Ultricore

Ultricore-Tally Device Setup Guide

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Ultricore-Tally · Device Setup Guide

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Patents

Patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B; and other patents pending.

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- Incident Response
- Clear paths for two-way communication between customers and Ross Video

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Contents

Introduction

This guide covers the configuration of third-party devices to work within your Ross Ultricore-Tally. The following chapters are included:

- **"Introduction**" summarizes the guide and provides important terms, and conventions.
- "**Before You Begin**" provides information about the Tally System Console and how to install and configure it.
- "**Tally System Console and Ultricore BCS**" outlines how to add an Ultricore BCS to the Tally System Console.
- "**Ross Production Switchers**" summarizes the required steps for configuring the Tally System Console and Ultricore-Tally to interface with the Ross Production Switchers.
- "**Ultrix Routers**" summarizes the required steps for configuring the Tally System Console and Ultricore-Tally to interface with the Ross Ultrix routers.
- "**Ultriscape Multiviewer**" provides a general overview of the required steps for configuring the Tally System Console to interface with the Ultriscape Multiviewer on an Ultrix router.
- "**Third-Party Switchers**" provides a general overview of the required steps for configuring the Tally System Console to interface with third-party switchers.
- "**Third-Party Routers**" provides a general overview of the required steps for configuring the Tally System Console to interface with third-party routers.
- "**Third-Party Multiviewers**" provides a general overview of the required steps for configuring the Tally System Console to interface with third-party multiviewers.

Related Publications

It is recommended to consult the following Ross documentation before installing and configuring your devices:

- ***Tally System Console User Guide***, Ross Part Number: 2201DR-016
- ***Ultricore BCS User Guide***, Ross Part Number: 2201DR-106

Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **Network** tab, click **Apply**.

User Entered Text

Courier text is used to identify text that a user must enter. For example:

In the **Language** box, enter **`English`**.

Referenced Guides

Text set in bold and italic represent the titles of referenced guides, manuals, or documents. For example:

For more information, refer to the ***TSI-4000 User Guide***.

Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads "**File** > **Save As**," you would click the **File** menu and then click **Save As**.

Important Instructions

Star icons are used to identify important instructions or features. For example:

✶ Contact your IT department before connecting to your facility network to ensure that there are no conflicts. They will provide you with an appropriate value for the IP Address, Subnet Mask, and Gateway for your device.

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- **Technical Support**: (+1) 613-652-4886
- **After Hours Emergency**: (+1) 613-349-0006
- **E-mail**: techsupport@rossvideo.com
- **Website**: http://www.rossvideo.com

Before You Begin

The Tally System Console was designed to allow the user to configure basic settings of Ross Tally System devices. It helps to establish communication between the devices such as an Ultricore BCS and an TSI-4000 or a Ross Acuity production switcher.

This chapter provides an overview of the Tally System Console, and outlines how to install the Tally System Console software on your computer.

Overview

The Tally System Console is an application that is designed to work in tandem with one or more TSI systems. The application provides the user with a spreadsheet-like interface to configure their tally systems. Changes can then be made to the tally logic and uploaded to each TSI system. In addition, the Tally System Console application can be configured to limit access to certain areas of the tally configuration. This allows for minor configuration changes without the hazard of disrupting any existing tallies (e.g. source name changes).

All devices that the TSI will be communicating with will need to be configured. The Comm Port Configuration page allows for specifying the device (Production & M/C Switchers, Routers, Displays, or external GPI), how it connects (serial or Ethernet), and where it connects (COM7, IP address).

