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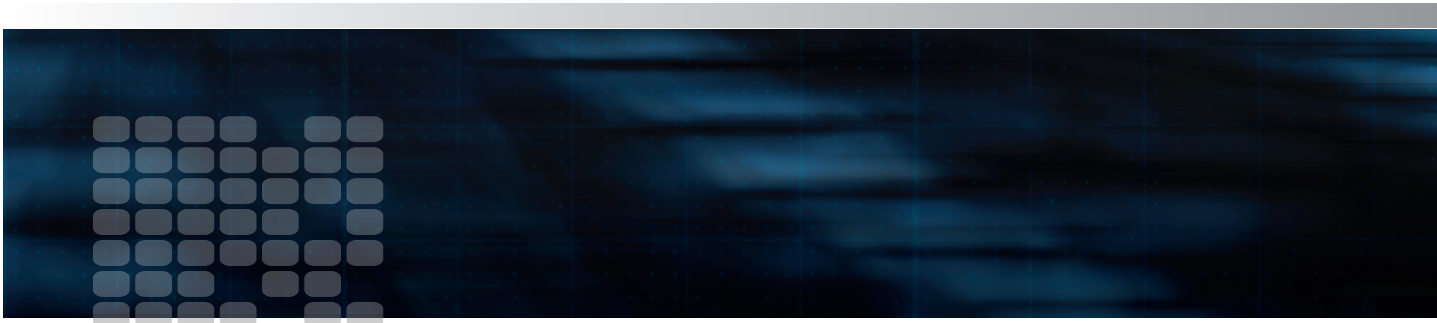

CENTRIO Control Option
Configuration and Operation Manual

Edition A
175-000405-00

NUCLEUS

CENTRIO Control Option

Configuration and Operation Manual

Edition A
September 2007

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Chapter 1

Introduction

Overview

The NUCLEUS CENTRIO Control option provides and NUCLEUS and NUCLEUS-DM the ability to control CENTRIO multiviewers. The CENTRIO Control option provides remote switching of sources and PiPs.

You can extend NUCLEUS and NUCLEUS-DM control capabilities by purchasing addition software license control options. Table 1-1 describes all the NUCLEUS software license control options.

Table 1-1. NUCLEUS Software License Control Options

NUCLEUS Software License Control Option	NUCLEUS Part Number	Software License Control Option Description
Processing Device Control Option	• NUCLEUS-PROC • NUCLEUS-DM-PROC	Provides user-configurable access to processing device controls and parameters.
Routing Panel Control Option	• NUCLEUS-RTR • NUCLEUS-DM-RTR	Provides remote switching of routing destinations, sources, and levels.
NUCLEUS-TRAX	NUCLEUS-TRAX	Automatically opens a device control window when a specific source is routed to a single, specific destination. In order to enable this option, you must have the NUCLEUS Processing Device option activated on NUCLEUS.
CENTRIO Control Option	NUCLEUS-CENTRIO	Provides remote switching of sources and PiPs.
NUCLEUS IconLogo Control Option	• NUCLEUS-LOGO • NUCLEUS-DM-LOGO	Provides remote control and monitoring of IconLogo.

About the Manual

This manual provides information about features that are specific to the NUCLEUS CENTRIO option. It explains how to create NUCLEUS configurations and how to transfer them to the control panel. It also describes how to use the panel controls to perform tasks such as selecting sources and PiPs.

For general operational information, see your *NUCLEUS Installation and Operation Manual*.

Revision History

Table 1-2. Revision History

Edition	Date	Comments
Edition A	September 2007	Initial release

Obtaining Documents

Product support documents can be viewed or downloaded from our website. Alternatively, contact your Customer Service representative to request a document.

Chapter 2

Configuration

Overview

Before you can use NUCLEUS, you must configure it for your customized requirements. NUCLEUS configurations can be carried out using CCS Navigator software applications. When NUCLEUS configurations are complete, they can be transferred to the control panel via an Ethernet connection or to external USB memory.

Note

Except where noted, the term NUCLEUS is used in the manual to refer to both NUCLEUS and NUCLEUS-DM.

This chapter covers the following topics:

About NUCLEUS Configurations

Depending on the licenses enabled on your NUCLEUS control panel, a NUCLEUS configuration may consist of some devices to control (NUCLEUS-PROC license), routing panels (NUCLEUS-RTR license), and CENTRIO panels (NUCLEUS-CEN license), as long as the router and CENTRIO share the same Routing Database. The CENTRIO panel in such a configuration would perform tasks such as selecting the sources and PiPs for your CENTRIO system. Only a CCS software application such as Navigator can be used to create the configuration and make modifications to control assignments.

NUCLEUS can hold up to five different configurations, although only one can be active at one time. Each configuration is identified by a user-defined configuration name and optionally protected by a password, which is assigned when the configuration is created. This password must be entered before the configuration can be accessed on the control panel.

When a NUCLEUS configuration is accessed on NUCLEUS, all of the configuration information, including CENTRIO panel access and CENTRIO source and PiP selections, becomes active on the panel. You can then use the NUCLEUS to select sources and PiPs.

Configurations and panels can be customized to best suit specific broadcast situations and environments. For example, a CENTRIO panel can be created so that only a small number of regularly accessed sources and PiPs are accessible on the panel. More complex CENTRIO panels can be created to provide access to the full range of sources and PiPs that CENTRIO can view.

Router System Control Views and CENTRIO Panels

Router System Control Views describe the overall “picture” of an entire routing system. They are created when routing and CENTRIO systems are established using a software application such as RouterMapper. Router System Control Views provide NUCLEUS with essential information about the available sources and PiPs that are associated with the CENTRIO system. When a CENTRIO panel is added to a NUCLEUS configuration, the source and PiP names, as well as categories/indexes, become available on the control panel.

For NUCLEUS configuration and control, CENTRIO systems are divided into sub-views called CENTRIO panels. Each CENTRIO panel can be custom configured and then added to any NUCLEUS configuration. CENTRIO panels have features that are similar to a routing panel, in addition to access to control options for the CENTRIO device. Only one Router System Control View can be assigned to a NUCLEUS control panel at one time; however, many CENTRIO panels that are derived simultaneously from this Router System Control View can be added to NUCLEUS.

For more information about setting up CENTRIO systems via a RouterMapper database, see your *RouterMapper Utility Reference Guide* or *RouterWorks Router Control Software Reference Guide*.

Creating a New NUCLEUS Configuration

NUCLEUS configurations can only be created using CCS software applications. Using CCS software, the CENTRIO panel portion of a configuration is created using the CENTRIO Panel Configuration wizard and the NUCLEUS Configuration wizard.

Note

This section assumes that you are familiar with your CCS software application. For more information about using your CCS software application, see your online help or software user guide.

When the configuration is complete, it is saved as an .xml file, and then transferred to your NUCLEUS control panel via an Ethernet connection.

Figure 2-1 illustrates a simplified summary of a NUCLEUS configuration that includes CENTRIO panel operation.

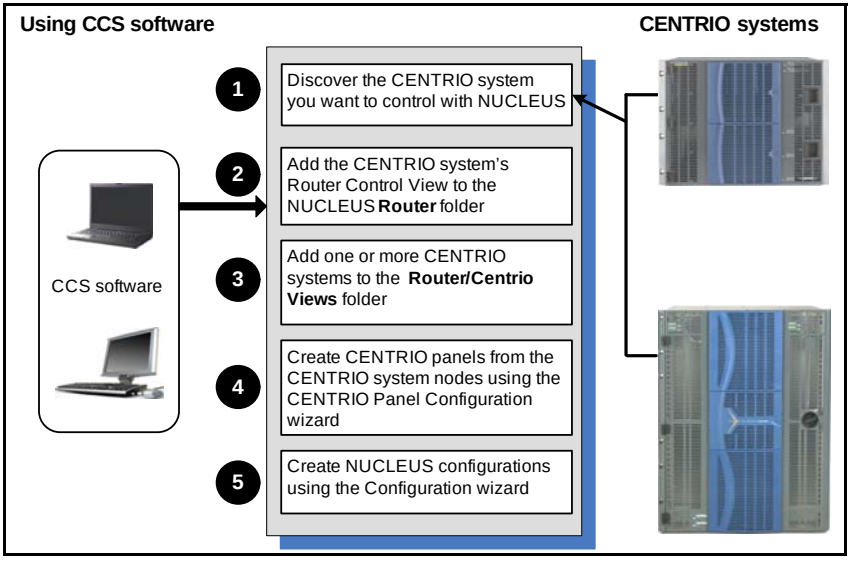

Figure 2-1. NUCLEUS CENTRIO Panel Configuration Summary

- "Adding CENTRIO Systems to NUCLEUS" on page 7
- "Creating CENTRIO Panels for NUCLEUS" on page 9
- "Starting the NUCLEUS Configuration Wizard" on page 21

Adding CENTRIO Systems to NUCLEUS

Note

Using CCS software, you can create new CENTRIO Systems, which can then be controlled in NUCLEUS. For more information about creating CENTRIO Systems, see your CCS Software application user guide.

To add a CENTRIO system to a NUCLEUS configuration, follow these steps:

1. Add the Routing view that is associated with your CENTRIO system to the **Configuration** > **NUCLEUS** > **Router/Centrio Views** folder.

   You can get the routing view associated with your CENTRIO system by discovering the Platinum router (use the IP address of the PT-RES module) that the CENTRIO system is housed in using RouterMapper.

2. Copy a CENTRIO system node from the **Discovery** or **Network** folder to the **Configuration** > **NUCLEUS** > **Router/Centrio Views** folder.

   If you have not discovered a CENTRIO system, see your CCS Navigator documentation for details.

   There is no limitation on the number of CENTRIO systems you can add, as long as they all share the same router database.

Before you can use the selected CENTRIO System in your NUCLEUS configurations, you must create CENTRIO panels which can then be added to your NUCLEUS configurations. See "Creating CENTRIO Panels for NUCLEUS" on page 9 for more information.

Figure 2-2 illustrates the NUCLEUS configuration components, including the **Discovery** folder and **Router/Centrio Views** folder.

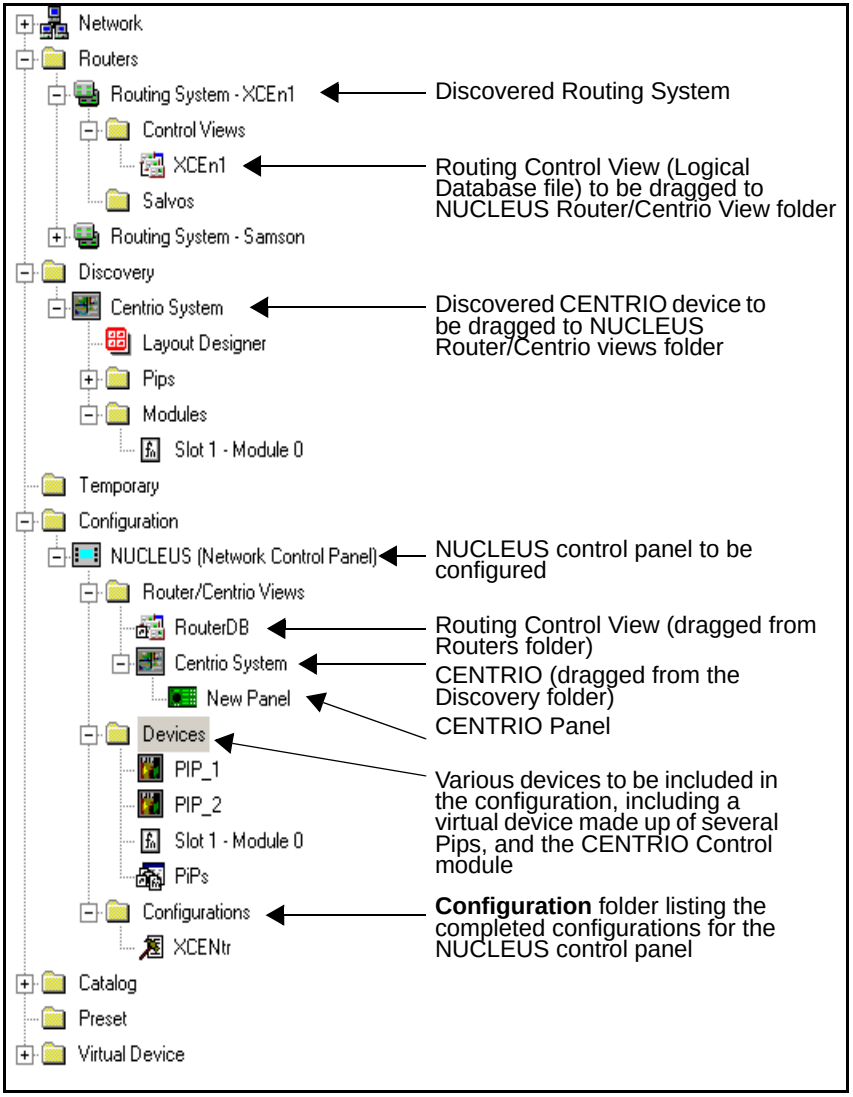

Figure 2-2. CCS Software Navigation Window

Creating CENTRIO Panels for NUCLEUS

You can create CENTRIO panels for NUCLEUS by using the CENTRIO Panel Configuration wizard. Using this wizard, you can select the available sources and PiPs of a CENTRIO System (as defined by its Logical Database file) to create customized sub-views (individual CENTRIO panels). Each CENTRIO panel can be assigned a unique name and can be configured to function as a X/Y device or multi bus device. Each CENTRIO device type is described below:

- An **X/Y device panel** can assign a source to one PiP at a time. You can select this PiP from a configured list of available PiPs.
- A **Multi bus device panel** can assign a source to multiple CENTRIO PiPs simultaneously. You can select these PiPs from a configured list of available PiPs.

You can also choose whether the sources and PiPs are identified by logical names or by category/index. Categories and indexes are established in the CENRIO System Control View.

