Imagine COMMUNICATIONS™

User Guide

Neo Suiteview™

Layout Manager Software Application

Edition A

Publication Information

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Preface

About the Documentation

Target Audiences

The *NEO SuiteView Layout Manager User Guide* describes in nontechnical language how software administrators, station engineers, and operators can install and operate the software.

This user guide does not provide information about the Harris SuiteView Layout Manager.

Revision History

Table P-1. Revision History of Manual

Edition	Date	Comments
A	June 2006	This manual contains information previously found in the *NEO SuiteView Multi-Source Display Processor and NEO SuiteView Layout Manager Software Application Installation and Operation Manual, Edition C*. It is also includes documentation on feature additions to the NEO SuiteView Layout Manager application.

Obtaining User Manuals

The documentation for this product is included on the Installation CD and as an Adobe Acrobat PDF file. An PDF file of the user guide can also be downloaded from our website at www.broadcast.harris.com/leitch. This user guide is not available in print format.

Writing Conventions

This documentation adheres to the following writing conventions:

Table P-2. Conventions

Term or Convention	Description
Bold	Indicates dialog box, property sheet, field, button, check box, list box, combo box, menu, submenu, window, list, and selection names
Italics	Indicates email addresses, names of books and publications, and first instances of new terms and specialized words that need emphasis
CAPS	Indicates a specific key on the keyboard, such as ENTER, TAB, CTRL, ALT, DELETE
`Code`	Indicates variables or command-line entries, such as a DOS entry or something you type into a field
>	Indicates the direction of navigation through a hierarchy of menus and windows
hyperlink	Indicates a jump to another location in the document or elsewhere
Internet address	Indicates a jump to a Web site or URL
 **Note**	Indicates important information that helps to avoid and troubleshoot problems
[VersionNo.]	Placeholder for a software version number

:

Chapter 1

Introduction

Overview

The NEO SuiteView Layout Manager™ software is designed to configure and operate you NEO SuiteView system. Using this software, you can configure your NEO SuiteView system settings, including configuring input audio and video alarms, calibrating display monitoring, and creating and editing display layouts.

Each NEO SuiteView system has ten layout presets that you can recall for display using NEO SuiteView Layout Manager. You can edit these preset layouts by modifying individual Picture-in-Picture (PiP) layout settings to create custom display layouts. You can then upload the custom layouts to your NEO SuiteView system or save them to a local or network PC drive.

NEO SuiteView preset layouts can be recalled using a local or remote control panel; however, you cannot make edit or create custom presets using control panels.

Using a CCS software application (such as Navigator), you can launch NEO SuiteView Layout Manager and then use some of layout manager's features. For more information about using NEO SuiteView Layout Manager with CCS applications, see your *NEO SuiteView Hardware Operation and Installation Manual*.

When installed on a local or network PC, NEO SuiteView Layout Manager communicates directly with your NEO SuiteView system via an RS-232 serial communications port or via TCP/IP. If your NEO SuiteView system is part of a network, TCP/IP communication allows you to manage a network of NEO SuiteView systems.

NEO SuiteView Layout Manager is supported with Online Help.

The following topics are found in this chapter:

- "NEO SuiteView Layout Manager Features" on page 3
- "Installing NEO SuiteView Layout Manager" on page 4
- "Launching NEO SuiteView Layout Manager" on page 6
- "Connecting to NEO SuiteView Systems" on page 7
- "The NEO SuiteView Layout Manager Work Space" on page 11

NEO SuiteView Layout Manager Features

Using NEO SuiteView Layout Manager, you can perform the following:

- Create new layout/file configurations
- Read and edit all preset layouts/files that are stored on any locally- or network-connected NEO SuiteView system
- Save edited layouts/files to the NEO SuiteView system and to local or network PC drive
- Define which input PiP channels are visible on the output display
- Define the following properties for each PiP:
  - PiP position
  - PiP size
  - PiP cropping
  - PiP border margins and color
  - PiP labels (including position and color)
- Resize and position PiPs using a standard Windows drag-and-drop operation
- Resize and position PiPs with pixel accuracy using direct-entry Window coordinates
- Copy the properties of a PiP to any other PiP
- Overlap PiPs and assign priority
- Move and resize any group of PiPs
- User SVG graphics for PiP skins and backgrounds
- Configure on-screen alarms and bar meters for up to eight embedded audio, analog audio, and AES digital audio channels for each PiP
- Configure analog audio and AES digital audio monitor output
- Monitors all NEO SuiteView systems for audio and video alarm conditions

Installing NEO SuiteView Layout Manager

You can install NEO SuiteView Layout Manager on a PC running a Windows 2000 or Windows XP operating system. After NEO SuiteView Layout Manager is installed, it can be launched on any PC system that meets the recommend system requirements.

