IGGY TALLY & GPI – 4 CAMERA WORKFLOW

IGGY SW: 2.1.2-J651

Ultrix SW: 6.4.2

Carbonite SW: 9.1.0 13632

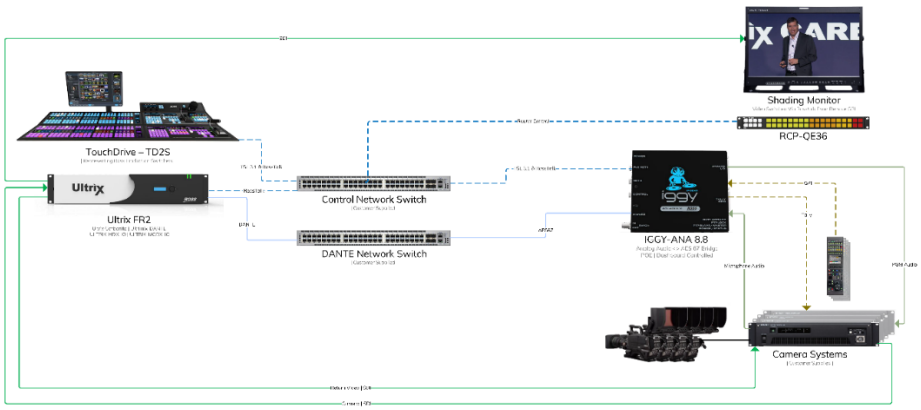
Dashboard 9.14

Overview:

The IGGY-ANA8.8 is a perfect point of use device to integrate camera racks and shade stations to a Ross production eco system with only 2 network connections to provide analog audio in / out, Tally, and GPIO. A single IGGY can easily support 4 cameras by providing:

- Discrete stereo audio paths to each camera for program audio fed from Ultrix via Ultrimix-Dante
- Two channels of return line level audio per camera feeding back into Ultrix via Ultrimix-Dante
- Wet or Dry Program / Preview Tally from Ultricore-Tally or direct from any Ross Production Switcher
- GPI inputs for RCP's to trigger Ultrix crosspoint changes for scope and shade monitors.

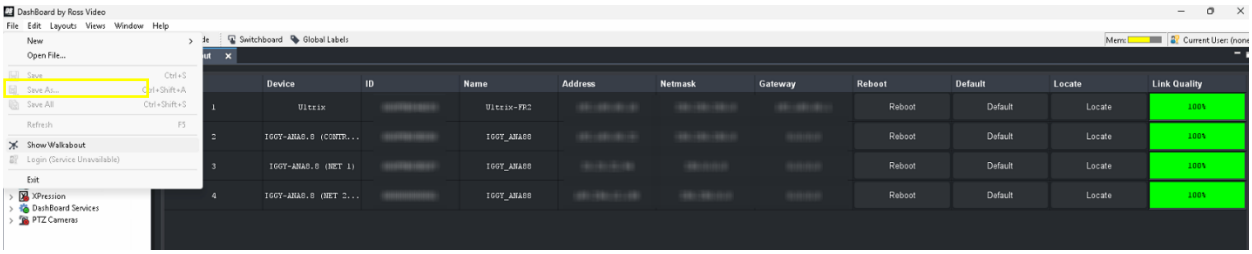
The below diagram shows a high-level overview of the solution being outlined. This document will go over configuring the Tally and GPIO ports. To connect Ultrmix-Dante audio to an IGGY, refer to the document: Integrating IGGY Converters with Ultrix via Ultrimix-Dante.

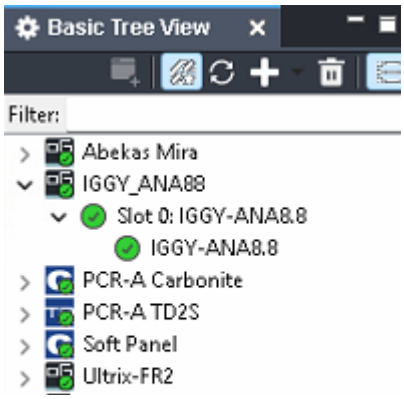


Ross Camera Tally & Audio over IP Solution

Setting up IGGY:

Power on IGGY and make sure the control network port is plugged into the production network switch. Launch DashBoard on the production network. If IGGY isn't showing up in the DashBoard Basic Tree, then use the Walkabout tool to configure IGGY's network settings for the control network and reboot the device.



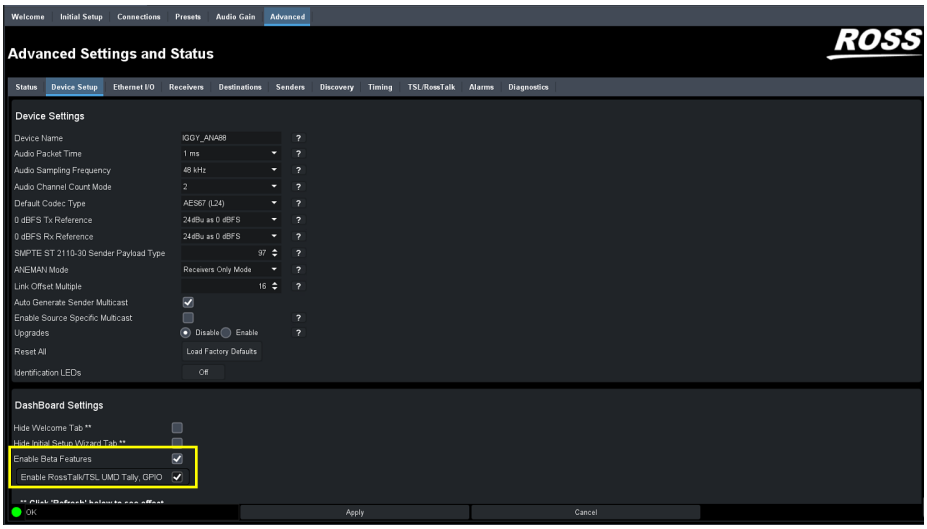


After a reboot click the re-query network devices button on top of the basic tree, and IGGY should appear in the list.

Expand IGGY in the basic tree and launch the Iggy Device Menu.

Enable TSL:

As of IGGY SW: 2.1.2-J651, Tally and GPIO are considered Beta functions and must be turned on to proceed. In DashBoard, in the IGGY device menu navigate to **Advanced > Device Setup.** Scroll down to where it says DashBoard Settings and make sure that "Enable Beta Features" is checked along with "Enable RossTalk/TSL UMD Tally, GPIO.



