Ultrix

Ultricore BCS

Database Guide

ROSS

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David Ross
CEO, Ross Video
dross@rossvideo.com

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Ultrix and Ultricore · Database 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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This equipment has been tested and found to comply with the limits for a class A Digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a Commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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This Class A device complies with Canadian ICES-003 and part 15 of the FCC Rules.

Cet appariel numerique de la classe “A” est conforme a la norme NMB-003 du Canada.

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This equipment is in compliance with the essential requirements and other relevant provisions established under regulation (EC) No 765/2008 and Decision No 768/2008/EC referred to as the “New Legislative Framework”.

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Class A equipment (Broadcasting and communications service for business use).

This device is a business-use (Class A) EMC-compliant device. The seller and user are advised to be aware of this fact. This device is intended for use in areas outside home.

Type of Equipment	User's Guide
A급 기기 (업무용 방송통신기자재)	이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.
Class A Equipment (Industrial Broadcasting & Communication Equipment)	This equipment is **Industrial (Class A) electromagnetic wave suitability equipment** and seller or user should take notice of it, and this equipment is to be used in the places except for home.

International

This equipment has been tested under the requirements of CISPR 22:2008 or CISPR 32:2015 and found to comply with the limits for a Class A Digital device.

Notice — *This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.*

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The Ultricore and Ultrix systems are backed by a comprehensive one-year warranty on all components.

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If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

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The equipment may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration. You can also contact Ross Video for more information on the environmental performances of our products.

This appliance may contain a Coin type battery which should not be treated as household waste.

To ensure that the battery will be treated properly use the appropriate take-back systems in your area. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

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Ross Video has implemented reasonable administrative, technical, and physical safeguards to help protect against security incidents and privacy breaches involving a Ross Video product provided those products are used in accordance with Ross Video instructions for use. However, as systems and threats evolve, no system can be protected against all vulnerabilities and we consider our customers the most important partner in maintaining security and privacy safeguards. If you have any concerns, we ask that you bring them to our attention, and we will investigate. Where appropriate, we will address the issue with product changes, technical bulletins and/or responsible disclosures to customers and regulators. Ross Video continuously strives to improve security and privacy throughout the product life-cycle using practices such as:

- Privacy and Security by Design
- Product and Supplier Risk Assessment
- Vulnerability and Patch Management
- Secure Coding Practices and Analysis
- Vulnerability Scanning
- Access Controls appropriate to Customer Data
- Incident Response
- Clear paths for two-way communication between customers and Ross Video

If you would like to report a potential product related privacy or security issue (incident, breach, or vulnerability), contact techsupport@rossvideo.com.

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Contents

Introduction

This guide covers the configuration of databases for the Ultrix routers and Ultricore controllers. The following chapters are included:

- "**Introduction**" summarizes the guide and provides important terms, and conventions.
- "**Getting Started**" outlines how a database determines the routing system, and provides a generalized work flow of configuring a database.
- "**Using DashBoard**" provides instructions for launching DashBoard, and accessing the Ultrix and Ultricore interfaces in DashBoard.
- "**Navigating the Database Interfaces**" provides an overview of how the Database interfaces are organized, and outlines how to access the interfaces in DashBoard.
- "**Databases Menu System**" summarize the menus, fields, and options available in each Database interface starting with the first sub-node in the tree view.
- "**Enabling a Service**" outlines how to enable or disable each required communication service for your router. A summary of the additional required settings based on the protocol and the support commands is also provided.
- "**Creating a New Database**" outlines the information that is captured in a database, provides an overview of the Database Manager interface, and describes how to create a new database using the Database Manager interface. A summary of how to import and export databases, and change the active database is also provided.
- "**Adding Connection Points**" summarizes how to establish communication between your primary device to the other devices in your routing system.
- "**Defining an External Matrix**" outlines how to configure connection points to third-party devices, and access their matrices.
- "**Defining the Levels**" outlines how to determine the number of levels your database needs, and then how to define a level in the database.
- "**Mapping the Destinations**" outlines how to map the available output signals to the destinations in your database.
- "**Mapping the Sources**" outlines how to map the available input signals to the sources in your database.
- "**Mapping the I/O for ULTRIMIX-MXR**" how to map the destinations and sources for the ULTRIMIX-MXR licensed feature.
- "**Tallies**" provides instructions on how to enable TSL UMD messages in the active database, assign Tally IDs to your sources and destinations, and how to manage tally objects in your UltriScape heads.
- "**Using an Alias Set**" outlines how to create an alias set of virtual labels and how to apply an alias set to your sources and destination matrices.
- "**Tielines**" outlines how to define a distributed routing system using the Tieline Builder feature of the Ultricore.
- "**Using Cat/Index Mode**" outlines how to organize your resources using the Cat/Index Mode feature.
- "**Using Group Categories**" outlines how to organize the database resources into folders and sub-folders using the Group Categories feature.
- "**Using Salvos**" describes how to create and recall a salvo using the options in DashBoard.
- "**Soft Panels in DashBoard**"describes the Matrix, MultiBus, and Category panels in DashBoard, and provides instructions on how to use the soft panels to perform crosspoint switches.
- "**Ultricore Profiles**" provides an introduction to the Ultricore Profiles for your router matrix and includes general information on managing the user accounts and profiles.

Related Publications

It is recommended to consult the following Ross documentation before configuring your databases:

- ***DashBoard User Manual***, Ross Part Number: 8351DR-004
- ***Ultricore BCS User Guide***, Ross Part Number: 2201DR-106
- ***Ultriscape User Guide***, Ross Part Number: 2101DR-018
- ***ULTRIX-FR1, ULTRIX-FR2, and ULTRIX-FR5 User Guide***, Ross Part Number: 2101DR-004
- ***ULTRIX-FR12 User Guide***, Ross Part Number: 2101DR-604
- ***ULTRIX-MODX-IO User Guide***, Ross Part Number: 2101DR-020
- ***Walkabout Application Note***, Ross Part Number: 2201DR-003

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 **Save As** dialog, click **OK**.

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

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

For more information, refer to the ***ULTRIX-FR12 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:

✶ An error message displays when an object overlaps a tile or when one tile overlaps another in the workspace.

Contacting Technical Support

At Ross Video, we take pride in the quality of our products, but if problems occur, help is as close as the nearest telephone.

Our 24-hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel. During business hours (Eastern Time), technical support personnel are available by telephone. After hours

and on weekends, a direct emergency technical support phone line is available. If the technical support person who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. This team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

- **Technical Support**: (+1) 844-652-0645
- **After Hours Emergency**: (+1) 613-349-0006
- **E-mail**: solutions@rossvideo.com
- **Website**: http://www.rossvideo.com

Getting Started

This chapter outlines how a database determines the routing system, and provides a generalized work flow of configuring a database for the following devices:

- Ultricore BCS
- Ultricore CC
- ULTRIX-NS-FR1
- ULTRIX-NS-FR2
- ULTRIX-FR5
- ULTRIX-NS-FR5
- ULTRIX-FR12

Before You Begin

✶ Unicode characters are not supported.

Before proceeding, ensure that:

- the required license keys are installed for your device(s). Refer to the user guide for your router or controller for more information.
- any existing databases in your routing system are exported. Refer to the user guide for your router for information on exporting legacy databases in your system.
- your router and controllers are running software v6.1 or higher.

✶ Contact Ross Technical Support before upgrading the software for your system.

A Note on Upgrading an Ultricore BCS Redundant System

This section only applies if you are upgrading Ultricore BCS Redundant system.

Upgrading your Ultrix and Ultricore redundant system requires you to:

1. Contact Ross Technical Support before upgrading the software for your system.
2. Upgrade the software on the standby Ultricore BCS.
3. Reboot the standby Ultricore BCS.
4. Wait until the standby Ultricore BCS is in sync with the primary Ultricore BCS.
5. Perform a failover to the newly upgraded standby Ultricore BCS.
6. Upgrade the software on the newly standby Ultricore BCS.
7. Reboot the newly standby Ultricore BCS.
8. Perform a failover.

How a Database Determines the Routing System

The various tables within an Ultrix and Ultricore determine if a signal/route can be made from input to output.

For a given level, if there is a physical port mapped, for the same physical device, in both the Source and Destination interfaces, and the controlling device has the level enabled, then a crosspoint switch can be issued and executed on the router(s). **Table 1** outlines a database with four levels.

Level 1 has mapped valid Sources and Destinations, and the level is enabled on the controlling device.

Table 1 Example of a Multi-Level Database Setup

	Level 1	Level 2	Level 3	Level 4
Is a physical source assigned?	✓	x[a]	✓	✓
Is a physical destination assigned?	✓	✓	x[b]	x
Is the Level enabled on the Controller device?	✓	✓	✓	x
Can a switch be executed?	✓[c]	x[d]	x[d]	x[d]

a. An entry is not present in the corresponding Level column of the Source interface.
b. An entry is not present in the corresponding Level column of the Destinations interface.
c. A switch will be executed.
d. A switch will not be executed. Physical ports from the same logical matrix must be entered in the same control level before a connection can be made.

Configuration Overview

The generalized work flow of configuring a database is:

1. Ensure your devices are running v6.1 software or higher.
2. Create a copy of any pre-existing Ultricore/Ultrix databases in your system.
3. Create a new (blank) database on the primary device using the options on the Database Manager interfaces. You can create as many databases as required, but only one database can be active at a time. Refer to "**Creating a New Database**".
4. Establish connection points to external devices (clients). To enable an Ultricore BCS to function as the 'primary' of the routing system, you must establish communications with the 'client' devices.

✶ This step is only required if external routing systems are connected to the primary Ultricore.

5. Verify the available IN/OUT ports to ensure correct system connections. The default port naming convention of `frame.slot.port.type` may be overwritten (if required) at this stage.
6. Create levels as outlined in "**Defining a Level**".
7. Create destination labels and assign physical ports to the labels as outlined in "**Updating the Destination Labels**" and "**Mapping the Destinations**".
8. Create source labels and assign physical ports to the labels as outlined in "**Updating the Source Labels**" and "**Mapping an Input to a Source**".
9. Perform one of the following:
   - Define a soft panel as outlined in "**Creating a Soft Panel**"; or
   - Establish a connection from a remote control panel (RCP) as outlined in its user guide.

Using DashBoard

This chapter provides instructions for launching DashBoard, and accessing the Ultrix and Ultricore interfaces in DashBoard.

If you have questions pertaining to the operation of Ultrix and Ultricore, contact us at the numbers listed in "**Contacting Technical Support**". Our technical staff is always available for consultation, training, or service.

Launching DashBoard

DashBoard must run on a computer that has a physical wired ethernet connection. Wireless connections do not allow device discovery.

For More Information on...

- downloading and installing the DashBoard client software, refer to the ***DashBoard User Manual***.

To launch DashBoard

1. Ensure that you are running DashBoard software version 9.13 or higher.
2. Launch DashBoard by double-clicking its icon on your computer desktop.

Accessing the Ultrix and Ultricore Interfaces in DashBoard

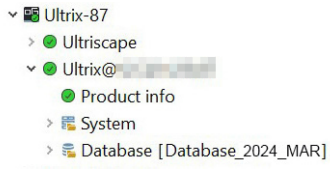
The interfaces are accessed by expanding the Ultrix or Ultricore sub-nodes in the DashBoard Tree View.

To access the interfaces in DashBoard

1. Locate the Ultrix or Ultricore node in the Tree View of DashBoard
2. Expand the Ultrix or Ultricore node to display a list of sub-nodes.

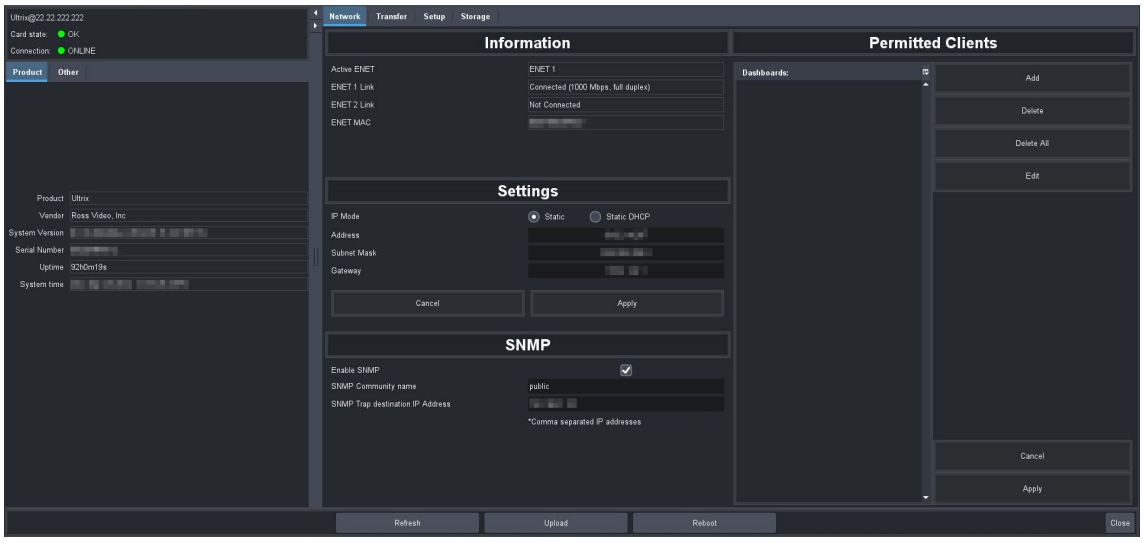
✶ When accessing an Ultrix, the first sub-node provides access to the Ultriscape settings for the Multiviewer licensed featured. If the Ultriscape sub-node is not displayed, an Ultriscape license is not enabled on the router. Refer to the ***Ultriscape User Guide*** for details.

3. Expand the second sub-node.



4. Double-click the **Product Info** sub-node to display that interface in the right pane of the DashBoard window.

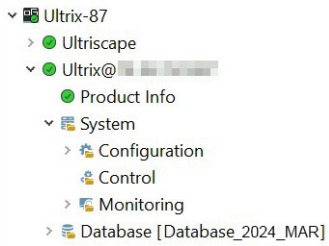
   The Product Info interface displays two panes within the same DashBoard window: status (read-only) fields in the left pane, and a series of tabs with configurable menus and settings in the right pane. Refer to the user guide for your router for an overview of the available tabs, menus, and settings.



5. Expand the **System** sub-node.

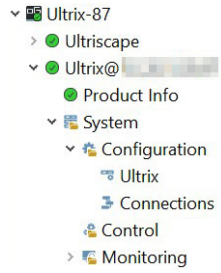
   The System tree includes three sub-nodes: **Configuration**, **Control**, and **Monitoring**.

✶ The **Control** sub-node is not implemented on the Ultrix routers.



6. Expand the **Configuration** sub-node.

   The Ultrix and Connections sub-nodes display. Refer to the user guide for your router for an overview of the available tabs, menus, and settings.



7. If this is an Ultricore BCS, double-click the **Control** sub-node to display the options for configuring the Ultripower Manager. Refer to the ***Ultricore BCS User Guide*** for details.
8. Expand the **Monitoring** sub-node.

   The Logs and Alarm Configuration sub-nodes display. Refer to the user guide for your router for details on these sub-nodes.

Navigating the Database Interfaces

This chapter summarizes the Database interfaces, and how to access the interfaces in DashBoard.

Database Tree View Overview

Ultrix and Ultricore group the database configuration options in a tree view in the DashBoard window. Expanding the top **Database** node enables you to access the interfaces to configure the connection points, matrices, destinations, sources, group, levels, soft panels, and salvos for the active database. Double-clicking a sub-node opens the corresponding interface, giving access to the database options.

Each sub-node offers specific database configuration options. This enables you to configure your routing system. Note that the currently active database name is displayed in parentheses beside the Database node in the tree view. For example, **Figure 1** illustrates a router with the `Database_2024_MAR` database activated. Unicode names are supported so that names may be defined in other languages or writing systems.

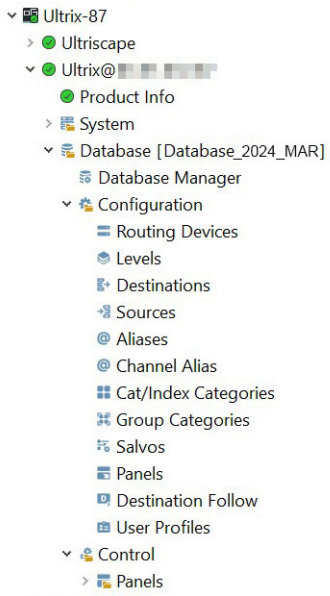


Figure 1 Expanded Database Nodes in the Tree View

Throughout the Database interfaces, actual sockets (inputs and outputs) of a device (or matrix) are referred to by hierarchical dotted notation: `Frame.Slot.Port.Type.Channel` where:

- `Frame` identifies the physical device housing the matrix/matrices.
- `Slot` identifies which router slot in the matrix the socket is located in.
- `Port` identifies the physical input or output socket.
- `Type` identifies the generic signal type (e.g. SDI, audio).
- `Channel` identifies the audio channel within an SDI stream.

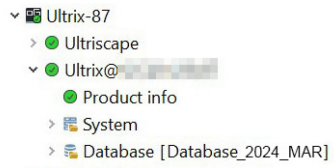
Accessing the Database Interfaces

The interfaces are accessed by expanding the Database node in the DashBoard Tree View and selecting the appropriate sub-node for the database feature you wish to edit.

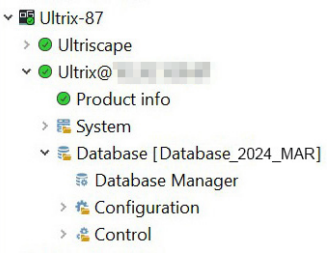
✶ An orange border displays around an interface when the current database has the Operation Mode set to Manual save. A blue border indicates that the current database is read-only and cannot be edited (the Operation Mode set to Protect). If the Operation Mode is set to Auto save, any unsaved changes made to the current database are automatically applied.

To access the Database interfaces

1. Locate the Ultrix or Ultricore node in the Tree View.
2. Expand the Ultrix or Ultricore node to display a list of sub-nodes.
3. Expand the second sub-node.

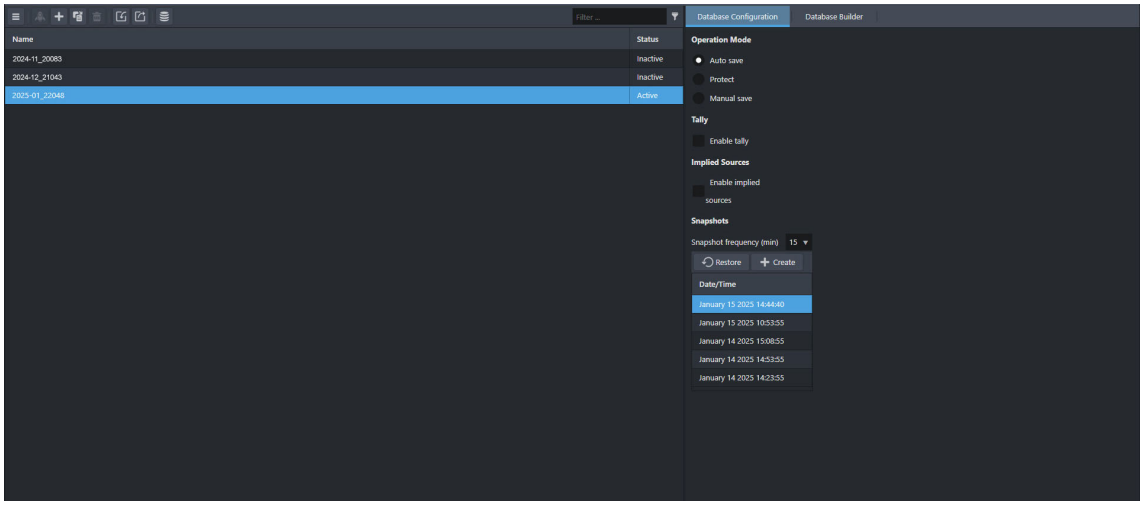


4. Expand the **Database** sub-node to list the options available for configuring your databases.

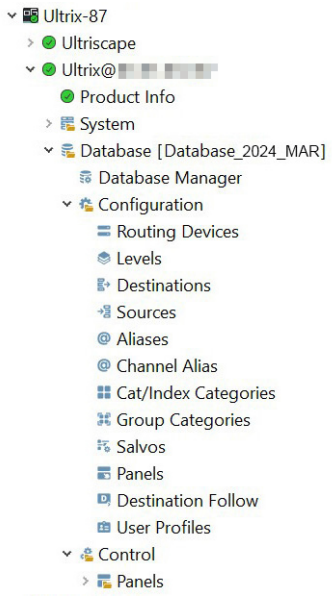


5. Double-click the **Database Manager** sub-node to display the options for managing the database(s) in your routing system.

   Use the Database Manager interface to create, activate/inactive, and delete databases. You can also backup and restore databases using the Import/Export options in the Database Manager toolbar. Refer to "**Database Manager Interface**" for more information.

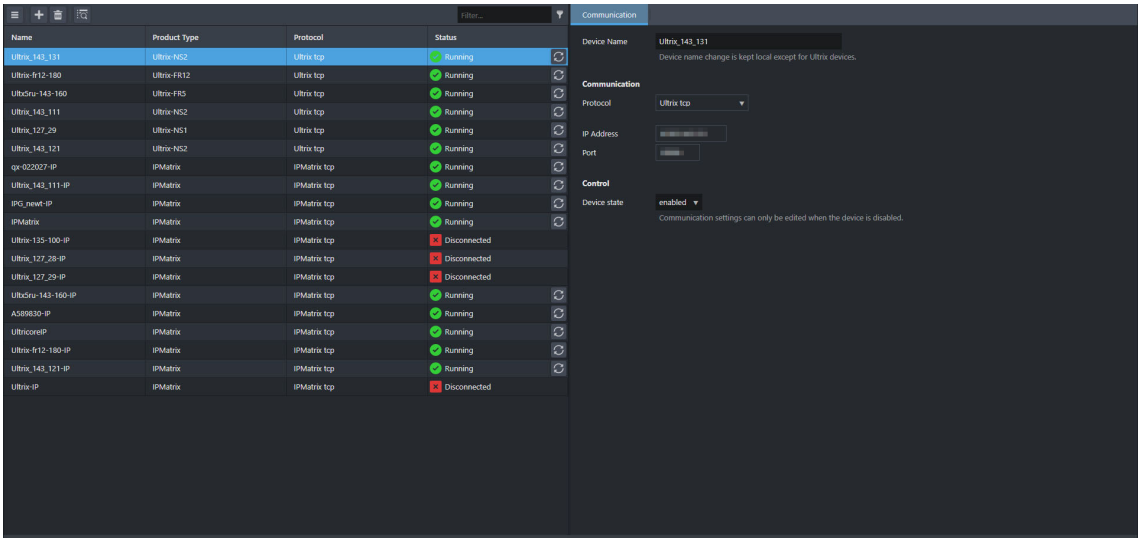


6. Expand the **Configuration** sub-node to list the options available for configuring a database.

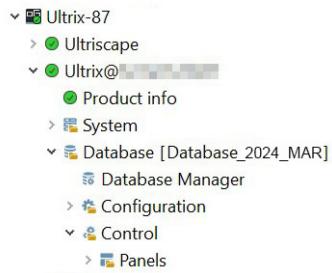


7. Double-click a sub-node in the **Configuration** tree to display its interface in the DashBoard window.

   For example, double-click the **Routing Devices** sub-node to display the options for managing the devices in your routing system. Refer to "**Configuration Interfaces**" for information on the available sub-nodes.



8. Expand the **Control** sub-node to access the configured soft panels in your routing system. Refer to "**Soft Panels in DashBoard**" for more information.



Databases Menu System

This chapter summarize the menus, fields, and options available in each Databases sub-node starting with the first sub-node in the tree view.

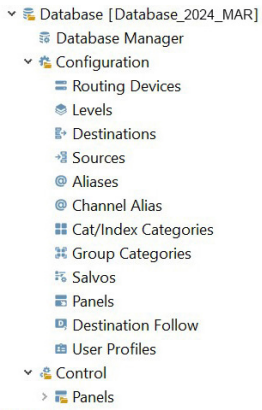


Figure 2 Example of a Database Tree in DashBoard

Database Manager Interface

The Database Manager helps you to create, edit, and manage your databases via a single interface.

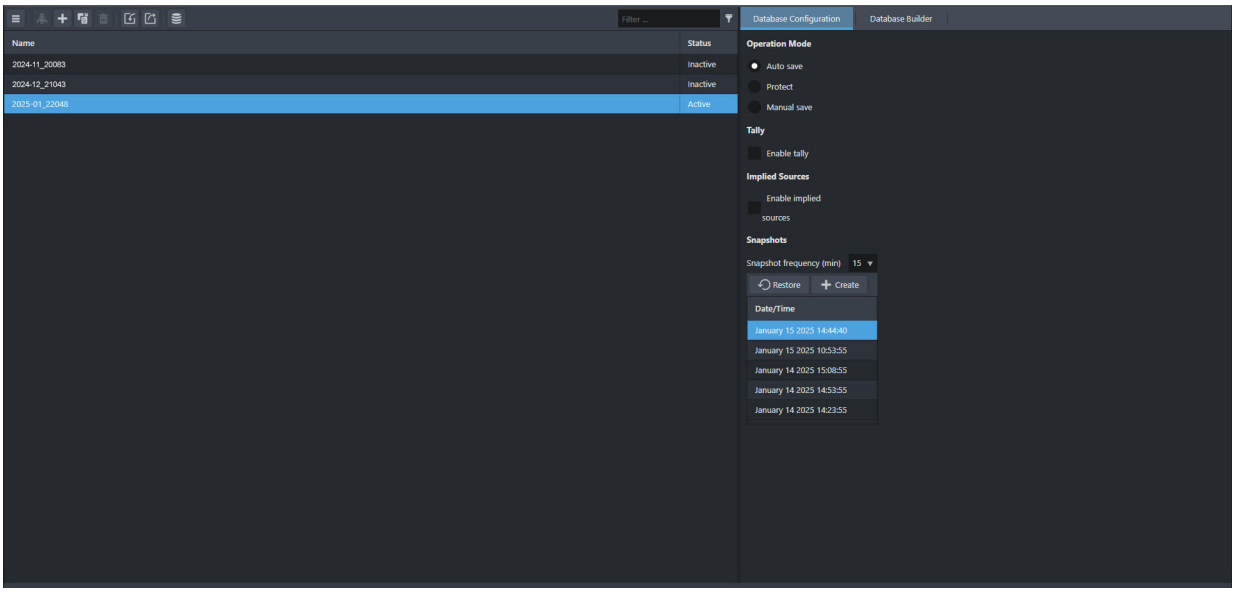


Figure 3 Example of a Database Manager Interface

The Database Manager interface is organized into three distinct areas: a toolbar at the top, a table in the left pane, and a series of tabs in the right pane.

Table 2 summarizes the buttons displayed in the Database Manager toolbar.

Table 2 Database Manager — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Activate	Toggles the status of the selected inactive database to activate. This allows you to load another database to the routing system, and enables editing of the database settings and contents.
	Add	Enables you to create a new (blank) database. The list of available databases updates to include the new entry at the bottom of the table. Select the new entry to display the Database Configuration and Database Builder functions to further define the database.
	Delete	Enables you to delete the selected database
	Duplicate	Creates a copy of the selected database
	Import	Enables you to import a database file and include it in the Database Manger list of available databases
	Export	Enables you to export the selected database as a file that is then saved to a location on your DashBoard client computer
	Legacy DB	Enables you to import a database (*.uda) that was created and saved before software version 6.1.
	Filter	This enables a user to filter the interface entries to only databases that match the entered text.

Table 3 summarizes the columns displayed in the table located in the left pane of the Database Manager.

Table 3 Database Manager — Database Table

Item	Parameters	Description
Name	<text>	The unique identifier for the device in the routing system. This name is also used when matrices are defined in the Ultrix or Ultricore system.
Status	Active	Indicates that the specified database is currently in use by this Ultrix or Ultricore
	Inactive	Indicates that the specified database is not currently loaded to this Ultrix or Ultricore

Database Configuration Tab

The right pane of the Database Manager displays the Database Configuration tab. The options displays on this tab enable you to configure options for the active database.

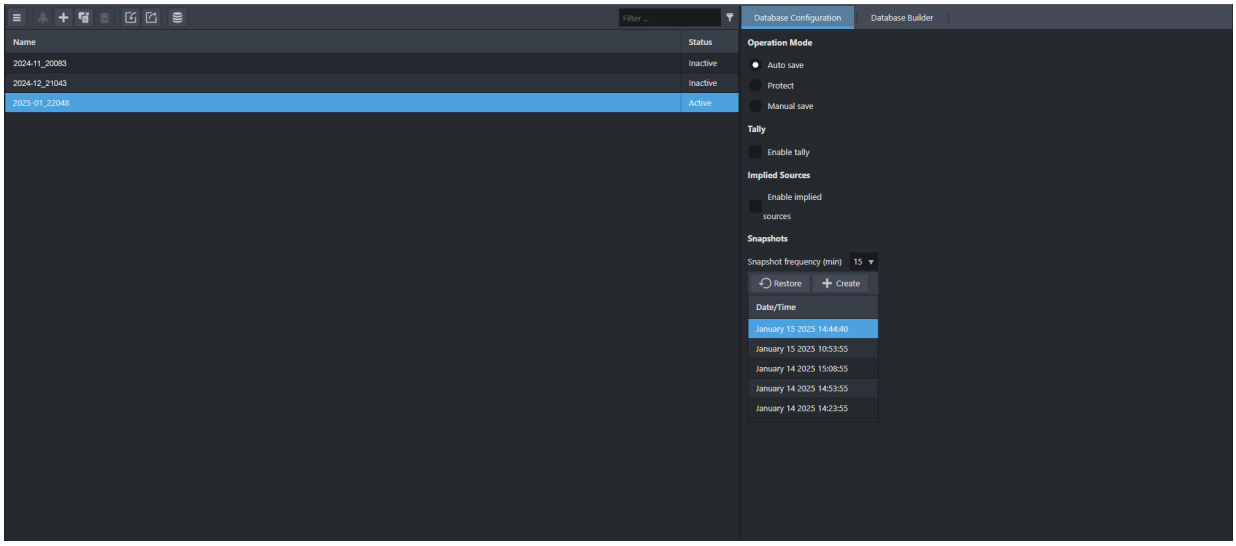


Figure 4 Example of the Active Database Configuration Tab

Table 4 summarizes the menus and options displayed in the **Database Configuration** tab.

Table 4 Database Manager — Database Configuration

Item	Parameters	Description
Operation Mode		
Auto save		• Changes made to any database interface are automatically saved. • This is the default setting when a database is set to Active.
Protect		• All fields, except Aliases and labels, of the database are read-only and cannot be edited. • A blue border displays around each interface. • A shield icon displays in the Status column for the database in the Database Manager table • A shield icon displays in the bottom left corner of each interface to remind the user that the database is read-only.
Manual save		• The database is editable but changes are not automatically saved. • An orange border displays around each interface. • The Cancel and Save buttons display in the bottom right corner of each database interface. • After making changes on any interface, the user must then click Save to save any changes. • Clicking Save on one interface applies any unsaved changes made to any interface.
Tally		

Table 4 Database Manager — Database Configuration (Continued)

Item	Parameters	Description
Enable tally	Selected	Enables a 'Tally' column for the Sources and Destinations interfaces. The Tally column associates a TallyID with a source or destination. This information is used to control tally display objects on PiPs of Ultriscape heads.
	Cleared	The option for TallyID association is removed.
Snapshots		
Snapshot frequency (min)	#	Determines how often the active database settings are auto saved. The default is 15 minutes.
Restore		Returns the database to the settings during the selected snapshot
Create		Immediately creates a snapshot of the currently active database
Date/Time		Lists the saved snapshots by MM DD YY

Database Builder Tab

The Database Builder tab helps you to quickly create a database. From this tab you can define the database properties including: type of signals (video, audio), the number of devices that the database includes, the audio elements of the database, and basic I/O settings.

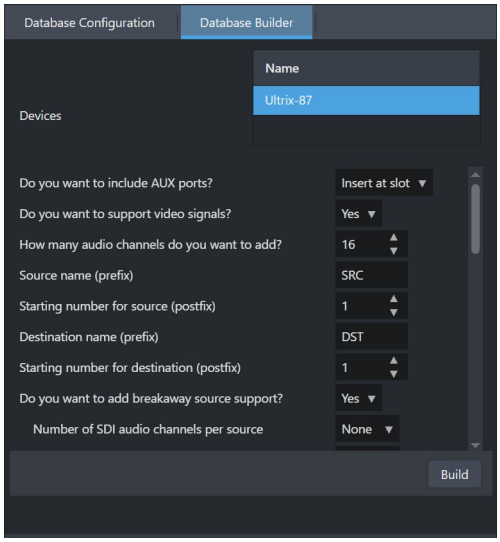


Figure 5 Example of the Database Builder Tab

Table 5 summarizes the fields displayed in the options in the Database Builder tab.

Table 5 Database Manager — Database Builder

Item	Parameters	Description
Name		
Devices		Displays a list of detected routers in your network. Select a device name to include it in this database.

Table 5 Database Manager — Database Builder (Continued)

Item	Parameters	Description
Include AUX ports	None	Do not create entries for AUX ports in the database
	Insert at slot	Create AUX port entries as they are physically located within the device chassis (e.g. ports 17 and 18).
	At the end	Create AUX ports after all the BNC entries
Video support	Yes	The database includes video and audio signals
	No	Creates an audio-only database
Audio channels	#	Specifies the quantity of audio channels (levels) required
Breakaway source support	Yes	Create sources for audio breakaways/shuffles
	No	Audio breakaways are not included in this database
SDI audio per channel		Creates audio breakaway sources using the selected audio channel grouping size
MADI channels per source		Creates MADI sources using the selected audio channel grouping size
Disconnect source?	Yes	Creates a source that will disconnect (mute) SDI and audio channels
	No	This option is not included in the database
Passthrough source?	Yes	Creates a source that may be routed to destinations so that embedded audio from a connected SDI source is passed through without changes
	No	This option is not included in the database
UltriScape support?	Yes	Enables UltriScape heads and PiPs to be included in the database (requires the UltriScape license)
	No	UltriScape heads and PiPs are not included in the database
Number of Multiviewer heads	#	Specifies the number of UltriScape heads the database will support
Number of Multiviewer pips per head	#	Specifies the maximum number of PiPs available per layout
Include detected Multiviewer layout		Creates sources for detected UltriScape layouts to enable layout changing from control panels
Audio Mixer IO	Yes	Generates audio mixer sources and destinations. This requires an Ultrimix-MXR license be enabled on the router.
	No	Does not generate audio mixer sources or destinations
Audio Mixer Direct Outputs	Yes	Generates source maps for audio mixer direct outputs
	No	Does not generate audio mixer direct outputs
Starting Audio Level	#	Selects the audio level to start generation from

Table 5 Database Manager — Database Builder (Continued)

Item	Parameters	Description
Channels per destination / source		Selects the audio grouping
Destination Name	<text>	Specifies the prefix for audio mixer destinations
Source Name	<text>	Specifies the prefix for audio mixer sources
Starting Number for Destinations	<#>	Specifies the number to start destination generation from (e.g. MDST#)
Starting Number for Source	<#>	Specifies the number to start source generation from (e.g. MSRC#)
Build		Click this button to apply the settings and update the database

Configuration Interfaces

The Database > Configuration node expands to display a tree of sub-nodes that enable you to further define the current database. Each sub-node provides access to a specific interface of the database. (**Figure 6**)

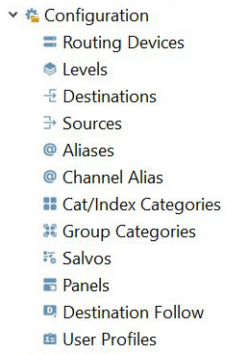


Figure 6 Database > Configuration Nodes

This section outlines each sub-node in order of appearance in the Configuration tree.

✶ An orange border displays around an interface when the current database has the Operation Mode set to Manual save. A blue border indicates that the current database is read-only and cannot be edited (the Operation Mode set to Protect). If the Operation Mode is set to Auto save, any unsaved changes made to the current database are automatically applied.

Routing Devices

The Routing Devices interface reports a list of devices detected in the routing system and their communication status with the primary device. (**Figure 7**)

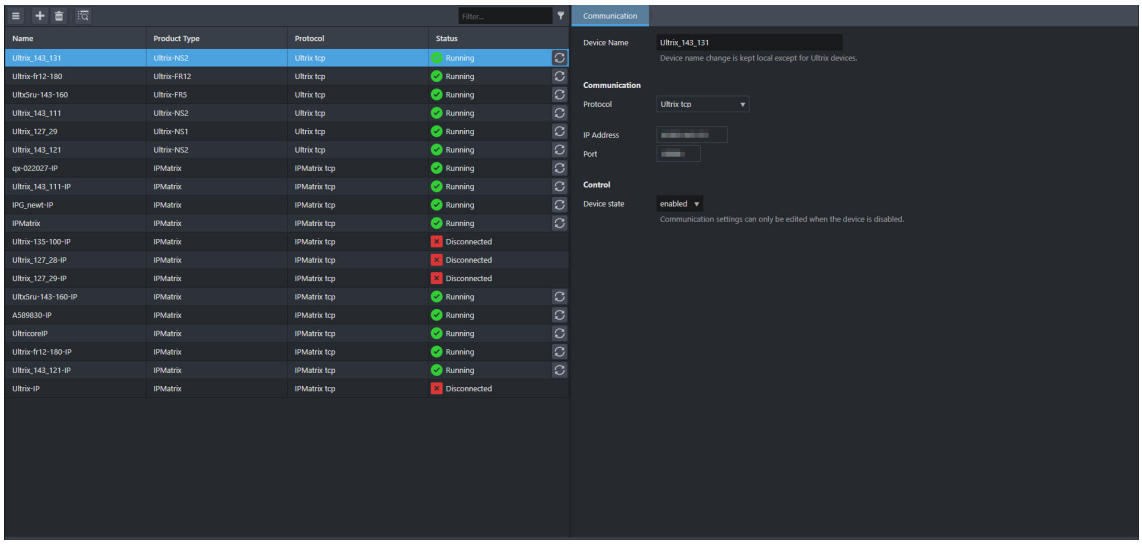


Figure 7 Example of a Routing Devices Interface

Table 6 summarizes the buttons displayed in the toolbar located at the top of the Routing Devices interface.

Table 6 Routing Devices — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Enables you to create a connection point to another device in the routing system
	Delete	Removes the selected device and its matrices from the active database
 	IP discovery	This button is only available when using an Ultricore BCS with the Ultricore-IP feature enabled. Refer to the ***Ultricore BCS User Guide*** for more information on Ultricore-IP. When this button displays the yellow triangle, clicking it displays the IP Discovery dialog. Use this dialog to add the NMOS devices discovered by the Ultricore-IP feature to your list of routing devices.
	Filter	Reduces the number of database entries visible on the Routing Devices interface. This enables a user to filter the interface entries to only devices that match entered text.

Table 7 summarizes the read-only fields displayed in the left pane of the Routing Devices interface. Each row of this table represents a device in your routing system.

✶ When using an Ultricore BCS, this pane lists the devices you manually added.

Table 7 Routing Devices — Left Pane

Item	Parameters	Description
ID	#	Auto-numbered field (read-only).
Name	<name>	The unique identifier for the connected matrix to be used by the database
Product	<name>	Indicates the type of device connected
Protocol	<name>	Indicates the communication protocol required by this device
Type	<name>	Specifies the connection type this device provides within the database
Status (read-only)	Running	No communication errors are detected
	Disconnected	This device is no longer communicating with the routing system
	Initializing	Attempting to connect to this device. It is recommended to wait approximately 60 seconds to establish a connection.
	IO mismatch	The number of available I/O on the device does not match the values specified in the active database
	Not available	The device was added/edited while the database is operating in Manual save mode but is now disconnected from the primary device. Click Save, located at the bottom right corner, and verify if a connection is now made to the device.
	Unknown State	A legacy database was imported and the protocol cannot be determined (this is usually for the NK devices). You will have to specify the protocol for the device. Refer to "**Enabling a Communication Service**"
		Updates the database with the selected device matrix. If the device is reporting an IO Mismatch, click this button to refresh the database and see if it clears the error.

Communication Tab

Table 8 summarizes the tabs and menus displayed in the Communication tab, located in the right pane, of the Routing Devices interface. Select a device on the left pane to display its communication settings in the Communication tab.

Table 8 Routing Devices — Communication Tab

Item	Parameters	Description
Device name	<name>	Provides a unique identifier for the device in the database. This name is also used when matrices are defined in the routing system.
Protocol	Ultrix TCP	The device uses the Ross Ultrix protocol to communicate (TCP only)
	GVG Native	The device uses the third-party GVG protocol to communicate (TCP or Serial)
	Ross NK	The device uses the Ross NK protocol to communicate (T-Bus or TCP only)
	Probel SW-P-08	The device communicates via the Probel SW-P-08 protocol (TCP or Serial)
	RossTalk TCP	The device uses the Ross Talk protocol to communicate (TCP only)
Protocol	TSL UMD v3.1	The device uses TSL UMD protocol version 3.1 (TCP, UDP, or Serial)
	TSL UMD v4.0	The device uses TSL UMD protocol version 4.0 (TCP, UDP, or Serial)
	TSL UMD v5.0	The device uses TSL UMD protocol version 5.0 (TCP, UDP, or Serial)
	NVision NP0010 Serial	This device communicates via the third-party NVISION protocol
	NVision NP0016 TCP	
	NVision NP0016 UDP	
Communication		
IP Address	#	Indicates the IP Address assigned to the device within the network
Port	#	Indicates the ethernet port the devices is associated with on the network
Control		
Device Status	enabled	Direct communication is established between the primary device and this client device
	disabled	Communication between the primary device and this client device is unavailable

Matrix Tab

Table 9 summarizes the buttons and menus displayed in the Matrix tab, located in the right pane, of the Routing Devices interface.

Table 9 Routing Devices — Matrix Tab

Item	Parameters	Description
Add		Adds a new entry in the tab to enable you to define a new matrix based on this device
Delete		Deletes the selected matrix from the database
Name	<name>	Assigns a unique identifier for the imported third party matrix to be used by the database
Type		Specifies the signal type of inputs and outputs this device provides within the database
Level	#	Specifies the number of levels for the device in the database
First Output	#	Specifies the first destination for the device within the database
Last Output	#	Specifies the last destination for the device within the database
First Input	#	Specifies the first source for the device within the database
Last Input	#	Specifies the last source for the device within the database

Levels

A level is a term used to describe a section or layer of the routing system. Typically a level is associated with input/output ports that are used with sets of similar or related signals, such as SDI Video, AES Audio, Analog Video, Analog Audio, Timecode, or Machine Control, and often include routing matrices that are dedicated to controlling that specific type of signal. These levels may be controlled individually, or grouped together in common patterns (a breakaway).

Figure 8 Example of Entries in a Levels Interface

The options in the Levels interface are organized into a table where each row represents a level and the columns provide the options for configuring that level. (**Figure 8**) From this interface you assign a unique name to each level, a color that represents the level to make it easier to identify the level in

a soft panel, and add a description of the level to aid identification. The levels defined in the Levels interface have a direct relationship with the Level entries in other database configuration tabs.

For More Information on...

- the Tally Status Level menu, refer to "**Defining the Status Level for Tally Operation**".

Destinations

The Destinations interface enables the assignment of logical labels (used by remote control panels and soft panels) to physical outputs of the attached matrices or routers. The options in the Destination interface are organized into a table where each row associates a name of the destination with one or more physical matrix output sockets. A toolbar at the top includes options for managing the table entries. (**Figure 9**)

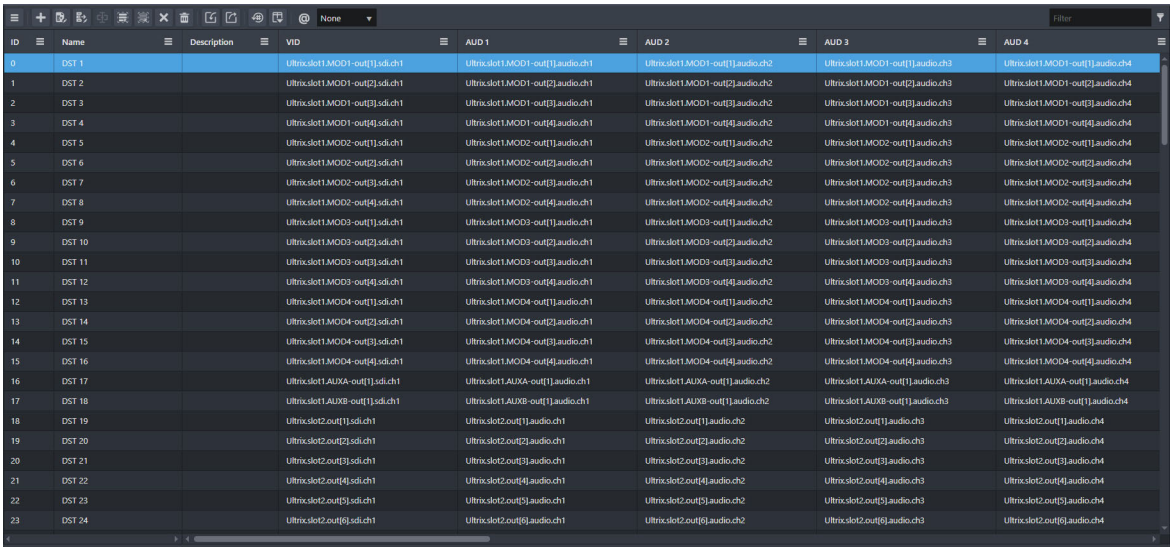


Figure 9 Example of Entries in a Destinations Interface

Table 10 summarizes the buttons displayed in the toolbar of the Destinations interface.

Table 10 Destinations — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Enables you to add a single or range of new logical labels. These are added at the end of the current definitions
	Fill I/Os	Displays a pane that enables you to insert destination labels with assignments for the entire device (including the AUX ports) or for a custom range
	Edit	Enables the reassignment of the physical ports to the selected destination
	Rename	Displays a dialog that enables the renaming of a selected destination
	Select all	Selects all entries on the Destinations interface
	Deselect all	Entries are no longer selected on the Destinations interface

Table 10 Destinations — Toolbar (Continued)

Button	Label	Description
	Clear	Clears the physical port mapping
	Delete	Removes the selected destination from the active database
	Export	Enables you to save the current Destination mapping as an *.xlsx file on your DashBoard client computer
	Import	Enables you to import an *.xlsx file that automatically maps the Destinations as defined by the spreadsheet entries
	Reset IDs	Replaces the current ID assignments to the default values (starting with 0 for the first entry)
	View Columns	Displays a dialog that enables you to specify the Levels columns to show/hide on the Destinations interface. Note that the ID and Name columns are fixed (cannot be hidden).
	Alias	Applies the custom labels as defined in the Aliases interface. Refer to "**Aliases**" for details.

Table 11 summarizes the table columns displayed in the main area of the Destinations interface (from left to right).

Table 11 Destinations Interface

Item	Parameters		Description
ID (read-only)	#		An auto-numbered field that is not used within the Ultrix or Ultricore system itself, however, third-party protocols that do not support labels will reference this field in their communications
Name	<text>		Assigns a unique identifier (label) for the destination in the routing system. This label is used by control interfaces/devices.
Description	<text>		Provides additional information or user entered notes about the output
Tally[a]	TSL v3.1	<displayID>	Displays the TSL protocol Tally ID entry
	TSL 4.0	<displayID>	
	TSL v5.0	<screenID>:<displayID>	
Tally Mode[a]			Enables/disables the re-direction of connected source Tally ID to destination Tally ID as set by the Tally field
Level #			Specifies the physical output port associated with the destination and assigns it to the specified level. Unless you have given the port a different label via the Channel Alias interface, the port is labeled as: `Frame.Slot.Port.Type.Channel`.

a. This option only displays when the Enable tally box is selected in the Database Manager > Database Configuration tab of the active database.

Sources

The Sources interface is organized into a table where each row associates a name of the source with one or more physical matrix input sockets. (**Figure 10**) This enables the assignment of labels (used by remote control panels and soft panels) to inputs of the attached matrices or routers. A toolbar at the top includes options for managing the table entries.

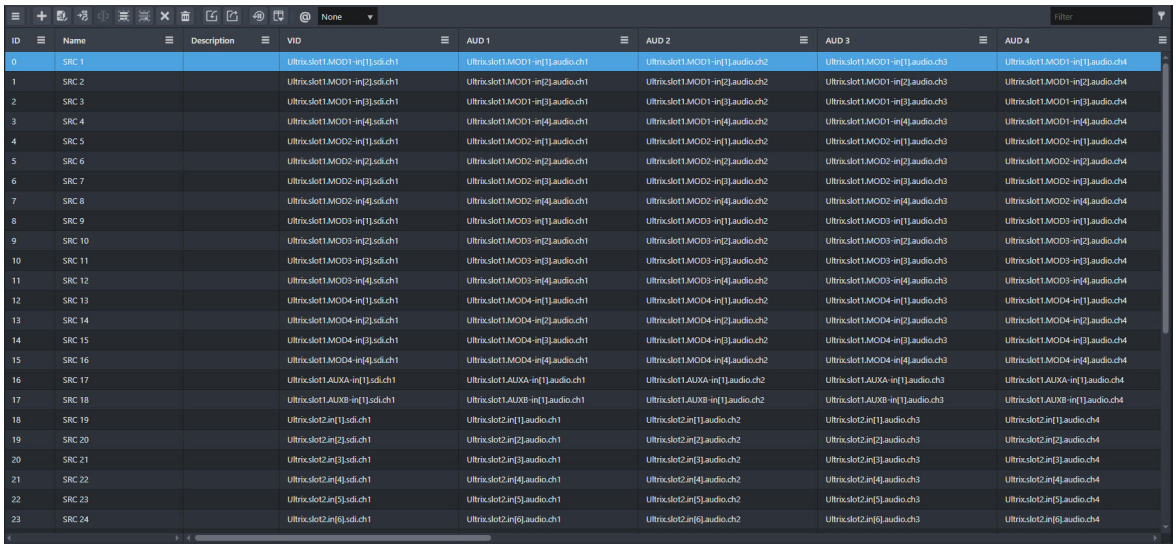


Figure 10 Example of Entries in a Sources Interface

Table 12 summarizes the buttons displayed in the toolbar of the Sources interface.

Table 12 Sources — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Enables you to add a single or range of new logical labels. These are added at the end of the current definitions.
	Fill I/Os	Displays a pane that enables you to insert source labels with assignments for the entire device (including the AUX ports) or for a custom range
	Edit	Enables the reassignment of the physical ports to the selected source
	Rename	Displays a dialog that enables the renaming of a selected source
	Select all	Selects all entries on the Sources interface
	Deselect all	Cancels the previous selections
	Clear	Clears the physical port mapping
	Delete	Removes the selected source from the active database
	Export	Enables you to save the current Source mapping as an *.xlsx file on your DashBoard client computer
	Import	Enables you to import an *.xlsx file that automatically maps the Sources as defined by the spreadsheet entries
	Reset IDs	Replaces the current ID assignments to the default values (starting with 0 for the first entry)

Table 12 Sources — Toolbar (Continued)

Button	Label	Description
	View Columns	Displays a dialog that enables you to specify the Levels columns to show/hide on the Sources interface. Note that the ID and Name columns are fixed (cannot be hidden).
	Alias	Applies the custom labels as defined in the Aliases interface. Refer to "**Aliases**" for details.

Table 13 summarizes the table columns displayed in the main area of the Sources interface (from left to right on the interface).

Table 13 Sources Interface

Item	Parameters	Description
ID	#	Auto-numbered field (read-only). This is not used within the routing system itself, however, third-party protocols that do not support labels will reference this field in their communications.
Name	<name>	Assigns a unique identifier (label) for the source in the routing system. This label is used by control interfaces/devices.
Description	Provides additional information or user entered notes about the input	
Tally[a]	<displayID> or <screenID>:<displayID>	Displays the TSL protocol tally ID entry
Level #	Specifies the physical input port associated with the source and assigns it to the specified level. Unless you have given the port a different label via the Channel Aliases interface, the port is labeled as: `Frame.Slot.Port.Type.Channel`.	

a. This option only displays when the Enable tally box is selected in the Database Manager > Database Configuration tab of the active database.

Aliases

The Alias interface provides a method for defining an alias for one or more source or destination labels. An alias can be useful for defining label sets for use with devices that have limited screen real estate such as Remote Control Panels.

The default labels for the routing system are the labels as defined in the Source and Destination interfaces. An alias set is a group of labels that can be defined and then used with display limited devices.

For example, a label `Remote Camera` will not display correctly on a Remote Control Panel. An alias for this label may be `REM CAM`. This will display correctly on character limited displays.

An alias set may only define a few aliases for the router. When using this set, the defined aliases are used but where no alias is defined for a given source or destination, then the label as defined within the source or destination interface is used.

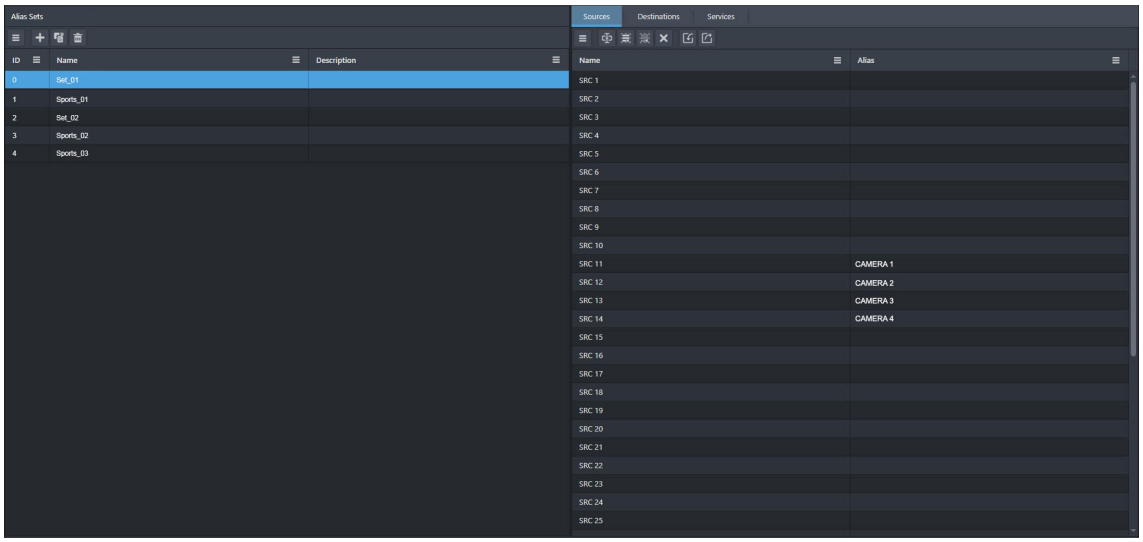


Figure 11 Example of Entries in an Alias Sets Interface

Table 14 summarizes the buttons displayed in the leftmost toolbar located at the top of the Alias interface.

Table 14 Aliases — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Creates a new alias set
	Duplicate	Creates a copy of the alias set
	Delete	Removes the selected alias set from the active database

Table 15 summarizes the table columns displayed in the main area of the Aliases interface (from left to right on the interface).

Table 15 Aliases — Main Area

Item	Description
Name	Provides a list of configured alias sets. Select a row to display the alias set details on the rightmost pane.
Description	Provides additional information about the alias set

Table 16 summarizes the buttons displayed in the rightmost toolbar located at the top of the Sources, and Destinations tabs in the Aliases interface.

Table 16 Alias > Sources or Destination — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Rename	Assigns a new identifier to the selected row(s) for this alias

Table 16 Alias > Sources or Destination — Toolbar (Continued)

Button	Label	Description
	Select all	Selects all entries on the tab
	Deselect all	Cancels the previous selections
	Clear	Removes any recent changes
	Import	Enables you to import a Microsoft® Excel® spreadsheet that lists the ports and the new identifiers for a specific alias set
	Export	Enables you to save the specified alias to a Microsoft Excel spreadsheet file on your DashBoard client computer

Table 17 summarizes the columns displayed in the Sources and Destinations tabs of the Aliases interface.

Table 17 Aliases — Sources or Destinations Tabs

Item	Description
Name	Indicates the label as defined by the Sources or Destinations interface
Alias	Provides a text entry for the label alias. Double-click the entry to edit, or click **Rename**. For example, re-name a port from `Ultrix.slot2.in[7].SDI.ch1` to `SDI IN 7`.

Table 18 summarizes the options displayed in the Services tab of the Aliases interface.

Table 18 Aliases — Services Tabs

Item	Description
Apply selected	Applies the selected alias set to the external device matrix. Services are defined in "**Enabling a Service**".
Clear	The alias set is no longer applied to the external device matrix. This button is disabled if no alias sets are currently applied to the external device matrix.
Service alias set	Reports the alias set currently applied and the number of services (devices) it is applied to.

Channel Alias

The Channel Alias interface provides a method for over-riding the default port nomenclature of `Frame.Slot.Port.Type.Channel` for identification. This name is used to identify not just a physical connector on a router, but also different channels within a digital stream. An alias may be created to aid identification within a facility.

✶ This re-naming is not necessary for router operation, but it may make your assignment of source and destination labels easier to identify when using your internal cable naming conventions.

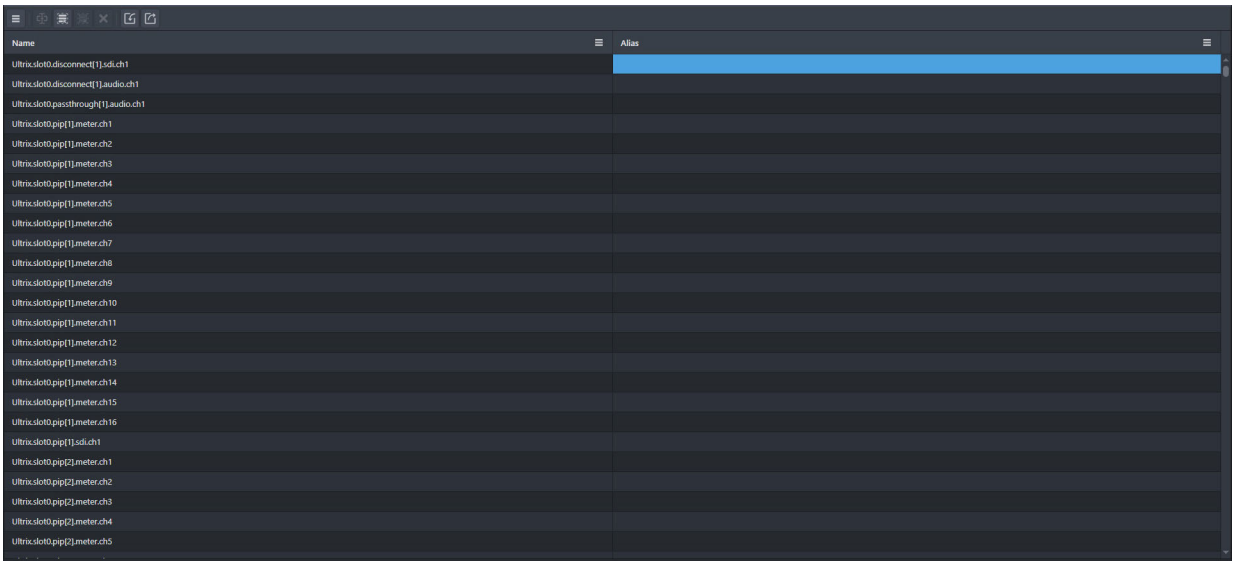


Figure 12 Example of Entries in a Channel Alias Interface

Table 19 summarizes the buttons displayed in the toolbar located at the top of the Channel Aliases interface.

Table 19 Channel Alias — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Rename	Assigns a new identifier to the selected row(s) for this alias
	Select all	Selects all entries on the tab
	Deselect all	Cancels the previous selections
	Clear	Removes any recent changes
	Import	Enables you to import a Microsoft® Excel® spreadsheet that lists the ports and the new identifiers for your audio channels
	Export	Enables you to capture the current channel aliases and save to a Microsoft Excel spreadsheet on your DashBoard client computer

Table 20 summarizes the table columns displayed in the Channels Alias interface.

Table 20 Channel Alias

Item	Description
Name	Lists the input and output channels provided by the configured matrices. The format is `Frame.Slot.Port.Type.Channel`.
Alias	Provides a text label that identifies the channel in other interfaces of the database. Double-click to edit, or click **Rename**.This alias is used instead of the `Frame.Slot.Port.Type.Channel` format for label assignment.

Cat/Index Categories

The Cat/Index Categories interface enables you to categorize sources, destinations, and levels via a hierarchal system of tags. (**Figure 13**) You can use categories to filter sources, destinations or levels into manageable groups for a Category soft panel. Refer to "**Using Category Panels**" for more information.

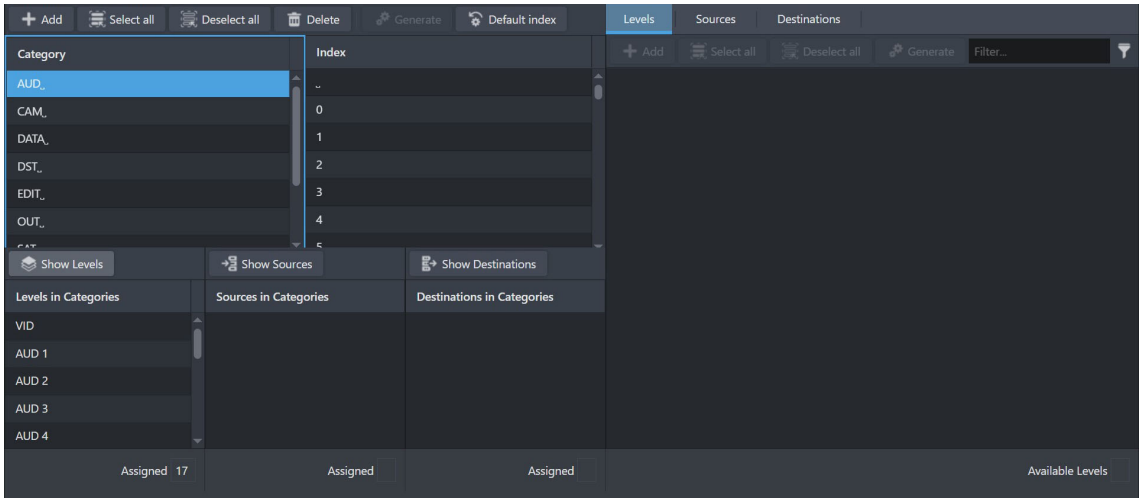


Figure 13 Example of Entries in a Cat/Index Categories Interface

Table 21 summarizes the buttons displayed on the top toolbar.

✶ The toolbar button function depends on the Category table selection or Index table selection.

Table 21 Cat/Index Categories — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Creates a new entry in the selected Category or Index table. For example, a new entry would be added to the Category table in **Figure 13**.
	Select all	Selects all entries in the current table
	Deselect all	Cancels the previous selections in the current table
	Delete	Deletes the selected entry from the current table (Category or Index). Automatically unassigned any resources.
	Generate	Automatically generates Category and Index entries based on the active database entries. Categories are automatically defined by searching for space characters within the database logical source and destination names.
	Default index	Generates the default indexes (0-9 and A-F)

Assigned Resources Area

Table 22 summarizes the options displayed in the Assigned Resources area (bottom left pane) of the Cat/Index Categories interface.

Table 22 Cat/Index Categories — Assigned Resources Area

Item	Parameters	Description
Show Levels		Updates the Levels in Categories list
Levels in Categories		Lists the current levels that are accessible via the defined Category/Index combinations
Assigned	#	Reports the number of levels assigned to the selected Category/Index combination
Show Sources		Updates the Sources in Categories list
Sources in Categories		Lists the current sources that are accessible via the defined Category/Index combinations
Assigned	#	Reports the number of sources assigned to the selected Category/Index combination
Show Destinations		Updates the Destinations in Categories list
Destinations in Categories		Lists the current destinations that are accessible via the defined Category/Index combinations
Assigned	#	Reports the number of destinations assigned to the selected Category/Index combination

Unassigned Resources Area

The right pane of the Cat/Index Categories interface displays a tab for each resource type. Select a tab to display the resources in the current database that are not assigned to a category/index.

Table 23 summarizes the options displayed in each tab.

Table 23 Cat/Index Categories — Unassigned Resources Area

Button	Label	Description
	Add	Enables you to assign the selected resource(s) to the a new Cat/Index filter for destinations
	Select all	Selects all resources in the current tab
	Deselect all	Cancels the previous selections on the current tab
	Generate	Automatically generates category tags based on the destinations in your database

Group Categories

The Categories interface enables you to categorize resources (levels, sources, and destinations) via a hierarchal system of tags. You can use categories to filter resources into manageable groups for a Category soft panel. Refer to "**Using Category Panels**" for more information.

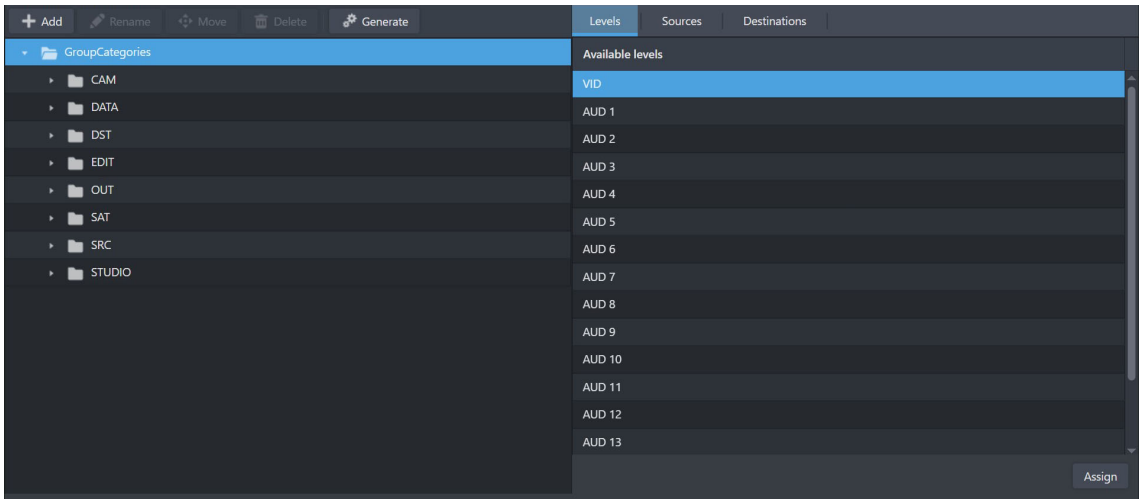


Figure 14 Example of Entries in a Group Categories Interface

The Group Categories interface is organized into two panes: the Group Categories tree (left pane), and the available resources tabs (right pane). The tree organizes all the created groups and sub-groups, and/or resources in a top-down hierarchy. (**Figure 14**) Note that the nodes are sorted by type and then by alphabetical order.

Table 24 summarizes the toolbar buttons displayed in the left pane of the Group Categories interface.

Table 24 Group Categories Interface — Toolbar Buttons

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Enables you to manually add a new group (node) to the Group Categories tree
	Edit	Enables you to edit the name assigned to a group
	Move	Displays the Move dialog that enables you to move a selected group and its contents to another group or to a new node in the tree
	Delete	Deletes the selected group(s) and all sub-groups
	Generate	Auto-generates the group categories based on the resource names from the current database

Table 25 summarizes the options displayed in the right pane of the Group Categories interface. This panel displays a tab for each resource type, listing the available levels, sources, or destinations that can be assigned to the group categories.

Table 25 Group Categories Interface — Right Panel

Item	Description
Levels	Displays the unassigned levels
Sources	Displays the unassigned sources

Table 25 Group Categories Interface — Right Panel (Continued)

Item	Description
Destinations	Displays the unassigned destinations
Assign	Select the resource(s) to add it to the group selected in the Group Categories tree

Salvos

A salvo is a set of pre-defined switch events. The Salvos interface provides a list of the global salvos available in the currently active database. (**Figure 15**) Use this interface to create salvos, rename, edit, and delete salvos.

The workspace in the Salvos interface displays a grid pattern with sources at the top and the destinations along the left side. A list of currently available (saved) salvos displays on the far left-side of the interface. The toolbar on the far right-side displays a button for each level available in the database with each button set in the color specified for the level.

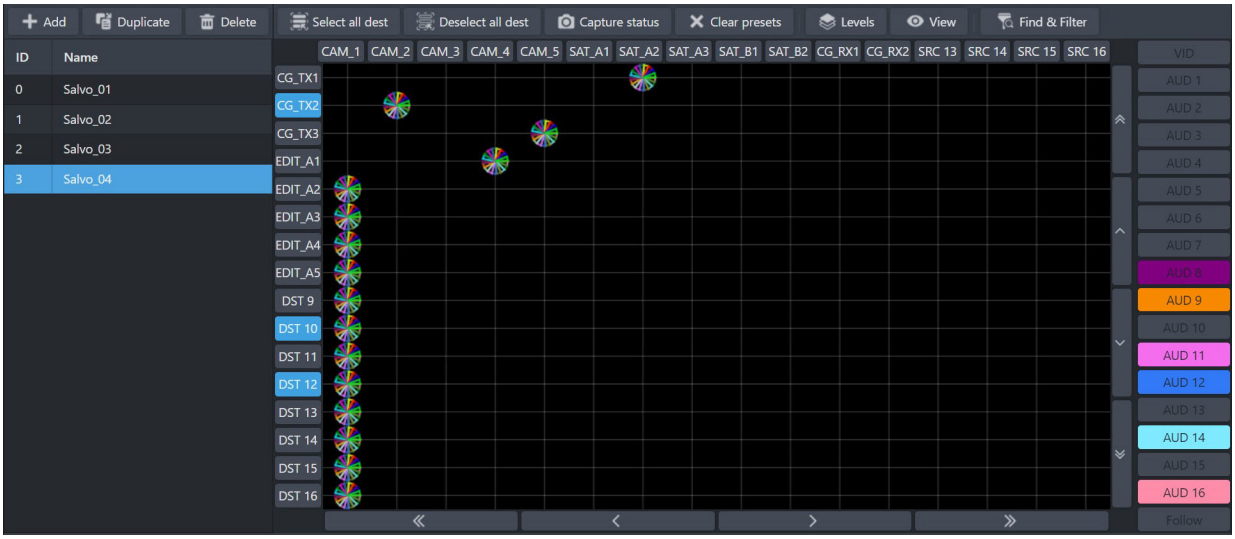


Figure 15 Example of a Salvos Interface

Table 26 summarizes the buttons displayed in the toolbar located at the top of the Salvos interface.