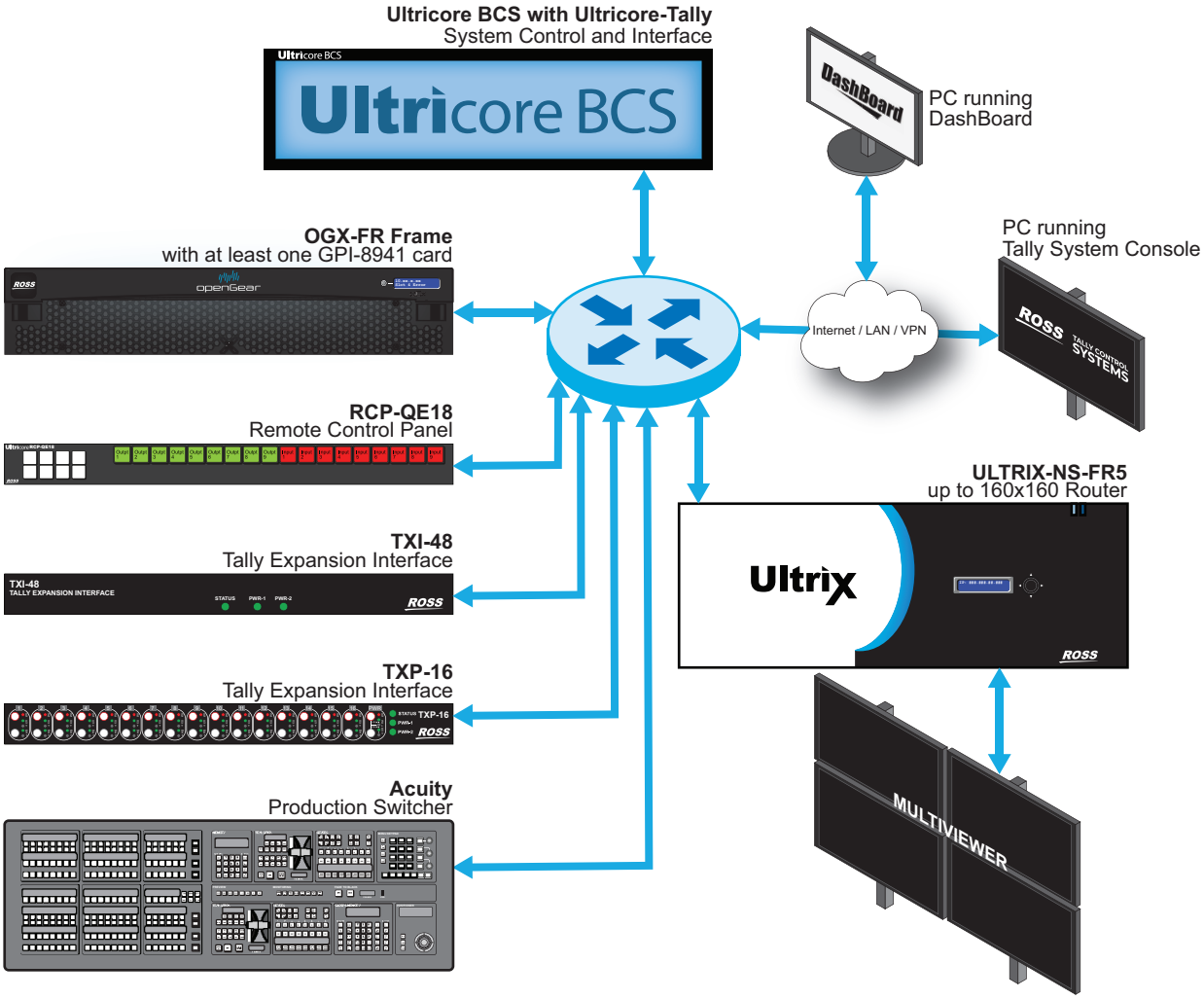

Figure 1 Example of a Workflow with the Ultricore BCS and the Tally System Console

System Requirements

Ensure the following are available before installing and using the Tally System Console:

- The Tally System Console software from the Ross Video website (the file name should be Tally System Console 3.8-Redis-on.msi.)
- A computer to install the Tally System Console with a minimum of:
  - 1.5GB hard disc space
  - 1GB RAM
  - 1GHz processor
- The computer for the Tally System Console is on the same network as your Ultricore BCS and other tally system devices.

Install the Tally System Console

This section outlines how to install the Tally System Console software on your computer.

✶ Consult the ***Tally System Console User Guide*** for more information on installing and configuring the Tally System Console.

To install the Tally System Console on your computer

1. Right-click the Tally System Console ***.msi install** file.
2. Click **Install**.
3. Launch the Tally System Console.
4. Click **Management** > **Configuration**.
5. Select the **General** tab.
6. Select the **Send configuration to TSI database** box.
7. Click **OK**.
8. Click **File** > **Merge Libraries**.
9. Select the file **Library10.lib**.
10. Click **OK**.