Configure Carbonite for TSL 3.1

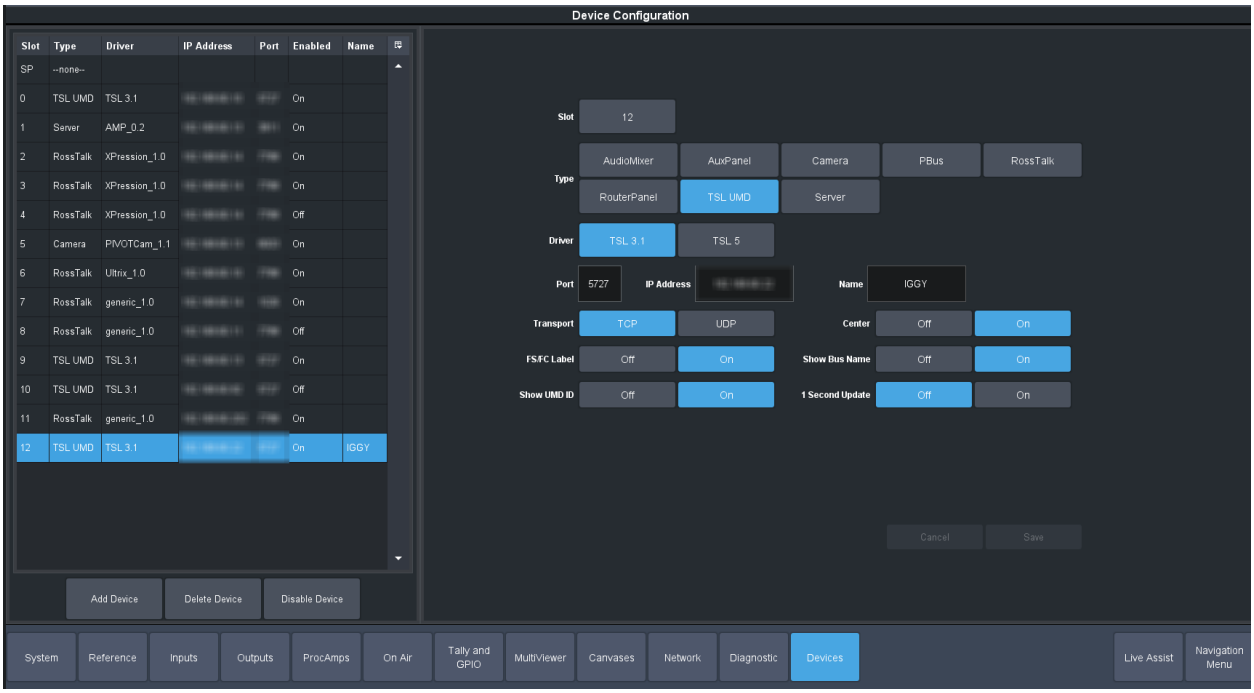
To setup Tally from a Carbonite production switcher you first need to setup a device on Carbonite to send TSL to IGGY.

Under the Basic Tree in DashBoard, launch the **Configuration** menu for Carbonite and navigate to the **Devices** tab on the bottom. Click on “Add Device” on the bottom of the device list to create a new device in the next available slot.

On the right hand side configure the device as follows.

- TSL UMD and select TSL 3.1
- Set the port to 5727
- IP address should be the IP Address of IGGY
- Transport should be set to TCP

When finished, click on the save button to add the device and make sure in the device list that under the enabled column that the device is listed as “ON”.



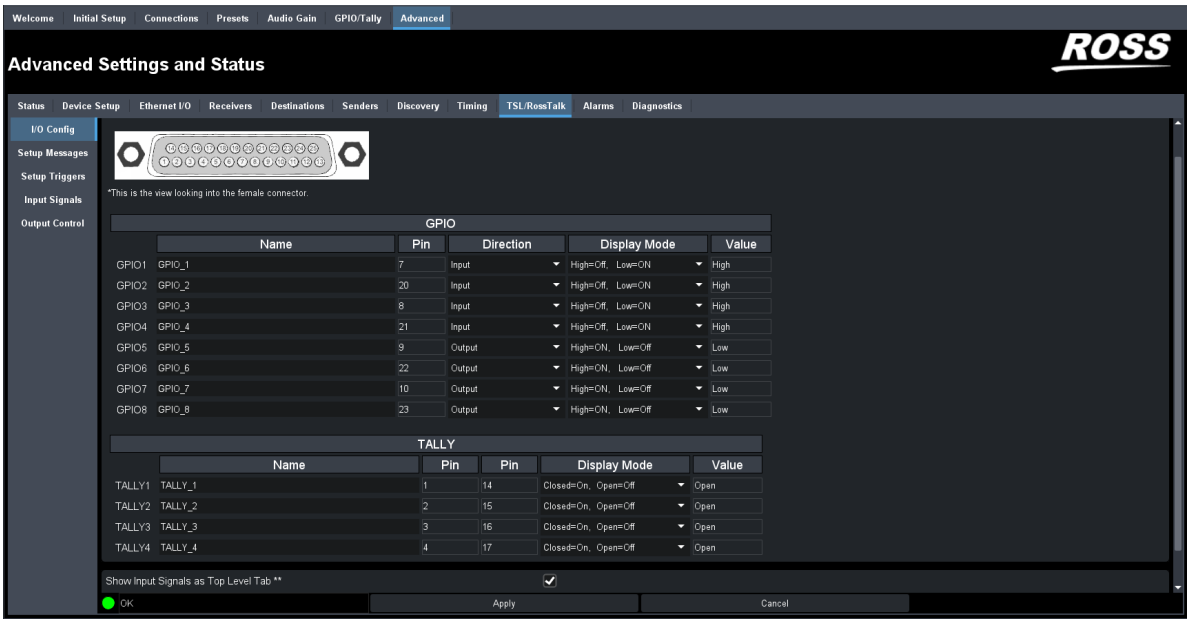
Configuring IGGY: Setting the GPIO & Tally Settings

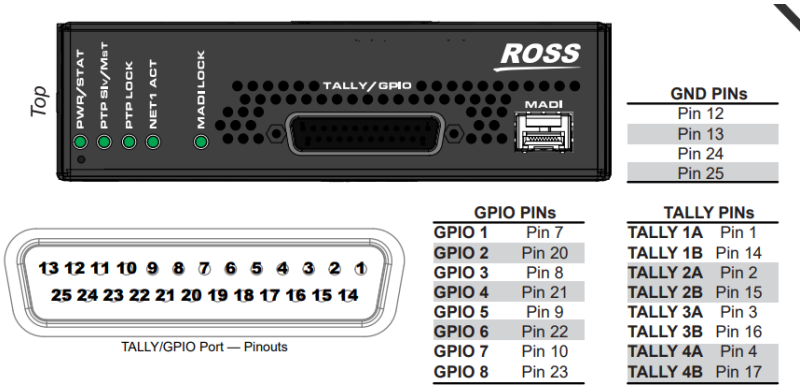
The IGGY GPI & Tally DB 25 setup is done in the IGGY DashBoard menu under **Advanced > TSL / RossTalk**. The **I/O config** page allows you to configure the physical GPIO / Tally on the DB25. Each GPIO can be set to either input or output and configured for High/Low or Low/High polarity. Tally Port can be changed between Closed=on, open = off and Closed=off, open = on.

The **I/O config** page also gives you the ability to name each GPIO and Tally Port as to it's purpose.

The pins associated with each GPIO is listed next to each GPIO and Tally number. Tally outputs offer 2 pin locations for each Tally thus allowing for 2 discrete Tally outputs from the same trigger. An example of where this could be useful is to send 1 Tally to a camera CCU and the second to a rack mount monitor.