Table 26 Salvos — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Enables you to create a new salvo for the active database
	Duplicate	Creates a copy of the currently selected salvo
	Delete	Deletes the selected salvo
	Select all	Selects all available destinations on the Salvos workspace.
	Deselect all	Clears the Destinations column of selections

Table 26 Salvos — Toolbar (Continued)

Button	Label	Description
	Capture	Captures the current state of the routing system as a new salvo using one of the following methods: Capture system status — uses the current routing state of the routing system. Capture destination status — uses the current status of the selected destinations in this database. Capture port status — uses the current status of the physical ports in the database.
	Clear	Clears the preset crosspoint selections for the current salvo. If destinations are selected, the option to only clear the selection is presented.
	Levels	Select to filter the displayed levels
	Toggle	Toggles the workspace between a grid view (default) and a table view. Note that editing is not available in table view.
	Find & Filter	Displays the Find dialog which enables you to: enter search criteria to locate specific Sources or Destinations in the current workspace. filter the workspace entries to only display sources and/or destinations that match entered text

Table 27 summarizes the table columns displayed in the left pane of the Salvos interface.

Table 27 Columns of the Salvos Interface — Left Pane

Column	Description
ID	The auto-assigned identifier for a salvo
Name	Provides a list of configured salvos for the currently loaded database. Double-click an item in the list to update the grid in the Salvos interface.

Table 28 summarizes the options displayed in the right pane of the Salvos interface.

Table 28 Columns of the Salvos Interface — Right Pane

Button	Description
Level #	The display of levels is controlled via the Levels button on the top toolbar. Select one or more level buttons to include it in the next preset selection.
Follow	Click to include all the Levels in the next preset selection.

Panels

The Panels interface includes a series of sub-tabs that enable you to customize the soft panels (control panels within the DashBoard environment). You can choose to assign the resources (levels, sources, destinations, and salvos) from a database to the panel buttons. The soft panels display as sub-nodes in the Database > Control > Panels tree using the configured name. When you save a soft panel to the database, a node for the panel automatically displays in the Panels tree. The soft panels display in the tree according to their assigned Panel ID (where an ID of 1 is the highest, and ID of 2 is the second highest etc.).

The Panels interface is organized into two distinct areas from left to right: the Panels table and the Settings, Data, and Layout tabs. (**Figure 16**)

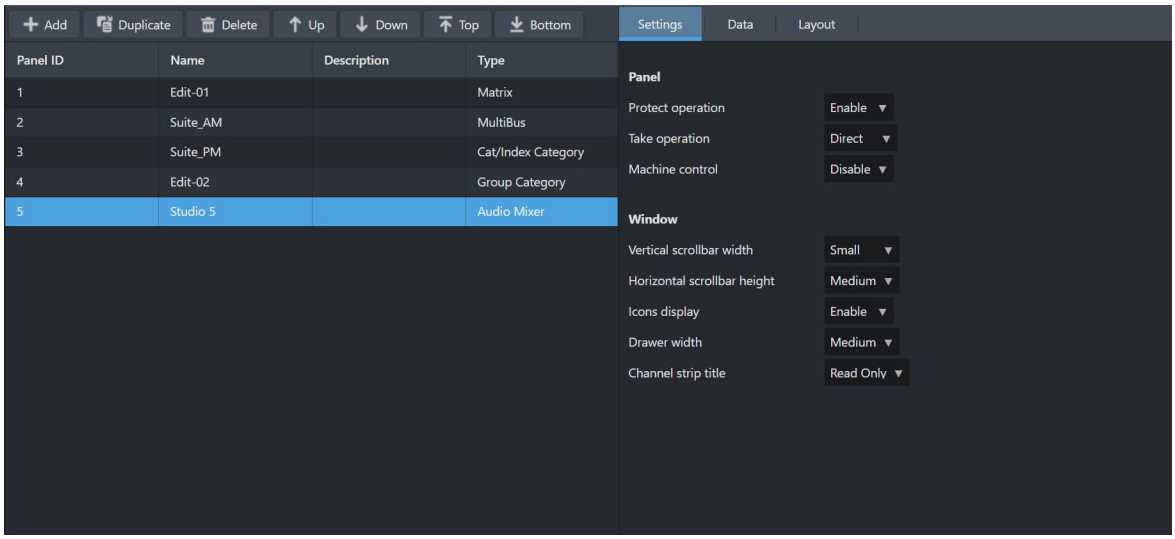


Figure 16 Example of Entries in a Panels Interface

Panels Table

The Panels area is located in the left pane, and displays a table with a toolbar at the top. The table lists the soft panels saved in the current database. The toolbar includes buttons that enable you to quickly add, copy, or delete selected soft panel(s) from the table.

Table 29 summarizes the fields and menus displayed in the toolbar of the Panels area.

Table 29 Panels Area — Toolbar

Button	Label	Description
	Navigate Menus	Displays a drop-down list of the available buttons and their labels
	Add	Displays the Add Panel dialog. This dialog enables you to create a new soft panel entry.
	Duplicate	Creates a copy of the currently selected soft panel
	Delete	Deletes the currently selected soft panel(s)
	Up	Moves the selected item higher in the table/list.
	Down	Moves the selected item lower in the table/list.
	Top	Moves the selected item to the top of the table/list.
	Bottom	Moves the selected item to the bottom of the table/list.

Table 30 summarizes the table columns displayed in the Panels area.

Table 30 Panels Area — Table

Item	Parameters	Description
Panel ID	#	Auto-assigns an ID number to the soft panel. This value determines the panel node placement in the hierarchy of the Soft Panel tree. This number can be over-written.
Name	<name>	Provides a unique identifier for the soft panel. This name also displays in the Databases > Control > Panels interface.
Description	#	Provides a textual summary of the soft panel or additional information about the panel.
Type (read-only)	<text>	Specifies the panel type that was assigned to the soft panel when it was created.

Settings Tab

The Settings tab is the first tab displayed on the right side of the interface. Use the options in the Settings tab to determine how the panel will perform tasks such as Take transitions, what data to include, or whether to include window/drawer elements (if applicable).

✶ Not all options are available for all panel types.

Table 31 summarizes the fields and menus displayed in the Settings tab.

Table 31 Panels > Settings Tab

Item	Parameters	Description
Panel		
Protection operation	Enable	Displays the Lock and Protect buttons on the soft panel interface
	Disable	The Lock and Protect buttons do not display on the soft panel interface
Take operation	Confirm	Displays the TAKE button on the soft panel interface. The user must click TAKE to confirm a switch before a crosspoint route will occur.
	Direct	A TAKE button is not displayed on the soft panel interface. Any source button selection is acted upon immediately.
Machine control	Enable	Displays a Machine Control toggle button on the soft panel interface. When enabled (the button is lit blue), any source selection on the panel will also send a command to Ross NK-M series data routers to automatically make the reciprocal port switch.
	Disable	Does not display a Machine Control button on the panel

Table 31 Panels > Settings Tab (Continued)

Item	Parameters	Description
Selection operation	Single	The Multi Select button does not display on the MultiBus soft panel
	Multi	Displays the Multi Select button on the soft panel. Use this button to quickly select multiple destinations for a crosspoint switch. This button is only applicable for MultiBus panels.
Nongroup resources	Hide	Resources that are not assigned to a specific group are not displayed on the Group Category soft panel.
	Show	All resources are displayed on the Group Category soft panel.
Window		
Vertical scroll bar width	Determines the width of the vertical scroll bar	
Horizontal scroll bar height	Determines the height of the horizontal scroll bar	
Icons display	Enable	The Destination and Source buttons will display the default icons based on the window type
	Disable	The Destination and Source buttons do not display icons; only the labels are displayed
Orientation	Portrait	Specifies a vertical layout where the soft panel is taller than it is wide. The windows are organized into columns (vertical panes) on the soft panel.
	Landscape	Specifies a horizontal layout where the soft panel is wider than it is tall. The windows are organized into rows (horizontal panes) on the soft panel.
Drawer width	Specifies the width of the drawer handle size on an Audio Mixer panel	
Channel strip title	Read Only	Each strip reports the name of the audio channel and the router source assigned to it. This is available only for Audio Mixer panels.
	Editable	
Take button size	Specifies the dimension of the TAKE button on the soft panel. This is available only for the Ultritouch PB panels.	
Viewable Data		
Levels	#	Specifies the maximum number of levels available, as selectable buttons, on the panel
Sources	#	Specifies the maximum number of sources available, as selectable buttons, on the panel
Destinations	#	Specifies the maximum number of destinations available, as selectable buttons, on the panel
Salvos	#	Specifies the maximum number of salvos available, as selectable buttons, on the panel

Data Tabs

Selecting the Data tab updates the interface with sub-tabs to assign the resources (levels, sources, destinations, salvos, and alias sets) for the selected soft panel.

Levels Sub-tab

Use the options in the Data > Levels sub-tab to specify the available levels for the panel, and organize them in a hierarchy.

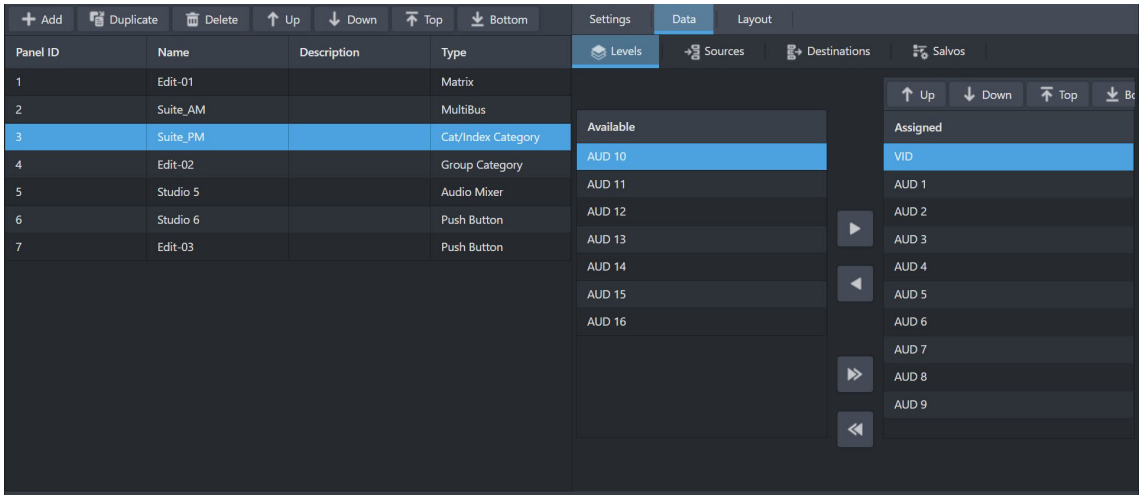


Figure 17 Example of the Panels > Data > Levels

Table 32 summarizes the fields and menus displayed in the Data > Levels sub-tab.

Table 32 Data > Levels Sub-tab

Item	Description
Available	Lists all the levels that are available in the database but are not assigned to the soft panel
Assigned	Specifies which levels will be available on the soft panel

Sources Sub-tab

Use the options in the Sources sub-tab to specify which router inputs will be available in the Source bus of the soft panel, and determine their hierarchy.

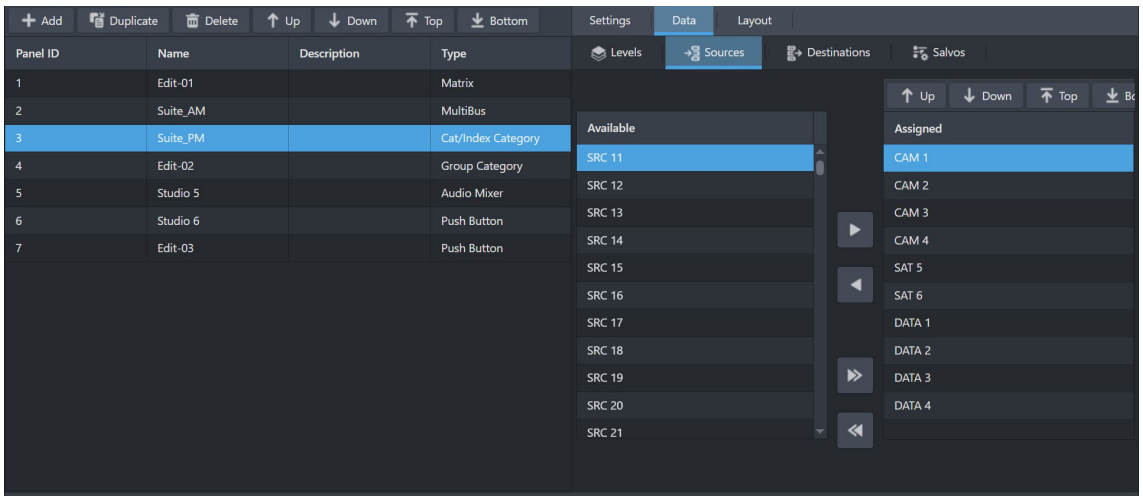


Figure 18 Example of the Panels > Data > Sources

Table 33 summarizes the fields and menus displayed in the Data > Sources sub-tab.

Table 33 Data > Sources Sub-tab

Item	Description
Available	Lists all the sources that are available in the database but are not assigned to the soft panel
Assigned	Specifies which sources will be available in the soft panel

Destinations Sub-tab

Use the options in the Destinations sub-tab to specify which outputs will be available in Destination bus of the soft panel.

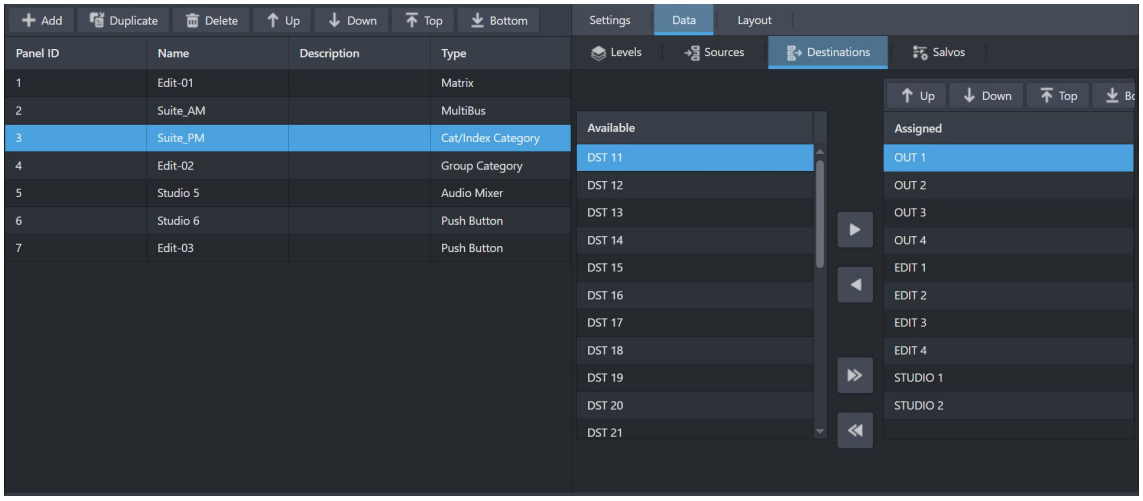


Figure 19 Example of the Panels > Data > Destinations

Table 34 summarizes the fields and menus displayed in the Data > Destinations sub-tab.

Table 34 Data > Destinations Sub-tab

Item	Description
Available	Lists all the destinations that are available in the database but are not assigned to the soft panel
Assigned	Specifies which destinations will be available in the soft panel

Salvos Sub-tab

Use the Salvos sub-tab to determine the salvos displayed in the soft panel and their hierarchy.

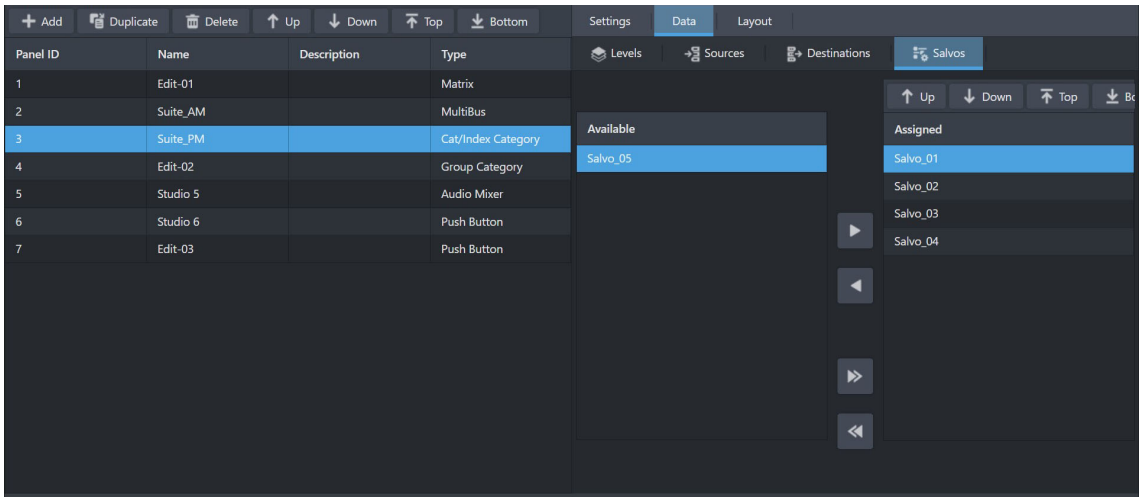


Figure 20 Example of the Panels > Data > Salvos

Table 35 summarizes the fields and menus displayed in the Salvos sub-tab.

Table 35 Data > Salvos Sub-tab

Item	Description
Available	Lists all the salvos that are available in the database but are not assigned to the soft panel
Assigned	Specifies which salvos will be available in the soft panel.

Alias Sets Sub-tab

Use the options in the Alias Sets sub-tab to apply one or more configured alias sets to the soft panel. An alias set will determine the button labels on the soft panel.

✶ This sub-tab is not available when configuring a Cat/Index Category soft panel.

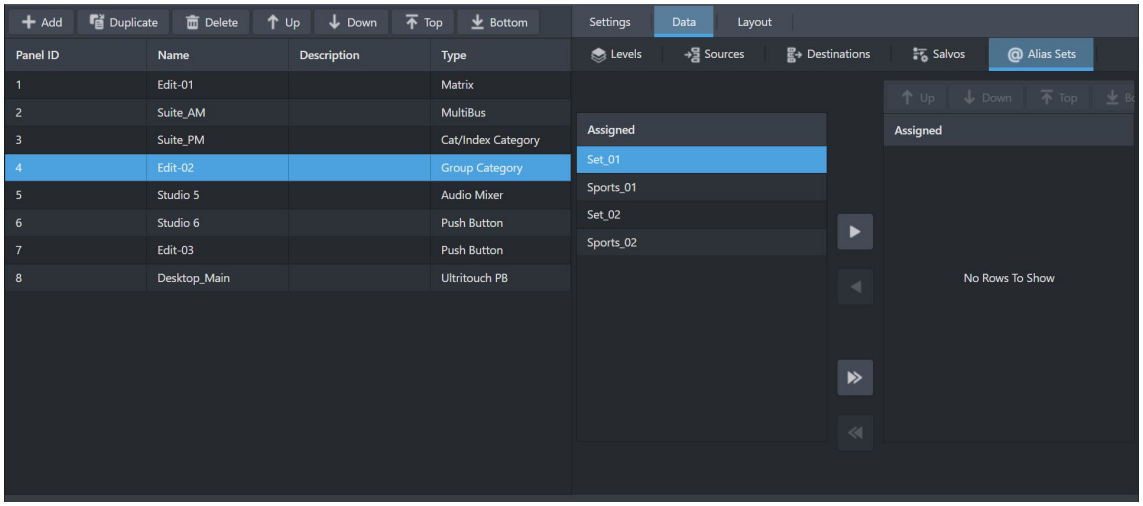


Figure 21 Example of the Panels > Data > Alias Sets

Table 36 summarizes the fields and menus displayed in the Alias Sets sub-tab.

Table 36 Data > Alias Sets Sub-tab

Item	Description
Available	Lists all the alias sets that are available in the database but are not assigned to the soft panel
Assigned	Specifies which alias sets will be available in the soft panel. Note that the first alias set assigned will be the first set the user sees in the soft panel.

Layout Tab

The Layout tab enables you to customize the contents and display settings of the windows and drawers of a soft panel. (**Figure 22**) The available settings depend on the panel type you are editing.

The Layout tab may be organized into the following areas:

- Home Windows — these options determine the contents and layout of the main (Home) window of a soft panel.
- Drawer Windows — these options determine the contents and layout of the navigation drawers on the left and right sides of the soft panel.

✶ The Layout tab is not available for the Matrix or MultiBus panel types.

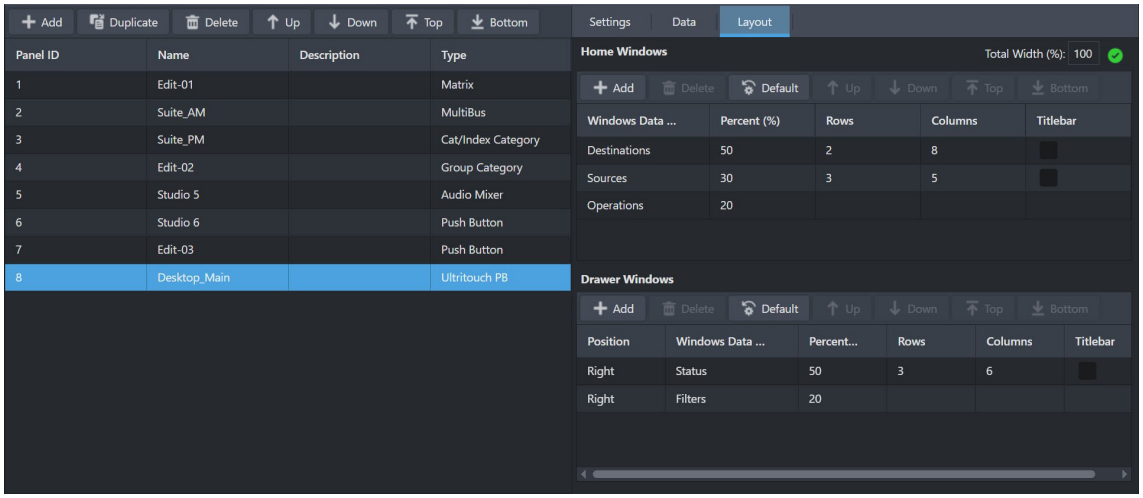


Figure 22 Example of the Panels > Layout Tab

Table 37 summarizes the options displayed in the Layout tab.

Table 37 Layout Tab

Item	Parameters	Description
Home Windows		
Total Width (%) (read-only)	#	Reports the percentage of allocated space used by the Home Window components on the panel
Add		Enables you to add a new window to the soft panel layout
Delete		Removes the window from the soft panel layout
Default		Loads the default window layout and widths

Table 37 Layout Tab (Continued)

Item	Parameters	Description
Windows data (read-only)	<text>	Specifies the resource or window type that is included on the panel
Percent	#	Specifies the width of the window in a percentage of the overall soft panel size
Rows	#	Specifies the number of button rows in the window
Columns	#	Specifies the number of button columns in the window
Title bar	Selected	A header displays above each data type window to identify it on the panel. For example “Destinations” or “Sources”.
	Cleared	The data type windows are not identified by a header
Drawer Windows		
Add		Enables you to add a new data type to a drawer of the panel
Delete		Removes the data type from the drawer of the panel
Default		Loads the default drawer layout and widths
Position		Specifies the drawer (left or right) on the soft panel
Windows data (read-only)	<text>	Specifies the resource or data that is included in the drawer of the panel
Percent	#	Specifies the width of the window in a percentage of the overall drawer size
Rows	#	Specifies the number of button rows in the drawer window
Columns	#	Specifies the number of button columns in the drawer window
Title bar	Selected	A header displays above each data type in the drawer to identify it on the panel
	Cleared	The data type is not identified by a header in the drawer

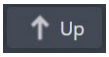
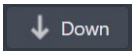
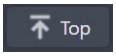
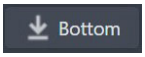
Buttons

Table 38 summarizes the buttons displayed in all Panel sub-tabs.

Table 38 Button on the Panels Interface

Button	Description
	Moves the selected items in the Available list to the Assigned list.
	Moves the selected item(s) from the Assigned list back to the Available list. These items will not be available on the panel.

Table 38 Button on the Panels Interface (Continued)

Button	Description
	Moves all the available items to the Assigned list.
	Moves all the items from the Assigned list back to the Available list. These items will not be available on the panel.
	Moves the selected item in the Assigned list up one position. This changes the order of the displayed items on the soft panel.
	Moves the selected item in the Assigned list down one position. This changes the order of the displayed items on the soft panel.
	Moves the selected item in the Assigned list to the top of the list. This changes the order of the displayed items on the soft panel.
	Moves the selected item in the Assigned list to the bottom of the list. This changes the order of the displayed items on the soft panel.

Destination Follow Interface

The Destination Follow interface (**Figure 23**) enables one destination to follow another. The follow will not occur immediately upon setting the destination follow; it will happen with the next route of the followed destination.

For More Information on...

- the Multiviewer options, refer to the ***Ultriscape User Guide***.

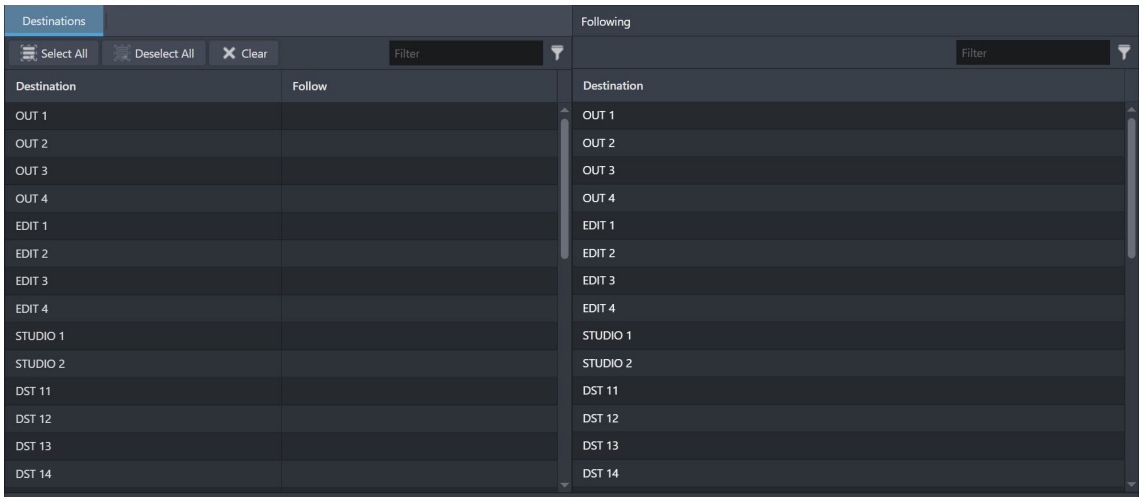


Figure 23 Example of the Destination Follow Interface

Table 39 summarizes the options displayed in the Destination Follow > Destinations interface.

Table 39 Destination Follow Interface

Item	Parameters	Description
Destinations		
	Select all	Selects all entries in the Destination and Follow columns

Table 39 Destination Follow Interface (Continued)

Item		Parameters	Description
	Deselect all		Entries in the Destination and Follow columns are no longer selected
	Clear		Clears the entries in the Follow column
Destination		#	Specifies the destination you want to configure
Follow		#	Reports the router output that the specified destination will follow
Following			
Destination		#	Reports the router outputs that are following any router output

Ultricore Profiles Interface

The Ultricore Profiles operate as a hierarchical database where user permissions are organized into a tree-like format. A profile determines which groups and pages that a user can access.

✶ On the Ultricore BCS, the Ultricore Profiles node is automatically enabled and selecting it displays a series of tabs in DashBoard. The ULTRICORE-PRO license must be first enabled on a router in order to access all settings of the Ultricore Profiles feature as described in this section.

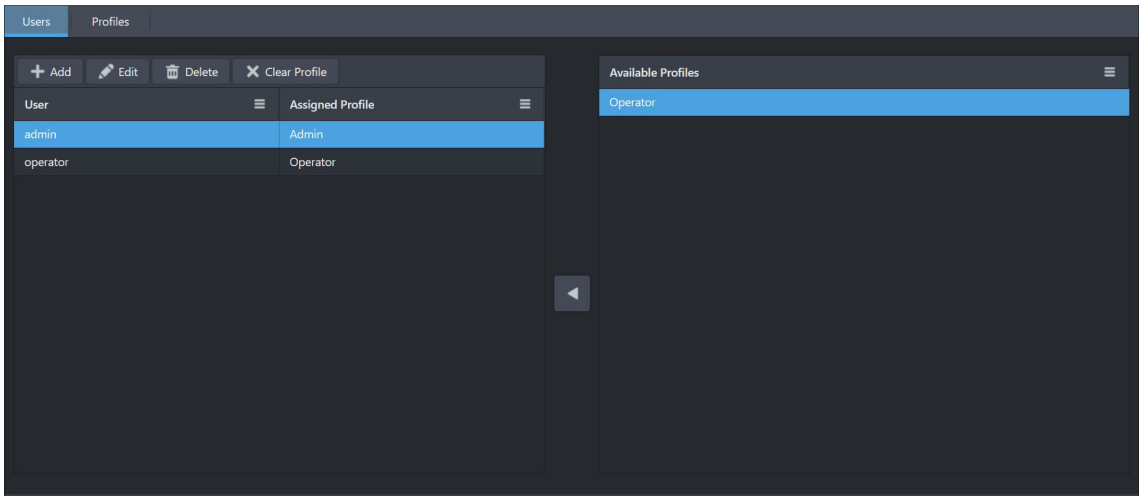


Figure 24 Example of the Ultricore Profiles Interface

The Ultricore Profiles interface is organized into two tabs: Users and Profiles. Each tab is briefly described in this section starting with the leftmost tab of the DashBoard window. (**Figure 24**)

Users Tab

When the system is configured to use the Ultrix user login mechanism, a list of all currently configured usernames along with their current online status displays in this area.

Table 40 summarizes the options displayed in the User Profiles > Users tab.

Table 40 User Profiles > Users

Item		Description
	Add	Enables you to create a new user account by specifying a name and (profile) type. The new account now displays as a row at the bottom of the table.
	Rename	Enables you to change the account name and/or type.
	Delete	Removes the user account from the database
	Clear	Removes the user account from any profiles it was assigned to. The user account is no longer assigned to any profile.
User		Each row represents a specific user account. Select a row to edit the profiles currently assigned to the account.
Assigned Profile		Lists the profiles currently assigned to each user account.
Available Profiles		Enables you to assign the user account to the profiles listed in this table. Use the provided buttons to manage what profiles the user is assigned to.

Profiles Tab

This tab provides a list of the available profiles. Selecting a profile (row) in this area automatically updates the items displayed in the Profile Details, Device Tree, and Options areas. (**Figure 25**)

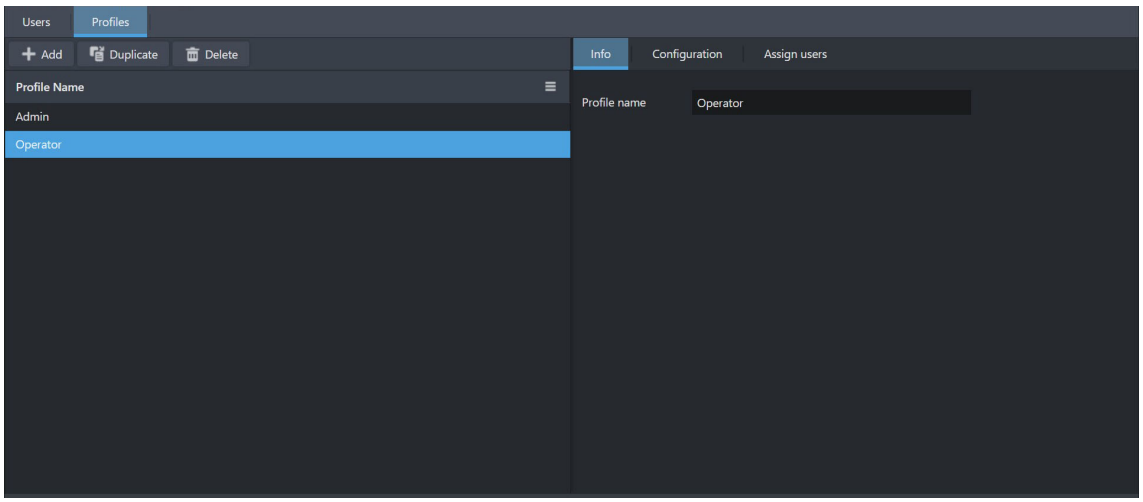


Figure 25 Example of the Ultricore Profiles > Profiles

Table 41 summarizes the options displayed in the left pane of the Ultricore Profiles > Profiles tab.

Table 41 User Profiles > Profiles

Item		Description
	Add	Displays the Add profile dialog that enables you to create a new profile
	Duplicate	Copies the selected profile and creates a new profile using the same settings as the original

Table 41 User Profiles > Profiles (Continued)

Item		Description
	Delete	Removes the selected profile from the database
Profile Name		A list of the available profiles in the database

The following sections outline each tab in the right panel of the Ultricore Profiles > Profiles tab.

Info Sub-tab

Table 42 summarizes the Info sub-tab.

Table 42 User Profiles > Profiles > Info

Item	Parameter	Description
Profile name	<text>	Assigns a unique identifier to the profile. This name is used in the Ultricore Profiles interface.

Configuration Sub-tab

This sub-tab is a visual representation of the tree view where the tree nodes are organized in a hierarchy that reflects the DashBoard Tree View. Note that certain entries that are specific to licenses or other conditions may be visible but not in the actual tree view. Should conditions change that enable those entries, they will appear as shown in this display. A profile also maintains the position of items in groups allowing the most relevant items to be the easiest to reach.

✶ This area only displays when the ULTRICORE-PRO license is enabled on the router.

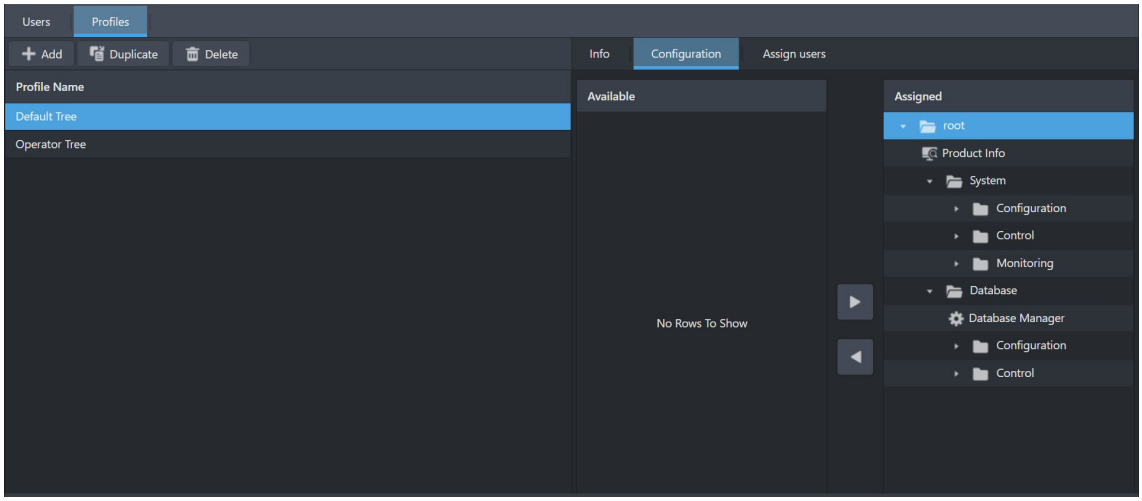


Figure 26 Example of the Ultricore Profiles > Profiles > Configuration Sub-tab

Table 43 summarizes the options displayed in the Configuration sub-tab.

Table 43 User Profiles > Profiles > Configuration

Item	Description
Available	Enables you to assign permissions to the selected profile listed in this table. Use the provided buttons to define what settings and functions that the profile can access.
Assigned	Lists the settings and functions currently assigned to the selected profile

Assign Users Sub-tab

This area displays all the available items that have not yet been assigned to the currently selected profile but are available to define.

✶ This area only displays when the ULTRICORE-PRO license is enabled on the router.

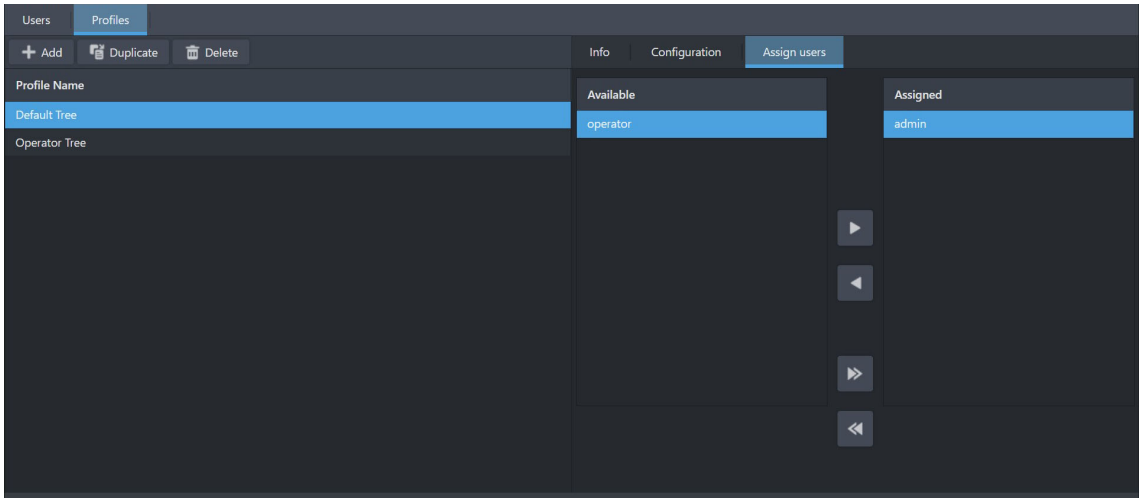


Figure 27 Example of the Ultricore Profiles > Profiles > Assign users Sub-tab

Table 44 summarizes the options displayed in the Assign users sub-tab.

Table 44 User Profiles > Profiles > Assign users

Item	Description
Available	Enables you to assign user accounts to the selected profile listed in this table. Use the provided buttons to define what user accounts are included in the selected profile.
Assigned	Lists the user accounts currently assigned to the selected profile

Tieline Builder Interface

The **Tieline Builder** creates tielines based on the routers and ports available to the Ultricore within the current database and routing system.

✶ The ULTRICORE-TLX license must be enabled to display the Tieline Builder node in the tree view.

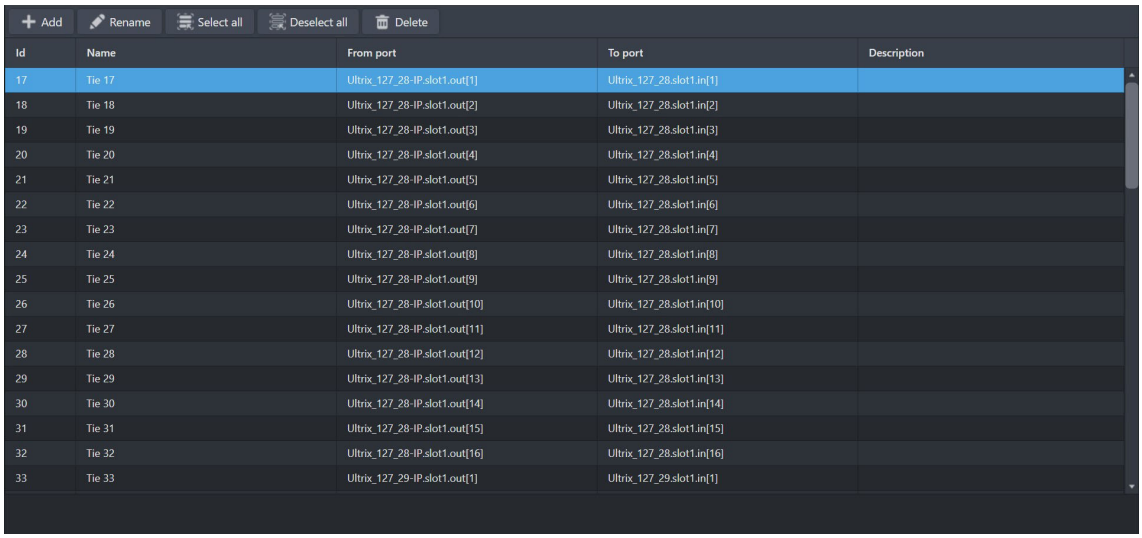


Figure 28 Example of the Tieline Builder Interface

Table 45 summarizes the options displayed in the Tieline Builder interface.

Table 45 Tieline Builder Interface

Item	Description
Existing Tielines	
ID	An auto-generated identification number assigned to the tieline
Name	Indicates the unique identifier assigned to the tieline
From Device	Indicates the router that the tieline will use as the source (start point)
Output Port	Indicates the physical port that the tieline will use to switch the signal
To Device	Indicates the router that the tieline will use as the destination (end point)
Input Port	Indicates the physical port that the tieline will use to pass the signal through during the switch
Rename	Applies a new identifier to the tieline
Remove	Removes the tieline from the list and deletes it from the router system
From Device:	Use this menu to display a list of available routers that the user can assign as the start point for a new tieline
Output Ports:	Indicates the physical ports on the selected device that are available as sources for the tieline
To Device:	Use this menu to display a list of available routers that the user can assign as the end point for a new tieline
Input Ports:	Indicates the physical ports on the selected device that are available as destinations for the tieline
Add Tieline	Adds the tieline defined using the From Device and To Device tables. The Existing Tielines table updates to include the new tieline as a row entry.

Tieline Runtime Interface

The **Tieline Runtime** reports the sources and destinations for each defined tieline, enables the user to manage and monitor the switch requests using the define tielines.

✶ The ULTRICORE-TLX license must be enabled to display the Tieline Runtime node in the tree view

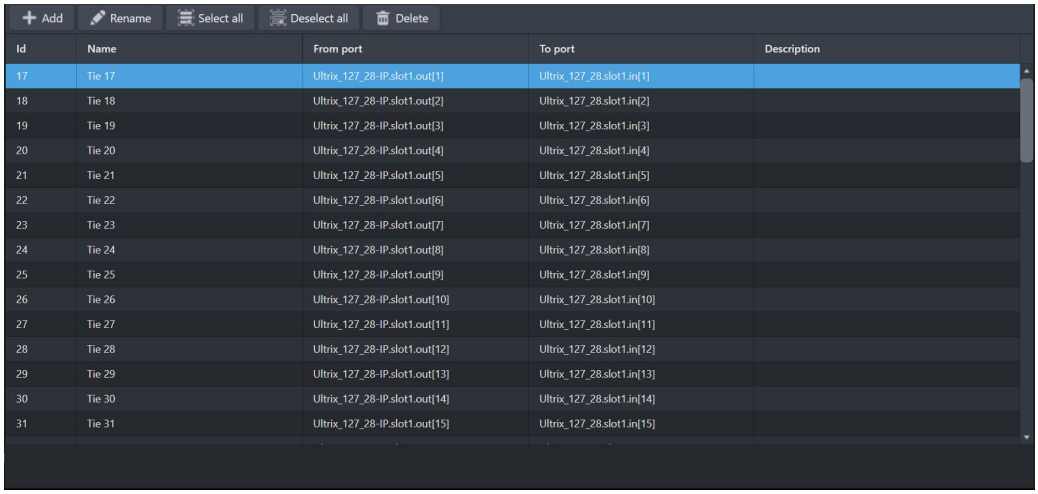


Figure 29 Example of the Tieline Runtime Interface

Table 46 summarizes the options displayed in the Tieline Runtime Interface.

Table 46 Tieline Runtime Interface

Item	Description
Existing Tielines	
Tieline Name	Indicates the unique identifier assigned to the tieline
From Device	Indicates the router that the tieline will use as the source (start point)
Output Port	Indicates the physical port that the tieline will use to switch the signal
To Device	Indicates the router that the tieline will use as the destination (end point)
Input Port	Indicates the physical port that the tieline will use to pass the signal through during the switch
Sources	Reports the available signals on the From Device via the selected Output Port
Destinations	Reports the available signals on the To From Device via the selected Input Port
Release Tieline	Disables the selected tieline. It is no longer available for switching signals in the routing system
View Tieline Details	Provides more information on the selected tieline
Destinations Using Tielines	
Destination	Specifies a specific destination in use by the tieline
Source	Specifies a specific source in use by the tieline

Table 46 Tieline Runtime Interface (Continued)

Item	Description
Path to Source	Indicates how the signal is passed through the routing system via the selected tieline
Release Destination	Removes the selected destination as an option for the tieline. This destination can no longer be used for a switch via the tieline.
View Destination Paths	Reports the route that the Ultrix or Ultricore has chosen to pass the selected source to the end point (destination) as defined by the selected devices, ports, and signals
Show Take Errors	Indicates whether any error conditions are present during the switch the tieline

Enabling a Service

The Ultrix routers support a set of third-party communications protocols that allow the router to communicate with devices in your routing system. Before creating a connection point to each device, you must first enable the required protocol(s) on the Ultrix router, and configure any settings required for communication. This chapter outlines how to enable a communication service (protocol), and configure the additional settings on the router for each protocol (if required). A summary of the supported commands is also provided.

If you have questions about the operation of your Ross devices, contact us at the numbers listed in "**Contacting Technical Support**". Our technical staff is always available for consultation, training, or service.

For More Information on...

- how to establish a connection point to a device in your routing system, refer to "**Adding Connection Points**".

Enabling a Communication Service

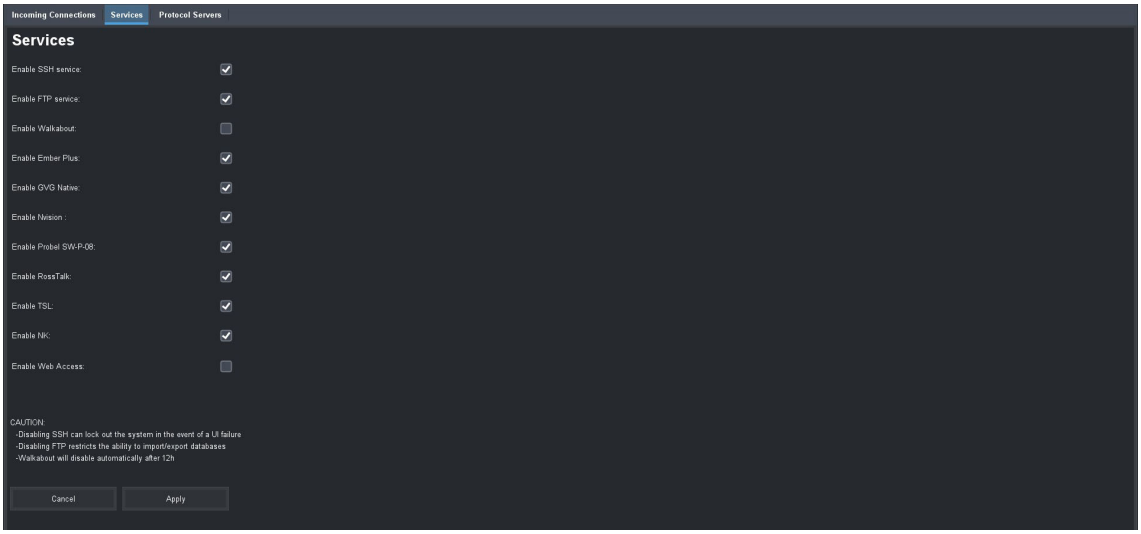
Use the options in the System > Configuration > Connections > Services interface to enable or disable each required service (protocol). This allows your router to communicate with an external device that uses the enabled third-party protocol.

To enable a service

1. Display the **System** > **Configuration** nodes as outlined in "**To access the Database interfaces**".
2. Double-click the **Connections** sub-node.

   The Connections interface opens in the DashBoard window with the Incoming Connections tab automatically selected.
3. Select the **Services** tab.

   The Services tab lists the available communications protocols and provides options for enabling/disabling each protocol for the router.



✶ Some services require that a license key is also enabled on your router. Refer to the ***Ultrix User Guide*** for your router to learn more.

4. Enable or disable a service by selecting or clearing the associated box. Choose from the following:
   - SSH service — Enables the ability to log onto the Ultrix router via an SSH server. Secure Shell (SSH) Login is a client-server protocol used by system administrators to securely log onto remote systems and execute commands over an unsecured network. SSH may also be used by Ross Technical Support for advanced troubleshooting.
   - FTP service — Enables the ability to communicate with the Ultrix router over an FTP connection.
   - Walkabout — Enables the Ultrix router to communicate with Ross Video devices in the Walkabout system.
   - Ember Plus — Enables the Ultrix router to communicate with a third-party control system via the Ember+ media distribution protocol.
   - GVG Native — Enables the Ultrix router to communicate via the GVG Series 7000 Native protocol and is available over an RS-422 or RS-232 serial connection, or ethernet connection.
   - Nvision — Enables the Ultrix router to communicate via a limited sub-set of the NVISION serial NP0010 protocol, and the NVISION NP16 ethernet protocol.
   - Probel SW-P-08 — Enables the Ultrix router to communicate via the Probel SW-P-08 protocol. This protocol is available over an RS-422 or RS-232 serial connection, as well as an ethernet connection.
   - RossTalk — Communications via the RossTalk protocol (a plain text based protocol that allows control of Ross Video equipment).
   - TSL — Enables the Ultrix router to communicate via the TSL UMD v3.1, TSL UMD v4.0, and TSL UMD v5.0 protocols.
   - NK — Enable this option if there are Ross NK series devices or signal types the Ultrix router itself does not handle. The Ross NK series devices must be connected to the ethernet network by virtue of an Ross NK-IPS or NK-NET devices to enable communication with the Ultrix router.

✶ The Enable Web Access determines if remote access and upgrades are enabled. This option is disabled by default (the Upload button is disabled in the DashBoard interfaces). Remote upgrades may optionally be enabled through DashBoard via this option. On bootup or power cycle, this option will default back to disable (box is unselected). You must select the box again if you wish to enable web access and firmware upgrades after a bootup or power cycle.

5. Click **Apply**.

Configuring the Service Settings

The Protocol Servers tab lists the currently active servers running in the routing system. This tab is auto-populated based on the external devices on the same network as your router and using the protocols enabled in the Services tab. Some services require you to configure additional settings on the router. This section briefly summarizes those additional settings.

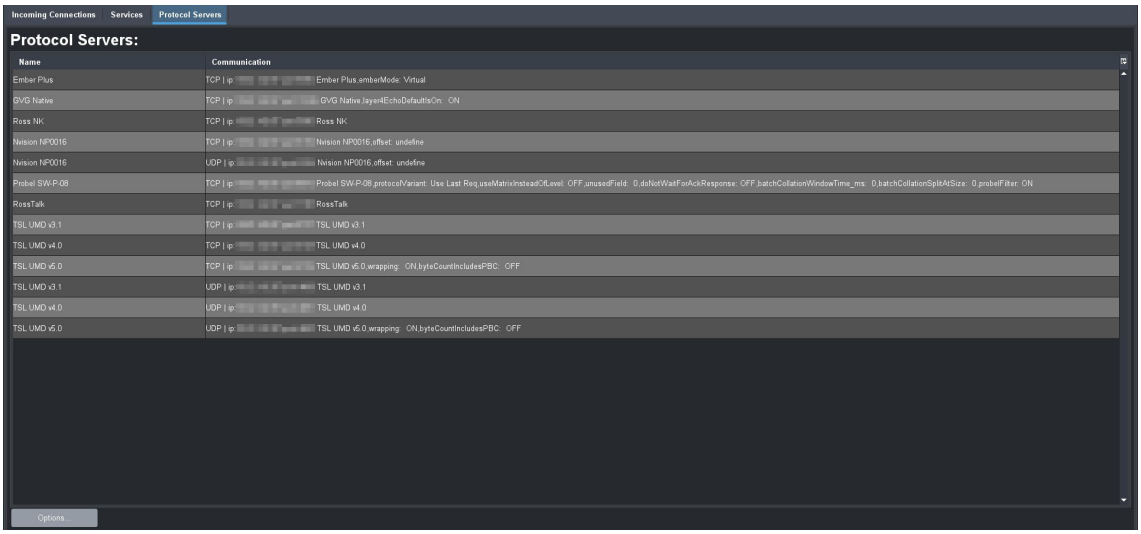
For More Information on...

- the supported protocols, refer to "**Server Options and Supported Commands**".

To configure the protocol settings

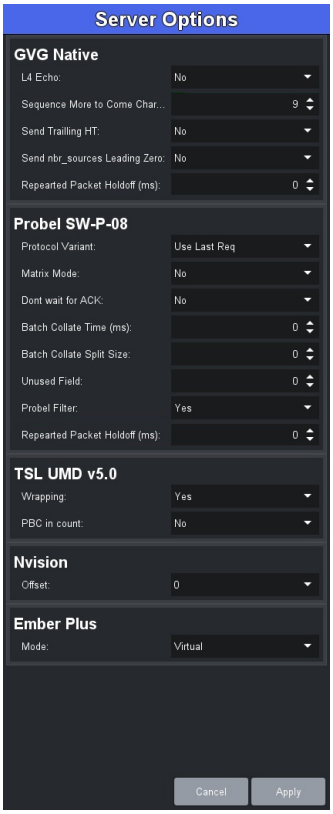
1. Display the **System** > **Configuration** nodes as outlined in "**To access the Database interfaces**".
2. Double-click the **Connections** sub-node.

   The Connections interface opens in the DashBoard window with the Incoming Connections tab automatically selected.
3. Select the **Protocol Services** tab.



4. Click **Options** (located in the bottom toolbar).

   The **Server Options** dialog opens.



5. Locate the options for the third-party protocol you wish to configure for communications.
6. Refer to the following sections for a summary of the settings based on the protocol.
7. Click **Apply**.

   The **Server Options** dialog closes and the new settings are applied.

Server Options and Supported Commands

Some protocols require additional settings be configured on the router. The following sections outline these required settings based for each protocol.

GVG Series 7000 Native Protocol Commands

The router supports the GVG Series 7000 Native protocol and is available over an RS-422 or RS-232 serial connection, as well as an ethernet connection. Refer to **Table 47** for connection details.

Table 47 Default GVG Native Connection Types

	Setting
Serial	
Connection Type	RS422 or RS232
Baud	38400
Data Bits	8
Parity	None
Stop Bits	1
Ethernet	
Port (incoming)	12345
Port (outgoing)	12345[a]

a. For outgoing connections, port 12345 is the default value but is user configurable.

Table 48 summarizes the **Server Options** for the GVG Series 7000 Native protocol.

Table 48 Server Options — GVG Series 7000 Native

Option	Setting	Notes
L4 Echo	Yes	Send command acknowledgments on protocol layer 4 (Ethernet only)
	No	Do not send acknowledgments. This is the default.
Sequence More to Come Character	#	Enables the user to assign a number to the `seq_flag` field in a packet that will indicate more messages to come. The default value is 9. A value of 0 (zero) indicates the last or only packet.
Send Trailing HT	Yes	Includes the trailing `<HT>` character (Horizontal Tab (0x09)) in the packet
	No	The trailing `<HT>` character is not included in the packet
Send nbr_sources Leading Zero	Yes	Always forces the `nbr_sources` field to be 2 ASCII characters (e.g. 1 becomes 01). This supports fragmentation of large message streams.
	No	Allows the `nbr_sources` field to be a single ASCII character
Repeated Packet Holdoff (ms)	#	Ultrix detects repeated identical packets, and will skip processing if the packets are repeated within the specified delay. The default is 0.

To send GVG Native commands to the router

1. Create a network connection to the router on TCP/IP **Port 12345**.
2. A valid connection is reported in the Connections > Incoming Connections interface.
3. Refer to **Table 49** for a list of supported GVG Native Protocol commands.

Table 49 GVG Native Protocol Commands

Message		Notes
Command	**Description**	
BK[,parameter]		
BK,D	Force next QD command to return status of all destinations	Clears the flags associated with the D,no_parameter command. After BK,D is sent, the next QD,no_parameter command will result in destination statuses or all destinations being returned.
BK,E	Request status of level 4 echo setting	
BK,E,ON	Set level 4 echo to on	An err=00 response will be returned for successful commands that do not generate their own response (e.g. Take commands). This is a per session setting.
BK,E,OFF	Set level 4 echo to off (default)	No response will be given for commands that do not generate their own response.
PR,dest_name,level_bitmap	Protects a specific destination from having its source changed	ER error-code response is currently not supported.
QC[,dest_name]	Query Combined Destination status by name	
QD[,dest_name]	Query Destination status by name	No information is returned for unmatched destination levels
Qd[,dest_name]	Query Destination status by name	Sets response src_name to NO_XPT for unmatched destination levels
QI,destIndex,lvlIndex	Query Destination status by index[a]	
Qi,destIndex,lvlIndex	Query Destination status by index[a]	The srcIndex returned will be 0xfffe if an error condition applies to the crosspoint being reported.
QJ[,destIndex]	Query Destination status by index[a]	No information is returned for unmatched destination levels
Qj	Query Destination status by index[a]	Sets response srcIndex to 0xFFFe for unmatched destination levels
QN,parameter		
QN,S	Query source names/labels	As defined inactive database
QN,D	Query destination names/labels	As defined inactive database
QN,L	Query level names/labels	As defined inactive database
QN,IS	Query names via source index[a]	
QN,ID	Query names via destination index[a]	
QT	Query date and time[a]	
TA,dest_name,nbr_sources,src_name_entry1[,...src_name_entryn]	Takes sources (on specified levels) to specified destination, by name rather than index	Src_name_entryn = src_name,level_bitmap
TD,dest_name,src_name_entry	Takes same source to all or specified levels	Src_name_entryn = src_name[,levelbitmap] No levelbitmap=all destination levels
TI,destIndex,srcIndex[,levelIndex]	Request take by index with level index[a]	
TJ,destIndex,nbr_sources,srcIndex,level_bitmap[,...,srcIndex,level_bitmap]	Takes sources (on specified levels) to specified destinations by index rather than name; allows breakaways	
TS,salvo_name	Request Take Salvo	TS,salvo_name
UP,dest_name,level_bitmap	Removes Protect from specified destination	ER, error-code response is currently not supported.

a.Zero-based hex logical index numbering.

For More Information on...

- these commands, refer to the GVG protocol documentation.

NVISION Commands

This section outlines the NVISION protocol commands supported by the router.

✶ Ensure that the Ultricore-NVISION license is installed for your router. Refer to the ***Ultrix User Guide*** for details.

Table 50 summarizes the settings in the **Server Options** dialog for the NVISION protocol.

Table 50 Server Options — NVISION Protocol

Option	Setting	Notes
Offset	0	The Ultrix and Ultricore level matches the NVISION level
	1	The Ultrix and Ultricore level is the NVISION level plus 1

NVISION NP16 Ethernet Protocol

The router supports the NVISION NP16 Ethernet protocol. **Table 51** outlines the default values for the router when using NP16.

Table 51 Default Connection Types — NVISION NP16

	Setting
TCP Port	5194

NP16 Commands

The NP16 protocol defines the message format as follows:

```
Protocol ID | Sequence Number | byte count | Command
```

Each field consists of a 32bit number where:

- `Protocol ID` — 0x0000000C (Router Control Protocol)
- `Sequence number` — controller generated and added to Ultrix and Ultricore response message
- `byte count` — total number of bytes in message including header (<8176)
- `Command` — refer to **Table 52**.

✶ The protocol is zero based, meaning that destination 0 in the protocol relates to destination ID#1 in Ultrix. This is true for sources, destinations, and level values.

Refer to **Table 52** for a list of supported NP16 commands.

Table 52 NP16 Protocol Commands

Message		Notes
Command	Description	
0x0000 0050	Performs a TAKE	
0x0000 0051	Set Output LPR	Sets or releases a lock or protect on a destination

Table 52 NP16 Protocol Commands (Continued)

Message		Notes
Command	Description	
0x0000 0052	Get Status of Outputs	Retrieves the crosspoint status
0x0000 0059	Router Partition Information	
0x0000 005E	Crosspoint Tally	Retrieves the crosspoint status
0x0000 0070	Machine Control Take	Format 1 only

NVISION NP0010 Serial Protocol

The router supports a limited sub-set of the NVISION serial NP0010 protocol.

Table 53 outlines the router default values for an NP0010 serial connection.

Table 53 Default Connection Types — NVISION NP0010 Serial

	Setting
Connection Type	RS232, RS422
Baud	9600, 19200, 38400, 56700, 115200
Data Bits	8
Parity	No
Stop Bits	1

Refer to **Table 54** for a list of supported NP0010 commands.

Table 54 NP0010 Protocol Commands

Message		Notes
Command	Description	
0x50	Take	Non-timestamped version only
0x51	Destination status	Get destination status
0x55	Lock destination	Assert a destination lock
0x56	Protect destination	Assert a destination protect
0x58	Release destination lock/protect	Releases the destination lock and protect
0x66	Destination LPR state	Get destination locked/protect/released status

Probel SW-P-08 Protocol Commands

The router supports the Probel SW-P-08 protocol and is available over an RS-422 or RS-232 serial connection, as well as ethernet connection. **Table 55** provides the default values for this protocol.

Table 55 Default Probel SW-P-08 Connection Types

	Setting
Serial	
Connection Type	RS422 or RS232
Baud	38400
Data Bits	8

Table 55 Default Probel SW-P-08 Connection Types (Continued)

	Setting
Parity	None
Stop Bits	1
Ethernet	
Port (incoming)	8910
Port (outgoing)	8910[a]

a. For outgoing connections, port 8910 is the default value but is user configurable.

Table 56 summarizes the settings in the **Server Options** dialog for the Probel SW-P-08 protocol.

Table 56 Server Options — Probel SW-P-08 Protocol

Option	Setting	Notes
Protocol Variant	Non-extended	Use non-extended commands only
	Extended	Use extended commands only
	Use Last Request	Use command set as per last received command format (e.g. if received a non-extended command, reply in a non-extended format). This is the default.
Matrix Mode	Yes	Swap matrix and level fields
	No	Do not swap matrix and level fields. This is the default.
Unused Field	#	Send number (0-15) in either Level or Matrix field - which ever is not used as per Matrix Mode setting. The default is 0.
Do not wait for ACK	Yes	Ultrix and Ultricore will not wait for message acknowledgments between connect responses
	No	Ultrix and Ultricore will wait for message acknowledgments between connect responses. This is the default.
Batch Collate Time[a]	# milliseconds	Wait up to 100 milliseconds for multiple commands received before processing. The default is 0 (which disables this feature).
Batch Collate Split Size	# received commands	Wait up to 100 received commands before processing. The default is 0 (which disables this feature).
Repeated Packet Holdoff (ms)	#	Ultrix detects repeated identical packets, and will skip processing if the packets are repeated within the specified delay. The default is 0.

a. When both Batch Collate Split Size and Batch Collate Time are both active, the option that occurs first will release the batch, and the Batch Collate Split Size and the Collate Time values are reset.

Table 57 lists the supported Probel SW-P-08 Serial Protocol commands.

Table 57 Probel SW-P-08 Native Protocol Commands

Request Message		Response Message		Notes
Cmd ID	Description	Cmd ID	Description	
01	Crosspoint Interrogate	03	Crosspoint Tally	Get single crosspoint status
02	Crosspoint Connect	04	Crosspoint connected	Take single crosspoint

Table 57 Probel SW-P-08 Native Protocol Commands (Continued)

Request Message		Response Message		Notes
Cmd ID	Description	Cmd ID	Description	
10	Protect Interrogate	11	Protect Tally	Get destination protect status
12	Protect Connect	13	Protect connected	Set destination protect
14	Protect Disconnect	15	Protect dis-connected	Turn off destination protect
17	Protect Device Name Request	18	Protect Device Name Response	Get name of device that hold protect
19	Protect Tally Dump Request	20	Protect Tally Dump	Get all protect status
21	Crosspoint Tally Dump Request	22, 23	Crosspoint Tally Dump	Get all crosspoint status Cmd22: Byte max dest 191 Cmd23: Word max. dest. 65535
97	Implementation Request	98	Implementation Status	Get list of commands supported
100	All Source Names Request	106	Source Name Response	Get all source names (8 char. max.)
101	Single Source Name Request	106	Source Name Response	Get single source names (8 char. max.)
102	All Destination Association Name Request	107	Destination Association Name Response	Get destination names (8 char. max.)
103	Single Destination Association Names Request	107	Destination Association Name Response	Get single destination name (8 char. max.)
104	All UMD Labels Request	108	UMD Label Response	Only one set of labels is currently supported. UMD Labels replicate source labels. (16 char. max.)
105	Single UMD Labels Request	108	UMD Label Response	Get single source label (16 char. max.)
120	Crosspoint Connect On Go Group Salvo	122	Crosspoint Connect On Go Group Salvo Acknowledge	Add crosspoint to preset group
121	Crosspoint Go Group Salvo	123	Crosspoint Go Done Group Salvo Acknowledge	Switch/clear preset group
124	Crosspoint Salvo Group Interrogate	125	Crosspoint Group Salvo Tally	Preset group status
EXTENDED				
129	Extended Crosspoint Interrogate	131	Extended Crosspoint Tally	Get crosspoint status
130	Extended Crosspoint Connect	132	Extended Crosspoint Connected	Take single crosspoint
138	Extended Protect Interrogate	139	Extended Protect Tally	Get destination protect status
140	Extended Protect Connect	141	Extended Protect Connected	Protect a destination
142	Extended Protect Disconnect	143	Extended Protect Disconnected	Turn off protect for a destination
147	Extended Protect Tally Dump	148	Extended Protect Tally Dump Message	Get all protect status for given level
149	Extended Crosspoint Tally Dump	151	Extended Crosspoint Tally Dump Word Message	Get destination status for given level
228	Extended All Source Names	234	Extended Source Name Response	Get source names (8 char max.)
229	Extended Single Source Name	234	Extended Source Name Response	Get single source name (8 char max.)
230	Extended All Destination Association Names	235	Extended Destination Association Names Response	Get all destination names (8 char. max.)
231	Extended Single Destination Association Name	235	Extended Destination Association Names Response	Get single destination name (8 char. max.)
232	Extended Single UMD Label Request	236	Extended UMD Labels Response	Get all source labels (16 char. max.)

Table 57 Probel SW-P-08 Native Protocol Commands (Continued)

Request Message		Response Message		Notes
Cmd ID	Description	Cmd ID	Description	
233	Extended Single UMD Label Request	236	Extended UMD Labels Response	Get single source label (16 char. max.)
248	Extended Crosspoint Connect On Go Group Salvo	250	Extended Crosspoint Connect On Go Group Salvo Acknowledge	Preset group acknowledge
124	Crosspoint Group Salvo Interrogate	253	Extended Crosspoint Group Salvo Tally	Preset group status

RossTalk Commands

The RossTalk protocol is a plain text based protocol that allows control of Ross Video equipment.

✶ Each command should be terminated by a carriage return and a line feed (CR/LF).

To send RossTalk commands to the router

1. Create a network connection to the router on **Port 7788**.
2. At the prompt, enter the commands you wish to send. Refer to **Table 58** for a list of supported commands.

Table 58 RossTalk Protocol Commands

Message		Notes
Command	Description	
GPI ##	Execute the salvo number corresponding to the numerical ## extension of the command	For example, GPI 04 triggers the salvo <salvo_name>[4] as listed in the Ultrix and Ultricore database
TIMER ##:RUN	Request Timer ID to start/resume	
TIMER ##:STOP	Request Timer ID to stop	
TIMER ##:PAUSE	Request Timer ID to pause	
TIMER ##:END	Request Timer ID to end	

Table 58 RossTalk Protocol Commands (Continued)

Message		Notes
Command	**Description**	
TXTLABEL ID:<id>; TEXT:<text>; BGCLR:<bgcolor>; TXTCLR:<textcolor>	Where: • <id> is a unique "rosstalk id" associated with an Ultriscape RossTalk display object. This field is compulsory. • <text> is the text to be displayed. This field is optional. • <bgcolor> is the background color of the text label. Specified in comma separated RGB format using 2 byte hex values (e.g. RR,GG,BB). This field is optional. • <textcolor> is the text color of the text label. Specified in comma separated RGB format using 2 byte hex values (e.g. RR,GG,BB). This field is optional.	There is a 20 character maximum. Messages with only the id field will be ignored. The following is an example of a message: TXTLABEL ID:25; TEXT:CAM1; BGCLR:0x00,0x00,0x00; TXTCLR:0xFF,0xFF,0xFF Note that <bgcolor> and <textcolor> are specified as R,G,B triplet. For example: • 255,255,255 or 0xff,0xff,0xff is white • 0,0,0 or 0x0,0x0,0x0 is black • 255,0,0 or 0xff,0x0,0x0 is red
XPT D:<dest> S:<source> I:<user_id> [L:<levels>]	Crosspoint command for a router TAKE where: • <dest> is the logical destination ID from the active database (1-based) • <source> is the logical source ID from the active database (1-based) • <user_id> is the numeric user/panel ID that will be used to request the switch • <levels> is an optional parameter specifying comma-separated list of 1-based level IDs to switch (for breakaway, e.g. L:1,2,4). If no levels are specified, a follow switch (all valid levels) is requested. • <levels> supports ranges specified by two numbers separated by dash (e.g. L:1-16)	Range start value must be less than the end value Single levels and ranges can be mixed in the list (e.g. L:1,3,4-8,12-17) There are no spaces between numbers or ranges Invalid numbers or improperly specified ranges will be ignored An argument is separated from its value using a single colon (:) Command arguments are separated single spaces The arguments may be specified in any order, (e.g. these are equivalent: XPT D:1 S:4 I:2 and XPT S:4 I:2 D:1) Examples: • ID 7 requesting to switch Dest 2 to Source 1 on Levels 1,3,5 and 12-16 • XPT I:7 D:2 S:1 L:1,3,5,12-16

For More Information on...

- adding a RossTalk label to an Ultriscape layout, refer to the ***Ultriscape User Guide***.

TSL UMD Protocol v3.1 Commands

Table 59 outlines the default values for the router when using TSL UMD v3.1.

Table 59 Default Connection Types — TSL UMD v3.1

	Setting
Serial	
Connection Type	RS422
Baud	38400
Data Bits	8
Parity	Even
Stop Bits	1
Ethernet	
TCP Port	5727
UDP Port	4490

Protocol Implementation

The router implements the protocol with the following structure:

```
DisplayID|Control|DisplayData
```

Table 60 lists the supported TSL UMD Protocol v3.1 commands.

Table 60 TSL UMD Protocol v3.1 Commands

Protocol Breakdown	Description	UltriScape System Use
Display Address	0 - 126 display identification enumeration	DisplayID associated with source or destination
Control Byte		
Bit 0	Tally 1 status (1=on, 0=off)	Tally 1 (Red)[a]
Bit 1	Tally 2 status	Tally 2 (Green)[a]
Bit 2	Tally 3 status	Not used
Bit 3	Tally 4 status	Not used
Bits 4-5	Brightness value	Not used
Bit 6	Reserved	Not used
Bit 7	0	Not used
Display Data	16 ASCII display characters (20h-3Eh)	UMD display text

a. Green/Red may be swapped by configuring the Global Tally Settings in the UltriScape Head interface.