After you have configured a CENTRIO panel, it can then be added to your NUCLEUS configuration. You can add more than one CENTRIO panel to your NUCLEUS configuration. Any number of CENTRIO systems can host multiple CENTRIO panels.

When the NUCLEUS configuration is loaded into the control panel, each CENTRIO panel is automatically assigned an LCD button. After the CENTRIO panel is activated on NUCLEUS, the CENTRIO sources and PiPs are assigned LCD buttons for quick activation/selection. CENTRIO panels and the configurations they are included in can be modified at any time using CCS software. For information about modifying CENTRIO panels and NUCLEUS configurations, see “Modifying CENTRIO Panel Configurations” on page 33.

Starting the CENTRIO Panel Configuration Wizard

Before starting the CENTRIO Panel Configuration wizard, ensure that you have discovered or created the CENTRIO system that you want to use. For information about discovering CENTRIO systems, see “Adding CENTRIO Systems to NUCLEUS” on page 7.

To start the CENTRIO Panel Configuration wizard, follow these steps:

1. In the CCS software Navigation window, either double-click or expand the **Configuration** folder.

2. Expand the **NUCLEUS** icon, and then either double-click or expand the **Router/Centrio Views** folder.
3. Select, and then right-click the Router System Control View icon.

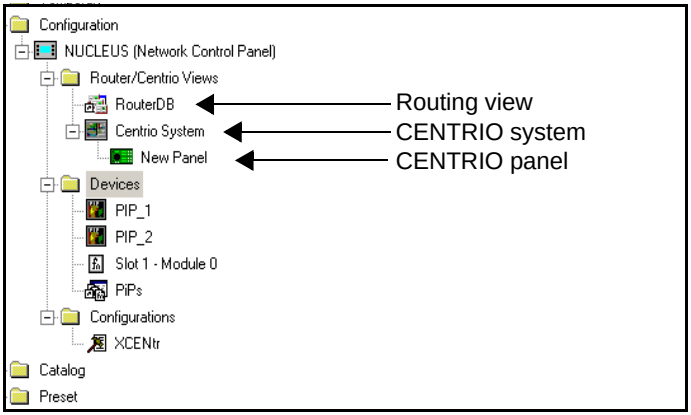

Figure 2-3. Selecting a CENTRIO System

Note

If you make changes to a Routing View using RouterMapper, or to the CENTRIO system by rediscovering it, you must run the Wizard again to validate previously created CENTRIO panels.

4. From the context menu, select **Create** > **CENTRIO Panel**.

   The **CENTRIO Panel Configuration** dialog box opens.

The following sections provide information about how to configure your CENTRIO control panel.

Selecting a CENTRIO Panel Type

When the CENTRIO Panel Configuration wizard starts, a dialog box similar to the following appears.

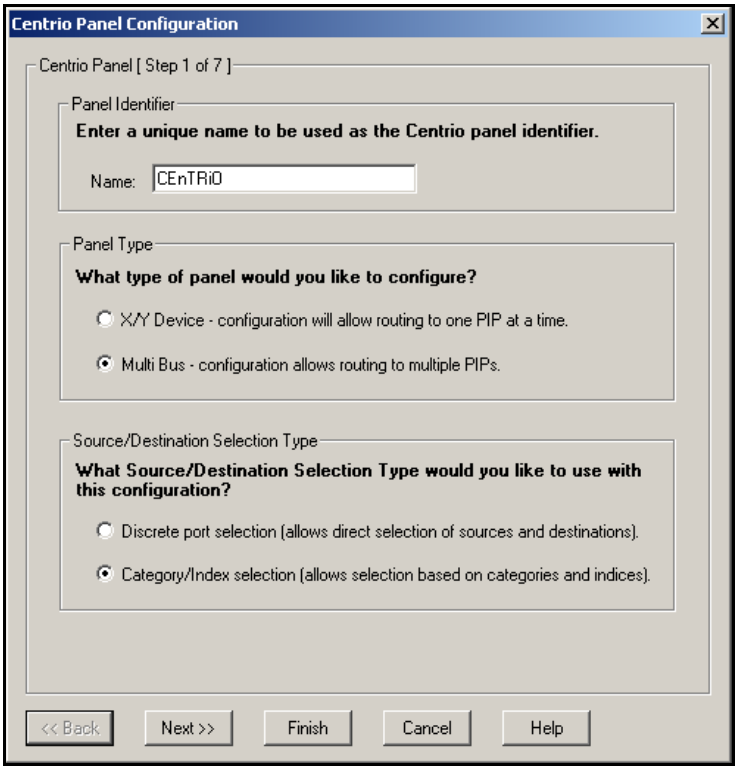

Figure 2-4. CENTRIO Control Panel Configuration Dialog Box

In this step, you can

- Enter a name for your new CENTRIO panel
- Select the type of CENTRIO panel you want to configure. The CENTRIO panel type you select depends on the number of sources and PiPs you want to be able to control.
- Select the source and PiP selection type that you want to use for your CENTRIO panel. The selection type you choose depends on whether the sources and PiPs are identified by logical names or by categories and /indexes.

Each panel option is described in the following sections.

- **CENTRIO Panel Type—**Selecting the CENTRIO panel type determines the capability of your CENTRIO panel.
  - **X/Y Device—**Using this type of CENTRIO panel, you can assign a source to one CENTRIO PiP at a time. You can select this PiP from a configured list of available PiPs. Figure 2-5 on page 13 illustrates X/Y Device type panels.
  - **Multi Bus**—Using this type of CENTRIO panel, you can assign a source to multiple PiPs simultaneously. You can select these PiPs from a configured list of available PiPs. Figure 2-5 on page 13 illustrates the Multi Bus type panels.
- **Source/PiP Selection Type—**Depending on the CENTRIO system, you can choose between using either discrete port selection or a category/index selection for identifying and selecting sources and PiPs for your CENTRIO panel. Each selection type is described in the following sections:
  - **Discrete port selection—**Select this option if you want to identify the CENTRIO panel sources and PiPs by their logical names.
  - **Category/Index selection—**Select this option if you want to identify the CENTRIO panel sources by category and indexes. In the case of CENTRIO, the term Category refers to a Display, and the term Index refers to a specific Pip on a Display. With this type of CENTRIO Panel, you can select a Display to narrow down the list of available PiPS to choose from, because PiPs can be moved from one display to another.

After you complete **Step 1** of the CENTRIO Panel Configuration wizard, click **Next** to select the PiP attributes for your CENTRIO panel. The number of steps required to complete the wizard depends on the type of CENTRIO panel you are configuring. Figure 2-5 on page 13 illustrates the steps required to complete the wizard for each type of CENTRIO panel.

CENTRIO Panel PiPs and Sources

The CENTRIO Panel Type and Selection Type you selected for your CENTRIO panel determine the number of steps that are required to complete the wizard. The wizard guides you through the process and provides information about each step. Additional help can be accessed by clicking the **Help** button in the CENTRIO Panel Configuration Wizard dialog boxes.

If the CENTRIO system you are using for the CENRIO panel has categories and indexes to identify sources, you can add them to the CENTRIO panel.

The following illustrations provide a summary of the required steps for configuring your CENTRIO panel.

Figure 2-5 illustrates X/Y type CENTRIO Panel Configuration wizard steps.

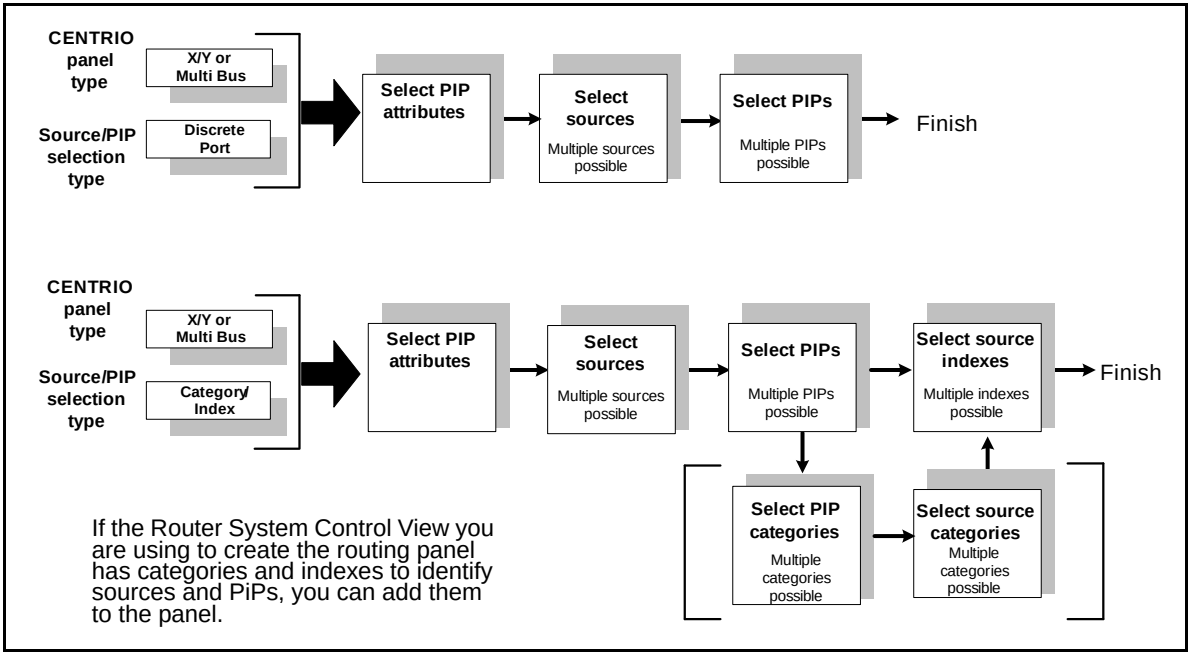

Figure 2-5. X/Y and Multi Bus Device Type Panel Configuration

Selecting PiP Attributes

In this step of the wizard, you can select the attributes that the PiPs will display. All of the attributes are listed. From this list, select an option, and then click the > button.

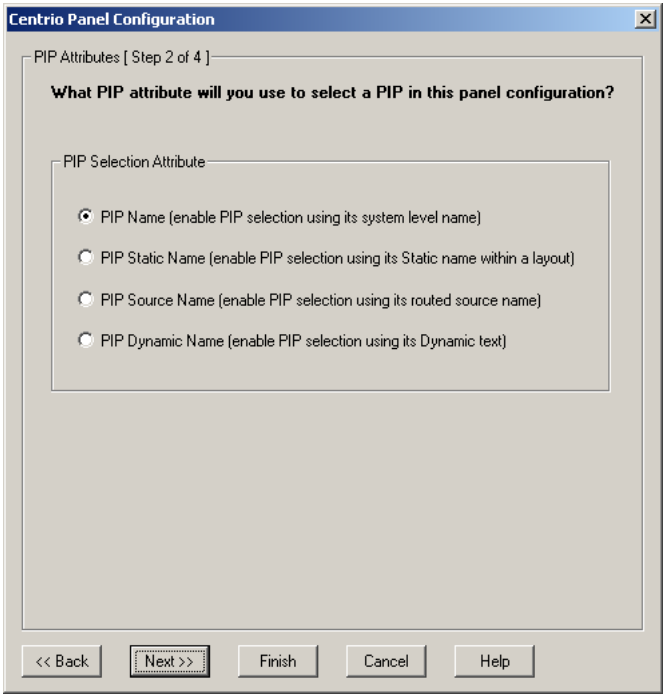

Figure 2-6. Selecting PiP Attributes

The selection you make determines how PiPs will be selected on the panel.

Table 2-1. Selecting PiP Attributes

PiP Selection Attribute	Where It Came From
PiP Name	System level name that a PiP has when it is discovered by Navigator
PiP Static name	Name that is designated in Layout Designer
PiP Source Name	Name that is designated in RouterMapper
PiP Dynamic name	Name that can be configured using a PiP parameter

Selecting the Sources for Your CENTRIO Panel

In this step of the wizard, you can select the sources that you want the CENTRIO panel to control. All of the sources that are established by the Router System Control View are listed under **Available sources**. From this list, select the sources you want to add to the CENTRIO panel, and then click the > button. You can filter the **Available sources** list by entering a keyword in the **Filter** box.

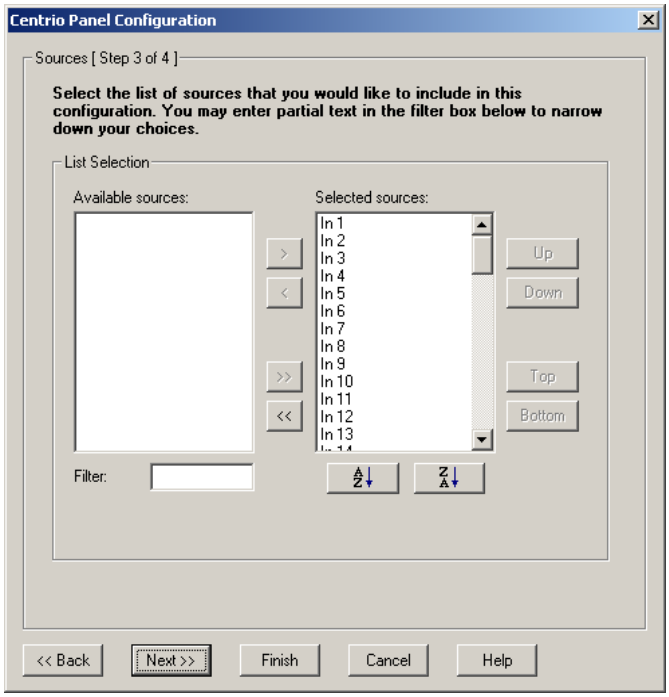

Figure 2-7. Selecting Routing Panel Sources

Selected sources now lists the sources that you can control with the CENTRIO panel.

If no display names are entered, all displays are included.