Shared grounds for both Tally and GPIO's are on pins 12,13,24,25



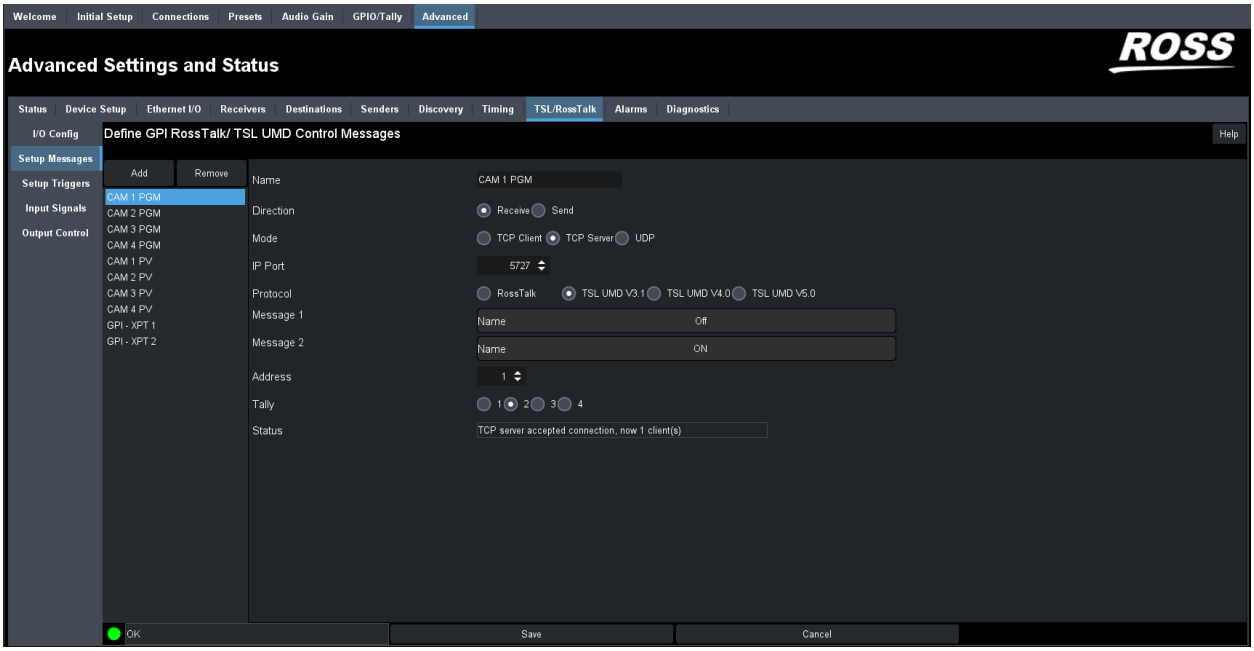


Configuring IGGY: Setting up TSL 3.1 Receivers

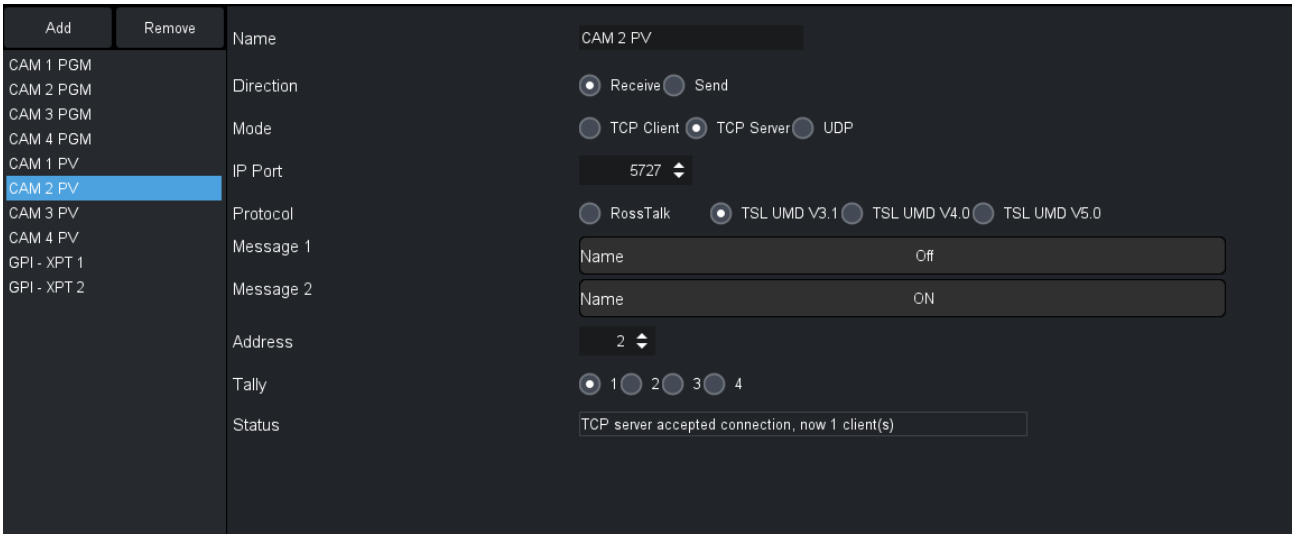
To setup receivers in IGGY you will need to define each TSL / UMD message going into IGGY that will be used. Under the **TSL/RossTalk** tab go to the **Setup Messages** page. Click on "Add" to add a Receiver and configure as follows:

- Name: User defined name of the message
- Direction: Receive
- Mode: TCP Server
- Port: Match the port setup in Carbonite, Default for TSL3.1 is 5727
- Protocol: TSL UMD 3.1
- Address: The address is equivalent to the input number of the source going into Carbonite. In the example below I will be reading Tally from input 1.
- Tally: This is the Tally Lamp, for Carbonite: Tally 1 = Preview | Tally 2 = Program, To receive program Tally, set the Tally Lamp to "2"

When all settings are finished, press “Save” at the bottom and add another message for each Program and Preview Tally IGGY will be receiving.



Example of PV Tally for Input 2:

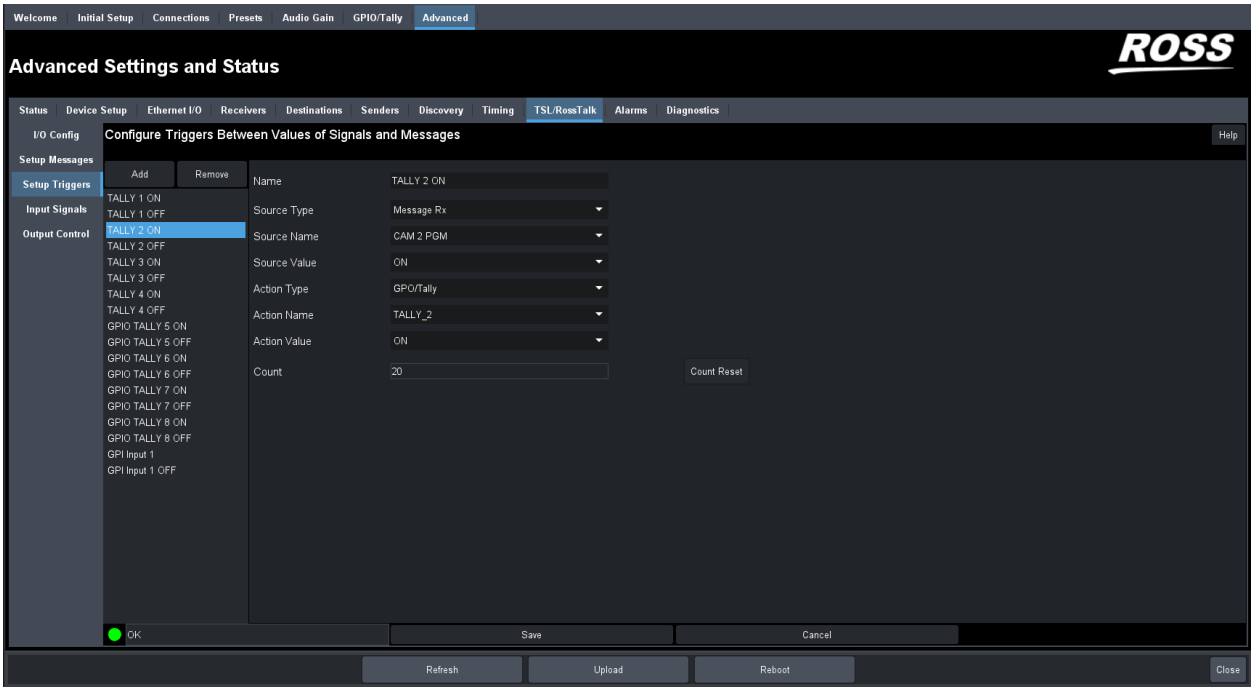


Configuring IGGY: Setting up Triggers

Next we need to connect each message from TSL with GPO and Tally states. In the **TSL/RossTalk** page click on **Setup Triggers,** then click on “Add” to create a new trigger. For setting a GPO or Tally output to the “On” state, the settings should be as follows:

- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the “Setup Messages” page
- Source Value: Set to “ON” for Tally on state
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via I/O config will be shown
- Action Value: ON
- Count: Shows number of times Message has triggered action since configuration or last reboot.

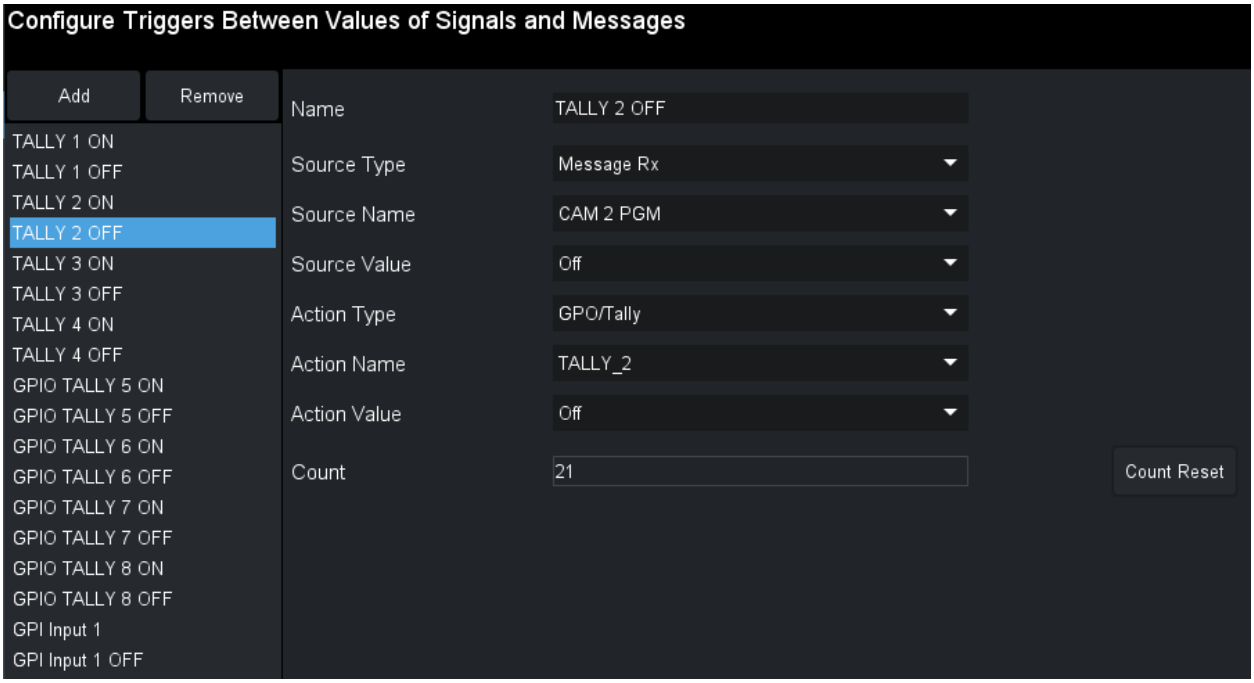
Once configured click save



Once the “On” state has been configured, the Off state will also need to be configured. Without the off state configured, once triggered on, the output will stay on until it receives an Off command.

Click on add and repeat the steps above and use the following settings:

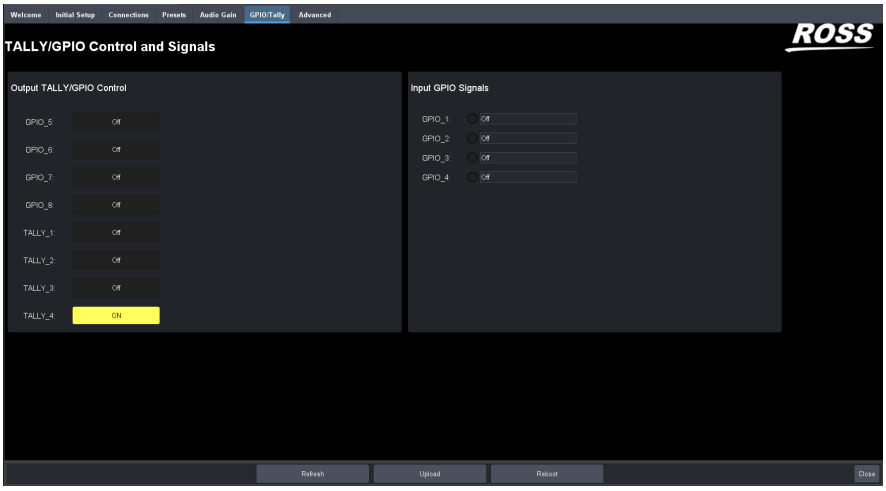
- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the “Setup Messages” page
- Source Value: Set to “OFF” for Tally off state
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via I/O config will be shown
- Action Value: OFF
- Count: Shows number of times Message has triggered action since configuration or last reboot.



Build an ON and OFF Trigger for each Tally Program and each Tally Preview by repeating the steps above.