Refer to **Table 61** when using TSL UMD v3.1 and configuring PiP Tallies in an UltriScape Head.

Table 61 UltriScape Tally Display — TSL UMD v3.1

Red Tally	Green Tally	Display
ON	ON	RED IS ON
ON	OFF	RED IS ON
OFF	ON	GREEN IS ON
OFF	OFF	OFF (no tallies are lit)

TSL UMD Protocol v4.0 Commands

Table 62 outlines the default values for the router when using TSL UMD v4.0.

Table 62 Default Connection Types — TSL UMD v4.0

	Setting
Serial	
Connection Type	RS422
Baud	38400
Data Bits	8
Parity	Even
Stop Bits	1
Ethernet	
TCP Port	5728
UDP Port	4491

Protocol Implementation

The router implements the protocol with the following structure:

```
Header | Control | DisplayData | VBC | XData
```

Table 63 lists the supported TSL UMD Protocol v4.0 commands.

Table 63 TSL UMD Protocol v4.0 Commands

Protocol Breakdown	Description	UltriScape System Use
Header	0x80 + 0 - 126 display address	DisplayID associated with source or destination
Control Byte		
Bit 0	Tally 1 status (1=on, 0=off)	Not used
Bit 1	Tally 2 status	Not used
Bit 2	Tally 3 status	Not used
Bit 3	Tally 4 status	Not used
Bit 4-5	Brightness value	Not used
Bit 6	0=display data, 1=command data	Display data only (0)
Bit 7	0	Not used
Display Data	16 ASCII display characters (20h - 7Eh)	UMD display text
VBC		
Bits 3-0	Byte count of XData	
Bits 6-4	Minor protocol version (v4.0=0)	
Bit 7	0	
XData1		
Bits 0-1	Right Hand tally value[a]	Not implemented
Bits 2-3	Text display value[a]	Sets text background color
Bits 4-5	Left hand tally value[a]	Displayed in either border or text background; can be either or both
Bit 6	Reserved	
Bit 7	0	
XData2		
Bits 0-1	Right Hand tally value	Not implemented
Bits 2-3	Text display value	Not implemented
Bits 4-5	Left hand tally value	Not implemented

a. Where 0=off, 1=Red, 2=Green, 3=Amber

TSL UMD Protocol v5.0 Commands

Table 64 outlines the default values for the router when using the TSL UMD v5.0 protocol.

Table 64 Default Connection Types — TSL UMD v5.0

	Setting
Serial	
Connection Type	RS422
Baud	38400
Data Bits	8
Parity	Even
Stop Bits	1
Ethernet	
TCP Port	5729
UDP Port	4492

Table 65 summarizes the settings in the **Server Options** dialog for the TSL UMD v5.0 protocol.

Table 65 Server Options — TSL UMD v5.0 Protocol

Option	Setting	Notes
Wrapping	Yes	Wrap commands for TCP mode
	No	Do not wrap commands (UPD mode). This is the default.
PBC in Count Value	Yes	Include the Packet Byte Count field when calculating the byte count value
	No	Do not include the Packet Byte Count field in the byte count value. This is the default.

Protocol Implementation

Ultrix and Ultricore implements the protocol with the following structure:

```
PBC | Ver | Flags | Screen | DMSG (Index, Control, Length, Text)
```

Table 66 lists the supported TSL UMD Protocol v5.0 commands.

Table 66 TSL UMD Protocol v5.0 Commands

Protocol Breakdown	Description	UltriScape System Use
PBC	Total byte count of packet	
Ver.	Minor version number (0=v5.00)	
Flags		
Bit 0	0=ASCII strings, 1=UTF-16LE	
Bit 1	0=display data, 1=screen control	Display data only (0)
Bits 2-7	Reserved (0)	Not used
Screen	16bit Screen ID	ScreenID associated with source or destination
DMSG		

Table 66 TSL UMD Protocol v5.0 Commands (Continued)

Protocol Breakdown	Description	UltriScape System Use
Index	16bit Display Address	DisplayID associated with source or destination
Control		
Bits 0-1	Right hand tally value[a]	Sets right-hand tally indicator color
Bits 2-3	Text display value[a]	Sets text background and border color
Bits 4-5	Left hand tally value[a]	Sets left-hand tally indicator color
Bits 6-7	Brightness value (0-3)	Not implemented
Bits 8-14	Reserved (0)	
Bit 15	0=display data, 1=command data	Display data only (0)
Length	Byte count of text	
Text	Text as defined by Flag 0 setting	UMD display text

a. Where 0=Off, 1=Red, 2=Green, 3=Amber

Creating a New Database

This chapter provides an overview of the Database Manager, and describes how to create a new database.

Defining a Database for a Routing System

Each database consists of a collection of configuration files necessary for routing operation. The database resides within the primary device storage system. Multiple databases may be saved and accessed at any time, but only one database can be active at a time.

The following information is captured in a database:

- Definitions of levels, sources, and destinations
- Salvos
- Category assignments
- Soft panels
- User assigned port labels
- Current crosspoint status

✶ The following information is not captured in a database: hardware specifics, and license settings.

Once a new database is created, you then define the devices included in the new database. Next you define the levels, destinations, and sources for the new database. Templates are provided to help map the port assignments. This makes it easy to build basic configurations as well as get a system up and running quickly.

Database Manager Overview

The Database Manager interface enables you to create system input and output lists, assign those signals to system sources and destinations, and define multiple levels and matrices.

Use the Database Manager interface to:

- Create a New Database — You can create a number of database configurations depending on your routing system and its devices. The Database Builder enables you to quickly create a database based on the routers assigned to it. Refer to "**Creating a New Database**"
- Delete a Database — You can choose to permanently delete any configured database. Refer to "**Deleting a Database**".
- Activate/Inactive a Database — Select a database from a list of imported files to activate and apply its settings to your routing system. Note that only one database can be active at a time. Refer to "**Activating a Database**".
- Create a Template — Use the Duplicate feature to create a copy of a current database to use as a template for new databases. Refer to "**Copying a Database**".
- Import a Database — Enables you to import a saved database file and make it available in the Database Manager interface. Refer to "**Importing a Database**".
- Import a Legacy Database — You can import a database file that was last saved in a prior version of the software. The Database Manager will import the file, convert it to the current format, and save it to your Downloads folder on your DashBoard client computer. Once a file is imported, it is available for editing. Refer to "**Importing a Legacy Database**".
- Export a Database — Enables you to capture the active database configuration as a file that is saved to the Downloads folder on your DashBoard client computer. Refer to "**Exporting a Database**".

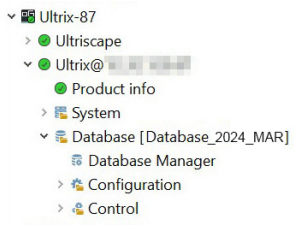
- Restore a Database — Enables you to quickly restore the active database to an earlier version. Refer to “**Restoring a Database**”.

Accessing the Database Manager

The Database Manager interface enables you to quickly define a database by auto-populating the applicable fields in the other database interfaces. Use the Database Builder tab to further define the database parameters. Refer to “**Using the Database Builder**” for details.

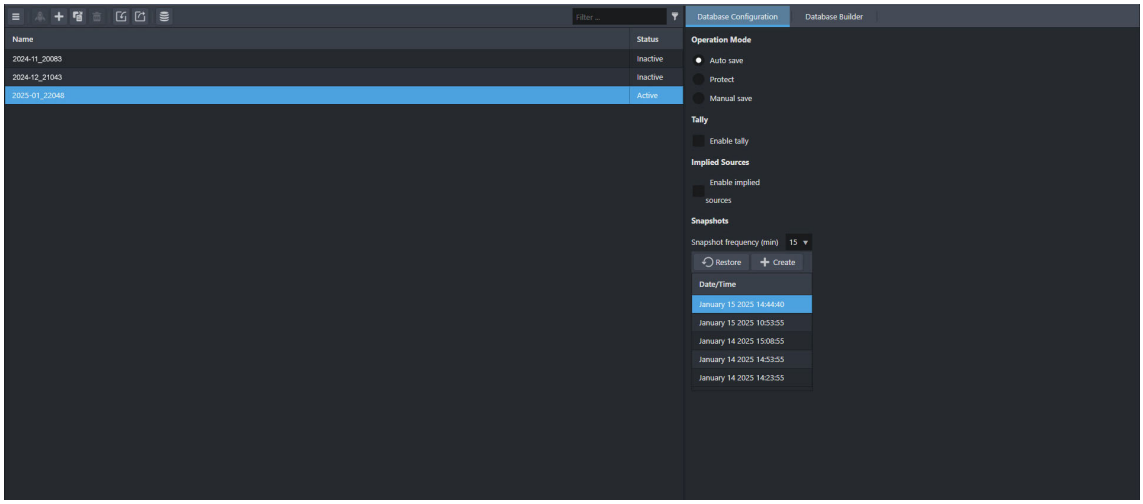
To access the Database Manager

1. Display the Databases nodes as outlined in “**To access the Database interfaces**”.



2. Double-click the **Database Manager** sub-node.

   The **Database Manager** interface opens.



Creating a New Database

This section outlines how to create a new (blank or empty) database for a routing system. The steps for creating a new database is the same whether it is for a router or controller.

✶ When using an ULTRIX-FR12, new databases must be created using the Ultricore BCS that is controlling the router.

✶ When setting up a redundancy system with two Ultricore BCS, the active database on the units must match.

To create a new database

1. From the Database Manager interface, click **Add**.

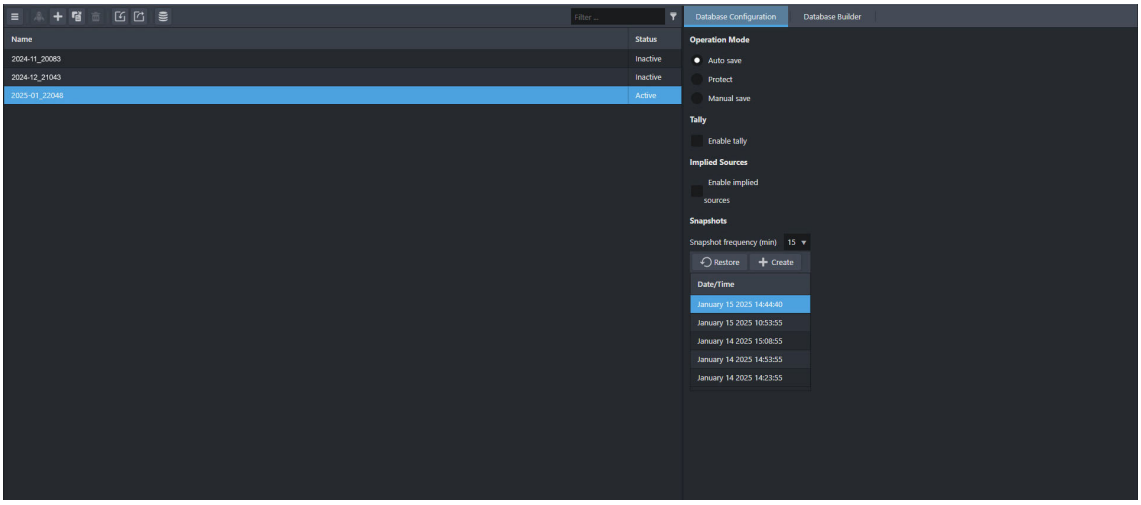
   The Add dialog opens.

2. Use the **Name** field to type a unique identifier for the database.

3. Click **Add database**.

   The Add dialog closes and a new row displays in the Database Manager table with the name entered in step 2. Note that the status of the new database is `Inactive`.

4. Select the **Database Configuration** tab.



5. Use the **Operation Mode** options to determine if the database is editable and how changes are applied. Choose from the following:

   - Auto save — Changes made to any database interface are automatically saved and applied. This is the default setting when a database is toggled to Active.
   - Protect — All fields, except Aliases and labels, of the database are read-only and cannot be edited. A blue border displays around each interface. A blue Protected icon displays in the bottom left corner of every interface to remind the user that the database settings are now read-only.
   - Manual save — The database is editable. An orange border displays around each interface. The Cancel and Save buttons display in the bottom right corner of each interface. After editing any interface, the user must then click Save to apply any changes. Clicking Save on one interface applies changes made to any interface in the database. This mode is recommended if you are editing numerous database settings and want to ensure the changes are applied after each edit.

✶ Note that setting the Operation Mode from Manual save to Auto save will automatically apply any unsaved changes.

6. Select the **Enable tally** box to enable tally ID configuration in the database when it is active.

   The Source and Destinations interfaces will display the required Tally columns.

✶ Refer to "**Tallies**" for details on defining the Status Level for tally operation.

7. Use the **Snapshots** options to specify how often the database is auto saved or to create a snapshot version immediately (by selecting the Create option). The default is 15 minutes.

Using the Database Builder

The Database Manager provides the option of using the Database Builder feature to easily define a working database. The Database Builder is organized into a series of questions and menus that you select from. Once you define the basic parameters of the new database using the settings in the Database Builder interface, you can then define the levels, destinations, and sources for the new database. This makes it very easy to build basic configurations as well as get a system up and running quickly.

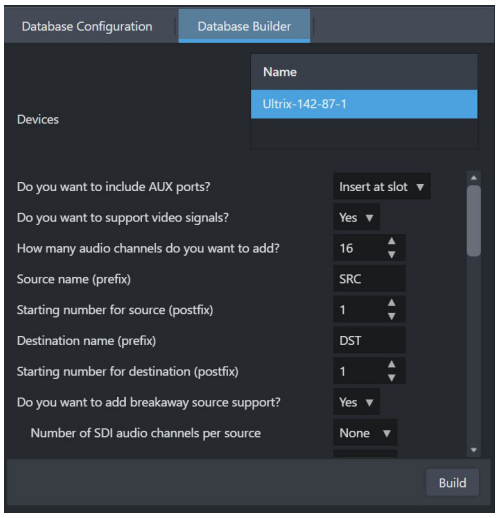
✶ Before proceeding, ensure that the required license keys are installed for your router(s). Refer to the user guide for your router for a list of available licenses and how to enable them.

✶ You can still create and edit layouts in a database with settings that differ from those set in the Database Builder interface.

To define a database using the Database Builder

1. From the Database Manager table, select the row for the database you wish to define.
2. Ensure the selected database is active. Refer to "**Activating a Database**".
3. From the right pane of the Database Manager window, select the **Database Builder** tab.

   The **Database Builder** interface opens in the DashBoard window.



4. Select a device to configure from the **Devices** menu.

   This menu is located in the top right corner of the interface and auto-populates with a list of routers included in the selected database.

✶ If you wish to configure only a selection of settings, leave the remaining settings at their default values and click **Build**.

5. Use the vertical scrollbar to display more of the options in the Database Builder interface.
6. If any AUX Ports are populated with SFP modules, use the **Include AUX ports** menu to specify how to label the I/O in the database.

✶ The default is Insert at slot, which labels the I/O in each slot starting with 1 up to a maximum of 18 with the AUX Ports as 17 and 18.

7. Use the **Support Video Signal** and **Number of Audio Channels** menus to define the Levels in the database.
8. Use the **Breakaway Source Support** menus to implement audio shuffling. The options for SDI and MADI channels are as follows:
   - None — no audio-only breakaway sources are created.
   - Mono — sources are created to enable individual mono audio channel routing.
   - Stereo — sources are created for stereo pair audio routing (1-2, 3-4, 5-6 etc.).
   - Quad — sources are created for four channel groups or quad-audio routing (1-4, 5-8, 9-12 etc.).
   - Oct — sources are created for eight group audio routing (1-8, 9-16, 17-24 etc.).

✶ You must have SFP modules installed that support MADI to implement the MADI routing with breakaway support.

9. Use the **Disconnect Source** menu to create a disconnect source that enables the routing silence to audio channels (muting).
10. Use the **Passthrough Source** menu to create a pass-through source definition. This enables setting an audio source to follow video bypassing the audio processing and other routing.
11. If you have an UltriScape license installed, use the menus to define the heads, including the number of Picture in Picture (PIPs) that new layouts can include.
12. Use the remaining menus to configure the destinations and sources for the database.
13. Click **Build**.

    The settings are updated and applied to the database.

Activating a Database

Each active database includes a unique setup. You must activate a database before you can configure the matrices, resources, and soft panels. This also enables you to quickly apply a different setup just by activating a different database.

✶ When one database is active, all other databases are automatically set to inactive.

To activate a database

1. From the Database Manager table, select the row for the database you wish to activate.
2. Click **Activate** from the top toolbar.

✶ The Operation Mode is set to Auto save when a database is activated.

3. Verify the following to ensure the database was activated:
   - The **Status** field for the selected database reports `active`.
   - The **Status** fields for all other databases report `inactive`.
   - The **Database** node in the Tree View reports the active Database name.
4. If required, use the **Operation Mode** options to determine if the database is editable and how changes are applied. Choose from the following:
   - Auto save — Changes made to any database interface are automatically saved and applied. This is the default setting when a database is toggled to Active.
   - Protect — All fields, except Aliases and labels, of the database are read-only and cannot be edited. A blue border displays around each interface. A blue Protected icon displays in the bottom left corner of every interface to remind the user that the database settings are now read-only.
   - Manual save — The database is editable. An orange border displays around each interface. The Cancel and Save buttons display in the bottom right corner of each interface. After editing any interface, the user must then click Save to apply any changes. Clicking Save on one interface applies changes made to any interface in the database. This mode is recommended if you are editing numerous database settings and want to ensure the changes are applied after each edit.

✶ Setting the Operation Mode from Manual save to Auto save will automatically apply any unsaved changes.

Managing the Databases

A database can be archived by saving it as an *.udb file to the Download folder on your computer. This enables you to import and export an archived database which is useful for:

- creating a safe, off-frame copy of a default database configuration
- importing a copy of a reference database that can be tailored to a specific application
- restoring a known backup copy of a database to your routing system

✶ A legacy database (created prior to v6.1) is saved as an *.uda file. You must import these databases as outlined in "**Importing a Legacy Database**".

Overview

The following information is captured when you archive a database:

- Definitions of levels, destinations, and sources
- Salvos
- Category assignments
- Soft panels
- Alias sets
- Current crosspoint status

✶ The following information is not captured: hardware specifics, and license settings.

Copying a Database

Use the Duplicate feature to quickly create a copy of a selected database to use as a template for new databases.

To create a database template

1. From the Database Manager table, select the row for the database you wish to copy.
2. Click **Duplicate** from the top toolbar.

   The Duplicate dialog opens.
3. Use the **Name** field to assign a unique identifier to the template.
4. Click **Duplicate database**.
5. Click **Close**.

   The Duplicate dialog closes. The Database Manager table displays a new row for the template.

✶ The database is not automatically activated. You must follow the procedure "**To activate a database**" to activate the new database before editing it.

Exporting a Database

You create an archive of a database (as a *.udb file) using the Export option in the **Database Manager**. This enables you to create a duplicate or template of a database and edit it settings without impacting the original file.

✶ The database does not need to be active.

To export a database to the archive

1. From the Database Manager table, select the row for the database you wish to export.
2. Click **Export** from the top toolbar.

The Export dialog opens.

3. Use the **Save as** field to specify the filename for the exported file.
4. Click **Export database** to specify the location to save the new *.udb file to.
5. Click **Close**.

   The Export dialog closes.

Importing a Database

Once a database is imported from the archive to your system, you can select it from the list of databases in the Database Manager.

✶ The database is not automatically activated. You must follow the procedure "**To activate a database**" to activate the imported database.

To import a database to the Database Manager

1. From the Database Manager toolbar, click **Import**.

   The Import dialog opens.
2. Click **Choose File**.
3. Select the *.udb file you wish to import as follows.
4. Click **Open**.

   The **Select file** field in the Import dialog reports the selected filename.
5. Use the **Database name** field to assign an identifier to the file. This name will display as a new row in the Database Manager.
6. Click **Import database**.
7. Click **Close**.

   The Import dialog closes.
8. Verify that the imported database displays in the Database Manager.

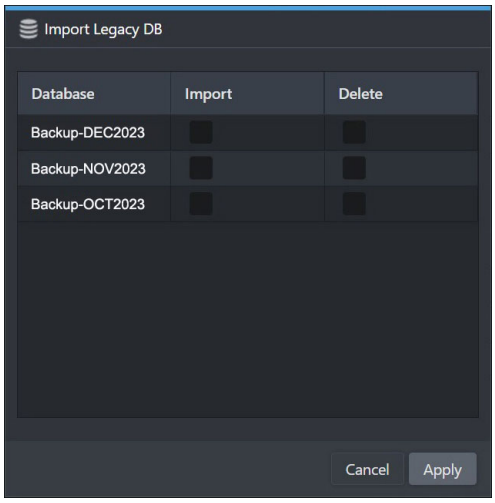
Importing a Legacy Database

Databases created prior to the v6.1 software can be still imported and used via the Legacy DB feature of the Database Manager. Once a legacy database file is imported, the Database Manager converts it to an *.udb file type and saves it to the Downloads folder of your DashBoard client PC.

To import a database to the Database Manager

1. From the Database Manager toolbar, click **Legacy DB**.

   The Import Legacy DB dialog opens and automatically lists each available legacy database file.



2. Select the **Import** box for each database you wish to import.
3. Click **Apply**.

   The Import Legacy DB dialog closes.
4. Verify that each imported database now displays in the Database Manager table.

Deleting a Database

✶ Ensure the database that you are about to delete is not currently active or is in use.

To delete a database

1. From the Database Manager table, select the row for the database you wish to delete.
2. Click **Delete** from the top toolbar.

   The Delete database dialog opens.
3. Click **Delete Database**.
4. Click **Close**.

   The Delete database dialog closes.

Adding Connection Points

This chapter summarizes how to establish a connection point from the primary device (an Ultricore BCS) to a client device in your routing system.

Overview

Once a new database is created on the Ultricore BCS, you add each client device (connection point) that will be included and controlled by the new database. This is required when using an Ultricore BCS as the primary device since it does not automatically detect the client devices in your routing system.

For More Information on...

- the supported third-party protocols, refer to "**Enabling a Service**".

Using an Ultricore BCS as the Primary Device

To enable an Ultricore BCS to function as the 'primary' of the routing system, you must establish communications with the 'client' devices it is connected to and define how they will communicate. Each client device in your routing system then will have a connection point to the primary that is defined in a database. Once this information is entered into a database, the primary device can communicate directly with each client device and manage its input and outputs (matrices).

The Ultricore BCS acts as the primary device for one or more Ultrix routers as well as legacy Ross NK series devices. A connection is made from the primary Ultricore to each client device. The primary device manages the full database configuration for the entire operation of the system.

All control devices, such as a remote control panel (RCP) or third-party controller, must be configured for and communicate with the primary device. Any router configured as a client will only accept control commands via the primary device (the Ultricore BCS).

✶ Any routers to be controlled by the Ultricore BCS must have the Remote Controller Mode enabled.

✶ Ultricore redundancy is only available when using multiple Ultricore BCS units.

Connecting to Client Devices

A database captures each connection point made from the Ultricore BCS to each client device.

✶ When configuring a database on an Ultrix router, the connection points are automatically established.

Connecting to client devices requires you to:

1. Set up any licensing requirements within each client device. Refer to the ***User Guide*** for your device.
2. Set up any Ultriscape requirements within each client router. Refer to the ***Ultriscape User Guide.***
3. Enable Remote Controller Mode on each client device. Refer to "**Enabling Remote Controller Mode on a Client Device**".
4. Create a database on the primary device to accommodate the inputs/outputs (matrices) provided by the client devices. Refer to "**Creating a New Database**".
5. Create a connection point from the primary device to any/all clients. Refer to "**Adding Connection Points**".

6. Edit the database to map logical source and destinations to client inputs/outputs, and any Ultriscape heads/PiPs. Refer to "**Defining an External Matrix**", "**Mapping the Destinations**", and "**Mapping the Sources**".

Enabling Remote Controller Mode on a Client Device

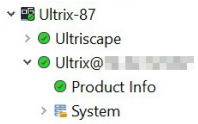
Before establishing a connection point between the primary device and a client Ultrix router, each client must have its Remote Controller Mode enabled. This allows the client to be controlled by the primary device in the routing system.

To enable the Remote Controller Mode on a client Ultrix device

1. In the Tree View of the *client* device, double-click the **Product Info** node.

   The **Product Info** interface displays in the DashBoard window.

2. Select the **Setup** tab.
3. Locate the **Dashboard Interface** area.
4. Select the **Remote Controller Mode** box.
5. Wait for the new setting to be applied.
6. Verify that the Tree View of the *client* device no longer displays the nodes for configuring a database.

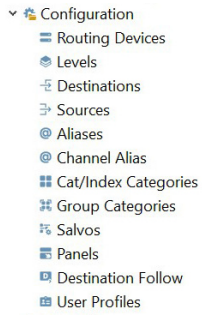


Accessing the Routing Devices Interface

The options in the Routing Devices interface enable you to specify the devices in your routing system, and create connection points from the primary device to each client device.

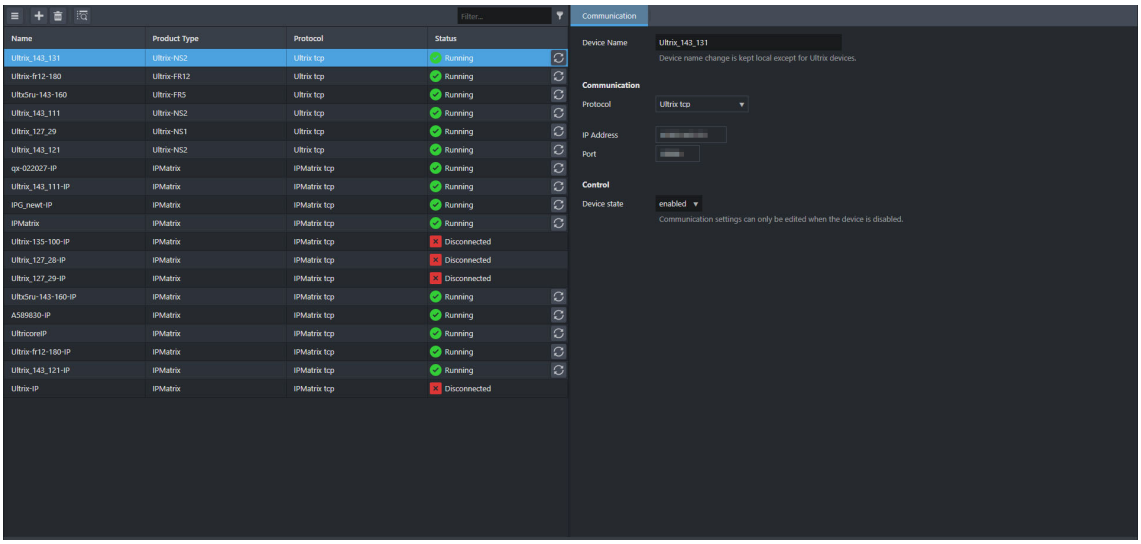
To access the Routing Devices interface on the primary device

1. Display the Configuration nodes for the *primary* device as outlined in "**To access the Database interfaces**".



2. Double-click the **Routing Devices** sub-node.

   The **Routing Devices** interface opens.



Adding Connection Points

A single primary device can communicate with multiple client devices such as Ultrix routers, remote control panels, Ross NK devices, and automation devices running third-party protocols. This section outlines how to add a new connection point based on the type of client device you want to connect to.

Before You Begin

Keep the following in mind when establishing a connection point from a primary device to clients:

- Assign a unique name to each client device. This allows identification of each device throughout the setup process.
- Client device configuration (licensing, port configuration, etc.) is achieved via the client's nodes within the DashBoard tree. Refer to the ***User Guide*** for your router or Ultricore BCS.
- Client Ultriscape Multiviewers are configured via the Ultriscape node within the DashBoard tree of the client that physically hosts that Multiviewer. Refer to the ***Ultriscape User Guide*** for details.
- Routing commands are issued to the primary device via remote control panels, external protocols or DashBoard soft panels.
  - › Only the soft panels defined within the database of the primary device may control the system.
  - › Any client device will ignore routing commands not originating from the primary while in this connected mode.
- Some communication protocols refer to source and destinations with a numerical index number. This number is listed in the ID column of the **Source** and **Destination** interfaces of the database.

Adding a Ross Device

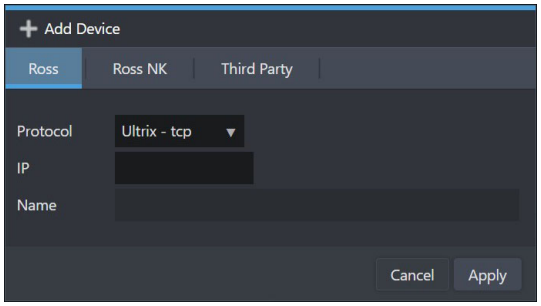
This section briefly summarizes the steps required to manually add a new client device to the Routing Devices interface. The specific steps required, based on the communication/protocol type used, are provided in the subsequent sections.

Once all the client devices are added to the Routing Devices interface, you will need to configure a connection point to each device. The steps required to define a connection point depend on the type of communication (ethernet or serial), and protocol (TCP, TSL, RossTalk, etc.) that the client device uses.

To add a client device

1. From the **Routing Devices** interface, click **Add**.

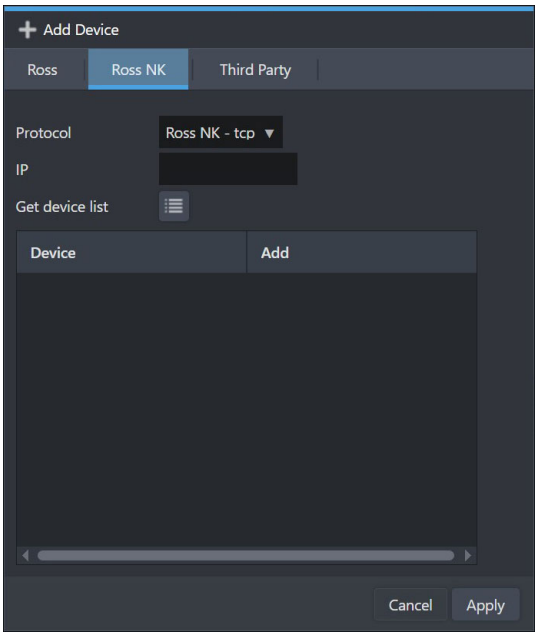
   The Add Device dialog opens with the Ross tab automatically selected.



2. If your device uses a Ross protocol:
   a. Use the **Protocol** menu to select the protocol the client device will use to communicate with your primary device.
   b. Use the **IP** field to specify the IP address assigned to the client device in your network.
   c. Use the **Name** field to type a unique identifier for the client device.
3. If your device is a Ross NK product:

✶ The Ross NK series devices must be connected to the Ethernet network by virtue of an Ross NK-IPS or NK-NET devices to enable the routing system to communicate with them.

   a. Select the **Ross NK** tab.



   b. Use the **Protocol** menu to specify the type of Ross NK protocol the device requires.
   c. Use the **IP** field to specify the IP address assigned to the NK-IPS or NK-NET that is connected to the device you wish to add.
   d. Click **Get device list** to update the entries in the Add Devices dialog.
   e. Select the **Add** box for each NK device you wish to add.
4. If your device uses a third-party protocol, refer to "**Defining an External Matrix**".

5. Click **Apply**.

   The Add Device dialog closes.

   The Routing Devices table updates to include a new row for the client device.

Defining a Connection Point to a Client Device

Once a connection point is established between the primary device and its clients, the physical inputs and outputs the clients provide will display in the active database. These input and outputs ports are now ready for renaming (if required) and mapping to logical source and destinations in the database.

✶ A connection point is created using the *primary* device interface. Do not attempt to create a connection from a client to the primary device.

✶ Ultriscape PiP and head destination mapping is required in the primary device database for each Ultriscape Head in use. The procedure is the same as the Ultriscape configuration for a stand-alone Ultrix router.

To enable the connection point between the primary and a client device

1. In the **Routing Devices** interface of the primary device, select the row for the client device you wish to create a connection point to.

   The interface displays the Communication, Matrix, and Info tabs for the selected client device.
2. Select the **Communication** tab.
3. Set the **Device Status** field to **disabled**.
4. Use the **Device name** field to edit the identifier assigned to the device within the database.
5. Use the **IP Address** field to edit the IP address assigned to the client device.
6. Verify that the other fields are correct.
7. Set the **Device Status** field to **enabled**.

✶ The changes are automatically applied once the Device Status is set to enabled.

Defining a Connection Point to an IP Matrix

✶ Before proceeding, ensure the Ultricore BCS and any client devices are running version 6.5 or higher.

Defining a connection point to an IP device is much like creating a connection point to other device types. Each IP device is identified as a separate device in the Routing Devices interface. You can then create connection points to individual devices in your database to include the ports and streams as sources and destinations. The IP device is reported in the database using the nomenclature of `slot.port.ip-type.channel`. For example, `slot1.out[2].ip-video.ch1` is an Ultrix-IPX-IO blade in router slot 1 and a sender video stream via the second port on that blade.

Using an Ultricore BCS

When the Ultricore-IP licensed feature is enabled, the Ultricore BCS provides the following methods for defining a connection point to devices in your IP matrix:

- To display all NMOS devices discovered on the same subnet, select Product Info > Ultricore-IP > Main. Refer to the ***Ultricore BCS User Guide*** for details.
- To manually add an NMOS device using its IS-04 URL, select Product Info > Ultricore-IP > Advanced Options > Static NMOS Devices. Refer to the ***Ultricore BCS User Guide*** for details.

- Using the Database > Routing Devices > IP Discovery option. This method displays the IP Discovery dialog that lists each detected IP device on the same subnet as your Ultricore BCS. Select a device from the dialog to enable a connection point to it. This is useful if the IP matrix was recently updated with new devices detected via the RDS the Ultricore BCS can access.

To manually add an IP device connection point to the Ultricore BCS

1. Ensure each required IP device is reported on the Ultricore BCS > Product Info > Ultricore-IP > Main tab. Refer to the ***Ultricore BCS User Guide*** for details.
2. In the **Routing Devices** interface of the Ultricore BCS, click  .

   The **IP Discovery** dialog opens.
3. Select the box for each device you wish to create a connection point to.
4. Click **Apply**.

   The **IP Discovery** dialog closes and the **Routing Devices** interface updates to display a row for each added device.

Using an Ultrix Router

The Ultrix routers enable you to define a static RDS and IP devices using the options in the Frame Configuration > Ultrix-IP tab > NMOS sub-tab. This requires at least one ULTRIX-IPX-IO blade. Refer to the ***Ultrix User Guide*** for your router. Once you have defined the IP matrix on your router, you can add the IP matrix to the database.

To add an IP matrix to the database

1. Ensure the IP matrix is defined on your router. Refer to the ***Ultrix User Guide*** for your router.
2. In the **Routing Devices** interface, click  .

   The **Add Device** dialog opens with the **Ross** tab automatically selected.
3. Use the **Protocol** menu to select **IPMatrix - tcp**.

   The **IP** and **Name** fields are automatically filled in and read-only.
4. Click **Apply**.

   The **Add Device** dialog closes and the **Routing Devices** interface updates to display a row for the new IP matrix.

Defining a Connection Point for a Third-Party Protocol

Ultrix and Ultricore provide support for many industry standard protocols for interfacing to external devices such as control systems, external routing matrices, and tally systems.

✶ Before proceeding, ensure that your external device is installed and configure according to its documentation.

Connection to external devices may be categorized into two groups: controller and controllee.

- **Controllers** are devices that will connect via what may be termed an *incoming* connection.
- **Controllees** are devices to be controlled by the primary device and connect via what may be termed an *outgoing* connection.

For More Information on...

- the supported third-party protocol commands, refer to the user guide for your device.

Connection via Ethernet

Incoming ethernet connections are defined within the control system by default and need no further configuration. **Table 67** lists the available protocols and ports. The Ultrix or Ultricore can communicate with third-party external devices via a TCP connection. By default, Ultrix and Ultricore runs a server process for the following Ethernet protocols:

Table 67 Supported Protocols — Ethernet Connection

Protocol	Default Port
GVG Native Series 7000	TCP: 12345
Probel SW-P-08	TCP: 8910
RossTalk	TCP: 7788
TSL UMD v3.1	TCP: 5727 UPD: 4490
TSL UMD v4.0	TCP:5728 UDP: 4491
TSL UMD v5.0	TCP: 5729 UDP: 4492

The available Protocol Server options depends on the type of protocol. **Table 68** briefly summarizes the server configuration options for each protocol type.

Table 68 Protocol Server Options

Protocol Option	Notes
GVG Native Series 7000	
L4 Echo	• No — the Ethernet Layer 4 acknowledge is disabled. This is the default. • Yes — the Ethernet Layer 4 acknowledge is enabled.
Probel SW-P-08	
Protocol Variant	• Use Last Req — Ultrix or Ultricore will respond using protocol variant (extended/non-extended) as per the received request format. This is the default. • Non-Extended — Ultrix or Ultricore will always replay using non-extended formatting. • Extended — Ultrix or Ultricore will respond with extended formatting.
Matrix Mode	• No — Ultrix or Ultricore will use information from the LEVEL section of the protocol to control Ultrix levels. • Yes — Ultrix or Ultricore will use information from the MATRIX_ID section of the protocol to control Ultrix levels.
TSL UMD v5.0	
Wrapping	• No — the DLE/STX wrapping is not enabled. This is the default. • Yes — enables the DLE/STX wrapping for TCP/IP transport
PBC in Count	• No — Packet Byte Count is not included in total byte count. This is the default. • Yes — Packet Byte Count is included in total byte count.

To set up an outgoing ethernet connection to a client device

1. In the **Routing Devices** interface of the primary device, select the row for the client device you wish to create a connection point to.

   The interface displays the Communication, Matrix, and Info tabs for the selected client device.

2. Click **Add**.

   The **Add device** dialog opens.

3. Use the **Protocol** menu to select the third-party communication protocol the device uses.
4. In the **Name** field, type a unique identifier for the client device. This name is used to identify the specific device within the database.
5. Click **Apply**.

   The **Add device** dialog closes and a new row displays in the Routing Devices table.

6. In the Routing Devices table, select the row for the new device.
7. Select the **Communications** tab.
8. Use the **Port** field to specify the Port Number assigned to the client device that the primary device will try to connect to.
9. Set the **Device Status** field to **enabled**.

Defining a Serial Connection

This section provides information on how to set up a connection directly with third-party devices using a native serial protocol. Serial connections must be defined before either incoming or outgoing connection styles may be utilized by the routing system. Refer to **Table 69** for information on the supported protocols.

✶ A USB-to-Serial converter must be used to provide a serial communication port. Only USB-serial devices based on these chip-sets are supported: FTDI Chip, Belkin, Prolific PL 2303, and Silicon Labs CP210x.

Table 69 Supported Protocols — Serial Connections

Protocol	Settings				
	Type	Baud	Data Bits	Parity	Stop Bits
GVG Native Series 7000	RS232 or RS422	38400	8	None	1
Probel SW-P-08	RS232 or RS422	38400	8	None	1
TSL UMD v3.1	RS422 or RS485	38400	8	Even	1
TSL UMD v4.0	RS422 or RS485	38400	8	Even	1
TSL UMD v5.0	RS422 or RS485	38400	8	Even	1

A serial connection point must be implemented via the **Routing Devices** interface in the database before communications can start. The settings may be changed from the protocol defaults to suit your requirements.

To set up a serial connection between a primary device and a client device

1. Double-click the **Routing Devices** node located under the **Database** node.

   The **Routing Devices** interface opens.

2. Click **Add**.

The **Add Device** dialog opens.

3. Use the **Protocol** menu to select the protocol standard.
   a. Use the **Count** menu to specify the number of new connection entries to make in the **Servers** table.
   b. Click **Apply** to create the new device row(s) to Routing Devices table.
4. In the **Name** field, type a unique identifier for the external device. This name is used to identify the device within the database.
5. Click the **[...]** button in the new row to display the **Communication** dialog.
6. Use the **Port** field to specify the Port Number assigned to the external device that Ultrix and Ultricore will connect to.
7. From the **Type** menu, select **RS232** or **RS422**.

   The table in the **Communication** dialog updates to display the settings for serial communication.
8. Use the **Type** field to specify the serial transmission standard for the external device.
9. Use the **Baud Rate** field to specify the bit rate for the external device.
10. Use the **Parity** field to specify the parity.
11. Click **Apply** to save your settings and close the **Communication** dialog.
12. In the new row of the **Servers** table, select the **Enabled** box.

✶ The system does not poll or query the serial link to verify the validity of the setup.

Removing a Connection Point

If requirements change, a connection point from a primary device to a client device may be disabled or deleted from the database.

- **Disabling** a connection point retains the device information in your database but the connection is no longer active.
- **Deleting** a connection point removes the information from your database. The communication with the device stops.

✶ You will need to re-configure the primary and client devices as per the new requirements (e.g. if the deleted client device was an Ultrix router, you can disable its Remote Controller Mode).

To disable a connection point between the primary and a client device

1. Expand the **Database** node for the primary device.
2. Double-click the **Routing Devices** node located under the Database node.
3. Select the row for the connection point to be disabled.
4. Select the **Communications** tab.
5. Set the **Device Status** field to **disabled**.

To delete a connection point between the primary and a client device

1. Expand the **Database** node for the primary device.
2. Double-click the **Routing Devices** node located under the Database node.
3. Select the row for the connection point to be deleted.
4. Click **Delete**.

5. Click **Apply**.
6. Power cycle the client device to re-establish its internal database.
7. If the client device is an Ultrix router, disable the Remote Control mode on it as follows:
   a. In the Tree View of the *client* device, double-click the **Product Info** node.
      The **Product Info** interface displays in the DashBoard window.
   b. Select the **Setup** tab.
   c. Locate the **Dashboard Interface** area.
   d. Clear the **Remote Controller Mode** box.
   e. Verify that the full Tree View now displays in the DashBoard window for the client device.

Defining an External Matrix

The database system does not automatically know the details of any connected third-party matrix (e.g. number of inputs, outputs, levels, etc.). This means that you must manually define the size and operating level for each device within the active database. This chapter outlines how to add the details of the external matrix provided by your client device(s) to the database.

For More Information on...

- enabling SNMP support on your router, refer to its ***Ultrix User Guide***.
- communicating with a third-party control system via a media distribution protocol, refer to "**Enabling a Service**".

Third-Party Matrix Control with the Ultricore BCS

The Ultricore BCS control system is able to control client devices via supported third-party protocols. The following sub-sections outline each step required to configure third-party matrix control.

To configure third-party matrix control

1. Create an outgoing connection point from the Ultricore BCS to the client device.
2. Create a logical matrix for the client device.
3. Map the client device inputs and outputs.
4. Define the Ultricore BCS operating level.
5. Assign the matrix to the database source and destination levels.
6. *(optional)* Apply an alias set to update the database labels. Refer to "**To define the alias set for an external device matrix**".

Creating a Logical Matrix for a Client Device

Once you establish a valid connection point between the Ultricore BCS and the client device, you can create logical matrices in the active database using the device inputs and outputs. Creating a logical matrix from the client device enables the Ultricore BCS to include client inputs and outputs for selection in the database.

✶ The input/output range and level you specify in the database must match the settings within the client device matrix.

To create a logical matrix from a client device

1. Navigate to the **Routing Devices** node as outlined in "**Accessing the Routing Devices Interface**".
2. In the Routing Devices table, select the row for the client device you added.
3. Select the **Matrix** tab.
4. From the **Device ID** drop-down menu, select the client device you want to define the logical matrix for. This is the name given to the device when you established a connection point with it.

✶ The **Device ID** menu lists only the third-party devices that have a valid connection point with the primary device.

5. Define the matrix size as follows:
    a. Use the **First Output** and **Last Output** fields to define the range of destinations from the device within the active database.
    b. Use the **First Input** and **Last Input** fields to define the range of sources from the device within the active database.

✶ These created inputs and outputs will use the nomenclature `DeviceID.Slot.Port.Type.Channel` where `DeviceID` represents the Name assigned to the client device during setup.

6. Use the **Level** field to specify the number of levels for the device within the database.
7. Use the **Type** field to specify the signal type for the logical matrix.
8. In the **Communications** tab, set the **Device Status** to **enabled**.

Mapping the Matrix to Database Inputs and Outputs

Once the connection point and logical matrix are defined in the database, you can map the matrix inputs and outputs in the same manner as we do with Ross device matrices. However, you will instead select an external matrix output from the Outputs list (or an external matrix input from the Inputs list) in the database interfaces. The available inputs and outputs will display in the format of `DeviceID.slot#.in[x].Type.ch#` or `DeviceID.slot#.out[x].Type.ch#` where `DeviceID` represents the Name assigned to the client device on the Routing Devices interface.

✶ It may be necessary to create a new level in the database for the assignment of inputs and outputs to logical labels. Refer to "**Defining the Levels**" for details.

For More Information on...

- assigning destinations, refer to "**Mapping the Destinations**".
- assigning sources, refer to "**Mapping the Sources**".

Using Index Numbers

Some protocols refer to source and destinations with a numerical index number. This number is listed in the ID columns of the database interfaces (far left column in each interface).

Defining the Levels

A level is a term used to describe a section or layer of the routing system (e.g. video level, audio level). Ultrix and Ultricore use level definitions for easy identification and control of various routing matrices or parts of the system.

✶ Procedures in this chapter assume that DashBoard is launched, the primary device displayed in the Tree View, and the required database is activated with its Operating Mode set to Auto save.

Before You Begin

Determining the number of levels needed requires a little planning:

- Each router can operate with as little as one level to define control of the SDI switching matrix.
- Ultrix contains the UltriMix audio sub-system which allows independent routing of SDI embedded audio channels as well as MADI channels. Using a single level control, the router can limit the independent selection of embedded audio and/or MADI streams.
- Any Ross NK series routers or third-party devices connected to the routing system will require their own control levels.

✶ The quantity of levels determines how many independent IN/OUT ports (including embedded / MADI channels) may be grouped together as one source or destination selection.

Example 1

A single control level can be used when there is no requirement for independent embedded audio/MADI channel switching. For example:

ID	Name
1	SDI

✶ If AFV (audio-follow-video) is desired on a single level database, the Audio Bypass must be enabled for each IN and OUT port. Alternatively, the UltriMix audio routing sub-system may be disabled on a per slot basis. Refer to the user guide for your router.

Example 2

A single level setup with NK-A64 analog audio router attached would require the following levels:

ID	Name
1	SDI
2	AnAud L
3	An Aud R

Example 3

A setup using SDI with 4 embedded audio levels. This can allow independent switching of 4 of the embedded SDI channels and grouping of 4 MADI channels.The following levels would be required:

ID	Name
1	SDI
2	A1
3	A2
4	A3
5	A4

Defining a Level

The levels defined in the Levels interface have a direct relationship with the Level entries in other database configuration interfaces.

For More Information on...

- setting the tally level, refer to "**Defining the Status Level for Tally Operation**".

To define a level in the database

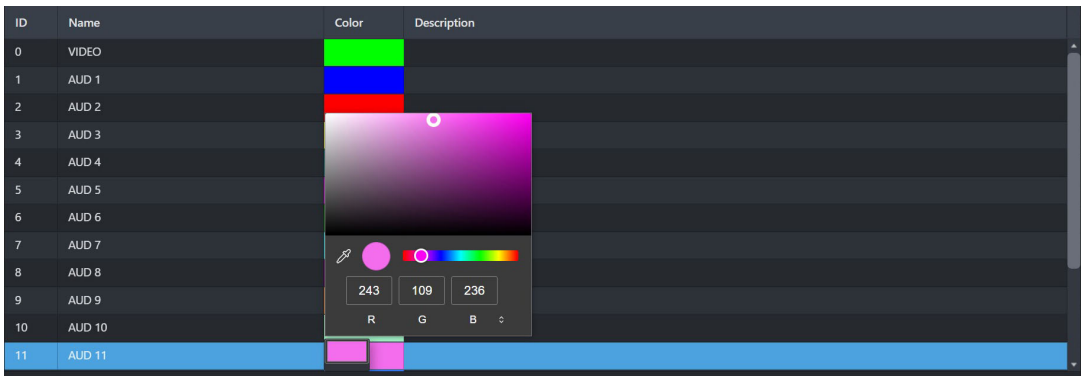
1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Levels** node located under the **Database** node.

   The **Levels** interface opens with the pre-defined levels specified using the Database Builder.

3. Verify the **ID** field to specify the priority of each level.

✶ The **ID** field is a row number automatically defined by the routing system. This ID value corresponds to level numbers when used in remote control panel (RCP) configurations and third-party communications.

4. To re-name a level:
   - In the **Name** column, type a unique identifier for the level.
   - It is recommended to use words that describe the level such as VIDEO, AUDIO, etc.
5. To select a unique color that will represent the level in the soft panels:
   a. In the **Color** column, double-click the cell for the level you want to configure.
   b. Select the hue from the provided vertical color grid in the **Color Select** dialog.



c. Confirm that the field beneath the color grid displays the correct color for the level.

d. Double-click the cell again to close the **Color Select** dialog.

6. Use the **Description** column to enter a brief summary of the level or provide additional information about the level use or purpose.

✶ The **Description** column is for identification purposes only and not required for operation.

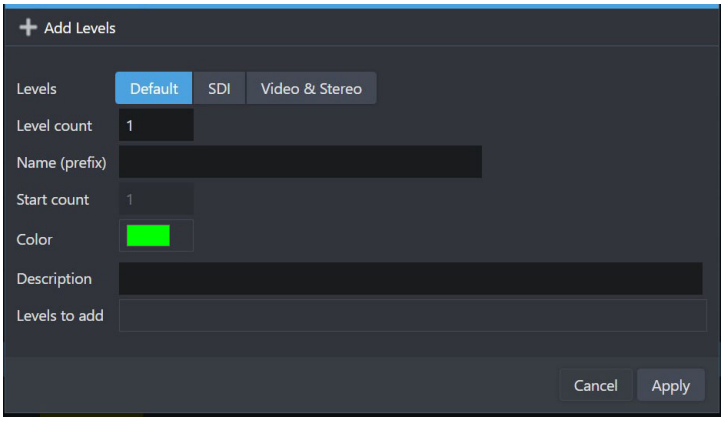
To create additional levels

1. Select a row in the **Levels** interface.

✶ It is recommended to insert below the last row in the table.

2. Click **Add**.

   The **Add Levels** dialog opens.



3. Use the **Levels** options to specify the type of level to add.
4. Use the **Level count** to specify the number of new levels to add.
5. In the **Name (prefix)** field, type the label for the level(s).

   For example, type `AUDIO` into this field to create levels named `AUDIO 1`, `AUDIO 2`, etc.
6. In the **Start count** field, type the first number to be used in the series.
7. Use the **Color** option to assign a specific display color for the levels.
8. If required, use the **Description** field to enter text that helps to identify the levels.
9. Verify the **Levels to add** field reports the correct number of levels you wish to add.
10. Click **Apply**.

    The **Add Levels** dialog closes.

    The Levels table updates to display the new levels.

To delete an entry from the Levels table

1. Select the row for each level to delete.
2. Click **Delete**.

To reassign the IDs of the Levels table

- Click **Reset IDs**.

  The ID assigned to all the Levels are updated where the first row (Level) is assigned ID 0, with consecutive rows assigned 1, 2, 3, etc.

Mapping the Destinations

This chapter outlines how to map the destinations in your database. Procedures in this chapter assume that you have DashBoard launched and the required database is active.

Before You Begin

Table 70 outlines the available outputs for mapping to the destinations in your database.

Table 70 Mapping Outputs to Database Destinations

Default Slot Label	Physical or Virtual Port?	Description
Slot**x**.out[**y**].sdi.ch1	P	Digital video output slot **x** port **y**
flex.out[**y**].sdi.ch1	P	Digital video output Flex slot port **y** of an ULTRIX-FR5
Slot**x**.MODX-out[**y**].sdi.ch1	P	Digital video output slot **x** port **y** of an Ultrix-MODX-IO blade
Slot**x**.out[**y**].audio.ch**n**	P	Digital audio channel **n** of output slot **x** port **y**
flex.out[**y**].audio.ch**n**	P	Digital audio channel **n** of Ultrix-MODX-IO slot **x** output port **y**
Slot**x**.MODX-out[**y**].audio.ch**n**	P	Digital audio channel **n** of Ultrix-MODX-IO slot **x** output port **y**
Slot**x**.head[**y**].sdi.ch1	V	Ultriscape video output slot **x** head **y**
Slot**x**.head**y**-pip[**z**].sdi.ch1	V	Video destination for PiP **z** of slot **x** Ultriscape Head **y**
Slot**x**.head**y**-pip[**z**].meter.ch**n**	V	Audio destination for meter **n** PiP **z** of slot **x** Ultriscape Head **y**
Slot0.mixer-in[**y**].audio.ch1	V	Audio destination mixer input port **y**
Slot0.virt-out[**y**].sdi.ch1	V	Acuity AUX BUS output port **y**

For More Information on…

- defining a database, refer to "**Creating a New Database**".
- the ULTRIX-MODX-IO blade and its modules, refer to the ***ULTRIX-MODX-IO User Guide***.

Adding Destinations to the Database

Using the Database Builder feature enables you to quickly define the destinations for a database. But you can still add destinations to an active database using the Add function in the Database > Destinations interface.

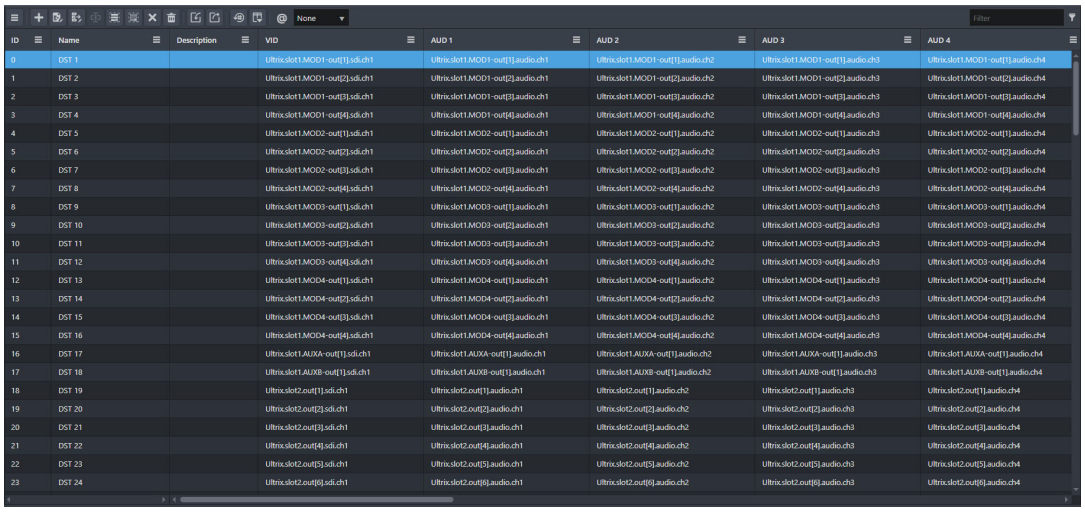
The Destinations interface is organized into a table with each row representing a Destination and each column representing a Level. The table cells are the output ports assigned to the Destination for that level. Initially, the destination label "`Dest #`" is assigned to the physical output sockets. The labels can be edited as described in "**Updating the Destination Labels**".

✶ A database supports a maximum of 4096 destinations.

To add new destinations to the active database

1. Double-click the **Destinations** node located under the **Database** node.

   The **Destinations** interface opens with the table auto-populated as defined by the Database Builder settings.



ID	Name	Description	VID	AUD 1	AUD 2	AUD 3	AUD 4
0	DST 1		Ultrix.slot1.MOD1-out[1].sdi.ch1	Ultrix.slot1.MOD1-out[1].audio.ch1	Ultrix.slot1.MOD1-out[1].audio.ch2	Ultrix.slot1.MOD1-out[1].audio.ch3	Ultrix.slot1.MOD1-out[1].audio.ch4
1	DST 2		Ultrix.slot1.MOD1-out[2].sdi.ch1	Ultrix.slot1.MOD1-out[2].audio.ch1	Ultrix.slot1.MOD1-out[2].audio.ch2	Ultrix.slot1.MOD1-out[2].audio.ch3	Ultrix.slot1.MOD1-out[2].audio.ch4
2	DST 3		Ultrix.slot1.MOD1-out[3].sdi.ch1	Ultrix.slot1.MOD1-out[3].audio.ch1	Ultrix.slot1.MOD1-out[3].audio.ch2	Ultrix.slot1.MOD1-out[3].audio.ch3	Ultrix.slot1.MOD1-out[3].audio.ch4
3	DST 4		Ultrix.slot1.MOD1-out[4].sdi.ch1	Ultrix.slot1.MOD1-out[4].audio.ch1	Ultrix.slot1.MOD1-out[4].audio.ch2	Ultrix.slot1.MOD1-out[4].audio.ch3	Ultrix.slot1.MOD1-out[4].audio.ch4
4	DST 5		Ultrix.slot1.MOD2-out[1].sdi.ch1	Ultrix.slot1.MOD2-out[1].audio.ch1	Ultrix.slot1.MOD2-out[1].audio.ch2	Ultrix.slot1.MOD2-out[1].audio.ch3	Ultrix.slot1.MOD2-out[1].audio.ch4
5	DST 6		Ultrix.slot1.MOD2-out[2].sdi.ch1	Ultrix.slot1.MOD2-out[2].audio.ch1	Ultrix.slot1.MOD2-out[2].audio.ch2	Ultrix.slot1.MOD2-out[2].audio.ch3	Ultrix.slot1.MOD2-out[2].audio.ch4
6	DST 7		Ultrix.slot1.MOD2-out[3].sdi.ch1	Ultrix.slot1.MOD2-out[3].audio.ch1	Ultrix.slot1.MOD2-out[3].audio.ch2	Ultrix.slot1.MOD2-out[3].audio.ch3	Ultrix.slot1.MOD2-out[3].audio.ch4
7	DST 8		Ultrix.slot1.MOD2-out[4].sdi.ch1	Ultrix.slot1.MOD2-out[4].audio.ch1	Ultrix.slot1.MOD2-out[4].audio.ch2	Ultrix.slot1.MOD2-out[4].audio.ch3	Ultrix.slot1.MOD2-out[4].audio.ch4
8	DST 9		Ultrix.slot1.MOD3-out[1].sdi.ch1	Ultrix.slot1.MOD3-out[1].audio.ch1	Ultrix.slot1.MOD3-out[1].audio.ch2	Ultrix.slot1.MOD3-out[1].audio.ch3	Ultrix.slot1.MOD3-out[1].audio.ch4
9	DST 10		Ultrix.slot1.MOD3-out[2].sdi.ch1	Ultrix.slot1.MOD3-out[2].audio.ch1	Ultrix.slot1.MOD3-out[2].audio.ch2	Ultrix.slot1.MOD3-out[2].audio.ch3	Ultrix.slot1.MOD3-out[2].audio.ch4
10	DST 11		Ultrix.slot1.MOD3-out[3].sdi.ch1	Ultrix.slot1.MOD3-out[3].audio.ch1	Ultrix.slot1.MOD3-out[3].audio.ch2	Ultrix.slot1.MOD3-out[3].audio.ch3	Ultrix.slot1.MOD3-out[3].audio.ch4
11	DST 12		Ultrix.slot1.MOD3-out[4].sdi.ch1	Ultrix.slot1.MOD3-out[4].audio.ch1	Ultrix.slot1.MOD3-out[4].audio.ch2	Ultrix.slot1.MOD3-out[4].audio.ch3	Ultrix.slot1.MOD3-out[4].audio.ch4
12	DST 13		Ultrix.slot1.MOD4-out[1].sdi.ch1	Ultrix.slot1.MOD4-out[1].audio.ch1	Ultrix.slot1.MOD4-out[1].audio.ch2	Ultrix.slot1.MOD4-out[1].audio.ch3	Ultrix.slot1.MOD4-out[1].audio.ch4
13	DST 14		Ultrix.slot1.MOD4-out[2].sdi.ch1	Ultrix.slot1.MOD4-out[2].audio.ch1	Ultrix.slot1.MOD4-out[2].audio.ch2	Ultrix.slot1.MOD4-out[2].audio.ch3	Ultrix.slot1.MOD4-out[2].audio.ch4
14	DST 15		Ultrix.slot1.MOD4-out[3].sdi.ch1	Ultrix.slot1.MOD4-out[3].audio.ch1	Ultrix.slot1.MOD4-out[3].audio.ch2	Ultrix.slot1.MOD4-out[3].audio.ch3	Ultrix.slot1.MOD4-out[3].audio.ch4
15	DST 16		Ultrix.slot1.MOD4-out[4].sdi.ch1	Ultrix.slot1.MOD4-out[4].audio.ch1	Ultrix.slot1.MOD4-out[4].audio.ch2	Ultrix.slot1.MOD4-out[4].audio.ch3	Ultrix.slot1.MOD4-out[4].audio.ch4
16	DST 17		Ultrix.slot1.AUXA-out[1].sdi.ch1	Ultrix.slot1.AUXA-out[1].audio.ch1	Ultrix.slot1.AUXA-out[1].audio.ch2	Ultrix.slot1.AUXA-out[1].audio.ch3	Ultrix.slot1.AUXA-out[1].audio.ch4
17	DST 18		Ultrix.slot1.AUXB-out[1].sdi.ch1	Ultrix.slot1.AUXB-out[1].audio.ch1	Ultrix.slot1.AUXB-out[1].audio.ch2	Ultrix.slot1.AUXB-out[1].audio.ch3	Ultrix.slot1.AUXB-out[1].audio.ch4
18	DST 19		Ultrix.slot2.out[1].sdi.ch1	Ultrix.slot2.out[1].audio.ch1	Ultrix.slot2.out[1].audio.ch2	Ultrix.slot2.out[1].audio.ch3	Ultrix.slot2.out[1].audio.ch4
19	DST 20		Ultrix.slot2.out[2].sdi.ch1	Ultrix.slot2.out[2].audio.ch1	Ultrix.slot2.out[2].audio.ch2	Ultrix.slot2.out[2].audio.ch3	Ultrix.slot2.out[2].audio.ch4
20	DST 21		Ultrix.slot2.out[3].sdi.ch1	Ultrix.slot2.out[3].audio.ch1	Ultrix.slot2.out[3].audio.ch2	Ultrix.slot2.out[3].audio.ch3	Ultrix.slot2.out[3].audio.ch4
21	DST 22		Ultrix.slot2.out[4].sdi.ch1	Ultrix.slot2.out[4].audio.ch1	Ultrix.slot2.out[4].audio.ch2	Ultrix.slot2.out[4].audio.ch3	Ultrix.slot2.out[4].audio.ch4
22	DST 23		Ultrix.slot2.out[5].sdi.ch1	Ultrix.slot2.out[5].audio.ch1	Ultrix.slot2.out[5].audio.ch2	Ultrix.slot2.out[5].audio.ch3	Ultrix.slot2.out[5].audio.ch4
23	DST 24		Ultrix.slot2.out[6].sdi.ch1	Ultrix.slot2.out[6].audio.ch1	Ultrix.slot2.out[6].audio.ch2	Ultrix.slot2.out[6].audio.ch3	Ultrix.slot2.out[6].audio.ch4

2. Click **Add**.

   The Add Destinations dialog opens.

3. Use the **Name (prefix)** field to specify the label for the new destination entries.
4. Use the **Start count** field to specify the first destination in the new series.
5. Use the **Count** field to specify the last destination in the new series.
6. Verify the value reported in the **Destinations to add** field is correct.
7. Click **Apply**.

   The new destination(s) are automatically added as rows to the bottom of the Destinations table.

Mapping the Destinations

Once you have created new entries in the Destinations table, you can map each entry to an output for each level.

✶ If you are defining the destinations in a database for use with UltriScape, it is recommended to first define the destinations, then re-name the UltriScape Heads as required. Otherwise there may be duplicate channel assignments in the database.

For More Information on...

- assigning Tally IDs to destinations, refer to the ***Ultricore BCS User Guide***.
- using a template to map the destinations, refer to "**Using the Templates**".

To map a single destination

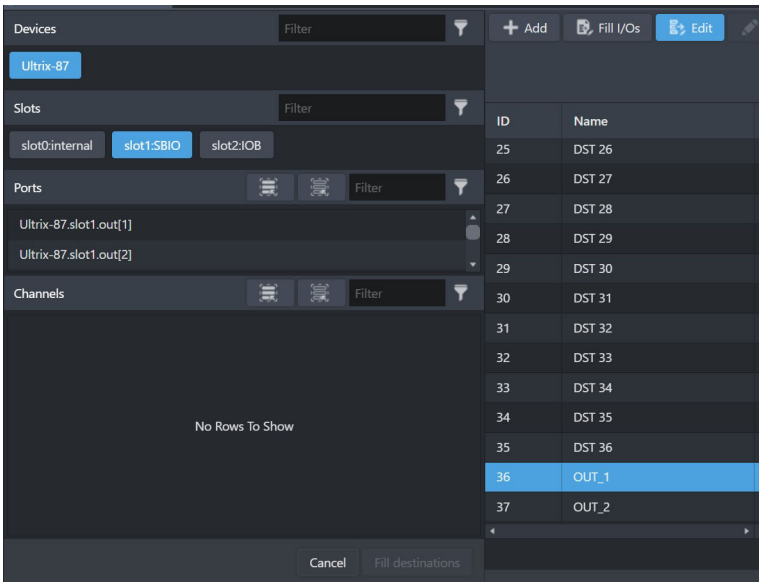
1. Locate the destination to map in the **Destinations** table.
2. If desired, type a new name for the destination in the **Name** cell as outlined in "**To edit a single destination label**".
3. Select the row for the destination to map.

✶ Use the auto-fill feature to quickly edit a destination, by locating the cell in the **Destinations** table, type the text and click the cell to display a pull-down menu of matching destinations to choose from.

4. Click **Edit**.

   The Edit dialog opens.

   The following example shows that the user is editing the destination labeled `OUT_1`.



5. From the **Slots** area, select the blade to map.

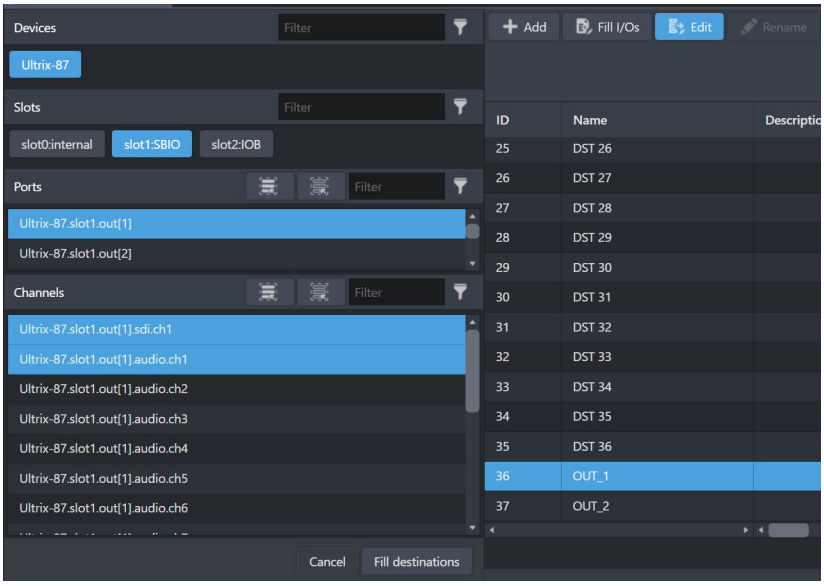
   The Ports area auto-populates with the outputs available in the active database.

6. From the **Ports** area, select the output to assign to the destination.

   The Channels area auto-populates with the video and audio channels available in the active database.

7. From the **Channels** area, select a row for each level to map.

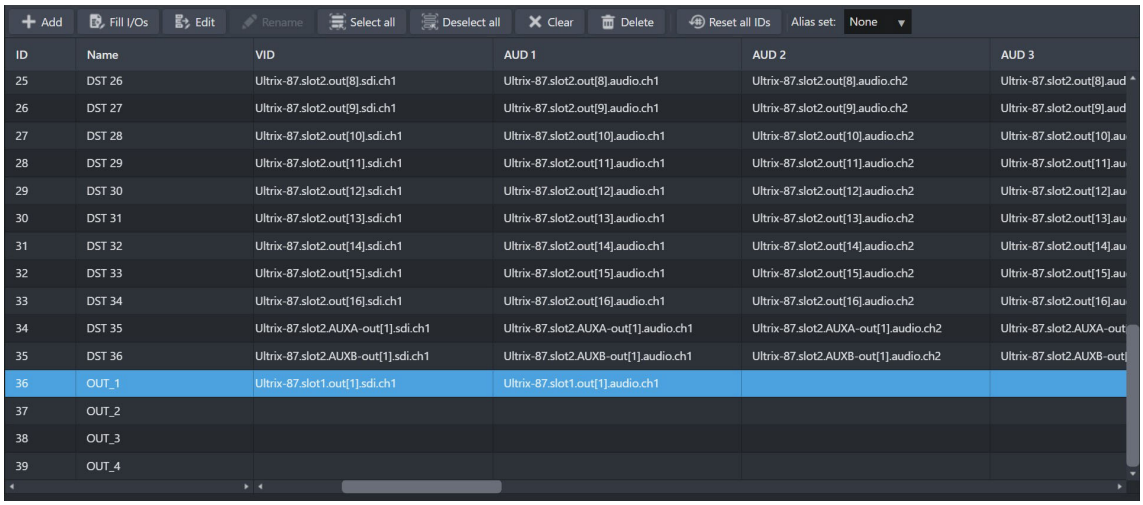
   In the following example, the user will map `sdi.ch1` and `audio.ch1` to `OUT_1`.



8. Click **Fill destinations**.

   The Destinations table updates with the selected destination mapped.

