



Just Add Power Integration Release Notes

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Introduction

Clare Controls announces the release of its Just Add Power driver. The Just Add Power driver contains all the information needed to let you quickly and seamlessly integrate Just Add Power devices into your ClareHome system. This document describes how to integrate Just Add Power devices into a ClareHome system.

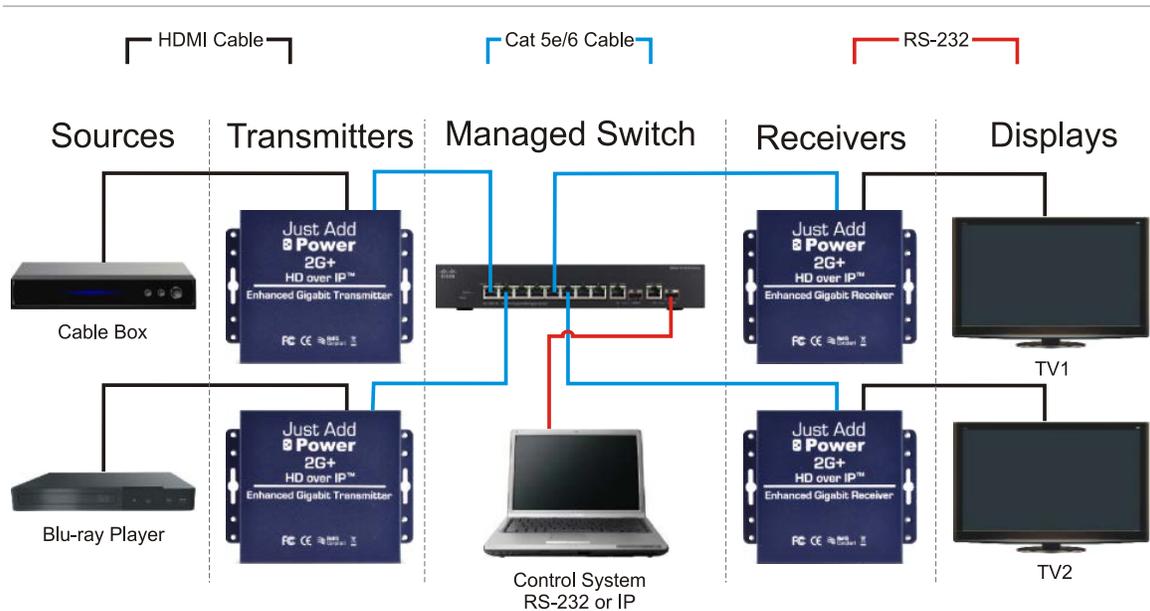
The following switch devices have been tested and certified for integration into the ClareHome system.

- Cisco SG300
- Cisco SG500

When installing Just Add Power devices, you or your technician must use Just Add Drivers Configuration Tool to configure supported switches (Cisco SG300 and SC500) and all Just Add Power devices in the system. The tool is a Windows software application that runs on your PC or laptop and is available for

download from the Just Add Power website. Use it to configure your chosen switch and Just Add Power devices.

Figure 1: Sample of the switch and devices connections



Connecting your switch

To configure your switch, you will first need to make a serial connection between the switch and your computer. The serial connection is only required for the initial configuration. You must also connect the switch and the computer to your ClareHome network.

To connect your switch and PC:

1. Make a serial connection between your computer and the Cisco switch.
You may need an adapter if your computer is not equipped with a built-in serial port.
2. Ensure your computer is connected to your ClareHome data network.
The Just Add Drivers Configuration Tool uses your computer's network settings to correctly configure devices.
3. Connect your Cisco switch to your ClareHome data network.

Connecting your Just Add Power devices

To connect a Just Add Power device to the ClareHome data network:

1. Connect a Just Add Power transmitter between the switch and a source device, such as a cable box or a Blu-ray player. Use an HDMI cable between the source device and the transmitter, and a Cat 5e/6 cable between the transmitter and the switch. Be sure to connect the cable to a transmitter port on the switch. For example, in Figure 1 we connected the cable box and the Blu-ray player to ports 1 and 2 on the switch.