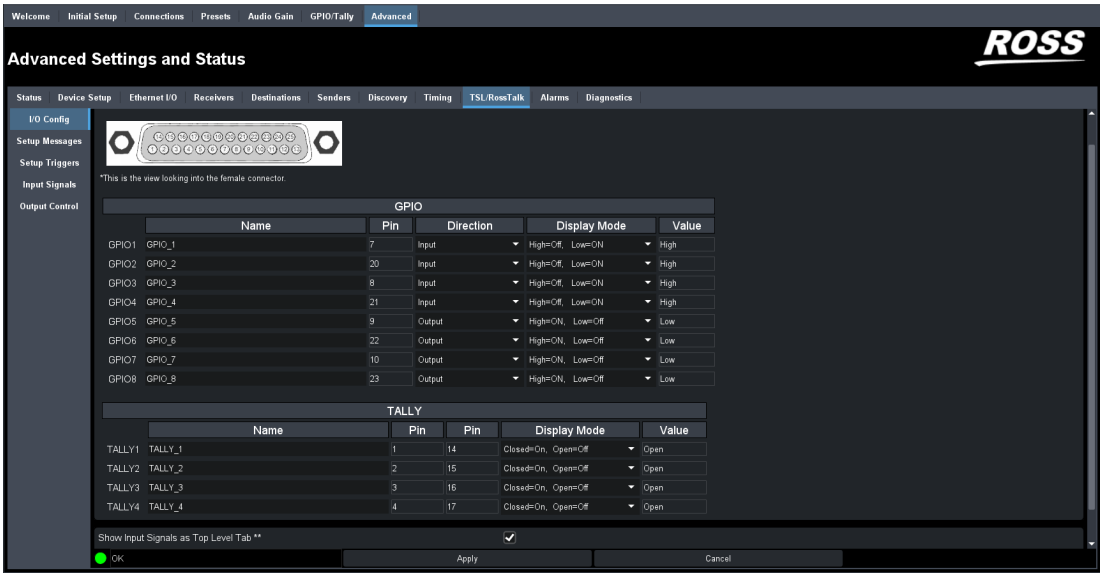
Note: To setup 4 cameras with both Preview and Program Tally, 2 cameras will need to be setup as traditional dry contact closure style Tally while the second 2 cameras will need to be setup as GPO, Wet contact Tally. If only Program Tally is needed, all 4 can be either wet or dry contact closure.

Once the setup is complete you can verify behavior by going to the GPI / Tally Tab at the top of the screen. This screen will give you a live status update as to each GPO and Tally Output that you configured. Punch through the sources on Carbonite to verify that Tally is receiving properly and triggering the correct GPO and Tally outputs.



Configuring IGGY: Setup RCP Remote GPI's to Change Ultrix Crosspoints

Review the I/O Config menu to verify that there are GPIO's set to inputs. For a 4 camera workflow, 4 GPIO's should be set as inputs. Make sure the mode is set to High=Off, Low = ON. After any changes, be sure to hit "Apply" before proceeding.



To get a GPI input to trigger a crosspoint switch on Ultrix we need to setup senders to send RossTalk messages to Ultrix.

To setup a sender in IGGY you will need to define each RossTalk message. Under **the TSL / RossTalk** tab go to the **Setup Messages** page. Click on "Add" to add a Sender. Configure the message as follows

- Name: Name the message
- Direction: Send
- Mode: TCP Client
- IP Address: IP Address of the Ultrix in the system
- Port: Default RossTalk port is 7788
- Protocol: RossTalk
- Message 1: Name = Off (Default) | RossTalk Text = Rosstalk command
    - Message 1: set this message if you want the XPT to return to a specific source when GPI is triggered to an OFF state.
- Message 2: Name = Red (Default) | RossTalk Text = Rosstalk command
    - Message 2: set this message if you want the XPT to return to a specific source when GPI is triggered to an ON state.
- Termination: CR LF

Press Save when finished

Ultrix crosspoint switching via Rosstalk Commands are as follows:

XPT D:50 S:68 I:1

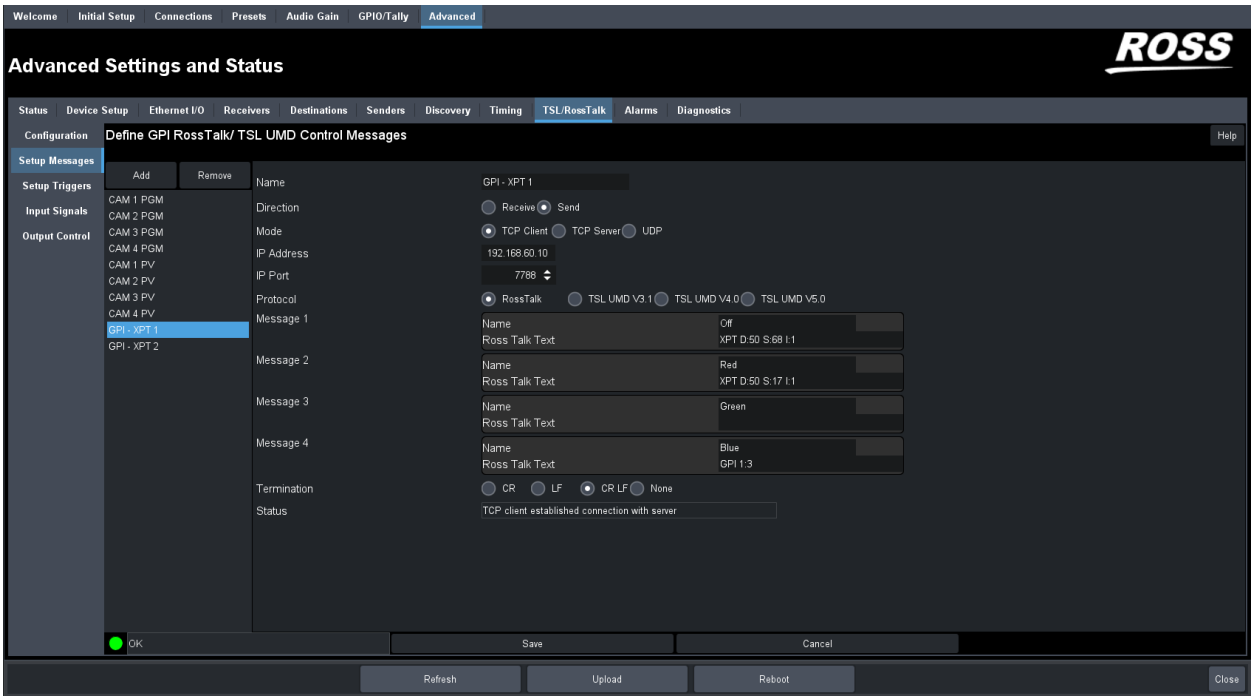
- D= Destination Number via the database +1
- S= Source number via the database +1
- I= 1

For a latching style workflow that will only maintain source selection while a GPI is latched and should return to a default source when not latched make sure you have a RossTalk Message in both Message 1 and 2.

- EX: Press and holding down a Camera RCP will switch camera 1 to a shading monitor, when released the shade monitor returns to Program.

For simplified workflows (non-latching) only Message 2 will need a Rosstalk message.

