

This document outlines how to configure the Ultrix Routed Tally Mode to associate a tally state for an Ultrix router source to ultimately reach the on-air path of a Ross Carbonite switcher.

Overview

Consider an Ultrix feeding signals to a Ross Carbonite switcher; the switcher can assert tally messages based on which signals are contributing to those outputs, but the switcher has no knowledge of how Ultrix has routed its inputs to the outputs.

The **Routed Tally Mode** associates a tally with a specific Ultrix destination. Ultrix knows which input is routed to that output, and so can assert tally indicators wherever the input signal is displayed in an UltraScape PiP.

In **Figure 1**, Tally ID 3 is associated with Ultrix destination 11. When the switcher asserts Tally ID 3 (based on its own configuration rules), Ultrix looks up the input connected to destination 11 (source 19 - Cam 1). UltraScape will then assert the same tally data as received wherever source 19 - Cam 1 is displayed. Cam 2 has a different tally asserted because Cam 2 (source 20) is routed to destination 12 which is associated with Tally ID 4.

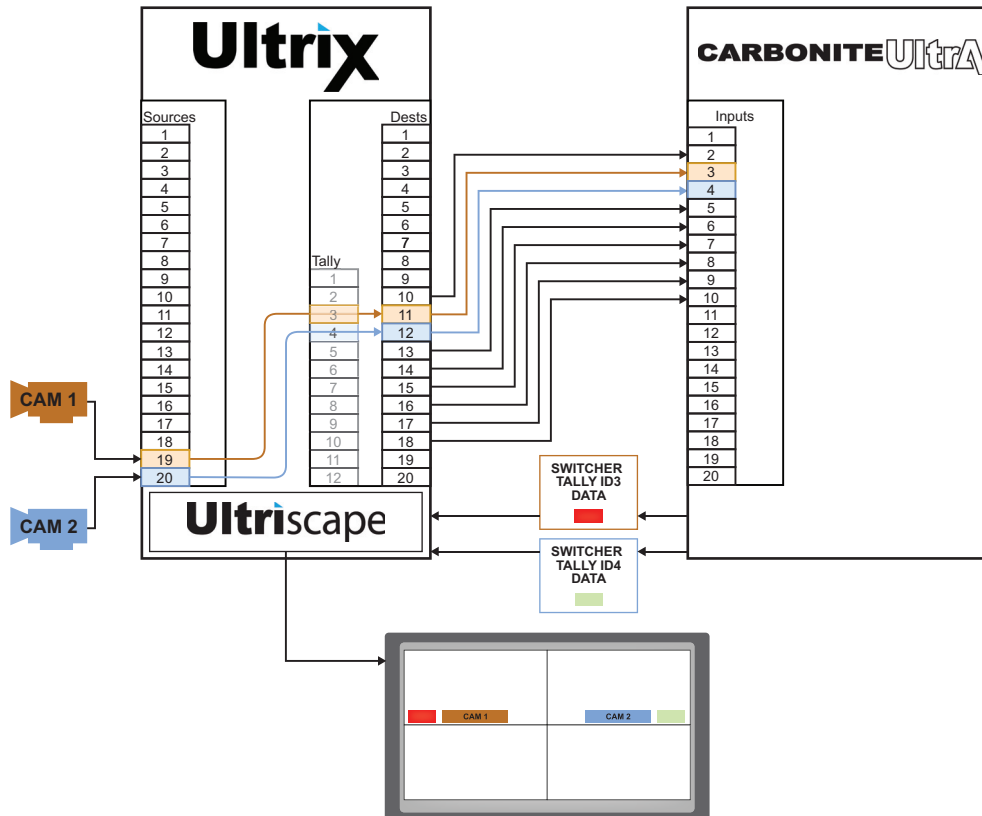


Figure 1 Example of Routed Tally Mode Workflow

Application

In the following application, the Routed Tally Mode would enable the PIP tally to accurately reflect the tally state when a different source is routed to a Carbonite switcher input:

1. The Carbonite generates a tally (e.g. program or preview) with an assigned Carbonite Tally ID.
2. The Ultrix looks up which router source is currently connected to the router destination associated with that Carbonite Tally ID.
3. The Ultrix then determines if that source is currently displayed on any Ultriscape PiPs, and if so, asserts the appropriate Ultriscape PiP tally.

Setting up the Routed Tally Mode

Before configuring the Routed Tally Mode on the Ultrix router, you must first set up communications between the Carbonite switcher and the Ultrix router.

Carbonite Requirements

This section outlines how to configure the Carbonite to communicate with the Ultrix router UMD service using specific TSL UMD ethernet protocol settings.