Note: Each transmitter is required to be associated with its own Virtual LAN, which is automatically created during setup. It is this VLAN number, not the transmitter's port on the switch, that is later referenced for HDMI switching. This will be covered later in this document.

2. Connect a Just Add Power receiver between the switch and the output (display) device, such as a TV or a sound bar. Use a Cat 5e/6 cable between the switch and the receiver, and an HDMI cable between the receiver and the display device. Be sure to connect the Cat 5e/6 cable to a receiver port on the switch. For example, in Figure 1 we connected the TVs to ports 5 and 6 on the switch.

Note: The switch's port attached to the receiver is similar to an output on a traditional HDMI matrix switch.

Configuring with Just Add Drivers

Use the Just Add Drivers Configuration Tool to configure your switch and all Just Add Power devices in your system. Currently, we only support HDMI matrix switching over IP configurations. Video Wall, CEC, RS-232, USB, OSD, etc. have not been implemented in the current configuration.

A typical HDMI switch routes one or more HDMI inputs to one or more HDMI outputs. In this application the concept is similar, in that we have transmitters and receivers. However, when configuring for a ClareHome system, each receiver is paired with a single VLAN during configuration.

Note: It is critical that no video sources are connected to the transmitters during configuration. It is best to unplug the HDMI cables from the transmitters while configuring them.

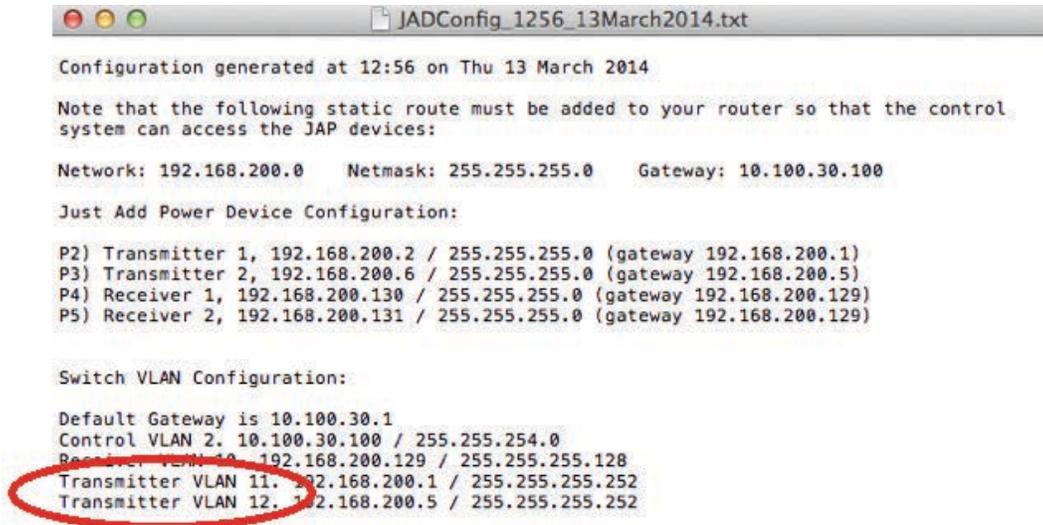
For more information about configuring Just Add Power devices for HDMI, go to <http://www.justaddpower.com/blog/category/support/manuals/>.

To configure the Just Add Power devices:

1. Open the Just Add Device software tool, and then configure your Just Add Power devices.

2. When you have finished configuring your devices, generate the Just Add Devices export file, similar to the one below. You will need the VLAN information later when configuring your switch in Fusion.