Tally System Console and Ultricore BCS

This chapter outlines how to add an Ultricore BCS to the Tally System Console.

For More Information on...

- installing and configuring the Tally System Console, refer to the ***Tally System Console User Guide***.

Add the Ultricore BCS to the Tally System Console

This is required before you can configure connections between your devices and the Ultricore BCS. If you have multiple Ultricore BCS, you will need to define each one.

To add the Ultricore BCS to the Tally System Console

1. In the Tally System Console, select **Management** > **Edit TSI List**.
2. Click **Add**.
3. For each Ultricore BCS:
   a. Use the **Name** field to specify a unique identifier for this Ultricore BCS in the Tally System Console.
   b. If this is a single unit:
      - Enter the Ultricore BCS IP address in the **IP Address A** field.
      - Leave the IP Address B blank.
   c. If the Ultricore BCS is part of a redundant system:
      - Enter the Ultricore BCS IP address of the first physical IP address in the **IP Address A** field.
      - Enter the Ultricore BCS IP address of the second physical IP address in the **IP Address B** field.

✶ For redundant systems, do not enter the 'shared' IP address in the **IP Address** fields.

   d. Select **BCS**.
   e. Select **Assume Online**.
   f. Click **OK**.
   g. Click **Done**.
4. Select **Hardware** > **Tally System Interface Units**.
5. For each Ultricore BCS:
   a. Enter a **Name** that matches the value you entered in step 3a.
   b. Enter an **Interface Number**.

✶ For Ultricore BCS systems that are redundantly paired, the Interface Number value will be the same for the paired units but the IP addresses will differ. The Interface Numbers for non-paired BCS systems must differ.

   c. Enter an **IP Address** for each Ultricore BCS. Ensure the value(s) match those entered in step 3b or 3c.

Set up the Ultricore-Tally

Before proceeding, complete the following steps:

In the Tally System Console navigate to:

1. **Displays** — set up the Ultrix Multiviewer, using the Ultricore BCS IP address and Wrapped TSL 5.0 protocol. Refer to the ***Ultricore BCS User Guide*** for more details.
2. **Routers** — set up the Ultrix router using the Ultricore BCS IP address and setting the Level to 0.

In DashBoard navigate to:

1. **Ultrix** > **Product Info** — confirm that the Remote Controller Mode box is selected.
2. **Ultricore BCS** > **System** > **Configuration** > **Connections** > **Services** — confirm that the SW-P-08 and TSL 5.0 protocols are enabled.
3. **Ultricore BCS** > **System** > **Configuration** > **Connections** > **Protocol Services** > **Options** — confirm that TSL UMD v5.0 > Wrapping is set to Yes.
4. **Ultrix** > **Ultriscape** > **Layout Editor** — for each PIP:
    a. Set **Type** to **PiP Sources**.
    b. Select the **Tally** and **Use Tally Label** boxes.

Ross Production Switchers

This chapter summarizes the required steps for configuring the Tally System Console and Ultricore-Tally to interface with the Ross Production Switchers.

For More Information on…

- configuring your production switcher, refer to the applicable Ross user documentation.
- the Tally System Console, refer to the ***Tally System Console User Guide***.

Overview

The Ross Production Switcher communicates with the Ultricore-Tally via an ethernet connection to the Ultricore BCS. The Tally System Console also communicates with the production switcher via an ethernet connection. This requires you to:

1. Define the Ultricore BCS Settings as outlined in "**Add the Ultricore BCS to the Tally System Console**".
2. Add the Ross Production Switcher to the Tally System Console
3. Apply the Updated Tally System Configuration
4. Specify a TCP Connection for Acuity
5. Import the Acuity Bus Maps to the Tally System Console

Add the Ross Production Switcher to the Tally System Console

This section outlines how to add the production switcher to the Tally System Console. This will enable you to define a connection between your tally system and the switcher.

To configure a tally system connection to the production switcher

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Production & M/C Switchers**.

   The Production & M/C Switchers Device Editor opens.

2. Specify a short **Name**.

   For example, `SWR` is commonly used to represent a switcher.