To set up tally communications between Carbonite and the Ultrix UMD

1. On the Carbonite panel menu system, press **MENU** > **SYSTEM** > **NEXT** > **NEXT** > **Device Config**.
2. Press **Add**.
3. Use the **Slot** knob to select an ethernet connection (Slot #).
4. Use the **Type** knob to select **SerialTally**.
5. Press **NEXT**.
6. Use the **SubType** knob to select **TSLUMD_1.0**.
7. Press **NEXT**.
8. Enter the IP address of your Ultrix:
 - a. Use the **Field** knob to select the segment of the IP address you want to edit.
 - b. Use the **Value** knob to enter the IP address of your Ultrix.
9. Press **NEXT**.
10. Use the **Option** and **Value** knobs to complete the setup as outlined in the following table.

Option	Value
Port	Set to 5727 if you are using the default value that Ultrix requires for TSL V3.1 over TCP/IP communication. Set to 4490 for UDP communication.
Transport	Select TCP if the Port is set to 5727. Select UDP if the Port is set to 4490.

11. Press the **Option** knob and **Confirm** to add the Ultrix as a new device.

Ultrix Requirements

To configure the Ultrix router you will need to:

1. Set the switcher's primary input number in the Tally column of the Destinations table of the router database.
2. Set the Tally mode to Routed.
3. Assign the Tally IDs to PiPs.

This can be any ID as long as it is not used by your destinations that feed your Carbonite inputs. To make it simple, in the following example the user started at 201, this would be a recommended value that should not conflict with anything else.

4. Set the Tally mode to Normal for any Ultriscape PIP destination that is expected to show the UMD tally for sources that are also routed to a switcher source.

To specify the switcher's primary input number for a router destination

1. Double-click the **Destinations** node located under the **Database** node.
The **Destinations** tab opens.
2. In the table of the **Destinations** tab, locate the **Tally ID** column.

	ID	Tally	Tally Mode	Name	Description	VID
SWR-IN01	1	1	Routed	SWR-IN01		Ultrix.slot3.out[1].sdi.ch1
SWR-IN02	2	2	Routed	SWR-IN02		Ultrix.slot3.out[2].sdi.ch1
SWR-IN03	3	3	Routed	SWR-IN03		Ultrix.slot3.out[3].sdi.ch1
SWR-IN04	4	4	Routed	SWR-IN04		Ultrix.slot3.out[4].sdi.ch1
SWR-IN05	5	5	Routed	SWR-IN05		Ultrix.slot3.out[5].sdi.ch1
SWR-IN06	6	6	Routed	SWR-IN06		Ultrix.slot3.out[6].sdi.ch1
SWR-IN07	7	7	Routed	SWR-IN07		Ultrix.slot3.out[7].sdi.ch1
SWR-IN08	8	8	Routed	SWR-IN08		Ultrix.slot3.out[8].sdi.ch1
SWR-IN09	9	9	Routed	SWR-IN09		Ultrix.slot3.out[9].sdi.ch1
SWR-IN10	10	10	Routed	SWR-IN10		Ultrix.slot3.out[10].sdi.ch1
SWR-IN11	11	11	Routed	SWR-IN11		Ultrix.slot3.out[11].sdi.ch1
SWR-IN12	12	12	Routed	SWR-IN12		Ultrix.slot3.out[12].sdi.ch1
SWR-IN13	13	13	Routed	SWR-IN13		Ultrix.slot3.out[13].sdi.ch1
SWR-IN14	14	14	Routed	SWR-IN14		Ultrix.slot3.out[14].sdi.ch1
SWR-IN15	15	15	Routed	SWR-IN15		Ultrix.slot3.out[15].sdi.ch1
SWR-IN16	16	16	Routed	SWR-IN16		Ultrix.slot3.out[16].sdi.ch1