9. Click **Edit** to close the dialog.



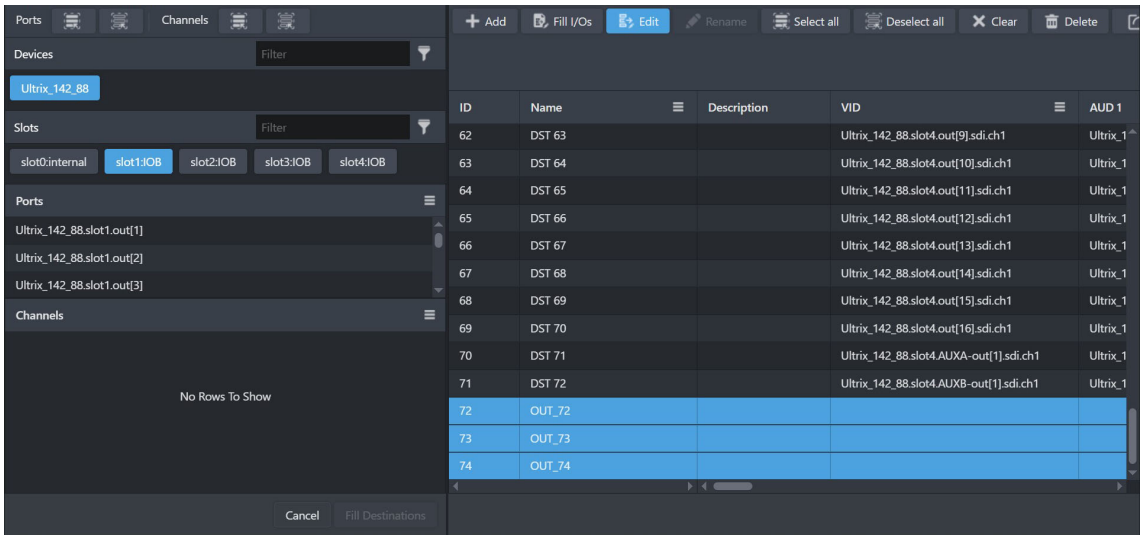
To map a selection of destinations

✶ Cell ranges may be horizontal as well as vertical. For example, a common operation would be to assign SDI embedded channels 1 to 16 to levels 2 to 17. The selected range would be horizontal across many levels but the selection would be vertical from the available outputs. The assignment operation will take the top-most of the available outputs selection and assign it to the left-most of the horizontal selection etc. through the range.

1. Select the first cell in the table column.
2. Press and hold **Shift**.
3. Select the last cell in the table column.
4. Click **Edit**.

   The Edit dialog opens.

   The following example shows that the user is mapping three destinations.



5. From the **Slots** area, select the blade to map.

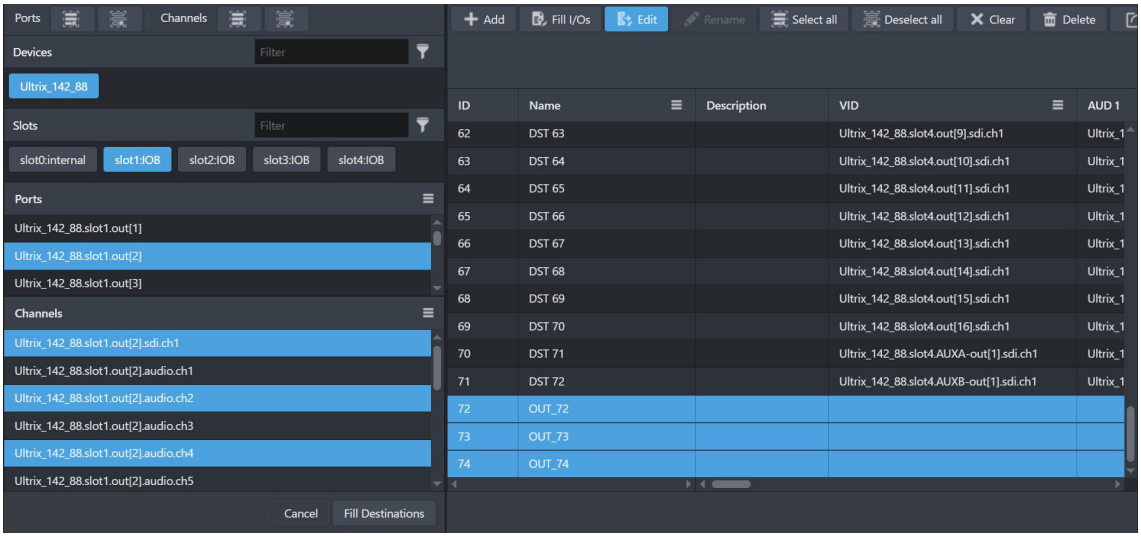
   The Ports area auto-populates with the outputs available in the active database.

6. From the **Ports** area, select the output to assign to the destinations.

   The Channels area auto-populates with the video and audio channels available in the active database.

7. From the **Channels** area, select the channel(s) to map to the selected destinations.

   In the example below, the user is mapping one video channel (`sd.ch1`), and two audio channels (`audio.ch2`, and `audio.ch4`) to each selected destination.



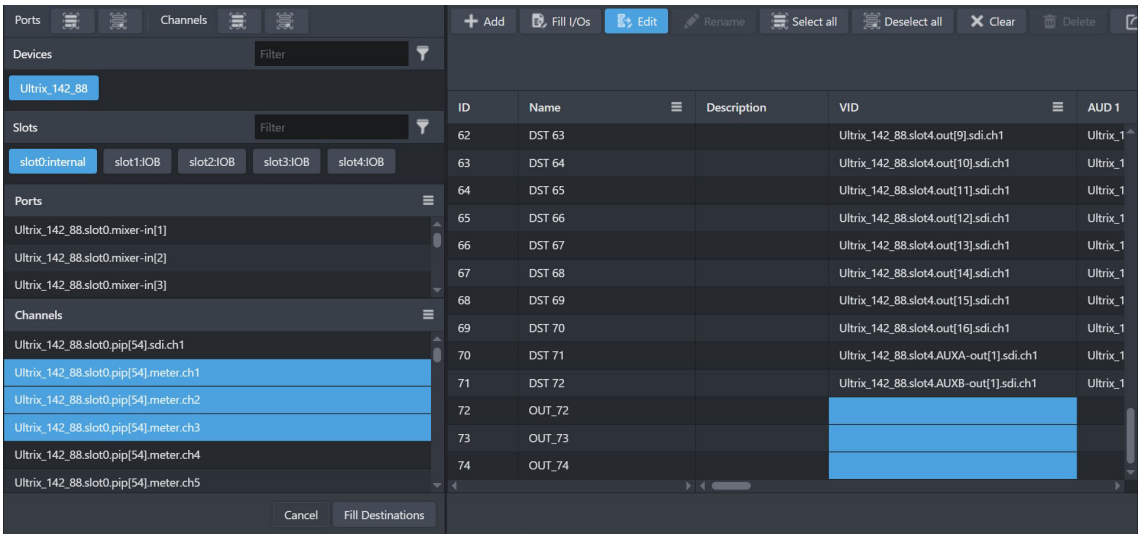
8. Click **Fill destinations**.

   The Destinations table updates with the selected destination mapped.

9. Click **Edit** to close the dialog.

To map a series of outputs to multiple destinations on the same level

1. In the table of the **Destinations** interface, select the first row in the series you want to define for the level.
2. Press and hold **Shift**.
3. Click the last row in the series to select a range of cells within a **Level** column.
4. Click **Edit**.
5. Repeat steps 5 to 8 in the above procedure.



6. Click **Edit** to close the dialog.

To delete a destination from the database

1. In the **Destinations** table, select the destination(s) to delete.
2. Click **Delete**.

✶ You can delete the mapping assignment(s) but keep the destination entry in the database by selecting the destination row and clicking **Clear**.

Using the Fill I/O Tool

The Fill I/O tool enables you to manage the mapping templates, and edit the port assignments for any number of destinations.

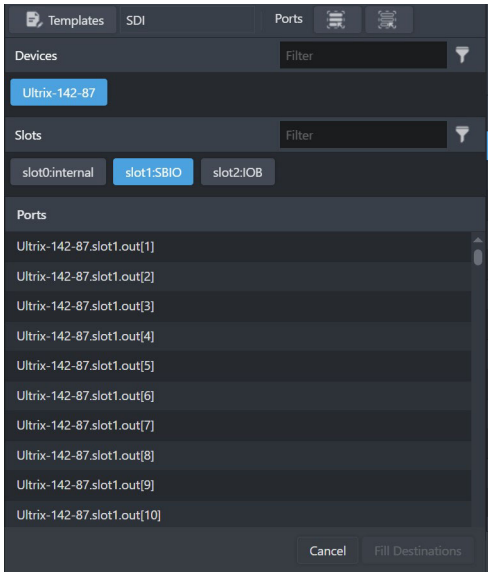
When the Fill I/O button is selected from the toolbar, the Fill I/O dialog opens in a drawer in the left pane of the Destinations interface. This enables you to access the Fill I/O options and still view the destinations available in the active database. Clicking the Fill I/O button again closes the dialog.

To map destinations using the Fill I/O tool

1. Click **Fill I/O**.

   The Fill I/O button is now lit blue and the Fill I/O dialog opens.
2. If the database includes more than one device, use the **Devices** options to select which device to edit the destination labels.
3. Use the **Slots** options to select the router slot that will provide the outputs.

✶ Virtual ports (refer to **Table 70**) are available via slot0.



4. Use the **Ports** options to select the output port(s).

✶ If required, use the **Filter** field to display only the entries that match the specified text. For example, enter `out[5` to display only the OUT 5 ports of the selected slot(s).

5. Click **Fill Destinations**.

   The Fill I/O dialog closes.

Using the Templates

Templates can be used to quickly map the destinations in the active database. Each template provides a unique configuration. Access the Template options by clicking Fill I/Os > Templates. (**Figure 30**) Selecting a template automatically maps the destinations in the active database.

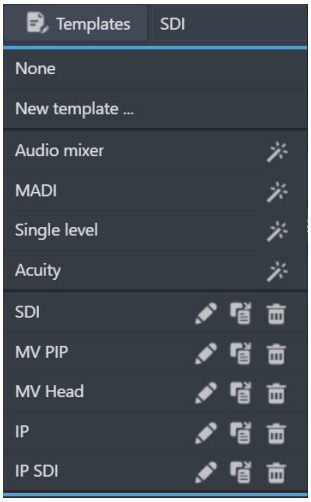


Figure 30 Example of the Destinations > Templates Dialog

A read-only field, located beside the Templates button at the top of the dialog, reports the template currently in use. For example, **Figure 30** shows that the SDI template is currently applied to the database.

Overview

There are two types of templates: system and user created.

System

There are three system templates that provide settings that are for a specific function (such as audio mapping) that display when you select the template. These templates are listed at the top of the Templates dialog and cannot be deleted or copied. The following system templates are provided:

- Audio mixer
- MADI
- Single level
- Acuity

There are also system templates that can be copied, edited, or deleted. These templates automatically map the levels and destinations in a specific pattern. These templates are listed at the bottom of the Templates dialog and provide options for editing, copying, and deleting. Copying a template enables you to duplicate the template as a new version that can be edited and saved as required. The following templates can be customized:

- SDI
- MV PIP
- MV Head
- IP
- IP SDI

User Created

Templates can also be created by the user by clicking **New template**, or by duplicating an existing template, or saving the current mapping as a new template. Copying an existing template enables you to edit the map without impacting the current configuration.

Applying a System Template

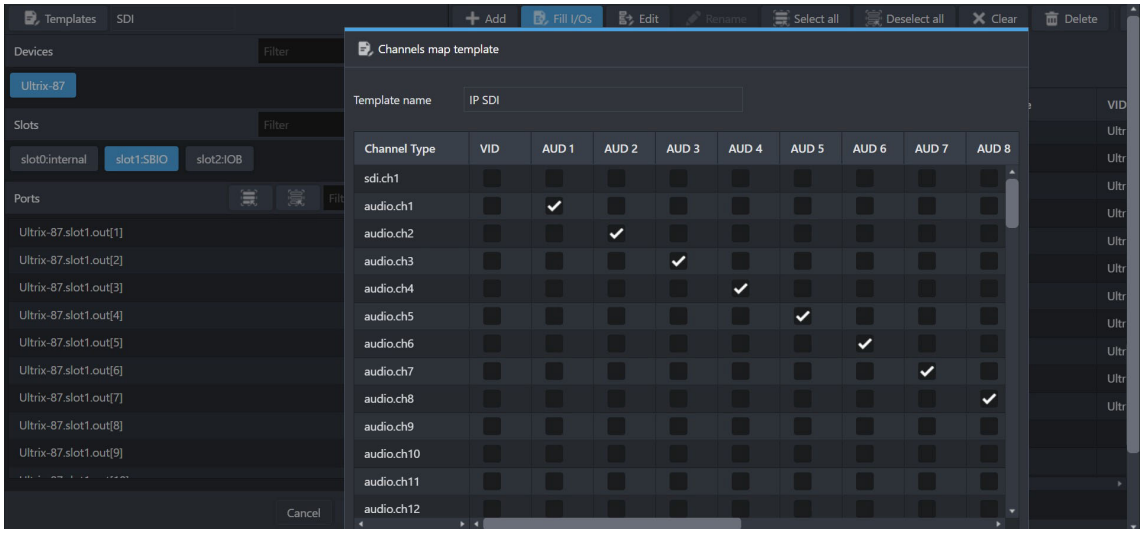
The SDI template is applied by default.

To apply a system template to map the destinations

1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens with a list of available templates.

2. To apply a template, select it from the list.



3. If you selected the **Single level** template:

   a. Use the Level menu to specify the specific database level to map.

   b. Use the Channel type menu to specify the signal or data type for the destinations in this level.

   c. Click Apply.

4. If you selected the **MADI** template:

   a. Use the Start at level menu to specify the first database level for the destination mapping.

   b. Use the Channels per destination menu to select the number of audio channels to map. If you selected Custom, enter the number of channels in the provided field.

   c. Click Apply.

5. If you selected the **Acuity** template:

   a. Use the Acuity number field to assign an ID number to this router to identify it to the downstream Acuity switcher. The default is 1.

   b. Click Apply.

6. Verify that the Templates read-only field now reports the name of the selected template.

Applying a Template

This procedure can be used to map your database destinations using any template.

To map the destinations using a template

1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens.

2. Select a template from the provided list.

Creating a New Template

You can choose to create a new blank template or copy an existing a template and saving it with a new name.

To create a new template to map the destinations

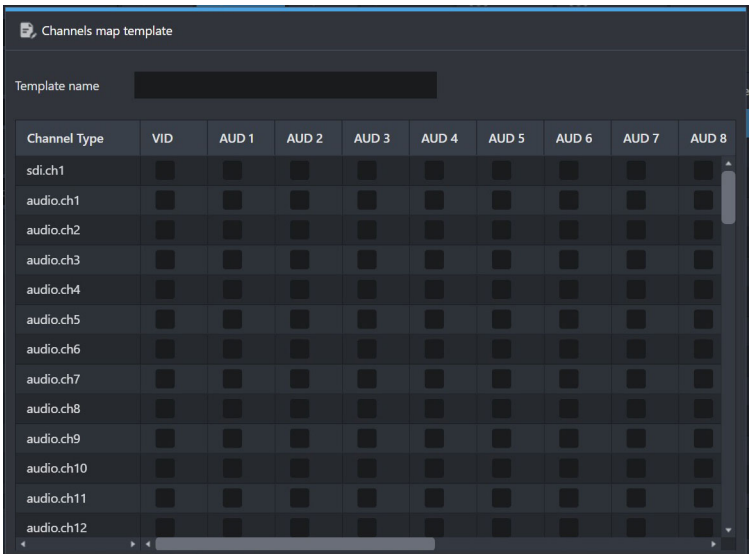
1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens.

2. Select **New template**.

   The Channels map template dialog opens.

   The dialog is organized into a table with the database levels for the columns and each row representing a specific destination.



3. Use the **Template name** field to assign a unique identifier for the template.
4. Select the box for each destination/level the template will map.
5. Click **Save**. This button is located in the bottom right corner of the Channel map template dialog.

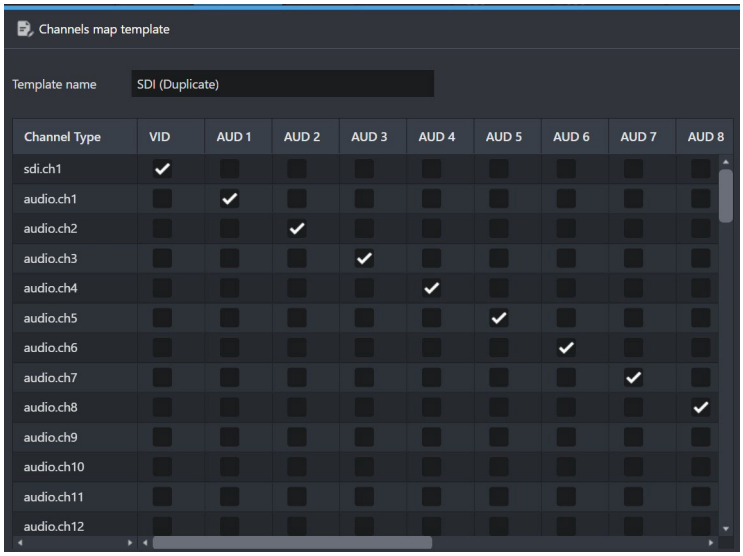
To copy an existing template

1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens.

2. Locate the template you wish to copy.
3. Select  beside the template name.

The Channel map template dialog opens. Notice that the Template name field reports the name of the selected template with `(Duplicate)` added.



4. Use the **Template name** field to assign a unique identifier for the template.
5. Select the box for each destination/level the template will map.
6. Click **Save**. This button is located in the bottom right corner of the Channel map template dialog.

Exporting and Importing the Destination Mapping

The Destinations interface provides the option to create a backup copy of the current destinations map (as an *.xlsx file), edit its contents if required, and then import the updated map into the database. Or, if you wish to change the destinations map to another desired scheme, import the required *.xlsx file to the active database.

This section outlines how to export and import spreadsheets that determine the destination mapping for the active database.

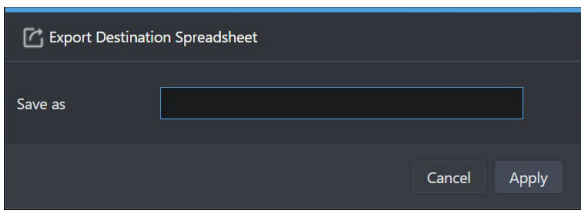
Exporting a Destination Map

The Destinations interface provides the option to export the current destination mapping as an *.xlsx file that is stored on your DashBoard client computer. This enables you to create a backup copy of the map, edit its contents if required, and then import the updated map into the database.

To export the current destination map to a spreadsheet

1. Display the Destinations interface.
2. Verify the current map is the one you wish to capture.
3. Click **Export**.

   The **Export Destination Spreadsheet** dialog opens.



4. Use the **Save as** field to assign a unique filename to the destination map.
5. Click **Apply**.

   The Downloads dialog opens in the DashBoard window and reports when the file is saved as an *.xlsx file in the Downloads folder of your DashBoard client computer.

Importing a Destination Map

A destination map can be defined in a spreadsheet (*.xlsx) that is organized like the table on the Destinations interface. You can create a new spreadsheet or edit a spreadsheet that captured an existing destination map. Much like the Destinations interface, each row in the spreadsheet represents a specific port in the routing system.

In **Figure 31**, the user created a spreadsheet for 19 destinations (DST 1-19), and three levels (VID, AUD 1, AUD 2).

	A	B	C	D	E	F	G	H
1	UIID	Name	Description	Tally	TallyMode	VID	AUD 1	AUD 2
2	0	DST 1			0	Ultrix_142_88.slot1.AUXA-out[1].sdi.ch1	Ultrix_142_88.slot1.AUXA-out[1].audio.ch1	Ultrix_142_88.slot1.AUXA-out[1].audio.ch2
3	1	DST 2			0	Ultrix_142_88.slot1.AUXB-out[1].sdi.ch1	Ultrix_142_88.slot1.AUXB-out[1].audio.ch1	Ultrix_142_88.slot1.AUXB-out[1].audio.ch2
4	2	DST 3			0	Ultrix_142_88.slot1.out[1].sdi.ch1	Ultrix_142_88.slot1.out[1].audio.ch1	Ultrix_142_88.slot1.out[1].audio.ch2
5	3	DST 4			0	Ultrix_142_88.slot1.out[2].sdi.ch1	Ultrix_142_88.slot1.out[2].audio.ch1	Ultrix_142_88.slot1.out[2].audio.ch2
6	4	DST 5			0	Ultrix_142_88.slot1.out[3].sdi.ch1	Ultrix_142_88.slot1.out[3].audio.ch1	Ultrix_142_88.slot1.out[3].audio.ch2
7	5	DST 6			0	Ultrix_142_88.slot1.out[4].sdi.ch1	Ultrix_142_88.slot1.out[4].audio.ch1	Ultrix_142_88.slot1.out[4].audio.ch2
8	6	DST 7			0	Ultrix_142_88.slot1.out[5].sdi.ch1	Ultrix_142_88.slot1.out[5].audio.ch1	Ultrix_142_88.slot1.out[5].audio.ch2
9	7	DST 8			0	Ultrix_142_88.slot1.out[6].sdi.ch1	Ultrix_142_88.slot1.out[6].audio.ch1	Ultrix_142_88.slot1.out[6].audio.ch2
10	8	DST 9			0	Ultrix_142_88.slot1.out[7].sdi.ch1	Ultrix_142_88.slot1.out[7].audio.ch1	Ultrix_142_88.slot1.out[7].audio.ch2
11	9	DST 10			0	Ultrix_142_88.slot1.out[8].sdi.ch1	Ultrix_142_88.slot1.out[8].audio.ch1	Ultrix_142_88.slot1.out[8].audio.ch2
12	10	DST 11			0	Ultrix_142_88.slot1.out[9].sdi.ch1	Ultrix_142_88.slot1.out[9].audio.ch1	Ultrix_142_88.slot1.out[9].audio.ch2
13	11	DST 12			0	Ultrix_142_88.slot1.out[10].sdi.ch1	Ultrix_142_88.slot1.out[10].audio.ch1	Ultrix_142_88.slot1.out[10].audio.ch2
14	12	DST 13			0	Ultrix_142_88.slot1.out[11].sdi.ch1	Ultrix_142_88.slot1.out[11].audio.ch1	Ultrix_142_88.slot1.out[11].audio.ch2
15	13	DST 14			0	Ultrix_142_88.slot1.out[12].sdi.ch1	Ultrix_142_88.slot1.out[12].audio.ch1	Ultrix_142_88.slot1.out[12].audio.ch2
16	14	DST 15			0	Ultrix_142_88.slot1.out[13].sdi.ch1	Ultrix_142_88.slot1.out[13].audio.ch1	Ultrix_142_88.slot1.out[13].audio.ch2
17	15	DST 16			0	Ultrix_142_88.slot1.out[14].sdi.ch1	Ultrix_142_88.slot1.out[14].audio.ch1	Ultrix_142_88.slot1.out[14].audio.ch2
18	16	DST 17			0	Ultrix_142_88.slot1.out[15].sdi.ch1	Ultrix_142_88.slot1.out[15].audio.ch1	Ultrix_142_88.slot1.out[15].audio.ch2
19	17	DST 18			0	Ultrix_142_88.slot1.out[16].sdi.ch1	Ultrix_142_88.slot1.out[16].audio.ch1	Ultrix_142_88.slot1.out[16].audio.ch2
20	18	DST 19			0	Ultrix_142_88.slot2.AUXA-out[1].sdi.ch1	Ultrix_142_88.slot2.AUXA-out[1].audio.ch1	Ultrix_142_88.slot2.AUXA-out[1].audio.ch2

Sheet1 destinations

Figure 31 Example of a Destinations Map Spreadsheet

✶ Unicode characters are not supported.

To define a new destination map using a spreadsheet

1. Create a new spreadsheet in Microsoft® Excel® or other application that supports *.xlsx files.
2. Label the sheet as **destinations**.
3. Label the first column as **UIID**.
4. Label the second column as **Name**.
5. Label the next column as **Description**.
6. If tallies are enabled for the database:
   a. Label a column **Tally**.
   b. Label the next column as **TallyMode**.
7. Label each subsequent column as a **Level** in your database.
8. In the UIID column, enter the ID number for the destination starting with zero (0).
9. In the Name column, enter the database label (text) for the destination.

   For example, enter `DST 1` for the first entry.
10. If tallies are enabled for the database:
    a. Use the **Tally** column to specify the Tally ID for the destination.
    b. Specify the **Tally Mode** by entering 0 (Normal), 1 (Redirect), or 2 (Routed).
11. In the Level column, enter the destination as: `Frame.slot.port.type.channel`.

12. Repeat steps 8 and 11 for each destination (row).

✶ Any blank cells in the spreadsheet will be mapped as blank entries in the Destinations interface.

13. Save the spreadsheet to the Downloads folder on your DashBoard client computer.

To import a destination map

✶ When you import a destination map, it is automatically applied to the database.

1. Display the Destinations interface.
2. Click **Import**.

   The **Import Destination Spreadsheet** opens.
3. Click **Choose File**.
4. Navigate to the file you wish to import.
5. Click **Apply**.

   The Import Destination Spreadsheet dialog closes and the Destinations interface updates to report the new mapping.

Updating the Destination Labels

The Destinations interface allows the definition of names (or labels) for your routing system outputs. When a database is initialized using the Database Builder, the default label of `Dest#` is automatically filled into the quantity specified by the database. These destination labels may be edited to suit your naming conventions.

✶ Take care to limit the amount of characters as these labels are also used on soft panels and Remote Control Panels (RCPs) which have a small display area.

For More Information on...

- assigning multiple destination labels, refer to "**To map destinations using the Fill I/O tool**".

To edit a single destination label

1. From the **Destinations** interface, select the row for the destination to update.
2. Click **Rename**.

   The Rename dialog opens.
3. Use the **Name (prefix)** field to specify the virtual label.

✶ Unicode characters are not supported.

4. Verify the text in the **New names preview** field.
5. Click **Rename destination(s)**.
6. Click **Close**.

   The Rename dialog closes.

Applying an Alias Set

An alias set enables you to customize virtual labels and apply to the sources and/or destinations if required. This re-naming is not necessary for router operation, but it may make your assignment of source and destination labels easier to identify when using your internal cable naming conventions. Refer to "**Using an Alias Set**" to learn more about creating virtual labels.

To apply an alias set to the destination labels

1. In the **Destinations** interface, locate the **@** menu.

   In the following example, the menu is set to None.

2. From the **@** menu, select the virtual labels to apply.

   The destinations are automatically updated to the new labels.

Configuring the Destination Follow Feature

The Destination Follow feature enables you to route a specific destination's source signal to another destination. For example, set `Dest1` to follow `Dest6` so when `Dest6` is switched to a different source, `Dest1` is also switched to that same source. You can set multiple destinations to follow another single destination, or each following their own unique destination.

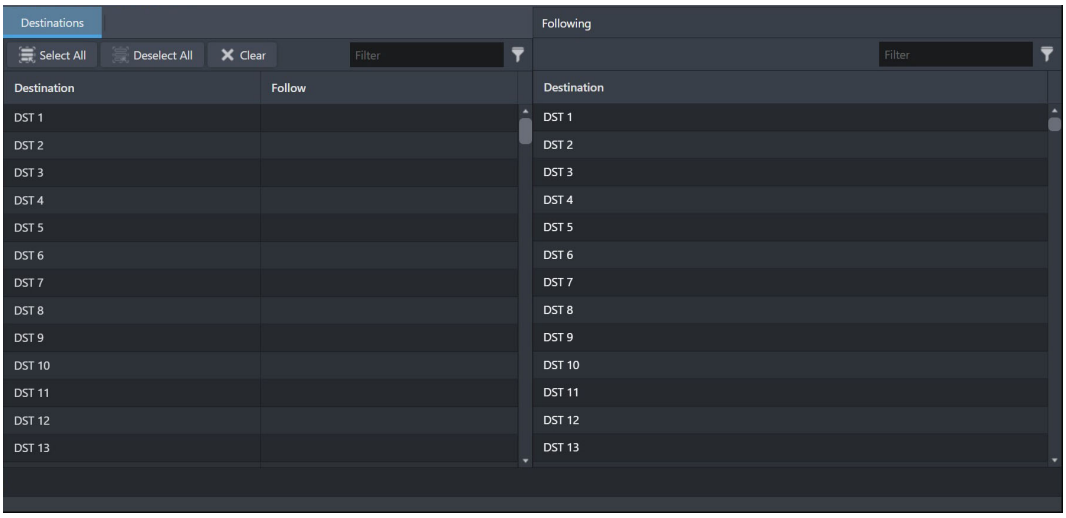
Controlling a destination that has a follow directly will overwrite the current status. Any subsequent changes to the followed destination will again update that destination. For example, if `Dest1` follows `Dest6` and a a controller requests a new source to `Dest1`, that source is routed to `Dest1`. If a controller then requests a new source to `Dest6`, `Dest1` will then also change status to the new source.

✶ Destinations defined as UltriScape Heads or PiPs are configured via the UltriScape interface. Refer to the ***UltriScape User Guide*** for details.

To configure the Destination Follow feature

1. Double-click the **Destination Follow** node located under the **Database** node.

   The **Destination Follow** interface opens.



2. In the **Destinations** table, locate the row for the destination to configure.
3. In the **Following** table to specify the output that the selected Destination will follow.

✶ To delete a DestFollow, use the **Following** menu to select the required DestFollow and click **Clear**.

Mapping the Sources

This chapter outlines how to use a database to assign inputs, as well as define levels and matrices. Procedures in this chapter assume that you have DashBoard launched and the primary Ultrix or Ultricore displays in the Tree View.

Before You Begin

Table 71 outlines the available inputs for mapping to the sources in your database.

Table 71 Mapping Inputs to Database Sources

Default Slot Label	Physical or Virtual Port?	Description
Slot**x**.in[**y**].sdi.ch1	P	Digital video input slot **x** port **y**
flex.in[**y**].sdi.ch1	P	Digital video input Flex slot port **y** in an ULTRIX-FR5
Slot**x**.MODX-in[**y**].sdi.ch1	P	Digital video input slot **x** port **y** of an Ultrix-MODX-IO blade
Slot**x**.in[**y**].audio.ch**n**	P	Digital audio channel **n** of input slot **x** port **y**
flex.in[**y**].audio.ch**n**	P	Digital audio channel **n** of Flex slot input port **y** in an ULTRIX-FR5
Slot**x**.MODX-in[**y**].audio.ch**n**	P	Digital audio channel **n** of Ultrix-MODX-IO slot **x** input port **y**
Slot0.disconnect[1].sdi.ch1	V	A 'no signal/disconnected' video source
Slot0.disconnect[1].audio.ch1	V	A 'no signal/disconnected' audio source
Slot0.passthrough[1].audio.ch1	V	Audio on this channel will follow video regardless of audio matrix
Slot0.layout:name[**n**].mv.ch1	V	Ultriscape Head layout file name id **n** – route a layout to a head to change Ultriscape layouts
Slot0.mixer-out[**y**].audio.ch1	V	Audio source for mixer output port **y**
Slot0.mixerd-out[**y**].audio.ch1	V	Audio source for mixer channel strip direct output port **y**
Slot0.virt-in[**y**].sdi.ch1	V	Acuity AUX BUS Input port **y**

For More Information on…

- defining a database, refer to "**Creating a New Database**".
- the ULTRIX-MODX-IO blade and its modules, refer to the ***ULTRIX-MODX-IO User Guide***.

Adding Sources to the Database

Using the Database Builder feature enables you to quickly define the sources for a database. But you can still add sources to an active database as required using the Add function in the Database > Sources interface.

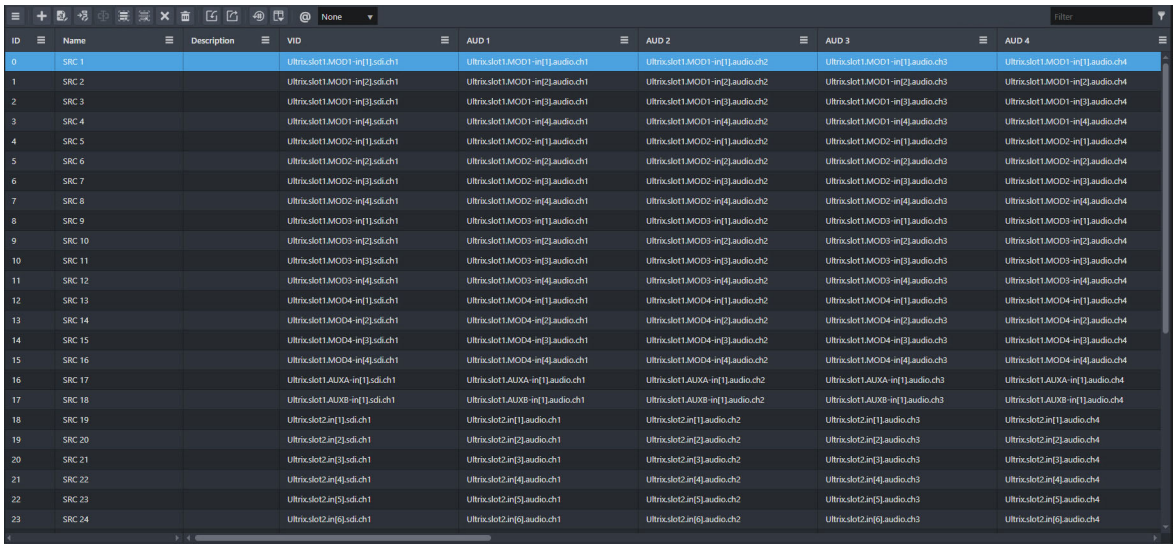
The Sources interface is organized into a table with each row representing a Source and each column representing a Level. The table cells are the output ports assigned to the Sources for that level. Initially, the source label "`Src #`" is assigned to the physical output sockets. The labels can be edited as described in "**Updating the Source Labels**".

✶ A database supports a maximum of 4096 sources.

To add sources to the active database

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** interface opens with the table auto-populated as defined by the active database.



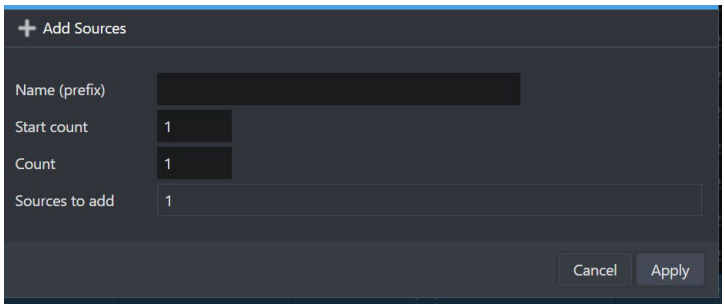
ID	Name	Description	VID	AUD 1	AUD 2	AUD 3	AUD 4
0	SRC 1		Ultrix.slot1.MOD1-in[1].sdi.ch1	Ultrix.slot1.MOD1-in[1].audio.ch1	Ultrix.slot1.MOD1-in[1].audio.ch2	Ultrix.slot1.MOD1-in[1].audio.ch3	Ultrix.slot1.MOD1-in[1].audio.ch4
1	SRC 2		Ultrix.slot1.MOD1-in[2].sdi.ch1	Ultrix.slot1.MOD1-in[2].audio.ch1	Ultrix.slot1.MOD1-in[2].audio.ch2	Ultrix.slot1.MOD1-in[2].audio.ch3	Ultrix.slot1.MOD1-in[2].audio.ch4
2	SRC 3		Ultrix.slot1.MOD1-in[3].sdi.ch1	Ultrix.slot1.MOD1-in[3].audio.ch1	Ultrix.slot1.MOD1-in[3].audio.ch2	Ultrix.slot1.MOD1-in[3].audio.ch3	Ultrix.slot1.MOD1-in[3].audio.ch4
3	SRC 4		Ultrix.slot1.MOD1-in[4].sdi.ch1	Ultrix.slot1.MOD1-in[4].audio.ch1	Ultrix.slot1.MOD1-in[4].audio.ch2	Ultrix.slot1.MOD1-in[4].audio.ch3	Ultrix.slot1.MOD1-in[4].audio.ch4
4	SRC 5		Ultrix.slot1.MOD2-in[1].sdi.ch1	Ultrix.slot1.MOD2-in[1].audio.ch1	Ultrix.slot1.MOD2-in[1].audio.ch2	Ultrix.slot1.MOD2-in[1].audio.ch3	Ultrix.slot1.MOD2-in[1].audio.ch4
5	SRC 6		Ultrix.slot1.MOD2-in[2].sdi.ch1	Ultrix.slot1.MOD2-in[2].audio.ch1	Ultrix.slot1.MOD2-in[2].audio.ch2	Ultrix.slot1.MOD2-in[2].audio.ch3	Ultrix.slot1.MOD2-in[2].audio.ch4
6	SRC 7		Ultrix.slot1.MOD2-in[3].sdi.ch1	Ultrix.slot1.MOD2-in[3].audio.ch1	Ultrix.slot1.MOD2-in[3].audio.ch2	Ultrix.slot1.MOD2-in[3].audio.ch3	Ultrix.slot1.MOD2-in[3].audio.ch4
7	SRC 8		Ultrix.slot1.MOD2-in[4].sdi.ch1	Ultrix.slot1.MOD2-in[4].audio.ch1	Ultrix.slot1.MOD2-in[4].audio.ch2	Ultrix.slot1.MOD2-in[4].audio.ch3	Ultrix.slot1.MOD2-in[4].audio.ch4
8	SRC 9		Ultrix.slot1.MOD3-in[1].sdi.ch1	Ultrix.slot1.MOD3-in[1].audio.ch1	Ultrix.slot1.MOD3-in[1].audio.ch2	Ultrix.slot1.MOD3-in[1].audio.ch3	Ultrix.slot1.MOD3-in[1].audio.ch4
9	SRC 10		Ultrix.slot1.MOD3-in[2].sdi.ch1	Ultrix.slot1.MOD3-in[2].audio.ch1	Ultrix.slot1.MOD3-in[2].audio.ch2	Ultrix.slot1.MOD3-in[2].audio.ch3	Ultrix.slot1.MOD3-in[2].audio.ch4
10	SRC 11		Ultrix.slot1.MOD3-in[3].sdi.ch1	Ultrix.slot1.MOD3-in[3].audio.ch1	Ultrix.slot1.MOD3-in[3].audio.ch2	Ultrix.slot1.MOD3-in[3].audio.ch3	Ultrix.slot1.MOD3-in[3].audio.ch4
11	SRC 12		Ultrix.slot1.MOD3-in[4].sdi.ch1	Ultrix.slot1.MOD3-in[4].audio.ch1	Ultrix.slot1.MOD3-in[4].audio.ch2	Ultrix.slot1.MOD3-in[4].audio.ch3	Ultrix.slot1.MOD3-in[4].audio.ch4
12	SRC 13		Ultrix.slot1.MOD4-in[1].sdi.ch1	Ultrix.slot1.MOD4-in[1].audio.ch1	Ultrix.slot1.MOD4-in[1].audio.ch2	Ultrix.slot1.MOD4-in[1].audio.ch3	Ultrix.slot1.MOD4-in[1].audio.ch4
13	SRC 14		Ultrix.slot1.MOD4-in[2].sdi.ch1	Ultrix.slot1.MOD4-in[2].audio.ch1	Ultrix.slot1.MOD4-in[2].audio.ch2	Ultrix.slot1.MOD4-in[2].audio.ch3	Ultrix.slot1.MOD4-in[2].audio.ch4
14	SRC 15		Ultrix.slot1.MOD4-in[3].sdi.ch1	Ultrix.slot1.MOD4-in[3].audio.ch1	Ultrix.slot1.MOD4-in[3].audio.ch2	Ultrix.slot1.MOD4-in[3].audio.ch3	Ultrix.slot1.MOD4-in[3].audio.ch4
15	SRC 16		Ultrix.slot1.MOD4-in[4].sdi.ch1	Ultrix.slot1.MOD4-in[4].audio.ch1	Ultrix.slot1.MOD4-in[4].audio.ch2	Ultrix.slot1.MOD4-in[4].audio.ch3	Ultrix.slot1.MOD4-in[4].audio.ch4
16	SRC 17		Ultrix.slot1.AUXA-in[1].sdi.ch1	Ultrix.slot1.AUXA-in[1].audio.ch1	Ultrix.slot1.AUXA-in[1].audio.ch2	Ultrix.slot1.AUXA-in[1].audio.ch3	Ultrix.slot1.AUXA-in[1].audio.ch4
17	SRC 18		Ultrix.slot1.AUXB-in[1].sdi.ch1	Ultrix.slot1.AUXB-in[1].audio.ch1	Ultrix.slot1.AUXB-in[1].audio.ch2	Ultrix.slot1.AUXB-in[1].audio.ch3	Ultrix.slot1.AUXB-in[1].audio.ch4
18	SRC 19		Ultrix.slot2.in[1].sdi.ch1	Ultrix.slot2.in[1].audio.ch1	Ultrix.slot2.in[1].audio.ch2	Ultrix.slot2.in[1].audio.ch3	Ultrix.slot2.in[1].audio.ch4
19	SRC 20		Ultrix.slot2.in[2].sdi.ch1	Ultrix.slot2.in[2].audio.ch1	Ultrix.slot2.in[2].audio.ch2	Ultrix.slot2.in[2].audio.ch3	Ultrix.slot2.in[2].audio.ch4
20	SRC 21		Ultrix.slot2.in[3].sdi.ch1	Ultrix.slot2.in[3].audio.ch1	Ultrix.slot2.in[3].audio.ch2	Ultrix.slot2.in[3].audio.ch3	Ultrix.slot2.in[3].audio.ch4
21	SRC 22		Ultrix.slot2.in[4].sdi.ch1	Ultrix.slot2.in[4].audio.ch1	Ultrix.slot2.in[4].audio.ch2	Ultrix.slot2.in[4].audio.ch3	Ultrix.slot2.in[4].audio.ch4
22	SRC 23		Ultrix.slot2.in[5].sdi.ch1	Ultrix.slot2.in[5].audio.ch1	Ultrix.slot2.in[5].audio.ch2	Ultrix.slot2.in[5].audio.ch3	Ultrix.slot2.in[5].audio.ch4
23	SRC 24		Ultrix.slot2.in[6].sdi.ch1	Ultrix.slot2.in[6].audio.ch1	Ultrix.slot2.in[6].audio.ch2	Ultrix.slot2.in[6].audio.ch3	Ultrix.slot2.in[6].audio.ch4

2. Select a row in the Sources table.

   This specifies where in the Sources hierarchy to add the new entries.

3. Click **Add**.

   The Add Sources dialog opens.



4. Use the **Name (prefix)** field to specify the label for the new source(s).
5. Use the **Start count** field to specify the first source in the new series.
6. Use the **Count** field to specify the last source in the new series.
7. Verify the value reported in the **Sources to add** field is correct.
8. Click **Apply**.

Mapping an Input to a Source

The Sources interface allows the mapping of physical and virtual input ports to your routing system inputs. This interface is organized into a table with each row representing a Source and each column representing a Level. At the top of the column is the name of the Level. The table cells are the input ports assigned to the source for that level.

To map an input to a source

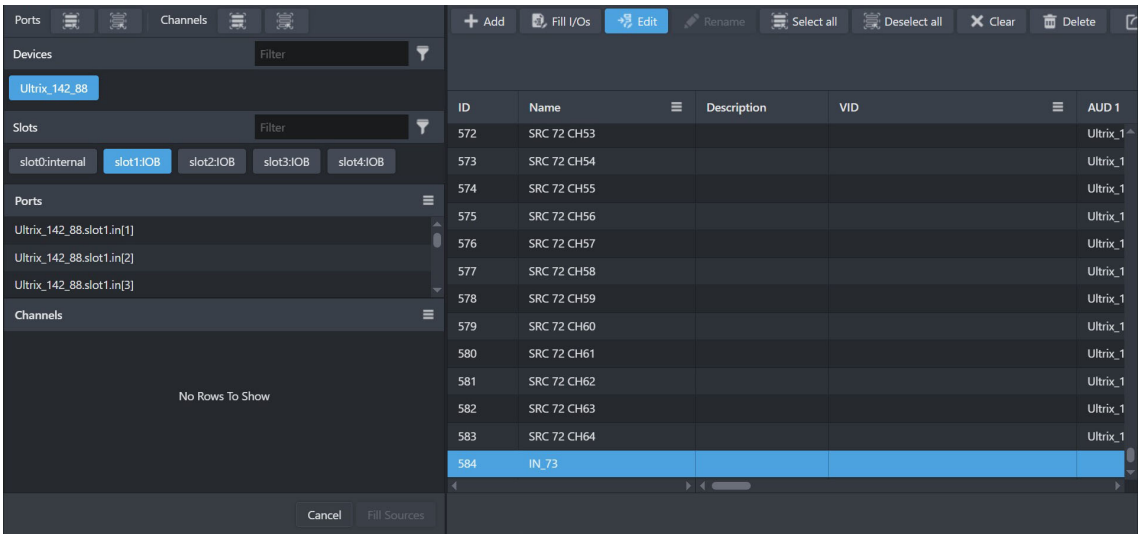
1. Locate the source to map in the **Sources** table.
2. If desired, type a new name for the source in the **Name** cell as outlined in "**To specify a label for a source**".
3. Select the row for the source to map.

✶ Use the auto-fill feature to quickly edit a source, by locating the cell in the **Sources** table, type the text and click the cell to display a pull-down menu of matching sources to choose from.

4. Click **Edit**.

   The Edit dialog opens.

   In the following example, the user is editing the source labeled `IN_73`.



5. From the **Slots** area, select the blade to map.

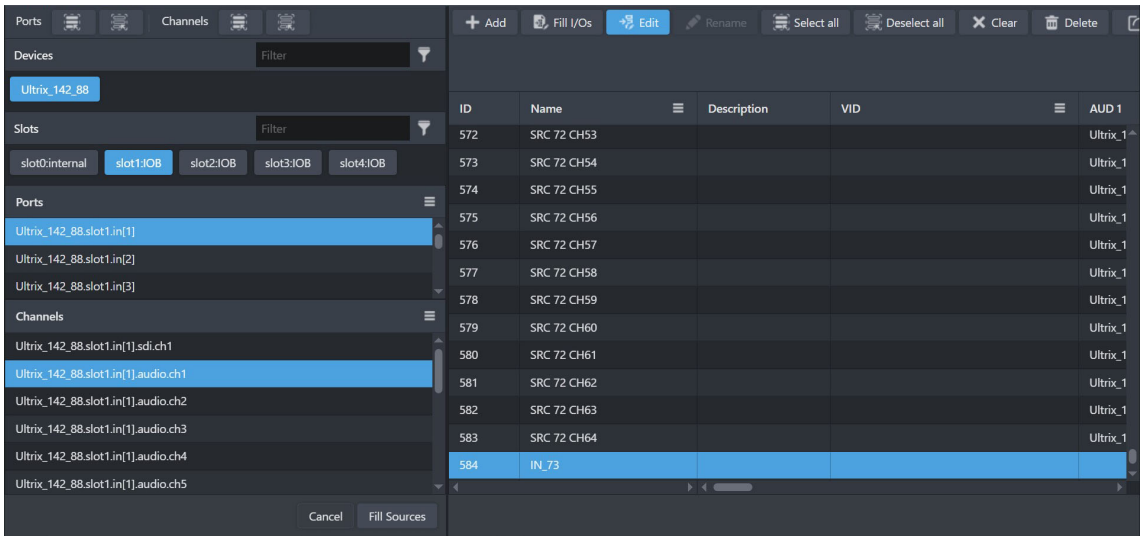
   The Ports area auto-populates with the inputs available in the active database.

6. From the **Ports** area, select the input to assign to the source.

   The Channels area auto-populates with the video and audio channels available in the active database.

7. From the **Channels** area, select a row for each level to map.

   In the following example, the user will map `audio.ch1` to `IN_73`.



8. Click **Fill sources**.

   The Sources table updates with the selected source mapped.

9. Click **Edit** to close the dialog.

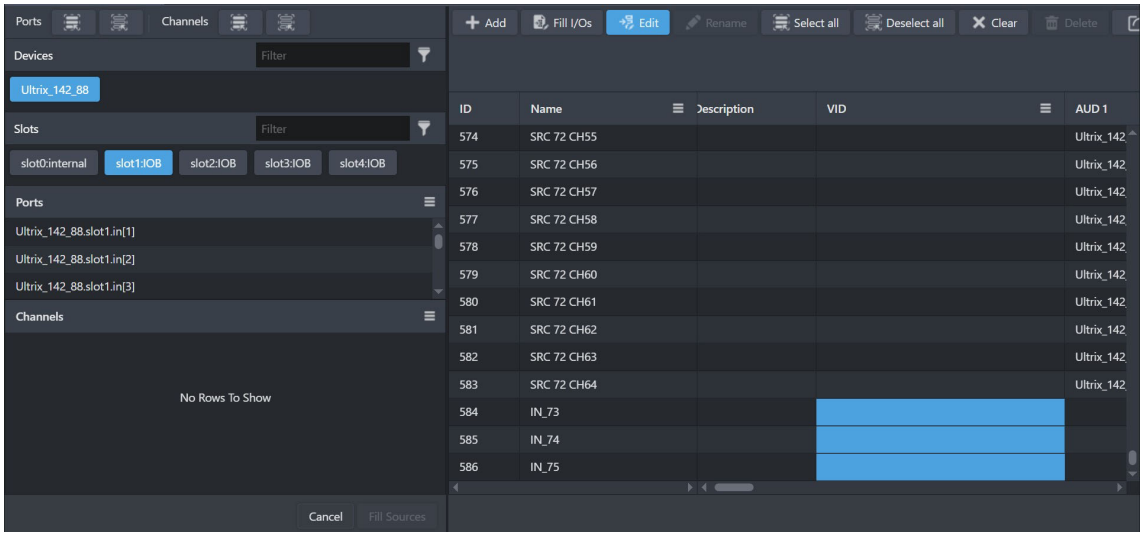
To map a selection of sources

✶ Cell ranges may be horizontal as well as vertical. For example, a common operation would be to assign SDI embedded channels 1 to 16 to levels 2 to 17. The selected range would be horizontal across many levels but the selection would be vertical from the available inputs. The assignment operation will take the top most of the available inputs selection and assign it to the left most of the horizontal selection and so on through the selection range.

1. In the **Sources** table, select the first row in the series you want to define for the level.
2. Press and hold **Shift**.
3. Click **Edit**.

   The Edit dialog opens.

   In the following example, the user is mapping three sources (`IN_73`, `IN_72`, and `IN_73`) in the `VID` level.



4. From the **Slots** area, select the blade to map.

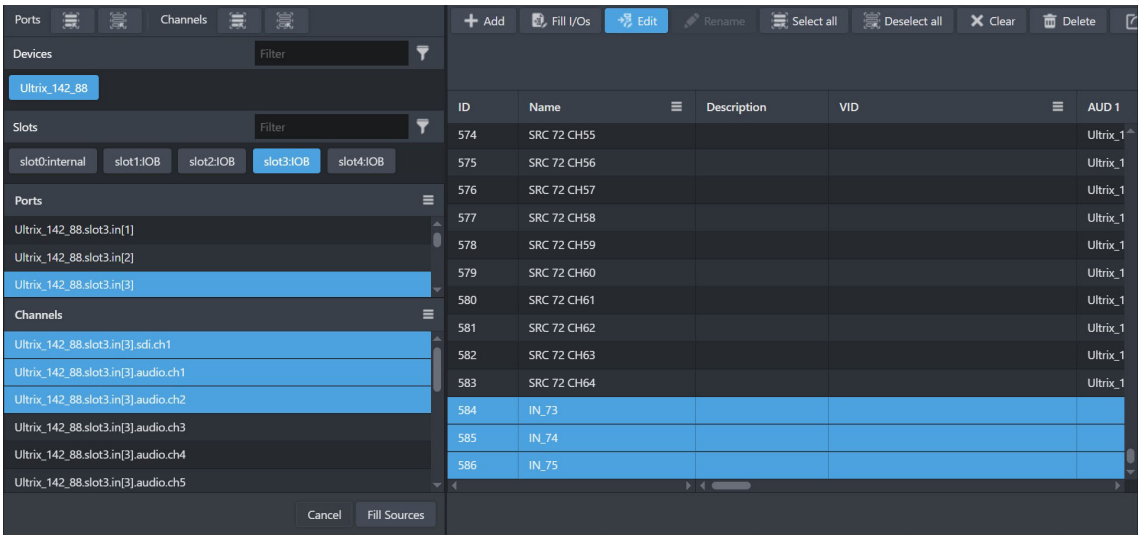
The Ports area auto-populates with the inputs available in the active database.

5. From the **Ports** area, select the input to assign to the sources.

   The Channels area auto-populates with the video and audio channels available in the active database.

6. From the **Channels** area, select the channel(s) to map to the selected sources.

   In the following example, the user is mapping one video channel (`sd.ch1`), and two audio channels (`audio.ch1`, and `audio.ch2`) to each selected source.



7. Click **Fill Sources**.

   The Sources table updates with the selected sources mapped.

8. Click **Edit** to close the dialog.

To map a series of inputs to multiple sources on the same level

1. In the table of the **Sources** interface, select the first row in the series you want to define for the level.
2. Press and hold **Shift**.
3. Click the last row in the series to select a range of cells within a **Level** column.
4. Click **Edit**.
5. Repeat steps 4 to 7 in the above procedure.
6. Click **Edit** to close the dialog.

To delete a source from the database

1. In the **Sources** table, select the source(s) to delete.
2. Click **Delete**.

✶ You can delete the mapping assignment(s) but keep the source entry in the database by selecting the source row and clicking **Clear**.

Using the Fill I/O Tool

The Fill I/O tool enables you to manage the mapping templates, and edit the port assignments for any number of sources.

When the Fill I/O button is selected from the toolbar, the Fill I/O dialog opens in a drawer in the left pane of the Sources interface. This enables you to access the Fill I/O options and still view the sources available in the active database. Clicking the Fill I/O button again closes the dialog.

To map sources using the Fill I/O tool

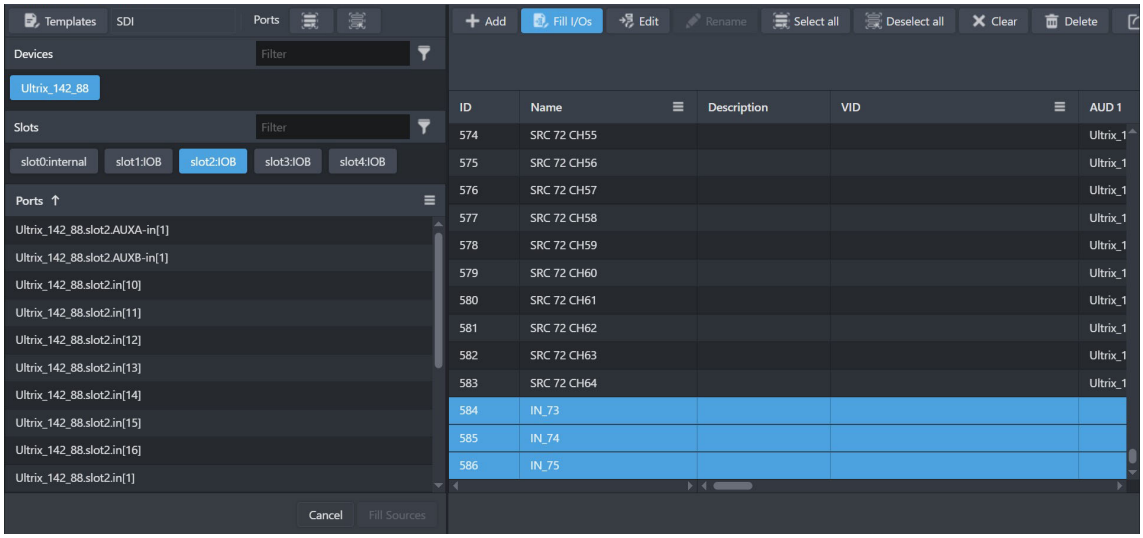
1. Click **Fill I/Os**.

   The Fill I/O button is now lit blue and the Fill I/O dialog opens.

2. If the database includes more than one device, use the **Devices** options to select which device to use for the input signals.

3. Use the **Slots** options to select the router slot that will provide the inputs.

✶ Virtual ports (refer to **Table 71**) are available via slot0.



4. Use the **Ports** options to select the input port(s).

✶ If required, use the **Filter** field to display only the entries that match the specified text. For example, entering `in[2` will only display the `IN 2` port of the selected slot(s).

5. Click **Fill sources**.

   The Fill I/O dialog closes.

Using the Templates

Templates can be used to quickly map the sources in the active database. Each template provides a unique configuration. Access the Template options by clicking Fill I/Os > Templates. Selecting a template automatically maps the sources in the active database.

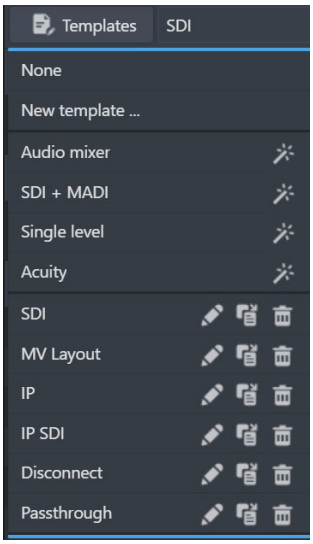


Figure 32 Example of the Sources > Templates Dialog

Applying a System Template

The Database Manager provides a selection of default (system) templates to choose from. Each template maps the sources in a pre-defined pattern. The available templates are displayed as a list in the Fill I/O > Templates dialog.

The Fill I/O > Templates dialog also reports the name of the template currently applied to your sources. Note that the SDI template is applied by default, but you can choose a different template or none based on your requirements.

To apply a default template to map the sources

1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens with a list of available templates.

   In the example below, the SDI template is applied as reported in the read-only field beside the Templates button.

2. To apply a template, select it from the list.
3. If you selected the **Audio mixer** template:
   a. Use the **Output type** menu to specify the audio outputs to map: audio outputs from the ULTRIMIX-MXR or the physical OUT ports. Refer to the ***Ultrix User Guide*** for details on the ULTRIMIX-MXR licensed feature.
   b. Use the **Start at level** menu to specify the first database level for the source mapping.
   c. Use the **Channels per source** menu to specify the number of audio channels to map. If you selected Custom, enter the number of channels in the provided field.
   d. Select the **Repeat mapping** box to copy these settings to all the audio levels/sources.
   e. Click **Apply**.
4. If you selected the **SDI+MADI** template:
   a. Use the **Start at level** menu to specify the first database level for the source mapping.
   b. Use the **Channels per source** menu to specify the signal or data type for the sources in this level.
   c. Select the **Repeat mapping** box to apply these settings to subsequent sources.
   d. Select the **Include SDI** box to map the SDI video signals to the specified levels and sources.

e. Click **Apply**.

5. If you selected the **Single level** template:
   a. Use the **Level** menu to specify the database level to map.
   b. Use the **Channel Type** menu to specify the signal or data type for the sources in this level.
   c. Click **Apply**.
6. If you selected the **Acuity** template:
   a. Use the **Acuity number** field to assign an ID number to this router to identify it to the upstream Acuity switcher. The default is 1.
   b. Click **Apply**.
7. Verify that the Templates read-only field now reports the name of the selected template.

Creating a New Template

You can choose to create a new blank template or copy an existing a template and saving it with a new name.

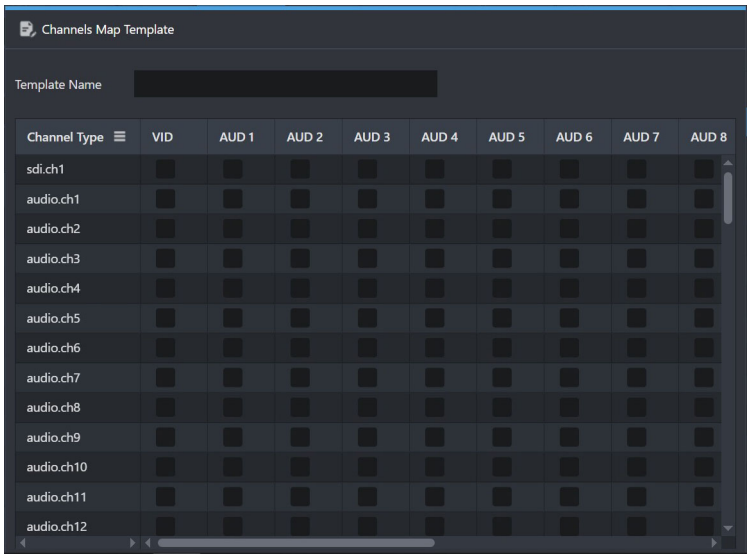
To create a new template to map the sources

1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens.
2. Select **New template**.

   The Channels Map Template dialog opens.

   The dialog is organized into a table with the database levels for the columns and each row representing a specific source.



3. Use the **Template Name** field to assign a unique identifier for the template.
4. Select the box for each source/level the template will map.
5. Click **Save**. This button is located in the bottom right corner of the Channel map template dialog.

To copy an existing template

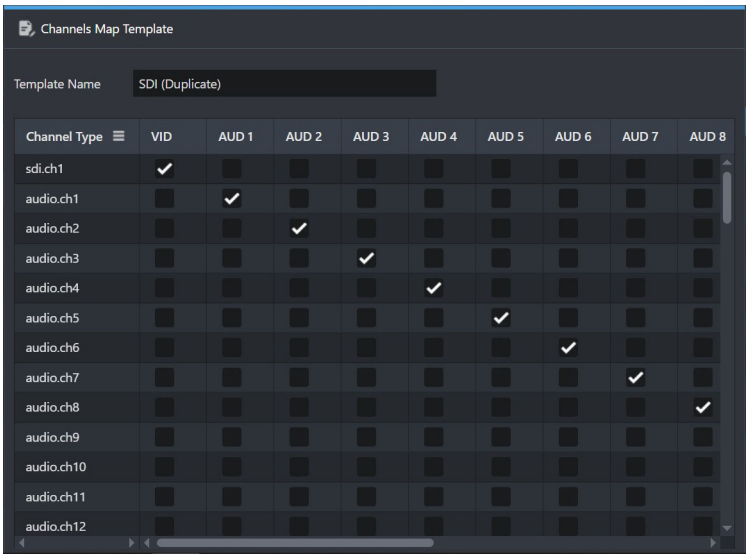
1. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens.

2. Locate the template you wish to copy.

3. Select  beside the template name.

   The Channel map template dialog opens. Notice that the Template name field reports the name of the selected template with `(Duplicate)` added.



4. Use the **Template Name** field to assign a unique identifier for the template.
5. Select the box for each destination/level the template will map.
6. Click **Save**. This button is located in the bottom right corner of the Channel map template dialog.

Exporting and Importing the Source Mapping

The Sources interface provides the option to create a backup copy of the current sources map (as an *.xlsx file), edit its contents if required, and then import the updated map into the database. Or, if you wish to change the source map to another desired scheme, import the required spreadsheet file (*.xlsx) to the active database.

This section outlines how to export and import spreadsheets that determine the source mapping for the active database.

Exporting a Source Map

The Sources interface provides the option to export the current source mapping as an *.xlsx file that is stored on your DashBoard client computer. This enables you to create a backup copy of the map, edit its contents if required, and then import the updated map into the database.

To export the current source map to a spreadsheet

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** interface opens.

2. Verify the current map is the one you wish to capture.

3. Click **Export**.

   The **Export Source Spreadsheet** dialog opens.

4. Use the **Save as** field to assign a unique filename to the source map.

5. Click **Apply**.

   The Downloads dialog opens in the DashBoard window and reports when the file is saved as an *.xlsx file in the Downloads folder of your DashBoard client computer.

Importing a Source Map

A source map can be defined in a spreadsheet (*.xlsx) that is organized like the table on the Destinations interface. You can create a new spreadsheet or edit a spreadsheet that captured an existing destination map. Much like the Sources interface, each row in the spreadsheet represents a specific port in the routing system.

In **Figure 33**, the user created a spreadsheet for 20 sources (SRC 1-20), and four levels (VID, AUD 1, AUD 2, AUD 3).

	A	B	C	D	E	F	G	H
1	UIID	Name	Description	Tally	VID	AUD 1	AUD 2	AUD 3
2	0	SRC 1			Ultrix_142_88.slot1.AUXA-in[1].sdi.ch1	Ultrix_142_88.slot1.AUXA-in[1].audio.ch1	Ultrix_142_88.slot1.AUXA-in[1].audio.ch2	Ultrix_142_88.slot1.AUXA-in[1].audio.
3	1	SRC 2			Ultrix_142_88.slot1.AUXB-in[1].sdi.ch1	Ultrix_142_88.slot1.AUXB-in[1].audio.ch1	Ultrix_142_88.slot1.AUXB-in[1].audio.ch2	Ultrix_142_88.slot1.AUXB-in[1].audio.
4	2	SRC 3			Ultrix_142_88.slot1.in[1].sdi.ch1	Ultrix_142_88.slot1.in[1].audio.ch1	Ultrix_142_88.slot1.in[1].audio.ch2	Ultrix_142_88.slot1.in[1].audio.ch3
5	3	SRC 4			Ultrix_142_88.slot1.in[2].sdi.ch1	Ultrix_142_88.slot1.in[2].audio.ch1	Ultrix_142_88.slot1.in[2].audio.ch2	Ultrix_142_88.slot1.in[2].audio.ch3
6	4	SRC 5			Ultrix_142_88.slot1.in[3].sdi.ch1	Ultrix_142_88.slot1.in[3].audio.ch1	Ultrix_142_88.slot1.in[3].audio.ch2	Ultrix_142_88.slot1.in[3].audio.ch3
7	5	SRC 6			Ultrix_142_88.slot1.in[4].sdi.ch1	Ultrix_142_88.slot1.in[4].audio.ch1	Ultrix_142_88.slot1.in[4].audio.ch2	Ultrix_142_88.slot1.in[4].audio.ch3
8	6	SRC 7			Ultrix_142_88.slot1.in[5].sdi.ch1	Ultrix_142_88.slot1.in[5].audio.ch1	Ultrix_142_88.slot1.in[5].audio.ch2	Ultrix_142_88.slot1.in[5].audio.ch3
9	7	SRC 8			Ultrix_142_88.slot1.in[6].sdi.ch1	Ultrix_142_88.slot1.in[6].audio.ch1	Ultrix_142_88.slot1.in[6].audio.ch2	Ultrix_142_88.slot1.in[6].audio.ch3
10	8	SRC 9			Ultrix_142_88.slot1.in[7].sdi.ch1	Ultrix_142_88.slot1.in[7].audio.ch1	Ultrix_142_88.slot1.in[7].audio.ch2	Ultrix_142_88.slot1.in[7].audio.ch3
11	9	SRC 10			Ultrix_142_88.slot1.in[8].sdi.ch1	Ultrix_142_88.slot1.in[8].audio.ch1	Ultrix_142_88.slot1.in[8].audio.ch2	Ultrix_142_88.slot1.in[8].audio.ch3
12	10	SRC 11			Ultrix_142_88.slot1.in[9].sdi.ch1	Ultrix_142_88.slot1.in[9].audio.ch1	Ultrix_142_88.slot1.in[9].audio.ch2	Ultrix_142_88.slot1.in[9].audio.ch3
13	11	SRC 12			Ultrix_142_88.slot1.in[10].sdi.ch1	Ultrix_142_88.slot1.in[10].audio.ch1	Ultrix_142_88.slot1.in[10].audio.ch2	Ultrix_142_88.slot1.in[10].audio.ch3
14	12	SRC 13			Ultrix_142_88.slot1.in[11].sdi.ch1	Ultrix_142_88.slot1.in[11].audio.ch1	Ultrix_142_88.slot1.in[11].audio.ch2	Ultrix_142_88.slot1.in[11].audio.ch3
15	13	SRC 14			Ultrix_142_88.slot1.in[12].sdi.ch1	Ultrix_142_88.slot1.in[12].audio.ch1	Ultrix_142_88.slot1.in[12].audio.ch2	Ultrix_142_88.slot1.in[12].audio.ch3
16	14	SRC 15			Ultrix_142_88.slot1.in[13].sdi.ch1	Ultrix_142_88.slot1.in[13].audio.ch1	Ultrix_142_88.slot1.in[13].audio.ch2	Ultrix_142_88.slot1.in[13].audio.ch3
17	15	SRC 16			Ultrix_142_88.slot1.in[14].sdi.ch1	Ultrix_142_88.slot1.in[14].audio.ch1	Ultrix_142_88.slot1.in[14].audio.ch2	Ultrix_142_88.slot1.in[14].audio.ch3
18	16	SRC 17			Ultrix_142_88.slot1.in[15].sdi.ch1	Ultrix_142_88.slot1.in[15].audio.ch1	Ultrix_142_88.slot1.in[15].audio.ch2	Ultrix_142_88.slot1.in[15].audio.ch3
19	17	SRC 18			Ultrix_142_88.slot1.in[16].sdi.ch1	Ultrix_142_88.slot1.in[16].audio.ch1	Ultrix_142_88.slot1.in[16].audio.ch2	Ultrix_142_88.slot1.in[16].audio.ch3
20	18	SRC 19			Ultrix_142_88.slot2.AUXA-in[1].sdi.ch1	Ultrix_142_88.slot2.AUXA-in[1].audio.ch1	Ultrix_142_88.slot2.AUXA-in[1].audio.ch2	Ultrix_142_88.slot2.AUXA-in[1].audio.
21	19	SRC 20			Ultrix_142_88.slot2.AUXB-in[1].sdi.ch1	Ultrix_142_88.slot2.AUXB-in[1].audio.ch1	Ultrix_142_88.slot2.AUXB-in[1].audio.ch2	Ultrix_142_88.slot2.AUXB-in[1].audio.

Sheet1 sources

Figure 33 Example of a Source Map Spreadsheet

✶ Unicode characters are not supported.

To define a new source map using a spreadsheet

1. Create a new spreadsheet in Microsoft® Excel® or other application that supports *.xlsx files.
2. Label the sheet as **sources**.
3. Label the first column as **UIID**.
4. Label the second column as **Name**.
5. Label the next column as **Description**.
6. If tallies are enabled for the database, label the next column as **Tally**.
7. Label each subsequent column as a **Level** in your database.
8. In the UIID column, enter the ID number for the source starting with zero (0).
9. In the Name column, enter the database label (text) for the source.

   For example, enter `SRC 1` for the first entry.

10. If tallies are enabled for the database, use the **Tally** column to specify the Tally ID for the source.
11. In the Level column, enter the source as: `Frame.slot.port.type.channel`.

12. Repeat steps 8 and 11 for each source (row).

✶ Any blank cells in the spreadsheet will be mapped as blank entries in the Sources interface.

13. Save the spreadsheet to the Downloads folder on your DashBoard client computer.

To import a source map

✶ When you import a source map, it is automatically applied to the database.

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** interface opens.

2. Click **Import**.

   The **Import Source Spreadsheet** opens.

3. Click **Choose File**.
4. Navigate to the file you wish to import.
5. Click **Apply**.

   The Import Source Spreadsheet dialog closes and the Sources interface updates to report the new mapping.

Updating the Source Labels

The Sources interface allows the definition of labels for your routing system inputs. When a database is initialized, default labels of `Src #` are automatically filled in to the quantity specified by the database. These source labels may be changed to suit your naming conventions.

For More Information on...

- assigning Tally IDs to sources, refer to the ***Ultrix User Guide*** for your router.
- assigning multiple source labels, refer to "**To map sources using the Fill I/O tool**".

To specify a label for a source

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** interface opens.

2. Select the cell in the **Name** column of the label to alter.
3. Type the required label.
4. Press **Enter** to apply the change.

✶ Take care to limit the amount of characters as these labels are displayed on Remote Control Panels (RCPs) which have a limited display area.