3. Select the **Tally Controller Unit** that will be communicating with the switcher.
4. Set the **Protocol**. Refer to **Table 1**.
5. Use the **Device Configuration** > **IP Addr #1** field to enter the IP address of the production switcher.

Settings for Ross Production Switchers

Table 1 summarizes the required settings for each supported Ross production switcher.

Table 1 Tally System Console — Ross Production Switcher Settings

Model	Protocol Setting	Notes
Acuity	TSL 5.0 / IP (Switcher is TCP Server)	
Carbonite Series	Switcher is TCP/IP Client	auto-detecting switcher
Carbonite Black Solo	Switcher is TCP/IP Client	

Apply the Updated Tally System Configuration

This section outlines how to apply the new connection point and save it to the tally system. This ensure that the connection settings are saved to a configuration file that is accessible to the Tally System Console.

To apply the updated tally system configuration

1. In the Tally System Console, select **File** > **Save as Remote Session**.

   The **Save To TSI** dialog opens.
2. Select the applicable **Ultricore BCS** from the list box.
3. Edit the **Filename** as needed.
4. Perform one of the following:
   - If the currently running configuration must remain unchanged, leave the **Upload as current config and reboot** box unselected (no check-mark); or
   - Select the **Upload as current config and reboot** box if the currently running configuration must be changed to the newly uploaded configuration.
5. Click **Save to TSI**.

Specify a TCP Connection for Acuity

This section outlines how to create a TCP connection from the Acuity production switcher to the Ultricore-Tally.

To specify a TCP connection from Acuity to the Ultricore-Tally

1. On the Acuity interface, navigate to **Setup** > **Installation** > **Com Setup**.
2. Click **Type**.
3. Select **Pan NET 1**.
4. With **Type** still selected, set **Device** to **Serial Tally**.
5. Click **Select Device**.
6. Set **Device** to **TSLOUT**.
7. Click **Com Type**.

   This will set the **Device** column in the port listing to **TSLOUT**.
8. With **Com Type** still selected, set **Device** to **Network TCP**.
9. Click **Com Settings**.
10. Set **Client/Server** to **Server (Many)**.
11. Navigate to the **Extra Options** > **Option** interface:
    a. Set **Add Header, Value** to **No Header**.
    b. Set **Rate, Value** to **Burst**.
    c. Set **Output Format, Value** to **Acuity**.
12. Select **Home** > **Confirm**.
13. On the Acuity interface, navigate to **Setup** > **Installation** > **Com Settings**.

14. Set the following values:
    - Remote IP address to 0.0.0.0
    - Remote Port to 0
    - Local IP address to 0.0.0.0
    - Local Port to 60531
15. Select **Home** > **Confirm**.

Import the Acuity Bus Maps to the Tally System Console

The information in the Acuity Bus Maps table is important for setting the correct Tally IDs when running the Ultricore-Tally UMDs in Source mode. Refer to the ***Ultricore BCS User Guide*** for details on configuring this mode.

In the Tally System Console, the Tally IDs are used in:

- UMDs > Display Devices editor > Serial# / ID column, and
- Source Definitions > Switcher Inputs column.

Bus Maps Interface

To navigate to the Acuity the Bus Maps, select **Home** > **Setup** > **Bus Maps**.

