175-100085-00 Edition C

Harris Multiviewer Quick Start

Overview

This document provides quick reference information for installing the Harris Multiviewer module into the Platinum Router Frame, and configuring the software to get it up and running. Much more detailed information is provided in the manuals, available on PDF on the Documentation CD.

This document contains the following sections:

Installing Harris Multiviewer Into the Platinum Router Frame

The Harris Multiviewer module can be installed in a 5, 9, 15 or 28 RU Platinum Router Frame. It occupies four slots in a frame, and it is installed on the output side (left side of the Platinum Router) in any of the slots. Install the Harris Multiviewer module in the first available top slot. Make sure that all four slots are aligned properly as shown in Figure 1-1.

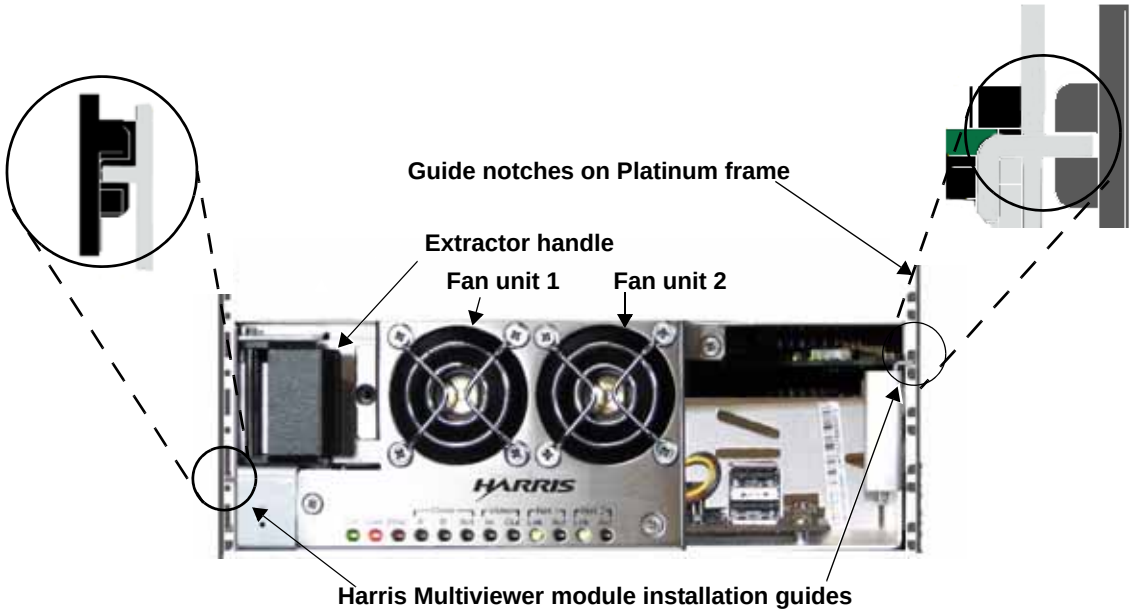

Figure 1-1. Installing the Harris Multiviewer Output Module

To connect the Harris Multiviewer **module to the back module**

1. Power down the router before you install the Harris Multiviewer module.

Note

Although the Harris Multiviewer module can be installed into the router while the router is powered on, it is better to power down the router before installing the module.

2. Mount the back module, but do not tighten the screws completely.
3. Insert the Harris Multiviewer module from the front to mate with the back module.
4. Push the Harris Multiviewer module and the back module firmly together.
5. Tighten the screws on the back module.

Connecting Components to the Harris Multiviewer Module

Connect the system components to the back module according to Figure 1-2.