You can determine the order in which the sources appear on NUCLEUS by using the following buttons:

- **Up**—Moves the selected items up one position in the list
- **Down**—Moves the selected items down one position in the list
- **Top**—Moves the selected items to the top of the list
- **Bottom**—Moves the selected items to the bottom of the list

- **A–Z**—Organizes all items in the list by alphanumeric order
- **Z–A—**Organizes all items in the list by reverse alphanumeric order

When have completed organizing your **Selected sources** list, click **Next**.

Selecting PiPs for Your CENTRIO Panel

In this step of the wizard, you can select the PiPs that you want the CENTRIO panel to control. All of the PiPs that are established by the Router System Control View are listed under **Available PiPs**. From this list, select the PiPs you want to add to the CENTRIO panel, and then click the > button. You can filter the **Available PiPs** list by entering a keyword in the **Filter** box.

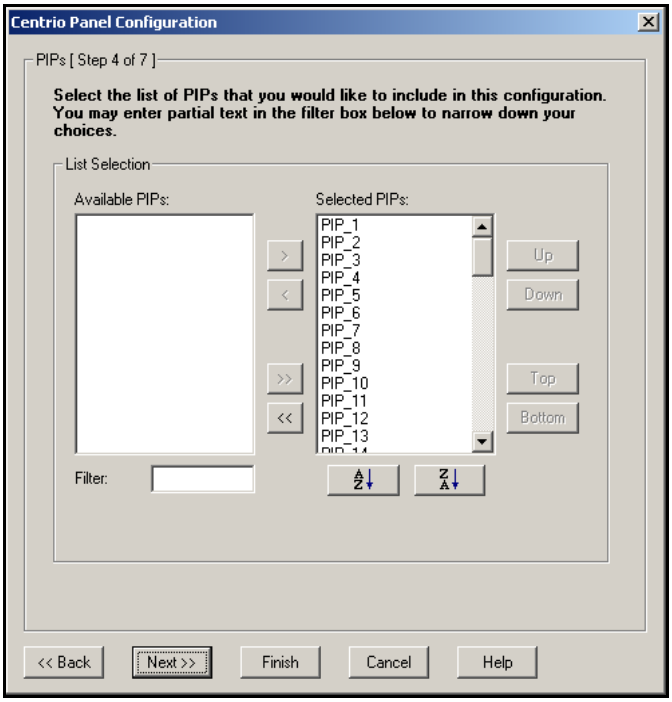

Figure 2-8. Selecting CENTRIO Panel PiPs

Selected PiPs now lists the PiPs that you can control with the CENTRIO panel.

You can determine the order in which the PiPs appear on NUCLEUS by using the following buttons:

- **Up**—Moves the selected items up one position in the list
- **Down**—Moves the selected items down one position in the list
- **Top**—Moves the selected items to the top of the list
- **Bottom**—Moves the selected items to the bottom of the list
- **A–Z**—Organizes all items in the list by alphanumeric order
- **Z–A—**Organizes all items in the list by reverse alphanumeric order

When have completed organizing your **Selected PiPs** list, depending on the CENTRIO panel type you are configuring, either click **Next** or **Finish**.

Selecting Displays for Your CENTRIO Panel

If the Router System Control View you are using to create the CENTRIO panel has categories and indexes to identify sources and PiPs, you can select the displays that you want the CENTRIO panel to control.

You will have to know the names of the displays available in order to add them to the list.

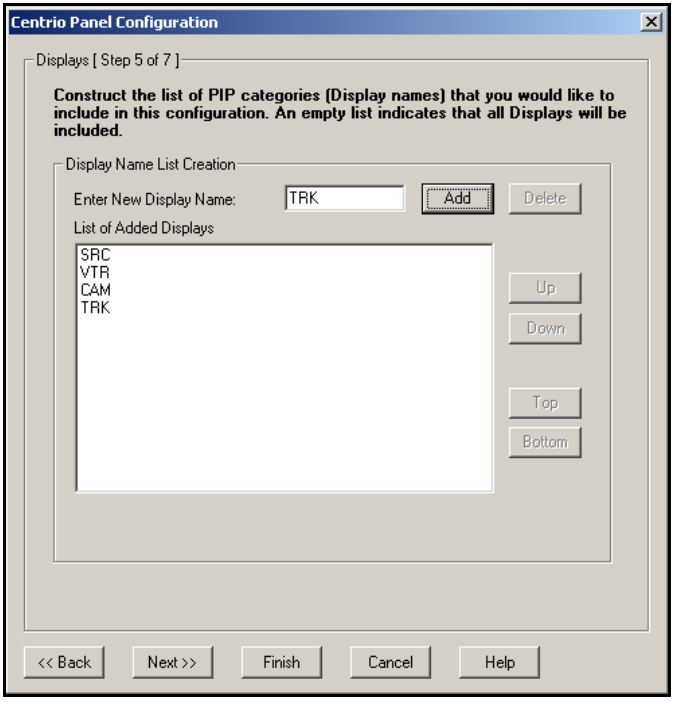

Figure 2-9. Adding and Deleting Indexes

To add a display to the list, enter text or a display name in the **Enter New Display Name** box and click **Add**. To delete an display, select it from the list, and then click **Delete**.

When have completed organizing your **Added Displays** list, depending on the CENTRIO panel type you are configuring, click **Next** or **Finish**.

Selecting Source Categories for Your CENTRIO Panel

If the Router System Control View you are using to create the CENTRIO panel has categories and indexes to identify sources, you can select the categories that you want the CENTRIO panel to control.

Source categories are selected in the same way as sources. All of the source categories that are established by the Router System Control View are listed under **Available Source Categories**.

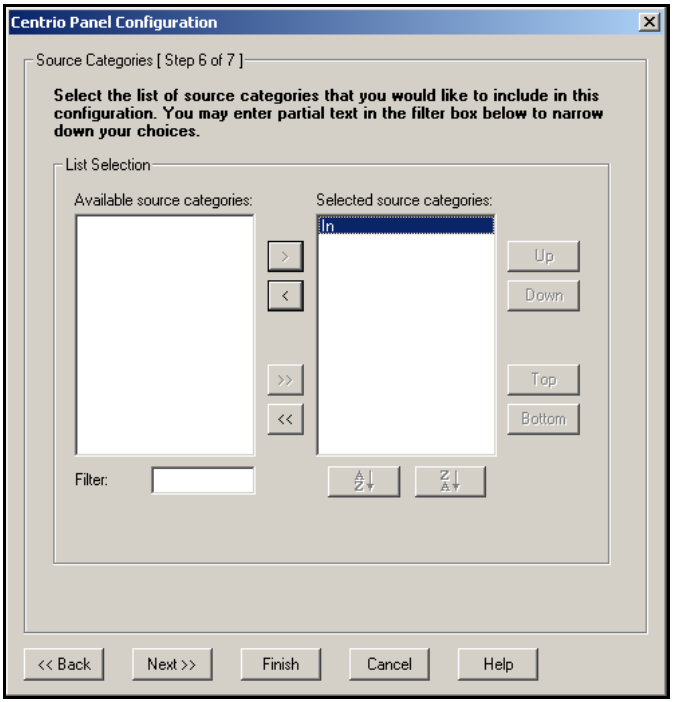

Figure 2-10. Adding Source Categories

When have completed organizing your **Selected Source Categories** list, depending on the CENTRIO panel type you are configuring, click **Next** or **Finish**.

Selecting Source Indexes for Your CENTRIO Panel

If the Router System Control View you are using to create the CENTRIO panel has categories and indexes to identify sources, you can select the indexes that you want the CENTRIO panel to control.

Source Indexes are based on a predefined list, and have no correlation with real router indexes. Similarly to the Display name entry for PiP category is a free list for you to enter any text that is part of your indexing scheme.

You can choose to add or delete indexes from the list. All of the indexes that are established by the Router System Control View are listed under **List of Added Indexes**.

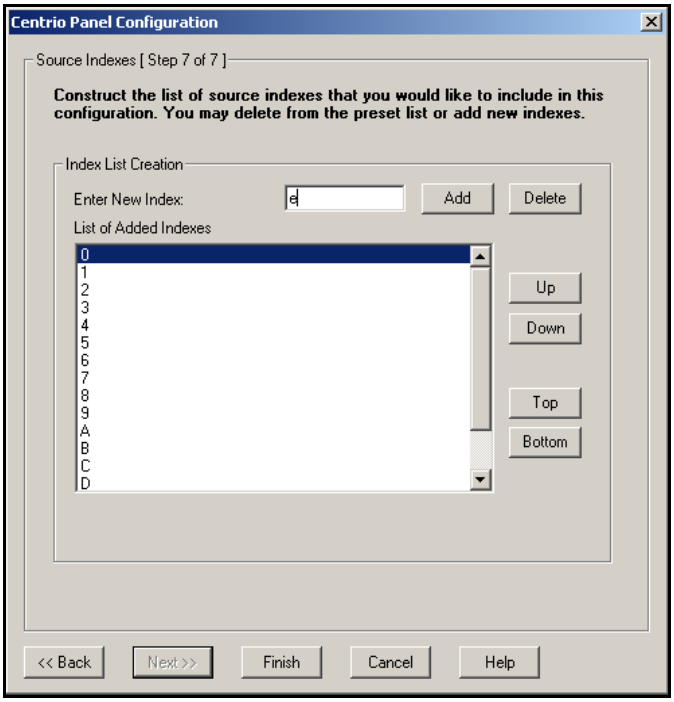

Figure 2-11. Adding and Deleting Indexes

To add indexes to the index list, enter text or a display name in the **Enter New Index** box and click **Add**. To delete an index, select it from the list, and then click **Delete**.

After you complete your new CENTRIO panel, you can add it to a NUCLEUS configuration. For more information, see “Using the NUCLEUS Configuration Wizard”.

Using the NUCLEUS Configuration Wizard

You must use the NUCLEUS Configuration wizard to add CENTRIO panels to a NUCLEUS control configuration. The wizard guides you through the principal steps and provides information about each step. Additional help can be accessed by clicking the **Help** button in the NUCLEUS Configuration wizard dialog boxes.

When creating your configuration, you can use the category feature to organize CENTRIO panels into logical groups. For CENTRIO panels, sources and PiPs are automatically assigned to the NUCLEUS's LCD buttons.

You can also use the NUCLEUS Configuration wizard to modify an existing configuration. For more information about modifying a configuration, see "Modifying NUCLEUS Configurations" on page 32.

Starting the NUCLEUS Configuration Wizard

To start the Configuration wizard, follow these steps:

1. Right-click the control panel icon and select **Configuration** from the context menu.

   The **Configuration for NUCLEUS** dialog box opens.

2. Click the **Control Panel** tab.

3. If you are creating your first NUCLEUS configuration, the **Control Panel Configuration** dialog box opens asking you if you want to use the NUCLEUS Configuration wizard to create a panel configuration. Click **Yes** to start the Configuration wizard.

   Otherwise, you can start the Configuration wizard by selecting **(new configuration)** from the **Configuration** list.

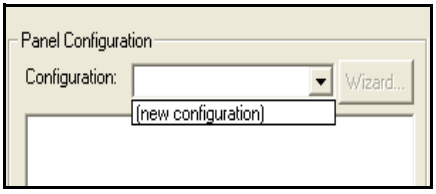

Figure 2-12. Selecting a New Configuration

The following sections provide additional information about each NUCLEUS Configuration wizard step.

Selecting a Configuration Type

When the NUCLEUS Configuration wizard starts, a dialog box similar to the following appears.

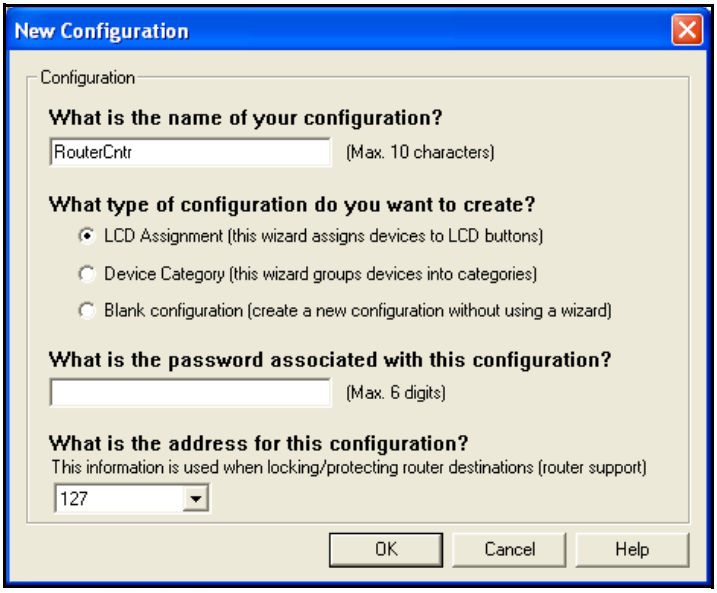

Figure 2-13. New Configuration Dialog Box

In this step, you select the type of configuration that you want to create. The configuration type you select depends on the way in which you want organize your configuration. Each configuration type is described in the following sections.

- **LCD Assignment**—Using this type of configuration, all sources and PiPs associated with the selected CENTRIO panel are displayed across the control panel's LCD buttons.
- **Split Navigation**—This type of configuration assigns CENTRIO panels to the top row of LCD buttons only.
- **Device Category—**Using this type of configuration, you can organize CENTRIO panels into categories. Categories are accessible through the first level of the control panel's LCD button assignment hierarchy.
- **Blank Configuration**—Select this option if you don't want to configure your control panel using the NUCLEUS Configuration wizard. You cannot configure NUCLEUS for CENTRIO control

using a Blank Configuration. See your CCS software application user guide for information about configuring NUCLEUS without the Configuration wizard.

To complete this step:

1. Under **What is the name of your configuration?**, enter a name that has a maximum of 10 alphanumeric characters for your new configuration in the box provided.

   The name you give your configuration is used to identify it after the configuration is added to the control panel's **Configurations** folder.

2. Select the type of configuration that you want to perform.
3. If you want to password-protect the configuration, under **What is the password associated with this configuration?**, enter a password using up to six numeric characters, that you want to be associated with your new configuration.