- EX: Clicking down on a camera RCP momentarily switches the shade monitor to a specific camera



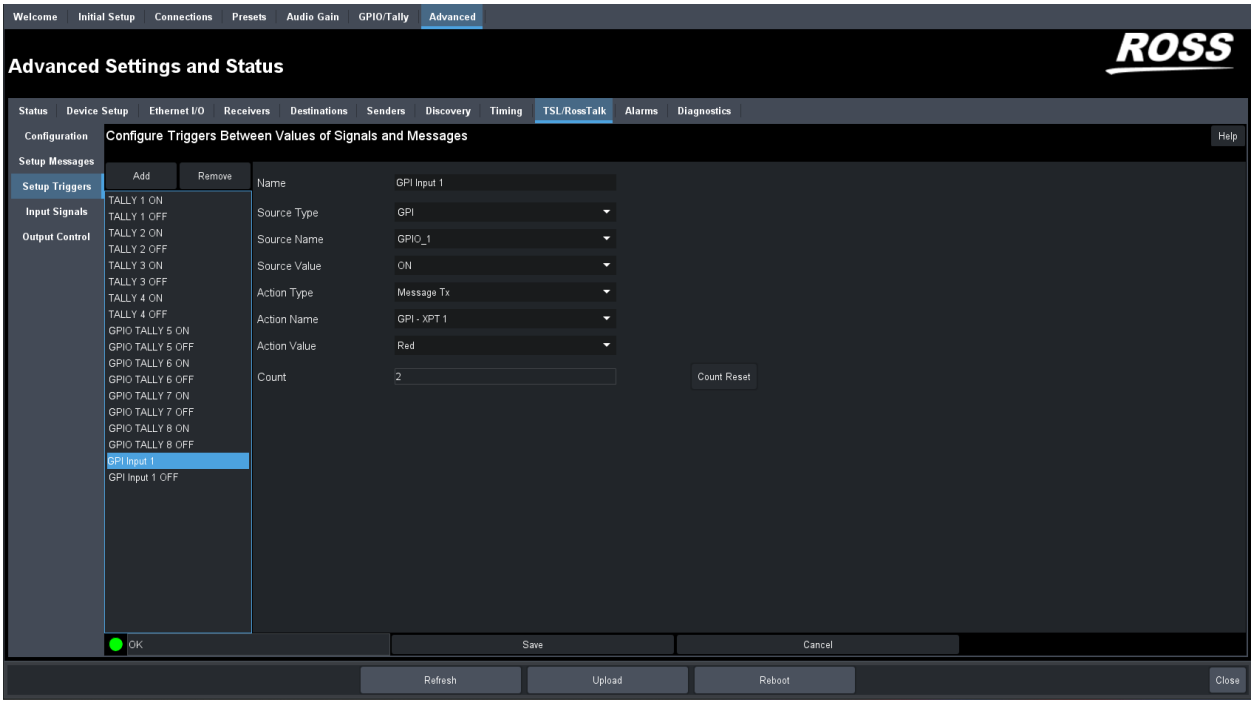
Build a Message for each crosspoint switch needed in Ultrix with both on(red) and off states.

Next we need to setup the incoming trigger to send the RossTalk messages we created in the **Setup Messages** page.

Go to the **Setup Triggers** page and click on “Add”. Setup a trigger as follows:

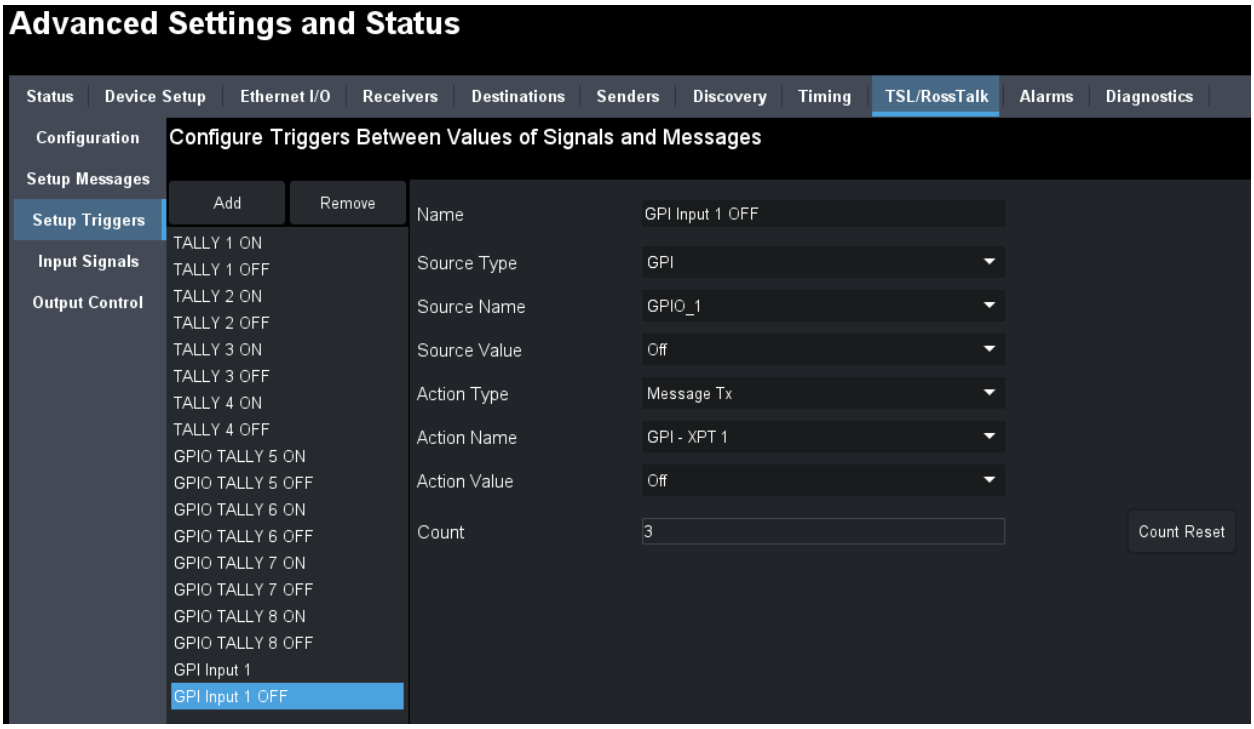
- Name: Name of Trigger / Task
- Source Type: GPI
- Source Name: Physical GPI Triggering the message setup in the **I/O Config** page
- Source Value: ON
- Action Type: Message TX
- Action Name: Name of Message setup in **Setup Messages** page
- Action Value: Message name to trigger (EX: Red)