5. Repeat steps 2 to 4 for each source you want to specify a virtual label for.

Mapping the I/O for ULTRIMIX-MXR

The ULTRIMIX-MXR licensed feature is a virtual audio mixer that can be configured up to 128×64. This chapter outlines how to map the destinations and sources for ULTRIMIX-MXR.

For More Information on...

- the ULTRIMIX-MXR licensed feature, refer to the ***Ultrix User Guide*** for your router.

Before You Begin

Before you can map the destinations and sources, you must first:

- Install an ULTRIMIX-MXR license(s) for each audio mixer partition you require. You can install up to 4 licenses in a single router. Refer to the ***Ultrix User Guide*** for your router.
- Specify the audio mixer I/O partitions. Refer to the ***Ultrix User Guide*** for your router.

Overview

When enabled, the ULTRIMIX-MXR feature can access every input in the system, and its outputs can be routed to any output in the router, providing tremendous flexibility for audio work-flows. Each input has a 4-band parametric equalizer, noise gate and compressor/limiter. In addition, ULTRIMIX-MXR has 128 direct outputs for simple audio processing as part of its standard feature set. It is controllable via a DashBoard user interface as well as application-specific panels for both the Ultritouch-2 and Ultritouch-4 control panels.

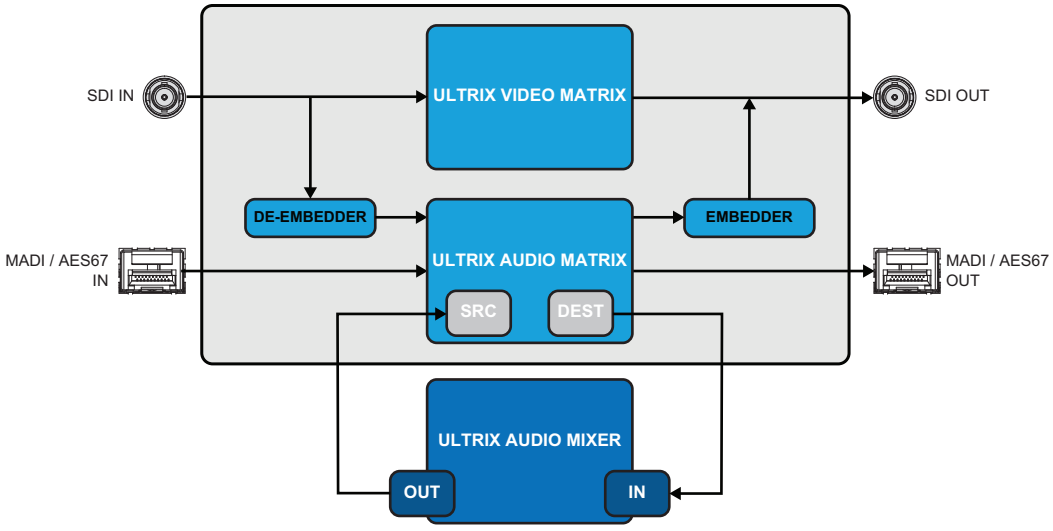


Figure 34 Block Diagram of Mapping Audio Mixer I/O to Router Destinations and Sources

An Audio Mixer template is provided in the Destination and Source interfaces to help quickly map the audio mixer I/O. The Audio Mixer template enables you to specify:

- one or more partitions to create destinations/sources based on the I/O available in those selected partition(s).
- the starting audio level for the I/O mapping for each destinations/sources.
- how many audio levels for each destinations/sources.
- a prefix for each destinations/sources and a starting number (if there are more than one destination).

When mapping your audio mixer I/O:

- **Mixer Inputs** (channel strips) are mapped to **Router Destinations**
- **Mixer Outputs** (output strips) are mapped to **Router Sources**

Mapping the Router Destinations to the Audio Mixer Inputs

The Audio Mixer template prevents a user from mapping I/Os from two different mixers into one logical matrix since each source/destination can have I/O mappings from only one mixer partition.

By default, the Audio Mixer template assigns consecutive mixer inputs across the table starting at the defined Starting Level and continuing each level column for the channels per Destination quantity. Note the chosen Channels per destination setting will impact the total number of logical labels created. For example, when creating mixer input logical label for a 64×32 mixer, a setting of Quad will result in 32 logical destinations (mixer inputs) created or 32 destinations × 4 levels (Quad) with 128 mixer inputs (64 stereos channel strips).

✶ When mapping stereo pairs, each channel strip in the soft panel Home View represents a stereo pair with the first strip automatically assigned to the first pair of the selected partition. For example, slot0.mixer-in[1] and slot.mixer-in[2] is mapped to Channel strip 1, and slot0.mixer-in[3] and slot.mixer-in[4] is mapped to channel strip 2 etc. This is also true for the mixer outputs.

To map the destinations to the audio mixer

1. Double-click the **Destinations** node located under the **Database** node.

   The **Destinations** interface opens with the table auto-populated as defined by the Database Builder settings.

2. Select an entry point in the **Destinations** tab from where the new audio mixer assignments will begin.

3. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens with a list of available templates.

4. Select **Audio mixer**.

5. Use the **Input type** menu to specify to what audio inputs to map: audio inputs from the ULTRIMIX-MXR or the physical IN ports. Refer to the ***Ultrix User Guide*** for details on the ULTRIMIX-MXR licensed feature.

6. Use the **Start at level** menu to specify the first database level for the destination mapping.

7. Use the **Channels per destination** menu to specify the number of audio channels to map. If you selected Custom, enter the number of channels in the provided field.

8. Select the **Repeat mapping** box to copy these settings to all the audio levels/destinations.

9. Click **Apply**.

Mapping the Router Sources to the Audio Mixer Outputs

✶ When mapping sources, ensure to use the same mixer partition(s) that was selected in "**To map the destinations to the audio mixer**".

To map the inputs for an audio matrix

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** interface opens with the table auto-populated as defined by the Database Builder settings.

2. Select an entry point in the **Sources** tab from where the new audio mixer assignments will begin.
3. Click **Fill I/Os** > **Templates**.

   The Templates dialog opens with a list of available templates.
4. Select **Audio mixer**.
5. Use the **Output type** menu to specify the audio outputs to map: audio outputs from the ULTRIMIX-MXR or the physical OUT ports. Refer to the ***Ultrix User Guide*** for details on the ULTRIMIX-MXR licensed feature.
6. Use the **Start at level** menu to specify the first database level for the source mapping.
7. Use the **Channels per source** menu to specify the number of audio channels to map. If you selected Custom, enter the number of channels in the provided field.
8. Select the **Repeat mapping** box to copy these settings to all the audio levels/sources.
9. Click **Apply**.

Tallies

This chapter provides instructions on how to enable TSL UMD messages in the active database, assign Tally IDs to your sources and destinations, and how to manage tally objects in your Ultriscape heads.

For More Information on...

- the supported TSL UMD protocols, refer to "**Server Options and Supported Commands**".
- Ultriscape PiP Tally setup and operation, refer to the ***Ultriscape User Guide***.
- Ultricore-Tally, refer to the ***Ultricore BCS User Guide***.

Overview

The Ultrix router accepts TSL UMD tally messages, and passes tally status notifications to configured Ultriscape Heads. Tally messages associated with a router source may also be passed to the routed destination tally status. Tally information may be associated with either routing system sources or destinations.

Tally IDs

A Tally ID may be associated with routing system destinations using the options in the Database > Destinations interface. Three modes of operation are available:

- **Normal** — The database name of the connected source is placed in the Display Data field of the destination Tally ID message (an outgoing connection is required; TSL v3.1 only). When the Tally ID is associated with an Ultriscape PiP (slotn.headx-pip[y] or slot0.pip[y]), any assertion on this Tally ID will directly control the PiP tally visual elements and override any Tally associated with the PiP video source.
- **Redirect** — The destination Tally ID follows the connected source Tally ID. For example, when a source is switched to a destination on the selected Tally Level, the Ultrix forwards the tally status of the source that is active on the destination, but the outbound TSL message has its display ID re-mapped to the display ID that is associated with the destination. An outgoing connection is required.
- **Routed** — The connected source Tally ID follows the destination Tally ID. Any configured Ultriscape PiPs showing this source will use destination Tally ID status to assert Tally Indicators or Tally Borders.

✶ Ensure the destination Tally IDs do not conflict with Tally IDs asserted by other devices.

Tally ID Format

Table 72 summarizes the format that the TSL protocol defines Display IDs that are associated with the tally displays.

Table 72 TSL Protocol — Tally ID Format

TSL Protocol Version	Tally ID Format	Range
3.1	<displayID>	0 - 127
4.0	<displayID>	0 - 127
5.0	<screenID>:<displayID>	0 - 65535 : 0 - 65535

Keep the following in mind when using tally display IDs:

- TSL UMD protocols v3.1 and v4.0 messages will always map to screen 0.
- When using TSL UMD v5.0, the screen ID is assumed to be 0 if no screen ID is entered.
- If the controller is configured for either v3.1 or v4.0 protocol, it is not necessary to enter a screen ID.
- If the controller is configured for v5.0, it is only necessary to specify the screen ID if the tally controller is configured to send messages to tally displays on 'screens' other than the one with the screen ID of 0.

Router Tally Output Operation

Ultrix and Ultricore will track current Tally Status messages sent by a controller via Tally Display IDs associated with router sources. When a source (with a Tally ID) is routed to a destination (with a Tally ID), the router will emit Tally Status messages that reflect the current tally status of the Tally ID associated with the source, but that target the Display ID associated with the destination.

✶ An outgoing connection point must be defined for Ultrix and Ultricore to send the new status out.

Example

Consider the following source and destination configurations:

Table 73 Example of Sources and Destinations Assigned to Tally IDs

Name	Tally ID	Tally Status
Sources		
Src 1	5	T1:on
Src 2	10	T1:off
Destinations		
Dest 1	33	T1:xxx

For the above configuration settings, the following states are possible:

Table 74 Example of Sources and Destinations Assigned to Tally IDs

Router Status	Tally Status
Src 1 > Dest 1	TallyID 33 T1 = TallyID 5 T1 (on) TallyID 33 Display Data = Src 1
Src 2 > Dest 1	TallyID 33 T1 = TallyID 10 T1 (off) TallyID 33 Display Data = Src 2

Router Status over TSL UMD v3.1 Operation

Ultrix and Ultricore can use the TSL UMD protocol version 3.1 to send the connected source database name as tally text. This requires you to:

1. Set up an outgoing TSL v3.1 connection.
2. Assign Tally ID numbers to the destinations you wish to track.
3. Ensure the Tally mode is set to None.

When a configured destination changes, the name of the new source will be sent as tally text. Ultrix will resend all the configured destinations every 1 minute, and immediately for any source change on a configured destination.

Getting Started

Before configuring tallies, you must first perform the following in the active database:

1. If RS-232 or RS-422 communication is required, add a serial connection point for TSL protocol support.
2. If Router Tally Output operation is required, add either a serial or ethernet outgoing connection.
3. Enable Tally ID support.
4. Assign the Tally IDs to the sources.
5. Assign the Tally IDs to the destinations.
6. Set the Tally mode to None.

Communication Setup

This section summarizes how to add a connection point for TSL protocols.

Adding a Serial Connection Point

Connections may be created via the Edit > Add menu on the Connections tab and selecting the **TSL** protocol from the **Protocol** menu in the **Add Connection** dialog.

For More Information on...

- a serial connection point to third-party devices, refer to "**Defining a Serial Connection**".

Adding an Ethernet Connection Point

An Ethernet connection point must be added for outgoing TSL protocol support only. Incoming Ethernet services are natively available.

For More Information on...

- ethernet connection point to third-party devices, refer to "**Connection via Ethernet**".

Enabling Tally ID Support in the Active Database

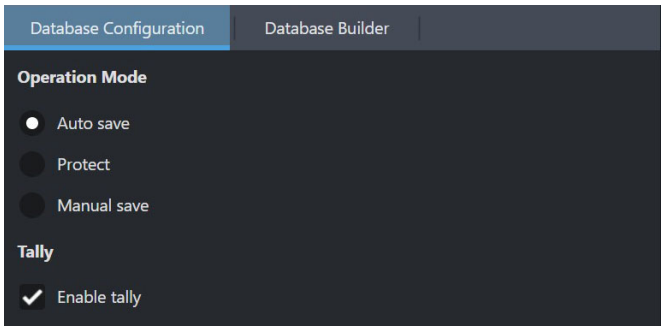
To enable tally ID configuration in an active database, you must select the **Enable Tally** box on the **Database Manager** interface, and then define the Status Level for tally operation.

Once support is enabled, the **Destinations** and **Sources** interfaces display a **Tally** column. Use this column to assign Tally IDs to destinations and/or sources in the active database.

To enable tally ID support in the active database

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Database Manager** sub-node.

   The **Database Manager** interface opens.
3. Verify that the active database is the one you wish to enable Tally ID support for.
4. Select the **Enable tally** box located on the **Database Configuration** tab.
   - The **Levels** tab displays the **Tally level** menu.
   - The **Source** and **Destinations** tabs automatically update to display the **Tally** column.



Defining the Status Level for Tally Operation

The Tally Status Level specifies which level in the routing system is used to determine the current source switched to a given logical destination. Generally this should be the main SDI Video level; which in most systems is the level to which the Ultriscape Head PiP and/or Router Video destinations are mapped in the system database.

To define the status level for tally operation

1. Double-click the **Levels** node located under the **Database** node.

   The **Levels** tab opens.

2. Use the **Tally level** menu (located at the top of the **Levels** interface) to specify the Level in the active database that will determine the tally status.

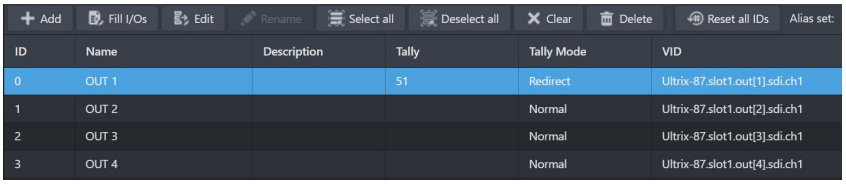
Assigning the Tally IDs to the Destinations

Assigning a Tally ID to a standard database destination (e.g. not a PiP, audio mixer destination, etc.), enables currently routed source tally data to be output on a defined destination Tally ID, essentially routing the tally information along with the video. Refer to **Figure 35** for examples.

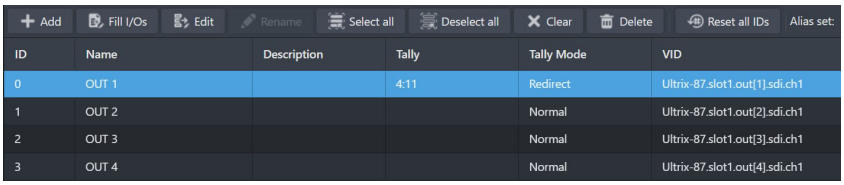
✶ An outgoing connection point (either ethernet server or RS232/422 port) is required for the router to emit tally information.

For More Information on...

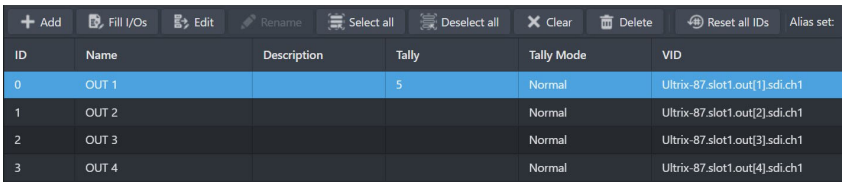
- PiP tally operation, refer to the ***Ultriscape User Guide***.



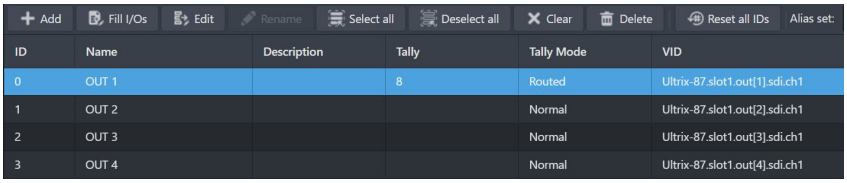
Tally ID 51 follows the connected source associated tally. This requires an established outgoing connection point. (TSL UMD v3.1 and v4.0 TallyID format).



Tally Screen 4, ID 11 follows the connected source associate tally. This requires an established outgoing connection point. (TSL UMD v5.0 TallyID format).



The label of the source currently connected to DST 1 will be sent as TSL text on Tally ID 5. (TSL UMD v3.1 only).



When Tally ID 8 is asserted, any PiPs showing the same source as routed to DST 1 also have their tally asserted (if defined on the PiP). For example, if DST 1 has source CAM 1 routed to it, and one or more Ultriscape PiPs also had source CAM 1 displayed, the PiP would display tally data from Tally ID 8.

Figure 35 Example of Destinations with Assigned Tally IDs

✶ Before proceeding, ensure you verify which TSL protocol you are using. The protocol determines how you must enter the information into the **Tally** cells of the **Destinations** tab. Refer to **Table 72** for details.

To assign a Tally ID to a destination in the database

1. Double-click the **Destinations** node located under the **Database** node.

   The **Destinations** interface opens.

2. Verify that the **Tally** column displays in the **Destinations** interface.

✶ If the **Tally** column does not display, refer to "**Enabling Tally ID Support in the Active Database**".

3. Select the cell in the **Tally** column of the **Destinations** interface to assign the Tally ID to.
4. Type the Tally ID you wish to assign to that destination.
5. Press **Enter** to apply the change.
6. Select the cell in the **Tally Mode** column. Choose from the following:
   - **Normal** — the database name of the connected source is placed in the Display Data field of the destination Tally ID message (an outgoing connection is required; TSL v3.1 only).
   - **Redirect** — the connected source Tally ID is directed to this destination Tally ID.
   - **Routed** — the connected source Tally ID follows this destination Tally ID.
7. Repeat steps 3 to 6 for each destination you wish to assign a Tally ID.

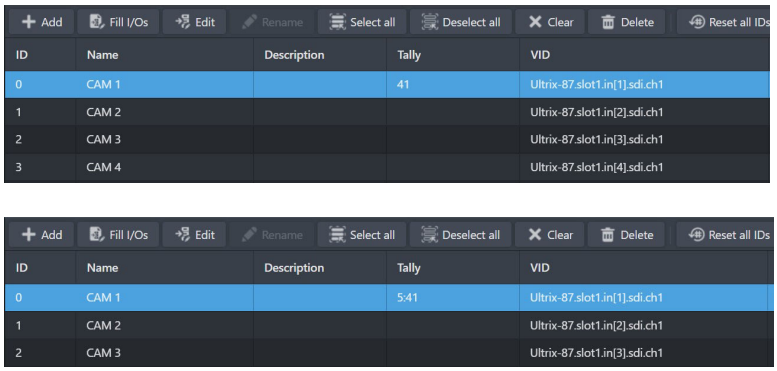
Assigning the Tally IDs to the Sources

Tally IDs associated with routing system sources may serve two purposes:

- Trigger any Ultriscape Multiviewer to display tally status (this requires that the router has at least one Ultriscape Head enabled and configured). Refer to the ***Ultriscape User Guide*** for details.
- Enable the tally status to be mapped to other Tally IDs based on router crosspoint status (the destination must have a Tally ID associated and **Tally Re-direct** enabled).

Assigning a Tally ID to a database source enables configured Ultriscape displays to show tally information.

For example, if an Ultriscape Head contains a PiP configured to display tally information, and a source with an assigned Tally ID is routed to that PiP, that PiP will reflect the incoming messages received by the router via the TSL protocol.



TallyID 41 is associated with Src 1 in the Ultrix and Ultricore database. (TSL UMD v3.1 and v4.0)

Tally Screen 5, ID 41 is associated with Src 1 in the Ultrix and Ultricore database. (TSL UMD v5.0)

Figure 36 Example of a Sources with Assigned Tally IDs

✶ Before proceeding, ensure you verify which TSL protocol you are using. The protocol determines how you must enter the information into the **Tally** cells of the **Sources** tab. Refer to **Table 72** for details.

To assign a Tally ID to a logical source in the database

1. Double-click the **Sources** node located under the **Database** node.

   The **Sources** tab opens.

2. Verify that the **Tally** column displays in the **Sources** tab.

✶ If the **Tally** column is not displayed, refer to "**Enabling Tally ID Support in the Active Database**".

3. Select the cell in the **Tally** column of the **Sources** tab to assign the Tally ID to.
4. Type the Tally ID you wish to assign to that source.
5. Press **Enter** to apply the change.
6. Repeat steps 3 to 5 for each source you wish to assign a Tally ID.

Example of Tally Routed Mode

Consider an Ultrix router 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 and Ultricore has routed its inputs to the outputs.

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

In **Figure 37**, Tally ID 3 is associated with Ultrix and Ultricore destination 11. When the switcher asserts Tally ID 3 (based on its own configuration rules), Ultrix and Ultricore looks up the input connected to destination 11 (source 19 - Cam 1). Ultriscape 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.

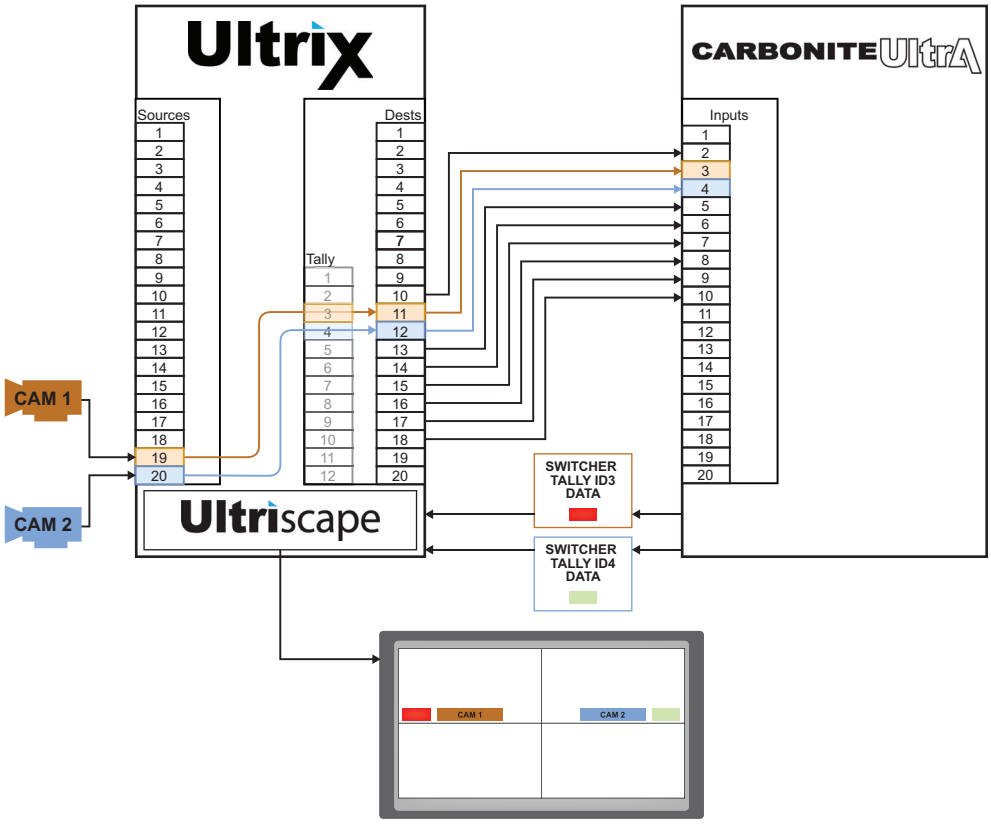


Figure 37 Example of Tally Routed Mode

Application

Use a routed tally to associate the tally state for a particular router source to ultimately reach the on-air path of the Carbonite switcher. For example:

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

In this example, the Tally Routed mode would enable the PIP tally to accurately reflect the tally state when a different source is routed to a Carbonite switcher input.

Carbonite Requirements

You will need to configure the Carbonite to communicate with the Ultrix and Ultricore router UMD service using specific TSL UMD ethernet protocol settings.

To set up tally communications between Carbonite and the Ultrix and Ultricore 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 and Ultricore:
   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 and Ultricore 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 and Ultricore as a new device.

Ultrix and Ultricore Requirements

For each Ultrix and Ultricore destination that is connected to a Carbonite switcher input:

- Set the switcher's primary input number in the Tally column of the Destinations table in the router database.
- Set the Tally mode to Routed.
- Set an ID number in the Tally column and set the Tally mode to Normal for any Ultriscape PIP destination that is expected to show UMD tally for sources that are also routed to a switcher source.

  This can be any ID as long as it is not used by your destinations that feed your Carbonite inputs. To make it simple, on our example below we start at 201, this would be a recommended value that should not conflict with anything else.

Using an Alias Set

This chapter outlines how to create an alias set of virtual labels and how to apply an alias set to your sources and destination matrices.

For More Information on...

- alias sets and soft panels, refer to "**Applying an Alias Set to a Soft Panel**".

Overview

By default, a matrix (or router) port is identified via the `Frame.Slot.Port.Type.Channel` nomenclature. An alias set enables you to customize virtual labels and apply to the ports if required. For example, you may wish to create an alias set that reflects the actual name/label text that the physical cable would be assigned.

✶ This re-naming is not necessary for router operation, but it may make your assignment of source and destination labels easier to identify when using your internal cable naming conventions.

Creating an Alias Set for Sources or Destinations

An alias set can include labels for sources, and/or destinations. You can choose to rename all labels, specific labels, a mix of labels, or whatever suits your requirements. By default, there are no pre-defined alias sets in an active database.

For More Information on...

- creating alias sets for audio channels, refer to "**Creating a Channel Alias Set**".

Creating a New Alias Set

Take care when determining label text. While a long name may be descriptive for the Source and Destination interfaces, many control devices have limited screen space and labels may be truncated.

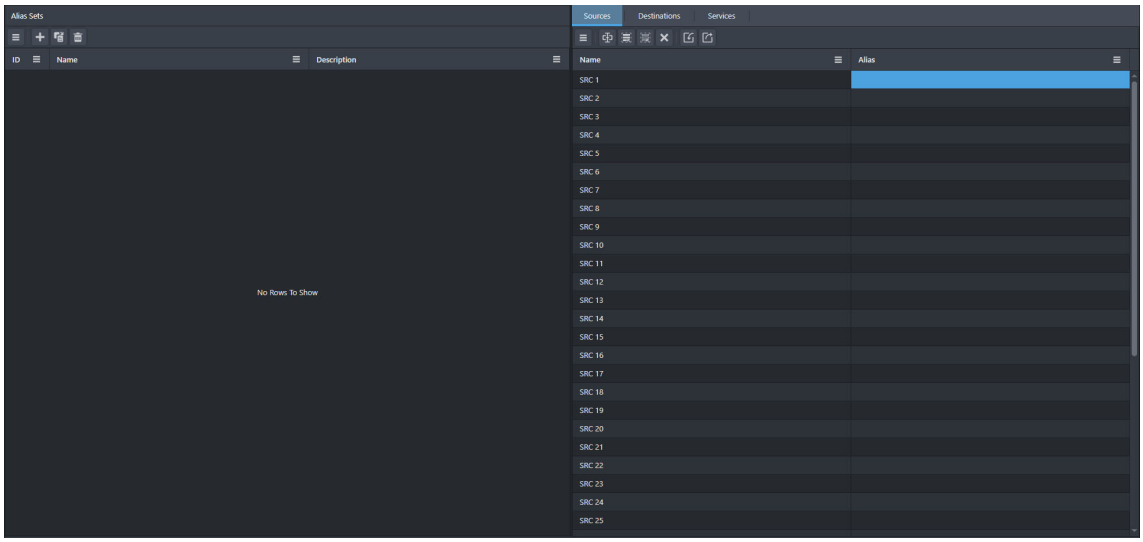
✶ Unicode characters are not supported.

To create a new alias set

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Aliases** node located under the **Database** node.

   The **Alias** interface opens.

✶ The Alias interface is blank when no alias sets are defined yet.



3. Click **Add**.

   The Add dialog opens.

4. Use the **Name** field to assign a unique identifier to the alias set.

   This name is displayed in the Alias set menu of other interfaces.

5. If required, enter additional information in the **Description** field.

6. Click **Apply**.

   The Add dialog closes and the Alias page updates to include the new entry.

   The **Sources**, and **Destinations** tabs now display a list of available matrices in the active database. Each tab indicates the port that is included in the active database using the default nomenclature `Frame.Slot.Port.Type.Channel`.

To define the source aliases

1. Select the alias set you wish to define.
2. Select the **Sources** tab.
3. To define a single source label, select the row for the specific port label to edit.
4. To define multiple source labels:
   a. Select the first row.
   b. Press and hold **Shift**
   c. Select the last row.
5. To define all source labels, click **Select All**.
6. Click **Rename**.

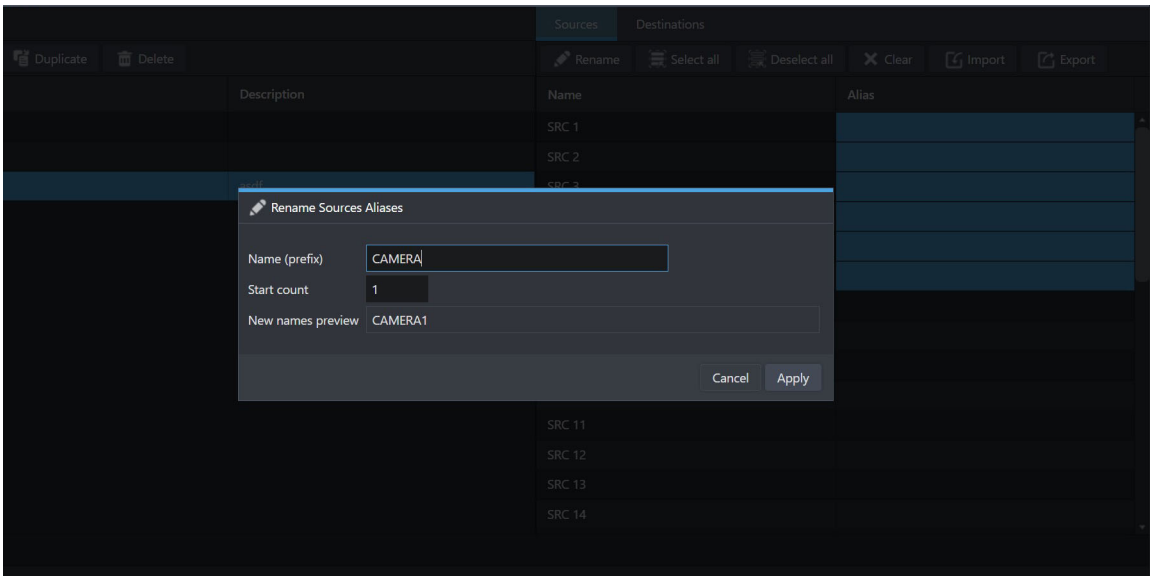
   The Rename dialog opens.

7. Use the **Name (prefix)** field to type a label prefix.

✶ Enter a trailing space to ensure a space between the prefix and the numerical counter.

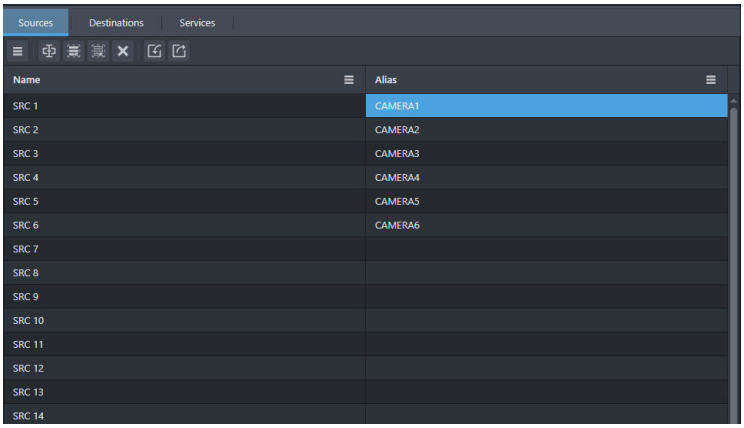
8. Use the **Start count** field to select
9. Use the **New Names Preview** field to verify the new label text.

   In the following example, the user is renaming sources **SRC 1** to **SRC 6** using the text `CAMERA`.



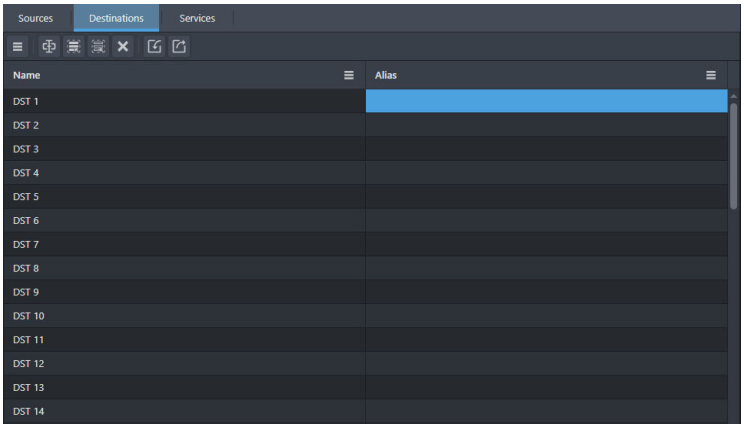
10. Click **Apply**.

    The Rename dialog closes and the Alias column updates to display the new virtual labels for this alias set.



To define the destination aliases

1. Select the **Destinations** tab.



2. To define a single destination label, select the row for the port label to edit.
3. To define multiple destination labels:

a. Select the first row.

b. Press and hold **Shift**

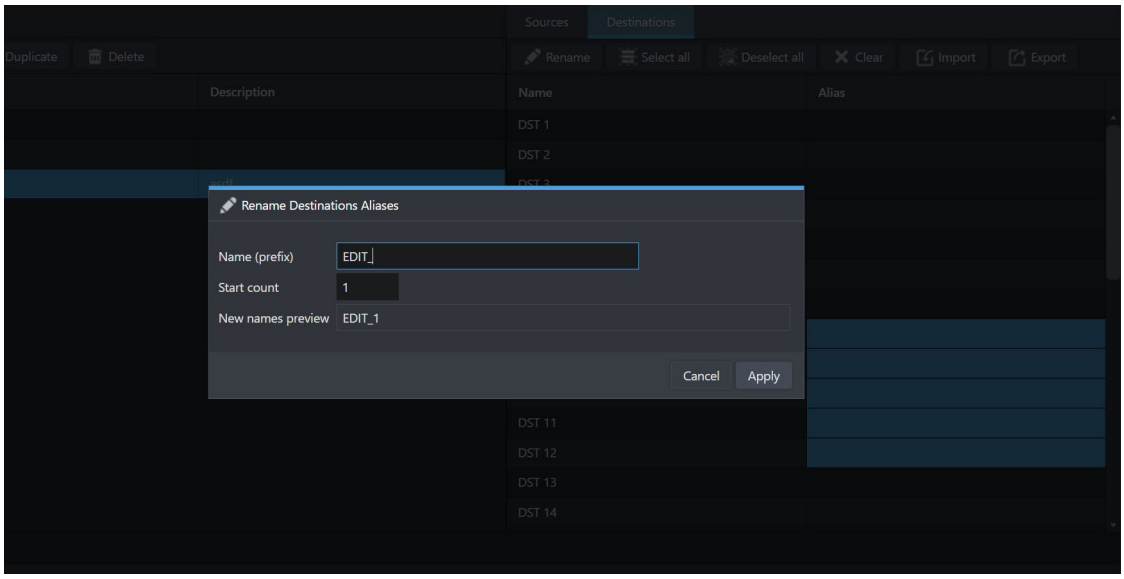
c. Select the last row.

4. To define all destination labels, click **Select All**.
5. Click **Rename**.

   The Rename dialog opens.
6. Use the **Name (prefix)** field to type a label prefix.

✶ Enter a trailing space to ensure a space between the prefix and the numerical counter.

7. Use the **Start count** field to
8. Use the **New names preview** field to verify the new label text.



9. Click **Apply**.

   The Rename dialog closes and the Alias column updates to display the new virtual labels for this alias set.

To define the alias set for an external device matrix

1. Configure the device as outlined in "**Enabling a Communication Service**" and "**Configuring the Service Settings**".
2. From the **Alias** table, select the row for the alias set you wish to apply to the external device matrix.
3. Select the **Services** tab.
4. Click **Apply selected**.

   The **Service alias set** field updates to report the selected alias set, the number of services the set was applied to. The Clear button is now enabled in the toolbar.

Creating an Alias Set Template

Once an alias set is created, you can choose to use it as a template. This template can be edited as required without impacting the original version (set).

To create an alias set template

1. From the **Alias** table, select the row for the alias set you wish to copy.
2. Click **Duplicate**.

   A new entry displays in the Alias Set table with the original alias set name and "`(copy)`" in the Name column.
3. Double-click the cell in the **Name** column.
4. Type a unique identifier for the template.
5. Press **Enter**.

   The template entry now displays the new name.
6. Edit the virtual labels in the Sources, and Destination tabs as required.

Creating a Channel Alias Set

An alias set defines the virtual labels for audio channels. You can choose to rename all labels, specific labels, a mix of labels, or whatever suits your requirements. By default, there are no channel alias sets in an active database.

✶ Take care when determining label text. While a long name may be descriptive, many control devices have limited screen space and labels may be truncated.

To define a new channel alias

1. Display the **Databases** > **Configuration** node as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Channel Aliases** node.

   The **Channel Alias** interface opens.

3. To define a single channel label, select the row for the channel.
4. To define a series of channel labels:
   a. Select the first row.
   b. Press and hold **Shift**
   c. Select the last row.

5. To define all channel labels, click **Select All**.
6. Click **Rename**.

   The Rename dialog opens.
7. Use the **Name (prefix)** field to type a label prefix.

✶ Enter a trailing space to ensure a space between the prefix and the numerical counter.

8. Use the **Start count** field to select the first channel of the selected port.
9. Use the **New names review** field to verify the new label text.
10. Click **Apply**.

    The Rename dialog closes and the Alias column of the Channels tab updates to display the new virtual labels for this alias set.

Applying an Alias Set

Once an alias set is defined, it becomes available for use in the active database.

To apply an alias set

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Perform one of the following:
   - Double-click the **Destinations** node located under the **Database** node; or
   - Double-click the **Sources** node located under the **Database** node.
3. Locate the **Alias set** menu in the top toolbar of the interface.
4. Select the alias set to apply.
5. Verify the new labels displayed in the Name column of the tab.

Exporting an Alias Set

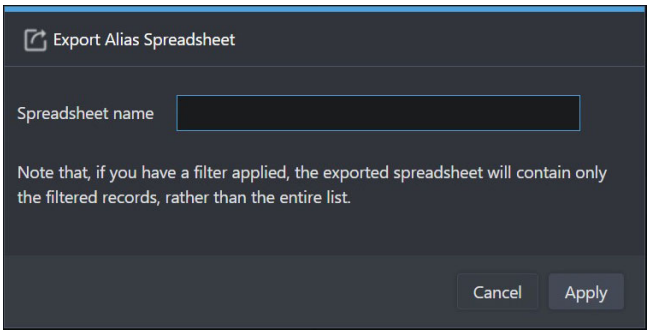
You can create a copy of the Source or Destination aliases using the Export function in each tab. The aliases are saved to a Microsoft Excel spreadsheet (*.XLSX file) on your DashBoard client computer. This enables you to create a backup of your aliases or a template which can be edited as required and then imported back into the Alias interface.

✶ This section is applicable to sources, destinations, and channel aliases.

To export an alias set to a spreadsheet

1. If you wish to export the sources or destinations aliases:
   a. Display the Aliases interface.
   b. Select the alias set you wish to export.
   c. Select the Sources or Destinations tab.
2. If you wish to export an audio channel alias, display the Channel Alias interface.
3. Click **Export**.

   The **Export Alias Spreadsheet** dialog opens.



4. Use the **Spreadsheet name** field to assign a unique filename to the alias set.
5. Click **Apply**.

   The alias set is saved to a spreadsheet in the Downloads folder of your DashBoard client computer.

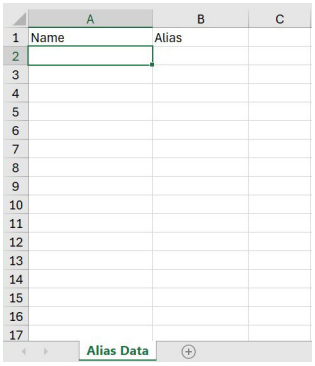
Importing an Alias Set

Define an alias set by creating a Microsoft Excel spreadsheet or editing a spreadsheet that captured an existing alias set. When you import an alias set, it is added to the database and is selectable via the Alias set menus.

✶ This section is applicable to sources, destinations, and channel aliases.

To define a new alias set using a spreadsheet

1. Create a new and blank spreadsheet in Microsoft Excel.
2. Label the sheet as **Alias Data**.
3. Label the first column as **Name**.
4. Label the second column as **Alias**.



5. In the Name column, enter the database labels (text) that will be replaced with the Alias label.
6. In the Alias column, enter the new virtual label.
7. Repeat steps 5 and 6 for each label.
8. Save the spreadsheet to the Downloads folder on your DashBoard client computer.

To edit an alias set

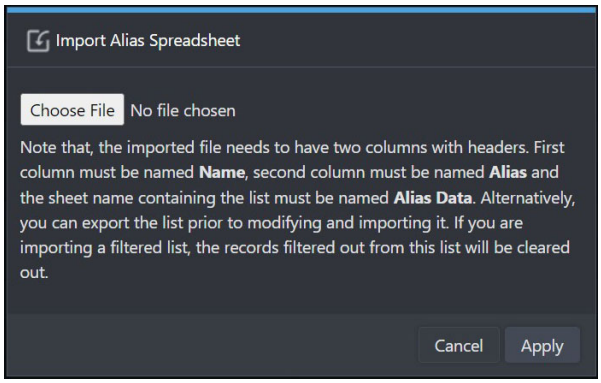
1. Export the alias set you wish to edit. Refer to "**To export an alias set to a spreadsheet**".
2. Open the spreadsheet file you exported in step 1.
3. Edit the cell contents for the alias labels as required.

4. Save your changes to the spreadsheet.

To import an alias set

1. If you wish to import a sources or destinations alias set:
   a. Display the Aliases interface.
   b. Select the Sources or Destinations tab.
2. If you wish to import an audio channel alias set, display the Channel Alias interface.
3. Click **Import**.

   The **Import Alias Spreadsheet** opens.



4. Click **Choose File**.
5. Navigate to the file you wish to import.
6. Click **Apply**.

   The Import Alias Spreadsheet dialog closes and the new alias set displays.

Tielines

This chapter outlines how to define a distributed routing system using the Tieline Builder feature of the Ultricore BCS.

✶ Ensure the ULTRICORE-TLX license is enabled on the Ultricore BCS.

What are Tielines?

A tieline is a method of connecting two routers together so that they may share sources and destinations. How many inputs and outputs that can be shared depends on how many tielines have been provisioned, if the tielines are in use, or if a user has permissions to use them.

✶ Tielines do not have to be bi-directional as represented in **Figure 38** and **Figure 39**.

Figure 38 represents a two-way tieline connection between routers where one (or more) outputs of Ultrix 1 are connected to the inputs of Ultrix 2, and one (or more) outputs of Ultrix 2 are connected to the inputs of Ultrix 1.

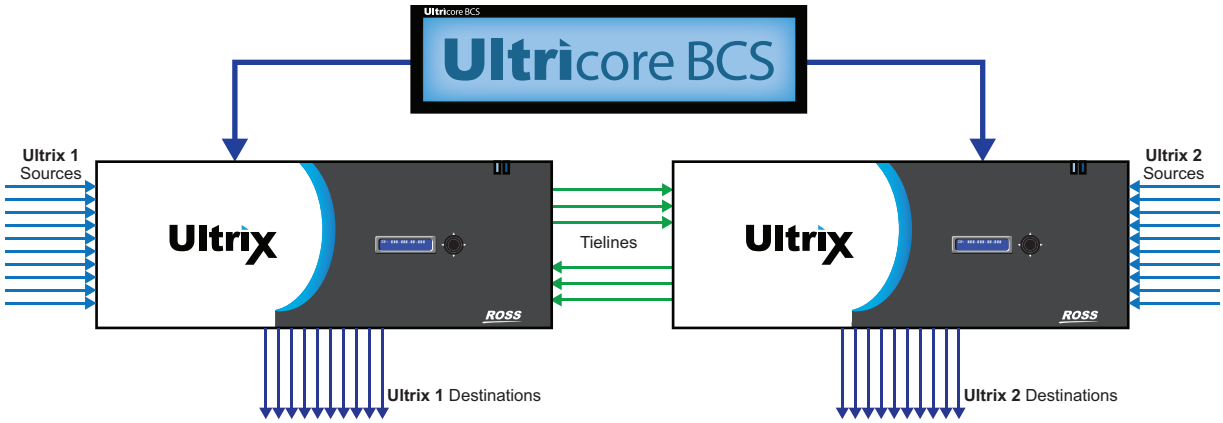


Figure 38 Example of a Distributed Routing System Work Flow with Tielines

Figure 39 illustrates a work flow where Ultrix 2 needs a source that is only present on Ultrix 1. The Ultricore BCS routes the requested source to a destination that is configured as a tieline, and on Ultrix 2, it will route the tieline source to the user selected Destination.

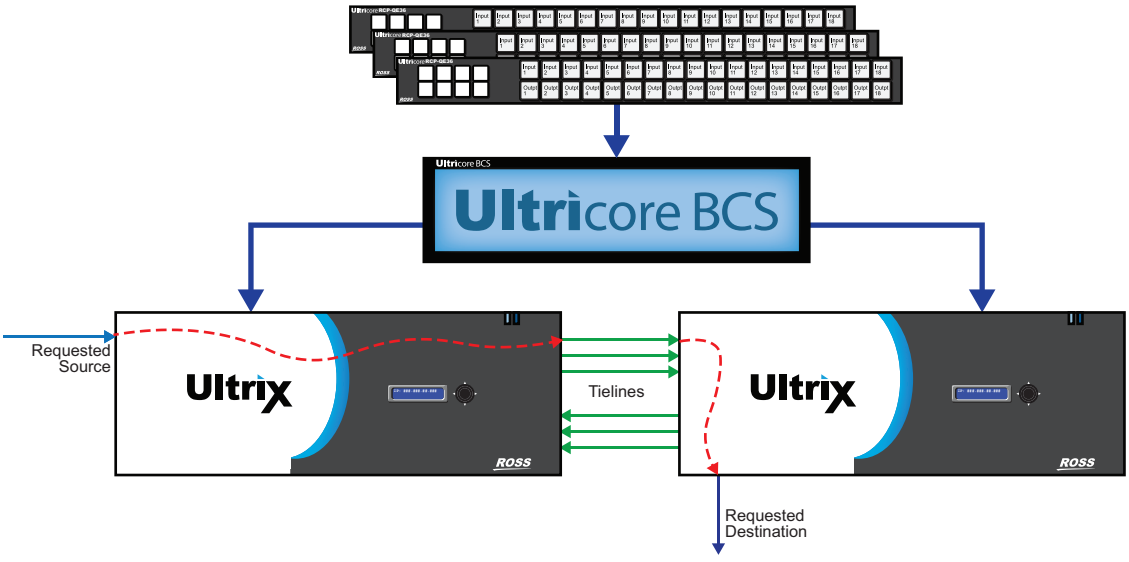


Figure 39 Example of Tielines in a Work Flow

In **Figure 39** the following occurred:

1. An RCP-QE36 panel, with access rights, made a request for a source on Ultrix 1 to be connected to a destination on Ultrix 2.
2. The Ultricore BCS determined the ‘path’ knowing it has to use a tieline.
3. The Ultricore BCS had a free tieline and enabled:
   a. The Ultrix 1 requested source to switch to the tieline.
   b. The Ultrix 2 tieline input to switch to the requested destination.

Setup Work Flow

Figure 40 summarizes the steps required to set up and configure tielines for the Ultricore BCS.

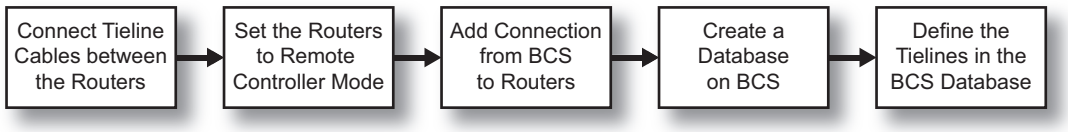
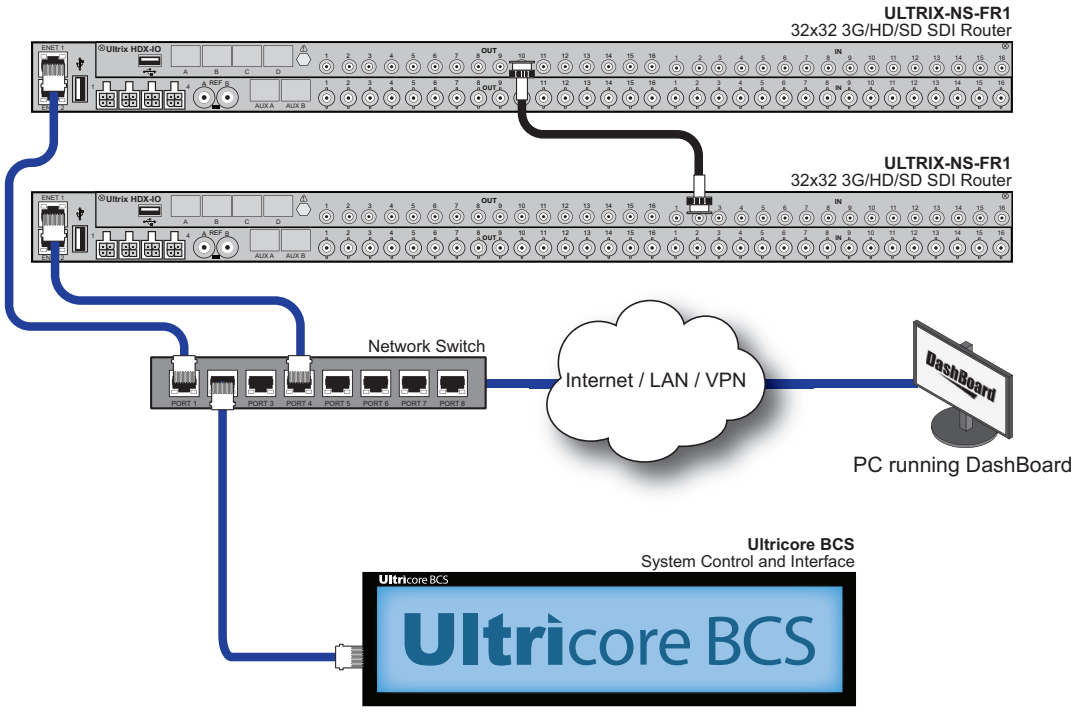


Figure 40 Required Steps for Tieline Setup

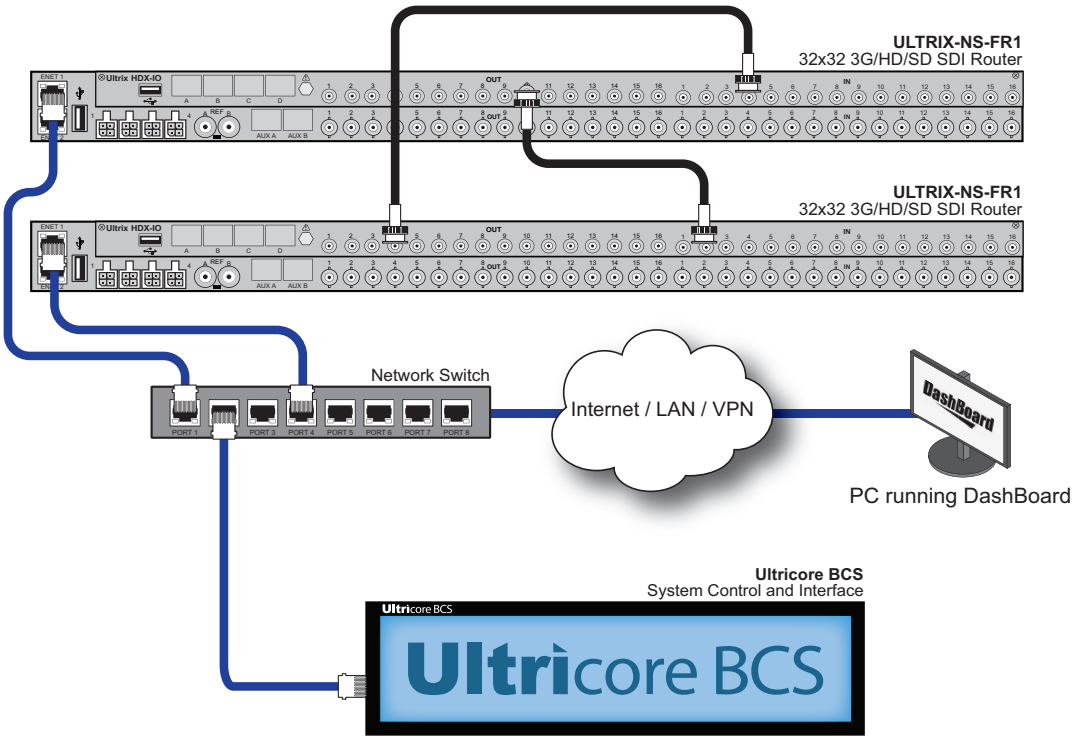
Physical Setup

This section outlines the physical setup needed before configuring tielines on the Ultricore BCS.

1. Connect the signal cable(s) from the output(s) on Ultrix 1 to the input(s) of Ultrix 2.



2. If bi-directional tieline management is required, connect the signal cable(s) from the output(s) of Ultrix 2 to the input(s) of Ultrix 1.



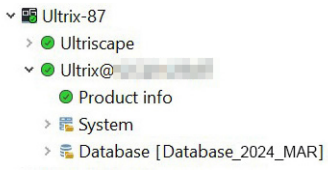
3. Take note of the physical address of the connectors used for the tieline signal cables as this information will be required when configuring the tielines in DashBoard.

Add the Routers to Ultricore BCS Control

This section assumes that each router is configured in DashBoard.

✶ Two or more physical routers are required for tieline setup. Tielines within the same router are not supported.

1. Display the **Product Info** interface in DashBoard for the router as follows:
   a. Locate the Ultrix node in the Tree View.
   b. Expand the Ultrix node to display a list of sub-nodes.
   c. Expand the Ultrix sub-node.



   d. Double-click the **Product Info** sub-node.
2. Select the **Setup** tab.
3. Ensure each router has a unique Device Name assigned to it. This makes it easy to identify the router in the database.

   To assign a name to a router:

a. Locate the **Device Identification** area.

b. Use the **Device Name** field to assign a unique identifier to the router.

4. Set the Ultrix router to Remote Controller mode as follows:

a. Locate the **DashBoard Interface** area.

b. Select the **Remote Controller Mode** box.

5. Repeat steps 1 to 4 for each router.
6. Reboot each router by clicking the **Reboot** button on its **Product Info** interface.
7. Create a connection point between the Ultricore BCS and each router as outlined in "**Connecting to an Ultrix Router**".

To add a router to the database

1. Display the Database nodes on the Ultricore BCS as outlined in "**To access the Database interfaces**".
2. Double-click the **Routing Devices** sub-node.
3. Select the row for the router.
4. Select the Communications tab in the **Routing Devices** page.
5. Specify the type of connection as follows:

a. Set the **Protocol** to **Ultrix**.

b. Set **Type** to **tcp**.

c. Set **Count** to **1** (for one Ultrix connection).

6. If required, enter a unique identifier for the new connection in the **Device Name** field.
7. In the **Address** field, type the IP Address for the Ultrix you want to connect to.
8. Set the **Port** to **15000**.
9. In the **Control** area, set the Device Status to **enabled**.
10. Repeat this procedure for every router you wish to include in the database.

Create a Database for the Ultricore BCS

Tieline definition starts with the database. Tielines may only be configured to work with outputs of a router that are not defined as regular destinations. To enable a physical output to be used as a tieline, any reference to that physical port must be removed from the Destination table of the database. This deletion of an output from the list of logical destinations serves to prevent a mis-configured system from directly controlling a tieline by directly routing to it.

✶ An output port must be either a regular destination or a tieline. It cannot be both.

To create a database to utilize the resources presented by the connected routers

1. Create a database for the Ultricore BCS as outlined in "**Creating a New Database**".
2. Edit the database to identify tieline sources, destinations, and free sources as outlined below.

To delete a logical destination definition

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Destinations** node located under the **Database** node.

   The **Destinations** tab opens.

3. Locate the Destination row that includes the physical port name of the output port to be used as a tieline.

✶ By default, Ultrix uses the nomenclature of `framename.slotnumber.out[socket].type` to reference a physical output socket.

4. Select any cell within the row.
5. Click **Delete**.
6. Repeat this for each output that is to be used for a tieline.

✶ Any audio channels associated with the main SDI output socket reference must be removed from the destination table also.

Define a Free Source for each Router

Tieline control requires the definition of a router input as a “parked” or “free source” on each router within the tieline enabled system. This free source supplies a dedicated source for destinations that were previously fed via a tieline, but the tieline has now been freed or was re-assigned. This section outlines how to define a local parked source on a router.

✶ Each router within the tieline system requires a Free Source definition. If a Free Source is not defined, a destination will remain connected to the tieline, even after being released.

To define a free source on a router

1. Make note of a physical IN port on the Ultrix router that provides a known and valid signal.

   This would typically be a test signal, station logo or similar. Ultrix routers also have the ability to define a 'disconnected' source. This signal is used when the tieline is “parked” or not in use.

2. Navigate the database source definition page and edit (or create if not already defined) the source name as required.
3. Assign a name to this new source following the convention of `FreeSource-<RouterName>` where `<RouterName>` is the name of the Ultrix router. For example, if the router name is Ultrix23, then the Free Source label will be `FreeSource-Ultrix23`.
4. Ensure to assign and add the physical router port from step 1 to this new source in the Ultrix database.

Using the Ultricore BCS Tieline Builder

Once you have defined the connection points and database for your routing system, you can define the routers and available I/O ports for use in tielines. For each tieline you must define where the tieline starts (by selecting an output from a device) and where it will end (by selecting an input from another device).

The Ultricore BCS provides two interfaces for creating and managing tielines:

- **Tieline Builder** — creates tielines based on the routers and ports available to the Ultricore BCS within the current database and routing system.
- **Tieline Runtime** — reports the sources and destinations for each defined tieline, enables the user to manage and monitor the switch requests using the defined tielines.

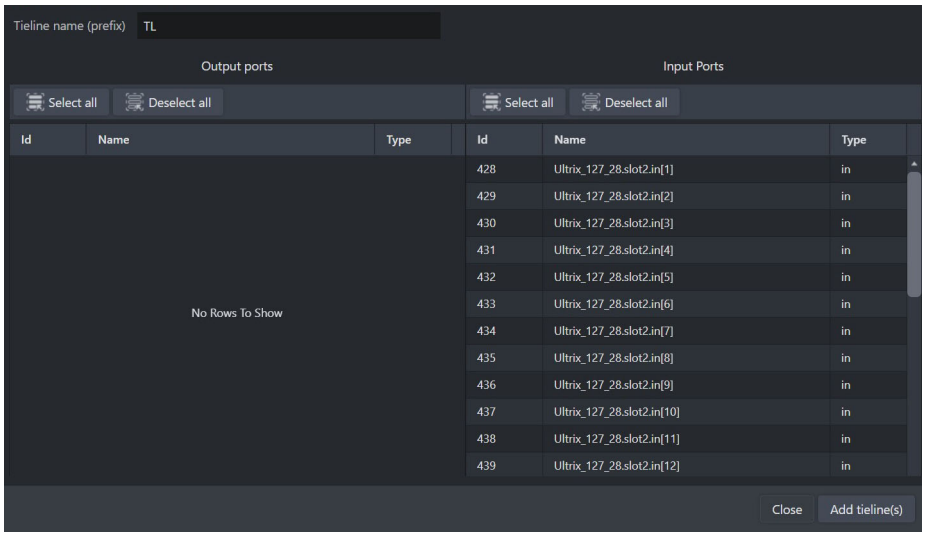
To define a tieline on the Ultricore BCS

1. Display the Database nodes on the Ultricore BCS as outlined in “**Accessing the Database Interfaces**”.
2. Double-click the **Tieline Builder** sub-node.

   The **Tieline Builder** interface opens in the DashBoard window.

3. Click **Add**.

   The Add dialog opens.



4. To define the start point for a tieline:
   a. Locate the **From Device** table in the interface.
   b. Use the **From Device** menu to specify the router that will provide the start point for the Ultricore BCS tieline. In **Figure 39**, this would be Ultrix 1.

      The **Output Ports** area updates to display a list of available output ports on the selected router.

✶ The **From Device Output** ports that display `Used for <dst name>` cannot be used for tieline start points.

5. From the **Output Ports** area, select the port that will be the Ultricore BCS tieline start point.

✶ The port was noted during the "**Physical Setup**".

6. To define the end point for a tieline:
   a. Locate the **To Device** table in the interface.
   b. Use the **To Device** menu to specify the router that will be the end point for the Ultricore BCS tieline. In **Figure 39**, this would be Ultrix 2.

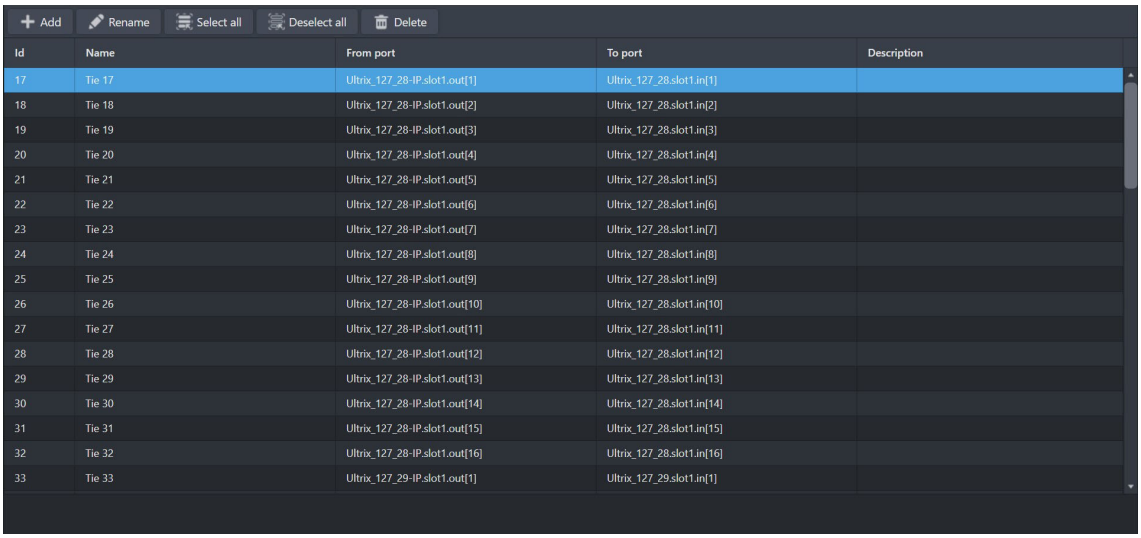
      The **Input Ports** area updates to display a list of available input ports on the selected router.
7. From the **Input Ports** area, select the port that will be the endpoint for the Ultricore BCS tieline. This is the physical input where the tieline cable was connected during "**Physical Setup**".
8. Click **Add Tieline**.

   The **Existing Tielines** table updates to include the new tieline.

   A created tieline automatically takes the default name `Tie x` where `x` is a numerical identifier.

✶ A tieline can be renamed. Highlight the tie line row to be renamed, and click **Rename**.

9. Repeat steps 4 to 8 for each tieline that the Ultricore BCS will manage in your routing system.



Using the Tieline Runtime

Once your tielines are defined, you will need to verify the routing system sources and destinations that the Ultricore BCS will use to determine the best path for the tieline between its start and end points.

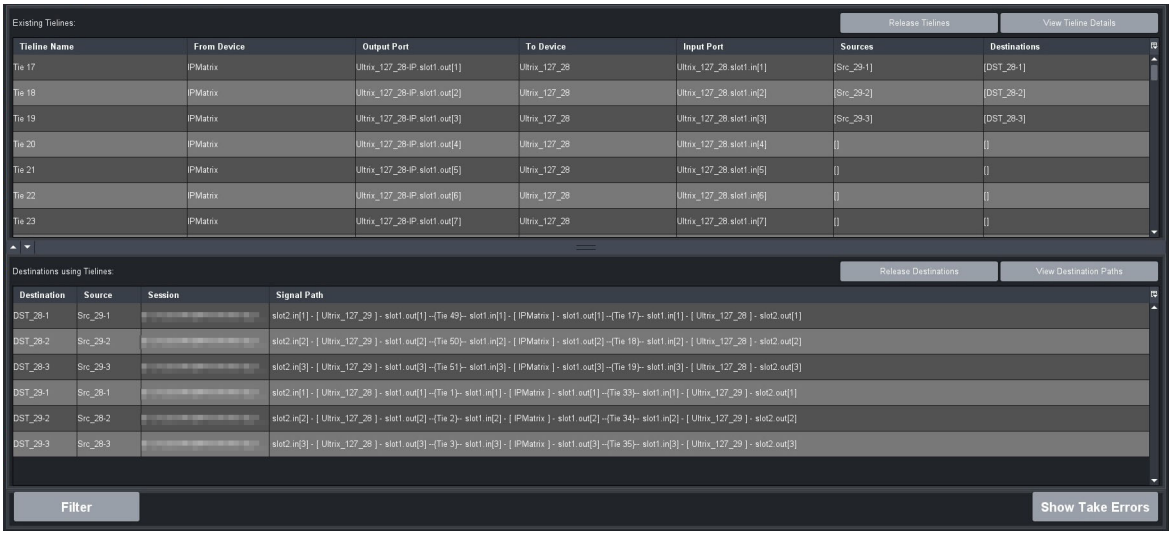
Viewing the Tieline Details

The Tieline Runtime interface enables you to view the sources and destinations available for each existing tieline,

To view the tieline details

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Tieline Runtime** sub-node.

   The **Tieline Runtime** interface opens in the DashBoard window.



3. In the **Existing Tielines** table, select the row for the tieline you wish to verify.
4. Click **View Tieline Details**.

Parking a Tieline using a Free Source

When a tieline resource is no longer required, it should be parked or released. This ensures subsequent uses of the tieline do not inadvertently route a new signal to the previous tie-line destination selection.

An entire tieline route may be released (Release Tieline function) or specific destinations using that tieline may be released (Release Destination function).

To park an entire tieline

✶ This will park all destinations currently using the selected tieline.

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Tieline Runtime** sub-node.

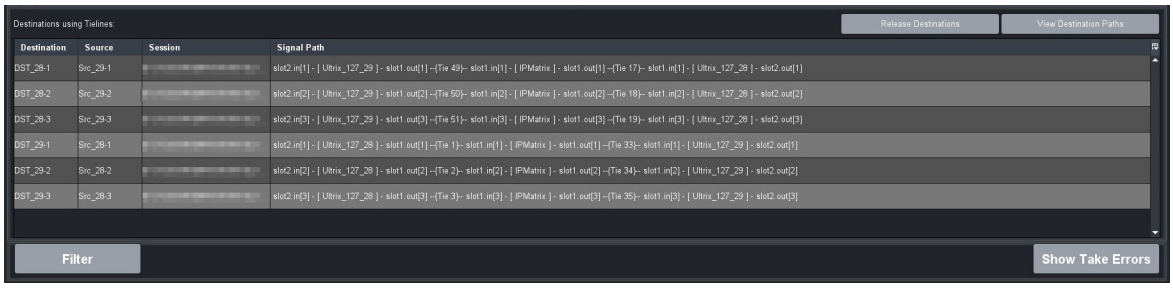
   The Tieline Runtime interface opens in the DashBoard window.
3. Select the tieline to park from the **Existing Tielines** table.

4. Click **Release Tielines**.

To park a specific destination

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **Tieline Runtime** sub-node.

   The Tieline Runtime interface opens in the DashBoard window.
3. Select the destination path from destinations using Tielines table.



4. Click **Release Destinations**.

Using Cat/Index Mode

Category Index mode (or Cat/Index mode) enables you to organize the resources (sources, destinations, and/or levels) in a routing database to defined categories. This allows you to piece together or build up the final resource name from category names and index identifiers. Once you have defined your categories, you can create a custom soft panel using the category settings to arrange the sources, destinations, and levels.

This chapter outlines how to organize your resources using the Cat/Index Mode feature.

✶ The procedures in this chapter assume that the Cat/Index Categories interface displays in the DashBoard window. Refer to "**Accessing the Database Interfaces**" for details.

For More Information on...

- the Group Categories feature, refer to "**Using Group Categories**".
- creating a custom soft panel using the category settings, refer to "**Soft Panels in DashBoard**".

Cat/Index Categories Overview

Cat/Index mode allows alpha-numeric extensions to labels to "build up" the final label selection. For example, CAM 1 - 6 may be expressed as a CAM label with numerical extensions 1 through 6. Similarly, alpha extensions may be used, for example, CAM A - E for Cameras A through E.

Destination and source names are split into substrings - the first substring is referred to as the *category*, and subsequent substrings as the *indexes* (e.g. Category CAM index 1 through 6). As source/destination names become more complex, an index may not be the final part of the selection name. For example, consider the source names CG TX 1 and CG TX 2; Cat/Index category mode may be configured so that a user selects CG, then TX, then either 1 or 2. This may be extrapolated to cover a large range of sources and destinations.

Example of a Cat/Index Category Setup

The following resources are available:

Sources / Destination Names				
CAM 1	SAT A1	CG RX 1	EDIT A	VTR1
CAM 2	SAT A2	CG RX 2	EDIT B	VTR2
CAM 3	SAT A3	CG TX 1	EDIT C	VTR3
CAM 4	SAT B1	CG TX 2	EDIT D	VTR4
CAM 5	SAT B2	CG TX A	EDIT E	VTR5

The possible categories and indexes would be:

Categories	Indexes		
CAM_[a]	1	5	D
SAT_	2	A	E
CG_	3	B	RX_
EDIT_	4	C	TX_
VTR			

a. The "_" characters represents a blank space. This indicates the category will filter resources with a space in the name (e.g. the CAM_ category will allow resources named CAM 1, CAM 2 but not CAM3).

Once the Cat/Index categories are defined, the user can perform switches, on a hard or soft panel, based on the categories.

In **Figure 41**, a RCP-QE18 is used to select the source labeled as **CAM 3**. Note only the sources are available for the second button selection. In this example, the user would need to select **TAKE** to make the switch.