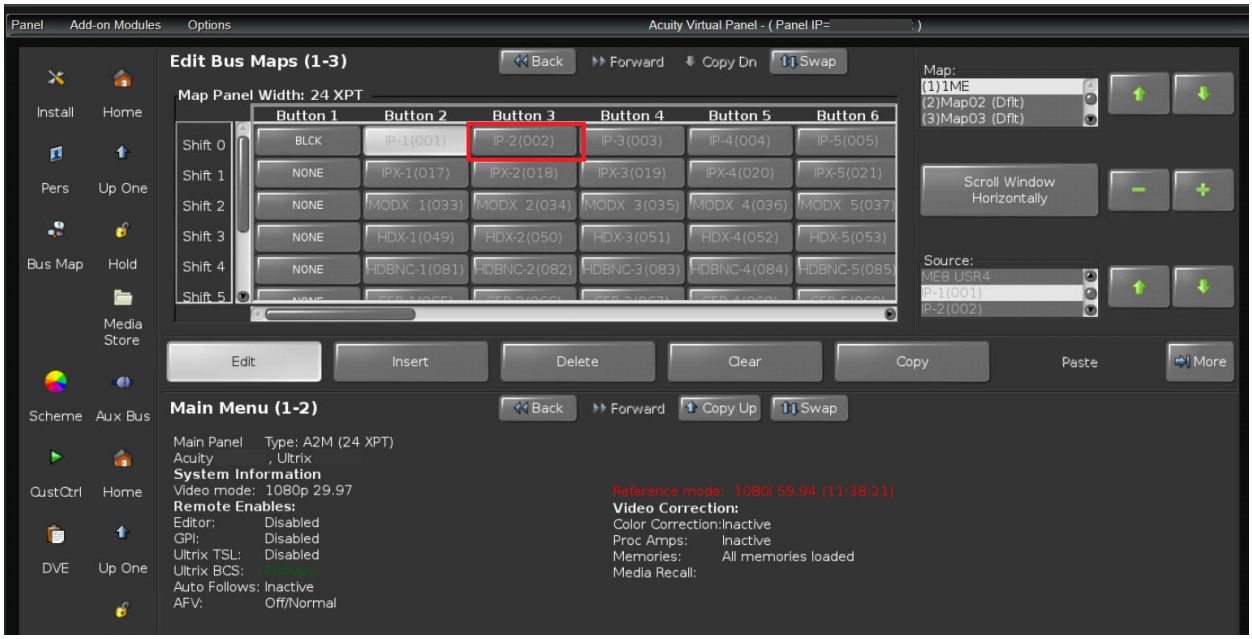

Figure 2 Example of an Acuity Virtual Panel > Edit Bus Maps

On each button in the Edit Bus Maps table there is a number (Tally ID) and a name (source name). Usually the name can be correlated with router sources. For example, in **Figure 2**, Button 3 is assigned to IP-2 (002).

To add the Acuity bus maps to the Tally System Console

1. In the Tally System Console, select **Source Definitions**.
    - The table will contain at least a zero-based router input index.
    - Many of them will also contain entries in the Switcher column.
    - These entries will be the Tally ID found in the Acuity Bus Maps table.
2. In the **Source Definitions** table:

a. Locate the row with the name found in the Acuity > Bus Maps table.

b. In the **Switcher Inputs** column of this row, enter the corresponding number found in Acuity > Bus Maps.

3. In the Tally System Console, select **Display Devices**.

   a. Locate the **Tally ID** found in the Acuity > Bus Maps table.

      The Tally IDs are listed in **Serial# / ID** column of the Display Devices editor.

   b. Drag the corresponding entry from the **Source Definitions** table into the **Monitoring Styles** column of the Display Devices editor.

Ultrix Routers

This chapter summarizes the required steps for configuring the Tally System Console to interface with the Ross Ultrix routers.

For More Information on…

- configuring your Ultrix, refer to the user documentation for your router.
- the Tally System Console, refer to the ***Tally System Console User Guide***.

Overview

The Ultrix router communicates with the Ultricore-Tally via an ethernet connection to the Ultricore BCS. The Tally System Console communicates with the router via the Ultricore BCS. This requires you to:

1. Define the Ultricore BCS Settings as outlined in "**Add the Ultricore BCS to the Tally System Console**".
2. Add Ultrix to the Tally System Console.

Add Ultrix to the Tally System Console

This section outlines how to add Ultrix to the list of available devices in the Tally System Console.

To add Ultrix to the Tally System Console

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Routers**.

   The Router Device Editor opens.

2. Specify a short **Name**.

   For example, `RTR` is commonly used to represent a router.

3. Select the **Tally Controller Unit** that will communicate with the router.
4. Set the router **Level** to **0**.

✶ To specify more than one router level, separate the levels with a comma. For example, 0,1,2.

