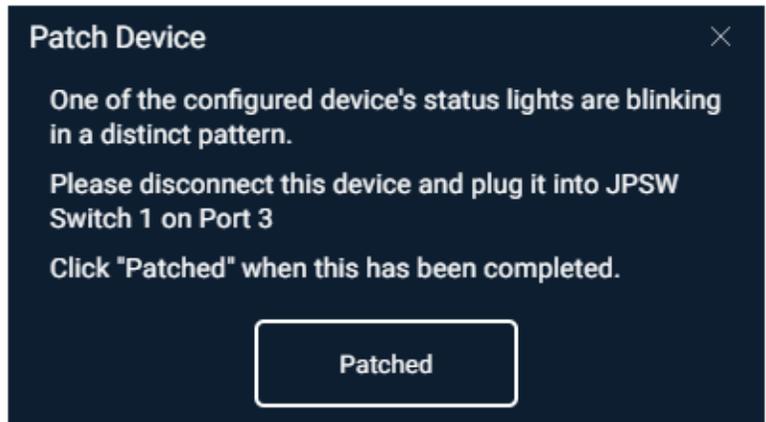
**Note:** If you pair a device incorrectly, click on the green port in the diagram and use the popup to clear the pairing.



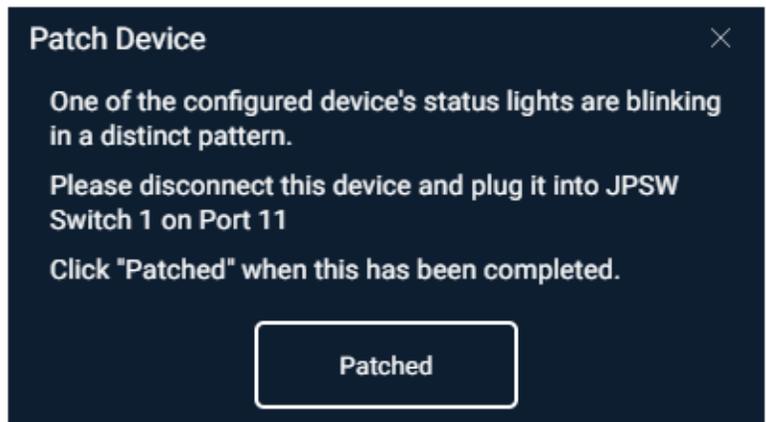
15. Once all new devices have been paired, click **Configure** to move forward.



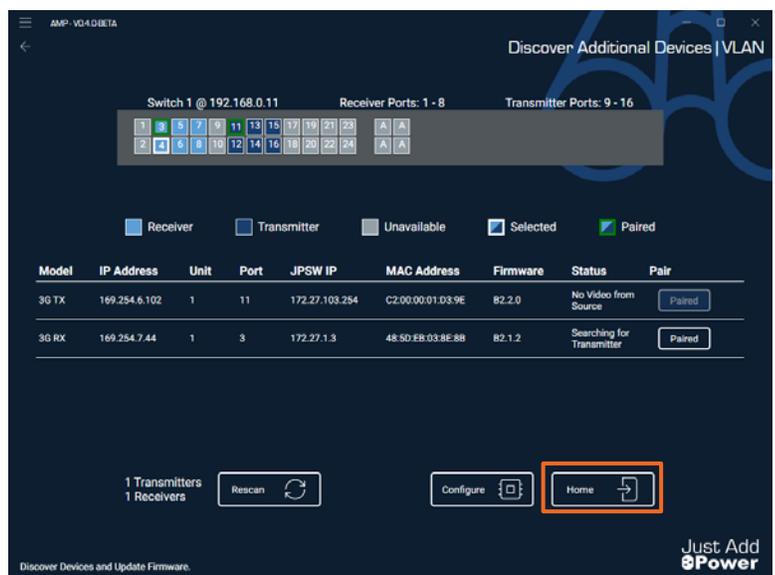
16. A popup will tell you which device is ready to be moved to its final location. Locate the device with a blinking Power and blinking Data light, disconnect it from the data port, and move it to the port described in the popup.
17. Click **Patched** once the device has been moved to the correct port.



18. Continue to move devices to their final locations until all devices are relocated.



19. When the program returns to the patching page, all devices have been relocated!
20. You can continue to connect new devices and add them to the system by connecting them to **data ports**.
21. When all devices have been added, click **Home** to finish.



## Add Devices Off-site

**Add Devices Off-Site** configures a single or group of devices to add to an AMP VLAN system. The ports must already exist on the switch, and the **Off-Site** option will discover any devices on the local network to be brought to the jobsite later.

Add Devices Off-Site will:

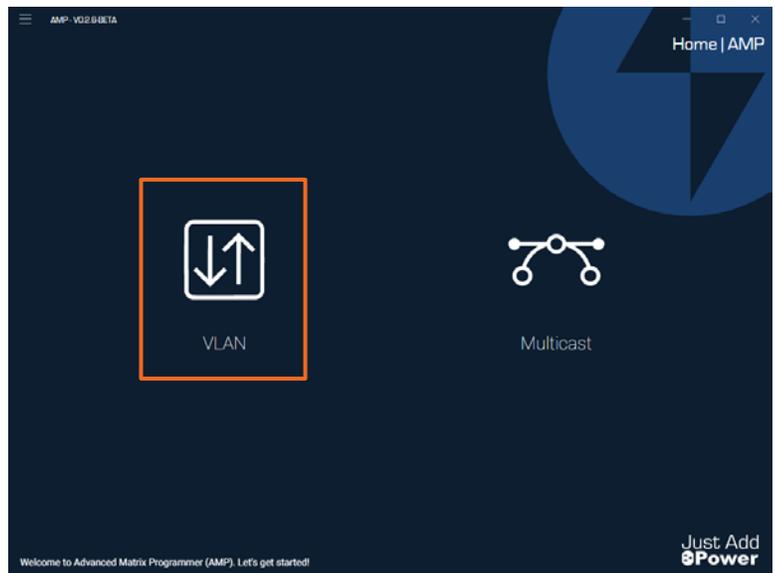
- Discover Just Add Power devices on the local network
- Ask for the Receiver port connection or Transmitter number
- Assign IP settings to the new device based on user input

Add Devices Off-Site will **NOT**:

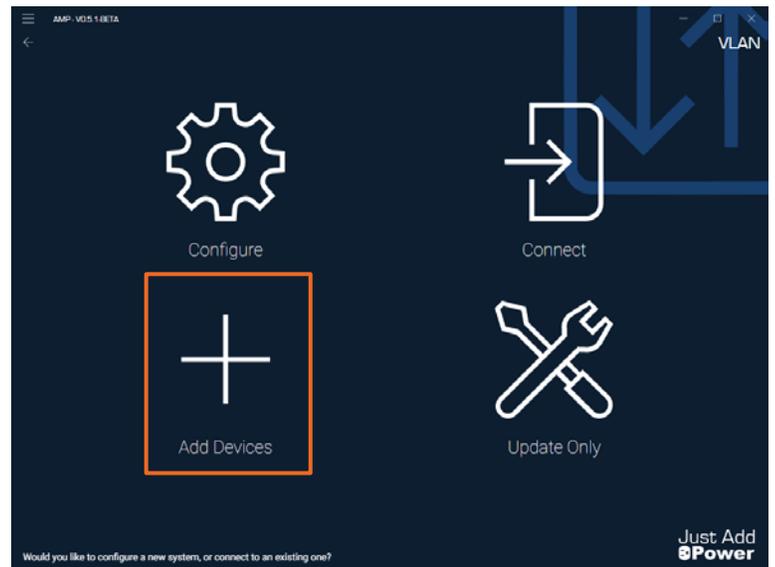
- Magically know the details of the system on-site

Follow the instructions below to add a **new device** to an **already-configured system while off-site**:

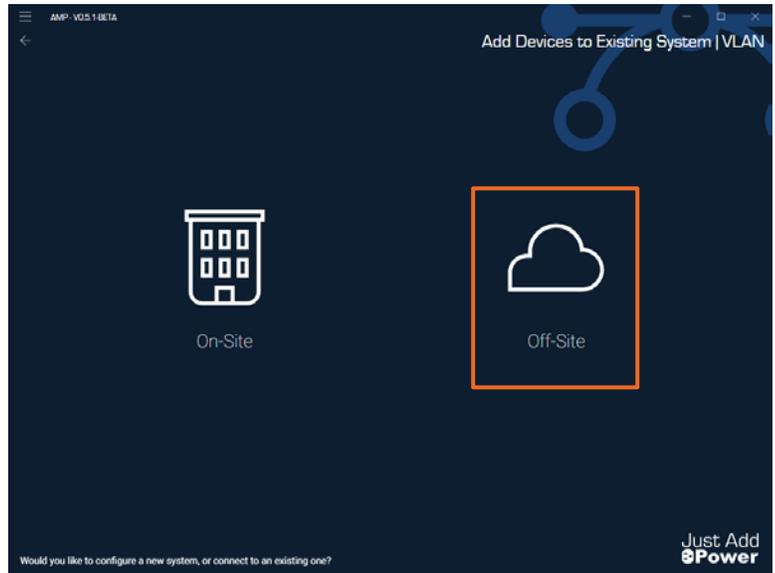
1. Open AMP and select the **VLAN** option.