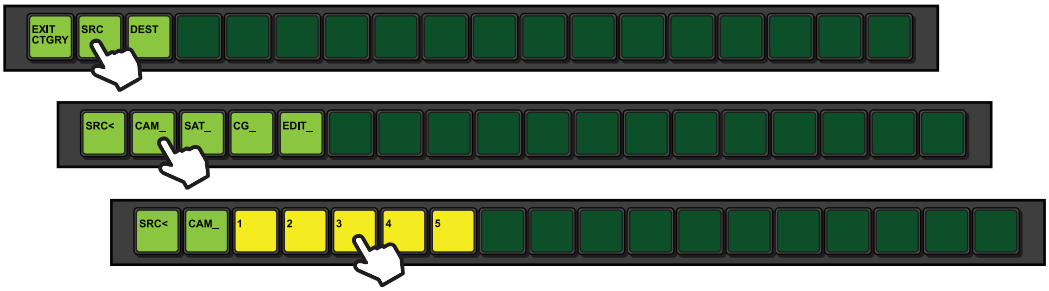


Figure 41 RCP-QE18 — Selecting HD 3 via Category Mode

In **Figure 42**, a soft panel is used to select the destination labeled as **SAT B2**.

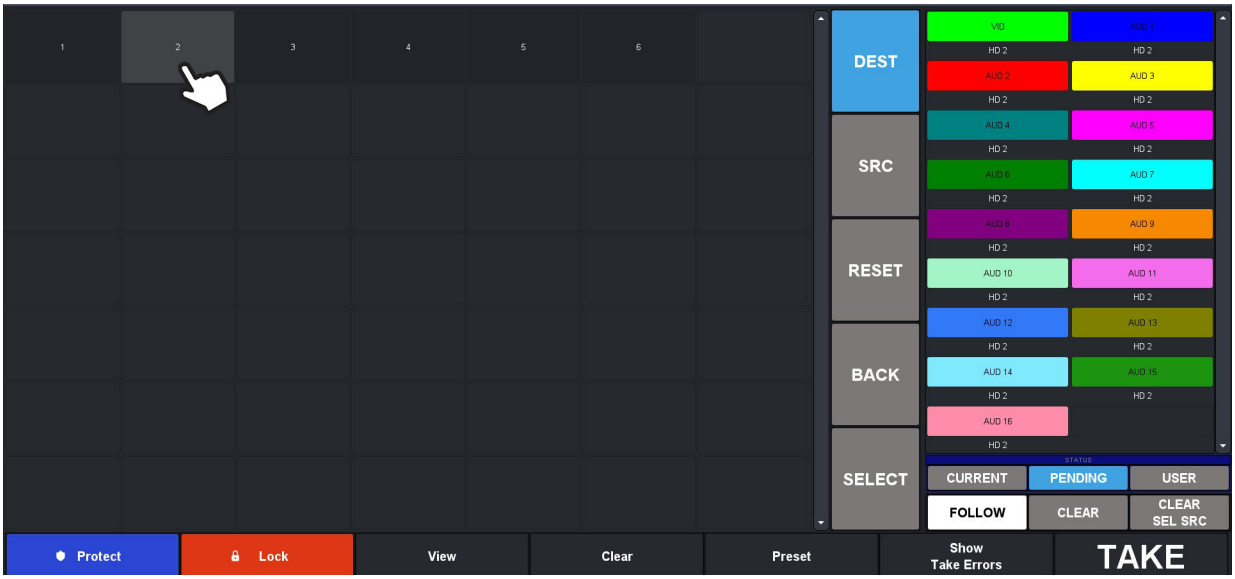


Figure 42 Ultrix — Selecting SAT B2 via a Soft Panel

Configuring a Cat/Index Category Setup

Configuring Cat/Index categories requires:

1. Creating the categories.
2. Creating the index filters.
3. Assigning the resources.

Creating the Categories

You can assign each resource to a specific category or multiple categories in a database. Using multiple categories enable you to filter the resources, and organize them into logical groups. By default, categories are organized in alphabetical order. There are two methods for creating categories: auto-generate and manual.

Using the Auto-Generate Tool

✶ All previous categories will be deleted from the **Category** table and new ones are created based on the resource labels in your database.

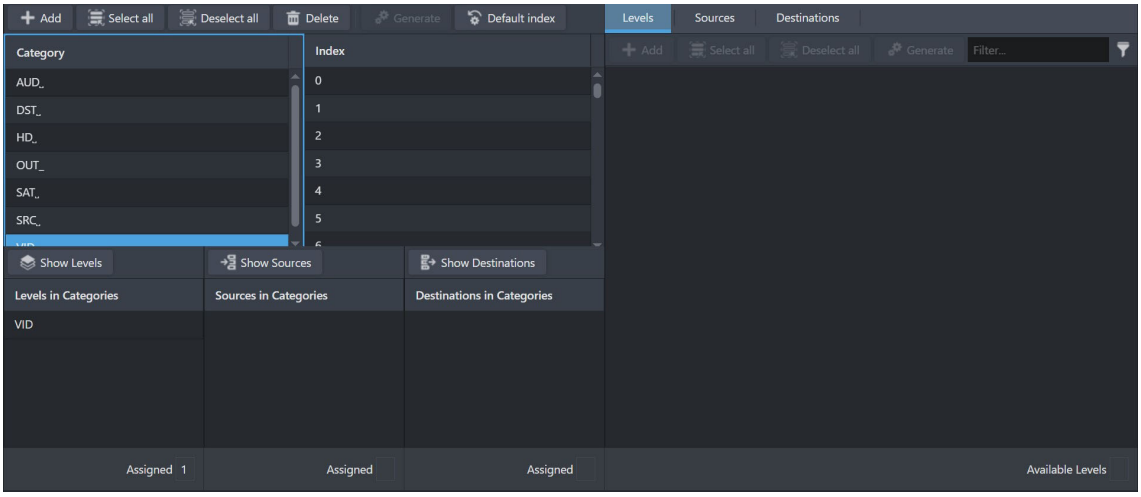
To auto generate categories based on a database

1. Click **Generate** on the **Cat/Index Categories** interface.

   The **Auto-Generate** dialog opens.

2. Click **Apply**.

   The **Auto-Generate** dialog closes. The Category and Index tables are now populated based on the database labels.



Manually Create a New Category

You can choose to create a new category that is not based on the resource labels in your database. This is helpful when you want to customize the labels for the control panel with specific resources.

To manually create a new category

1. Select a row in the Category table.
2. Click **Add** on the **Cat/Index Categories** interface.

   The **Add Category** dialog opens.

3. Use the **Name** field to specify a unique identifier for the new category.

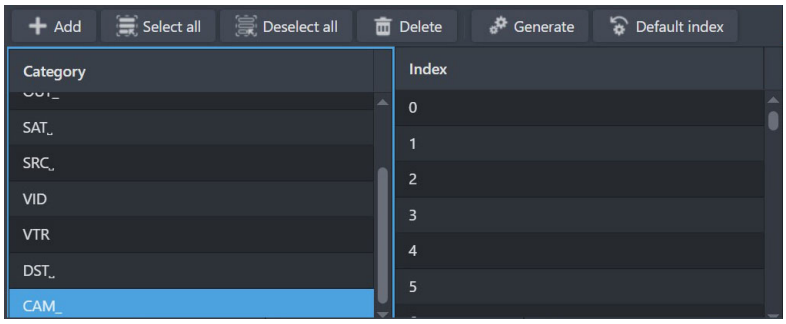
   The entry must match a resource name prefix. For example:

   - "`CAM_`" creates a category to categorize resources named `CAM_xx` where `xx` is any index.
   - "`CAM`" creates a category to categorize resources named `CAMxx` where `xx` is any index.
   - "`cam`" will not categorize any resources as the category names are case sensitive.

4. Click **Apply**.

   The **Add Category** dialog closes and the new category displays at the bottom of the **Category** table.

   In the following example, the user created a new category "`CAM_`".



Deleting a Category

You can choose to delete a category by selecting it from the list and clicking Delete. This will remove the row from the Category table and clear the resources. The resources will now display in their respective tabs, making them available to assign to the remaining categories.

To delete a category from the database

1. Select a row in the Category table.
2. Click **Delete** on the **Cat/Index Categories** interface.

   The **Delete Category** dialog opens.
3. Click **Apply**.

   The **Delete Category** dialog closes and the selected category and assigned resources no longer display in the Category table.

Creating the Index Filters

An index for a category enables you to filter the resources. As category names and indexes are entered, the bottom half of the **Category** table updates to indicate which resources of a given category is accessible on a control panel.

✶ Unicode characters are not supported.

Auto-Generated Index Filters

There are two methods of auto-generating index filters:

- Using the Auto Generate tool — this feature creates categories and index filters based on the resource labels of the database. Refer to "**Using the Auto-Generate Tool**" for details.
- Using the Default Index tool — click this button to replace the only the entries in the Index table with filters based on the resource labels of the database.

Manually Assign an Index Filter

You can create an index filter that is not based on the resource labels of the database. This allows you to customize the filters used when creating a soft panel, or when using a control panel.

To assign an index filter

1. Select a row in the **Index** table.
2. Click **Add** on the **Cat/Index Categories** interface.

   The **Add Index** dialog opens.
3. Use the **Name** field to specify a new index filter.

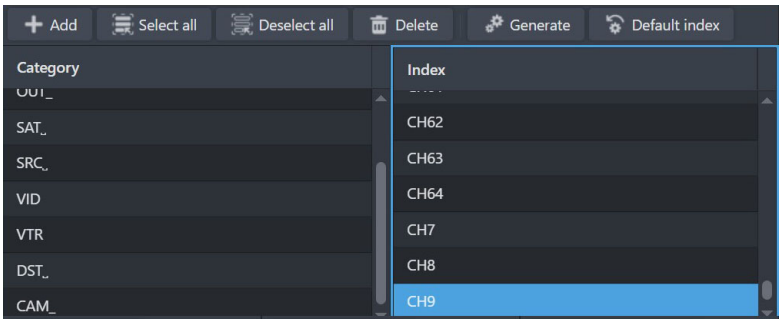
The entry must match a partial resource name. For example:

- "`TX_`" creates a sub-index of TX, meaning further entry is required on the control panel. This will filter resources named `<category name>`**`TX_xxxx`** where **`xxxx`** is any index.
- "`TX 1`" creates an 'end-point' index, meaning TX 1 is the last substring and no further entry is required on a control panel. This will filter resources named `<category name>`TX 1.
- Note that you would not create an index of "TX 1" and a sub-index of "TX_". You must choose one or the other.

4. Click **Apply**.

   The **Add Index** dialog closes and the new index filter is listed in the **Index** table.

   In the following example, the user created index "`CH9`".



Managing the Resources

The Cat/Index Categories interface organizes the lists of resources based on what is currently assigned to a category/index, and what resources are still available (unassigned). This information is also reported in the bottom toolbar of the Cat/Index Categories interface.

Assigned Resources

The lower half of the Cat/Index Categories interface displays the Levels, Sources, and Destinations currently assigned to a selected category.

Select a row in the Category table to display the assigned resources for that specific category. In **Figure 43**, the user is reviewing the resources for the `CG_` category.

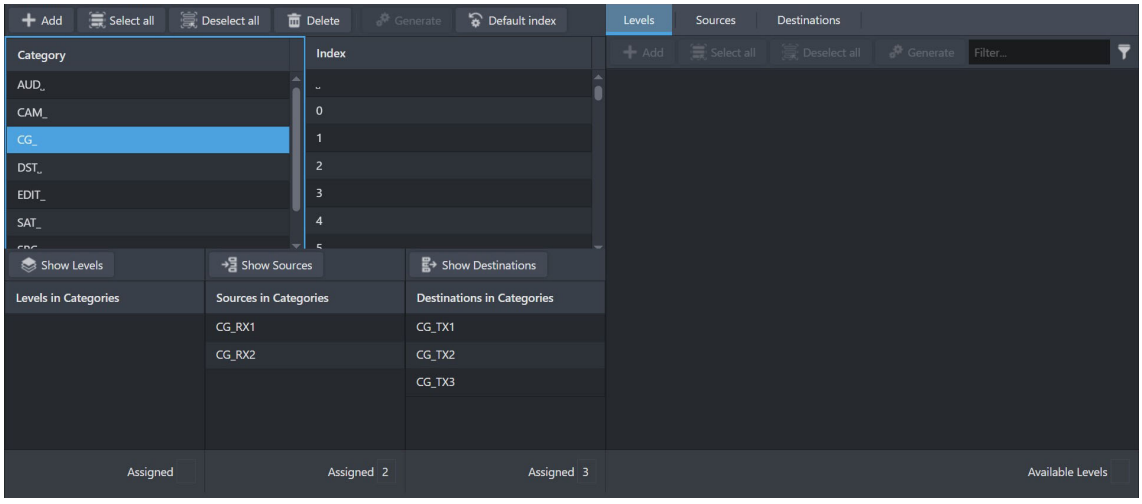


Figure 43 Example of Assigned Resources for a Category

Click a **Show** button to display the resources in the table and highlights each category and index the resources are assigned to. In **Figure 44**, the user selected **Show Sources**.

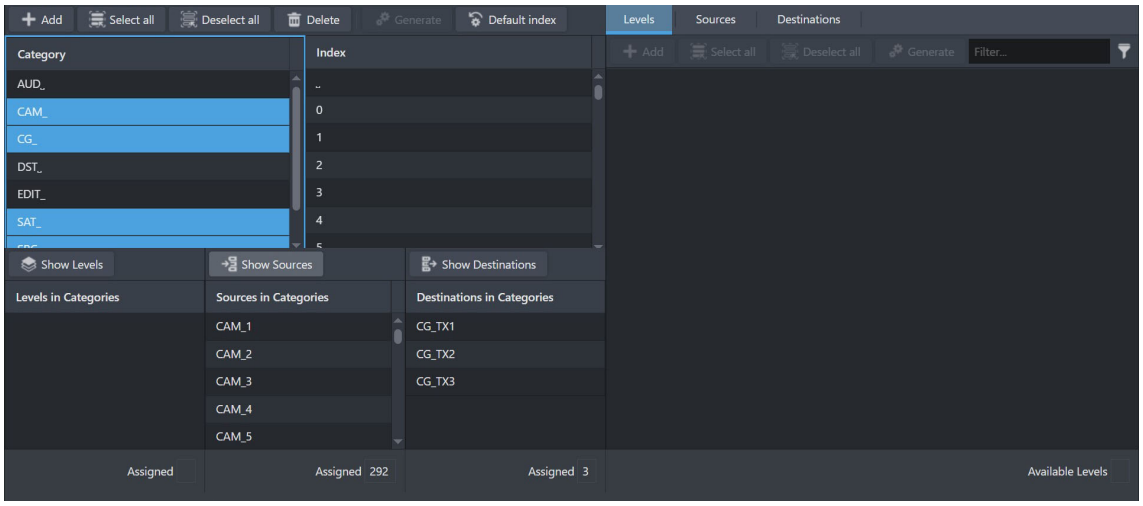


Figure 44 Example of Sources in Categories

Available Resources

The right panel of the Cat/Index Categories interface displays a tab for each available resource type in the database. Select a tab to view a list of those resources that are not assigned. If a tab is blank, all the resources of that type are currently assigned to a category.

In **Figure 45**, the user is reviewing the list of available Destinations.

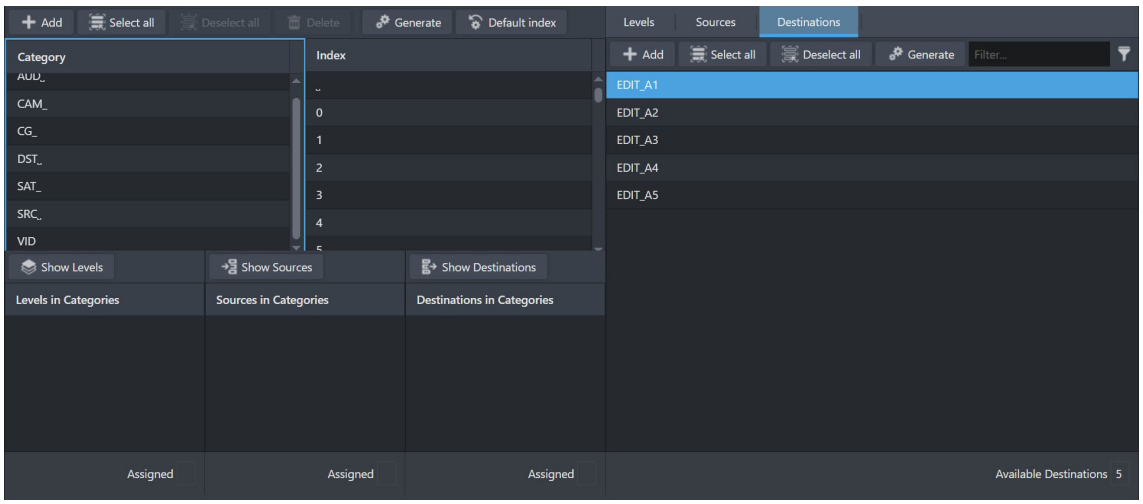


Figure 45 Example of Available Resources

To create a new category based on the resources

1. From the right panel, select the tab for the resource type you wish to assign.

✶ If the tab is blank, all the resources of that type are assigned.

2. To manually add a new category:
   a. Select a resource.
   b. Click **Add**.

      The Add Category/Index dialog displays with the Category auto-populated based on the selected resource.

c. Edit the fields as required.

d. Click **Apply**.

3. To auto-generate a new category, click **Generate** from the resource tab toolbar.
   - The Category table displays the a new row for the generated category.
   - The selected resource tab is now blank.

Using Group Categories

Group Categories allow the user to organize database resources (sources, destinations, and levels) into folders and sub-folders with arbitrary group names. The group name is not required to match the resource names (it is similar to setting up file folders). This group categorization is useful when you need to group resources based on their operational regions, events, personnel credentials etc. Once you have defined your categories and tags for each level of a database, you can create a custom soft panel using the category settings to arrange the sources, destinations, and levels.

This chapter outlines how to organize the database resources into folders and sub-folders using the Group Categories feature. This is done in preparation for creating your custom soft panels using the category settings.

✶ The procedures in this chapter assume that the Global Categories interface displays in the DashBoard window. Refer to "**Accessing the Database Interfaces**" for details.

For More Information on...

- Cat/Index categories, refer to "**Using Cat/Index Mode**".
- creating a custom soft panel using the category settings, refer to "**Soft Panels in DashBoard**".

Example of a Group Category Setup

A user wants to arrange sources and destinations based on the types of sports the network broadcasts: baseball and football. The resources available are:

Sources	Destinations
HD1	SAT1
HD2	SAT2
HD3	SAT3
HD4	SAT4
HD5	SAT5

The resources need to be arranged into the following groups based on the sport type:

Baseball	Football
HD1	HD4
HD2	HD5
HD3	SAT4
SAT1	SAT5
SAT2	
SAT3	

Figure 46 shows these resources as organized in the Group Category interface.

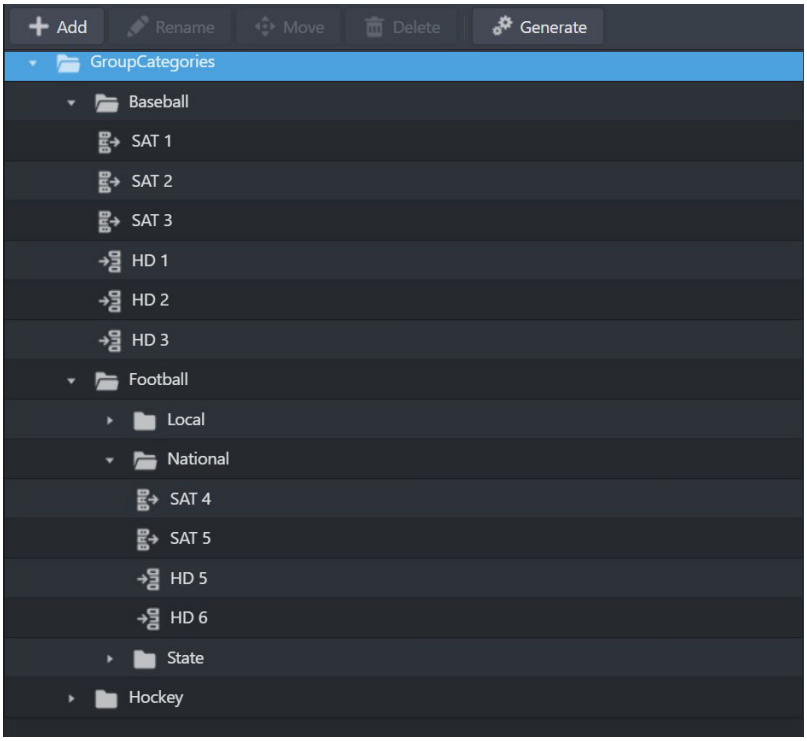


Figure 46 Example of Group Categories Arrangement Based on Sport Type

Once the group categories are defined, you can perform switches, on a hard or soft panel, based on the group categories.

In **Figure 47**, an RCP-QE18 is used to select the source labeled as **HD 3**.

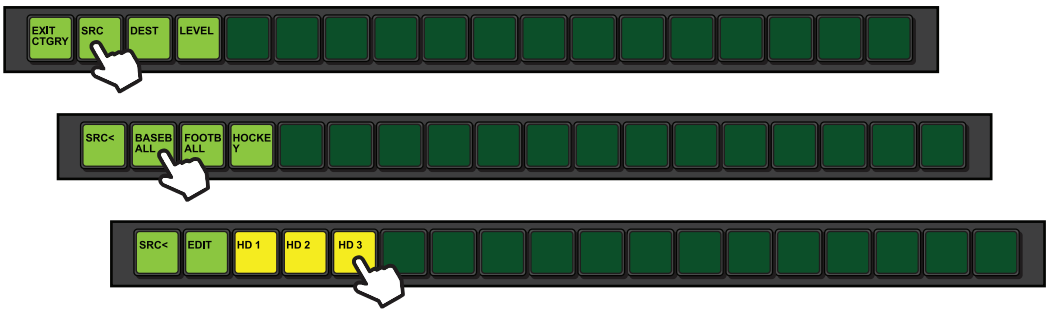


Figure 47 RCP-QE18 — Selecting HD 3 via Category Mode

In **Figure 48**, an Ultrix soft panel is used to select the source labeled as **HD 2**.

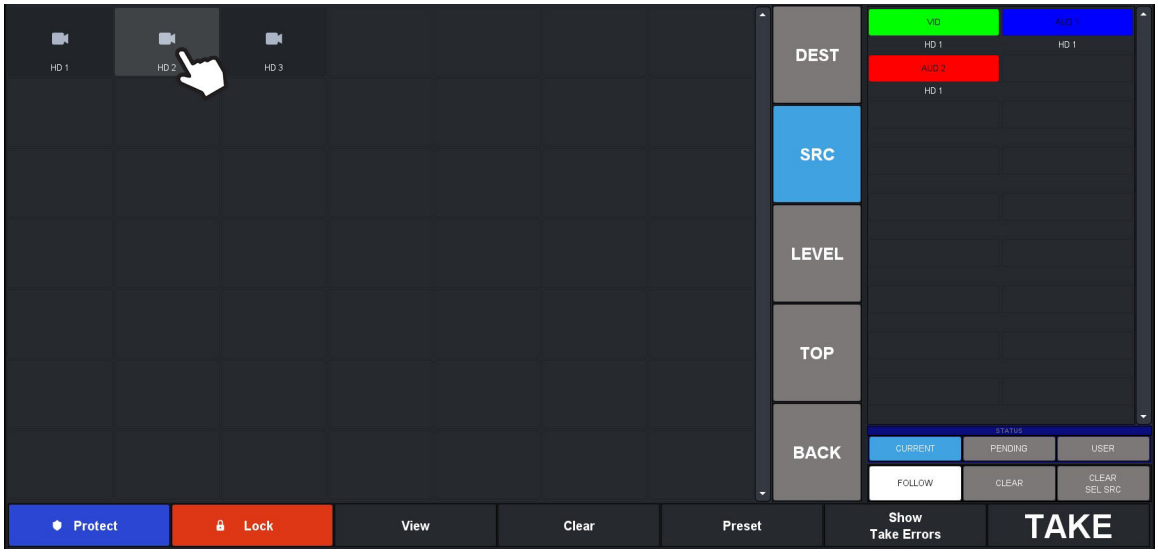


Figure 48 Ultrix — Selecting HD 2 via a Soft Panel

Configuring Group Categories

Group categories are arranged in a hierarchy and displayed in a tree view. Each group is represented as a folder or node, and the resources included in that group are sub-nodes. **Figure 49** shows two main groups (Baseball and Football) where the Football group also has three sub-groups (Local, National, and State).

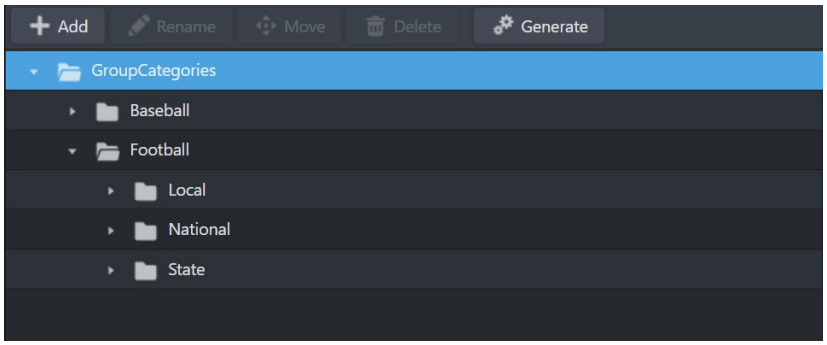


Figure 49 Example of GroupCategories Tree View

Configuring group categories requires:

1. Creating groups
2. Assigning the resources (destinations, sources, and/or levels) to groups

Auto Generating the Groups

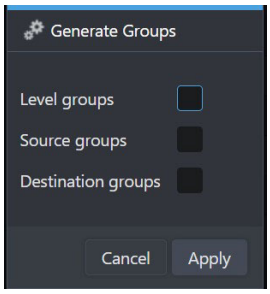
You can choose to create the groups based on the levels, sources, and destinations in your database or a combination. This requires the virtual labels for each resource to be consistent. For example, if all destinations are labeled as `DST #`, a group will be created called `DST` with each destination (resource) listed as a separate node.

✶ Auto generating a group will delete the groups currently listed in the GroupCategories tree.

To auto generate a group

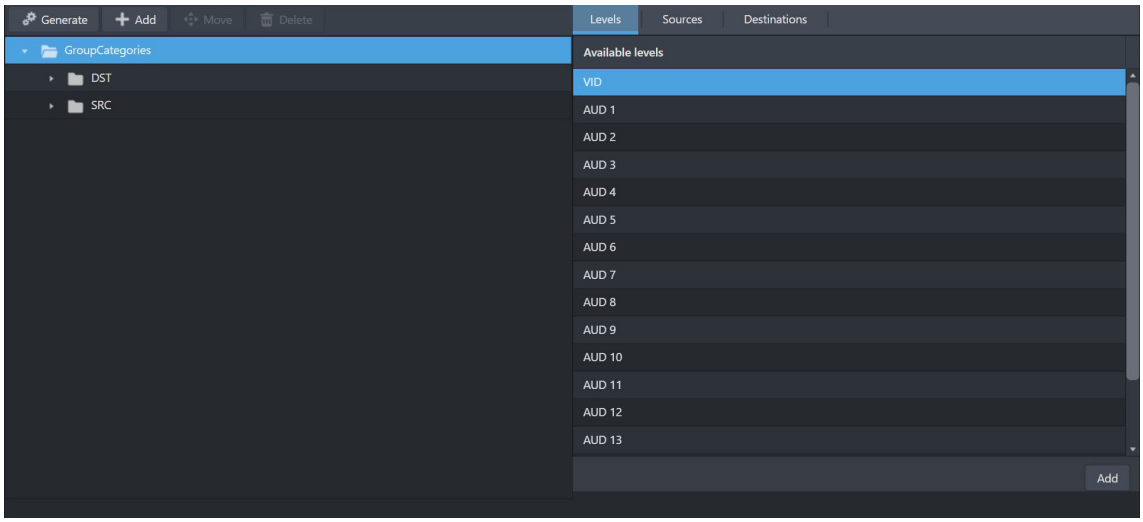
1. Click **Generate** on the **Group Categories** interface.

   The Generate Groups dialog opens.



2. Select the box to include the resources in the group.
3. Click **Apply**.

   The Generate Groups dialog closes and the **GroupCategories** interface displays the new groups. In the following example, two groups were auto-generated: `DST` and `SRC`.



Manually Adding a New Group

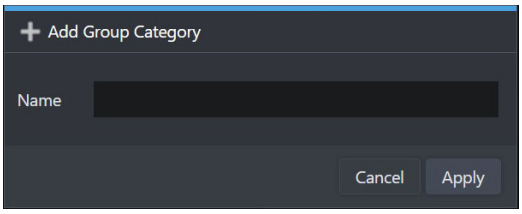
You can add a new group or sub-group using the methods described below.

To manually add a new category group

1. Double-click the **Group Categories** node located under the **Database** node.

   The **Group Categories** interface opens.
2. Select the **GroupCategories** node.
3. Click **Add**.

   The **Add Group Category** dialog opens.

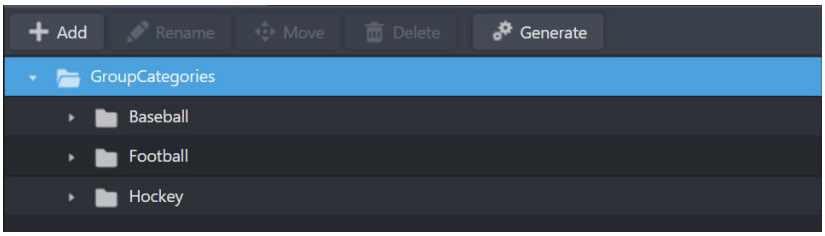


4. In the **Name** field, type a unique identifier for the new group.

✶ Unicode characters are not supported.

5. Click **Apply**.

   The **Add Group** dialog closes and the new group `Hockey` displays in the GroupCategories tree.



To create a category sub-group

1. Expand the **GroupCategories** node.
2. Select the node to add the new sub-group to.
3. Click **Add**.

   The **Add Group** dialog opens.

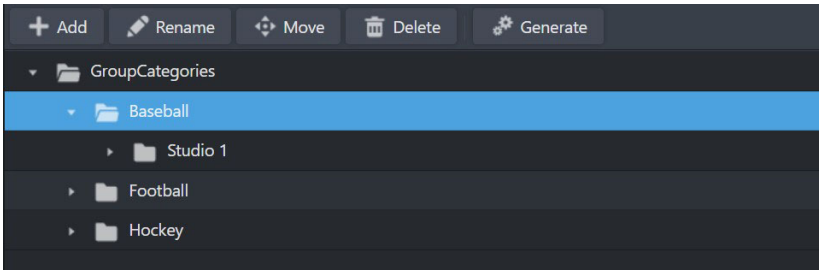
4. In the **Name** field, type a unique identifier for the new sub-group.

✶ Unicode characters are not supported.

5. Click **Apply**.

   The **Add Group** dialog closes and the new sub-group is added to the GroupCategories tree view.

   In the example below, a new sub-group `Studio 1` was created in the `Baseball` group.



Assigning Resources to a Group

You can assign resources (destinations, sources, levels) once a group is created. Resources may be assigned to multiple groups if required.

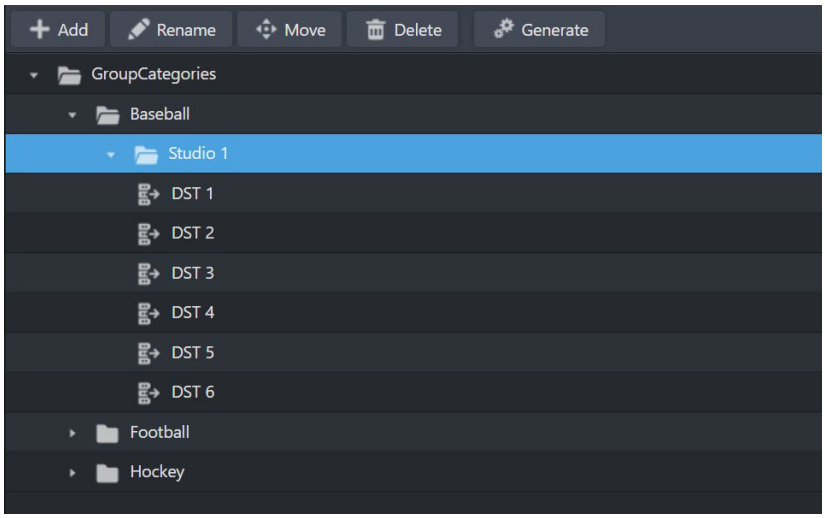
✶ Auto generating the groups will also assign all available resources for that group. For example, if you selected to generate a group of Sources, the sources in the active database are automatically assigned to that group.

To assign a resource to a group

1. In the GroupCategories tree, select the group you want to add a resource to.
2. In the right pane, select the tab for the type of resource you wish to assign to the group.
3. To assign a single resource, select the resource from the tab.
4. To select a series of resources:
   a. In the selected tab, select the first resource in the series you want to assign.
   b. Press and hold **Shift**.
   c. Click the last row in the series.
5. Click **Add**.

   The GroupCategories tree updates to display the selected resources in the group.

   In the example below, `Dest 1` to `Dest 6` were assigned to the `Studio 1` group.

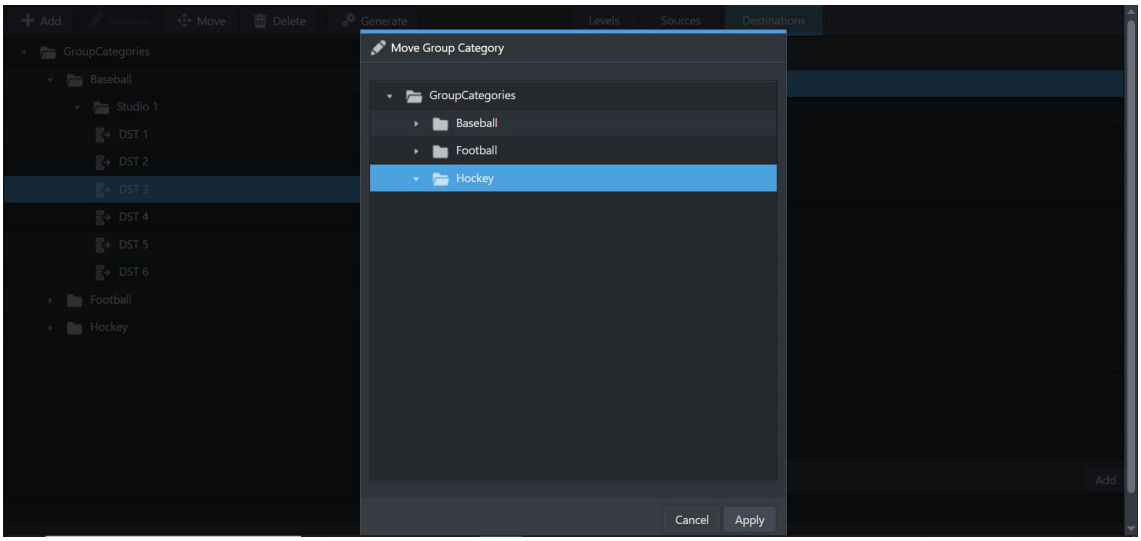


To move a resource to another group

1. In the GroupCategories tree, select the resource you want to move.
2. Click **Move**.

   The **Move Group Category** dialog opens.
3. Select the new location for the resource.

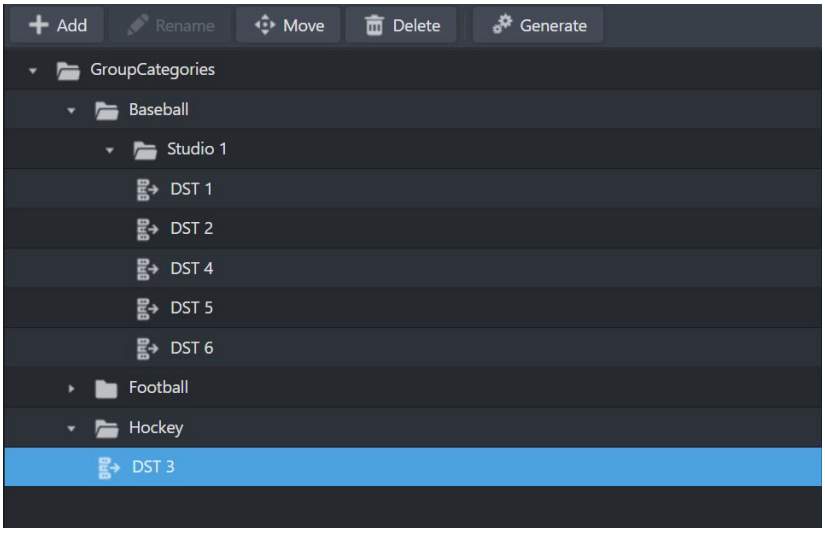
   In the example below, `DST 3` will move from the `Baseball` group to the `Hockey` group.



4. Click **Apply**.

   The **Move Group Category** dialog closes.

   The GroupCategories tree updates to display the resource in the new location. Notice that the resource is now removed from the original group.



To delete a resource from a group

1. In the GroupCategories tree, select the specific resource you want to delete from the group.
2. Click **Delete**.

   The **Delete** dialog opens.
3. Click **Apply**.

   The **Delete** dialog closes.

   The GroupCategories tree updates to no longer display the resource in the group.

To delete a series of resources from a group

1. In the GroupCategories tree, select the specific group you want to edit.

   The middle pane of the Group Categories interface updates to list the sub-groups or resources assigned to it.

2. In the middle pane, select the first resource in the series you want to delete.
3. Press and hold **Shift**.
4. Click the last row in the series.
5. Click **Delete**.

   The **Delete** dialog opens.
6. Click **Apply**.

   The **Delete** dialog closes.

   The GroupCategories tree updates to no longer display the resources in the group.

To move a group within the tree view

1. In the GroupCategories tree, select the group you want to move.
2. Click **Move**.

   The **Move Group Category** dialog opens.
3. Use the tree view in the dialog to select where to move the group to.
4. Click **Apply**.

   The **Move Group Category** dialog closes.

   The GroupCategories tree updates to display the group in the new location.

Renaming a Group

✶ You cannot rename resources using the options in the Group Categories interface.

To rename a group

1. In the GroupCategories tree, select the specific group you want to rename.
2. Click **Rename**.

   The **Rename Group Category** dialog opens.
3. Use the **Name** field to enter a unique identifier for the selected group.

✶ Unicode characters are not supported.

4. Click **Apply**.

   The **Rename Group Category** dialog closes.

   The GroupCategories tree updates to display the new name for the group.

Deleting a Group

Deleting a group does not delete the resources from the database.

To delete a group

1. In the GroupCategories tree, select the group you want to delete.
2. Click **Delete**.

   The **Delete Group Category** dialog opens.
3. Click **Apply**.

   The **Delete Group Category** dialog closes.

   The GroupCategories tree updates to no longer display the group.

Using Salvos

Salvos are a selected series of crosspoints to switch in the matrix that can be saved and later recalled for crosspoint transitions. Procedures in this chapter assume that you have DashBoard launched and the primary device displayed in the Tree View.

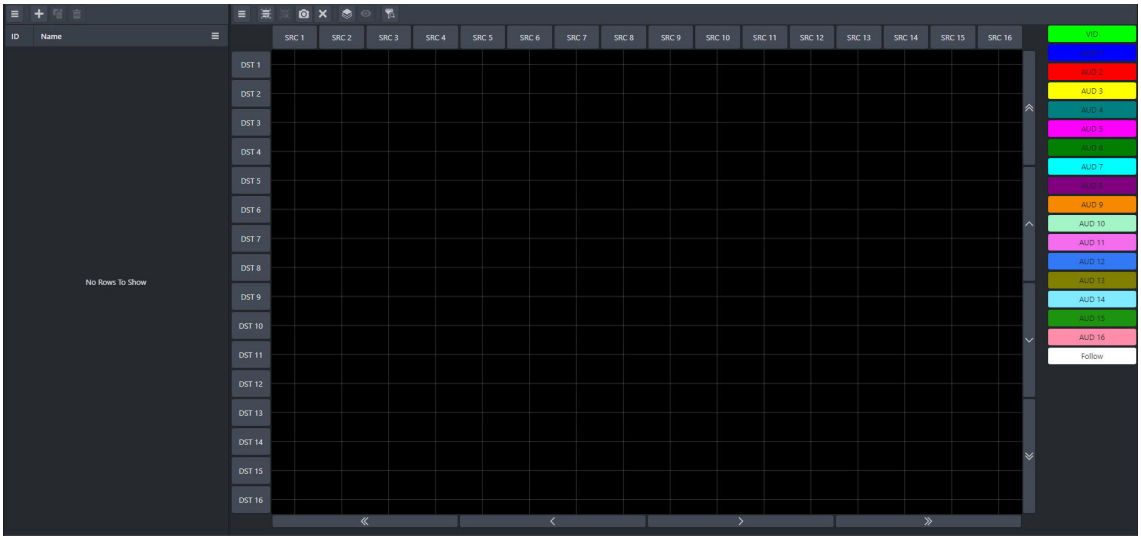
Creating Salvos

The Salvos interface enables you to create, delete, re-name, and manage your salvos in an interface that is off-line. The Salvo interface layout arranges the crosspoints in a grid layout with sources in columns and the destinations in rows. The available levels are displayed in a toolbar to the right of the grid.

To create a salvo

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.



2. Create a new salvo in the database as follows:
   a. Click **Add**.

      The Add Salvo dialog opens.

   b. Type a unique identifier in the **Name** field for the new salvo.

   c. Click **Add salvo**.

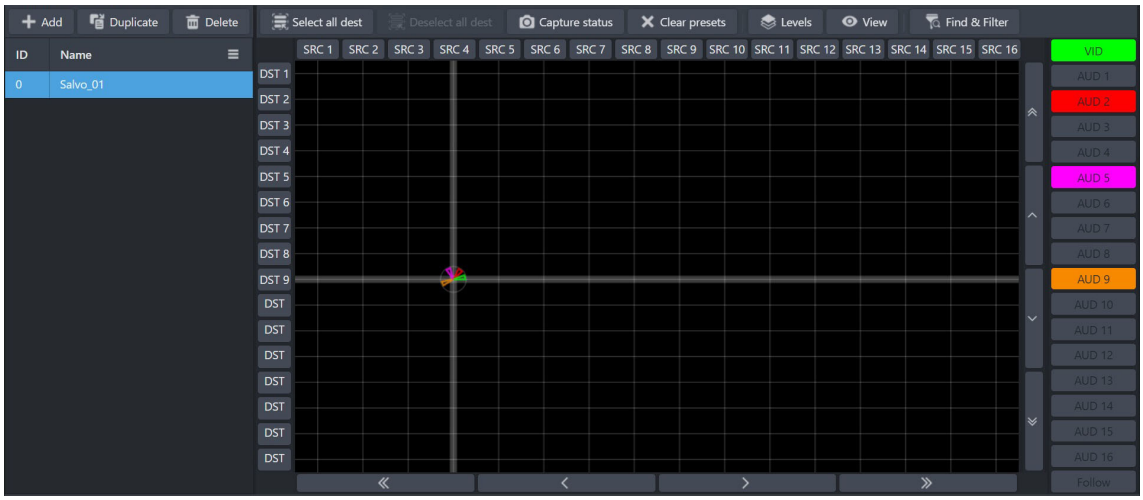
      The Add Salvo dialog closes and the **Salvos** list updates with the new salvo selected. Notice that the salvo is flagged as empty.

3. Select the **Level**(s) button for the level(s) to include in the salvo.

   The **Level**(s) buttons are lit.

4. To create a single crosspoint switch, use the cross-hairs to select the source/destination combination on the grid.

✶ A yellow warning icon displays when a salvo is empty (does not include any crosspoint switches).

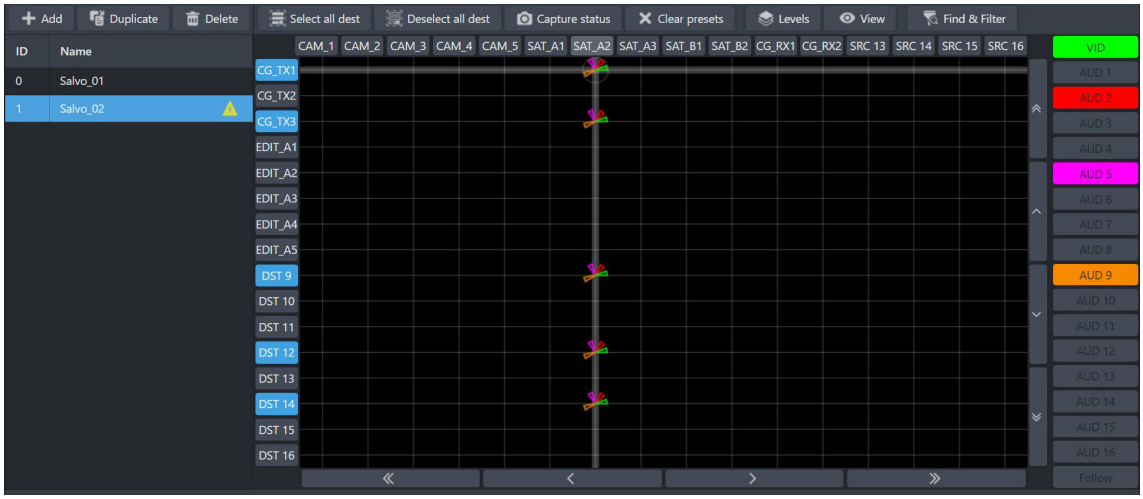


5. To assign multiple destinations to the same source.

   a. Click the button(s) in the **Destination** toolbar for each destination to include in the switch; or click **Select all dest** to include all the available Destinations.

   b. Click the button in the **Source** toolbar for the source to use for the switch.

      The grid updates to indicate the new selections. Notice that each level is represented by a corresponding slice of the crosspoint indicator. In the following example, there are five crosspoint switches selected that will affect four levels.



6. Click **Follow** to enable the levels to automatically follow the switches.

✶ Click **Deselect all dest** to cancel the destination selections or click **Clear presets** to clear the workspace.

Saving the Current Crosspoint Status as a New Salvo

The Capture status option enables you to copy the current state of the crosspoint selections and save them as a new salvo.

✶ It is recommended to first verify the current destination crosspoint states using one of the soft panels in your database. Refer to "**Soft Panels in DashBoard**".

To create a salvo based on the current status of all destinations

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

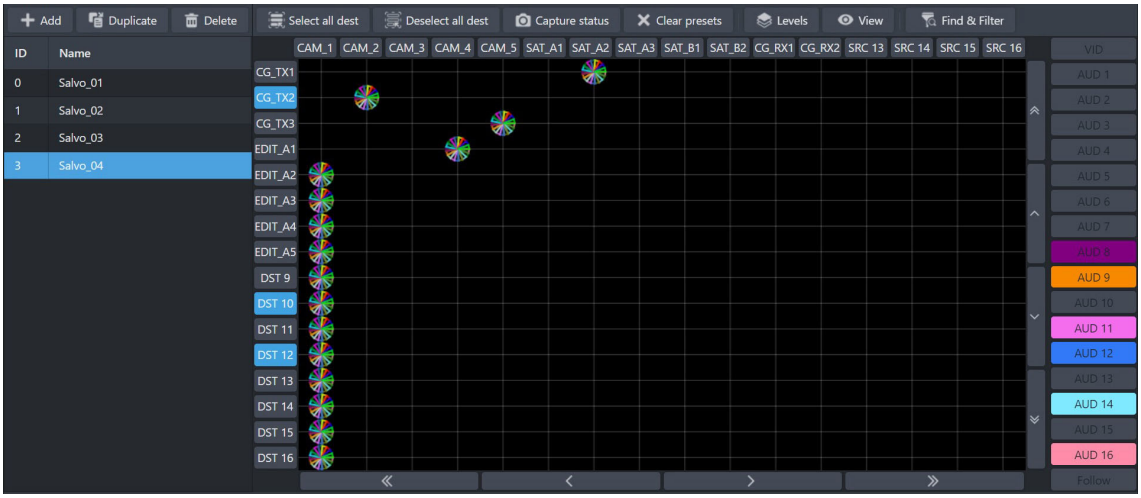
2. Select **Capture status** > **Capture system status**.

   The Capture System dialog opens.

3. Type a unique identifier in the **New name** field for the new salvo.

4. Click **Apply**.

   - The Capture System dialog closes.
   - The **Salvos** list updates with the new salvo selected.
   - The matrix in the **Salvos** interface updates to reflect the current crosspoint state.



To create a salvo based on destination status

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. Select **Capture status** > **Capture destination status**.

   The **Capture Destination** dialog opens.

3. Use the **New name** field to type a unique identifier for this salvo.

4. Click **Apply**.

   The matrix in the **Salvos** interface updates to reflect the current destination states.

5. Select the **Level**(s) button for the level(s) to include in the salvo.

   The **Level**(s) buttons are lit.

6. Select the source(s) to use in the crosspoint switch.

To create a salvo based on the current port status

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. Select **Capture status** > **Capture port status**.

   The **Capture Port Status** dialog opens.

3. Use the **New name** field to type a unique identifier for this salvo.

4. Use the **Port type** menu to specify the outputs to capture for the salvo. Choose from the following:

   - Output — captures the status of all physical OUT ports in the database.
   - MV Head PiP — captures the status of each Multiviewer Head PiP.
   - MV System PiP — captures the status of the Multiviewer Head PiPs.
   - MY Head — captures the status of each output port assigned to a Multiviewer Head.

5. Click **Apply**.

   The matrix in the **Salvos** interface updates to reflect the current port states.

Viewing a Salvo

The default view of the Salvo interface shows a workspace in a grid pattern with sources at the top and the destinations along the left side. (**Figure 50**)

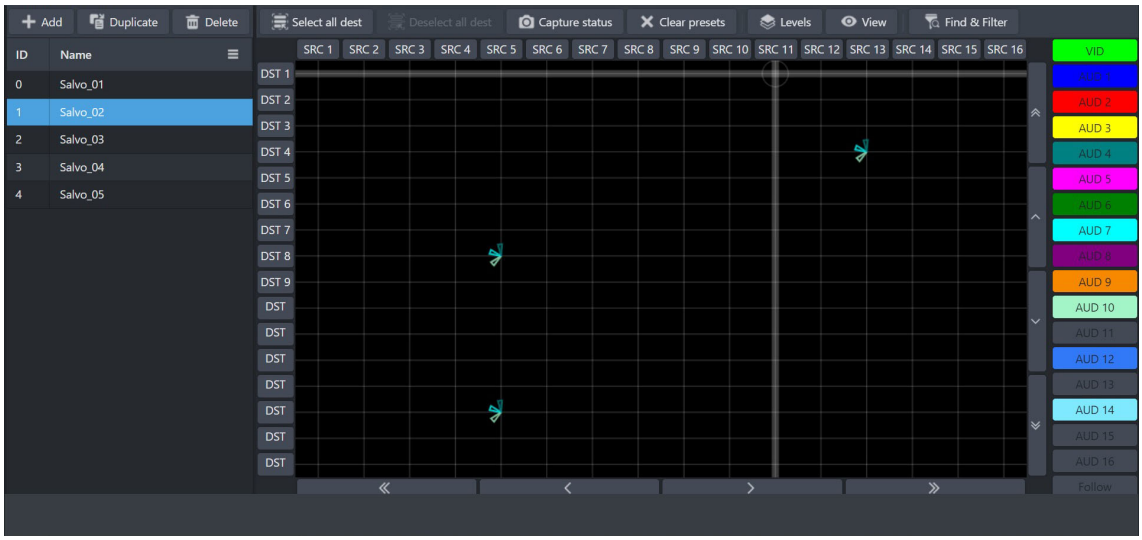


Figure 50 Example of the Salvo_2 Workspace

You can also choose to view a selected salvo in a table format by clicking the **View** button on the top toolbar. (**Figure 51**) From this interface, you can still use the Find and Filter tools to navigate to specific sources/destinations. But editing is not available in this table view.

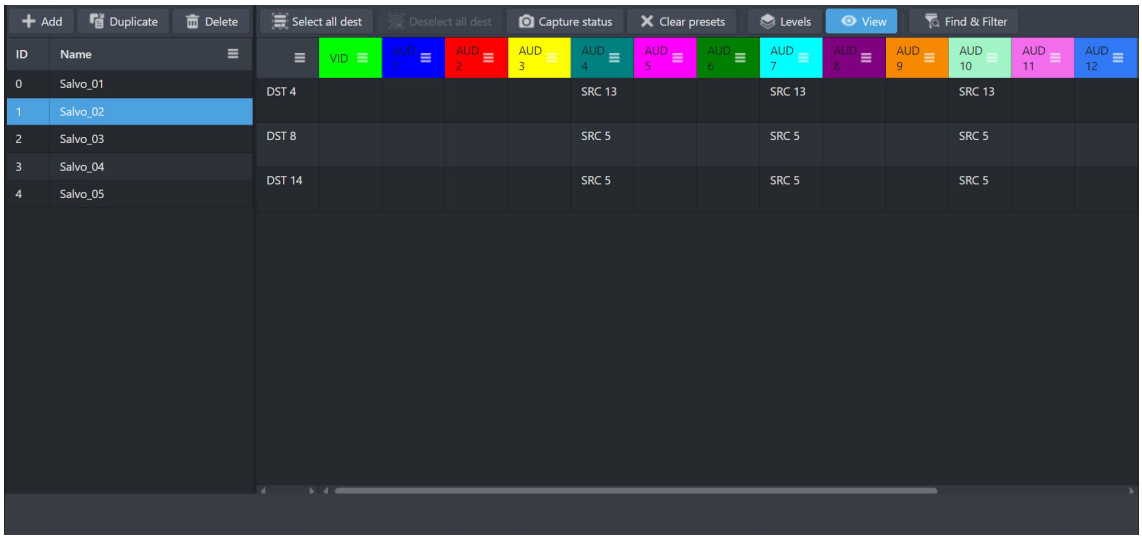


Figure 51 Example of the Salvo_2 View Interface (View button is selected)

Copying a Salvo

You can create a copy of a saved salvo and edit its settings or add crosspoint selections separately from the original salvo. This also enables you to create a template.

To copy a salvo

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.
2. Select the salvo to copy from the **Salvos** list.
3. Click **Duplicate**.
4. Use the **New name** field to type a unique identifier for the new salvo.
5. Click **Apply**.

A new salvo displays at the bottom of the **Salvos** list.

6. Edit the settings of the new salvo as outlined in the procedure "**To edit a salvo**".

Using the Find & Filter Tool

The Salvos interface provides the Find & Filter tool to help you to quickly search and filter the sources and destinations on the workspace. This is useful when working in a large database with hundreds of sources and destinations. The Find & Filter tool provides two functions:

- **Find** — locates sources and/or destinations containing specific text.
- **Filter** — shows only the sources and/or destinations that you want on the workspace.

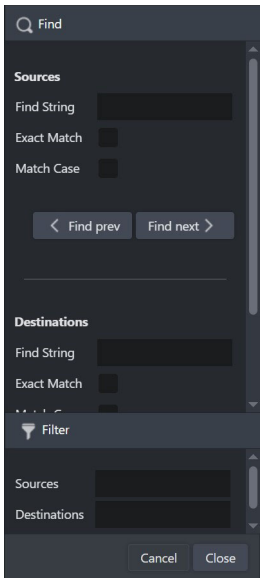
To find specific sources

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. From the **Salvos** interface, click **Find & Filter**.

   The **Find & Filter** dialog opens.



3. In the **Sources** > **Find String** field, enter the text you wish to search.

   For example, `CAM`.

4. Select the **Exact Match** box to search only for the text as entered in step 3.

   For example, a search for `CAM` would result in finding sources labeled as `CAM` and not `CAMERA`.

5. Select the **Match Case** box to search only for the text as entered in step 3.

   For example, a search for `CAM` would result in finding sources labeled as `CAM` and not `cam`.

6. Use the **<Find prev** and **Find next>** options to scroll through the Sources row in the workspace to next label that matches your search criteria.

To find specific destinations

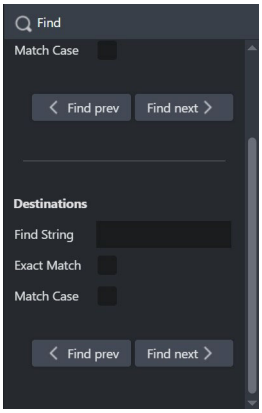
1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. From the **Salvos** interface, click **Find & Filter**.

The **Find & Filter** dialog opens.

3. Scroll to the **Destinations** options in the Find area.



4. In the **Destinations** > **Find String** field, enter the text you wish to search.

   For example, `OUT 2`.

5. Select the **Exact Match** box to search only for the text as entered in step 4.

   For example, a search for `OUT 2` would result in finding destinations labeled as `OUT 2` and not `OUTPUT 2`, or `OUT 22`.

6. Select the **Match Case** box to search only for the text as entered in step 4.

   For example, a search for `OUT 2` would result in finding destinations labeled as `OUT 2` and not `out 2`.

7. Use the **<Find prev** and **Find next>** options to scroll through the Destinations column in the workspace to next label that matches your search criteria.

To filter the workspace

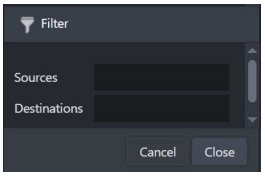
1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. From the **Salvos** interface, click **Find & Filter**.

   The **Find & Filter** dialog opens.

3. Locate the **Filter** area.



4. To filter the source entries on the workspace:

   a. In the **Sources** field, enter the filter criteria. For example, typing `IN 2` filters the Sources row to display only `IN 2`, `IN 20`, `IN 21`, `IN 22`, `IN 23`, etc.

   b. Press **Enter**.

5. To filter the destination entries on the workspace:

   a. In the **Destinations** field, enter the filter criteria. For example, typing `STUDIO` filters the Destinations column to display only `STUDIO`, `STUDIO1`, `STUDIO2`, `STUDIO 1`, `STUDIO 2` etc.

   b. Press **Enter**.

Editing a Salvo

Once a salvo is created in the database, you can edit its crosspoint selections as required.

To edit a salvo

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. Select the salvo from the **Salvos** list.

   The grid updates to display the crosspoint selections currently saved for the salvo.

3. Perform steps 3 to 5 as outlined in the procedure "**To create a salvo**".

Deleting a Salvo

Deleting a salvo removes it from the database. The corresponding button on any soft panels for the deleted salvo are also no longer displayed.

To delete a salvo from the database

1. Double-click the **Salvos** node located under the **Database** node.

   The **Salvos** interface opens.

2. From the **Salvos** list, select the salvo to delete.

3. Click **Delete**.

   The Delete salvos dialog opens.

4. Click **Apply**.

   - The salvo no longer displays in the Salvos list to the left of the workspace.
   - If the salvo was assigned to a button on a soft panel, the button is automatically deleted from the panel.

Recalling a Salvo

Once you have created a salvo, you can recall it for use on a soft panel in DashBoard.

✶ You cannot recall salvos from a Category soft panel.

✶ If the soft panel has its **Take operation** set to **Direct**, the **Take** button does not display and the switch occurs automatically.

For More Information on...

- adding salvos to soft panels, refer to "**Creating a Soft Panel**".

To recall a salvo from a Matrix panel

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".

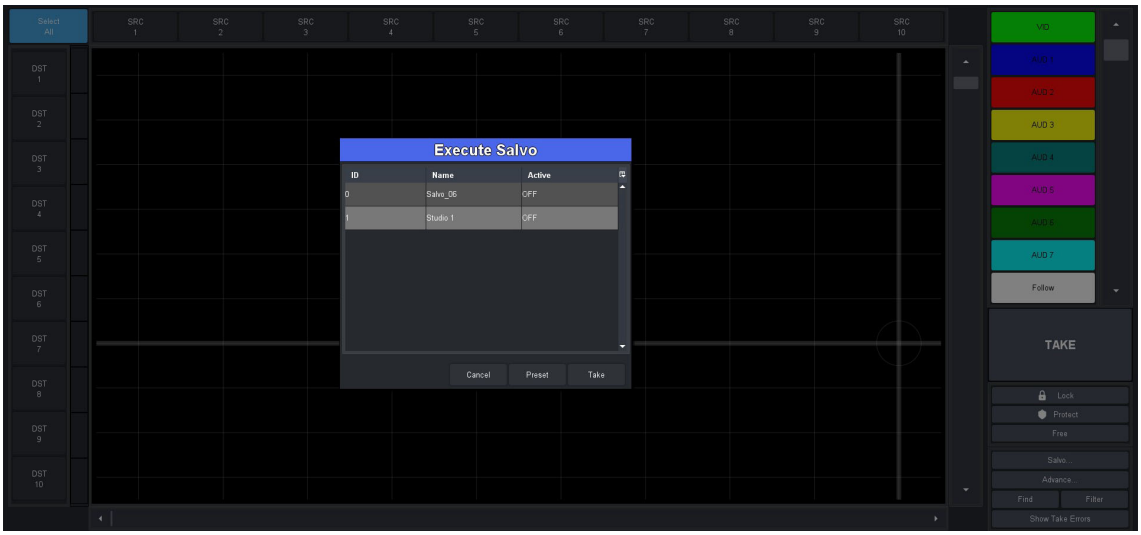
2. Expand the **Soft Panels** node.

3. Double-click the node for a **Matrix Panel**.

   The **Matrix Panel** interface opens.

4. Click **Salvo** > **Recall**.

   The **Execute Salvo** dialog opens. Notice that the **Active** column reports whether the salvo is currently in use (ON) or not (OFF).



5. Select the salvo to recall.
6. Click **Take** to recall the salvo.

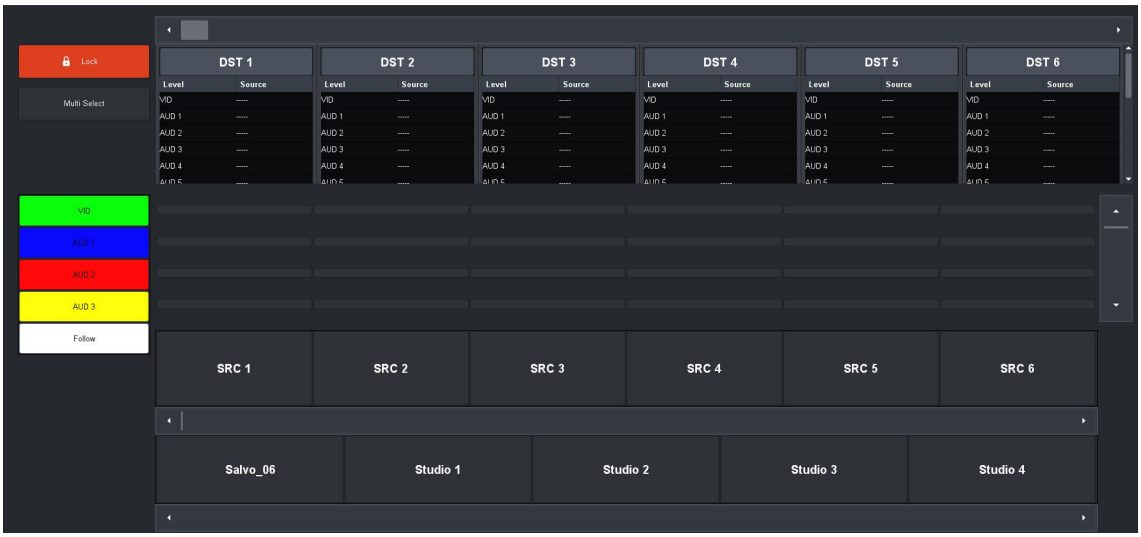
   The **Execute Salvo** dialog closes and the crosspoint switch is made.

To recall a salvo from a MultiBus panel

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Expand the **Soft Panels** node.
3. Double-click a **MultiBus Panel** node.

   The **MultiBus Panel** interface opens.

   The salvo buttons are located at the bottom of the soft panel interface. If a salvo button is lit green, the current router status matches the salvo presets.



4. Click the button for the salvo you wish to recall.

   The salvo button and **Take** buttons are now lit on the soft panel.
5. Click **Take** to apply the salvo.

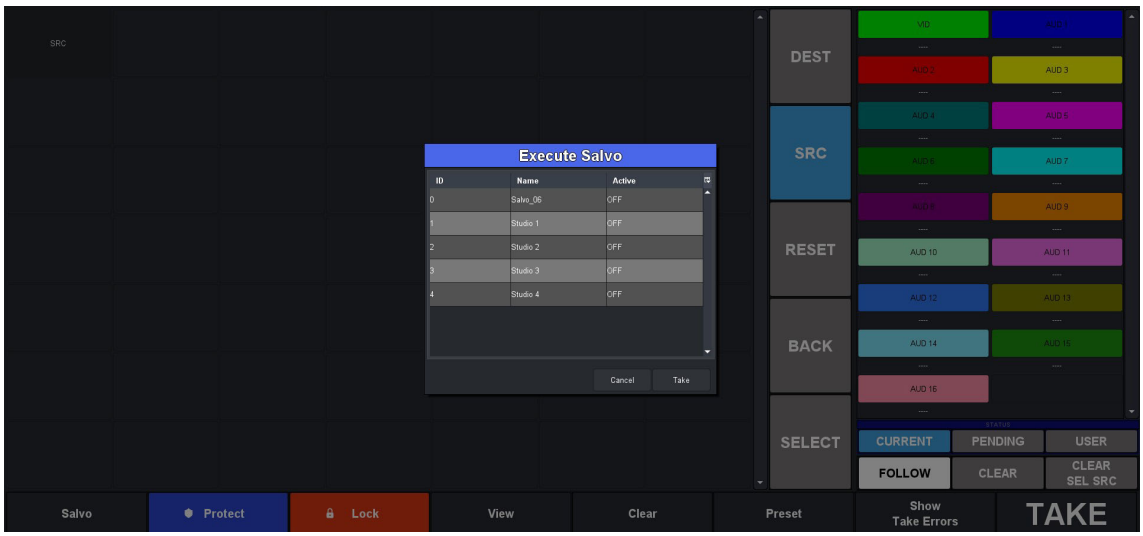
   The crosspoint switch is made, and the salvo button is no longer lit.

To recall a salvo from a Cat/Index Category panel

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Expand the **Soft Panels** node.
3. Double-click a **Cat/Index Category Panel** node.

   The **Cat/Index Category Panel** interface opens.
4. Click **Salvo**.

   The **Execute Salvo** dialog opens. The **Active** column reports whether the salvo is currently in use (ON) or not (OFF).



5. Select the salvo to recall.
6. Click **Take** to recall the salvo.

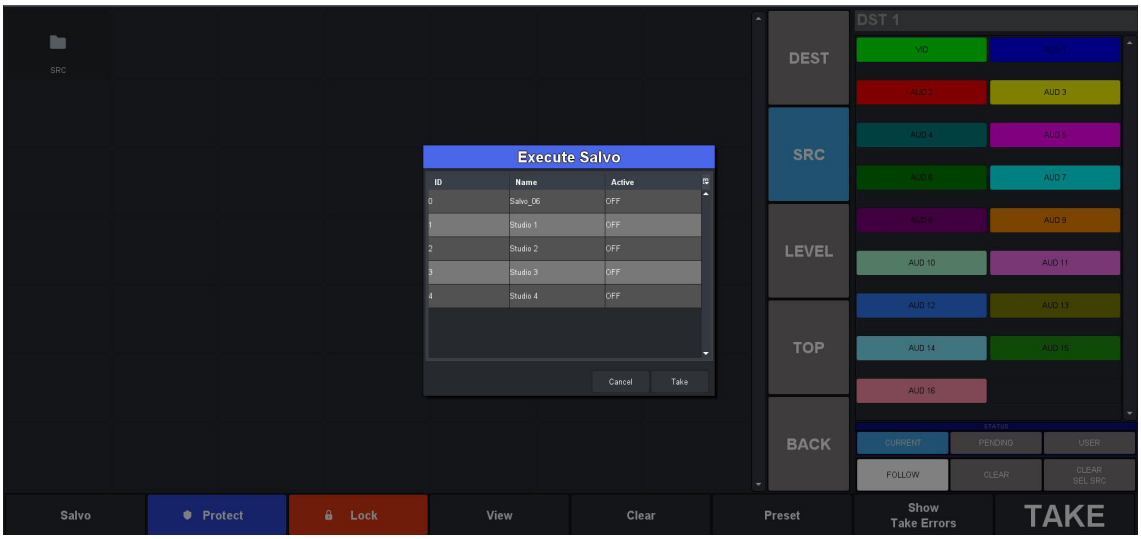
   The **Execute Salvo** dialog closes and the crosspoint switch is made.

To recall a salvo from a Group Category panel

1. Display the Database nodes as outlined in "**Accessing the Database Interfaces**".
2. Expand the **Soft Panels** node.
3. Double-click a **Group Category Panel** node.

   The **Group Category Panel** interface opens.
4. Click **Salvo**.

   The **Execute Salvo** dialog opens. Notice that the **Active** column reports whether the salvo is currently in use (ON) or not (OFF).



5. Select the salvo you wish to recall.
6. Click **Take** to apply the salvo.

   The **Execute Salvo** dialog closes. The crosspoint switch is made.

Soft Panels in DashBoard

A soft panel is a software implementation of a physical remote control panel (RCP). The soft panel configurations are part of a database so any instance of DashBoard connecting to the primary device has the defined soft panels available. You can customize a soft panel by defining the sources, destinations, levels, and/or salvos that will be available on the panel interface.

Before You Begin

Keep the following in mind when managing your soft panels in DashBoard:

- Soft panels require the setup of the database resources (sources, destinations, levels, salvos, aliases, and port assignment) to be complete.
- If the database changes, you will need to verify each soft panel configuration to ensure the correct resources are still visible.
- Ultrix and Ultricore do not support Unicode characters.
- Procedures in this chapter assume that you have DashBoard launched and the primary device displayed in the Tree View.

Soft Panels Overview

A soft panel is created using the options in the Panels interface for the database. Once created, the soft panel is listed as a sub-node in the Database > Control > Panels tree. The hierarchy of the nodes in the tree is determined by their Panel ID which is assigned when the soft panel is created in the database. Double-click a sub-node to display the corresponding soft panel in the DashBoard window. In **Figure 52** there are six soft panels in the tree view.

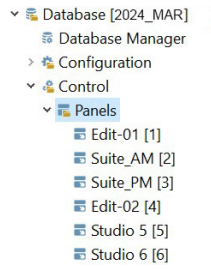


Figure 52 Example of Soft Panel Nodes

A soft panel can be as simple or complex in its layout as you require. You select a panel type, assign a unique name, and configure the settings of the soft panel (such as adding a Lock and/or Protect button, the maximum number of resources to display, etc.). Then you specify which destinations, sources, levels, and salvos to display on your panel.