5. Select the router **Protocol** to **Ross Ultrix Router (SW-P-08 TCP/IP port)**.
6. If the router is in a single system, use the Device Configuration dialog to set the IP address of the router in the **IP Addr #1** field.
7. If the router is in redundant system, use the Device Configuration dialog to:
   a. Set the IP address of the primary router in the **IP Addr #1** field.
   b. Set the IP address of the secondary router in the **IP Addr #**2 field.
8. Locate the **Resource Device Options** area of the Device Configuration dialog.
9. Select the **Use as configuration source** box.
10. Set the **#Inputs** field to match the number of available sources in your Ultrix router database.

Ultriscape Multiviewer

This chapter provides a general overview of the required steps for configuring the Tally System Console to interface with the Ultriscape Multiviewer feature of the Ultrix routers.

For More Information on…

- configuring your Ultriscape for the Ultrix router, refer to the ***Ultriscape User Guide***.
- the Tally System Console, refer to the ***Tally System Console User Guide***.

Overview

The Ultriscape is a feature of the Ultrix router. The Ultricore-Tally communicates with the router via the Ultricore BCS to provide access to the other devices in your tally system. This requires you to:

1. Define the Ultricore BCS Settings as outlined in "**Add the Ultricore BCS to the Tally System Console**"
2. Add an Ultriscape Multiviewer to the Tally System Console
3. Configure the PiPs in the Tally System Console
4. Assign PiPs to Destinations

Add an Ultriscape Multiviewer to the Tally System Console

This section outlines how to add an Ultriscape to the list of available devices in the Tally System Console.

To add an Ultriscape Multiviewer to the Tally System Console

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Displays**.
2. For each Ultriscape system:
   a. Specify a short **Name**, such as `MV1`.

      Depending on the location of the Ultriscape, the name can reflect the name of a control room, such as `PCR1`.

   b. Select the **Tally Controller Unit** that will communicate with the Ultriscape.
   c. Set the **Protocol** to **Multiviewer (TSL v5.0-Wrapped: MV is TCP Server)**.
   d. Use the **Device Configuration** > **IP Addr #1** field to enter the IP address of the Ultriscape.

Configure the PiPs in the Tally System Console

This section outlines how to define each Ultriscape PiP in the Tally System Console.

To configure each PiP for the defined Ultriscape

1. In the Tally System Console, select **UMDs** > **Display Devices**.

   This editor will contain a list of Ultriscape PiPs, one per line. Each PiP is associated with an Ultriscape that was defined in "**To add an Ultriscape Multiviewer to the Tally System Console**".
2. For each PiP within Ultriscape:
   a. Enter a **Name** for the PiP.
   b. Select the Ultriscape with which this PiP is associated from the **Port** column menu.

c. Enter a Tally ID into the **Serial #** column. In Ross systems this Tally ID will typically match a value in the router Destination configuration Tally ID column.

d. Enter a value of **1** in the **Section#** column.

e. From the **Monitoring Style** list, select **Destination**.

f. Select a **Tally Area** (typically a Control Room) from the provided list.

The Tally Area determines which device will generate tally information for a given Ultriscape PiP.

✶ An error icon displays in the Monitoring Style column of each PiP. This is a result of not yet assigning a router destination to the PiPs. This will be addressed later in the configuration workflow.

Assign PiPs to Destinations

Next you will add the Ultriscape destinations to the Tally System Console. This will allow you to assign the destinations to the PiPs in the Tally System Console.

To add the Ultriscape destinations to the Tally System Console

1. In the Tally System Console, select **UMDs** > **Display Devices**.
2. In the menu tree in the left part of the configuration, select **I/O and Signals** > **Router - Output Names**.
3. Select the **+** icon.

   A list of router destinations displays.
4. Select the required Ultriscape destinations from the menu tree.
5. Drag and drop the selected destinations into the **Monitoring Style** column of the Display Devices editor.
6. At the prompt, select **Assign a single parameter to each row**.

   Each PiP will now include a Monitoring Description reflecting the destination that is now assigned to each PiP.

Apply the Updated Tally System Configuration

This section outlines how to apply the new connection point and save it to the tally system. This ensure that the connection settings are saved to a configuration file that is accessible to the Tally System Console.