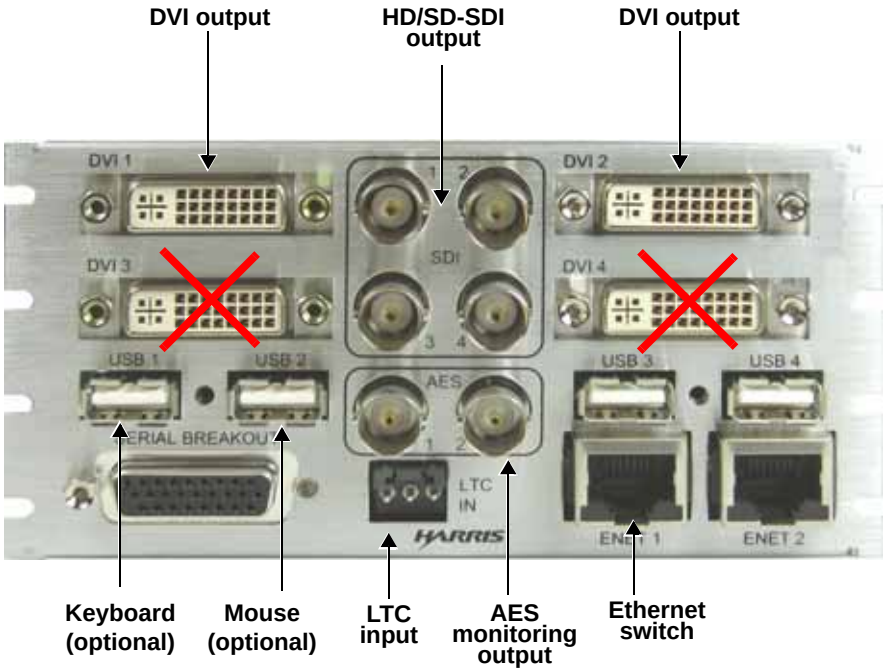

Figure 1-2. Back Module Connectors

Note

Connect either DVI or HD-SDI outputs, not both.

Software Installation

Harris Multiviewer ships with the latest software and firmware installed. In addition, Harris Multiviewer comes with a CD of the same software and firmware. For information on installing and updating software and firmware, see your Harris Multiviewer Installation, Configuration, and Operation Manual.

Navigator software is also required for configuration of Harris Multiviewer, and is available on the installation CD, or as a download from our website. See “Installing Navigator Software” on page 4. Full Navigator documentation is available on our website, and on your installation CD.

Layout Designer software can be installed on any computer(s) on the same network as Harris Multiviewer, and then can be used to configure Harris Multiviewer, and create, upload, and change layouts. See “Getting Started With Layout Designer” on page 11, and your Layout Designer documentation, which is available on your installation CD.

CCS Navigator software can be used to control and monitor Harris Multiviewer. See the Navigator documentation for complete information on installing and operating this software.

Configuring the Platinum Router

Installing Navigator Software

1. Install the current version of Navigator.
2. Verify the version number of the Platinum Resource (PT-RES) module using the card-edge display (**System > Versions > Software**). It should be version 3.4 or higher.
3. If the version number is lower than 3.4, upgrade the PT-RES software.

Upgrading Platinum Resource (PT-RES)

1. Ensure that Navigator is in Build mode.
2. Select the Platinum frame, and then click **Configure**.
3. Select the **Firmware** tab.
4. Select the PT-RES module that is active in the frame (it has a little icon on the right).
5. Right-click the selected module, and then select **Assign** from the context menu that appears.

   If there are two PT-RES modules, both modules will be assigned to the update list automatically.
6. In the list, select the PT-RES module.
7. Right-click the selected module, and then select **Change Firmware** from the context menu that appears.
8. Browse to the location of the firmware .zip file and select it (the name of the .zip file is in the format PT-RES_xxxx.zip).
9. Click **Upgrade,** or **Upgrade All**, if you selected more than one module.

   While the upgrade takes place, the card-edge LEDs indicate the status of the upgrade. The upgrade can take up to ten minutes.

Warning

Do not interrupt the upgrading process.

Adding Harris Multiviewer to a Router Database

You can:

- Add a Harris Multiviewer to an existing Platinum database
- Add a Harris Multiviewer to a new Platinum database.

Adding a Harris Multiviewer to an Existing Platinum Database

1. In Navigator, poll the router database.
2. Select the appropriate router from the **Devices** list, and then click **Configure**.

   The **Configured Matrices** dialog box appears.
3. Click **Add**, and then under **Matrix Type**, select **MultiView** to Add Centrio Matrices.
4. Do the following:
   a. In **# Centrio Modules**, select the number of installed Harris Multiviewer output modules.
   b. In **Starting Centrio Slot**, select the slot in which the Harris Multiviewer output module is installed.
   c. In **#of Physical INs**, select the value **0** if the Harris Multiviewer output module shares the same inputs as the video matrix.
5. Click **OK**.