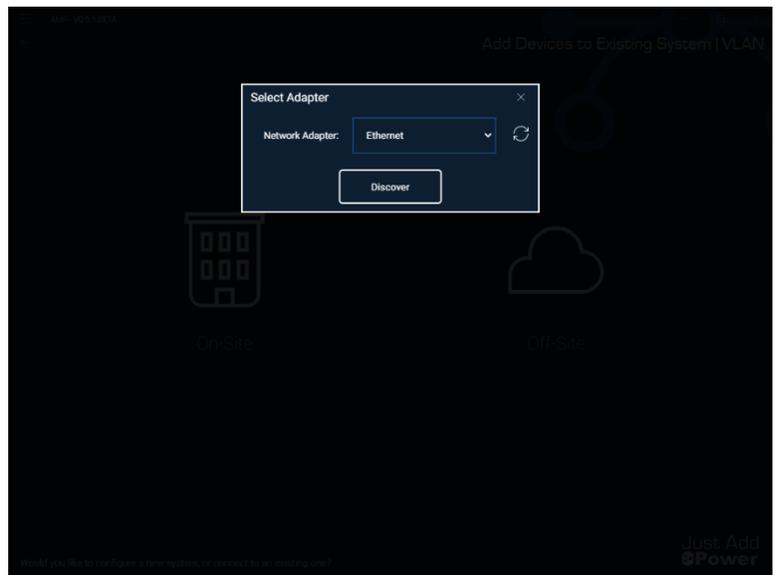
2. Select the **Add Devices** option.



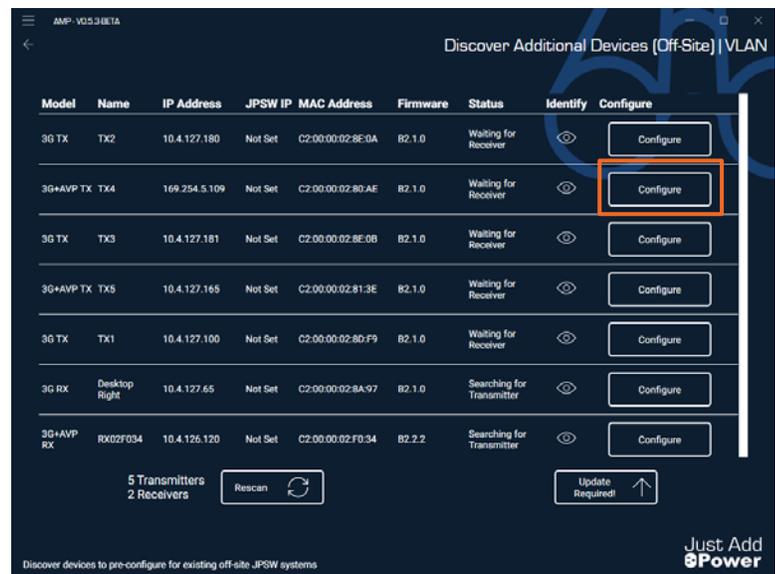
3. Connect the new device(s) to power and to the same network as the PC. Suggestions:
  - Connect the device(s) to a POE switch and connect the PC to the same switch
  - Connect the device directly to the PC's network port and power with a power supply or POE injector
4. Select the **Off-Site** option



5. The popup has you select the wired network adapter on the PC that is connected to the network. Click **Discover** to move forward.

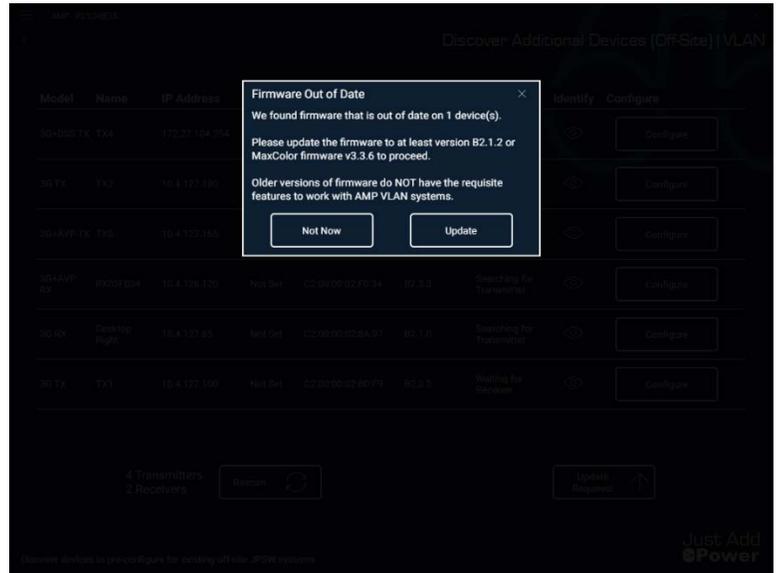


6. All devices on the same network as the PC will be discovered. Click the inline **Configure** button for one of them.



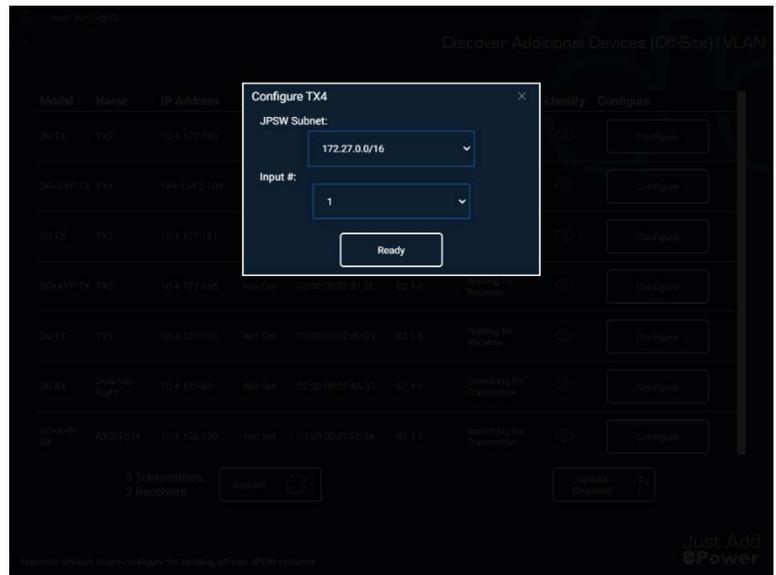
7. If you are prompted to update firmware, please update. The device must have an AMP-compatible firmware to function in the system.

- Firmware B2.1.2 for 3G devices
- Firmware v3.3.6 for MaxColor devices



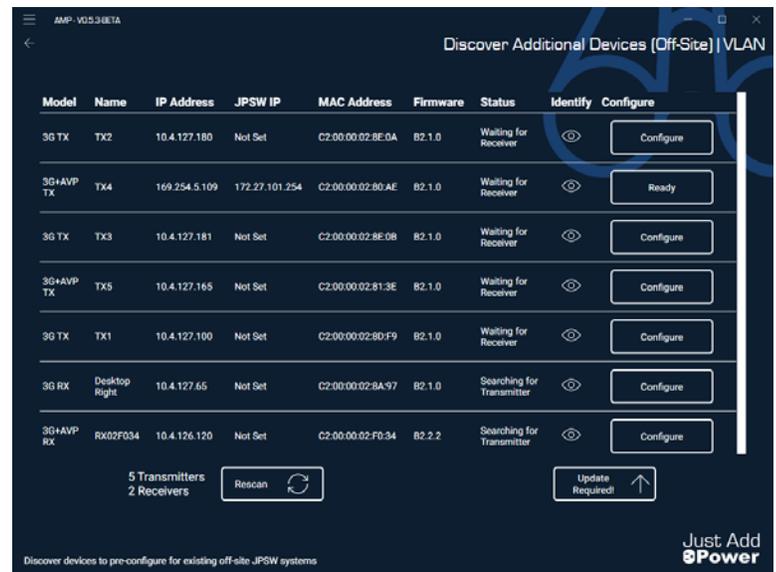
8. A popup will ask to select a **JPSW Subnet** and an **Input/Output Number**.