   If you use this feature, you will be prompted to enter this password into NUCLEUS before you can use the configuration on the control panel and before you can open the configuration in a CCS software application.

4. Under **What is the address for this configuration?**, select a panel address for the configuration from the list. This address will be used by the CCS network to identify the control panel when the destination lock and protect feature is used. This setting applies to Router panels only.
5. Click **OK**.

The next step of your new configuration depends on the configuration type you want to create. For information about the next NUCLEUS Configuration wizard step, do one of the following:

- If you are creating an LCD Assignment configuration, go to "Confirming CENTRIO Panel Assignment" on page 26.

  OR

- If you are creating a Device Category configuration, go to "Adding Categories to the Configuration" on page 24.

Adding Categories to the Configuration

If you are creating a Device Category configuration, the **Device Category** dialog box opens.

Note

If you are creating an LCD Assignment configuration, go to "Confirming CENTRIO Panel Assignment" on page 26.

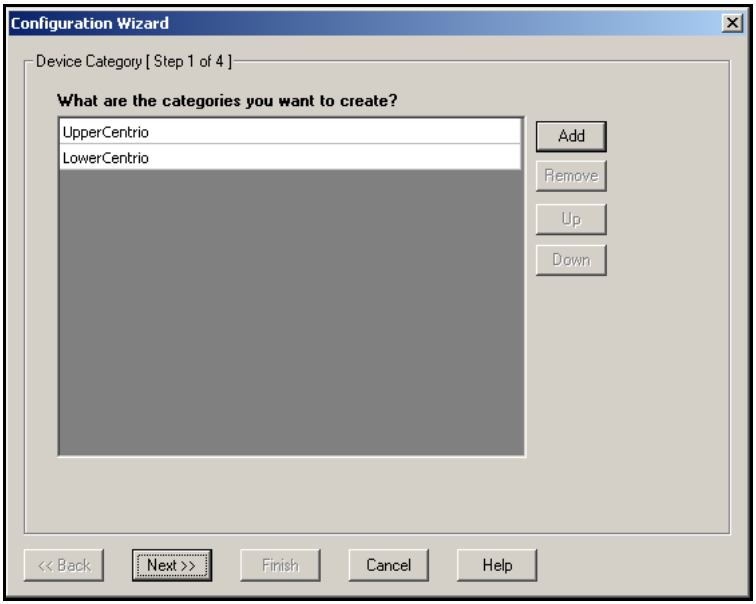

Figure 2-14. Device Category Dialog Box

Click **Add** to create a category for your new configuration. You can add a total of 1024 categories, devices, menus, and panels to a configuration. To rename the category, double-click it and enter a name that has a maximum of 21 characters.

Note

Configuration categories are not the same as or related to category/index selection that is associated with Router System Control Views. For more information about category/index selection for CENTRIO panels, see "Creating CENTRIO Panels for NUCLEUS" on page 9.

Adding CENTRIO Panels to Categories

You can add any CENTRIO panel to the categories that you have created. In the **Device Category** dialog box, select the CENTRIO panels you want to add from the **Available Devices** list, and then click the > button. The same CENTRIO panels can appear in multiple categories.

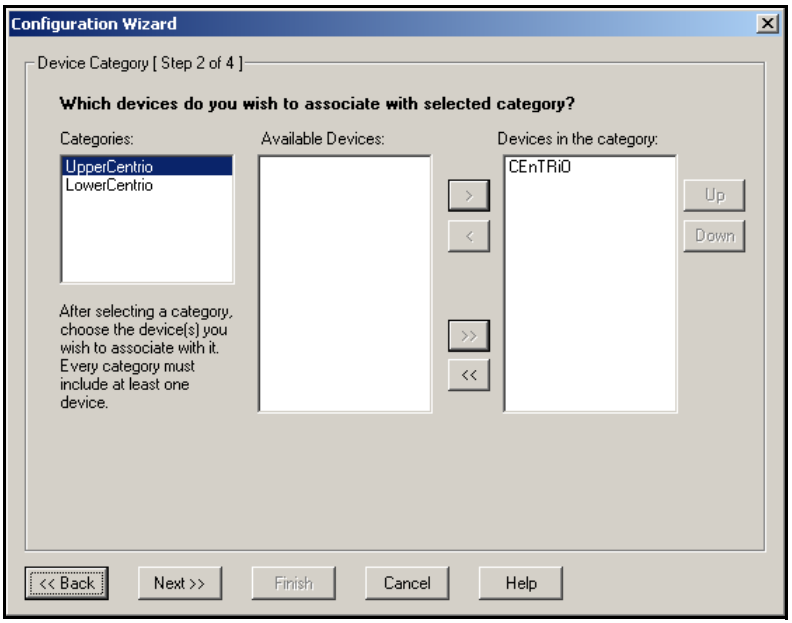

Figure 2-15. Adding CENTRIO Panels to Categories

If a CENTRIO panel in the **Available Devices** column has not been added to the currently selected category, for example Category 2, but is included in another category, for example Category 1, that category name (Category 1) is appended to the CENTRIO panel name. Each category must include at least one CENTRIO panel.

CENTRIO panels are auto-assigned to the control panel LCD buttons in the order in which they appear in the **Devices in the category** list.

To proceed to the next configuration step, click **Next**.

Confirming CENTRIO Panel Assignment

The **Configuration Wizard** dialog box displays the Category (if you created a Device Category configuration) and the CENTRIO panels you want to use in your NUCLEUS configuration.

Note

The **Assign Parameters to Panel Controls** and **Create Device Menu(s)** options are for Process Device Control option configurations only. These options are not supported for CENTRIO panel control.

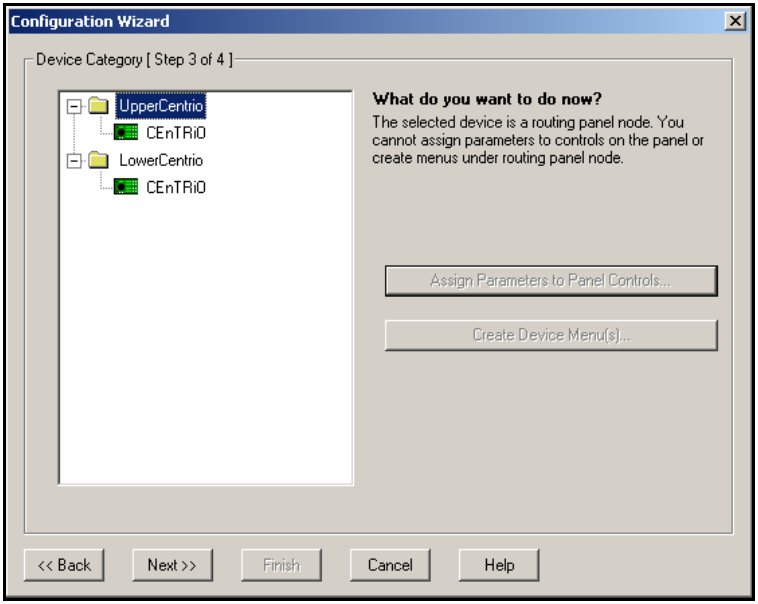

Figure 2-16. Categories and CENTRIO Panel Assignments

If the displayed information is correct, click **Next**. If you want to make changes to your configuration, click **Back**.

Setting Control Panel Options

Using the **Device Category** dialog box, you can set the panel access permission and the LCD button auto assignments.

Note

The **Menu Unity** and **Device Unity** options are for Process Device Control option configurations only. These options are not supported for CENTRIO panel control.

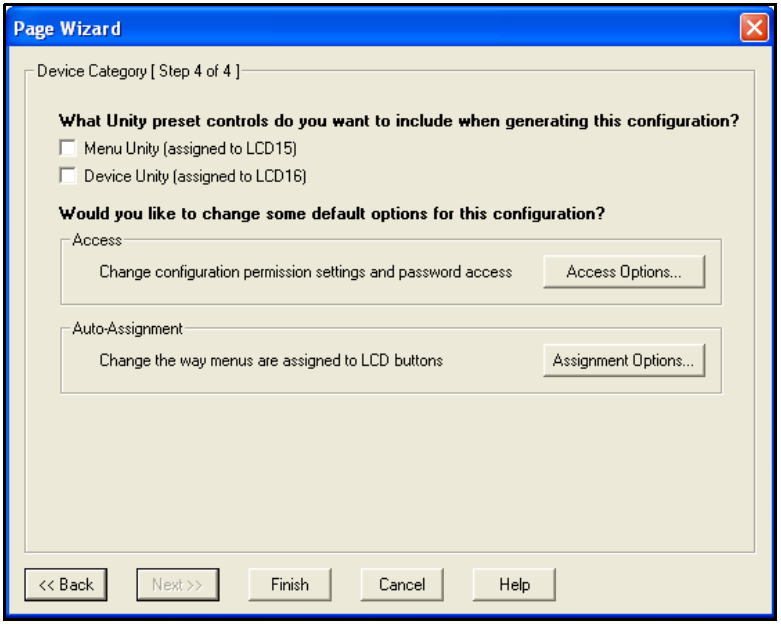

Figure 2-17. Selecting Control Panel Options

Click **Access Options** to set the access permission for copying configurations to and deleting configurations from NUCLEUS. You can also enable the Destination Lock and Protect feature for CENTRIO control.

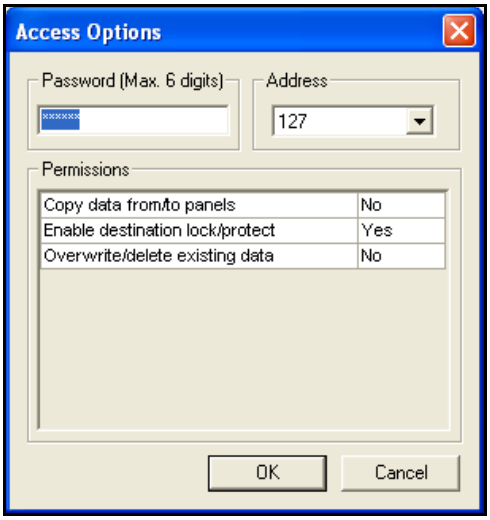

Figure 2-18. Setting Access Options

To set the configuration access options, make the following selections:

1. Under **Password**, enter a password for the configuration on the NUCLEUS panel.
2. Under **Address**, select a panel address for the configuration from the list. This address will be used by the CCS network to identify the control panel when the destination lock and protect feature is used.
3. Under **Permissions**, select the permissions you want to assign to the configuration password.
    - **Copy data from/to panels** permits the configuration user to use the NUCLEUS USB File Manager to transfer configurations between the control panel and USB memory key. For information about transferring files to and from NUCLEUS using a USB memory key, see your *NUCLEUS Network Control Panel Installation and Operation Manual*.

- **Enable destination lock/protect** permits the configuration user to use the Lock and Protect features associated with routing panels on the control panel. These features do not apply to CENTRIO configuration files.
- **Overwrite/delete existing data** permits the configuration user to use the NUCLEUS USB File Manager to delete or overwrite configurations on the panel. For information about deleting configuration files from NUCLEUS, see your *NUCLEUS Network Control Panel Installation and Operation Manual*.

4. Click the **Assignment Options** button to change the pattern used when LCD buttons are auto-assigned. You can choose from the following LCD button assignment patterns:

- **Over, then down** 
- **Down, then over** 
- **Down, over, down, then over** 

These options can be changed at any time by right-clicking in the **Properties** page of the **Panel Configuration** pane, or in the **Panel Layout** pane by selecting **Options** from the context menu.

Click **Finish** to complete the configuration.

Transferring Configurations to NUCLEUS

Once the configuration has been completed, it must be transferred to a control panel via an Ethernet connection. You can also save configurations as .xml files to a designated local or network drive or to a USB memory key. Before you attempt to transfer configurations to NUCLEUS, make sure that you are connected to the control panel via a valid Ethernet connection. Note that a total of five configurations can be transferred to the control panel.

To transfer a configuration to NUCLEUS, follow these steps:

1. On right side of the Control Panel page, click **Transfer**.
2. In the **Perform Transfer** dialog box, select the configuration(s) you want to transfer from the **Local Configuration** list, and click **Send to Panel**. You can also drag the configuration that you want to transfer from the **Local Configuration** to the **Send to Panel** list.

   The configuration(s) should now appear in the **Control Panel Configurations** list.

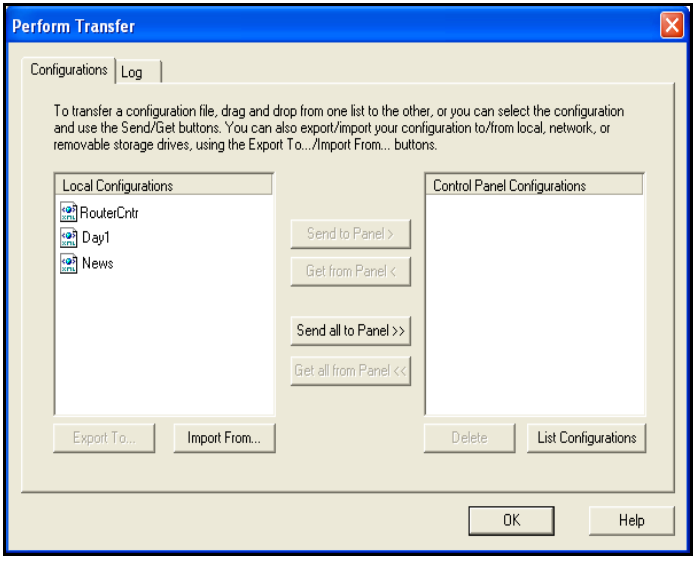

Figure 2-19. Transferring Configurations to NUCLEUS

3. Click **List Configurations** to see a list of the configurations that are currently loaded into the control panel.

   This ensures that the control panel loads the new configuration.

4. To save your configuration to a network drive or external USB memory key, select the configuration you want to export from the **Local Configuration** list, and click **Export To**.