   You are returned to the **Centrio Matrices** dialog box.
6. Share the input sources between the video matrix and the Harris Multiviewer matrix (see "Sharing the Input Sources Between the Video Matrix and Centrio Matrix" on page 6).

Adding Harris Multiviewer to a New Platinum Database

1. Start Navigator.
2. Right click on **Routers** in the **Navigation** pane, and then select **Create > Routing System** from the context menu.

   The **New Routing System Configuration** dialog box opens.
3. Make sure **Router Frame** is selected, and then click **OK**.

   The **Configure Matrices** dialog box appears.
4. Click **Add** to add a Harris Multiviewer matrix.

   The **Add Matrix** dialog box appears.
5. In **Matrix Type**, select **MultiView**.

   The **Add Centrio Matrices** dialog box appears.
6. Do the following:
   a. In **# Centrio Modules**, select the number of installed Harris Multiviewer output modules.
   b. In **Starting Centrio Slot**, select the slot in which the output module is installed.
   c. In **#of Physical INs**, select the value **0** if the output module shares the same inputs as the video matrix.
7. Click **OK**.

   You are returned to the **Centrio Matrices** dialog box.

8. Share the input sources between the video matrix and the Harris Multiviewer matrix (see "Sharing the Input Sources Between the Video Matrix and Centrio Matrix" on page 6).

Sharing the Input Sources Between the Video Matrix and Centrio Matrix

1. Select the Harris Multiviewer matrix on the **Input** section of the **Centrio Matrices** dialog box, click the first input card, and then click the last input card while holding down the SHIFT key.
2. Right-click on the selection, and then choose **Assign to Centrio V** from the context menu that appears.
3. Click **OK**.

   The Inputs are now shared between the WB matrix and Harris Multiviewer matrix.
4. Click **OK**.
5. Download the new configuration to the Platinum frame.

Adding More Harris Multiviewer Modules

1. In Navigator, poll the router database.
2. Select the appropriate router from the **Devices** list, and then click **Edit**.

   The **Configured Matrices** dialog box appears.
3. Select an existing multiviewer matrix in the **Platinum Matrix Configuration** list.
4. Right-click an empty slot in the **Output** list. Make sure that the following three slots are available.
5. Choose **Assign to Centrio V** from the context menu that appears.

   The new Harris Multiviewer module is added to the Output list.

Connecting Harris Multiviewer to the Network

Harris Multiviewer should be on its own closed network using static IP addresses. Harris Multiviewer should not be connected to a public or corporate network.

Harris Multiviewer has three network interfaces.

Table 1-1. Harris Multiviewer's Network Interface Cards

Connection Name	Description	Default IP
ENET 1	Primary connection	• 192.168.100.250 • 255.255.255.0
ENET 2	Backup connection	DHCP
INET	Internal connection to Platinum Control Card (PT-RES)	192.168.103.xx

Set ENET 1 and 2 to the preferred IP addresses.

Note

DO NOT change the INTERNAL Ethernet (INET) connection. This should be set up automatically.

The internal IP address depends on the slot location of the Harris Multiviewer. Typically, it is 192.168.103.xx.

Using the Multiviewer Control Panel

1. Right click on the Multiviewer output, and then select **Exit Multiviewer** from the On-Screen menu.
2. Click **Yes** to confirm exiting the Multiviewer.

   A dialog box similar to the following will appear. The **Disable** becomes **Enable**, and all the buttons in the Actions section of the screen will be unavailable.

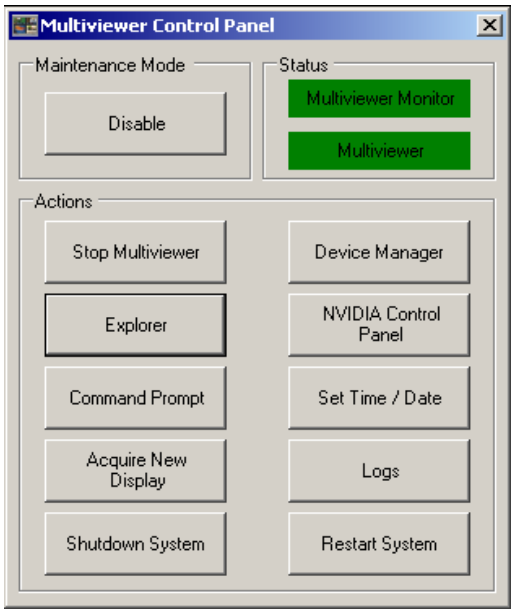

Figure 1-3. Multiviewer Control Panel

3. Click **Enable** to enter Maintenance mode.

With the Maintenance mode enabled, the following actions will be available:

Table 1-2. Multiviewer Control Panel Options

Button	Function
Enable	Sets the Multiviewer Control Panel to maintenance mode
Disable	Sets the Multiviewer Control Panel to normal operation mode, disables maintenance mode, and starts the Multiviewer application
Start Multiviewer	Starts the Multiviewer Application
Explorer	Starts the file system explorer application
Command Prompt	Starts the command prompt application
Shutdown System	Shuts down the Multiviewer module (You will need to re-insert the Harris Multiviewer module or repower the Platinum frame to restart the Harris Multiviewer)
Device Manager	Starts the device manager application
NVIDIA Control Panel	Starts the NVIDIA application to configure the NVIDIA graphics drivers settings
Set Time/Date	Opens the Date and Time Properties dialog box to set local date and time
Restart System	Shuts down and reboots the output module
Revert to Multiviewer Factory Install	Uninstalls the Multiviewer software, and re-installs the original Multiviewer software that was installed on the module at the factory

Starting the Multiviewer From its Control Panel

1. On the Multiviewer Control Panel, click **Enable**.

2. Click **Start Multiviewer**.

   The **Configuration** dialog box appears.

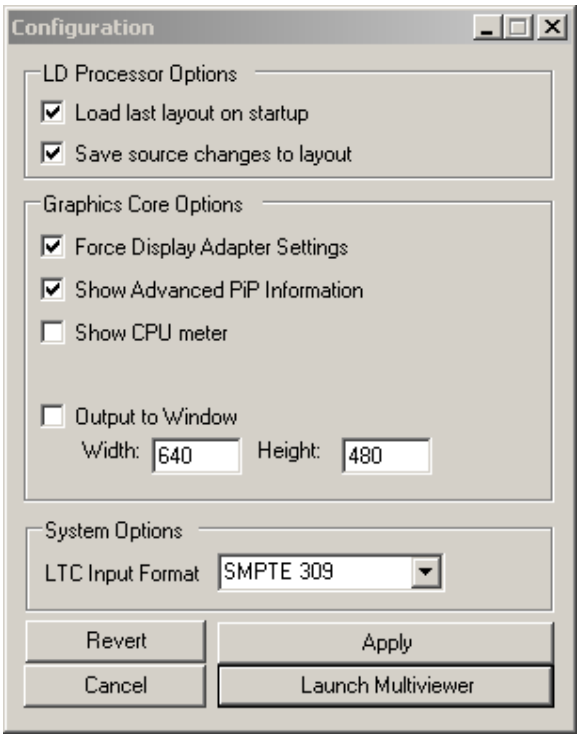

Figure 1-4. Configuration Dialog Box

Table 1-3. Configuration Dialog Box Options

Option	Function
Load last layout on startup	When checked, on startup the multiviewer will reload the layout that was displayed when you last closed the Multiviewer
Save source changes to layout	When source changes are made, they will persist with the layout the next time it is loaded
Force Display Adapter Settings	Causes the Multiviewer application to automatically override the NVidia graphics card settings
Show Advanced PiP Information	These are normally used for diagnostic purposes, and includes added diagnostic information and control
Show CPU Meter	
Output to Window	
LTC Input Format	Used when configuring the clock external reference signal; options include: • Leitch 12M • SMPTE 12M • SMPTE 309

3. Click **Launch Multiviewer** to start the Multiviewer application and its On-Screen menu.

   Click **Apply** to save your System Startup settings, **Revert** to reset the content of the Harris Multiviewer Configuration dialog box, or **Cancel** to cancel launching the Multiviewer application.

Restarting the Multiviewer Control Panel

If you accidentally closed the Multiviewer Control Panel, you can reopen it.

1. Simultaneously press the CTRL, ALT, and DEL keys on your keyboard.

   The Windows Security dialog box opens.
2. Select **Task Manager**.
3. The Windows Task Manager dialog box opens.
4. From the application menu, select **File** > **New Task (Run)…**

   A Create New Task dialog box opens.
5. Click **Browse**, and navigate to **C:** > **Program Files** > **Harris** > **Multiviewer**.
6. Double-click on **XenaShell.exe**, and then click **OK**.