- Choose the **JPSW Subnet** that matches the system this device will be a part of. **172.27.0.0/16** is the default for most systems.
- Choose the **Input/Output #** to match the **Transmitter/Receiver number** for the device when it is deployed in the system.



9. The configured device will show **Ready**. The device is configured.

10. Repeat to configure additional devices with a **JPSW Subnet** and an **Input/Output #**.



# Multicast System

## Multicast Switching Overview

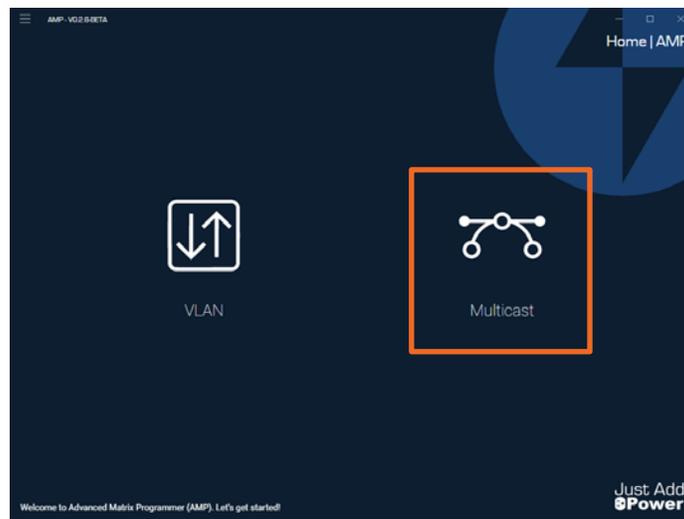
Multicast Switching describes an AV over IP system that puts all Just Add Power devices in a single VLAN and uses Multicast IPs to separate video signals.

Each Transmitter gets a unique Multicast IP – we call them **Channels**. For Matrix Control, the Channel of a Receiver is set to match the Channel of the Transmitter it will watch.

AMP Multicast will configure all Just Add Power devices with these settings:

- Transmitter Name
- Receiver Name
- Management IP Address, Subnet Mask, Default Gateway
- Multicast IP
- Matrix ID

AMP **WILL NOT** configure the network switches that the Just Add Power devices are connected to. Switch configuration is the **responsibility of the Installer**.



## Switch Configuration

AMP Multicast only configures Just Add Power Devices. Switch configuration is the *responsibility of the Installer*.

### Requirements

The switch must have the following features to support Just Add Power:

- Layer 3 managed network
  - One dedicated VLAN for all Just Add Power devices
  - One VLAN for the data network
  - Inter-VLAN routing to move control commands from the data network to the Just Add Power network
- Jumbo Frames – MTU greater than 9000
- 500Mbps dedicated bandwidth *per Transmitter* (multi-switch systems)
- IGMPv2
- IGMP Snooping

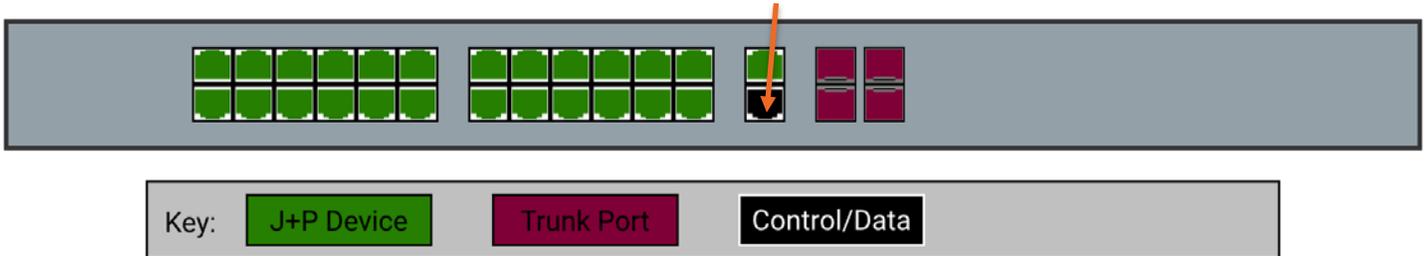
### Switch Configuration Files

Just Add Power provides switch configuration files for switches we have tested in-house and have all the requirements listed above.

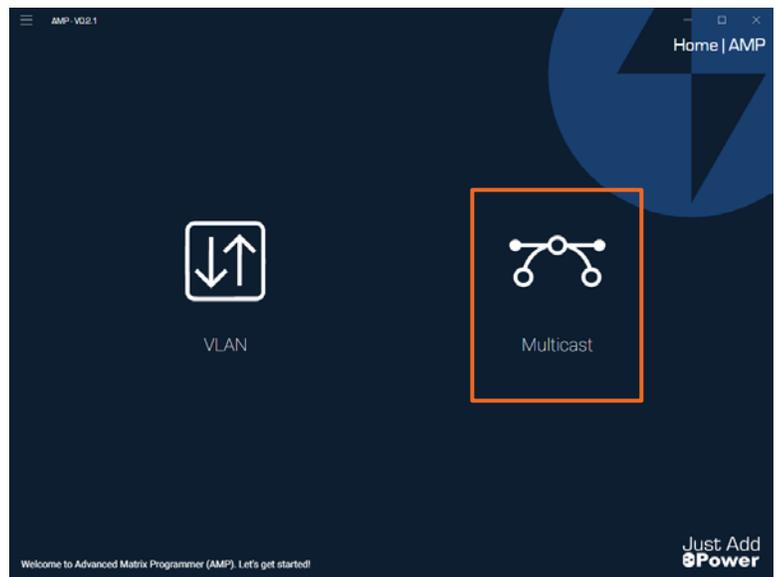
<https://support.justaddpower.com/kb/section/118/>

## Configure a System

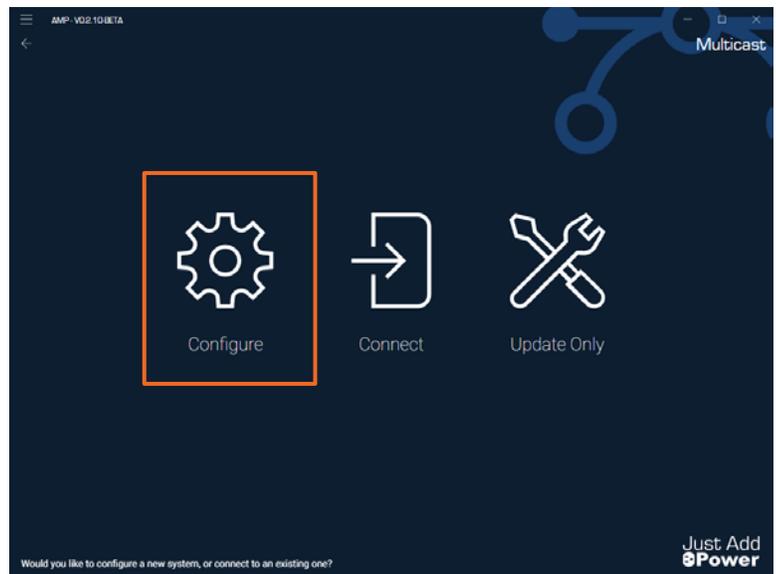
1. Configure the switch so that all Just Add Power devices are on the same VLAN. Leave at least one extra open port.
2. Connect all Just Add Power devices to the switch. Connect HDMI cables to the sources and displays. All Just Add Power devices should have a solid Power light and a Data light that is either blinking or solid green.
3. Connect the PC running AMP to a switch port in the **same VLAN as the Just Add Power devices**.



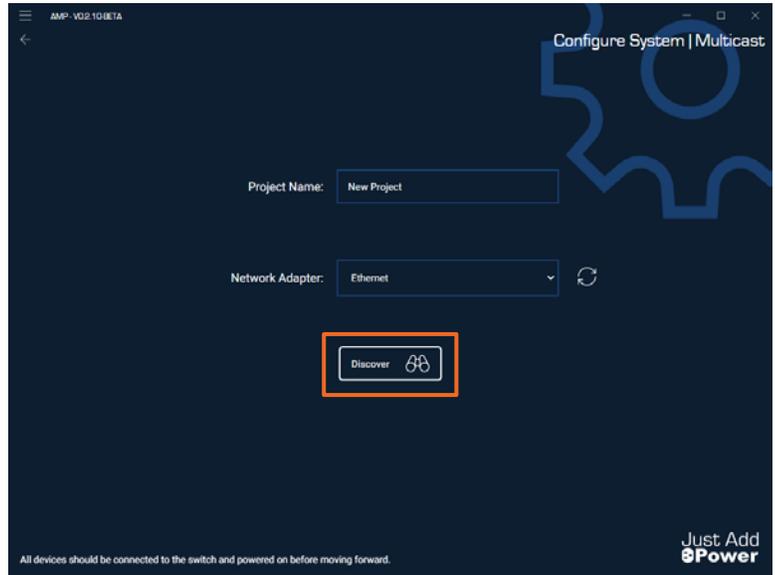
4. Open AMP and select the **Multicast** option.