Once finished hit Save



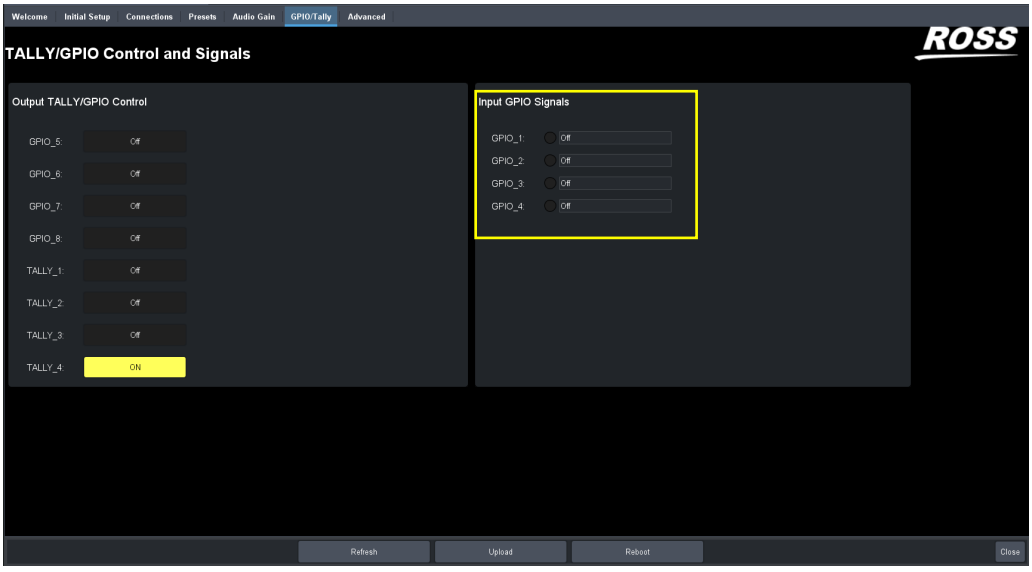
If using an off command create a new trigger and repeat the steps above but with the following settings:

- Name: Name of Trigger / Task
- Source Type: GPI
- Source Name: Physical GPI Triggering the message setup in the **I/O Config** page
- Source Value: Off
- Action Type: Message TX
- Action Name: Name of Message setup in **Setup Messages** page
- Action Value: Message name to trigger (EX: Off)



Repeat for each GPI coming into IGGY.

Once complete, on the **GPIO / Tally** page you can verify when GPI's are triggered into the ON state for troubleshooting purposes.



The IGGY GPIO ports should now be configured and working with Carbonite and Ultrix to provide tally and return RossTalk commands, perfect for a 4 camera workflow where IGGY is placed at Camera CCU's.

Alternate Settings: Using TSL5.0

Configure Carbonite for TSL 5.0

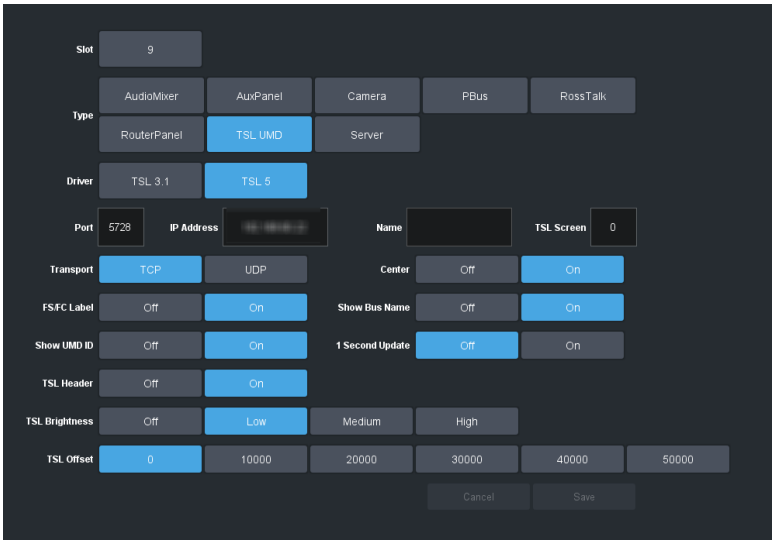
To setup Tally from a Carbonite production switcher you first need to setup a device on Carbonite to send TSL to IGGY.

Under the Basic Tree in DashBoard, launch the **Configuration** menu for Carbonite and navigate to the **Devices** tab on the bottom. Click on “Add Device” on the bottom of the device list to create a new device in the next available slot.

On the right hand side configure the device as follows.

- TSL UMD and select TSL 5.0
- Set the port to 5728
- TSL Screen should = 0
- IP address should be the IP Address of IGGY
- Transport should be set to TCP
- TSL Header = ON

When finished, click on the save button to add the device and make sure in the device list that under the enabled column that the device is listed as “ON”.

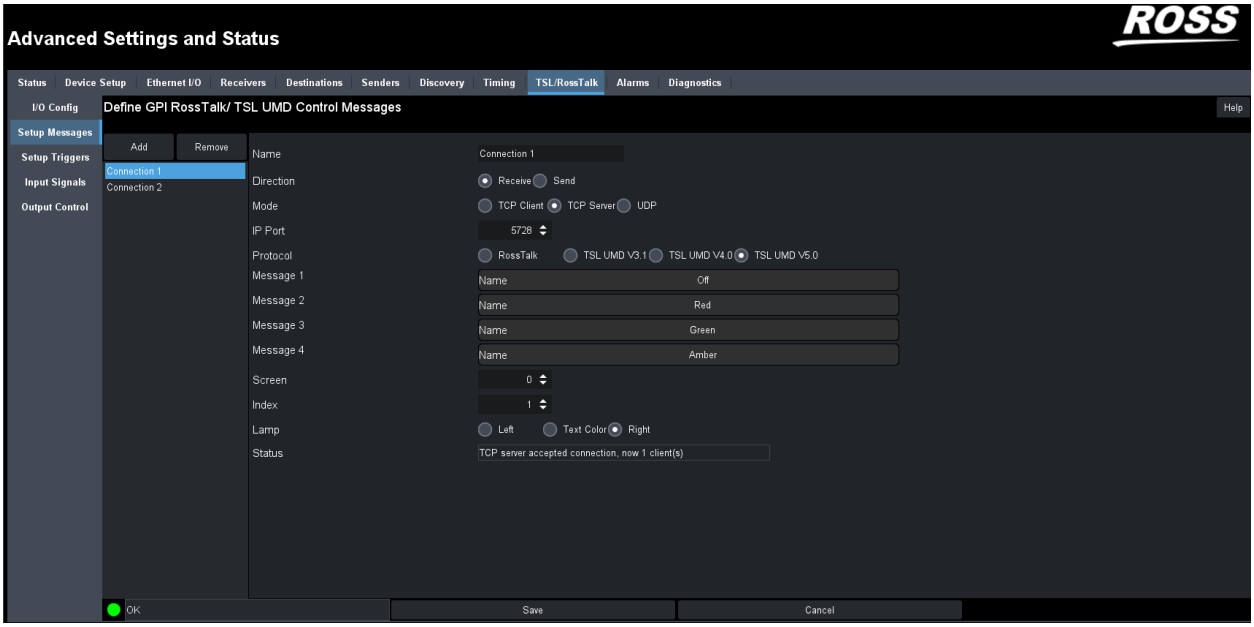


Configuring IGGY: Setting up TSL 5.0 Receivers

To setup receivers in IGGY you will need to define each TSL / UMD message going into IGGY that will be used. Under the **TSL/RossTalk** tab go to the **Setup Messages** page. Click on “Add” to add a receiver and configure as follows:

- Name: User defined name of the message
- Direction: Receive
- Mode: TCP
- Port: Match the port setup in Carbonite, Default for TSL 5.0 from Carbonite is 5728
- Protocol: TSL UMD 5.0
- Screen: 0 (or match Carbonite)
- Index: The index is equivalent to the input number of the source going into Carbonite. In the example below I will be reading Tally from input 1.
- Lamp: This is the Tally Lamp, for Carbonite: Left = Preview, Right = Program

When all settings are finished, press “Save” at the bottom and add another message for each Program and Preview Tally IGGY will be receiving.