The Multiviewer Control Panel appears.

Unlocking the Harris Multiviewer Display

If you accidentally locked the Harris Multiviewer display, you can unlock it.

1. In the **Unlock Computer** dialog box, enter the following settings:
   - **User Name**: Administrator
   - **Password**: (your Harris Multiviewer Administrator user password)

     By default, this password is set to “centrio”. Note that these fields are case sensitive.
2. Click **OK**.

Changing the ENET IP Address

1. On the Multiviewer **Control Panel**, click **Explorer**.

   The Windows Explorer window appears.
2. On the left folder list, click **Control Panel**.
3. Double-click **Network Connections**.
4. Right-click **ENET1**, and then choose **Properties**.

   The ENET1 Properties dialog box appears.
5. Select **Internet Protocol (TCP/IP)**, and then click **Properties**.
6. Enter the static IP address, subnet, and gateway (the gateway can be left empty).

Getting Started With Layout Designer

Harris Multiviewer Layout Designer software has two primary functions:

- “Configuring Harris Multiviewer Hardware” on page 12
- “Creating and Loading Multiviewer Layouts” on page 14

Figure 1-5. Layout Designer Workspace

Each Layout Designer workspace element is described below:

1. **Application menu** - Provides access to Layout Designer’s main commands and options. In addition, the menu provides access to the software preference settings.
2. **Application toolbar** - Provides quick access to commonly-used Layout Designer commands and options. Some of these options also appear in the Application menu.
3. **Tools palette** - Provides tools for adding and editing layout objects such as PiPs, labels, clocks, tally indicators, info panels, and audio meters to the layout canvas.

❹ **Layout canvas** - Displays the layout that is being created or edited when a Layout Designer tab is open. More than one layout can be open at one time, but only one layout is visible in the layout canvas. Each layout can be viewed by the layout tab at the top of the canvas.

❺ **Multiviewers panel** - Displays the multiviewer systems that are available and connected to the Layout Designer. All systems that are displayed in the Multiviewers panel (connected and disconnected) have been configured by Layout Designer.

❻ **Library panel** - Provides access to stored window objects (PiPs, info panels, and windows), which you can drag and drop onto layouts. Where applicable, each library tab lists the specific name of the object and provides a preview of how the object will appear in a layout.

❼ **Properties pane** - Provides access to user-configurable properties for the layout and layout objects currently displayed in the canvas. You can use the Properties pane to modify layout, window, and layout object properties.

❽ **Application status bar** - Displays the current status of the Layout Designer application and other operation information.

Configuring Harris Multiviewer Hardware

Most of Layout Designer's hardware configuration tools are available in the Advanced Configuration window.

Adding Harris Multiviewer Output Modules to the Devices List

To be discovered, a Harris Multiviewer device must be running and connected to the network.

1. From Layout Designer's main menu, choose **Edit** > **Multiviewer Configuration**.

   The **Device Manager** dialog box opens.
2. Click **Add Device**.
3. Do either of the following:
   - Enter the IP address for the output module.
   - If you do not know the IP address of the output module, click **Discover Devices**.
4. Click **Test**.
5. Click **Save**.

The output module appears in the Multiviewer Panel.

Changing the Output Module's IP Address

Each Harris Multiviewer output module is shipped with the default IP address, 192.168.100.250. If you have more than one Harris Multiviewer output module installed in your Platinum router, you must change the default IP address in order to configure each output module. To change the IP address, your PC must be on the same subnet as the output module (192.168.100.xxx). Ethernet 1 must be connected to the network connection or hub, or local PC, in order to change the IP address.

1. From the Tools menu, choose **Advanced Configuration**.

2. Select the **IP Settings** tab.
3. Under **Ethernet 1**, delete the default in the IP address that appears in the **IP Address** and **Subnet Mask** field, and then enter the IP Address and Subnet Mask that you want to use for the Harris Multiviewer output module.
4. If you are using **Ethernet 2**, change the information that appears in the **IP Address** and **Subnet Mask** fields.

   By default, **Ethernet 2** is set to DHCP.
5. Click **Save**.