   Browse to the designated local or network drive and click **Save**.

5. To copy files from an external storage device, click **Import From**.

   Browse to the designated local or network drive and click **Open**.

Rebooting NUCLEUS

If any of the configurations you transfer to NUCLEUS include CENTRIO panels, you must reboot the control panel before using the configuration. To reboot NUCLEUS follow these steps:

1. On the control panel, press the **Option** button.
2. From the **Option** menu, select **Setup**.
3. From the **Setup** menu, select **Reboot**.

Modifying NUCLEUS Configurations

After creating a configuration, you can open it in your CCS application and modify it. You can use the NUCLEUS Configuration wizard to modify your completed configuration or you can modify it manually in the **Control Panel** page. You can use the CENTRIO Panel Configuration wizard to modify a CENTRIO panel's list of available sources and PiPs. For information about modifying a CENTRIO panel configuration, see "Modifying CENTRIO Panel Configurations" on page 33.

Modifying Configurations Using the Configuration Wizard

To modify a configuration using the NUCLEUS Configuration wizard, follow these steps:

1. In the **Navigation** window of your CCS software application, locate the NUCLEUS control panel that you have associated with the configuration you want to modify.
2. To open the configuration that you want to modify, do one of the following:
   - Select the NUCLEUS control panel, right-click its icon, and then select **Configuration** from the context menu.

     OR
   - Expand the **Configurations** folder under the control panel, and then double-click the configuration that you want to modify.

   The **Configuration for...** dialog box opens.
3. Click the **Control Panel** tab to open the Configuration page.
4. Under **Panel Configuration**, click the 

to open the NUCLEUS Configuration wizard.

   If you have used the context menu to open the **Configuration for...** dialog box, you will need to select the configuration that you want to modify from the **Configuration** list.

   Follow the instructions provided by the NUCLEUS Configuration wizard to complete the modifications to your configuration.

Modifying Configurations in the Control Panel Page

You can modify NUCLEUS configurations directly in the Control Panel page using various right-click context menus. Control assignments can be modified by dragging parameters from the **Devices/Parameter** to either the controls in the **Panel Layout** pane or to controls listed in the **Properties** page of the **Panel Configuration** pane.

Note that any modifications to a configuration only take place locally on the PC that is being used to make the changes. You must transfer the the modified configuration to NUCLEUS before the changes take effect on the panel itself.

Modifying CENTRIO Panel Configurations

To modify a CENTRIO panel using the CENTRIO Panel Configuration wizard, follow these steps:

1. In the **Navigation** window of your CCS software application, locate the NUCLEUS control panel that you have associated with the configuration you want to modify.
2. Expand or double-click the **Router/Centrio Views** folder and select the CENTRIO System icon that is the source of the CENTRIO panel you want to modify.
3. Expand the CENTRIO System icon, and then select the CENTRIO panel you want to modify.
4. Either right-click the CENTRIO panel and select **Configuration** from the context menu, or double-click the CENTRIO panel.
5. Make appropriate modifications to your CENTRIO panel.

After you complete your changes, you must add the modified CENTRIO panel to the NUCLEUS configuration.

Note that any modifications to a configuration only take place locally on the PC that is being used to make the changes. You must transfer the the modified configuration to NUCLEUS before the changes take effect on the panel itself.

If you have made changes to a Router System Control View (using RouterMapper), any CENTRIO panels you previously created with this view must be modified using the CENTRIO Configuration Wizard.

Chapter 3

Operation

Overview

This chapter explains how to use NUCLEUS to remotely operate CENTRIO multiviewers. It describes the layout of the panel display and how to use the controls to switch CENTRIO sources and PiPs.

Note

Except where noted, the term NUCLEUS is used in the manual to refer to both NUCLEUS and NUCLEUS-DM.

The following topics are found in this chapter:

Using Panel Controls

After you have transferred your NUCLEUS configurations to the control panel, you can select a configuration and enter a password to gain access to the CENTRIO panels in your configuration. The following sections describe the layout and function of the panel controls.

Note

You must configure the panel before operating it. For details, see “Chapter 2: Configuration” on page 3.

The CENTRIO Panel Display

When operating CENTRIO panels with NUCLEUS, the QVGA screen displays the available sources and PiPs. When NUCLEUS is turned on, the display starts at the user logon screen. When a CENTRIO panel is selected, depending on the CENTRIO panel type, either the Display Select or PiPs/Sources Select mode is displayed. Figure 3-1 shows the display for an X/Y Discrete device type panel.

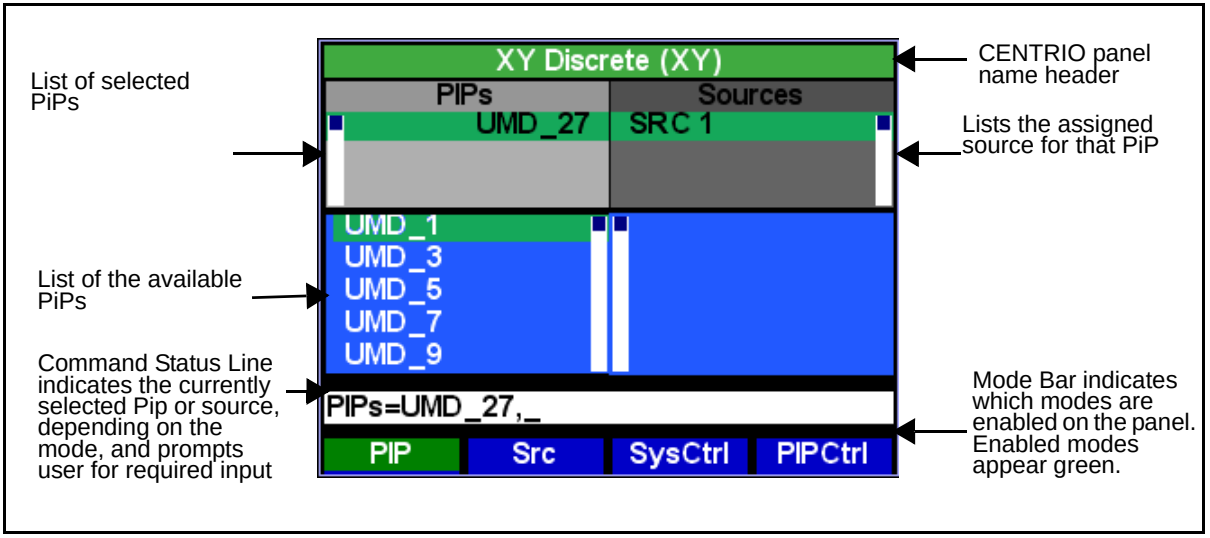

Figure 3-1. PiP Selection Mode for X/Y Device Discrete Type

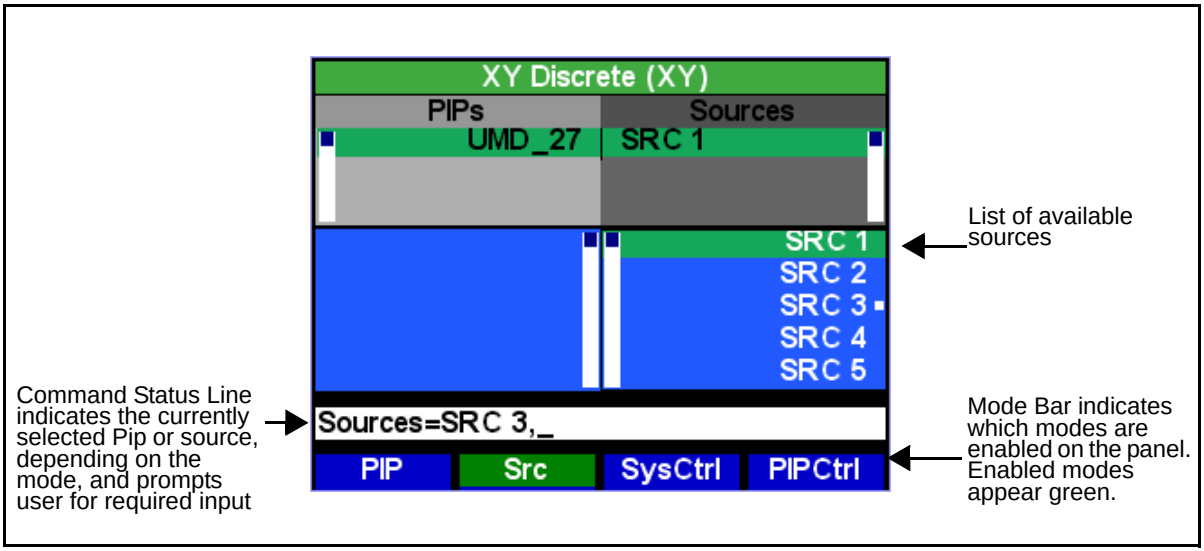

Figure 3-2. Source Selection Mode for X/Y Device Discrete Type

For CENTRIO control, use these items to scroll through and select CENTRIO sources and PiPs, as well as to select CENTRIO panel options. In most cases, when you press an adjustment knob, you get the action of pressing the **Enter** button.

Scroll Knobs

You can use the scroll knobs to scroll through and select CENTRIO sources and PiPs. In most cases, when you press an adjustment knob, you get the action of pressing the **Enter** button.

Selection Buttons

You can use the selection buttons to select CENTRIO panel modes. The name of the modes assigned to the selection button appear in the QVGA display. For information about CENTRIO panel modes, see “CENTRIO Panel Operational Modes” on page 40.

Shift Button

When in PiP and Source Selection
Mode, Shift OFF shows the Live Names and Shift ON (blinking) shows the PiP Name.

Using the Panel's Dynamic Controls

The layout and function of the dynamic controls are specific to the CENTRIO panel type that you are using on the panel. The following sections describe the functions of the panel's dynamic controls.

LCD Buttons

When operating CENTRIO panels, the LCD buttons are managed by NUCLEUS. PiP names are automatically shown on the LCD buttons based on the PiP Selection Attribute selected during the configuration process. Source names are automatically transferred from the Router System Control view to the LCD buttons, as opposed to being configured by the user directly.

As specified in the configuration, the LCD buttons can then be used to select sources to assign to PiPs. Depending on the CENTRIO device type, the LCDs change color and appearance to indicate the status and availability of PiPs and sources. Figure 3-3 illustrates and describes these LCD button colors and appearances.

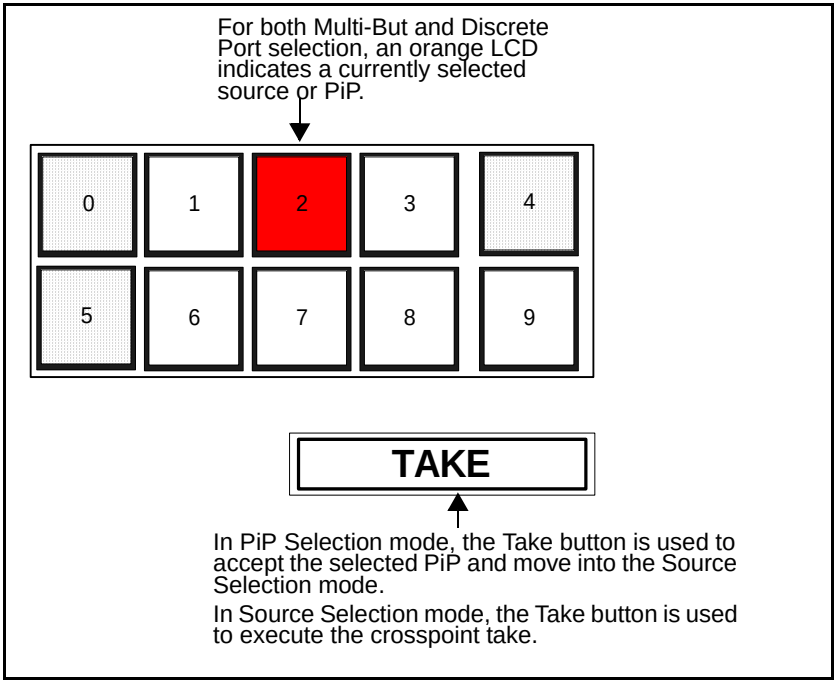

Figure 3-3. LCD Button Color and Pattern Meanings

Multiple pages of 16 LCD buttons can be used.

Use the page up button 

and the page down button 

to navigate through multiple LCD button pages.

Take Button

The **Take** button is used to navigate the CENTRIO device. After sources or PiPs are selected by the user, the **Take** button also lights up to indicate the selection is valid for a crosspoint take.

Function Buttons

Many of the buttons on the control panel have multiple functions assigned to them. Different tasks can be selected using the multi-function buttons. Pressing the Shift button provides access to the various panel operational modes. The Shift button flashes when the shift function is active. The Functions for a CENTRIO panel are as follows:

F1: PiP Selection mode—Select the PiP to which you want to assign a Source.

F2: Source Selection mode—Select the source that you will assign to the PiP.

F3: System Control mode—View and adjust control options for the CENTRIO hardware.

F4: PiP Control mode—View and adjust control options for individual PiPs.

Operating CENTRIO Panels with NUCLEUS

NUCLEUS supports different types of CENTRIO panels—X/Y device and multi bus. The type of CENTRIO panel that you are using and the way the panel is configured determine how you operate the CENTRIO panel to select sources and PiPs. Each type of CENTRIO panel is described below:

- **X/Y Device**—Using this type of CENTRIO panel, you can assign a source to a single PiP.
- **Multi Bus**—Using this type of routing panel, you can assign a source to multiple PiPs simultaneously.

In addition to the different types of CENTRIO panels, each CENTRIO panel can display PiP(s) and sources either as a discrete port selection or as a category/index selection. The names, categories and indexes of the PiPs and sources originate from the Router System Control View. Each selection type is described below:

- **Discrete port selection—**Sources are identified on the CENTRIO panel by the logical names that have been established in the Router System Control View (router database). PiPS are identified based on the PiP Selection Attribute selected during configuration, unless the shift key is blinking, in which case the PiPs are identified by the device name.
- **Category/Index selection—**Sources are identified on the CENTRIO panel by the categories and indexes that have been established in the Router System Control View (router database). PiPs are identified based on the PiP Selection Attribute selected during configuration, unless the shift key is blinking, in which case the PiPs are identified by the device name.