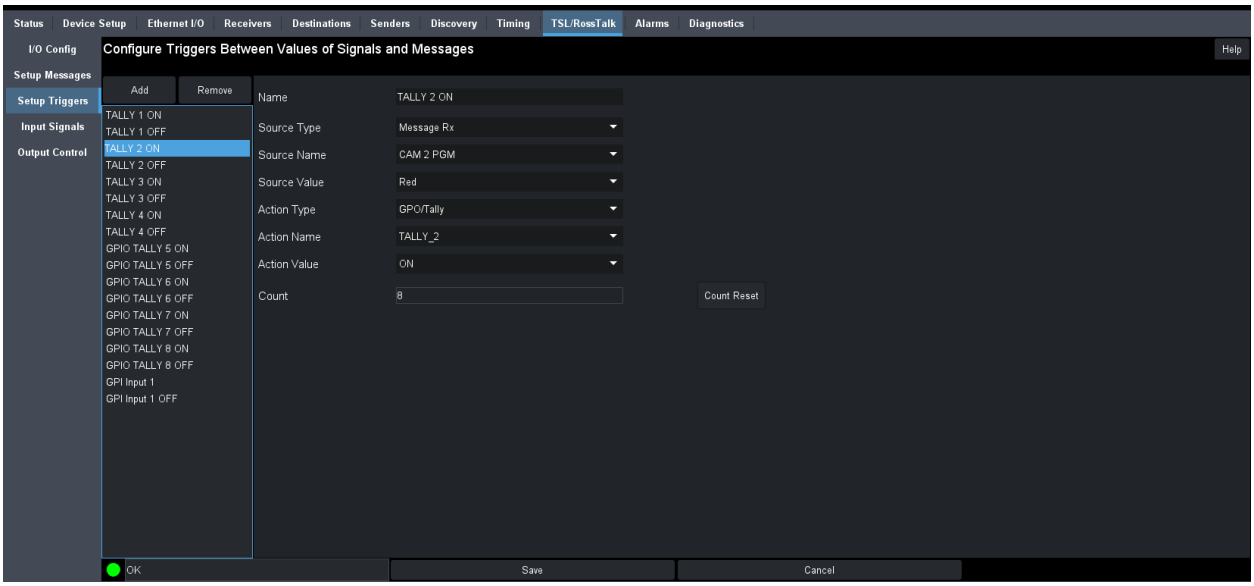
Preview Tally settings are identical except for the lamp is set to “left” instead of “right”.

Configuring IGGY: Setting up Triggers

To connect each message from TSL with GPO and Tally states. In the **TSL/RossTalk** page click on **Setup Triggers,** then click on “Add” to create a new trigger. For setting a GPO or Tally output to the “On” state, the settings should be as follows:

- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the **Setup Messages** page
- Source Value: Set to “RED” for Tally on state
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via **I/O config** will be shown
- Action Value: ON
- Count: Shows number of times message has triggered action since configuration or last reboot.

Once configured click save



For the off state:

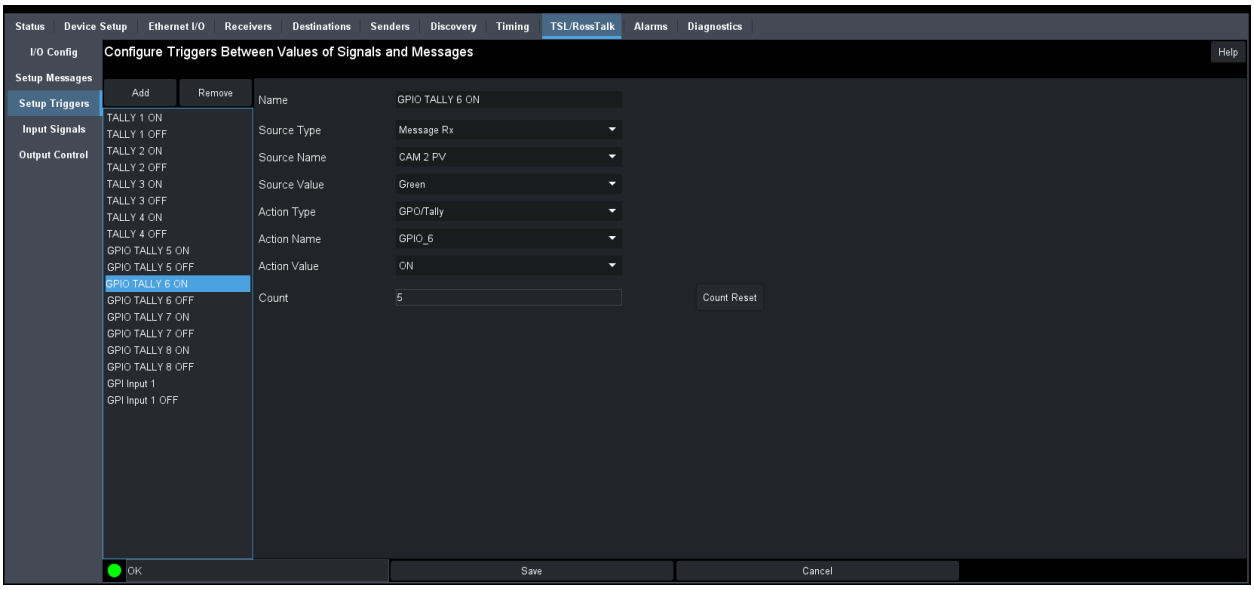
- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the **Setup Messages** page
- Source Value: Set to Off
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via **I/O config** will be shown
- Action Value: OFF
- Count: Shows number of times message has triggered action since configuration or last reboot.

Once configured click save

Setup Triggers for PV Tally's as follows:

- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the "Setup Messages" page
- Source Value: Set to "Green" for Tally on state
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via I/O config will be shown
- Action Value: ON
- Count: Shows number of times Message has triggered action since configuration or last reboot.

Once configured click save



For Preview Tally Off state setup as follows:

- Name: Name Trigger
- Source: Message RX – The source will come in the form of a message
- Source Name: Select a message that was setup in the **Setup Messages** page
- Source Value: Set to “Off” for Tally on state
- Action Type: GPO/Tally
- Action Name: Pick the physical Tally output on the DB 25 connection
    - Only outputs available that are setup via **I/O config** will be shown
- Action Value: OFF
- Count: Shows number of times Message has triggered action since configuration or last reboot.

Once configured click save

For a more complete list of TSL ID’s from Carbonite production switchers refer to: https://help.rossvideo.com/carbonite-device-db/Topics/Devices/UMD/TSL.html#unique_1449361696