Configuring Multiviewer Outputs

1. Right-click a output module in the **Multiviewer Panel**, and then choose **Advanced Configuration**.
2. Select the **Display** tab.
3. Select **DVI** or **SDI**, depending on the type of monitor(s) your Harris Multiviewer will output to.
4. Choose the display configuration (redundant, spanned, etc) that your Harris Multiviewer will display as.
5. Choose the **Display Standard** or **Resolution** that is optimal for your monitor.
6. Choose the orientation for the layouts on the monitor(s).
7. Click Done to save your configuration.

Setting Up External Devices

External devices for use with Harris Multiviewer include the JLCooper Electronics eBOX™ Quad Serial to Ethernet Interface for GPI control and monitoring, and TSL/UMD devices.

1. Right-click a output module in the **Multiviewer Panel**, and then choose **Advanced Configuration**.
2. Select the **External Devices** tab.
3. In the **Device Name** list, select the multiviewer that the external device is going to communicate with.
4. Beside **Name**, enter a descriptive title for your device.
5. From the **Type** list, select **JL Cooper E-Box** for GPI control and monitoring, or one of the other options for TSL/UMD devices.
6. Beside **Port**, select the communication port that the device is using.

   Devices can communicate through COM Ports 1, 2, 3, and 4 or TCP/IP.
7. Do either of the following:
   - If the device is communicating through TCP/IP, enter the device's IP address and port.

     For the JL Cooper eBOX default IP address is 192.168.254.102, and its default port is 23.
   - If the device is communicating through a COM Port, enter values for **Data Bits**, **Baud Rate**, **Parity**, and **Stop bits**.

These settings should match those of the unit to be communicated with.

8. Click **Add**.

   A row is added to the list at the bottom of the dialog box.

If the device will provide UMD information to Harris Multiviewer, you may need to configure source to UMD mapping on the **Source UMD** tab of the **Advanced Configuration** dialog box.

Creating and Loading Multiviewer Layouts

Layouts can be created using a wizard, or built from a blank page. If you have not used Layout Designer before, start with the wizard, in order to get some data on the screen.

Layouts can be saved and reopened on the PC where they were created, and they can be published to as many Harris Multiviewer devices as you want. After a layout is published to a device, you can re-open it in Layout Designer, modify it, and publish it again.

Creating a Layout

Use the Layout Creation Wizard to create custom layouts that you can save, and then publish to your Harris Multiviewer for display.

1. To access the **Layout Creation Wizard**, select **File** > **New** > **Layout Using Layout Creation Wizard**.

   The **Layout Creation Wizard** dialog box opens.

2. In the **Layout Name** field, enter a name for your new layout.

   The layout name is used to identify the layout on the **Properties** pane and when the layout is published to Harris Multiviewer hardware.

3. Click **Next**.

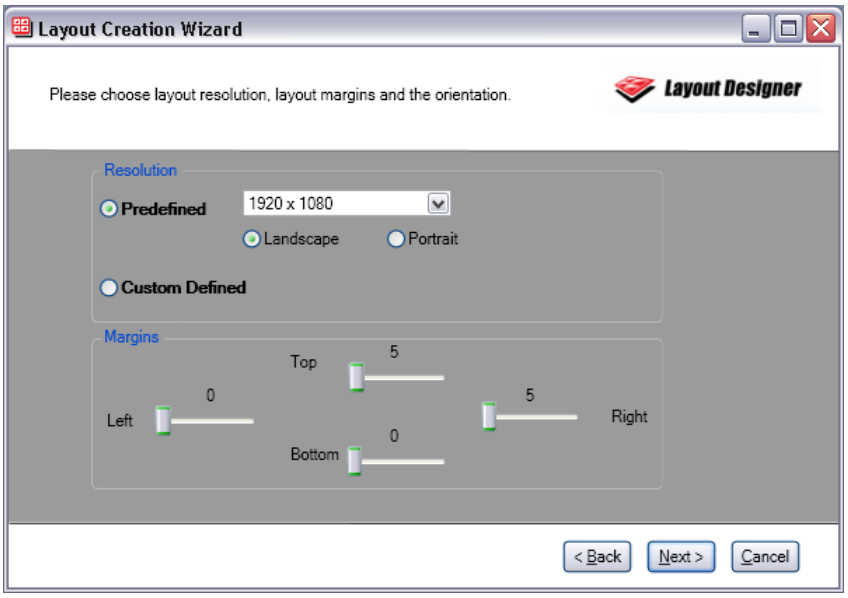

Figure 1-6. Layout Creation Wizard Dialog Box

4. Under **Resolution**, select **Predefined**, choose either **Landscape** or **Portrait**, and then elect an output display resolution that matches the native resolution of your output display device from the **Output Resolution** list.
5. Under **Margins**, enter the amount of the layout area you would like to have reserved, so that objects, including the background, cannot be placed there.
6. Click **Next**.