CENTRIO Panel Operational Modes

There are four operation modes that you can use to perform CENTRIO operations such as selecting sources and PiPs. These CENTRIO panel operational modes are described below:

- **PiP Selection mode**—Using this mode, you can select PiPs to assign a source to. In the display, the area around **PiP** is green when the panel is operating in PiP Selection mode. For information about using PiP Selection mode, see “Workflow 1: Making Discrete Port Selections” on page 41 and “Workflow 2: Making Category/Index Selections” on page 46.

- **Source Selection mode**—Using this mode, you can select a source to assign to a PiP. The panel automatically switches to Source Selection mode after a PiP is selected and accepted. In the display, the area around Src is green when the panel is operating in Source Selection mode. For information about using Source Select mode, see “Workflow 1: Making Discrete Port Selections” on page 41 and “Workflow 2: Making Category/Index Selections” on page 46.
- **System Control mode**—Using this mode, you can view and adjust control options for the CENTRIO hardware. In the display, the area around **SysCtrl** is green when the panel is operating in System Control mode. For information about using System Control mode, see “System Device Control” on page 53.
- **PiP Control mode**—Using this mode, you can view and adjust control options for individual PiPs. In the display, the area around **PiP Ctrl** is green when the panel is operating in PiP Control mode. For information about using PiP Control mode, see “PiP Device Control” on page 59.

Workflow 1: Making Discrete Port Selections

When your CENTRIO panel is configured for discrete port selection, PiPS and sources are identified and selected by a single logical name. Names for sources come from the Router System Control View that was used to create each CENTRIO panel (filtered by the choices made when defining the router device). PiP names are based on the PiP Selection Attribute selected during configuration, unless the shift key is blinking, in which case the PiPs are identified by the device name.

Table 3-1 describes the valid selection scenarios for each router type.

Table 3-1. Valid Selection Scenarios

Router Type	PiP Selections	Source Selections
X/Y Device	Single, Selectable	Single, Selectable
Multi Bus	Multiple, Selectable	Single, Selectable

- The following sections illustrate and describe the process of making PiP and source selections for a multi bus routing panel. The process of a making PiP and source selections for X/Y device panels is similar to the one provided below. Any exceptions are noted.

Step 1: Selecting a PiP

After you select a Multi-Bus device panel, the display and LCD buttons show the panel in PiP Selection mode, which appears similar to Figure 3-4.

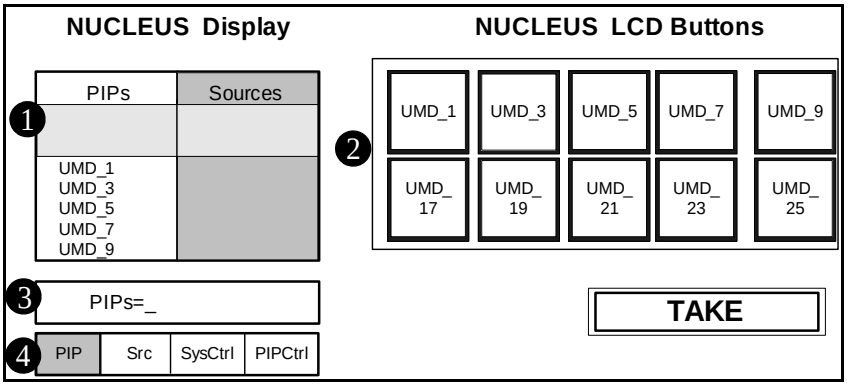

Figure 3-4. Selecting a PiP

1. Available PiPs are listed under **PiPs**. Use the adjustment knobs to scroll through the list.
2. The available PiPs are displayed on the LCD buttons. Use the page down and page up buttons to navigate through pages of additional PiPs.
3. The Command Status Line prompts you to select a PiP.
4. The Mode bar indicates that the router is now in PiP Selection mode, meaning that it is ready to accept your PiP selection.

To select a PiP, do one of the following:

- Press the LCD button for the PiP you want to use.

  OR

- Use a knob to scroll through the list of **PiPs** and then press the knob to select a PiP.

In Multi-Bus mode, repeat the above steps to select more than one PiP> In X/Y mode, selection of another PiP will automatically switch the selected PiP to the new PiP (since only one PiP can be selected at a time in X/Y mode).

Step 2: Accepting the PiP

After you select a PiP, the display and LCD buttons appear similar to Figure 3-5.

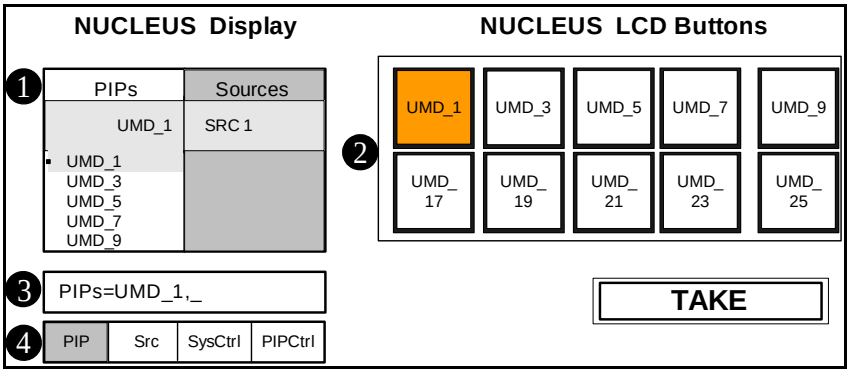

Figure 3-5. Executing the Crosspoint Take

1. A bullet appears beside the selected PiP on the display.
2. The selected PiP LCD button changes to orange.
3. The selected PiP is listed in the Command Status Line.
4. The Mode bar indicates that routing panel in still in PiP Selection mode.

To accept the PiP selection, press the **TAKE** button. You can change the PiP that you have selected at any time before you press the **TAKE** button.

In Multi-Bus mode, you can unselect a PiP by re-selecting the PiP from the list box or from the LCD. In X/Y mode, to unselect a PiP, select another PiP to replace it.

Step 3: Selecting a Source

After you have selected a PiP, the display and LCD buttons appear similar to Figure 3-6.

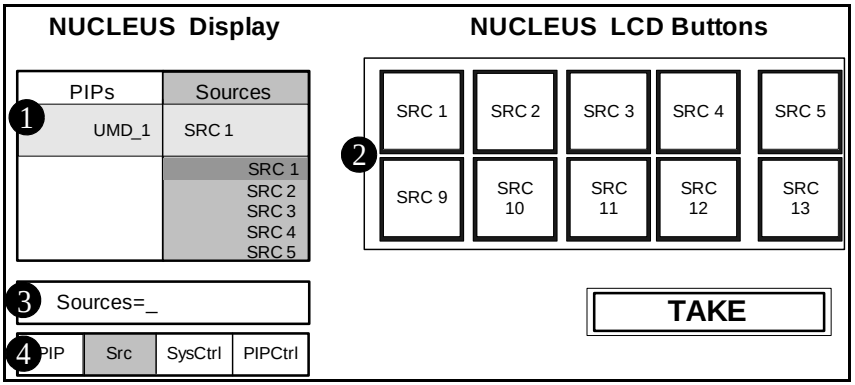

Figure 3-6. Selecting CENTRIO Sources

1. Available sources are listed under **Sources**. Use a knob to scroll through the list. The current source status for the selected PiP is also shown.
2. The available sources are now displayed on the LCD buttons. A shaded LCD indicates that its corresponding source is currently connected to the PiP. If no LCD buttons are shaded, there are no valid sources to select. You can use the page down and page up buttons to navigate through pages of additional sources.
3. The Command Status Line prompts you to select a source.
4. The Mode bar indicates that the router is now in Source Selection mode.

To select the source, do one of the following:

- Press the LCD button of the source you want to send to the PiP.

  OR

- Use a knob to scroll through the **Source** list, and then press the knob to select a source.

Step 4: Sending the Source to the PiP

After you select a source, the display and LCD buttons appear similar to Figure 3-7.

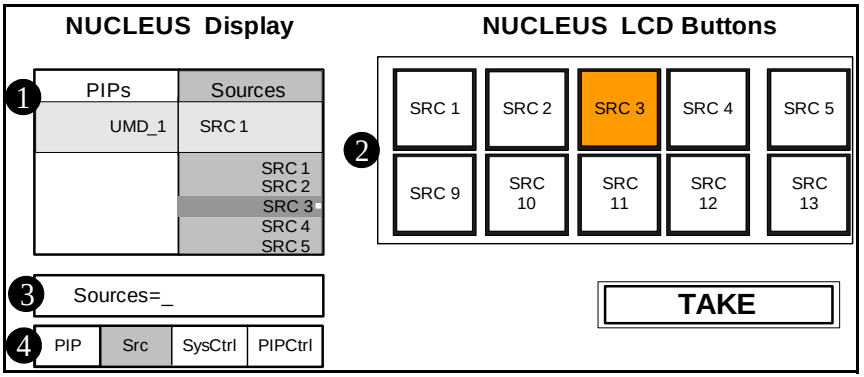

Figure 3-7. Selecting a Source

1. A bullet appears beside the selected source.
2. The selected source LCD button changes to orange.
3. The selected source is listed in the Command Status Line.
4. The Mode Bar indicates that the panel is still in Source Selection mode.

To execute the change, press the **TAKE** button.

After NUCLEUS executes the change, the display and LCD buttons appear similar to Figure 3-6. To select another source, repeat **Step 3** and **Step 4**. To select another PiP, press the selection button below **PiP** and see “Step 1: Selecting a PiP” on page 42.

Workflow 2: Making Category/Index Selections

Category/index selection provides a way to perform switching based on categories and indexes. Category/index groups are useful in systems with very large number of inputs and outputs.

When controlling a CENTRIO panel that is configured with category/index type selection, first select one or more Displays. NUCLEUS then filters the available PiP list based on the selected Display. Next make the PiP selection. Then select a source category. NUCLEUS will filter the available sources based on the selected category name.

The following sections illustrate and describe the process of making category/index selections for an X/Y device type routing panel. The process of making PiP and source selections for multi bus routing panels is similar to the one provided below. Any exceptions are noted.

Step 1: Selecting a Display

After you select the panel, the display and LCD buttons appear similar to Figure 3-9.

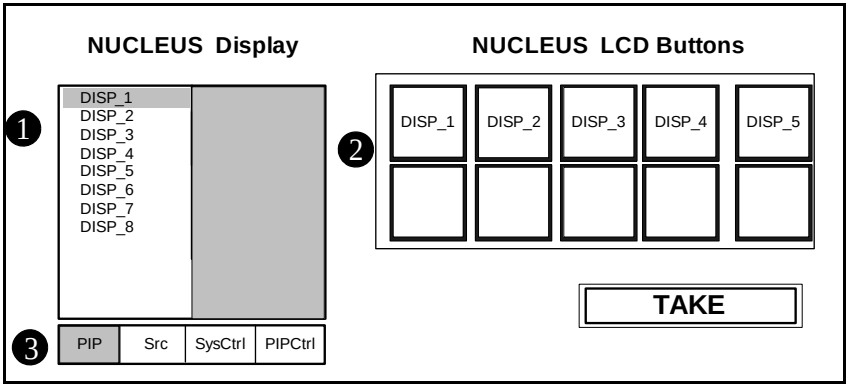

Figure 3-8. Selecting a Display

1. Available displays are listed. Use a knob to scroll through the list.
2. The available displays are also displayed on the LCD buttons. You can use the page down and page up buttons to navigate through additional pages of displays.
3. The Mode bar indicates that the router in now in PiP Selection mode, meaning that it is ready to accept your display selection.

To select the display, press the LCD button of the display you want to use.

You can also select the Display using an adjustment knob. To do this, scroll through the list of available displays, and then press the knob to select a display.

To accept the selected Display(s), press the **Take** button.

Step 2: Selecting a PiP

After you select the panel, the display and LCD buttons on the panel in PiP Selection mode, which appears similar to Figure 3-9.

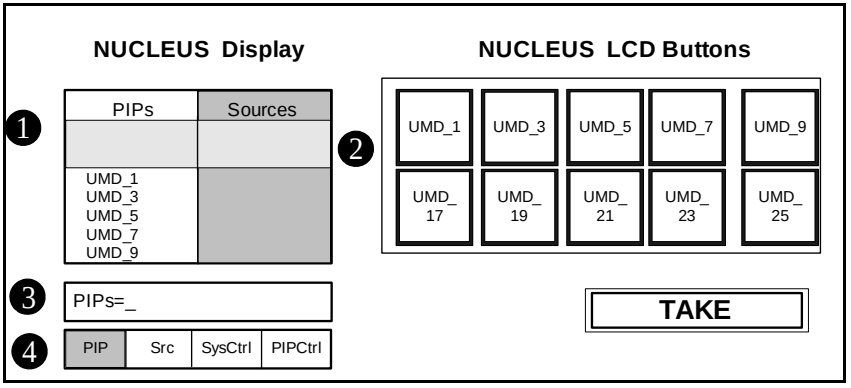

Figure 3-9. Selecting a PiP

1. Available PiPs are listed under **PiPs**. Use the adjustment knobs to scroll through the list.
2. The available PiPs are displayed on the LCD buttons. Use the page down and page up buttons to navigate through pages of additional PiPs.
3. The Command Status Line prompts you to select a PiP.
4. The Mode bar indicates that the router is now in PiP Selection mode, meaning that it is ready to accept your PiP selection.

To select a PiP, do one of the following:

- Press the LCD button for the PiP you want to use.

  OR

- Use a knob to scroll through the list of **PiPs** and then press the knob to select a PiP.