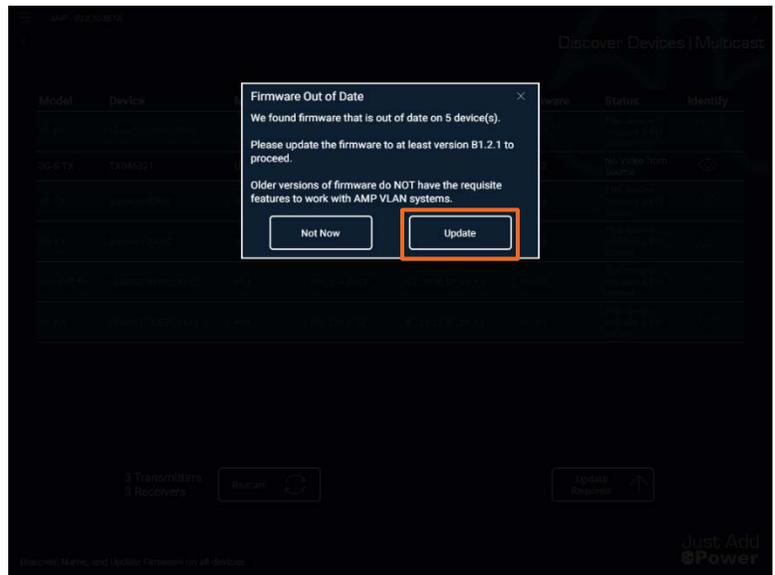
5. Choose **Configure** to build a new system.



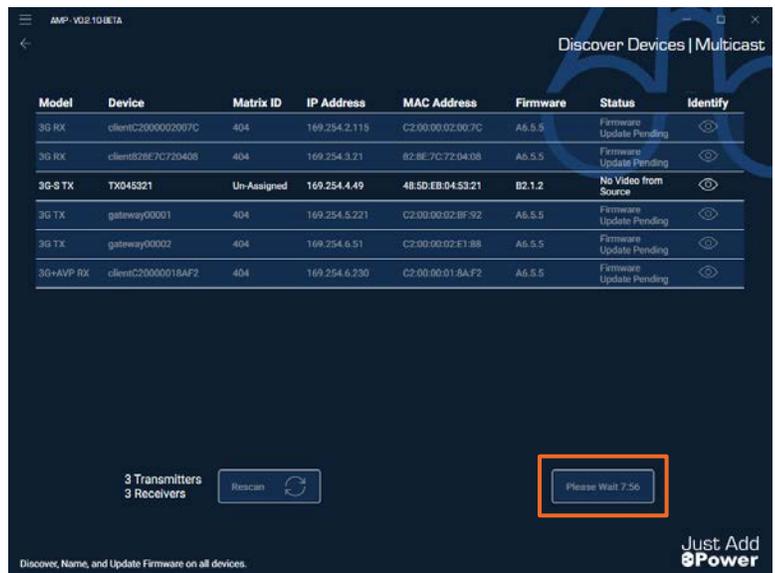
6. Fill in the **Project Name**. All files for this project will be saved in a folder with this name.
7. Choose the **Network Adapter** for the **wired** network on the PC. Wireless is not supported
8. Click **Discover** to move forward. The program will discover Just Add Power devices on the same network as the PC.



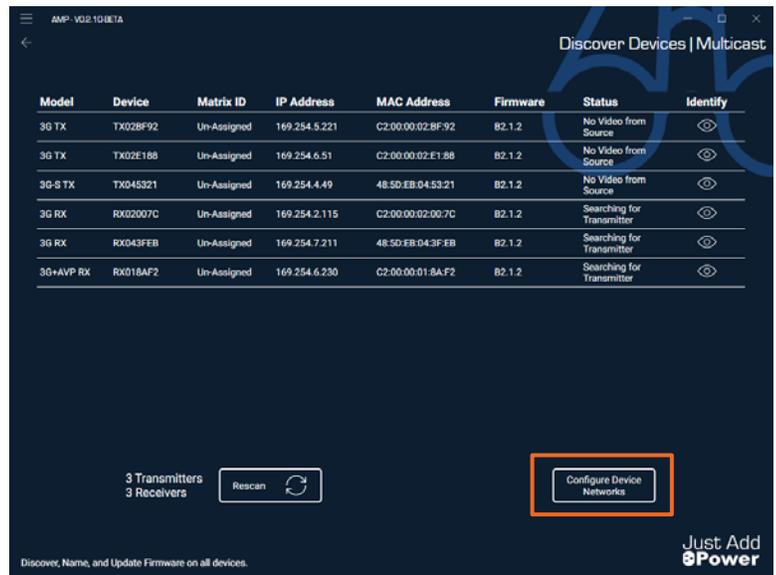
9. **(Optional)** If devices are not on the minimum firmware version, a popup will ask you to update. The popup only appears if your devices are on a firmware that is not compatible with AMP. Select **Update** if the popup appears.



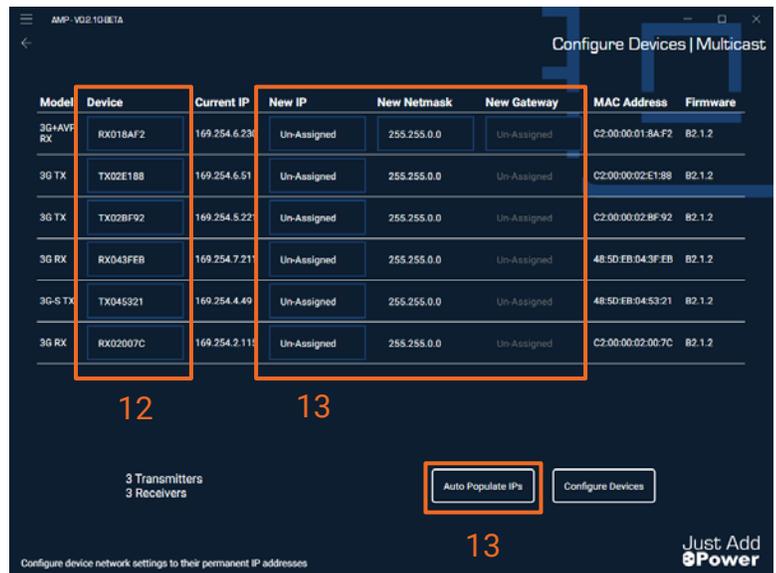
10. **(Optional)** Firmware update will take about 8 minutes to complete. The timer on the button at the bottom-right will count down to indicate remaining time. Please wait while devices update.



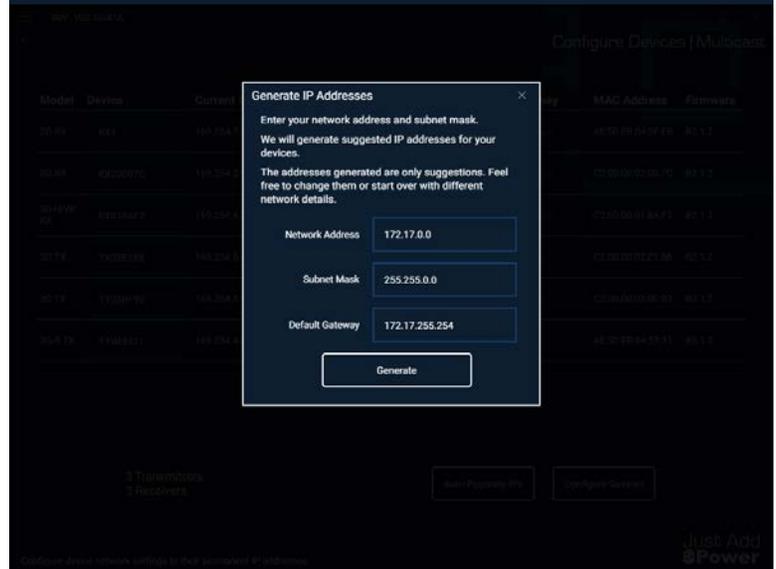
11. Once all devices are on a compatible firmware and discovered, click **Configure Device Networks** to move forward. If Transmitter HDMI's were previously disconnected, you can reconnect them here.