Figure 2: Just Add Devices export file



```
JADConfig_1256_13March2014.txt

Configuration generated at 12:56 on Thu 13 March 2014

Note that the following static route must be added to your router so that the control
system can access the JAP devices:

Network: 192.168.200.0   Netmask: 255.255.255.0   Gateway: 10.100.30.100

Just Add Power Device Configuration:

P2) Transmitter 1, 192.168.200.2 / 255.255.255.0 (gateway 192.168.200.1)
P3) Transmitter 2, 192.168.200.6 / 255.255.255.0 (gateway 192.168.200.5)
P4) Receiver 1, 192.168.200.130 / 255.255.255.0 (gateway 192.168.200.129)
P5) Receiver 2, 192.168.200.131 / 255.255.255.0 (gateway 192.168.200.129)

Switch VLAN Configuration:

Default Gateway is 10.100.30.1
Control VLAN 2. 10.100.30.100 / 255.255.254.0
Receiver VLAN 10. 192.168.200.129 / 255.255.255.128
Transmitter VLAN 11. 192.168.200.1 / 255.255.255.252
Transmitter VLAN 12. 192.168.200.5 / 255.255.255.252
```

Example

In the scenario above, the switch ports 1 and 2 attach to transmitters connected the cable box and the Blu-ray player, respectively. Ports 5 and 6 attach receivers connected to TV1 and TV2.

During the configuration (using the Just Add Drivers Configuration Tool), port 1 (cable box) was automatically assigned to VLAN 11 and port 2 (Blu-ray) was assigned to VLAN 12. Therefore, the port 5 receiver is paired with VLAN 11 and the port 6 receiver is paired with VLAN 12.

To enable switching, we will add one port containing a transmitter to a VLAN, which has been paired with a receiver. The following shows how Just Add Power handles switching of the cable box.

- Typical HDMI switching: <input, output>
- Just Add Power switching: <VLAN#, transmitter port#>
- Actual Just Add Power sequence: <11, 1>

The following shows examples of Just Add Power switching sequences.

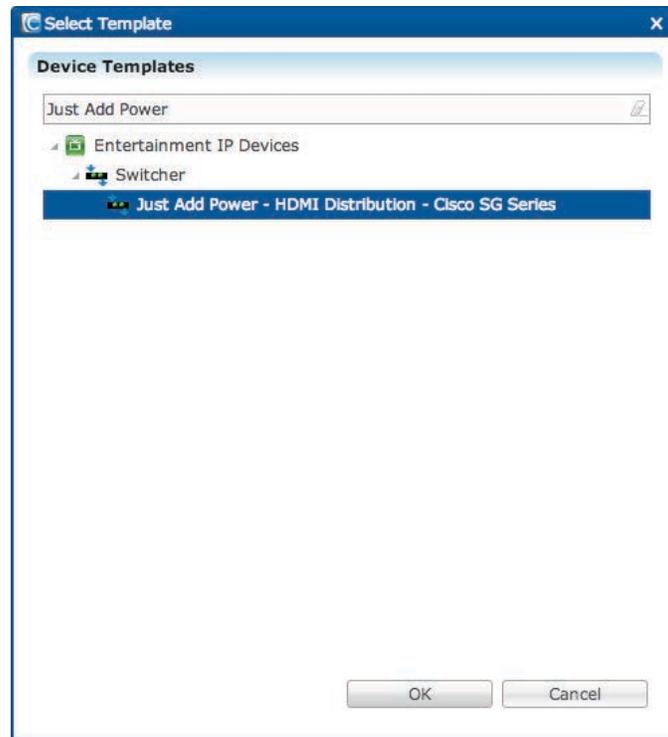
- Watch cable box on TV1: <11,1>
- Watch cable box on TV2: <11, 2>
- Watch Blu-ray player on TV2: <12, 2>