You can also select a PiP using an adjustment knob. To do this, scroll through the list of available PiPs, and then press the knob to select a category. To continue, go to “Step 4: Selecting a Source Category” on page 49.

Step 3: Accepting the PiP

After you select a PiP, the display and LCD buttons appear similar to Figure 3-10.

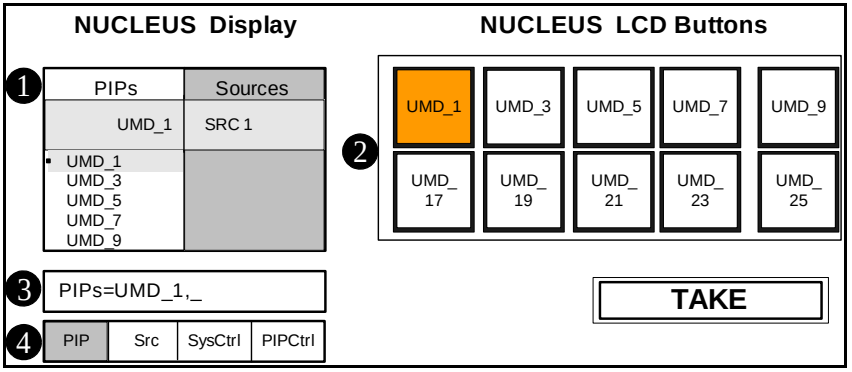

Figure 3-10. Executing the Crosspoint Take

1. A bullet appears beside the selected PiP on the display.
2. The selected PiP LCD button changes to orange.
3. The selected PiP is listed in the Command Status Line.
4. The Mode bar indicates that routing panel in still in PiP Selection mode.

To accept the PiP selection, press the **TAKE** button. You can change the PiP that you have selected at any time before you press the **TAKE** button.

In Multi-Bus mode, press one or more LCDs to select the PiPs, or navigate through the list box and use the shaft press to select the PiPs. Unselect a PiP by selecting the PiP again.

In X/Y mode, you cannot select more than one PiP. Select another PI to change the current PiP selection.

Step 4: Selecting a Source Category

After you have selected a PiP, the display and LCD buttons appear similar to Figure 3-11.

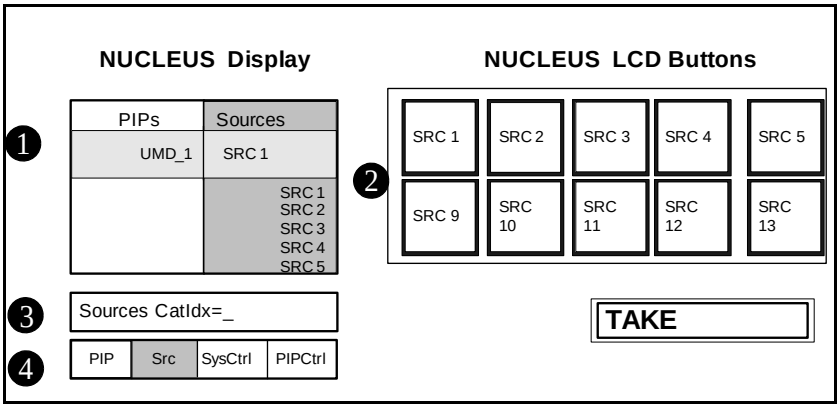

Figure 3-11. Selecting a Source Category

1. Available source categories are listed under **Sources**. Use a knob to scroll through the list. The current source status for the selected PiP is also shown.
2. The available source categories are now displayed on the LCD buttons. A shaded LCD indicates that its corresponding source is currently connected to the PiP. If no LCD buttons are shaded, there are no valid sources to select. You can use the page down and page up buttons to navigate through pages of additional sources.
3. The Command Status Line prompts you to select a source category.
4. The Mode bar indicates that the panel is now in Source Selection mode.

To select the source category, press the LCD button of the source category you want to use.

You can also select the final source using an adjustment knob. To do this, scroll through the list of available source categories, and then press the knob to select the source by name.

Step 5: Selecting a Source Index

After you select a source category (in this example SRC is selected), the display and LCD buttons appear similar to Figure 3-11.

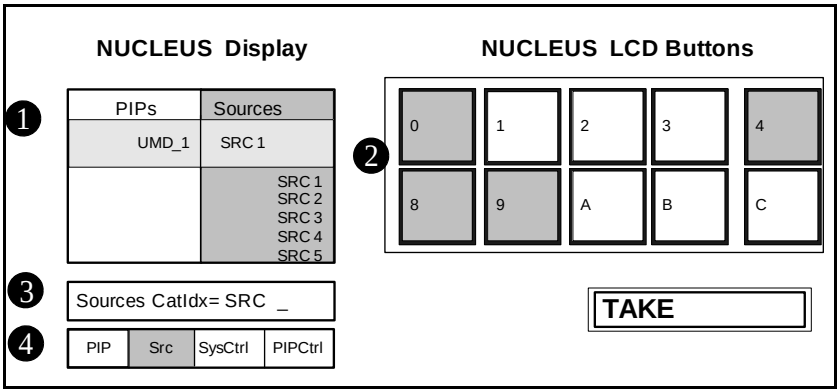

Figure 3-12. Selecting a Source Index

1. The available sources that are associated with the selected category are listed by index under **Source**. In this example, **SRC** is selected as the source category.
2. The available source indexes are displayed by the LCD buttons. You can use the page down and page up buttons to navigate through additional pages of source indexes. Indexes that are not valid for the source are not lit.
3. The selected source category is listed in the Command Status Line. You are now prompted to select a source index character.
4. The Mode bar indicates that panel in still in Source Selection mode.

To select an index, press the LCD button for the desired index.

The panel will sequentially build a final source selection using the indexes you select (See “Step 6: Selecting a Source Index (second level index)” on page 51). You can go back one level in your index selection by pressing the **4** (left cursor) button on the numeric keypad.

Step 6: Selecting a Source Index (second level index)

If you used an LCD button to select a first index, NUCLEUS now displays the available sources that are identified by the selected category and the first index. In this example, **3** was selected as the first index character. The display and LCD buttons appear similar to Figure 3-13.

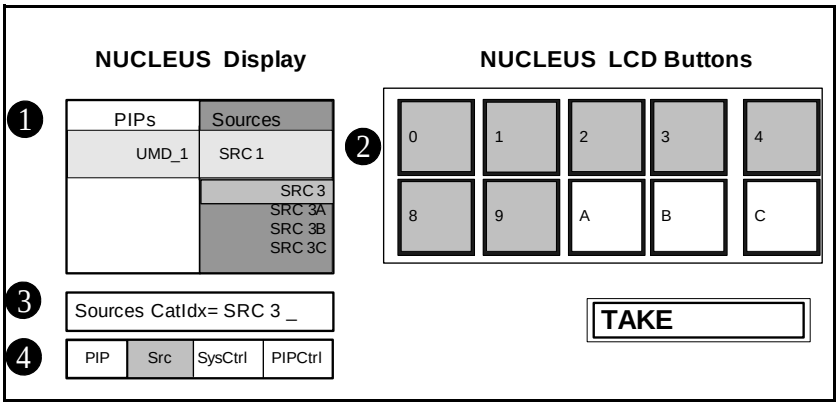

Figure 3-13. Selecting the Second Source Index Value

1. The available sources that are associated with the selected category and the first index are listed under **Sources**. In this example, **SRC 3** has thus far been selected as the source category and index.
2. The available source indexes are displayed by the LCD buttons. You can use the page down and page up buttons to navigate through additional pages of source indexes.
3. The selected source category and the first index character are listed in the Command Status Line. You are now prompted for a second index.
4. The Mode bar indicates that the routing panel is still in Source Selection mode.

To complete the source selection, do one of the following:

- Press the LCD button that displays the final index that is used to identify the source you want to use. You can go back one level in your index selection by pressing the **4** (left cursor) button on the numeric keypad.

  OR

- Use the adjustment knob to scroll through the list, and then press the knob to select a source.

Step 7: Accepting the Source

After you select the source, the display and LCD buttons appear similar to Figure 3-14.

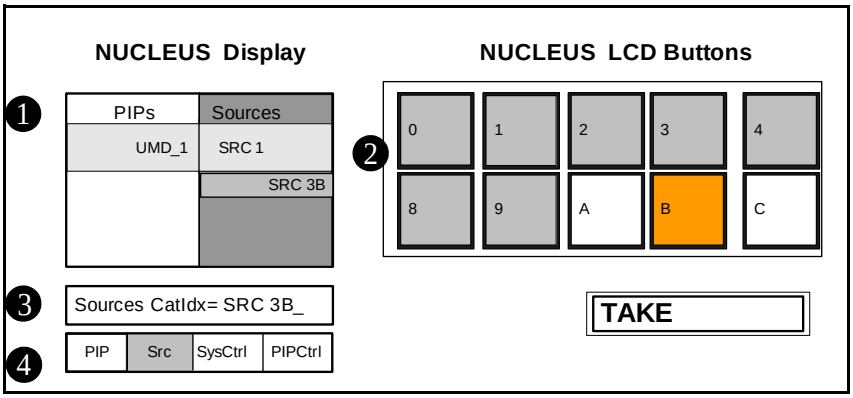

Figure 3-14. Selecting Routing Sources

1. A bullet appears beside the selected source.
2. The valid source indexes are displayed by the LCD buttons.
3. The selected source is listed in the Command Status Line.
4. The Mode bar indicates that the routing panel is still in Source Selection mode.

To accept the source selection, press the **TAKE** button.

System Device Control

In System Control mode, you can adjust parameters and receive alarms for the CENTRIO system.

Press **SysCtrl** (F3) to enter System Control mode.

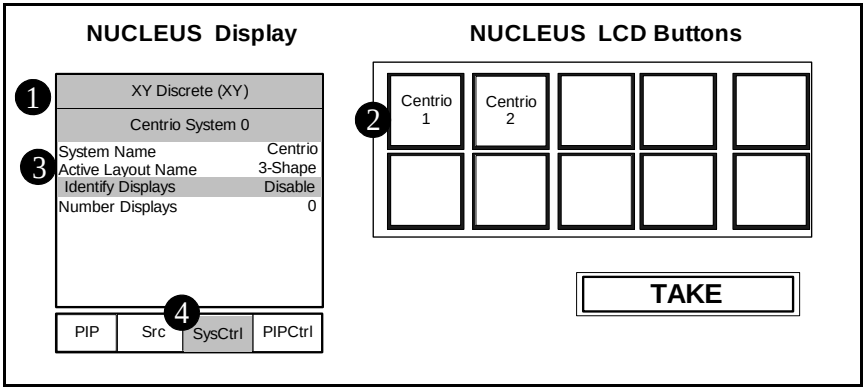

Figure 3-15. System Control

1. The first line of the title bar displays the name of the currently selected configuration. The second line of the title bar displays the name of the system device controller.
   - When no alarm condition exists, the title bar is green.
   - The title bar turns red if a major alarm exists.
   - The title bar turns orange if a minor alarm exists.

Note

To view alarms, press the Option button, and then Enter, which selects Active Alarms. For complete information on the NUCLEUS Option menu, see your NUCLEUS Installation and Configuration manual.

2. LCDs show the various CENTRIO output modules. To view the parameter list for an output module, first click the LCD button for that output module. See “CENTRIO Output Module Control” on page 57 for more information.

❸ Below the CENTRIO system title are the CENTRIO System parameters. See “Navigating a CENTRIO Parameter List” on page 54.

❹ The Mode bar indicates that the routing panel is in System Control mode.

Table 3-2 shows the parameters available for System Device control.

Table 3-2. CENTRIO Multiviewers Control Options

Control Option	Function	Options
System Name [RO]	Displays the name of the current CENTRIO system	(displayed system name)
Active Layout Name	Selects the layout with the entered layout name for output to the multiviewer display	String (layout name)
Identify Displays	Enables/disables the display identification feature	• Enable • **Disable**
Number of Displays [RO]	Shows the number of display devices currently connected to CENTRIO	String (number of displays)

Navigating a CENTRIO Parameter List

When you are in System Control mode (with either the CENTRIO System or a CENTRIO output module selected) or in PiP Control mode, you can select a parameter and, depending on the type of parameter, adjust its value or view its setting.

1. To navigate the list of parameters, do one of the following:
   - Use the Up/Down (2 and 8) buttons to navigate the list line by line.
   - Use the PgUp/PgDown (3 and 9) buttons to jump 1 page at a time. There are 10 lines per page.
   - Use any adjustment knob to navigate the list line by line.
2. To select a parameter for adjustment, do one of the following:
   - Press Enter.

- Press any adjustment knob.

A parameter pop-up box appears on the screen.

Note

You will not be able to return to navigating the parameter list until you close the pop-up.

To close the parameter, you can press Exit at any time.

Adjusting Parameter Settings

Adjustable parameters have a blue bar across the top, while control options that are read-only have a grey bar

Adjustable parameters can have two types of controls: lists and ranges. A parameter with a list of options will appear as in Figure 3-16.

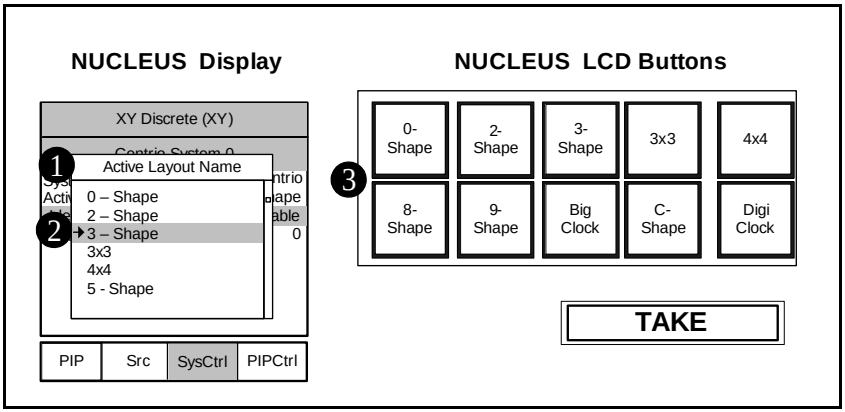

Figure 3-16. CENTRIO Parameter with a List of Values

1. The parameter name appears across the top of the pop-up.
2. Below the parameter name all the options are listed. An arrow appears to the left of the parameter option that is active on the device. A highlight bar displays where you have navigated in the list.
3. LCDs also show the parameter values. The LCD that represents the active value on the device is orange.