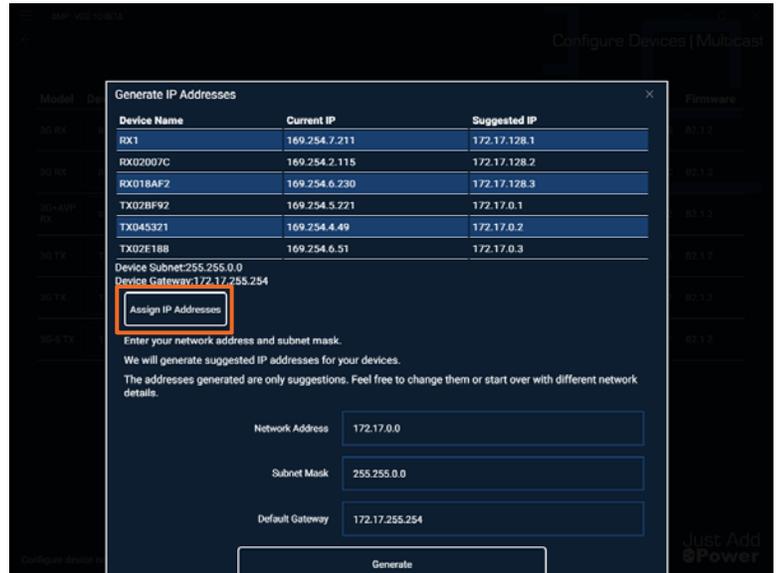
12. Give each Device a Name
13. Assign a New IP, New Netmask, and New Gateway to each device. All devices must be in the same subnet.
- This can be done manually by typing in each IP address (jump to step 17)
- OR**
- Assign IP details to all devices at once by choosing Auto Populate IPs (continue to step 14)



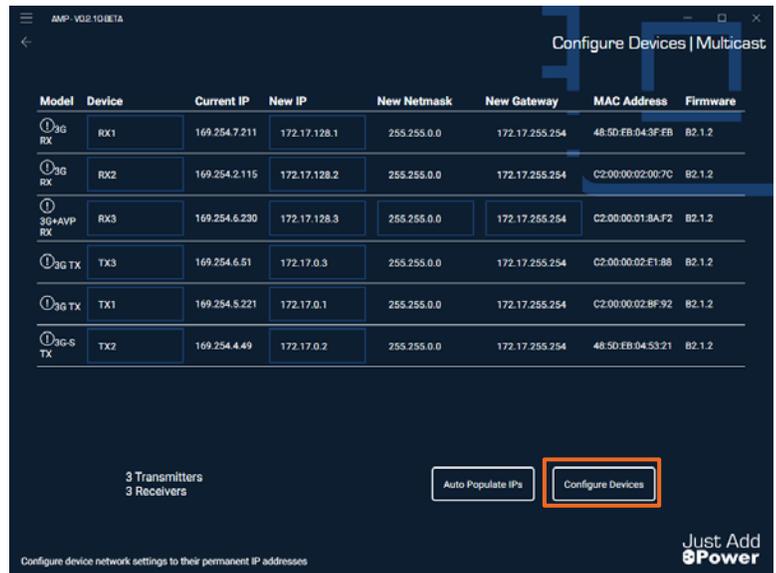
14. In the popup for **Auto Populate IPs** set the Network Address, Subnet Mask, and Default Gateway for the system. We recommend using the default 172.17.0.0 unless you have a specific need to change it. Click **Generate** once entered.



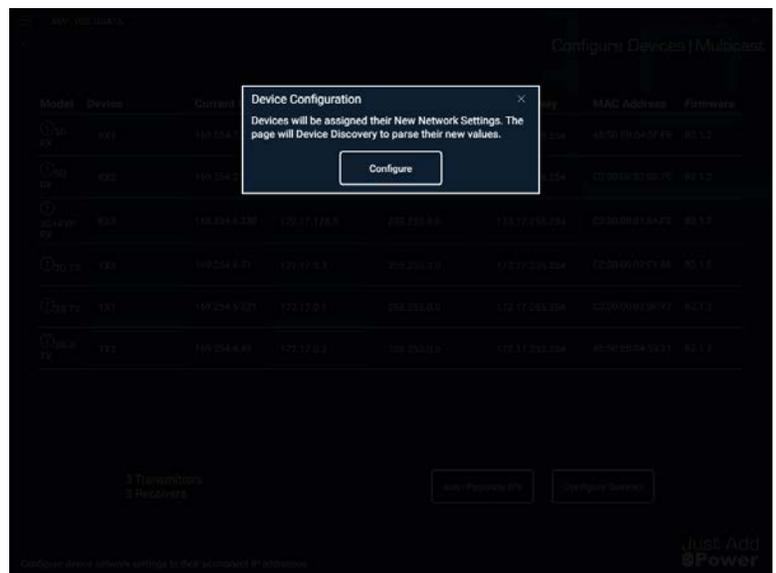
15. Generated IPs for each device will be shown above. Click **Assign IP Addresses** to apply these IPs to all devices.



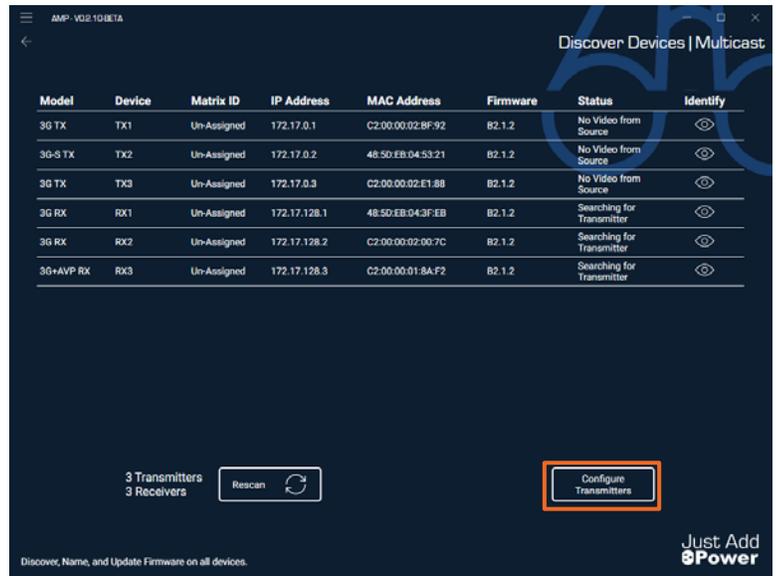
16. Now that all devices have had a Name, New IP, New Netmask, and New Gateway entered, click **Configure Devices** to move forward.



17. On the popup, click **Configure** to confirm that all settings are correct and move to apply them.

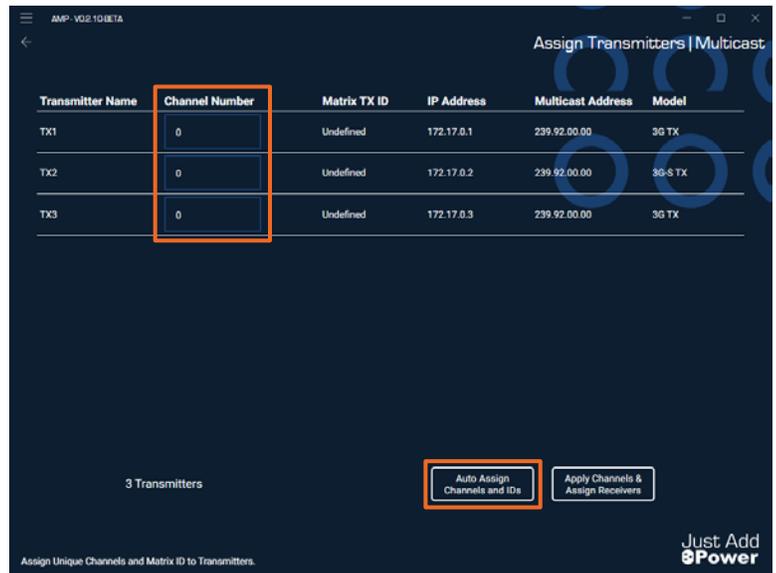


18. A final discovery screen shows the settings applied to all devices. Once all devices have the correct settings, click **Configure Transmitters** to move forward.