To apply the updated tally system configuration

1. In the Tally System Console, select **File** > **Save as Remote Session**.

   The **Save TO TSI** dialog opens.
2. Select the applicable **Ultricore BCS** from the list box.
3. Edit the **Filename** as needed.
4. Perform one of the following:
   - If the currently running configuration must remain unchanged, leave the **Upload as current config and reboot** box unselected (no check-mark); or
   - Select the **Upload as current config and reboot** box if the currently running configuration must be changed to the newly uploaded configuration.
5. Click **Save to TSI**.

Third-Party Switchers

This chapter summarizes how to configure the Tally System Console to interface with third-party production switchers.

For More Information on…

- configuring your switcher, refer to the user documentation provided with your switcher.
- the Tally System Console, refer to the ***Tally System Console User Guide***.
- adding a Ross switcher, refer to "**Ross Production Switchers**".

Add the Switcher to the Tally System Console

This section outlines how to add the switcher to the Tally System Console. This will enable you to define a connection between your tally system and switcher.

To configure a tally system connection to the switcher

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Production & M/C Switchers**.

   The Production & M/C Switchers Device Editor opens.

2. Specify a short **Name**.

   For example, `SWR` is commonly used to represent a switcher.

3. Select the **Tally Controller Unit** that will be communicating with the switcher.
4. Use the **Device Configuration** > **IP Addr #1** field to enter the IP address of the switcher.
5. Set the **Protocol**. Refer to **Table 2**.

Settings for Third-Party Switchers

Table 2 summarizes the required level and protocol for each supported third-party switcher.

Table 2 Tally System Console — Third-Party Switcher Protocols

Protocol
Sony MVS-8000X Prod. Swr.(Numeric I/O - COM port)
Sony XVS-7000 Prod. Swr.(Numeric I/O - COM port)
Sony XVS-7000 Prod. Swr.(Numeric - TSI is TCP Client)

Apply the Updated Tally System Configuration

This section outlines how to apply the new connection point and save it to the tally system. This ensures that the connection settings are saved to a configuration file that is accessible to the Tally System Console.

To apply the updated tally system configuration

1. In the Tally System Console, select **File** > **Save as Remote Session**.

   The **Save To TSI** dialog opens.

2. Select the applicable **Ultricore BCS** from the list box.
3. Edit the **Filename** as needed.

4. Perform one of the following:
   - If the currently running configuration must remain unchanged, leave the **Upload as current config and reboot** box unselected (no check-mark); or
   - Select the **Upload as current config and reboot** box if the currently running configuration must be changed to the newly uploaded configuration.
5. Click **Save to TSI**.

Third-Party Routers

This chapter summarizes how to configure the Tally System Console to interface with third-party routers.

For More Information on…

- configuring your third-party router, refer to the user documentation provided with your router.
- the Tally System Console, refer to the ***Tally System Console User Guide***.
- adding an Ultrix router, refer to "**Ultrix Routers**".

Add the Router to the Tally System Console

This section outlines how to add a third-party router to the list of available devices in the Tally System Console.

To add a third-party router to the Tally System Console

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Routers**.

   The Router Device Editor opens.

2. Specify a short **Name**.

   For example, `RTR` is commonly used to represent a router.

3. Select the **Tally Controller Unit** that will communicate with the router.
4. Set the router **Level**. Refer to **Table 3**.

✶ To specify more than one router level, separate the levels with a comma. For example, 0,1,2.

5. Select the router **Protocol**. Refer to **Table 3**.
6. Use the **Device Configuration** > **IP Addr #1** field to enter the IP address of the router.

Settings for Third-Party Routers

Table 3 summarizes the required level and protocol for each supported third-party router.

Table 3 Tally System Console — Third-Party Router Settings

Protocol	Level
Evertz EQX Router (TCP/IP port)	V
Grass Valley Orbit Router (TCP/IP port)	1
Harris (LRC protocol Router TCP/IP port)	0

Apply the Updated Tally System Configuration

This section outlines how to apply the new connection point and save it to the tally system. This ensures that the connection settings are saved to a configuration file that is accessible to the Tally System Console.

To apply the updated tally system configuration

1. In the Tally System Console, select **File** > **Save as Remote Session**.

   The **Save To TSI** dialog opens.