If the parameter values appear grey, then the parameter is read-only.

To navigate a list of parameter values, do one of the following:

- Use the Up/Down (2 and 8) buttons to navigate the list line by line. A green highlight bar follows as you navigate the list.
- Use any adjustment knob to navigate the list line by line. A green highlight bar follows as you navigate the list.
- Look at the LCD buttons, which correspond to the parameter value. If there are more than 16 parameter options, use the PgUp/PgDown (3 and 9) buttons to jump 1 page at a time.

To change a parameter value to the currently highlighted value, press any adjustment knob, or press Enter, or press the LCD button corresponding to the parameter option.

A parameter with a range of values will appear as in Figure 3-17.

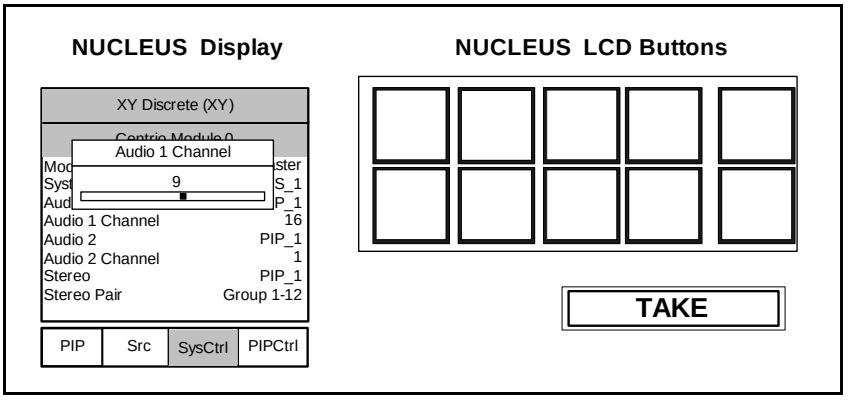

Figure 3-17. Adjusting a Parameter With a Range of Values

To change a parameter with a range of values, use any adjustment knob to adjust the value incrementally.

When you are satisfied with the parameter adjustment you have made, press Exit to close the parameter adjustment pop-up. You cannot return to browsing the device or parameter lists until you close the pop-up.

CENTRIO Output Module Control

When you enter System Control mode, CENTRIO modules appear on the LCD buttons. Press the LCD button corresponding with a CENTRIO output module to view the parameter list for that module.

The screen appears similar to Figure 3-18.

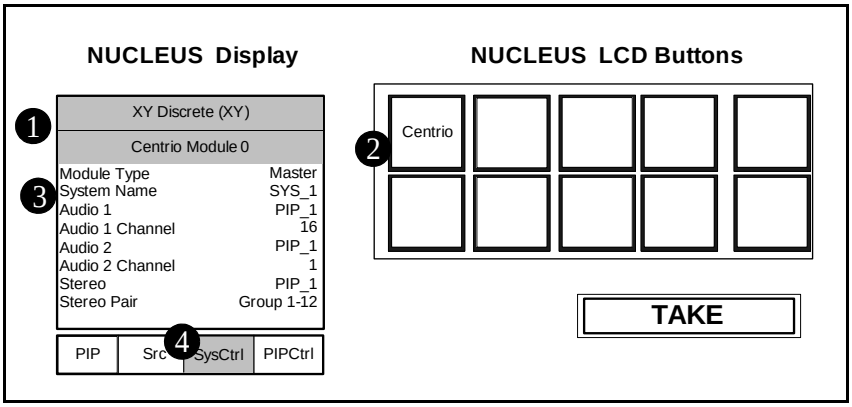

Figure 3-18. CENTRIO Output Module Control

1. The first line of the title bar displays the name of the currently selected configuration. The second line of the title bar displays the name of the system device controller.
   - When no alarm condition exists, the title bar is green.
   - The title bar turns red if a major alarm exists.
   - The title bar turns orange if a minor alarm exists.

   Note

   To view alarms, press the Option button, and then Enter, which selects Active Alarms. For complete information on the NUCLEUS Option menu, see your NUCLEUS Installation and Configuration manual.

2. LCDs show the various CENTRIO output modules.
3. Below the CENTRIO system title are the CENTRIO System parameters. Parameter values update as changes are received. To navigate and change the parameter list, see the following topics:
   - “Navigating a CENTRIO Parameter List” on page 54

- “Adjusting Parameter Settings” on page 55

❹ The Mode bar indicates that the routing panel is in System Control mode.

Table 3-3 on page 58 lists all the parameters, functions and control options for the CENTRIO output modules.

Table 3-3. CENTRIO Multiviewer Module Control Options

Control Option	Function	Options
Module Type		• Master • Slave
System Name [RO]	Displays the name of the current CENTRIO system	(displayed system name)
Audio 1	Selects associated audio channel to monitor from the audio monitoring output 1	String (selected audio channel)
Audio 1 Channel	Selects which audio pair to be monitored from audio monitoring output 1	1 to 16
Audio 2	Selects associated audio channel to monitor from the audio monitoring output 2	String (selected audio channel)
Audio 2 Channel	Selects which audio pair to be monitored from audio monitoring output 2	1 to 16
Stereo	Selects	String (selected audio channel)
Stereo Pair	Selects which audio pair to be monitored from the stereo outputs (Channel 1 to channel 4, and either pair 1 & 2 or 3 & 4)	• **Group 1 - 12** • Group 1 - 34 • Group 2 - 12 • Group 2 - 34 • Group 3 - 12 • Group 3- 34 • Group 4 - 12 • Group 4 - 34

PiP Device Control

In PiP Control mode, you can adjust parameters and receive alarms for the active PiPS in the CENTRIO system.

Press **PiPCtrl** (F4) to enter PiP Control mode.

If a PiP was selected when you pressed PiPCtrl (F4), then the parameter control options for that PiP will be open and ready navigation.

Note

If more than one PiP is selected when you enter PiP Control Mode, parameter controls for the PiP that is in focus, or highlighted, will open. You can only view and modify parameter settings for one PiP at a time.

See the following topics for more information:

- “Navigating a CENTRIO Parameter List” on page 54
- “Adjusting Parameter Settings” on page 55

If no PiP was selected, the interface will appear as in “PiP Control Mode” on page 59.

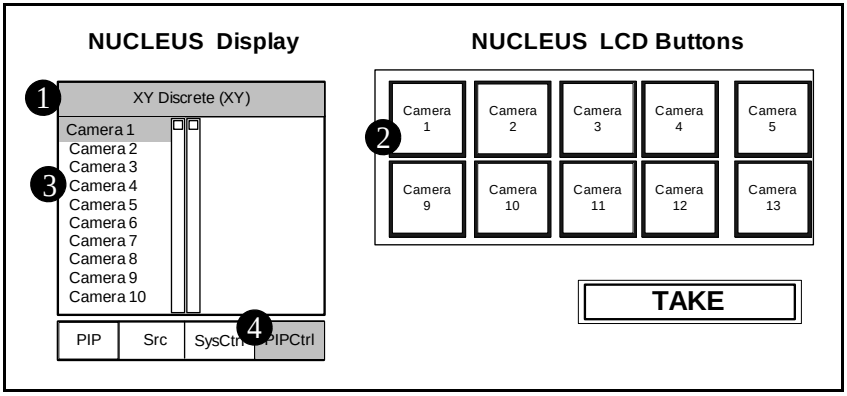

Figure 3-19. PiP Control Mode

1 The title bar displays the name of the currently selected configuration.

❷ LCDs show the various PiPs. Use the PgUp/PgDown (3 and 9) buttons to jump 1 page at a time.

PiPs display their live names unless the Shift button is pressed. (when Shift is on, it blinks.)

❸ On the left side of the screen all the PiPs are listed. You can navigate the list by turning either of the left adjustment knobs. A green highlight bar follows as you navigate the list.

.❹ The Mode bar indicates that the routing panel is in PiP Control mode.

Select any PiP to view a list of parameters for that PiP. To select a PiP, do one of the following:

- To select the PiP that is currently highlighted on the screen, press any adjustment knob, or press Enter.
- Press the LCD button corresponding to the PiP.

The screen updates to display the PiP name as the second line of the title bar. When no alarm condition exists, the title bar is green. The title bar turns red if a major alarm exists, or if the device is not in a remote-controllable state. The title bar turns orange if a minor alarm exists.

Note

To view alarms, press the Option button, and then Enter, which selects Active Alarms. For complete information on the NUCLEUS Option menu, see your NUCLEUS Installation and Configuration manual.

To view or adjust PiP parameters, see the following topics:

- “Navigating a CENTRIO Parameter List” on page 54
- “Adjusting Parameter Settings” on page 55

Table 3-3 on page 58 lists all the parameters, functions and control options for the CENTRIO PiPs. See for information on selecting, viewing, and modifying parameter settings.

Table 3-4. PiP Control Options

Control Option	Function	Options
Name [RO]	Displays the name of PiP(n), where n is the number of the selected PiP	string (displayed PiP name)
Static [RO]	Displays the label text on the selected PiP	string (displayed label text)
Display [RO]	Identifies which output display device is currently displaying the selected PiP	string (display name)
Dynamic [RO]	Display the source ID for the UMD source	string (UMD source ID)
Source Name	Selects the input source name for the PiP	string (enter input source name)
Source Number [RO]		
PiP Type	Sets the PiP type as either Parent or Child	• **Parent** • Child
Dest. Follow Name	Enables/Disables full-screen view of the selected PiP	• Enable • **Disable**
Dest. Follow Number	Display the source ID for the selected PiP	string (source ID)
Source ID [RO]	Display the source ID for the selected PiP	string (source ID)
Full Screen Enable	Enables/Disables full-screen view of the selected PiP	• Enable • **Disable**
Full Layout Enable	Enables/disables the full layout view of the select PiP	• Enable • **Disable**
Gamut Enable	Enables/disables the gamma spectrum view of the selected PiP's input source	• Enable • **Disable**

Table 3-4. PiP Control Options *(Continued)*

Control Option	Function	Options
Waveform Enable	Enables/disables the waveform view of the selected PiP's input source	• Enable • **Disable**
Selected Video Line	Selects the video line that is to be displayed analyzed by the vector scope and waveform monitor	1 to 10801 **100**
Test pattern	Selects the test pattern to display	• None • Black • White • Crosshatch • Checkerboard • LuminanceRamp • ColorBars • OutputDisplayBorder • Audio Tones • CalibrateOff • GrayScale • PixelOnOff
VChip Locale	Displays the geographical region associated with the Vchip rating	String (geographical location)
Save To Layout	Saves the last modifications made to the active layout	• Yes • **No**
Revert to Layout	Recalls the default settings for the active layout	• Yes • **No**
PiP Selected	Enable/disables or is it selects/ deselect a PiP in the active layout	• **Disable** • Enable
PiP Style		•

Table 3-4. PiP Control Options *(Continued)*

Control Option	Function	Options
Expected Video Format	Sets the expected video format for the regular operation. Any detected video format other than the set Expected Video Format triggers a Format Change alarm.	• Any • 525 • 625 • 720p • 1080i • 1080p
Expected Aspect Ratio	Sets the expected aspect ratio for the regular operation. Any detected aspect ratio other than the Expected Aspect Ratio triggers an Aspect Ratio Change alarm.	• Any • 16×9 • 4×3
Luma Low Threshold	Sets the low percent luma threshold level. When the video signal reaches this luma level, a Low Luma alarm is reported.	-7% to 15% (**0.0**%)
Luma Peak Threshold	Sets the peak percent luma threshold level. When the video signal reaches this peak luma level, a High Luma alarm is reported.	90% to 108% (**100.0**%)
Chroma Low Threshold	Sets the low percent chroma threshold level. When the video signal reaches this chroma level, a Chroma Luma alarm is reported.	-7% to 15% (**0.0**%)
Chroma Peak Threshold	Sets the peak percent chroma threshold level. When the video signal reaches this peak chroma level, a High Chroma alarm is reported.	90% to 108% **(100.0**%)
Video Black Threshold	Sets the threshold value for the amount of black that naturally appears in the picture before triggering a Black Video alarm	0% to **100**%

Table 3-4. PiP Control Options *(Continued)*

Control Option	Function	Options
Audio Low Threshold	Sets the under or low level threshold for audio inputs. When the input audio signal reaches the lower level, an Audio Low alarm is triggered.	-80 dbFS to -30 dbFS (**-80** dbFS)
Audio Peak Threshold	Sets the over or peak level threshold for audio inputs. When the input audio signal reaches the peak level, an Audio Peak alarm is triggered.	-20 dbFS to 0 dbFS (**0** dbFS)
Silence Threshold	Sets the duration of time an input audio signal maintains the low level value before triggering a Loss of Sound alarm	20 dbFS to 0 dbFS (**0** dbFS)
D-VITC Line Select	Selects the line for D-VITC presence reporting	Line 1 to Line 525 (Line **10**)
Video Present Status	Displays the presence of a video signal ion the selected PiP source	• Absent • Present
Video Standard Status	Displays the detected video standard on the selected PiP source	string (detected video standard)
Video Format	Displays the detected video format on the selected PiP source	string (detected video format)
Aspect Ratio	Displays the detected aspect ratio on the selected PiP source	string (detected aspect ratio)
X Offset	Displays the X offset of the PiP' horizontal positional in the layout.	(offset value)
Y Offset	Displays the Y offset of the PiP' vertical positional in the layout.	(offset value)
X Size	Displays the X value of he PiP' horizontal positional in the layout.	(value)
Y Size	Displays the Y value of the PiP' vertical positional in the layout.	(offset value)

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