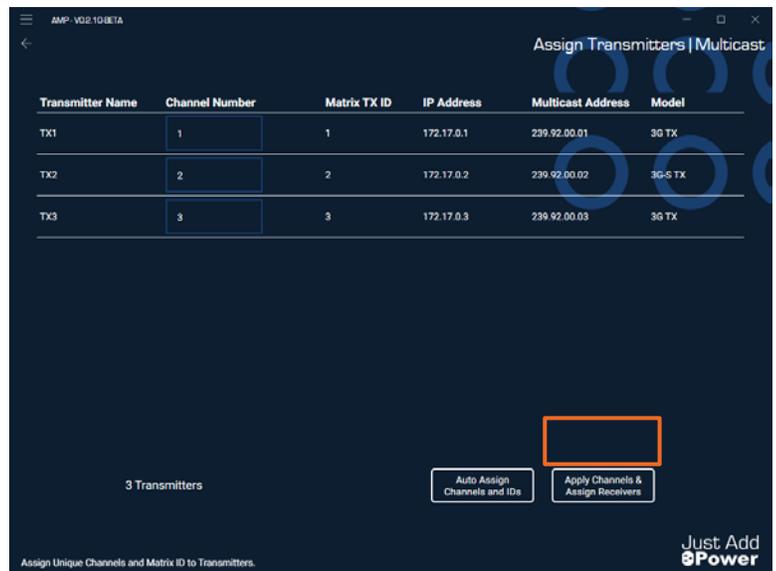


19. Each Transmitter needs a unique **Channel Number** that identifies the AV signal on the network. The Matrix TX ID will auto-fill with the same value and is used later when programming the control system. We recommend relating the Channel Number to the IP Address.

- Assign Transmitters by typing a **Channel Number** for each one
- OR
- Click **Auto Assign Channels and IDs** to assign Channels automatically.

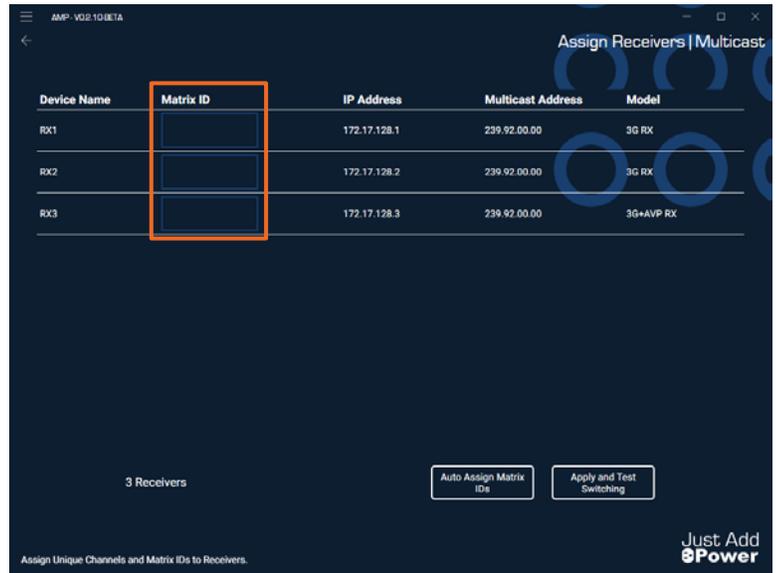


20. Once all Transmitters have a unique Channel Number, click **Apply Channels & Assign Receivers** to move forward.



21. Each Receiver needs a unique **Matrix ID** to identify it to the control system.

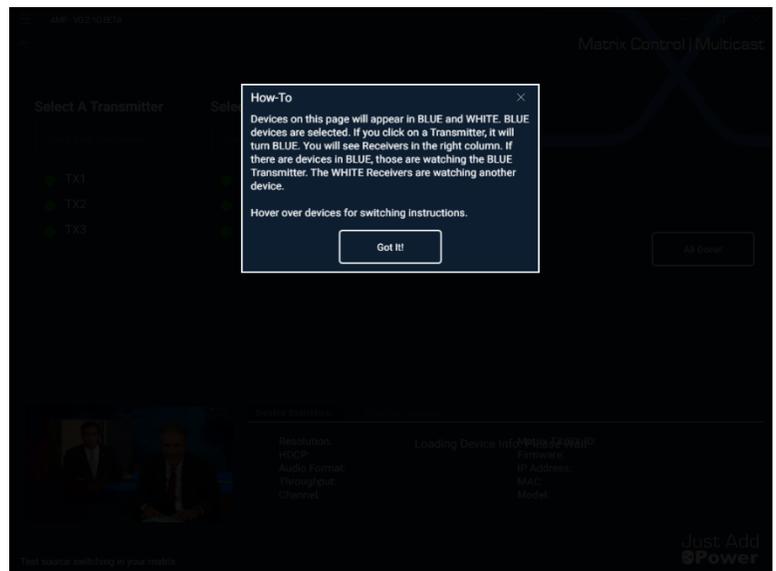
- Assign Receivers by typing a **Matrix ID** for each one  
**OR**
- Click **Auto Assign Matrix IDs** to assign IDs automatically.



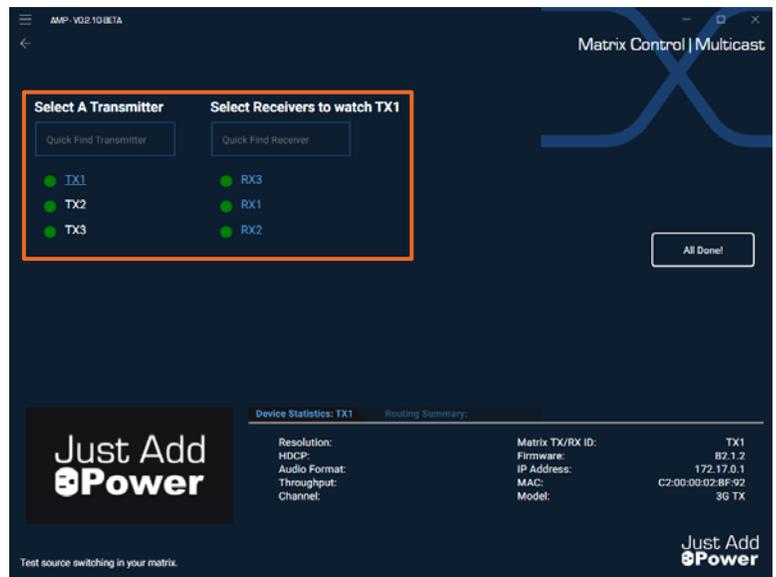
22. Select **Apply and Test Switching** to apply Receiver Matrix IDs and move forward.



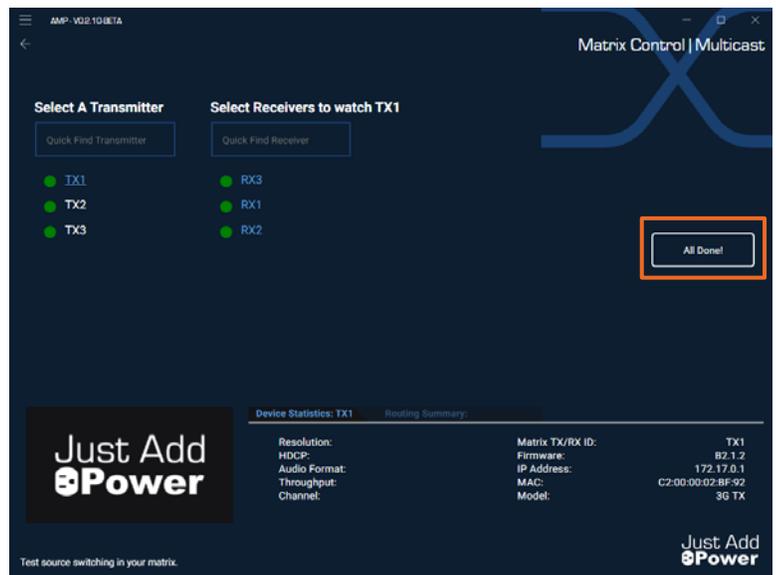
23. The popup describes how to use the Matrix Control page. Select the Transmitter, then select Receivers to switch to watch that Transmitter. Blue text indicates active selections. Click **Got It!** to move forward.