3. Enter the switcher's primary input number for each required destination.

To set the Tally Mode to Routed

1. In the table of the **Destinations** tab, locate the **Tally Mode** column.

	ID	Tally	Tally Mode	Name	Description	VID
SWR-IN01	1	1	Routed	SWR-IN01		Ultrix.slot3.out[1].sdi.ch1
SWR-IN02	2	2	Routed	SWR-IN02		Ultrix.slot3.out[2].sdi.ch1
SWR-IN03	3	3	Routed	SWR-IN03		Ultrix.slot3.out[3].sdi.ch1
SWR-IN04	4	4	Routed	SWR-IN04		Ultrix.slot3.out[4].sdi.ch1
SWR-IN05	5	5	Routed	SWR-IN05		Ultrix.slot3.out[5].sdi.ch1
SWR-IN06	6	6	Routed	SWR-IN06		Ultrix.slot3.out[6].sdi.ch1
SWR-IN07	7	7	Routed	SWR-IN07		Ultrix.slot3.out[7].sdi.ch1
SWR-IN08	8	8	Routed	SWR-IN08		Ultrix.slot3.out[8].sdi.ch1
SWR-IN09	9	9	Routed	SWR-IN09		Ultrix.slot3.out[9].sdi.ch1
SWR-IN10	10	10	Routed	SWR-IN10		Ultrix.slot3.out[10].sdi.ch1
SWR-IN11	11	11	Routed	SWR-IN11		Ultrix.slot3.out[11].sdi.ch1
SWR-IN12	12	12	Routed	SWR-IN12		Ultrix.slot3.out[12].sdi.ch1
SWR-IN13	13	13	Routed	SWR-IN13		Ultrix.slot3.out[13].sdi.ch1
SWR-IN14	14	14	Routed	SWR-IN14		Ultrix.slot3.out[14].sdi.ch1
SWR-IN15	15	15	Routed	SWR-IN15		Ultrix.slot3.out[15].sdi.ch1
SWR-IN16	16	16	Routed	SWR-IN16		Ultrix.slot3.out[16].sdi.ch1

2. Select **Routed** for each required destination connected to the Carbonite switcher.

To assign the UltraScape PiP IDs

1. In the table of the **Destinations** tab, locate the first destination assigned to an UltraScape PiP.
2. In the Tally column of the first PiP destination, assign an ID of 201 (or any unique number).

	ID	Tally	Tally Mode	Name	Description	VID
PIP H1 1	35	201	Normal	PIP H1 1		Ultrix.slot3.head1-pip[1].sdi.ch1
PIP H1 2	36	202	Normal	PIP H1 2		Ultrix.slot3.head1-pip[2].sdi.ch1
PIP H1 3	37	203	Normal	PIP H1 3		Ultrix.slot3.head1-pip[3].sdi.ch1

3. Assign the remaining PiP IDs in numerical order.

To set the Tally Mode to Normal for the UltraScape PiP destinations

1. In the table of the **Destinations** tab, locate the **Tally Mode** column.

	ID	Tally	Tally Mode	Name	Description	VID
PIP H1 1	35	201	Normal	PIP H1 1		Ultrix.slot3.head1-pip[1].sdi.ch1
PIP H1 2	36	202	Normal	PIP H1 2		Ultrix.slot3.head1-pip[2].sdi.ch1
PIP H1 3	37	203	Normal	PIP H1 3		Ultrix.slot3.head1-pip[3].sdi.ch1
PIP H1 4	38	204	Normal	PIP H1 4		Ultrix.slot3.head1-pip[4].sdi.ch1
PIP H1 5	39	205	Normal	PIP H1 5		Ultrix.slot3.head1-pip[5].sdi.ch1
PIP H1 6	40	206	Normal	PIP H1 6		Ultrix.slot3.head1-pip[6].sdi.ch1
PIP H1 7	41	207	Normal	PIP H1 7		Ultrix.slot3.head1-pip[7].sdi.ch1
PIP H1 8	42	208	Normal	PIP H1 8		Ultrix.slot3.head1-pip[8].sdi.ch1
PIP H1 9	43	209	Normal	PIP H1 9		Ultrix.slot3.head1-pip[9].sdi.ch1
PIP H1 10	44	210	Normal	PIP H1 10		Ultrix.slot3.head1-pip[10].sdi.ch1
PIP H1 11	45	211	Normal	PIP H1 11		Ultrix.slot3.head1-pip[11].sdi.ch1
PIP H1 12	46	212	Normal	PIP H1 12		Ultrix.slot3.head1-pip[12].sdi.ch1
PIP H1 13	47	213	Normal	PIP H1 13		Ultrix.slot3.head1-pip[13].sdi.ch1
PIP H1 14	48	214	Normal	PIP H1 14		Ultrix.slot3.head1-pip[14].sdi.ch1
PIP H1 15	49	215	Normal	PIP H1 15		Ultrix.slot3.head1-pip[15].sdi.ch1
PIP H1 16	50	216	Normal	PIP H1 16		Ultrix.slot3.head1-pip[16].sdi.ch1

2. Select **Normal** for each required PiP destination.

To configure the Ultriscape Tally bits assignments

1. Double-click the Ultrix router in the Basic Tree View of DashBoard.
2. Expand the UltraScape node.
3. Double-click the **Configuration** node.

The **Layout Editor Settings** tab displays in the right side of the DashBoard window.

4. Select the **Tally Settings** sub-tab.
5. Locate the **Tally Lamp Color** area.
6. Set **Tally 0** to **Green**.
7. Set **Tally 1** to **Red**.