Configuring in Fusion

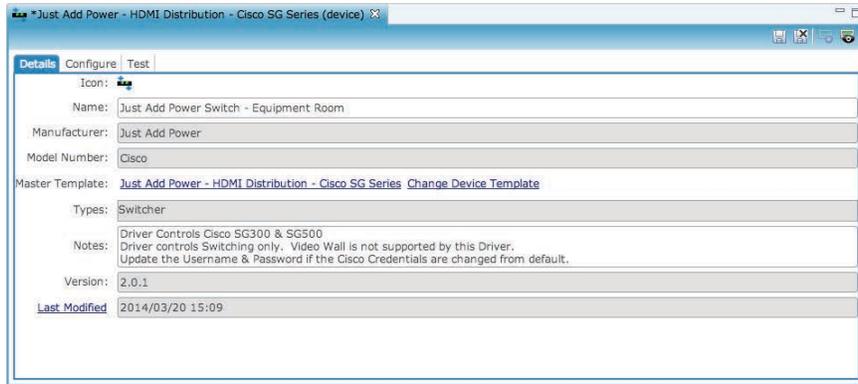
Once you have configured your switch using the Just Add device tool, you must add it to your Fusion project. Follow the steps below to configure your switch in Fusion.

To add an RTI remote control in Fusion:

1. Click the **Devices** tab, and then click the **New Device** button  to display the Select Template dialog.



2. Expand **Entertainment IP Devices > Switcher**, and then select **Just Add Power - HDMI Distribution** from the list.
3. Click **OK**.
4. In the Details tab's **Name** field, enter a name for your Just Add Power switch.
In our example, we entered the name "Just Add Power Switch - Equipment Room," as shown below.



5. Click the **Configure** tab (shown below), and then enter values in the following fields.

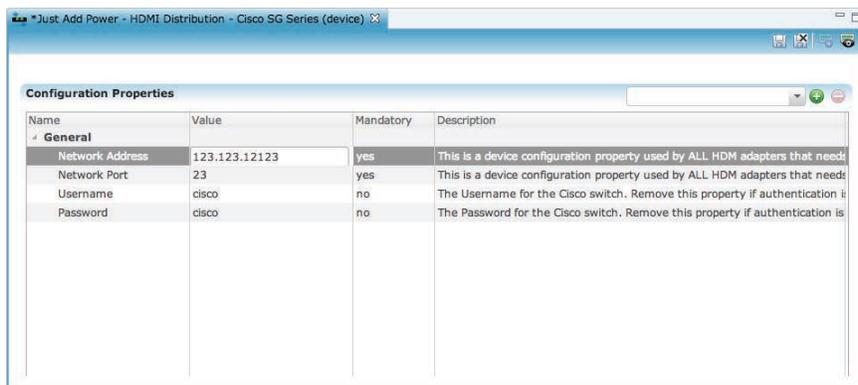
Network Address – Enter the switch’s IP address.

Network Port – The default is “23.” **Do not change this port number.**

Username – Enter the username for switch access. The default username is “cisco”.

Password – Enter the password for switch access. The default password is “cisco”.

Note: The Just Add Power driver is capable of handling a configuration without a username or password by simply deleting the Username and Password fields in Fusion’s Configure tab.



6. Click the **Save** button .

Once you have added your device, you can create scenes to control the attached devices.

To create a scene for the devices:

1. Click the **Scenes** tab, and then click the **New Scene** button .



2. In the **Scene Name** field, enter a name for your scene.
In our example, we entered “Switching Cable Box to TV1.”
3. Click **Add Action**, and then enter values in the following fields.
 - Device** – Click the field, and then choose the switch you added in step 4.
 - Function** – Choose **Matrix Switch** from the dropdown list.
 - Operation** - Choose Switch Input to Output from the dropdown list.
4. When you select an operation, Fusion displays the Arguments dialog, as shown below. Enter the VLAN number (input) and its associated port number on the switch (output), and then click the checkmark when done.



Note: In the figure above, “11” is the transmitter’s VLAN number and “1” is associated port number on the switch.

5. Click the **Save** button , and be sure to deploy your project.

Troubleshooting

- **Connecting the network into the VLAN for Video over IP Output does not work.**

ClareHome does not support Video over IP Output. It only supports HDMI matrix switching over IP configurations.

- **Programming scenes according to the port numbers in Fusion.**

When programming scenes in Fusion, the input is the VLAN number and the output is the switch port number. This is the design of Just Add Power.

- **The Just Add Drivers program is not connected to the switch.**

A serial console cable and an IP connection are required when configuring the switch. Refer to the Just Add Drivers programming manual.

Contact information

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