Enabling Machine Control for Legacy Devices

Typically, the ports on a data router (such as the NK-M series routers) are bi-directional where there is both a transmit (input to output) and reciprocal receive connection that is made for each port. For example, a switch from port 1 to port 2 involves a forward path (from port 1 input to port 2 output) and the reciprocal connection from (port 2 input to port 1 output).

In some cases however, there is a need to connect on the port's input to several ports' output (e.g. one device commanding many target devices) without making the reciprocal connection. This allows the commanding device to just broadcast commands and not receive from the many devices it communicates with.

When configuring a soft panel, you have the option to add a Machine Control button to the panel. When selected on the panel, this Machine Control button sends a Take request directed to an NK-M series data router to automatically make the reciprocal port switch. On a video router, the connection is all one way from an input port to an output port (e.g. such as from IN 1 to OUT 2).

Creating a Soft Panel

When you create a new soft panel, you select from the existing soft panel types which determines the options to add to the panel. You then assign a Panel Name and ID to display in the tree view using the nomenclature "`Name [#]`" where `[#]` is the Panel ID.

To create a soft panel

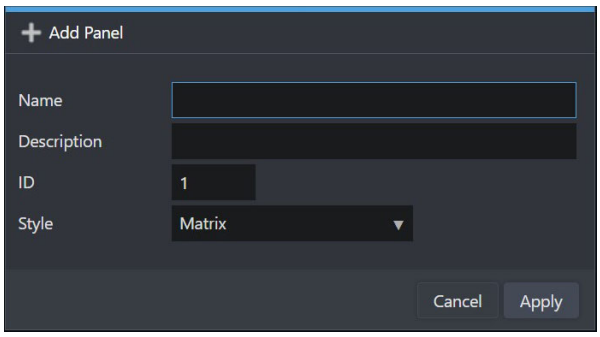
1. Double-click the **Panels** node located under the **Database** node.

   The **Panels** interface opens.

✶ The interface is blank when there are no configured soft panels.

2. Click **Add**.

   The **Add Panel** dialog opens.



3. Type a unique identifier in the **Name** field.

   This will be used to identify the panel in the Control > Panels tree.

4. If required, use the **Description** field to provide a textual summary of the panel.

5. Use the **ID** field to determine the position of the panel in the Control > Panels tree where a value of 1 is the highest priority and listed as the first node. Refer to **Figure 52**.

✶ Ensure that the new soft panel does not use the same Panel ID as a previously saved soft panel.

6. Use the **Style** menu to specify the type of panel to create. Choose from the following:

   - **Matrix** — organizes the destinations and sources in a grid layout.
   - **MultiBus** — organizes the destinations and sources into separate rows (buses) of buttons.
   - **Group Category** — the hierarchy of the destinations and sources are determined by the values in the Group Categories interface. Refer to "**Using Group Categories**" for details.
   - **Push Button** — organizes the destinations and sources in a distinct vertical layout. Provides a similar layout and features of the Ultritouch PB panel but sized for use on a computer monitor.
   - **Cat/Index Category** — the hierarchy of the destinations and sources are determined by the values in the Cat/Index interface. Refer to "**Using Cat/Index Mode**" for details.
   - **Ultritouch PB** — the resources are organized into a customized layout that is pre-sized for an Ultritouch hard panel. Refer to the ***Ultritouch User Guide*** for details.
   - **Ultritouch MV** — enables you to control Multiviewer layouts, switch PiPs, and modify follow/non-follow modes directly from an Ultritouch hard panel. This feature is not supported

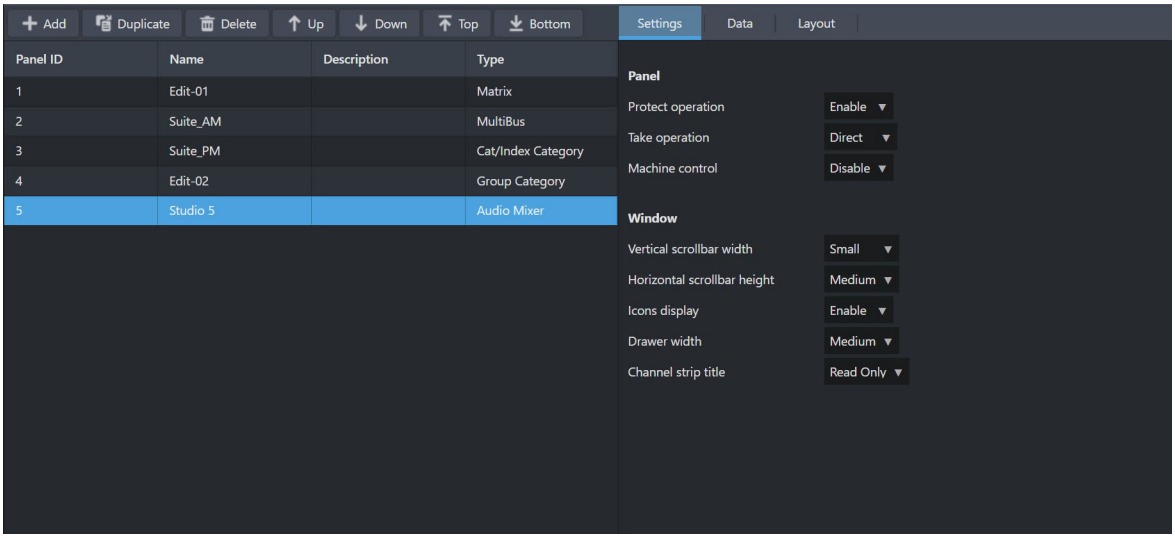
when the router is in a system that is controlled by an Ultricore. Refer to the ***Ultritouch User Guide*** for details.

- **Audio Mixer** — provides a familiar interface similar to other audio consoles and allows for real-time adjustment of audio levels and audio processing. This soft panel type can only be configured on the Ultrix router. Refer to "**Using an Audio Mixer Panel**".
- **Ultritouch #RU Audio Mixer** — an audio mixer panel that is pre-sized for an Ultritouch hard panel. This soft panel type can only be configured on the Ultrix router. Refer to "**Using an Audio Mixer Panel**".
- **Ultritouch 4RU Split** — a customized layout that is pre-sized for an Ultritouch-4RU. Refer to the ***Ultritouch User Guide***.
- **Group PB** — the destinations and sources are determined by the Group Categories interface but organized into a vertical layout that is similar to the Ultritouch PB panel. Refer to "**To configure a Group PB panel**".

7. Click **Apply**.

   The **Add Panel** dialog closes.

   The new panel name is added to the **Saved Panels** list of the **Panels** tab and automatically selected in the tab for editing. In the example below, the user created a new Audio Mixer panel named "`Studio 5`" with a Panel ID of `5`.



8. Select the **Settings** tab.
9. Use the **Protection operation** menu to provides options for preventing crosspoint switches. Choose from the following:

   - Enable — The Lock, Protect, and Free buttons display on the soft panel. Refer to "**Using Matrix Panels**" or "**Using MultiBus Panels**" for a description of these buttons.
   - Disable — The Lock, Protect, and Free buttons do not display on the soft panel. These protection options will not display on the soft panel.
   - Enable w/ Override — Use this soft panel to override any locked/protected destination on another panel. Refer to "**Using an Override**" for details.

10. Use the **Take operation** menu to configure the **TAKE** button for the soft panel. Choose from the following:

    - Confirm — Displays a TAKE button on the soft panel. You must select TAKE to perform a crosspoint switch.
    - Direct — The soft panel does not display a TAKE button. A crosspoint switch occurs automatically after each destination/source selection is made by the user via the soft panel.

11. If this is a MultiBus panel, use the **Selection operation** menu to enable multiple crosspoint/level selections and display the Multi Select button. Choose from the following:
    - Single — Disables this feature. The Multi Select button does not display on the soft panel.
    - Multi — The Multi Select button displays on the soft panel.
12. Use the **Machine control** menu to control whether a TAKE request directed to an Ross NK-M series data router automatically makes a reciprocal port switch. Choose from the following:
    - Enable — Displays a Machine Control button on the soft panel. You must select Machine Control to enable the reciprocal port switch on the NK-M series router.
    - Disable — The soft panel does not display a Machine Control button.
13. Use the **Viewable Data** options to specify the maximum number of resources to display on the soft panel.

Customizing the Layout

Some soft panel types also provide options for defining the Home and Drawer windows that display on the final panel. You can chose to use the default settings, or customize the width and number of rows/columns in each window independently.

✶ This section provides a summary of the layout options and settings. Some options may not be available for all panel types.

To customize the layout of a soft panel

1. Select the **Settings** tab.
2. To re-size the scroll bars on your soft panel:
    a. Use the **Vertical Scrollbar Width** field to determine the size of the bar that enables the user to scroll along the vertical axis of the soft panel.
    b. Use the **Horizontal Scrollbar Height** field to determine the size of the bar that enables the user to scroll along the horizontal axis of the soft panel.
3. Use the **Icons display** menu to specify whether buttons will display the default icons based on window type (**Enable**) or will only display the label text as determined by the database (**Disable**).
4. Use the **Orientation** menu to specify the layout on the monitor. Choose from the following:
    - Portrait — a horizontal layout; the panel is taller than it is wide. (**Figure 61**)
    - Landscape — a vertical layout; the soft panel is wider than it is tall. (**Figure 62**)
5. Use the **Drawer Width** menu to specify the width of the drawer handle size.
6. Use the **Take button size** menu to determine the size of the TAKE button on your soft panel.
7. If you set the **Style** to **Push Button** or **Group PB**, proceed to "**Configuring a Push Button Soft Panel**".
8. If this is an **Audio Mixer** or **Ultritouch #RU Audio Mixer** soft panel, use the Channel Strip Title menu to assign a label to the columns of audio channels.
9. If you set the **Style** to **Group Category**, use the **Nongroup Resources** options to determine if resources that are not assigned to a specific group are displayed. Choose from the following:
    - Hide — The unassigned resources are not displayed on the soft panel.
    - Show — All resources are displayed on the soft panel.

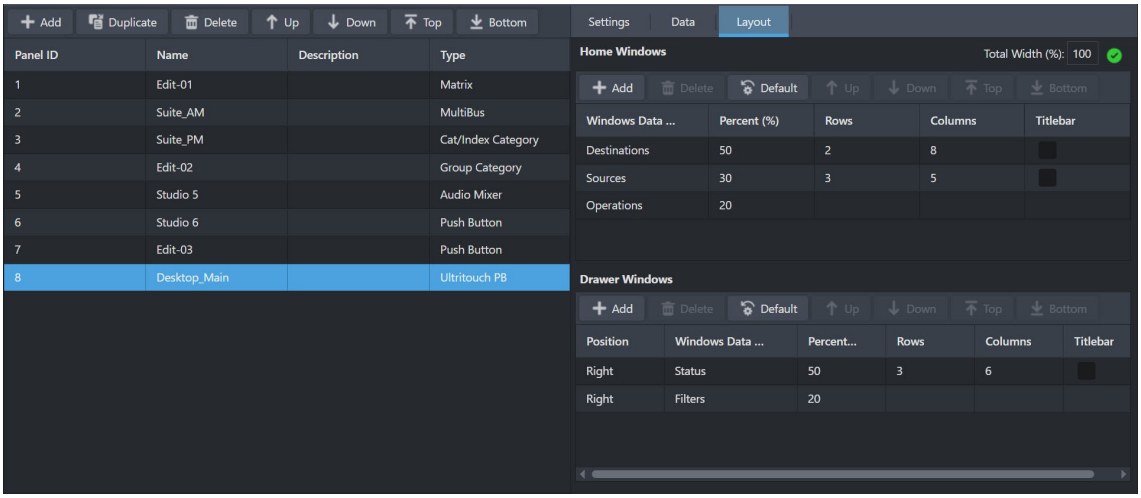
Customizing the Home Window

The order of the rows in the Layout > Home Windows table determine the order of the windows that display on the soft panel. For example, if the first row is assigned to Destinations, the first window next to the main toolbar of the soft panel will display the Destinations buttons.

To customize the Home Window of a soft panel

1. Double-click the soft panel name from the **Panels** list in the left toolbar of the **Panels** tab.
2. Select the **Layout** tab.

   In the following example, the user is configuring an Ultritouch Push Button soft panel.



3. Locate the **Home Windows** area of the tab.
4. To add a data type to the Home window of the soft panel:
   a. Select a row in the **Home Windows** table.
   b. Use the **Up**, **Down**, **Top**, **Bottom**, **Sort** buttons (located in the toolbar to the right of the table) to move a highlighted row to the desired position.
   c. Click **Add**.

      The **Add Window** dialog opens.

   d. Use the **Window** menu to specify the first window to include in the soft panel.

✶ You cannot have multiples of the same window in either Home windows or Drawer windows.

   e. Click **Apply**.

      The **Add Window** dialog closes and the Home Windows table updates to display the selection.

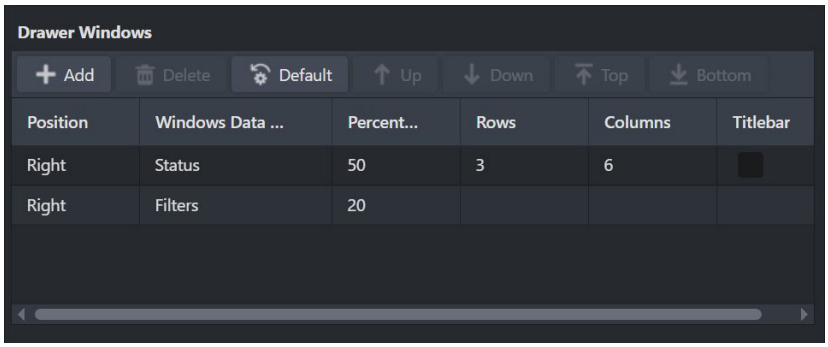
5. Repeat step 4 for each data type you want to include on the Home window.
6. Adjust a window size as follows:
   - Use the **Percent** field to specify the size of the window as a percentage of the total soft panel area.
   - Use the **Rows** field to specify the number of button rows the window will display.
   - Use the **Columns** field to specify the number of button columns the window will display

Defining the Drawers on a Soft Panel

Soft panels can also include fly-out menus (drawers) that operate like horizontal drop-down menus. You can specify what menus, functions, and settings each drawer includes. The order of the rows in the **Drawer Windows** table determine the order of the windows that display on the soft panel. For example, if the first row is assigned to Sources, the first window next to the main toolbar of the soft panel will display the Sources buttons.

To define the drawer elements of the soft panel

1. Double-click the soft panel name from the **Panels** list in the left toolbar of the **Panels** tab.
2. Select the **Layout** tab.
3. Locate the **Drawer Windows** area of the tab.



4. Select a row in the **Drawer Windows** table.
5. Click .

   The **Add Drawer** dialog opens.
6. Use the **Type** menu to specify the location of the drawer, in relation to the window it will be assigned to.

   For example, if you select **Type** > **Left** and **Window** > **Sources**, the drawer will display on the left side of the Sources window.
7. Use the **Window** menu to specify the window to assign to the drawer to.
8. Click **Apply**.

   The **Add Window** dialog closes and the **Drawer Windows** table updates to include the selection.
9. Repeat steps 5 to 8 for each drawer you want to include in the soft panel.
10. To customize a drawer size:
    a. Use the **Width** field to specify the percentage of the allocated drawer space.
    b. Use the **Rows** field to specify the number of rows in the drawer will display.
    c. Use the **Columns** field to specify the total number of columns in the drawer will display.

✶ You can also use the **Drawer Width** menu, located near the top of the **Home View** tab, to specify the width of the drawer handle size.

11. Repeat step 10 for each drawer of the soft panel you wish to re-size.

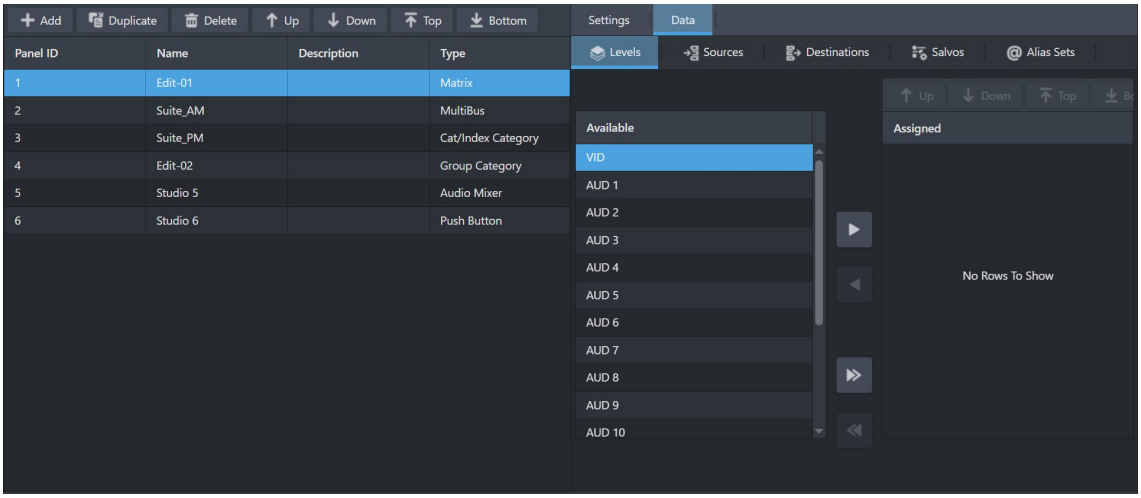
Continue to the next sections to add the required levels, destinations, sources, and salvos to your soft panel.

Levels for the Soft Panel

You can specify the levels and their hierarchy on the soft panel. For example, if you configure the Settings > Viewable Data > Levels to 6 but have assigned 8 levels to the panel, the first six levels are automatically in the Assigned list. You would then use the options on the Data > Levels tab to select the levels and determine their hierarchy on the soft panel.

To specify the levels for the soft panel

1. From the **Panels** table, select the soft panel to edit.
2. Select the **Data** tab from the right pane.
3. Select the **Levels** tab.



4. To add a level to the soft panel:
   a. From the **Available** list, select the level you wish to add to the soft panel.
   b. Click ▶.

   The **Assigned** list updates to include the selected level.
5. To assign all the available levels in the database to the soft panel, click ⏩.
6. To assign multiple levels to the soft panel:
   a. From the **Available** list, select the first level you wish to add to the soft panel.
   b. Press **Shift**.
   c. From the **Available** list, select the other level(s) you wish to add to the soft panel.
   d. Click ▶.

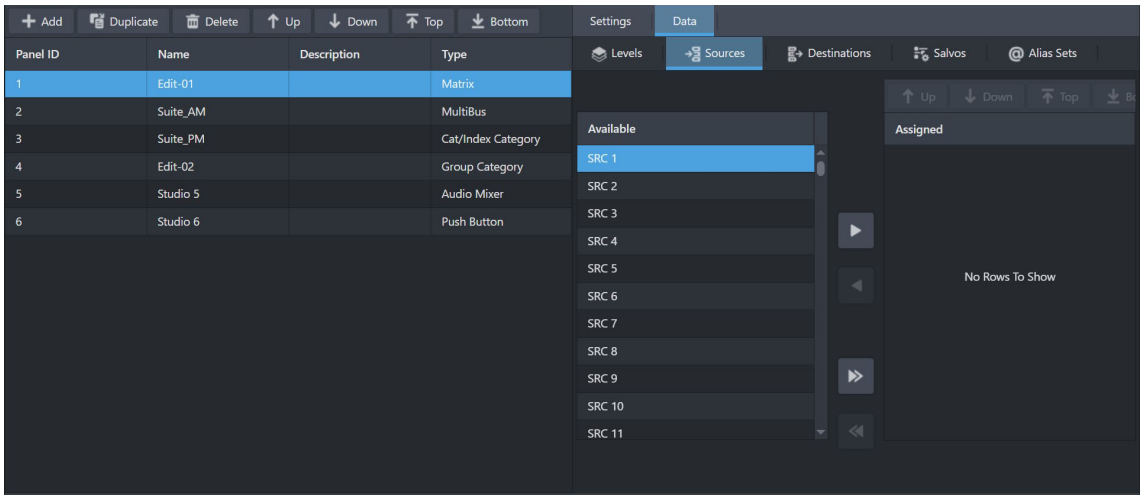
   The **Assigned** list updates to include the selected levels.
7. Use the ↑ Up ↓ Down ⤒ Top ⤓ Bottom buttons beside the **Assigned** list to determine the hierarchy in which the levels are displayed on the soft panel.

Sources for the Soft Panel

You can create a soft panel with a specified number of sources and determine the order in which they are displayed in the crosspoint row of the panel. For example, the router may have 64 sources but you only want to make 12 selectable on the crosspoint row of your soft panel. You can also specify the order in which the sources are displayed on the soft panel.

To specify the sources for the soft panel

1. From the **Panels** table, select the soft panel to edit.
2. Select the **Data** tab from the right pane.
3. Select the **Sources** tab.



4. To add a source to the soft panel:
   a. From the **Available** list, select the source(s) you wish to add to the soft panel.
   b. Click ▶.

   The **Assigned** list updates to include the selected source(s).
5. To assign all the available sources in the database to the soft panel, click ⏩.
6. To assign multiple sources to the soft panel:
   a. From the **Available** list, select the first source you wish to add to the soft panel.
   b. Press **Shift**.
   c. From the **Available** list, select the other source(s) you wish to add to the soft panel.
   d. Click ▶.

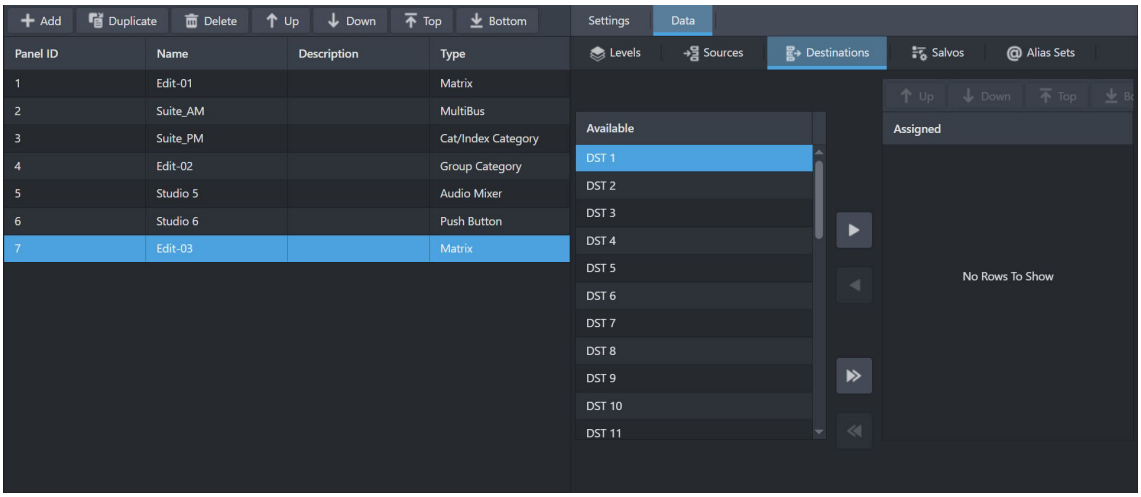
   The **Assigned** list updates to include the selected sources.
7. Use the Up Down Top Bottom buttons to determine the order in which the sources are displayed on the soft panel.

Destinations for the Soft Panel

You can create a soft panel with a specified number of destinations and determine the order in which they are displayed in the crosspoint row of the panel. For example, the database may have 32 destinations but you only want to make the first 4 outputs selectable on the crosspoint row of your soft panel. You would then set the Settings > Viewable Data > Destinations field to 4. You can also specify the order in which the destinations are displayed on the soft panel.

To specify the destinations for the soft panel

1. From the **Panels** table, select the soft panel to edit.
2. Select the **Data** tab from the right pane.
3. Select the **Destinations** tab.



4. To add a destination to the soft panel:
   a. From the **Available** list, select the destination(s) you wish to add to the soft panel.
   b. Click ▶.

   The **Assigned** list updates to include the selected destination(s).
5. To assign all the available destinations in the database to the soft panel, click ⏩.
6. To assign multiple destinations to the soft panel:
   a. From the **Available** list, select the first destination you wish to add to the soft panel.
   b. Press **Shift**.
   c. From the **Available** list, select the other destination(s) you wish to add to the soft panel.
   d. Click ▶.

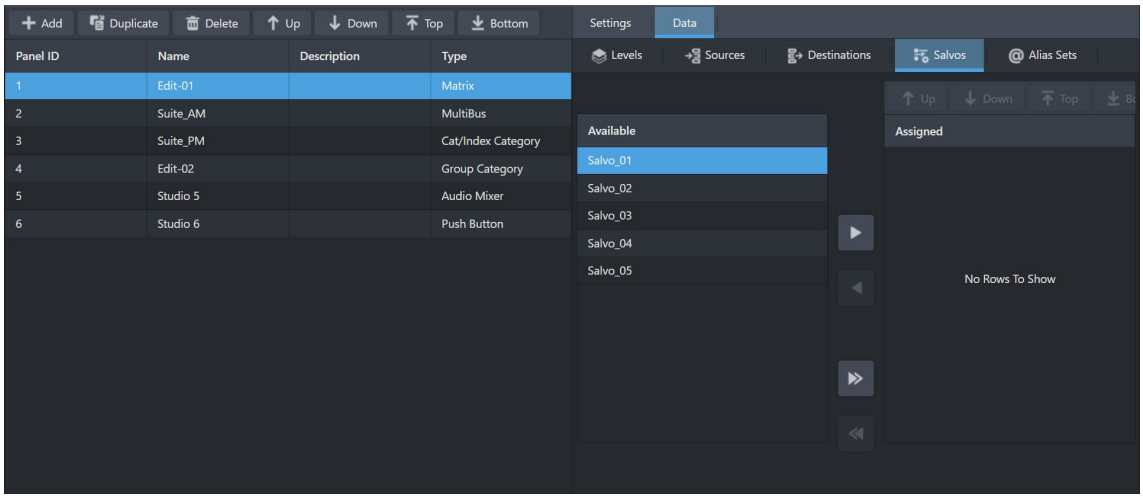
   The **Assigned** list updates to include the selected destinations.
7. Use the ↑ Up ↓ Down ⤒ Top ⤓ Bottom buttons to determine the hierarchy in which the destinations are displayed on the soft panel.

Adding Salvos to a Soft Panel

Salvos are a selected series of crosspoints to switch in the matrix that can be saved and later recalled for crosspoint transitions. Before you can add salvos to a soft panel, you must configure them as outlined in "**Creating Salvos**".

To specify the salvos available on a soft panel

1. From the **Panels** table, select the soft panel to edit.
2. Select the **Data** tab from the right pane.
3. Select the **Salvos** tab.



4. To add a salvo to the soft panel:
   a. From the **Available** list, select the salvo you wish to add to the soft panel.
   b. Click ▶.

   The **Assigned** list updates to include the selected source(s).
5. To assign all the available salvos in the database to the soft panel, click ⏩.
6. To assign multiple salvos to the soft panel:
   a. From the **Available** list, select the first salvo you wish to add to the soft panel.
   b. Press **Shift**.
   c. From the **Available** list, select the other salvo(s) you wish to add to the soft panel.
   d. Click ▶.

   The **Assigned** list updates to include the selected salvos.
7. Use the ↑ Up ↓ Down ⤒ Top ⤓ Bottom buttons to determine the order in which the salvos are displayed on the soft panel.

Applying an Alias Set to a Soft Panel

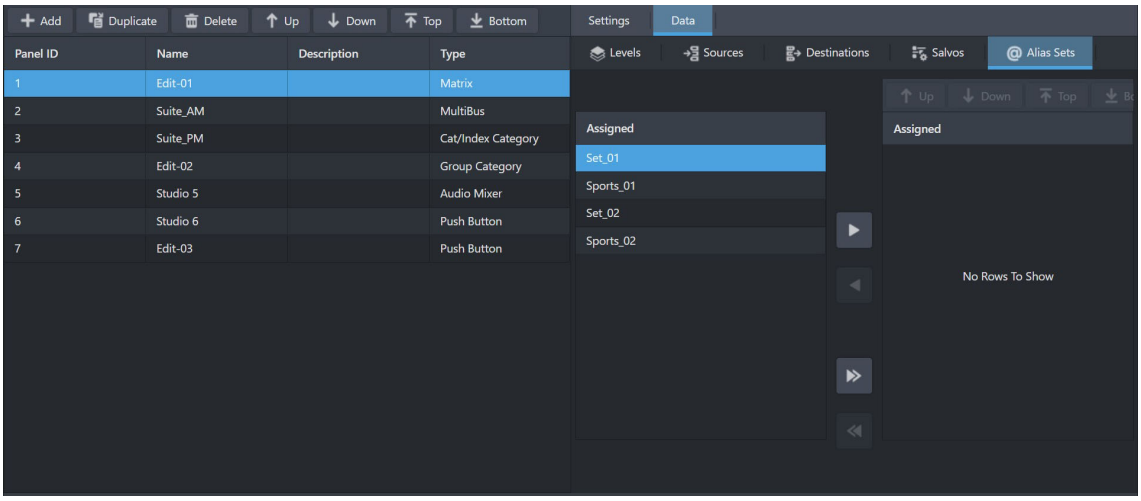
By default, a matrix (or router) port is identified via the `Frame.Slot.Port.Type.Channel` nomenclature. An alias set enables you to customize virtual labels and apply to the ports if required. This re-naming is not necessary for router operation, but it may make your assignment of source and destination labels easier to identify.

For More Information on...

- configuring an alias set, refer to "**Creating an Alias Set for Sources or Destinations**".

To apply an alias set to a soft panel

1. From the **Panels** table, select the soft panel to edit.
2. Select the **Data** tab from the right pane.
3. Select the **Alias Sets** tab.



4. To apply a alias set to the soft panel:
   a. From the **Available** list, select the alias set you wish to add to the soft panel.
   b. Click ▶.

   The **Assigned** list updates to include the selected set.
5. To apply all the available sets in the database to the soft panel, click ⏩.
6. To apply multiple aliases to the soft panel:
   a. From the **Available** list, select the first set you wish to apply to the soft panel.
   b. Press **Shift**.
   c. From the **Available** list, select the other set(s) you wish to apply to the soft panel.
   d. Click ▶.

   The **Assigned** list updates to include the selected sets.
7. Use the Up Down Top Bottom buttons to determine the order in which the sets are applied on the soft panel.

Copying a Soft Panel

Once a soft panel is configured, you can copy it and use it as a template for creating additional soft panels.

★ Ensure the soft panel is currently not in use.

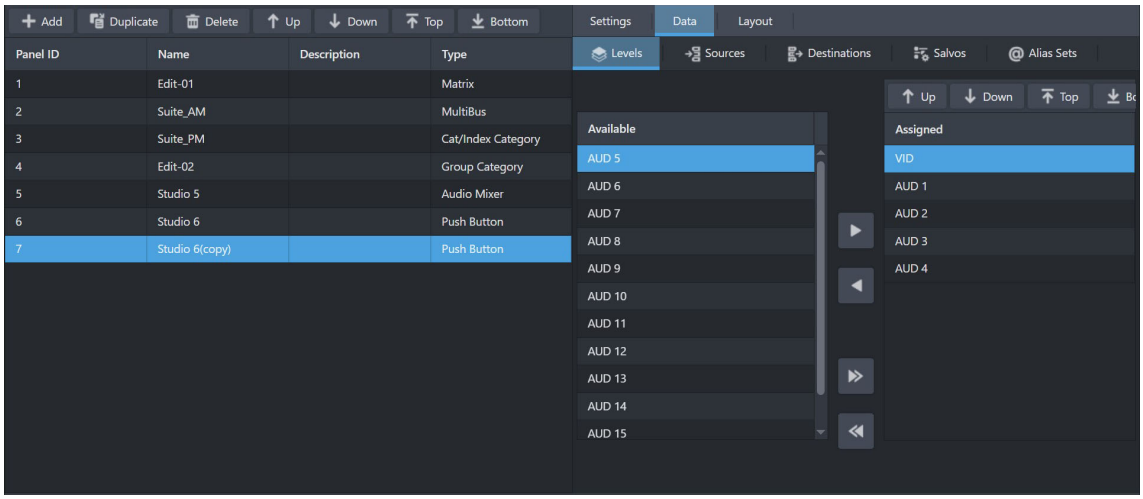
To copy a soft panel

1. Select the soft panel name from the **Panels** table.
2. Click **Duplicate**.

   The Duplicate dialog opens.
3. Click **Duplicate panel**.

   The Duplicate dialog closes and the **Panels** interface updates to display the copied panel.

   A copy of a soft panel is automatically named "`x(copy)`" where `x` is the name of the original panel. In the following example, the user created a new soft panel "`Studio 6(copy)`".



4. Type a unique identifier in the **Panel Name** field.

   This name is used to identify the panel in the Control > Panels tree (see **Figure 52**).

Editing a Soft Panel

You can edit any soft panel that is not currently in use.

✶ You cannot edit the **Panel Style** of a soft panel.

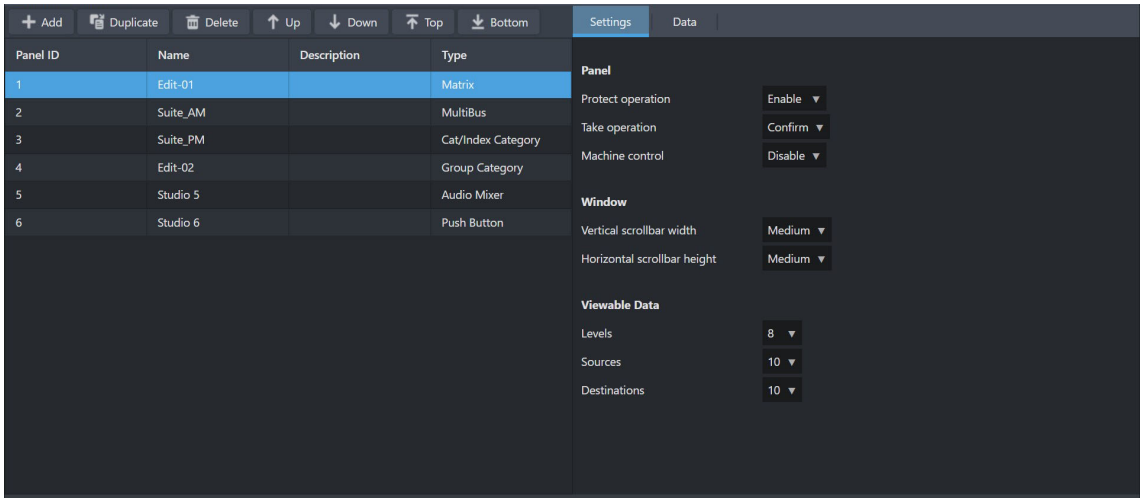
To edit a soft panel

1. Double-click the **Panels** node located under the **Database** node.

   The **Panels** interface opens.

2. From the **Panels** list in the left toolbar, select the soft panel to edit.

   The **Panels** interface updates to display the settings for the selected soft panel. The **Settings** tab, in the right pane, is automatically selected.



3. If required, use the Up Down Top Bottom buttons to determine the position of the panel in the Panels list. This also determines the priority of the panels in the Control > Panels tree (see **Figure 52**).

4. Edit a setting for the panel using one of the following procedures:
   - "**To specify the levels for the soft panel**"
   - "**To specify the destinations for the soft panel**"
   - "**To specify the sources for the soft panel**"
   - "**To specify the salvos available on a soft panel**"

Deleting a Soft Panel from the Database

✶ Ensure the soft panel is currently not in use.

To delete a soft panel from the database

1. Double-click the **Panels** node located under the **Database** node.

   The **Panels** interface opens.
2. Select the soft panel row from the **Panels** list.
3. Click **Delete**.

   The Delete dialog opens.
4. Click **Apply**.

   The Delete dialog closes.

   The selected panel is removed from the **Panels** list and the Control > Panels tree.

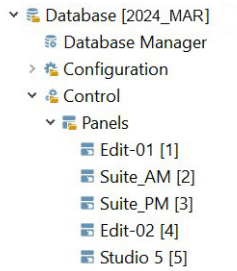
Displaying a Soft Panel in DashBoard

Once a soft panel is configured in the database, it is listed in the Control > Panels tree and is available for use. The procedure to display a soft panel is the same for every panel type.

To display a soft panel in the DashBoard window

1. Expand the main **Database** node.
2. Expand the **Control** sub-node.
3. Expand the **Panels** sub-node.

   The Panels tree displays with each sub-node representing an available soft panel.



4. Double-click the node for the soft panel.

   The select soft panel interface opens in the DashBoard window.

Using the Lock and Protect Features

Whether your soft panel includes the Lock and Protect features is determined by the **Settings** > **Protection Operation** option. To display these buttons, ensure the **Protection Operation** is set to **Enable**.

✶ A MultiBus panel can only display the **Lock** button.

Using a Lock

The **Lock** button provides the option to protect source/level and destination/level pairs. When another control panel or DashBoard client attempts to switch that combination, the request will be denied.

To lock a source/level pair

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select the source/level pairs from the soft panel interface.
3. Click **Lock**.

   The label on the button changes to **Unlock** and the button remains lit.

To lock a destination/level pair

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select the destination/level pairs from the soft panel interface.
3. Click **Lock**.

   The label on the button changes to **Unlock** and the button remains lit.

To clear a lock

- Click the **Unlock** button.

  The label on the button changes to **Lock** and the button remains lit.

Using a Protect

A soft panel can be locked by clicking the **Protect** button. The button is lit until pressed again. A protect alarm message is displayed in the System Status tab when an output is protected.

This feature protects the currently selected destination/level pair from use by other sources, as well as from other linked panels. The **Protect** button is especially useful in instances where a destination must be held after a switch has been made.

To apply a protect

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Click **Protect**.

   The button is lit. Selecting crosspoints will not take effect and the panel does not update when buttons are pressed.

To clear a protect

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Click **Protect**.

   The button is no longer lit and crosspoint switches can be initiated.

Using an Override

You can choose to create a soft panel with the ability to free/override a destination previously locked/protected by another soft panel. This enables a user to override a locked destination on other panels via a single panel (without accessing additional panels), and make it available for selection.

Adding the Override Feature to a Soft Panel

A soft panel with the Override feature enabled will display the Override button on its interface. You can enable this feature on any soft panel type.

To add an override feature to a soft panel

1. Create the soft panel as outlined in "**To create a soft panel**".
2. Select the **Settings** tab.
3. Set the **Protect Operation** to **Enable w/ Override**.

Applying the Override Feature

The Override button displays near the Lock and Protect buttons on a soft panel. When lit red, the Override is available for use.

✶ The RCP-QE18 and RCP-QE36 do not support the Override feature.

To apply an override

1. Display the soft panel you created in the previous section. Refer to "**To display a soft panel in the DashBoard window**".
2. Select the locked destination(s) you wish to override using this soft panel.
3. Click **Override**.

   The Override button label changes to Lock and the selected destination button(s) no longer display the lock icon.

Using Matrix Panels

Matrix panels enable you to perform direct take transitions, and local salvo definitions using a grid of sources and destinations.

Panel Interface Overview

Each level is represented as a button in the color defined in the current database. Notice that the crosspoints are represented in the same color as the applicable level.

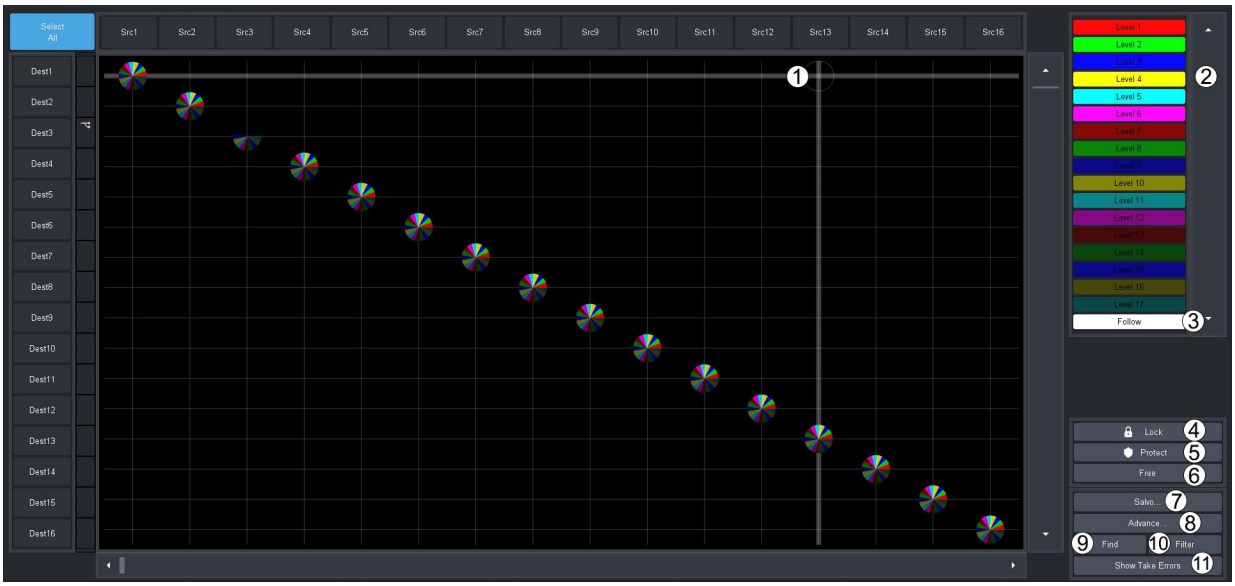


Figure 53 Example of a Matrix Panel

1) Crosspoints	4) TAKE Button	7) Free Button	10) Find Button
2) Levels Button	5) Lock Button	8) Salvo Button	11) Filter Button
3) Follow Button	6) Protect Button	9) Advanced Button	12) Show Take Errors Button

1. Crosspoints

The number of Destinations and Sources and their labels in the matrix are specified using the **Destinations** and **Sources** interfaces. Click within the matrix or click the Destination and Source buttons to select the crosspoints for switching the selected levels. In **Figure 53**, crosspoints were selected using the **Advanced** > **Diagonal Presets** option.

2. Levels Button

Click a level button to include that level in the next crosspoint switch. A lit button indicates that the corresponding level will be included in the next transition. The color and name of the button are specified using the **Levels** interface. **Figure 53** illustrates a Matrix panel with nine levels selected.

3. Follow Button

Click this button to select all levels in the matrix. Clicking **TAKE** after pressing **Follow** will then switch all crosspoints at the same time on all available levels.

4. TAKE Button

Click this button to execute the switch between crosspoints. If you are using a soft panel with its **Take operation** set to **Direct**, a **TAKE** button is not displayed because the transitions will occur automatically after a crosspoint switch is selected.

5. Lock Button

Click this button to prevent switching of the selected crosspoints. When creating the soft panel, if the **Protection operation** was set to **Disable**, the **Lock** and **Protect** buttons are not displayed.

6. Protect Button

Click this button to prevent switching of the selected crosspoints except in the DashBoard client session the Protect was initiated in.

7. Free Button

Click this button to end a lock or protect on the selected crosspoints.

8. Salvo Button

Click this button to display the Salvo menu. Refer to "**Salvo Menus**" for menu options.

9. Advanced Button

Click this button to display the Advanced menu. Refer to "**Advanced Menus**" for menu options.

Machine Control Button (not shown)

If you are using a soft panel with the **Machine control** set to **Enabled**, the **MACHINE CONTROL** button is displayed.

10.Find Button

Click this button to quickly navigate to known source or destination names.

11.Filter Button

Click this button to reduce the number of source and/or destinations visible in a matrix panel. This enable a user to filter a matrix panel view to only source/destinations that match entered text.

12.Show Take Errors Button

Click this button to display a summary of the number of failed TAKE transitions.

Status Quick Navigation

In multi-level systems, the status of any given crosspoint can often be such that a matrix style soft panel cannot show all levels.

Figure 54 Example of Crosspoint Status in a Matrix Panel

In **Figure 54**, destination DST1 only shows status for the green level. It cannot show the red/blue levels status' as the relevant sources are outside the current view.

Right clicking the destination button/label will re-center the source buttons to the next level status. Subsequent right-clicking the destination button will cycle to the next level status indicator. (**Figure 55**)

Figure 55 Example of a Cycled Status Indicator

Find Dialog

The **Find** dialog helps you to quickly navigate to known source or destination names. (**Figure 56**)

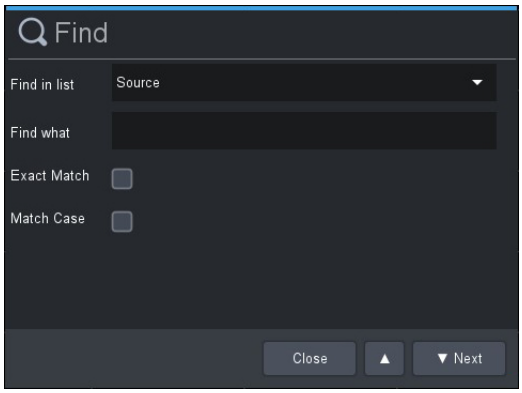


Figure 56 Example of the Find Dialog

To access the Find dialog

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. From the matrix panel control area (located in the bottom right corner), click **Find**.

   The **Find** dialog opens.
3. From the **Find in List** menu, choose either **Source** or **Destination** as required.
4. Type the text to search for in the **Find what** field.
5. If an exact string match is required, select the **Exact Match** box.
6. If text case matching is required, select the **Match Case** box.
7. Click **Next** to begin the search.

   The Matrix panel updates to the first match.
8. Click **Next** again to navigate to subsequent matches.
9. Click ▲ to navigate to previous matches.
10. Click **Close** to close the dialog.

    The Matrix panel view will remain with the last match in the middle of the matrix panel view.

Filter Dialog

Use the **Filter** dialog to reduce the number of source and/or destinations visible in a matrix panel. (**Figure 57**) This enable a user to filter a matrix panel view to only source/destinations that match entered text.

✶ The filter matches any consecutive characters and ignores the case. For example, typing `at` will match to `SAT`, `data`, `Matte` etc.

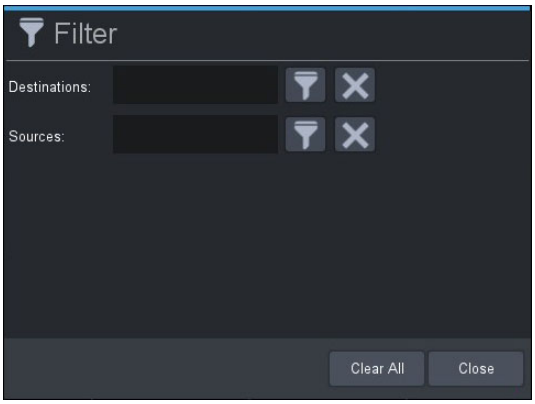


Figure 57 Example of the Filter Dialog

To use the Filter dialog

1. Display the soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. To filter the destinations:
   a. Enter the filtering text in the **Destination** field as required.
   b. Click to enable destination filtering.

      The Matrix panel view updates to display only those destinations matching the entered text.
3. To filter the sources:
   a. Enter the filtering text in the **Source** field as required.
   b. Click to enable source label filtering.

      The Matrix panel view updates showing only those destinations matching the entered text.
4. Click to clear the associated filter text field.
5. Click **Clear All** to clear both filter text fields.
6. Click **Close** to close the **Filter** dialog.

Crosspoint Switches via a Matrix Panel

Crosspoint selections can be made using the cross-hairs or clicking the required Destination and Source buttons on the panel. This section provides instructions using the cross-hairs for crosspoint selections.

To make a crosspoint switch using a single level

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select a level from the toolbar.

   The button is now lit.
3. Select the source and destination intersection inside the matrix.

   The selection is represented as an icon set in the color that matches the level. In the example below, **Level 2**, **Src_28-4**, and **DST_28-2** are selected. The **TAKE** button is now lit.

✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

4. Click **TAKE**.

   The icon on the matrix is solid in the color that matches the level and the **TAKE** button is no longer lit.

To make a crosspoint switch between multiple sources and destinations on a single level

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select a level from the toolbar.
3. Select the first source and destinations inside the matrix.
4. Select the additional crosspoints to switch.

   In the example below, **Level 2** is selected but seven crosspoint switches are also selected (each is represented with a green icon on the matrix).

✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

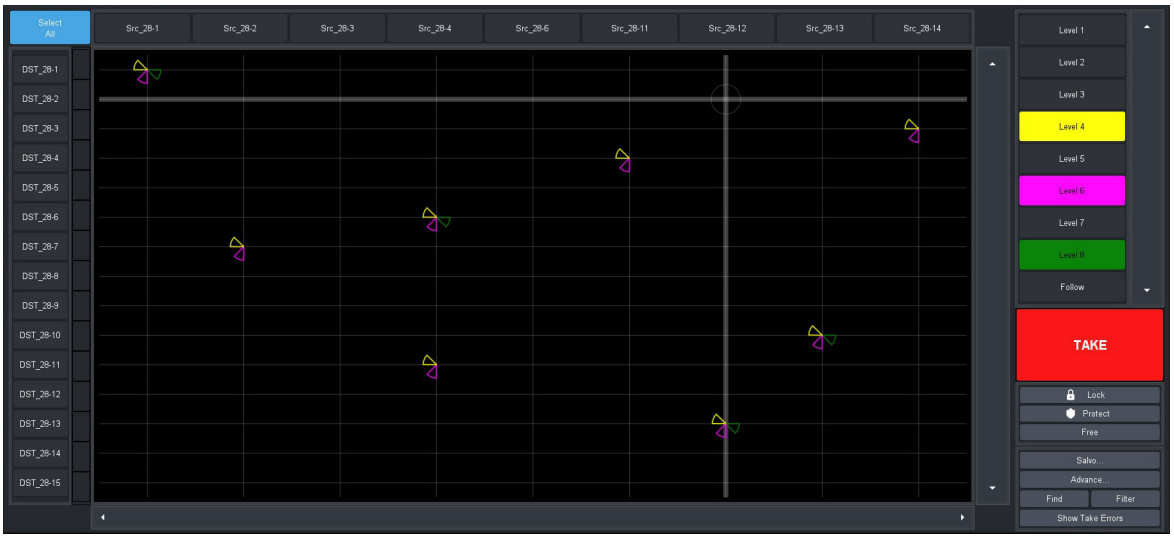
5. Click **TAKE**.

   The icons on the matrix are solid in the color that matches the level and the **TAKE** button is no longer lit.

To make a crosspoint switch using multiple levels

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the toolbar or click **Follow** to include all levels.
3. Select the first source and destination inside the matrix.
4. Select the additional crosspoints to switch.

   When multiple levels are selected, the circle on the crosspoint is divided into colored sections with each section representing a level. In the example below, Levels 4, 6, and 8 are selected; each with multiple crosspoint selections on the matrix.



✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

5. Click **TAKE**.

   The icons on the matrix are solid in the color that matches the level and the **TAKE** button is no longer lit.

To perform a crosspoint switch on multiple destinations with a single source

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the toolbar or select **Follow** to include all levels.
3. Click **Select All** located at the top left corner of the interface.

   All the **Dest** buttons on the Matrix panel are now lit and selected.The **Select All** button is labeled **Clear All**.

4. From the top toolbar, select the **Src** button to switch.

   The matrix updates to indicate the crosspoint switches that will occur on the next transition to the same source and the **TAKE** button is now lit. In the example below, Levels 4, 5, and 6 are selected; all destinations will switch to **Src_28-6**.

✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

5. Click **TAKE**.

   The icons on the matrix are solid in the color that matches the level and the **TAKE** button is no longer lit.

Using a Default Preset

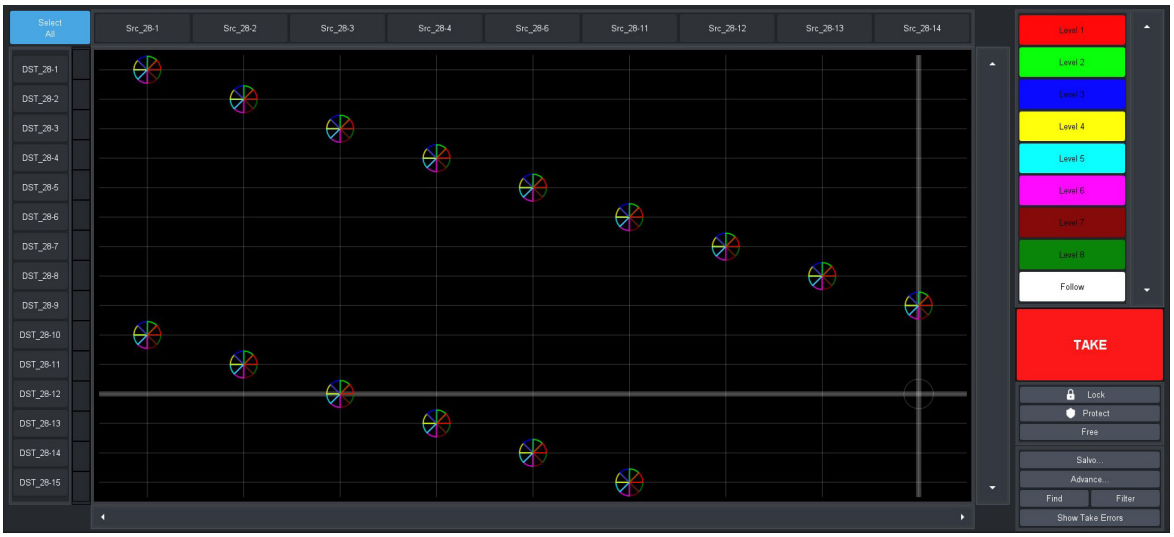
The **Advanced** menu provides two pre-configured presets: Diagonal and R-Diagonal.

Diagonal Presets

Crosspoint selection is organized into a diagonal line that starts with the top left corner of the matrix (e.g. **Src 1** and **Dest 1**), continues in single step intervals (e.g. **Src 2** and **Dest 2**, **Src 3** and **Dest 3** etc.) and ends with the bottom right corner of the matrix (e.g. **Src 16** and **Dest 16**).

To use the Diagonal Preset

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the toolbar or select **Follow** to include all levels.
3. Click **Advanced** > **Diagonal Presets**.



✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

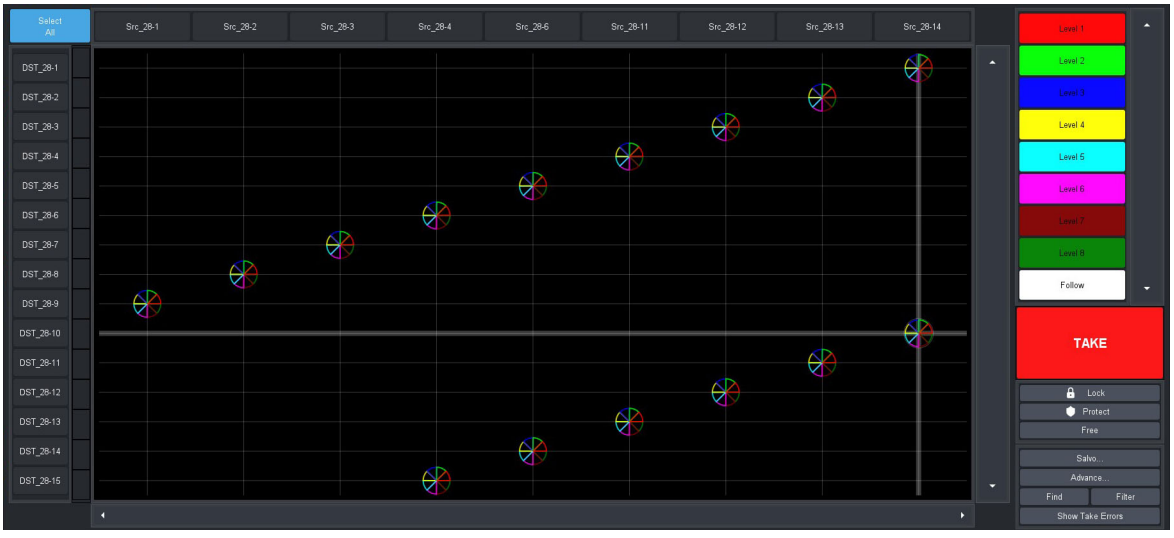
4. Click **TAKE**.

R-Diagonal Presets

Crosspoint selection is organized into a diagonal line that starts with the top right corner of the matrix (e.g. **Src 16** and **Dest 1**), continues in single step intervals (e.g. **Src 15** and **Dest 2, Src 14** and **Dest 3** etc.) and ends with the bottom left corner of the matrix (e.g. **Src 1** and **Dest 16**).

To use the R-Diagonal Preset

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the toolbar or select **Follow** to include all levels.
3. Click **Advanced** > **R-Diagonal Presets**.



✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

4. Click **TAKE**.

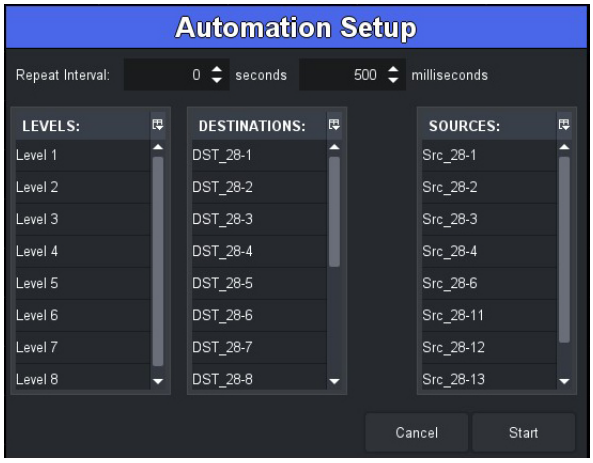
Creating an Automatic Switching Loop

The Automation feature enables you to set up a crosspoint and create a continuous switch loop using the specified crosspoints.

To set up an automated crosspoint selection loop

1. Display the matrix soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Click **Advanced** > **Setup Automation**.

   The **Automation Setup** dialog opens.



3. Use the **Repeat Interval** field to specify how long the crosspoint switch will continuously loop for.
4. Use the **Levels** menu to specify the levels the crosspoint will include.
5. Use the **Destinations** menu to select the outputs on the router.
6. Use the **Sources** menu to select the input signals to route to the output for the switch.
7. Click **Start**.

   The menu closes and the crosspoint switch begins. The loop continues for the length of time specified in step 3.

✶ To instantly stop the loop, click **Advanced** > **Stop Automation**.

Clearing the Matrix Selections

You can choose to clear all the crosspoint selections, or only the selected Destinations.

To clear all crosspoint selections on the matrix

- Click **Advanced** > **Clear All Presets**.

To clear only the Destination selections on the matrix

- Click **Advanced** > **Clear Dest Presets**.

Using MultiBus Panels

Use the MultiBus Panel to send a source to multiple destinations.

Panel Interface Overview

The MultiBus Panel provides breakaway control and status monitoring of several destinations simultaneously.

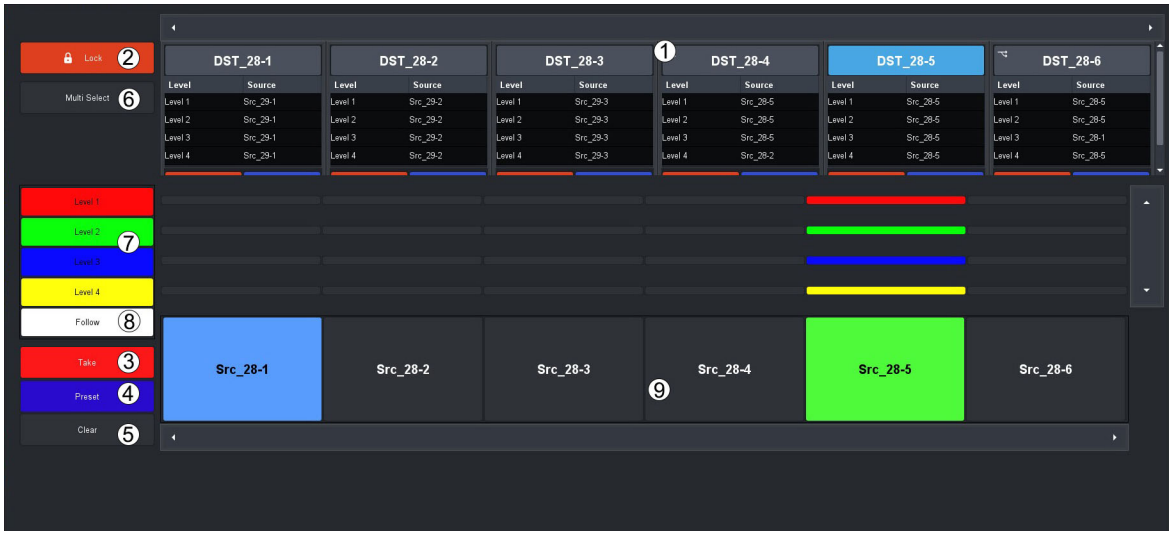


Figure 58 Example of a MultiBus Panel

1) Destination Bus	4) Preset Button	7) Level Button(s)
2) Lock Button	5) Clear Button	8) Follow Button
3) Take Button	6) Multi Select Button	9) Source Bus

1. Destination Bus

Each button in this crosspoint row represents a configured output for the selected router. Selecting a button includes the destination in the next crosspoint switch. The number of destinations and label for each button is defined by its entry in the Destinations interface. A destination selected to be included in the next crosspoint switch will have a lit button. For example, **DST_28-5** is selected in **Figure 58**.

2. Lock Button

Click this button to prevent switching of the selected crosspoints. If you are using a soft panel with the **Protection Operation** set to **Disable**, the **Lock** button is not displayed.

3. Take Button

Click this button to execute the switch between the selected crosspoints. If you are using a soft panel with the **Take operation** set to **Direct**, a **TAKE** button is not displayed because the transitions will occur automatically after a crosspoint switch is selected.

4. Preset Button

When this button is lit, a new crosspoint switch is set up on the soft panel. At least one source, once destination, and one level are selected on the interface (the **Dest** and **Src** buttons are lit blue to indicate their inclusion in the next switch).

✶ When this button is not lit, the crosspoint switch setup is still valid but is no longer indicated on the soft panel.

If you are using a soft panel with the **Take Operation** set to **Confirm**, the crosspoint switch will take effect the next time the **TAKE** button is selected. If you are using a soft panel with the **Take Operation** set to **Direct**, a **TAKE** button is not displayed because the transitions occurred automatically (hot-punch operation).

5. Clear Button

Clicking this button clears the selections made for the next crosspoint switch in the soft panel interface.

6. Multi Select Button

Clicking this button enables you to perform a switch on multiple crosspoint combinations. If you are using a soft panel with the **Selection Operation** set to **Single**, a **Multi Select** button is not displayed.

7. Level Button(s)

Click a level button to include the level in a crosspoint that you are configuring in the matrix. A lit button indicates that the corresponding level will be included in the next transition. The color and name of the button are specified using the **Levels** interface. **Figure 58** illustrates a MultiBus panel with four levels selected.

8. Follow Button

Click this button to select all levels in the matrix. If you are using a soft panel with the **Take operation** set to **Confirm**, pressing **TAKE** after pressing **Follow** will then switch all crosspoints at the same time on all available levels.

9. Source Bus

Each button in this crosspoint row represents an input in the routing system. Selecting a button includes the source in the next crosspoint switch. The label for the button is defined by its entry in the Sources interface of the Database. A source selected to be included in the next crosspoint switch will have a lit button. For example, in **Figure 58** the **Src_28-1** is selected for the next transition while the **Src_28-4** is the current source in use.

10.Machine Control Button (not shown)

If you are using a soft panel with the **Machine control** set to **Enabled**, the **MACHINE CONTROL** button is displayed. Refer to "**Enabling Machine Control for Legacy Devices**" for details.

Crosspoint Switches via a MultiBus Panel

The layout of a MultiBus panel is similar to a production switcher layout where the destinations are arranged into a row of buttons near the top of the panel and the sources are arranged on a row near the bottom.

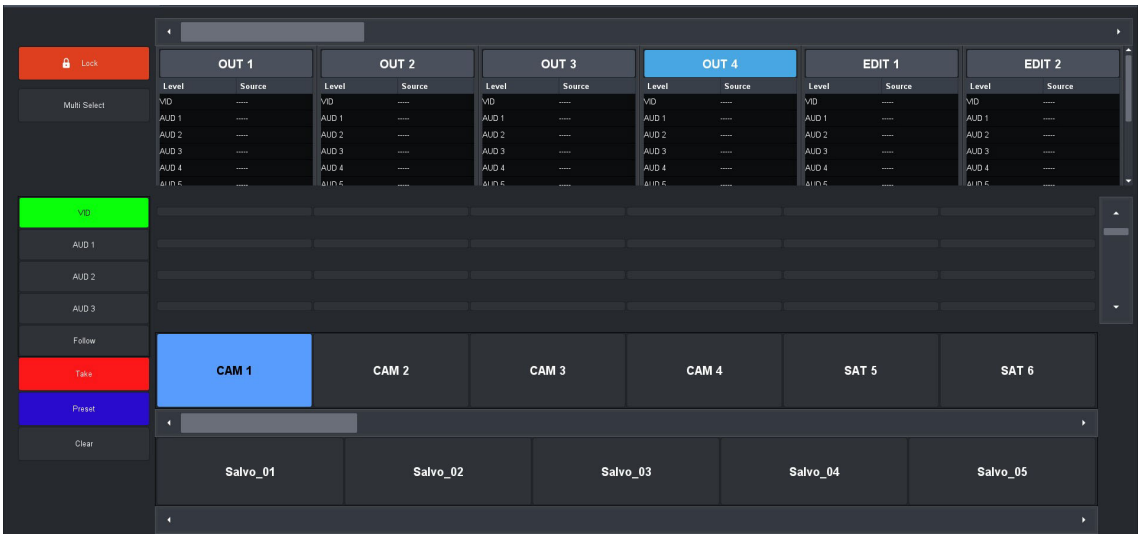
To make a crosspoint switch on a single level using a MultiBus panel

1. Display the MultiBus soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. From the left toolbar, select the button for the level you want to perform the crosspoint switch.
3. Select a button from the Source bus (located at the bottom of the interface).

   The button is now lit.
4. Select a button from the Destination bus (located at the top of the interface).

   The **Dest**, and **Preset** buttons are now lit.

   In the example below, the first level is selected (**VID**) and **OUT 4** will switch with **CAM 1**.



✶ If the soft panel has its **Take operation** set to **Direct**, the **Take** button does not display and the switch occurs automatically.

5. Click **Take**.

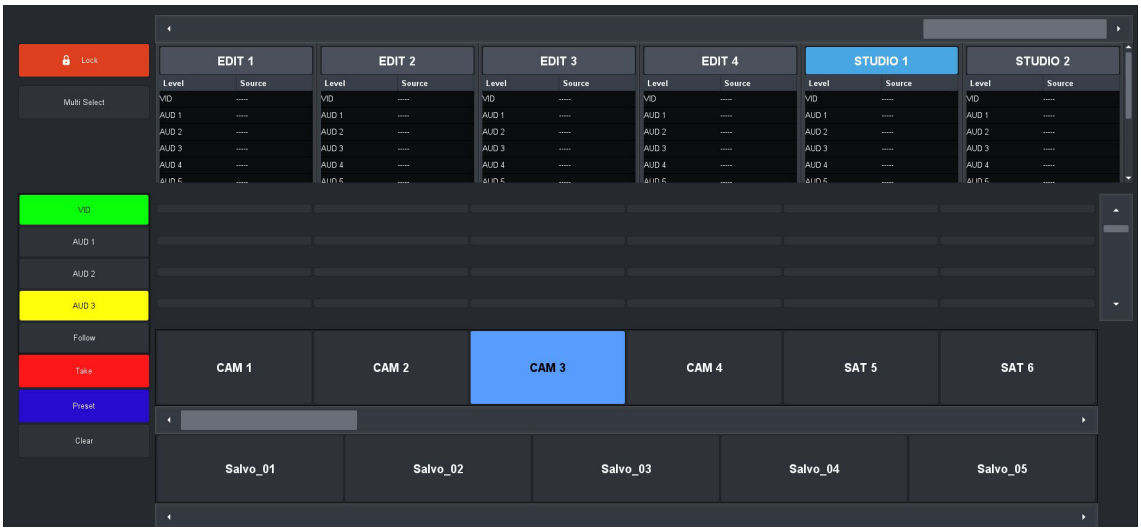
To make a crosspoint switch using multiple levels

1. Display the MultiBus soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the toolbar or select **Follow** to include all levels.

   When multiple levels are selected, the center row of the panel reports the level status using a horizontal bar to represent the level.
3. On the Destination bus, select the button for the outputs to include in the crosspoint switch.
4. On the Source bus, select the button for the input.

   The Destination, Source, **Preset**, and **Take** buttons are now lit.

   In the following example, **STUDIO 1** will switch with **CAM 3** on **Levels VID** and **AUD 3**.



✶ If the soft panel has its **Take operation** set to **Direct**, the **Take** button does not display and the switch occurs automatically.

5. Click **Take**.

Using the Multi Select Function

Use the **Multi Select** button when you want to group multiple destinations to use a single source during the next crosspoint switch.

To use the Multi Select function

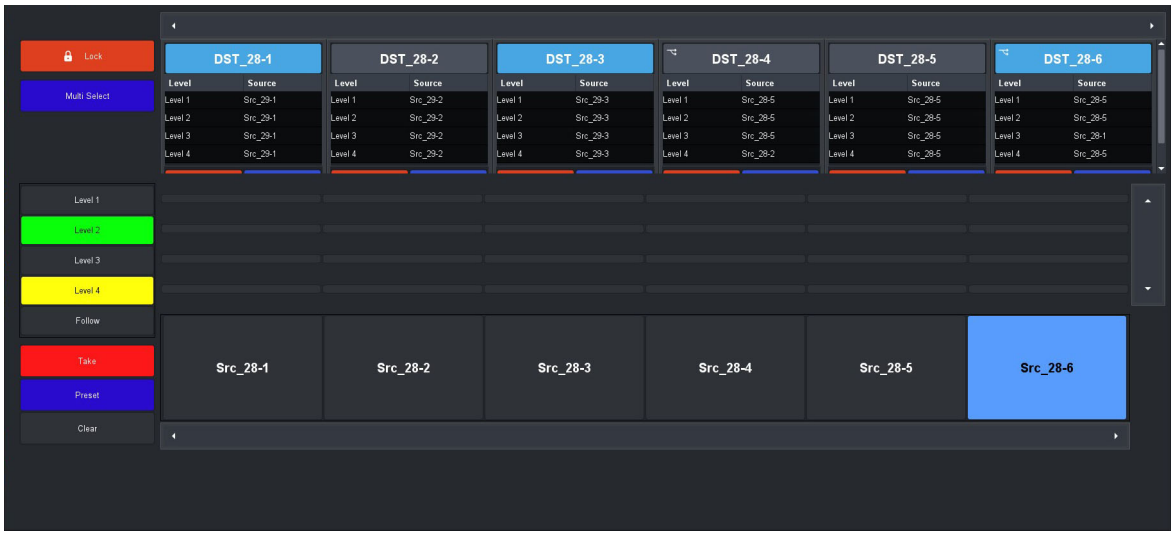
1. Display the MultiBus soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select the level(s) from the left toolbar.
3. Click **Multi Select**.