2. Select the applicable **Ultricore BCS** from the list box.

3. Edit the **Filename** as needed.
4. Perform one of the following:
   - If the currently running configuration must remain unchanged, leave the **Upload as current config and reboot** box unselected (no check-mark); or
   - Select the **Upload as current config and reboot** box if the currently running configuration must be changed to the newly uploaded configuration.
5. Click **Save to TSI**.

Third-Party Multiviewers

This chapter provides a general overview of the required steps for configuring the Tally System Console to interface with a third-party multiviewer.

For More Information on…

- configuring your multiviewer, refer to the user documentation provided with your multiviewer.
- the Tally System Console, refer to the ***Tally System Console User Guide***.

Add the Third-Party Multiviewer to the Tally System Console

This section outlines how to add a third-party multiviewer to the list of available devices in the Tally System Console.

To add a multiviewer Multiviewer to the Tally System Console

1. In the Tally System Console, select **Hardware** > **Comm Port Setup** > **Displays**.
2. For each multiviewer system:
   a. Specify a short **Name**, such as `MV1`.

      Depending on the location of the multiviewer, the name can reflect the name of a control room, such as `PCR1`.

   b. Select the **Tally Controller Unit** that will communicate with the multiviewer.
   c. Set the **Protocol**. Refer to **Table 4**.
   d. Use the **Device Configuration** > **IP Addr #1** field to enter the IP address of the multiviewer.

Settings for Third-Party Multiviewers

Table 4 summarizes the required settings for each supported third-party multiviewer.

Table 4 Tally System Console — Third-Party Multiviewer Protocols

Protocol
Evertz VIP multi lined display (TCP/IP)
Evertz VIP display (TCP/IP)
Harris TCPIP screen (TCP/IP)
Miranda KMX screen (TCP/IP)

Configure the PiPs in the Tally System Console

This section outlines how to define each multiviewer PiP in the Tally System Console.

To configure each PiP for the defined multiviewer

1. In the Tally System Console, select **UMDs** > **Display Devices**.

   This editor will contain a list of multiviewer PiPs, one per line. Each PiP is associated with an multiviewer that was defined in "**To add a multiviewer Multiviewer to the Tally System Console**".

2. For each PiP within multiviewer:

a. Enter a **Name** for the PiP.

b. Select the multiviewer with which this PiP is associated from the **Port** column menu.

c. Enter a Tally ID into the **Serial #** column. In Ross systems this Tally ID will typically match a value in the router Destination configuration Tally ID column.

d. Enter a value of **1** in the **Section#** column.

e. From the **Monitoring Style** list, select **Destination**.

f. Select a **Tally Area** (typically a Control Room) from the provided list.

The Tally Area determines which device will generate tally information for a given multiviewer PiP.

✶ An error icon displays in the Monitoring Style column of each PiP. This is a result of not yet assigning a router destination to the PiPs. This will be addressed later in the configuration workflow.

Assign PiPs to Destinations

Next you will add the multiviewer destinations to the Tally System Console. This will allow you to assign the destinations to the PiPs in the Tally System Console.

To add the multiviewer destinations to the Tally System Console

1. In the Tally System Console, select **UMDs** > **Display Devices**.
2. In the menu tree in the left part of the configuration, select **I/O and Signals** > **Router - Output Names**.
3. Select the **+** icon.

   A list of router destinations displays.
4. Select the required multiviewer destinations from the menu tree.
5. Drag and drop the selected destinations into the **Monitoring Style** column of the Display Devices editor.
6. At the prompt, select **Assign a single parameter to each row**.

   Each PiP will now include a Monitoring Description reflecting the destination that is now assigned to each PiP.

Apply the Updated Tally System Configuration

This section outlines how to apply the new connection point and save it to the tally system. This ensure that the connection settings are saved to a configuration file that is accessible to the Tally System Console.

To apply the updated tally system configuration

1. In the Tally System Console, select **File** > **Save as Remote Session**.

   The **Save TO TSI** dialog opens.
2. Select the applicable **Ultricore BCS** from the list box.
3. Edit the **Filename** as needed.

4. Perform one of the following:
   - If the currently running configuration must remain unchanged, leave the **Upload as current config and reboot** box unselected (no check-mark); or
   - Select the **Upload as current config and reboot** box if the currently running configuration must be changed to the newly uploaded configuration.
5. Click **Save to TSI**.