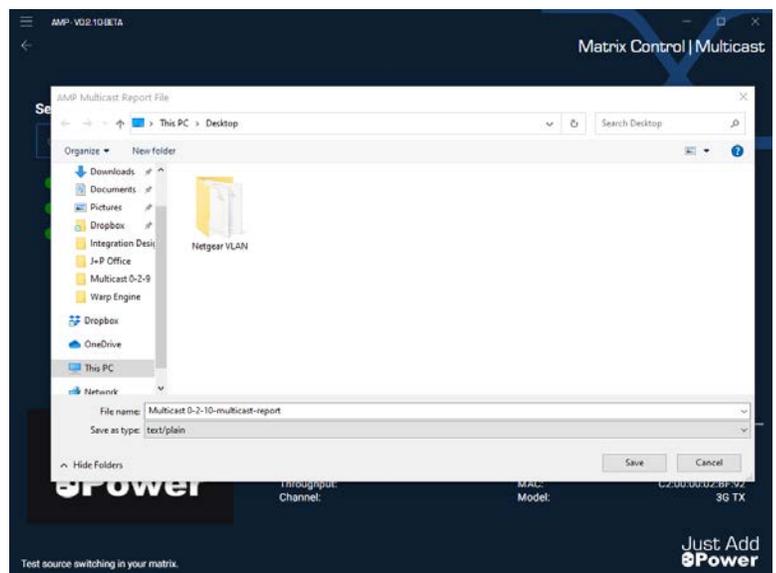
24. Use the Matrix Control page to set any display to watch any source, before the control system is setup. Select a Transmitter, then select a Receiver to watch that Transmitter.



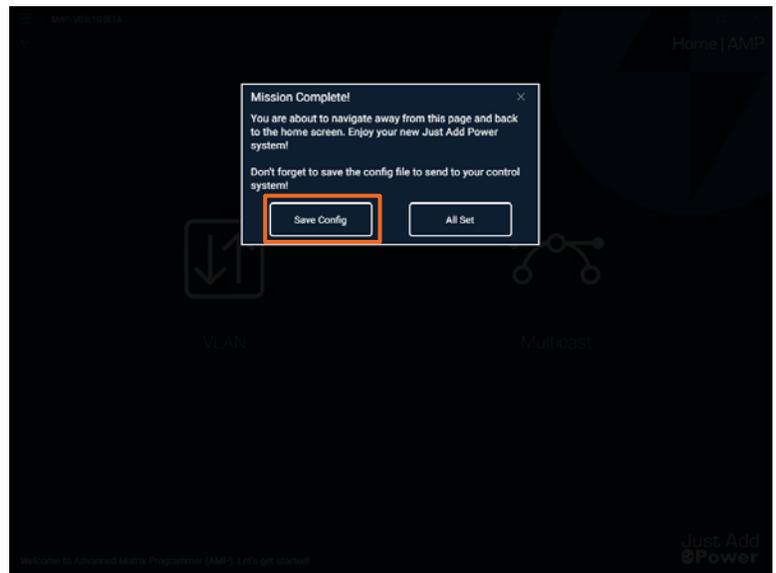
25. When finished, select **All Done!** to move forward and get a Report File for the system.



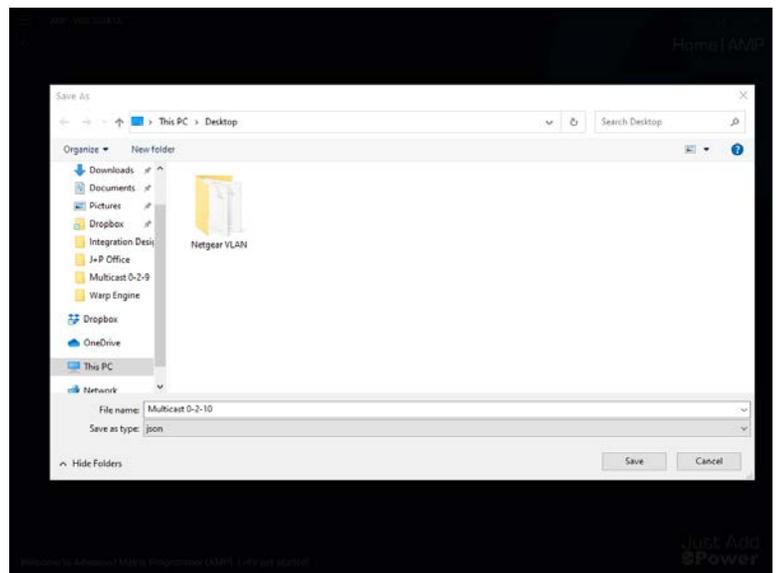
26. The first save dialog is for a Report file, containing information about all devices in the system. Save this with other important files for the jobsite. The file format is .csv.



27. The next popup is for a configuration file that must be loaded into the control system to configure the driver. Click **Save Config**.



28. The second (and last) save dialog is for the control system configuration file. This file is loaded into the control system to teach it how to control the Just Add Power system. The file format is **.JSON**



29. The .JSON file is needed to program the control system. Without it, you will need to run AMP Multicast again.

30. Done!

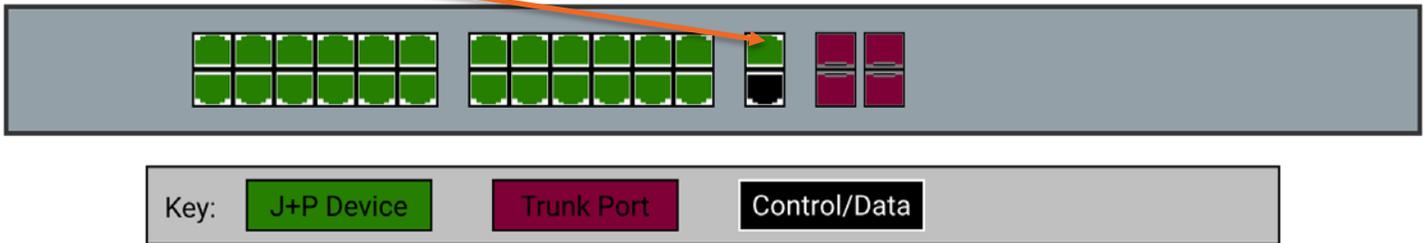
```

1  {
2  "project": {
3    "projectName": "Test Project 2021-10-07 2",
4    "size": {
5      "txCount": 5,
6      "rxCount": 4
7    },
8    "devices": [
9      {
10     "__className": "Device",
11     "ip": "172.17.0.2",
12     "netmask": "255.255.0.0",
13     "UUID": "0ED9AAD4-0A8F-4499-A64B-CD6DC32FCD33",
14     "deviceName": "PC",
15     "MAC": "48:5D:EB:03:74:ED",
16     "model": "2G/3G+ TX",
17     "deviceStatus": "online",
18     "channel": "2",
19     "deviceId": "TX2"
20   },
21   {
22     "__className": "Device",
23     "ip": "172.17.128.1",
24     "netmask": "255.255.0.0",
25     "UUID": "ef9ac8e3-fcf2-49d8-8e3a-730a428086a2",
26     "deviceName": "Far Right",
27     "MAC": "48:5D:EB:03:97:EC",
28     "model": "3G+AVP RX",
29     "deviceStatus": "online",
30     "channel": "2",
31     "deviceId": "RX1"
32   },
33   {
34     "__className": "Device",
35     "ip": "172.17.0.3",
36     "netmask": "255.255.0.0",
37     "UUID": "24675df6-8395-43a0-971f-0b0ec2f5ad53",
38     "deviceName": "Roku 2",
39     "MAC": "C2:00:00:01:E4:AA",
40     "model": "3G TX",
41     "deviceStatus": "online",
42     "channel": "3",
43     "deviceId": "TX3"
44   },
45   {
46     "__className": "Device",
47     "ip": "172.17.0.4",
48     "netmask": "255.255.0.0",
49     "UUID": "0490A599-115E-476E-B4B1-C18F7AE57A22",
50     "deviceName": "Roku 3",

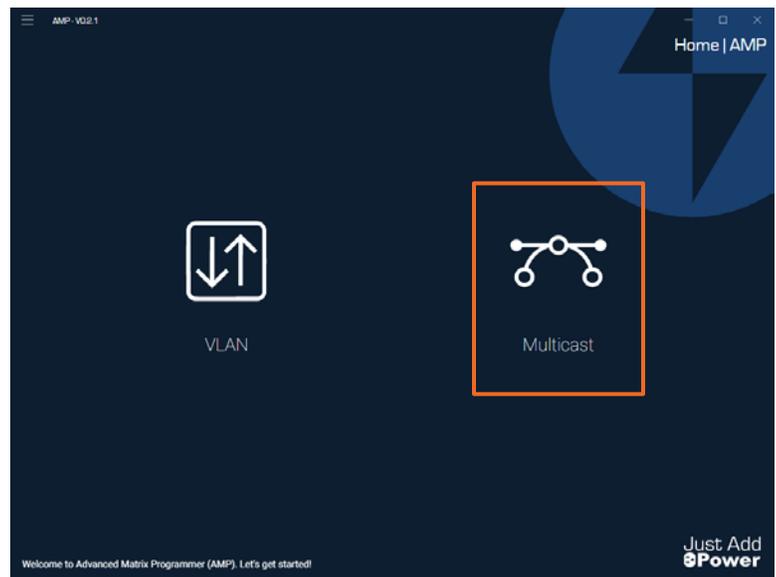
```