   The **Multi Select** button is now lit.
4. Select the buttons from the Destination bus located near the top of the interface.

   The Destination buttons are now lit.
5. Select a button from the Source bus located near the bottom of the interface.

   The Source, **Preset**, and **Take** buttons are now lit.

   In the example below, **Levels 2** and **4** are selected, and **DST_28-1**, **DST_28-3**, and **DST_28-6** will switch with **Src_28-6**.



✶ If the soft panel has its **Take operation** set to **Direct**, the **TAKE** button does not display and the switch occurs automatically.

6. Click **TAKE**.

Using Category Panels

Category panels organize sources, destinations and levels based on the settings in the Group Category and Cat/Index interfaces.

For More Information on...

- legacy categories, refer to the ***RCP-QE User Guide***.

Panel Interface Overview

The soft panel interface for each category type is similar in layout and available buttons.

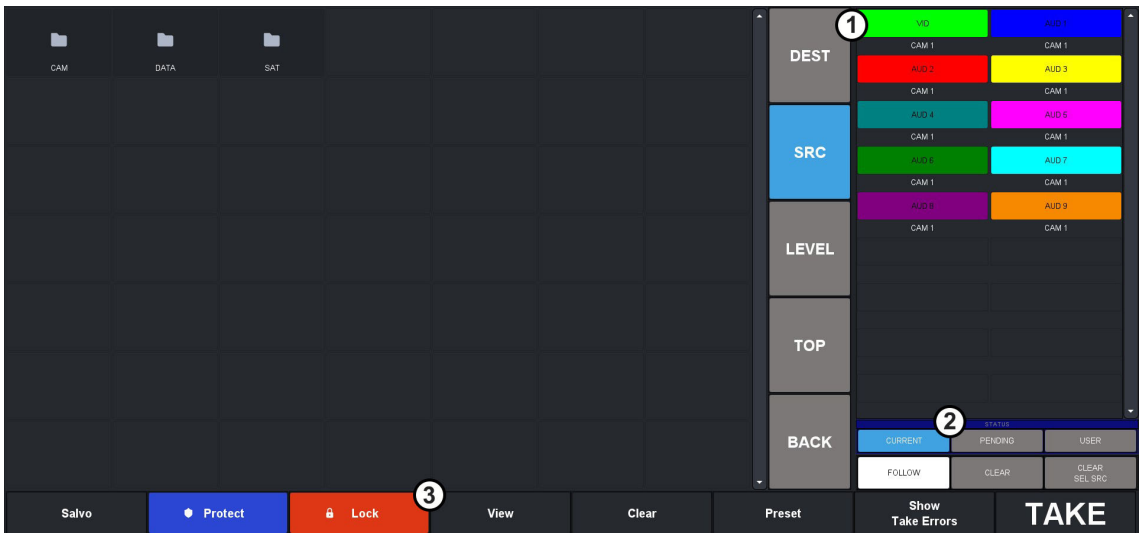


Figure 59 Example of a Group Category Soft Panel

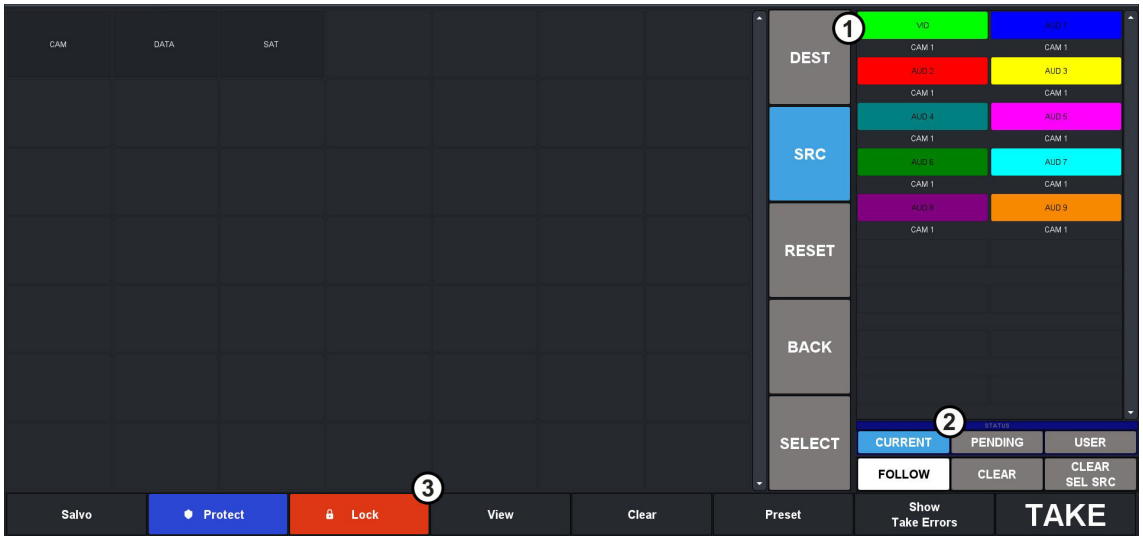


Figure 60 Example of a Cat/Index Soft Panel

1) Group Window	2) Status Window	3) Control Area

1. Group Window

This area of the soft panel interface may include the following buttons:

- **DESTINATIONS**, **SOURCES**, **LEVELS** — Clicking one of these buttons updates the crosspoint area to display the selected resource (destinations, sources or levels) available as per the selected category. The button labels update to display the assigned labels.
- **TOP** — Click this button to return the crosspoint area to display the selected resources. This button is only available on the Group Category soft panels.
- **BACK** — Click this button to return the navigation to the previous category selection (back one level).
- **RESET** — Click this button to clear all selections on the interface. This button is only available on the Cat/Index soft panels.

› **SELECT** — This button is only available on the Cat/Index soft panels.

✶ When using a Group Category soft panel and the **Info** > **Non-group Resources** setting is set to **Hide**, only the resources assigned to a group are displayed on the soft panel.

2. Status Window

The bottom right corner of each soft panel includes a status window. For each level in the list of available levels, a corresponding status indicator display will indicate the current source for the currently selected destination.

The following buttons are located on the right-side of the soft panel interface:

› **Level** buttons — Click a level button to include the level in a crosspoint that you are configuring in the matrix. A lit button indicates that the corresponding level will be included in the next transition. The color and name of the button are specified using the **Levels** interface.

› **CURRENT** — This button updates the level display area to show the current status for all displayed levels.

› **PENDING** — This button updates the level display area to show status for the currently pending operation (if selected source has not been switched yet. e.g. before TAKE is pressed).

› **USER** — This button shows current lock/protect status of each levels (and the soft panel name that is currently owned it). Since the soft panel does not recognize the names of remote control panels (RCP) to retrieve their name, a “owner #” name is used.

› **FOLLOW** — Click this button to select all levels in the matrix. Clicking **TAKE** after clicking **FOLLOW** will then switch all crosspoints at the same time on all available levels.

› **CLEAR** — Click this button to clear all selections on the interface.

› **CLEAR SEL SRC** — Click this button to clear individual source selections by selecting the levels to be cleared.

3. Control Area

The bottom toolbar of the soft panel interface can include the following buttons:

› **Protect** — Click this button to prevent switching of the selected destination except by the panel that initiated the protect. If you are using a soft panel with the **Protection Operation** set to **Disable**, the **Protect** button is not displayed.

› **Lock** — Click this button to prevent switching of the selected destination by an control device. If you are using a soft panel with the **Protection Operation** set to **Disable**, the **Lock** button is not displayed.

› **View** — Click this button to display the VIEW dialog. This dialog lists the current TAKE commands in the queue. Individual items may be removed from the queue via the options in the View dialog.

› **Clear** — Click this button to clear the current TAKE queue.

› **Preset** — Use this button to queue up multiple TAKE commands. Select a destination/source combination, then click Preset. Select another destination/source combination then click Preset. A following TAKE command will execute all the Preset switches. To view the switch commands queued by the Preset, click View.

› **Show TAKE Errors** — Click this button to display a summary of the error conditions that were detected each time a switch command was executed. Click Close to the exit the dialog.

› **TAKE** Button — Click this button to execute the switch between the selected crosspoints. If you are using a soft panel with the **Take Operation** set to **Direct**, a **TAKE** button is not displayed because the transitions will occur automatically after a crosspoint switch is selected.

Crosspoint Switches via a Category Panel

The buttons and options in a Category soft panel are dependent on the categories defined for the current database, and how the soft panel was defined in the **Panels** interface. Instead of displaying

all sources, destinations, and levels at one time, a Category soft panel provides access based on the categories and the indexes you created.

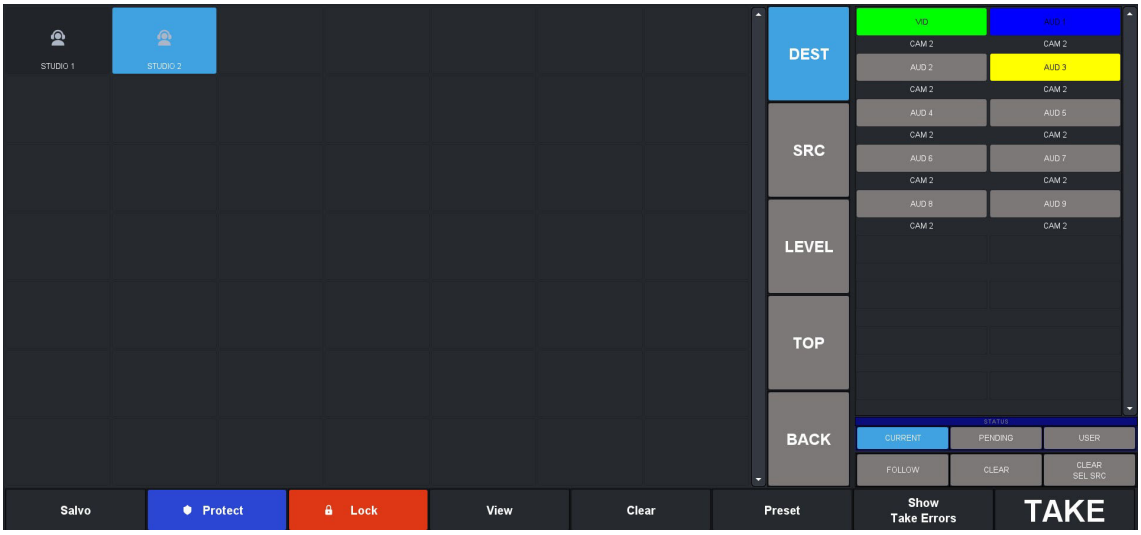
To make a crosspoint switch using a Group Category Panel

1. Display the Group Category soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. From the status window, highlight the level(s) you wish to include in the crosspoint switch.
   - Selected levels highlight in the level defined color.
   - Non-selected levels are indicated by a gray button with white text.
3. To select a destination:
   a. Click **DEST** from the category navigation tools.
   b. Navigate to the desired group using the displayed groups in the main group window.

✶ Only groups containing destination assignments will be displayed unless the **Non-group Resources** option for this soft panel is set to **Show**.

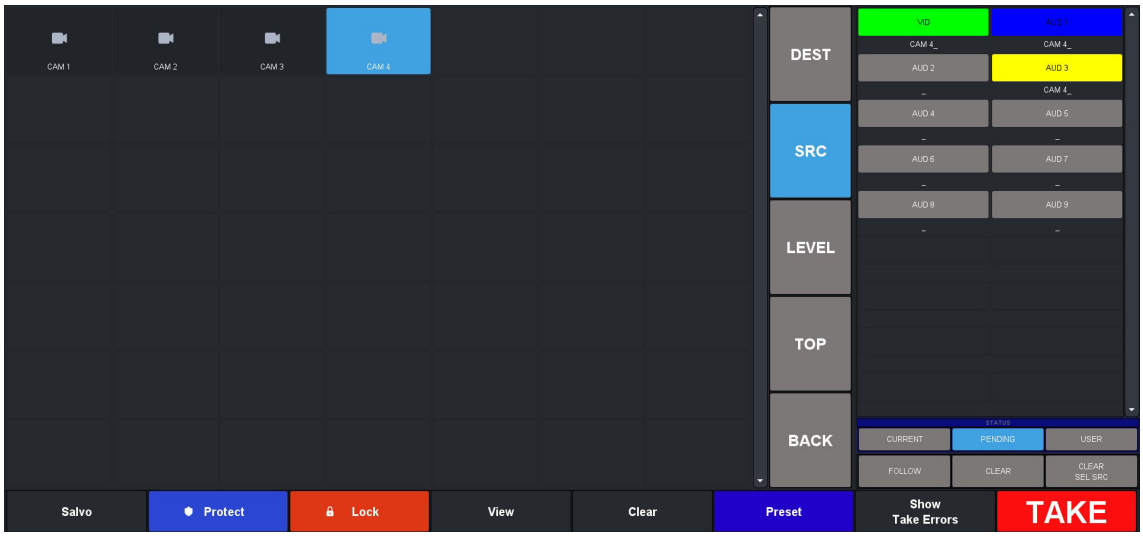
   c. Select a button from the available category destinations located in the main group window.

      In the following example, the user has selected levels **VID**, **AUD 1**, and **AUD 3**; destination **STUDIO 2**.



4. To select a source:
   a. Click **SRC** from the category navigation tools.
   b. Select a button from the Source bus located in the middle of the interface.

✶ If your Category soft panel was created with the **Take Operation** set to Confirm, the **TAKE** button is lit. Otherwise the crosspoint switch automatically occurs.



5. Click **TAKE**.

Using Push Button Panels

✶ This soft panel type is suitable for use on an Ultritouch hard panel. To control the Ultrix and Ultricore via an Ultritouch, you must create and load an Ultritouch PB soft panel as outlined in the ***Ultritouch User Guide***.

Panel Interface Overview

The Push Button soft panel is organized into three distinct windows. The order and width of each window can be customized using the options in the Panels > Settings interface.

Figure 61 is an example of a Push Button soft panel set to portrait.

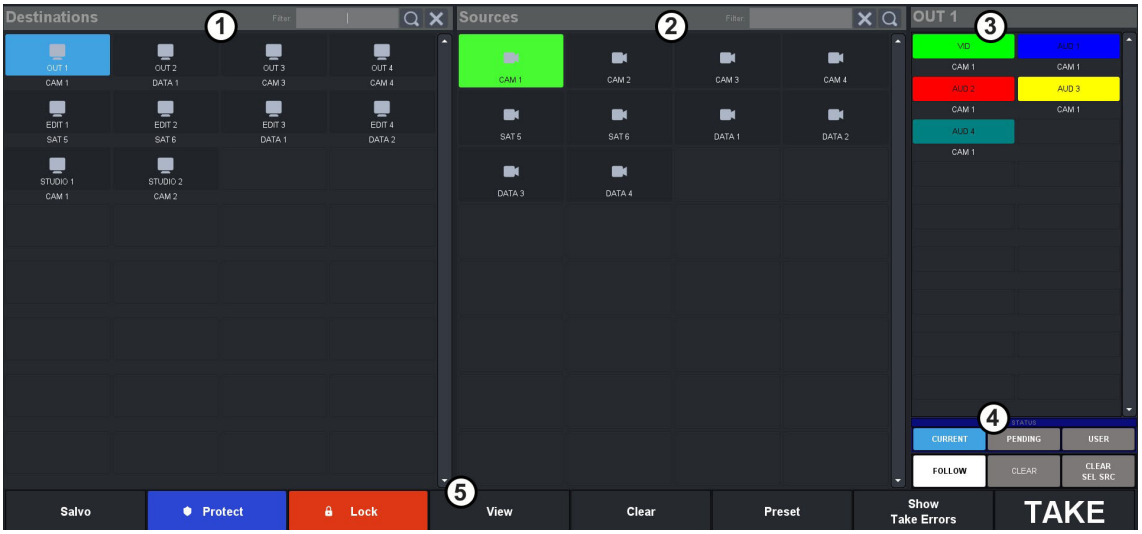


Figure 61 Example of the Default Push Button Soft Panel — Portrait

Figure 62 is an example of a Push Button soft panel set to landscape.

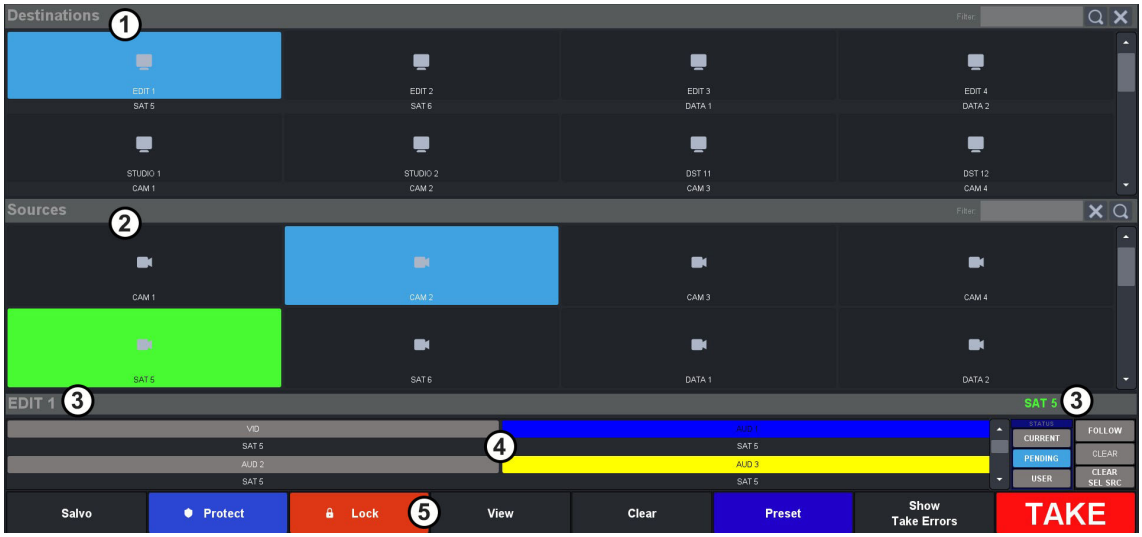


Figure 62 Example of the Default Push Button Soft Panel — Landscape

1) Destinations Area	3) Current Destination	5) Operation Area
2) Sources Area	4) Levels Area	

1. Destinations Area

The **Destinations** area displays the available destinations for router control. Select a button to arm that destination for subsequent panel operations. Beneath each destination button is displayed the current source for that destination.

This area also includes the **Filter** field. A filter is available to match destination names against the entered text:

- Enter text in the **Filter** field.
- Click (or press **Enter**). The destinations area updates to display only those destinations starting with the filter text.
- To clear the active filter, click .

2. Sources Area

The Sources area displays the available sources for router control. Select a button to control the crosspoint for the currently selected destination.

This area also includes a **Filter** field. A filter is available to match source names against the entered text:

- Enter text in the field provided.
- Click (or press **Enter**). The sources area updates to display only those sources starting with the filter text.
- To clear the active filter, click .

3. Current Destination

The currently selected destination label is displayed here. All subsequent panel operations operate on this destination until a new destination is selected.

› — the current status is not the same for all levels (ie a breakaway switch has occurred).

›  — the current destination is locked. No switches can be made on this destination.

›  — the current destination is protected. Only the panel that initiated the protect may switch this destination.

4. Levels Area

The Levels area displays the available router levels as individual buttons. The current source for a given router level is displayed each level button. Select a button to include this level in the next source selection operation. Select the button again to toggle the level selection setting.

This area also includes the following buttons:

› **FOLLOW** — toggles the selection for all displayed levels.

› **CLEAR** — toggles the currently active level buttons.

5. Operation Area

This area includes the following buttons (left to right) for soft panel and router control:

› **SALVO** — displays a list of predefined salvos. A salvo may be executed from the dialog. The salvo button is visible only when the panel configuration has one or more salvos assigned.

› **PROTECT** — protects the current destination. Only the panel that initiated the protect may change the protect status. When selected, the following occurs:

a. The destination button displays a blue border.

b. The **Current Destination** area displays  . When a destination is protected, only the panel that initiated the protect can change the destination status.

c. The **PROTECT** button is now labeled as **UNPROTECT**.

d. Toggle the button to disable the protect.

› **LOCK** — locks the current destination. Only the panel that initiated the lock may change the lock status. When selected, the following occurs:

a. The destination button displays a red border.

b. The current destination display area displays  . A panel cannot change the destination status of a locked destination.

c. The **LOCK** button is now labeled as **UNLOCK**.

› **VIEW** — displays the current crosspoint switch requests currently in the preset list. Individual crosspoints may be removed via the list view.

› **CLEAR** — clear the preset list of all crosspoint selections.

› **PRESET** — adds the current destination/source/level selection to a preset list. A crosspoint is added to the list for every level selected. This enables the user to add more switches and execute them all with a single take operation. The preset function is only available when the **Take Mode** is set to **Confirm**.

› **TAKE** — is lit when the current destination/source selection is ready to be requested of the router. This button only displays when the soft panel **Take Mode** is set to **Confirm**.

Configuring a Push Button Soft Panel

The Push Button soft panel provides additional configuration options in addition to those outlined in “**Creating a Soft Panel**”.

To configure a Push Button soft panel

1. Create a new soft panel as outlined in the procedure "**To create a soft panel**" and "**To customize the layout of a soft panel**".

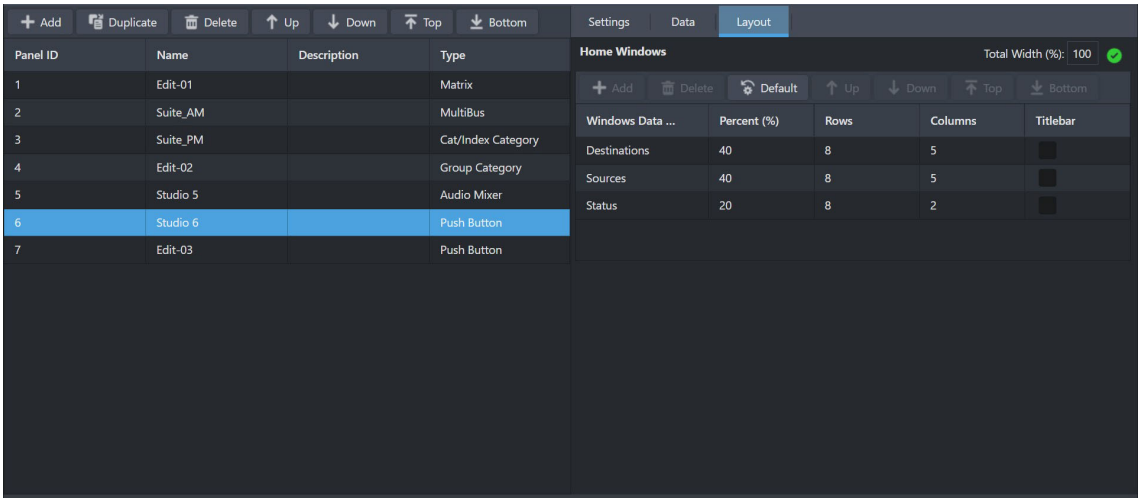
   The **Settings** tab is automatically selected.

2. Use the **Icons Display** menu to specify whether buttons will display the default icons based on window type (**Enable**) or will only display the label text as determined by the database (**Disable**).

3. Use the **Orientation** menu to specify the layout on the monitor. Choose from the following:

   - Portrait — a horizontal layout; the panel is taller than it is wide. (**Figure 61**)
   - Landscape — a vertical layout; the soft panel is wider than it is tall. (**Figure 62**)

4. Select the **Layout** tab.



5. Specify the order that the windows will display in the completed soft panel layout as follows:

★ By default, the windows are organized in the following order (left to right): Destinations, Sources, and Status.

   a. In the **Home Windows** table, select the row for the window you want to move to on the soft panel layout.

   b. Use the buttons in the toolbar to move the row to the desired position.

6. Adjust a window size as follows:

   - Use the **Percent** field to specify the size of the window as a percentage of the total soft panel area.
   - Use the **Rows** field to specify the number of button rows the window will display.
   - Use the **Columns** field to specify the number of button columns the window will display.

7. Select the **Title bar** box to display a header above a window.

To configure a Group PB panel

1. Create a new Group PB soft panel as outlined in the procedures "**To create a soft panel**" and "**To customize the layout of a soft panel**".

   The **Settings** tab is automatically selected.

2. Use the **Icons Display** menu to specify whether buttons will display the default icons based on window type (**Enable**) or will only display the label text as determined by the database (**Disable**).

3. Select the **Layout** tab.
4. In the **Home Windows** table, specify the order that the windows will display in the completed soft panel layout as described in "**To customize the Home Window of a soft panel**".

✶ By default, the windows are organized in the following order (left to right): Destinations, Sources, and Operation.

5. In the **Drawer Windows** table, specify the order of the windows that display on the soft panel. Refer to "**To define the drawer elements of the soft panel**" for details.

✶ To configure an Output Monitor window for a Group PB soft panel, refer to the ***Ultritouch User Guide***.

Crosspoint Switches via a Push Button Panel

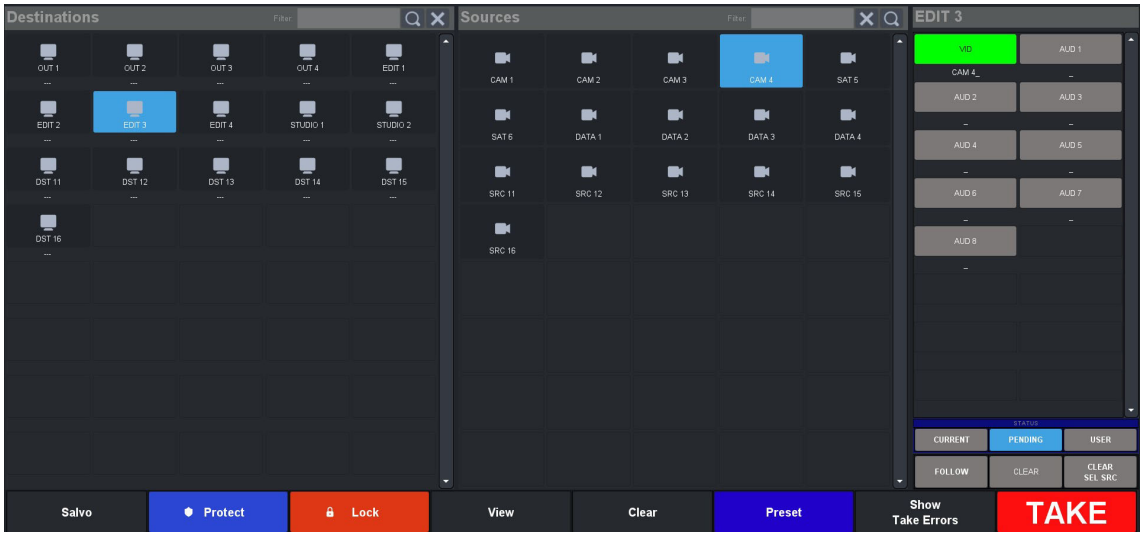
The buttons and options in a Push Button soft panel are dependent on the current database, and how the soft panel was defined in the **Panels** interface. You can also use the Filter fields in the Destinations and Sources area of the panel to provide access based on the search criteria entered into each Filter field.

To make a crosspoint switch on a single level using a Push Button Panel

1. Display the Push Button soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select the **Level** you want to perform the crosspoint switch.
3. Select a button from the **Destinations** window.

   The Status field reports the selected button.
4. Select a button from the **Sources** window.

   In the following example, the user selected **EDIT 3**, **CAM 4**, and a level (**VID**).



✶ If your soft panel was created with the **Take Operation** set to Confirm, the **TAKE** button is lit. Otherwise the crosspoint switch automatically occurs.

5. Click **TAKE**.

To make a crosspoint switch on multiple levels using a Push Button Panel

1. Display the Push Button soft panel in the DashBoard window as outlined in "**To display a soft panel in the DashBoard window**".
2. Select each level from the Levels window or click **FOLLOW** to include all levels.

The Level buttons are lit in the right most toolbar.

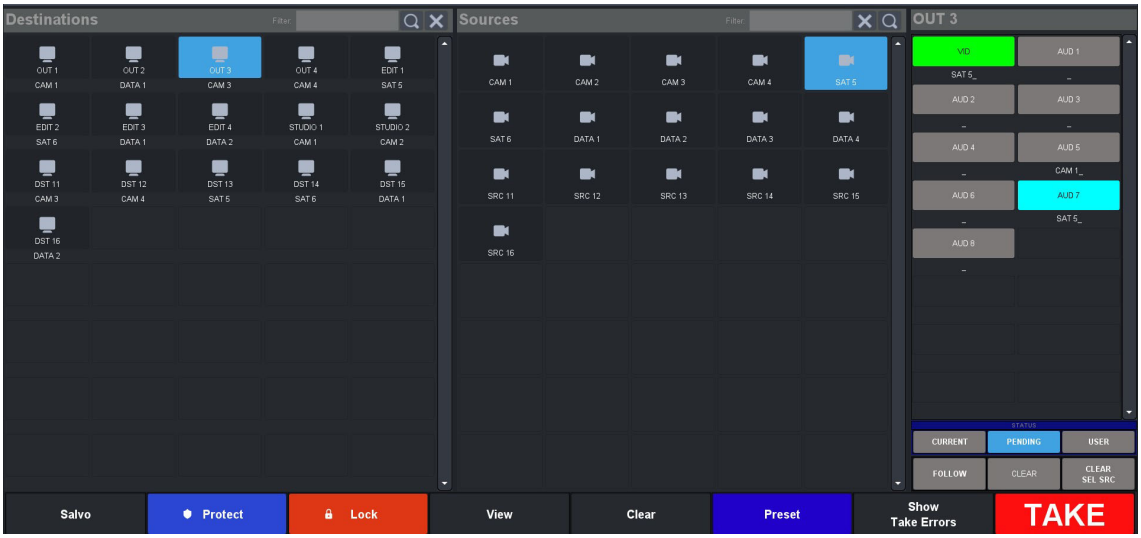
3. Select a button from the **Destinations** window.

   The Status area updates to display report the selected destination.

4. Select a button from the **Sources** window.

   The Status area updates to display only the selected source.

   In the following example, the user selected **OUT 3**, **SAT 5**, and two levels (**VID** and **AUD7**).



✶ If your soft panel was created with the **Take Operation** set to Confirm, the **TAKE** button is lit. Otherwise the crosspoint switch automatically occurs.

5. Click **TAKE**.

Using an Ultritouch PB Panel

An Ultritouch PB soft panel is organized into a pre-sized layout that can be loaded for use on an Ultritouch hard panel. Customize each soft panel by specifying the size of each window, the location of each window on the layout, and what operational buttons to include on the panel.

✶ The Ultritouch PB soft panel type can only be loaded and used on an Ultritouch hard panel.

Figure 63 Example of an Ultritouch PB Soft Panel

For More Information on...

- configuring and using an Ultritouch PB soft panel, refer to the ***Ultritouch User Guide***.

To load a soft panel to an Ultritouch

1. On the Ultritouch hard panel display, tap  .

   The **All Connections** interface displays.

2. Tap the router you want to control via the Ultritouch.

3. Tap the second button.

   The panel updates to display the router hierarchy much like the tree view in the router menu system.

4. Tap **Soft Panels**.

   A list of available soft panels displays.

5. Tap the required soft panel.

6. Tap **Open**.

   The Ultritouch interface updates to display the selected soft panel.

Using an Audio Mixer Panel

An audio mixer panel can be customized to display a collection of data as defined during the soft panel configuration using the options in the Panels > Layout tab.

✶ The audio mixer panels can only be configured, accessed, and operated on an Ultrix router.

Customizing the Audio Mixer Panel Features

Table 75 summarizes the options for the types of data you can assign to the Home window of an audio mixer panel.

Table 75 Home Window — Types of Data

Type	Description
Channel Strip	Displays the controls for the inputs of the selected audio mixer
Output Strip	Displays the controls for the outputs of the selected audio mixer
Mixer Destination	Displays the audio mixer destination selection buttons
Monitor	Displays read-only status information of the selected audio mixer
Sources	Displays the router source selection buttons

By default, the Drawer window is populated with a right-side **Mixer Output** window, a left-side **Mixer Selection** window, and a right-side **Mixer Filters** window. When multiple windows are assigned to either left or right drawers, the user must first select the drawer handle, then the window that is required.

Table 76 summarizes the options for the types of data you can assign to the drawers of an audio mixer panel.

Table 76 Drawers — Types of Data

Type	Description
Mixer Outputs	Displays the available audio mixer outputs. Select to switch the mixer panel current output bus.
Mixer Partition	Displays the audio matrix (partition) selection buttons.
Audio Filters	Displays the audio filter page for the currently selected channel strip.
Channel Balance	Displays the audio channel balance slider.

Table 76 Drawers — Types of Data (Continued)

Type	Description
Mixer Destinations	Displays the router destination selection buttons in the specified drawer. Select to route the current mixer output to one or more Ultrix destinations.
Sources	Displays the router source selection buttons in the specified drawer. Select to route an Ultrix source to the current mixer channel.

Table 77 summarizes the default sizes for the types of drawers for each type of audio mixer panel.

Table 77 Drawer Windows — Default Settings

Window Type	Default Percent
Audio Mixer Desktop	
Mixer Output	30
Mixer Selection	30
Mixer Filters	50
Audio Mixer 4RU	
Mixer Output	30
Mixer Selection	30
Mixer Filters	100
Audio Mixer 2RU	
Mixer Output	30
Mixer Selection	30
Mixer Filters	100

By default, the channel strips are placed from left to right, and the output strips are placed at the far right.

Audio Mixer Soft Panel Overview

The panel UI design are similar to Ultritouch approach where UI sections are categorized into UI windows. These UI windows can be placed in main display and/or drawers.

Home View Window

By default, the channel strips are placed from left to right, and the output strips are placed at the far right. (**Figure 64**)

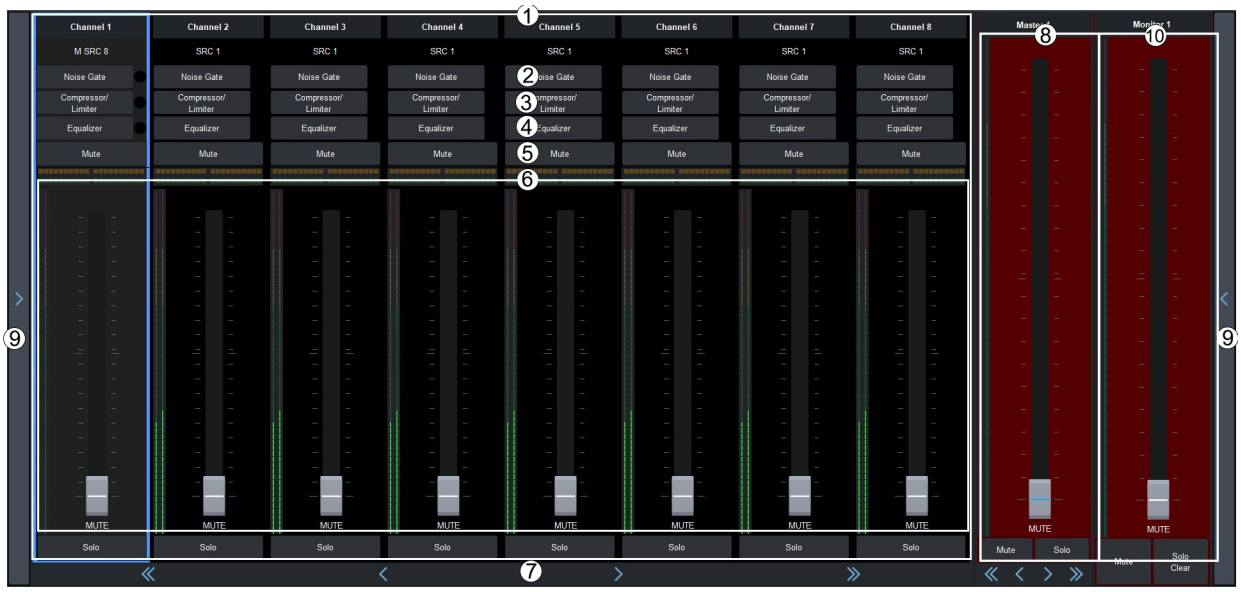


Figure 64 Example of an Audio Mixer Soft Panel

1) Channel Strips	5) Mute	9) Drawers
2) Noise Gate	6) Audio Fader and Meter	10) Monitor Strip
3) Compressor/Limiter	7) Solo, Solo Clear	
4) Equalizer	8) Output Strips	

1. Channel Strips

Each strip controls the input from that audio channel and are color coded for where the audio comes from. Each strip includes the name of the audio channel and the router source assigned to it. Clicking the router source name opens the router source selection drawer window if defined.

✶ If a source is grayed out, the crosspoint is currently set to Lock or Protect by another panel.

2. Noise Gate

Opens the Noise Gate page in the Audio Filters window. Refer to "**Noise Gate**" for details.

3. Compressor/Limiter

Opens the Compressor/Limiter page in the Audio Filters window. Refer to "**Compressor/Limiter**" for details.

4. Equalizer

Opens the Equalizer page in the Audio Filters window. Refer to "**Equalizer**" for details.

5. Mute

Turn off the audio from this source. This does not change the level.

6. Audio Fader and Meter

Adjust the level of the audio from the source.

7. Solo, Solo Clear

The solo action is dependent on the current mixer output.

› Master output — Selecting solo will route that channel to the defined Monitoring output. It does not affect the master output. Only those channels with solo activated will be connected to the Monitoring output. If no channels have solo activated, the monitoring output follows the Master output.

› Aux outputs — Selecting solo MUTES all other inputs to the selected output bus.

Any channels with solo active will illuminate the **Solo Clear** button - even channels not currently visible. Clicking **Solo Clear** disables any solo action for the selected output bus.

8. Output Strips

The output channel strip fader controls the over-all level for that mixer output. Use the scroll bar at the bottom or the mixer output drawer window to select a mixer output bus.

9. Drawers

A navigation drawer is available on the left and right sides of the interface. Tap the drawer icon once to open a pane that provides access to additional menus and functions of your soft panel. Tap the drawer icon again to close the pane. The contents of a drawer is determined when the soft panel was configured.

By default, the audio filters are located in the right drawer of a soft panel. The following audio filters are available for each channel strip: audio equalizer, noise gate, and compressor/limiter. Refer to the following sections for details on configuring each filter type.

✶ At the top of each audio filter setting is a Clipping indicator to warn you if clipping is occurring in the Equalizer stage (EQ) or Compressor/Limiter stage (CL).

10.Monitor Strip

The Master layer also has a Monitor output and level. By default, the Monitor strip reports the status of the last channel pair of the partition.

Equalizer

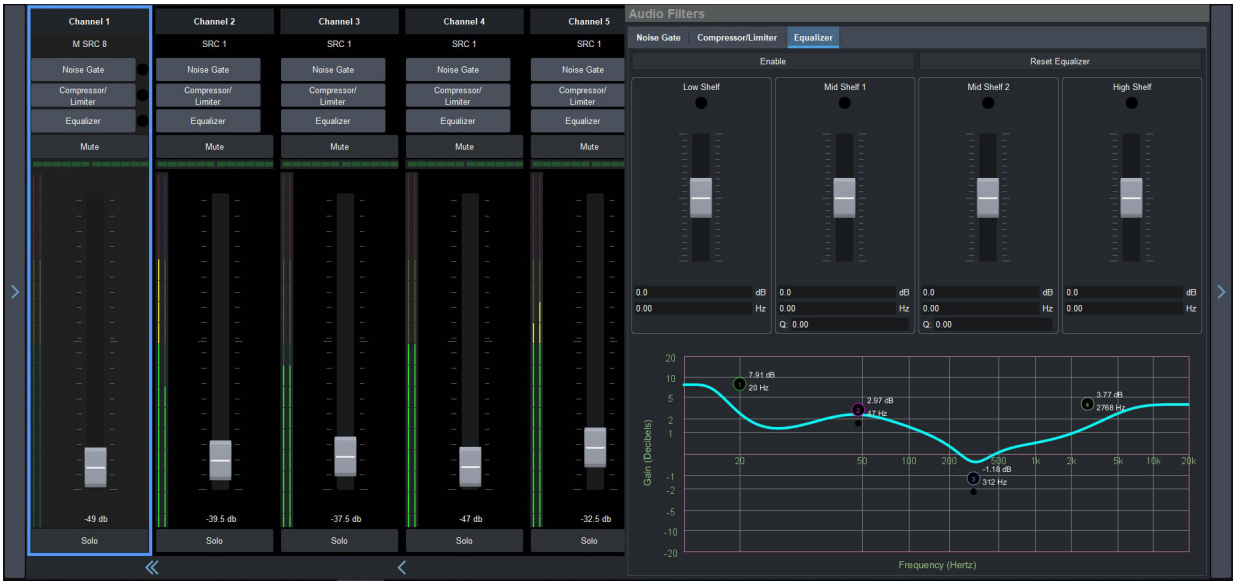
The audio equalizer (EQ) allows you to enhance the sound quality of audio sources. An independent equalizer is available for every audio fader in the system and allows for adjustment in four bands (low-shelf, mid-range, high mid-range, and high-shelf).

✶ You can adjust the EQ settings using the EQ graph or the specific slider control.

To configure an equalizer

1. Expand the applicable drawer to display the **Audio Filters** window.
2. Click **Equalizer**.

   In the example below, the **Audio Filters** window displays in the right drawer.



3. Select an audio channel to modify.

   In the example above, the user is modifying Channel 1.

4. Use the **Low Shelf** slider to adjust the gain of the low frequency band.

✶ You can also move the **L** point around on the graph to adjust the low shelf values.

- **Gain** — set the audio level of the frequency band (-20dB to 20dB).
- **Max Freq** — set the maximum frequency that you want the low shelf audio band limited to (20Hz to 1kHz).

5. Use the **Midrange 1** slider to adjust the gain of a midrange frequency band.

✶ You can also move the **M1** point around on the graph to adjust the midrange 1 values. The dot below the M1 allows you to adjust the Q ratio.

- **Gain** — set the audio level of the frequency band (-20dB to 20dB).
- **Center Freq** — set the middle frequency of the audio band (20Hz to 20kHz).
- **Q** — set the bandwidth of the Q ratio filter (0.51 to 9.91). Note that adjusting the bandwidth also changes the frequency range the filter affects.

6. Use the **Midrange 2** slider to adjust the gain of a midrange frequency band.

✶ You can also move the **M2** point around on the graph to adjust the midrange 2 values. The dot below the M2 allows you to adjust the Q ratio.

- **Gain** — set the audio level of the frequency band (-20dB to 20dB).
- **Center Freq** — set the middle frequency of the audio band (20Hz to 20kHz).
- **Q** — set the Q ratio.

7. Use the **High Shelf** slider to adjust the gain of the high frequency band.

✶ You can also move the **H** point around on the graph to adjust the high shelf values.

- **Gain** — set the audio level of the frequency band (-20dB to 20dB).
- **Min Freq** — set the minimum frequency that you want the high shelf audio band limited to (20kHz to 1kHz).

Noise Gate

A noise gate allows a signal above a certain selected threshold to pass through. Noise gates are typically used to reduce unwanted external sounds, and/or reduce natural channel noise.

To configure the noise gate

1. Expand the applicable drawer to display the **Audio Filters** window.
2. Click **Noise Gate**.

   In the example below, the **Noise Gate** window displays in the right drawer.

3. Select an audio channel to modify.

   In the example above, the user is modifying Channel 1.

4. Use the **Threshold** slider to specify the level at which the gate opens.
5. Use the **Gain Reduction** slider to specify the amount of gain are reduced.
6. Use the **Attack** slider to specify how quickly sounds louder than the threshold are affected.
7. Use the **Release** slider to specify how quickly sounds softer than the threshold are affected.
8. Select the **Enable Clipping** to

✶ Click **Reset Noise Gate** to return all Noise Gate settings to the default values.

Compressor/Limiter

The audio compressor allows you to restrict audio levels from passing a threshold level. These are often used to prevent digital clipping of audio levels that are too high for output equipment. Once the threshold is reached, the compressor starts to reduce the gain at a specific ratio. The higher the compression ratio, the harsher the reduction in gain. The compression continues until the audio level falls below the threshold. You can adjust how quickly the compressor is applied once the threshold is surpassed as well as how long after the level drops below the threshold that the compressor is still applied.

✶ The compressor is said to be acting as a limiter when the compression ratio is set very high, or to infinity, and the attack time is set very low. This has the effect of causing a very abrupt flattening of the audio level once the threshold is reached.

To configure the Compressor/Limiter settings for the audio matrix inputs

1. Expand the applicable drawer to display the **Audio Filters** window.
2. Click **Compressor/Limiter**.

   In the example below, the **Compressor/Limiter** window displays in the right drawer.

3. Select an audio channel to modify.

   In the example above, the user is modifying Channel 1.

4. Use the **Threshold** slider to select the level (dB) at which the compressor is applied.
5. Use the **Compression** slider to select the ratio for the amount of compression you want to apply. The higher the ratio the more compression is applied to lower the level. At infinity the audio level is limited to the threshold.
6. Use the **Attack** slider to select the amount of time (ms) you want to pass between the level surpassing the threshold and the full compression ratio being applied.
7. Use the **Release** slider to select the amount of time (ms) you want to pass between the level falling below the threshold and the compression ratio returning to 1:1 (no compression applied).
8. Use the **Makeup** slider to increase the gain of the audio after compression.

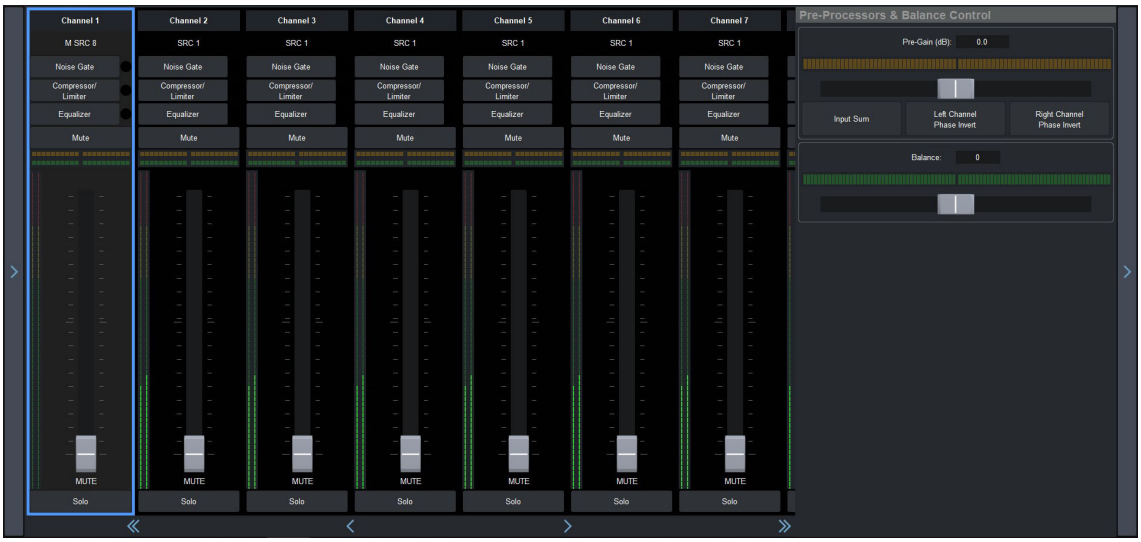
Adjusting the Balance of an Audio Source

Adjusting the balance of an audio source adjusts the volume of the left and right stereo channel. For example, as you move the Balance slider to the right the volume of the right channel is increased and the volume of the left channel is decreased.

To adjust the balance of an audio source

1. Expand the applicable drawer to display the available window options.
2. Click **Pre-Processors & Balance Control**.

   In the example below, the **Pre-Processors & Balance Control** window displays in the right drawer.



3. Select an audio channel to modify.

   In the example above, the user is modifying Channel 1.

4. Use the slider in the **Balance** area to adjust the volume of the left and right stereo channel.

Audio Processing Options

The audio mixer panel enables you to adjust the gain and phase invert, individually, each of the audio sources.

To configure the audio proc-amps for an audio source

1. Expand the applicable drawer to display the available window options.
2. Click **Pre-Processors & Balance Control**.
3. Select an audio channel to modify.
4. Use the **Pre-Gain** field to specify the amount of gain (dB) applied to the input channel.
5. To invert a channel:
   - Click **Left Channel Phase Invert** to inverts the audio signal of the left channel.
   - Click **Right Channel Phase Invert** to inverts the audio signal of the right channel.
6. Click **Input Sum** to sum the left and right input channels. Both channels carry the average ((A+B)/2) of the two input (Left and Right) channels.

Partitions in an Audio Mixer Soft Panel

If your audio mixer soft panel includes partitions, you can switch between matrices as follows:

1. Expand the applicable drawer to display the **Mixer Selection** window.

✶ By default, the **Mixer Selection** window is located in the left drawer of the soft panel.

2. Click the **Partition** button for the required mixer (partition).
   - The channel strips and output strips are auto-populated.
   - The mixer inputs are automatically routed to the mixer outputs.
   - The soft panel recognizes a take transition from an external panel.

If your audio mixer soft panel includes router levels, sources, and destination, you can perform crosspoint switches as outlined in "**Crosspoint Switches via a Matrix Panel**".

Ultricore Profiles

A DashBoard client has the ability to detect devices on a subnet and can enable complete control of all settings on all devices. Ultricore Profiles are designed to enable administrators to assign and manage user permissions and determine the level of access for those users. For example, one user is only responsible for monitoring the video sources is given access only to control panels, while another user who manages the input and outputs of the router matrix is also given access to manage the databases.

This chapter provides an introduction to the Ultricore Profiles for your router matrix and includes general information on managing those profiles.

Overview

The Ultricore Profiles operate as a form of hierarchical database where user permissions are organized into a tree-like format. A profile determines which routing system functions and interfaces that an assigned user can access.

Any number of profiles may be created and can be used in the following ways:

- **Group/Role** — This profile type is not specific to any user or machine. Once created, they can be referenced or used by any number of users or machines. For example, a Graphics Editor profile can be created and referenced by a team of graphics editors. When a new control panel is added to that profile, all graphics editors are updated with the new panel automatically.
- **User** — A profile that identifies a specific username and can either reference an existing role as above or copy an existing role then modify, add, or remove items to allow total customization as required. This allows a user that has a specific profile to have the same capabilities on any DashBoard system regardless of where they log in.
- **Location** — A profile that is defined by a specific location (user station) and assigns a consistent function regardless of who is logged in that suits the operation in that location. In this way the DashBoard instance in front of, for example, the audio operator in a specific control room will only have the optimize functionality for that role. A location profile can also reference or copy and modify role profiles.

Profiles can also be created that identify a specific user at a specific workstation to further optimize the user interface in different locations. If no profile exists for the combination of user and location, the system default profile is used.

When there are multiple available profiles, the one used is chosen as follows:

1. A **User** profile has the highest priority. This means that an administrator can log in anywhere and execute Administrator level functions or an operator can login anywhere and have an optimized UI for their function.
2. A **Location** profile is used for all users at a specific location unless the user logged in has a profile. This allows more or different functionality for users logged into a specific location even if they do not have a specific profile themselves.
3. The **Operator** profile is used in all other scenarios.

Modes of Operation

The Ultricore Profiles feature consists of three sub-functions or modes of operation.

✶ The ULTRICORE-PRO license is required to upgrade from the basic, non-configurable profiles on the Ultrix chassis to full, customizable configurations. The ULTRICORE-PRO license is standard on the Ultricore BCS.

Creation and Management of User Credentials

User profiles can reference the operating system username of the individual currently logged into the workstation.

Setting the Credentials Mode to Ultricore Users in the Product Info > Setup tab engages the Ultricore Profiles feature. This allows an independent definition of usernames and passwords specifically for the Ultricore Profiles feature.

Creation and Management of User Profiles via the Profiles Only

User and Location profiles are created and function as above but only reference one of the two default profiles:

- **Admin** can access all features; or
- **Operator** has full database and configuration capability but not engineering configuration and administrative functions.

Full Creation, Customization, and Management of User Profiles

In addition to the above modes included with the ULTRICORE-PRO license is the ability to create and customize group and role profiles as well as create custom profiles on a user or location basis as appropriate. In addition, the order of items within these profiles can be set to fully optimize the operational environment for a specific user or group as needed.

User Profiles Interface

The options for configuring and managing the Ultricore Profiles are organized as individual tabs within the User Profiles interface of DashBoard. The available settings depend on whether the ULTRICORE-PRO license is installed. By default, all settings are displayed and accessible by any user or DashBoard client machine.

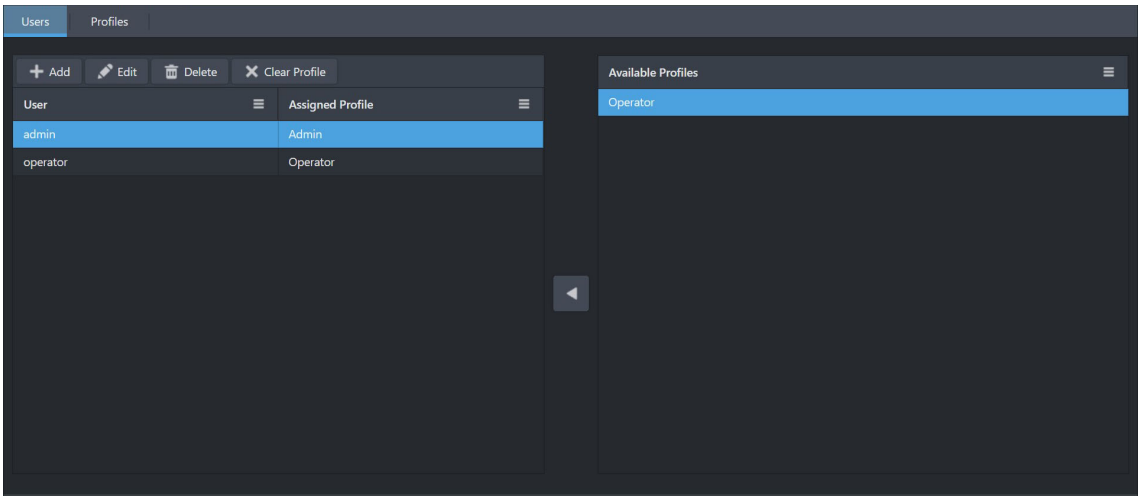
Accessing the User Profiles Interface

The User Profiles interface is a sub-node of the Database tree in DashBoard.

To display the User Profiles interface

1. Display the Database > Configuration interface as outlined in "**Accessing the Database Interfaces**".
2. Double-click the **User Profiles** sub-node.

   The User Profiles interface opens in the DashBoard window.



Overview

When the ULTRICORE-PRO license is enabled, or you are using an Ultricore BCS, the Ultricore Profiles interface displays a toolbar with two tabs: Users and Profiles. Each tab is briefly described in the following sections.

Users Tab

When the system is configured to use the Ultrix user login mechanism, a list of all defined user accounts displays in this tab. From this tab, you can add, edit, and manage the accounts in your routing system.

Profiles Tab

A list of all currently configured profiles. Selecting a profile (row) in this tab automatically updates the settings in the Info, Configuration, and Assign users sub-tabs.

- **Info** — reports the name of the selected profile.
- **Configuration** — displays two areas: Available and Assigned. The Assigned area provides a visual representation of the tree view that is defined in the Info sub-tab. Note that certain entries that are specific to licenses or other conditions may be visible but not in the actual tree view. Should conditions change that enable those entries, they will appear as shown in this display. A profile also maintains the position of items in groups allowing the most relevant items to be the easiest to reach. The tree nodes are organized in a hierarchy where the top level (blue icons) list system specific options, and secondary levels (yellow icons) list specific functions. This requires the ULTRICORE-PRO license to be enabled.
- **Assign users** — displays the user accounts that have not yet been assigned to the currently selected profile but are available. This requires the ULTRICORE-PRO license to be enabled.

Creating a Database of Users

To begin implementing the User profile feature for your system, you first create at least one new user account. You can create as many user accounts as required by your system. New user accounts will default to the **Operator** profile unless or until they have a profile created that allows them appropriate access for their role.

Two user accounts are available by default:

- **admin** — provides full admin and engineering capabilities by using the Admin profile. This account is read-only by default.
- **operator** — provides access to all non-engineering features and functions. The user can configure and access all operational functions and databases of the systems.

✶ Ensure that the system is not in use before creating accounts and profiles. Any currently active DashBoard instances will require users to login and features may be blocked.

To create a new user account

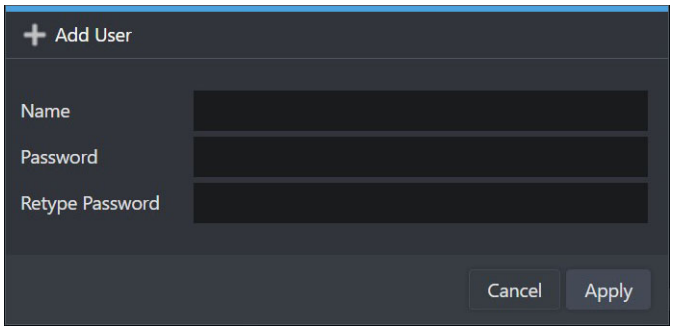
1. Display the User Profiles interface as outlined in "**To display the User Profiles interface**".

   The **Users** tab is automatically selected.

2. Click + .

   The **Add User** dialog opens.

✶ A user can change their password at the login screen.



3. Use the **Name** field to assign a unique identifier for the user account.
4. Use the **Password** field to define the password the user will need to enter when logging in with this account.
5. Type the same password in the **Retype Password** field.
6. Click **Apply**.

   The Add User dialog closes and the new user account is listed in the table.

✶ By default, a new user account is assigned to the Operator profile.

7. Repeat this procedure for every new user account you wish to create.

Creating a New Profile

✶ The User Profiles feature offers a significant flexibility to optimize the tools in front of individual operators which, if inadvertently mis-configured could lead to administrators being locked out. As such, it is a good idea for the administrator to ensure that no users are actively working within the system prior to making significant changes to user accounts and profile settings.

Two profiles are available by default:

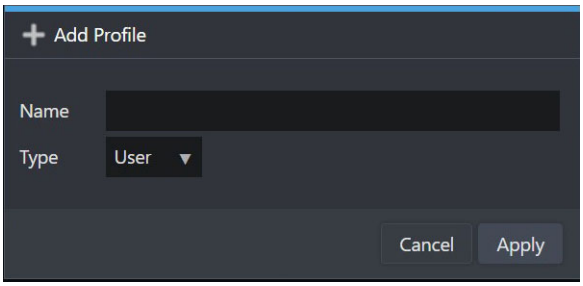
- **Admin** — a group profile giving access to all features and functions as has been available prior to the Ultricore Profiles feature.
- **Operator** — a group profile giving access to only the soft control panels. This allows users that are registered but either have no defined profile on a system or only require basic operational access the ability to control pre-configured operational functions of the systems.

✶ All users default to the Operator profile with no System Login required. In other words, until specifically enabled, the Ultricore Profiles feature is not engaged, and the systems will all behave as in previous versions. It should be noted that while the User Profiles feature is not engaged, the default user profile can be modified should the tree for all users need to be modified.

To create a new profile

1. Display the User Profiles interface as outlined in "**To display the User Profiles interface**".
2. Select the **Profiles** tab.
3. Click + .

   The **Add Profile** dialog opens.



4. Use the **Name** field to assign a unique name for the profile.

✶ Since the profile could be either specific to a user, a workstation or a group of users, it is recommended to create a name that reflects its purpose. For example, John Doe (a specific user), Graphics Operator (a group of users), or PCR1-TD (a workstation).

5. Use the **Type** menu to define the purpose of the profile. Choose from the following:
   - User — the profile is specific to a user or a workstation.
   - Group — the profile is specific to a group of users, roles, or locations.
6. Click **Apply** to create the new profile.

   The **Profile** table updates to display the new entry.

To define the name for a profile

1. From the **Profile** table, select the row for the new profile.
2. Select the **Info** tab in the right pane.
3. Use the **Profile name** field to edit the assigned name to the profile.

Defining the Permissions for a Profile

Once a profile is created, you can modify the tree structure that will be enabled for the user(s) of the selected profile. (**Figure 65**)

✶ This section only applies if you are using an Ultrix router to configure your database and the ULTRICORE-PRO license is enabled on the router.

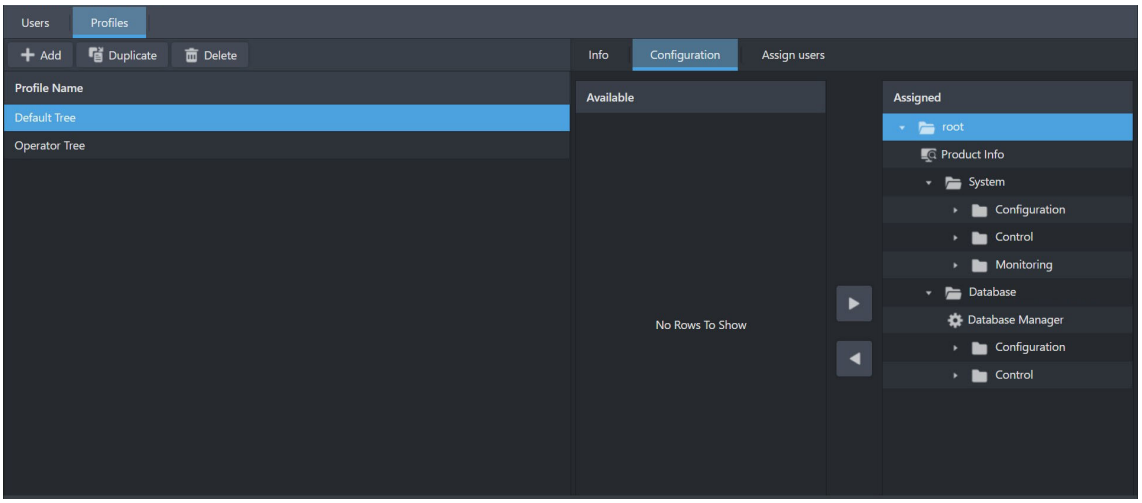


Figure 65 Example of the Profiles > Configuration Sub-tab

Overview

This section provides a brief overview of the Configuration areas.

Available

The Available area (the leftmost table) displays all items that are not currently included in the selected profile's tree. If an item is not in the tree currently but required, the appropriate group tab is selected, the item required is selected and the Assign button is clicked moving it to the bottom of the appropriate group of the tree. The **Up** and **Down** buttons can then be used to order the tree items specific to the needs of the profile.

Assigned

The Assigned area (the rightmost table) displays all the assigned options and their desired order in the tree structure much like the tree view in DashBoard for an Ultrix and Ultricore router. The nodes in Ultricore Profiles tree view are determined by your system configuration and any licenses installed for your system. Buttons at the bottom of this area (**Up**, **Down**, **Remove**) allow entries to be moved up and down in the tree within the group to which the item belongs or removed if they are not required for the selected profile. When removed, the item is returned to the list of available items in the appropriate group tab.

Configuring the Permissions for a Profile

When any change is made in the Configuration sub-tab, the changes are automatically captured in the system database.

To configure the permissions for the profile

1. From the **Profile** table, select the row for the profile you wish to configure.
2. Select the **Configuration** tab in the right pane.
3. Use the **Available** and/or **Assigned** tables to determine if the parent profile tree configuration is used directly by the profile being created or edited or copied into this profile allowing customization of the tree for the specific needs of the user.

✶ If another profile tree is used rather than copied, changes to the tree need to be performed on the parent profile tree and will affect all users that "use" that parent profile and that the same change would need to be executed individually on all users that copied the parent profile tree.

Assigning Users to a Profile

Once the user accounts and profiles are defined for your system, you can assign users to the profiles.

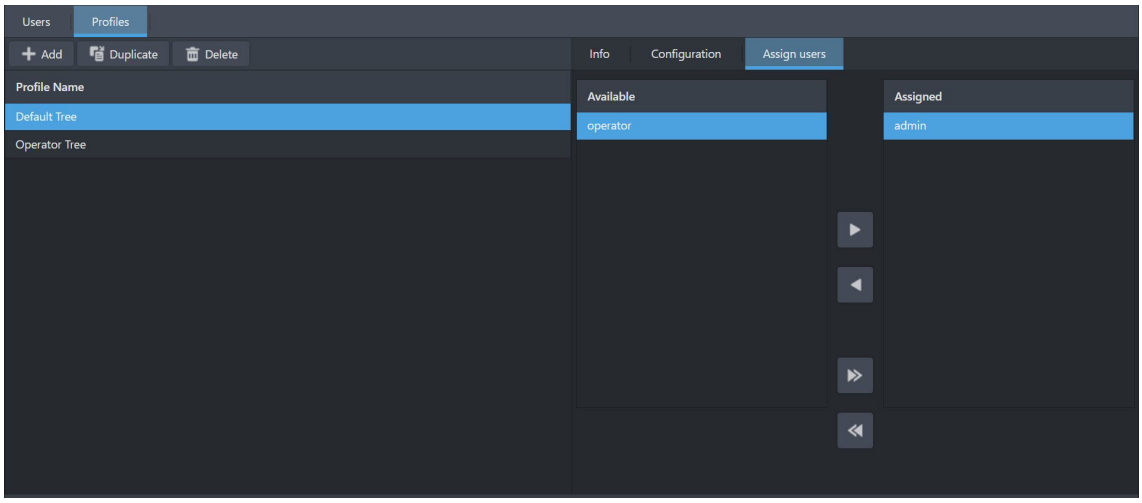


Figure 66 Example of the Profiles > Assign users Sub-tab

To assign a user account to the profile

1. From the **Profile** table, select the row for the profile you wish to configure.
2. Select the **Assign users** tab in the right pane.
3. From the **Available** table, select the user account you wish to assign to the profile.
4. Click ▶.

   The selected user name displays in the **Assigned** table.
5. Repeat this procedure to add users to the selected profile.

Managing the User Accounts

This section outlines how to edit the credentials, re-assign accounts to different profiles, and how to delete an account from the database.

To edit a user account

1. Ensure the user account is not currently in use.
2. Display the User Profiles interface as outlined in "**To display the User Profiles interface**".

   The **Users** tab is automatically selected.
3. Select the row for the user account you wish to edit.
4. Click **Edit**.

   The Edit dialog opens.
5. Edit the user account credentials as required.
6. Click **Apply**.

   The Edit dialog closes and the changes are applied.

To manage the profile(s) assigned to a user account

1. Select the **Users** tab.
2. Select the row for the user account you wish to edit.
3. To remove a user account from all currently assigned profiles, click **Clear Profile**.

   The Assigned Profile cell is now blank, and the Available Profiles list updates in the right pane.
4. To remove a user account from a specific profile:

   a. In the Available Profiles list, select the profile you wish to remove from the account.

   b. Click  .

To delete a user account

1. Select the **Users** tab.
2. Select the row for the user account you wish to delete.
3. Click **Delete**.

   The Delete dialog opens.
4. Click **Apply**.

   The Delete dialog closes and the selected user account no longer displays in the Users tab.

Setting the Credentials Mode

Once Ultricore Profiles are configured for your system, you can proceed to set the Credentials Mode to Ultricore Users. This replaces the current user credentials and settings with the profiles and groups you defined in this chapter.

✶ Before proceeding, ensure that you created a new Administrator profile that has full access to your system. This is a separate profile from the default Admin profile (which is read-only).

✶ This procedure requires a reboot of the Ultrix or Ultricore BCS.

To set the Credentials Mode

1. Locate the primary device in DashBoard.
2. In the Tree View of DashBoard, double-click the **Product Info** node.

   The **Product Info** interface displays in the DashBoard window.
3. Select the **Setup** tab.
4. Locate the **Ultricore Profile Settings** area.

   You may need to scroll down the tab to view this area.
5. Select the **Ultricore Users** box.

   A dialog opens to confirm the selection.
6. Click **Reboot**.

Application of the Ultricore Profiles

Once the Credentials Mode is set to Ultricore Users, all users will initially view a DashBoard tree that only has a System Login entry. (**Figure 67**) Once the user is created with either the default or a specific password by the Administrator, the user can login through a login page displayed in the DashBoard window.

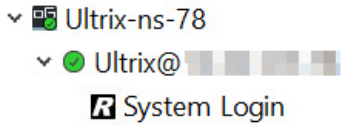


Figure 67 Example of the System Login Sub-node

To log in

1. In the **Basic Tree View**, locate the device you wish to access.
2. Expand the device nodes to display the System Login sub-node.
3. Double-click the **System Login** sub-node.

   The **System Login** page displays in the DashBoard window.
4. Enter the credentials for the profile assigned to you.
5. Click **Login**.
   - The login information is confirmed by the system, and the appropriate tree with all assigned pages and functions are immediately available for use in the DashBoard window.
   - The **Login** page updates to the **Logout** page.

✶ When you log out, the Basic Tree View returns to the System Login tree view. **Figure 67**

To change the password

- Click **Change Pwd** on the **System Login** page.

✶ The old password is required to change the password, and to confirm that the new password is entered correctly. If the old password is forgotten/lost, the admin can force an update to the user password through the Users > Manage Users of the Ultricore Profiles interface.

Unlocking via the Front Panel

Under some conditions, mis-configurations of Admin profiles, lost passwords etc. it may be necessary to force the Ultricore Profiles feature to be disabled to recover. This can be done via the front panel controls of the router.

To unlock the Ultrix and Ultricore via the front panel

1. Use the LCD panel and joystick to select **Config** > **System** > **UC-Profiles**.
2. Select **Disable**.
3. Perform a reboot to apply the change to either enable or disable the use of profiles.

User Data Import/Export

Due to the need to maintain different permutations of user data to system data, the Product Info > Transfer function includes the ability to manage the Ultricore Profiles database. This enables the Ultricore Profiles to be imported and exported independently to any chosen database. For example, import a different show configuration while maintaining the same staff and location configuration or for a truck, allowing a new crew configuration to be loaded without changing system configurations.

To export the Ultricore Profiles for your system

1. In the Tree View of DashBoard, double-click the **Product Info** node.

   The **Product Info** interface displays in the DashBoard window.
2. Select the **Transfer** tab.

3. From the top toolbar, click **Ultricore Profiles**.
4. Locate the **Export** area.
5. Click **Browse...** to specify the name and location to save the Ultricore Profiles file to.

   The **Save As** read-only field updates with the selected path and file name.
6. Click **Apply**.

   The **Downloading Archive** dialog opens to monitor the export.

To import an Ultricore Profiles set to your system

1. In the Tree View of DashBoard, double-click the **Product Info** node.

   The **Product Info** interface displays in the DashBoard window.
2. Select the **Transfer** tab.
3. From the top toolbar, click **Ultricore Profiles**.
4. Locate the **Import** area.
5. Click **Browse...**

   The **Open** dialog opens.
6. Select the Ultricore Profiles file to import.
7. Click **Open** to close the dialog and load the file.
8. Click **Apply**.

   The **Uploading Archive** dialog opens to monitor the transfer.