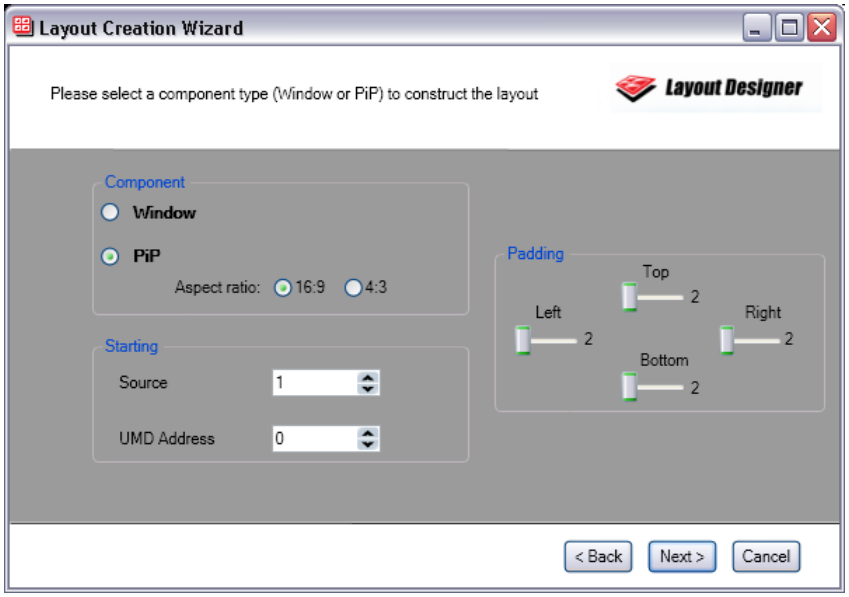

Figure 1-7. Wizard Page 3—Component Type

7. Under **Component**, select either **PiP** or **Window**, to choose the basic item that will fill your layout.
8. Beside **Source**, select a select a starting router source for your PiPs.

   The Source PiP property of the first PiP will be set to the value of Starting Source, and following PiPs will use the next router sources in sequential order.
9. Beside **UMD Address**, enter the first number as output by your UMD device when using layouts with a fixed UMD address.
10. Under **Padding**, choose the default distance between components in the layout.
11. Click **Next**.
12. On the **Please select a PiP/Window** dialog box, if you chose PiPs on the previous page of the wizard, click **Default PiP**. If you chose windows, select the window style you want to use for your new layout from the **Window Library**.
13. Click **Next**.
14. On the **Please select a layout style** dialog box, use the sliders to assign a number of rows and columns of PiPs or windows on your layout.
    - The slider to the left of the preview changes the number of rows of displays.
    - The slider below the preview to changes the number of columns.

    The number of possible rows and columns depends on the other elements of your configuration.

15. (Optional) Click **Display Layout Preview Image**.
16. Click **Next**.

    The final screen of the wizard displays a preview of your layout, if you chose **Display Layout Preview Image** on the previous screen.
17. To complete the layout and exit the **Layout Creation Wizard**, click **Finish**.

Before you make changes to the layout or publish your new layout, save it as a layout file on a local or network drive.

You can add layout objects (such as clocks and tally indicators, audio meters, and on-screen alarms) to your layout before publishing the layout to your Harris Multiviewer. You can also modify layout and layout object properties.

Saving a Layout

1. Select **File > Save As**.
2. Type a name for your new layout in the **Save As** dialog box, and then click **OK**.

Publishing a Layout

1. To publish a layout, click **Publish** from the Layout Designer application toolbar.

Onscreen Application Menus

Once you have published your layouts to the Harris Multiviewer output modules, Harris Multiviewer provides you with the ability to access on-screen menus.

To use on-screen menus, you have two options:

- Have a mouse connected to your Harris Multiviewer system.
- Activate the remote mouse control feature from Layout Designer by clicking **Enable Control** or **Alt-F7**. This disables the other features of Layout Designer until it is deactivated again.

Depending where you right-click, different options will appear. See your Layout Designer user manual.