## Update Firmware

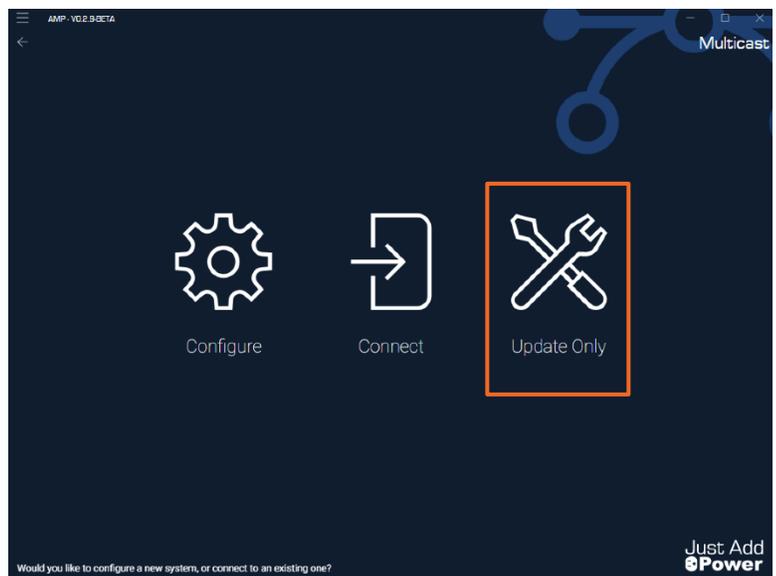
1. Connect the PC running AMP to an extra port in the same VLAN as the Just Add Power devices.



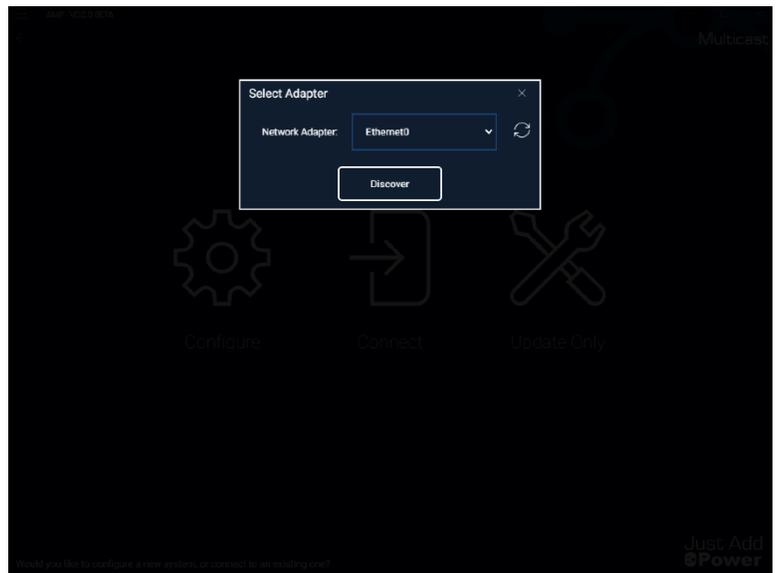
2. Open AMP and select the **Multicast** option.



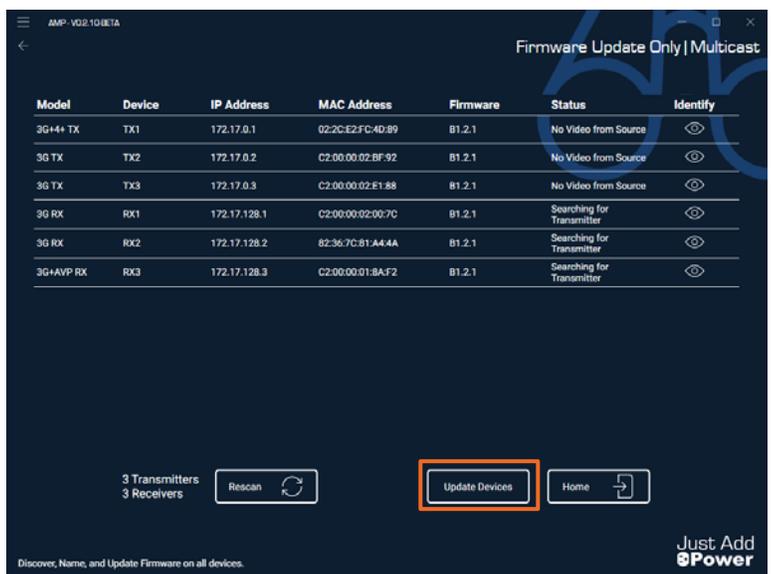
3. Choose **Update Only** to update firmware on Just Add Power devices.



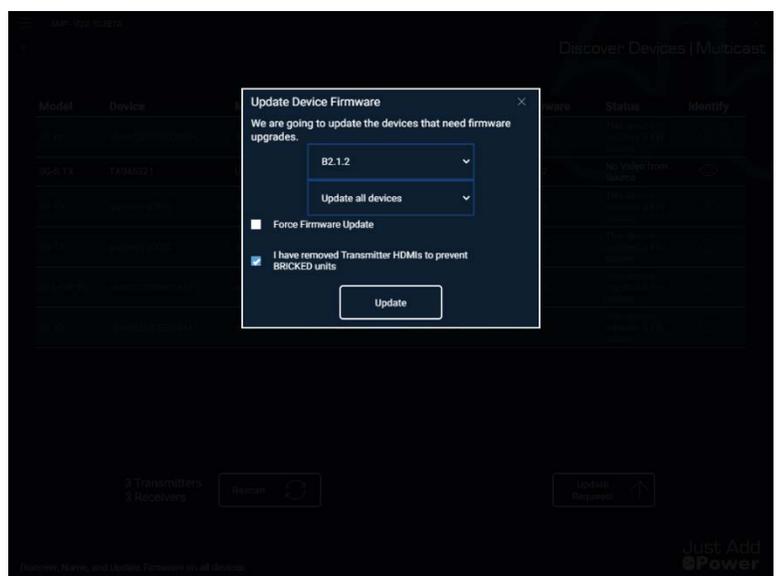
4. Select a **wired** network adapter to use for the firmware update.



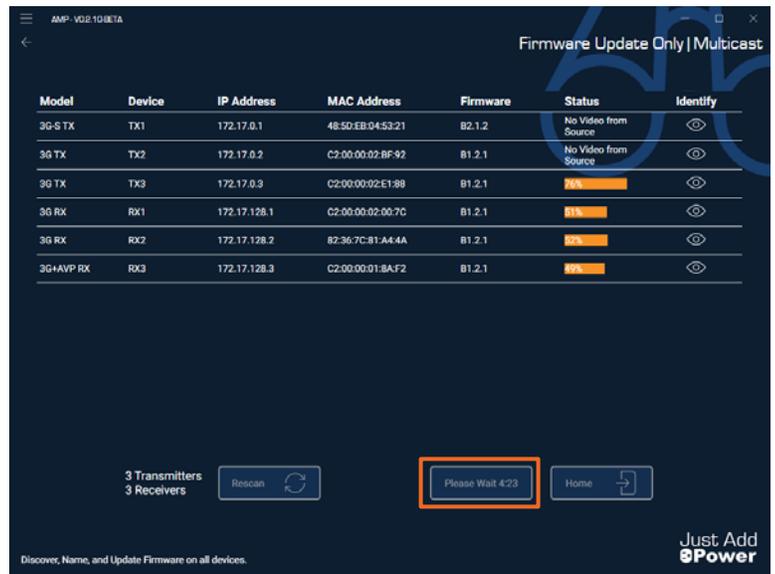
5. Wait for devices to be discovered. Once they are all discovered, click **Update Devices** to move forward.
  - Selecting **Home** will quit the update process and return to the main screen.



6. Remove HDMI cables from all Transmitters.
7. On the popup, select:
  - Latest firmware
  - Update all devices
  - Uncheck **Force Firmware Update**
  - Check **I have removed HDMI's to prevent BRICKED units**
8. Click **Update**.



9. Wait for the firmware update to finish. It takes about **8 minutes**, and a timer shows the remaining time.



10. The update is complete! Select **Home** or close the program to finish.