Review the following tips and recommendations before installing NEO SuiteView Layout Manager:

- Leitch recommends installing NEO SuiteView Layout Manager on a system that is configured with a Pentium III processor (or larger) that is running at 866 MHz or faster.
- For server installations, Leitch recommends creating a new installation on a fresh hard drive and applying the latest service pack for both the operating system and Internet Explorer 6.0.

  Internet Explorer is required on the server to display extended SVG graphics.
- If client and server applications are installed on one machine, you may need to increase the normal Windows memory requirement to at least 256 MB.
- The minimum installation required to test the server installation is one NEO SuiteView system connected to the server's COM 1 port. If a NEO SuiteView Layout Manager client can control the NEO SuiteView system, then the installation is successful.
- Leitch recommends a minimum output resolution of 1024 x 768.

Installing the Software

Before installing NEO SuiteView Layout Manager, ensure that you have a correct serial port or TCP/IP Ethernet connection between your PC and the NEO SuiteView system.

Note

The installed NEO 3901RES-E resource card must be version res3901-rel-2-9-b4 or later to enable the TCP/IP connection. For more information, see your *NEO SuiteView Hardware Operation and Installation Manual*.

The following default installation procedure applies to single PC client/server installations using serial connections:

To install the NEO SuiteView Layout Manager software, complete these steps:

1. Close all other applications running on the PC and insert the NEO SuiteView Layout Manager installation CD into the PC CD-ROM drive.

   The setup program automatically runs when the drive closes.

2. Follow the on-screen instructions to install the software to your system's hard drive.

Note

If the installation does not auto-run, find and double-click the SuiteViewInstall_*.exe file on the CD (where "*" is the version number).

Launching NEO SuiteView Layout Manager

You can run NEO SuiteView Layout Manager software from a client PC or from a CCS software application such as Navigator. See the sections below for more information.

Running Software from a Server PC

If you are running the software from a *server* PC, click **Start** from the Windows task bar, select **Programs**, and then navigate to the NEO SuiteView Layout Manager application. Alternatively, click the NEO SuiteView Layout Manager icon on the PC desktop to launch the application.The default operating mode upon startup is RS-232.

For installations using a TCP/IP connection, you need to configure the **Modify Devices** window within the NEO SuiteView Layout Manager software application. See "Connecting to NEO SuiteView Systems" on page 7 for more information

Running Software through a CCS Application

If you intend to launch NEO SuiteView Layout Manager from a CCS software application such as Navigator, you must first discover the NSV-OUT module, switch to **Control** mode, and then enable the specific NEO SuiteView specific interface. From the **Layout** page, you can click **Launch** to open NEO SuiteView Layout Manager application.

See the appropriate CCS User Manual or Online Help for more information on setting actions and launching/starting non-CCS applications. See also your *NEO SuiteView Hardware Installation and Operation Manual* for more information.

Connecting to NEO SuiteView Systems

Before you can use NEO SuiteView Layout Manager to create new layouts, modify existing layouts and transfer layouts to your NEO SuiteView system, you must configure your system so that it communicates with the NEO SuiteView Layout Manager software. This involves providing a device name for your NEO SuiteView System, defining it's connection type, and providing a valid TCP/IP address (for Ethernet connections). The following section describes the procedure.

You can use NEO SuiteView Layout Manager to set up NEO SuiteView systems and match the COM ports used in connecting systems to the server.

Note

When using the NEO SuiteView Layout Manager, a NEO SuiteView system is referred to as a **Device** and not **System**.

1. Run the NEO SuiteView Manager software (see "Launching NEO SuiteView Layout Manager" on page 6).
2. Select **File > Modify Devices**.

   When you acknowledge the device disconnect message, the **Modify Devices** dialog box opens.

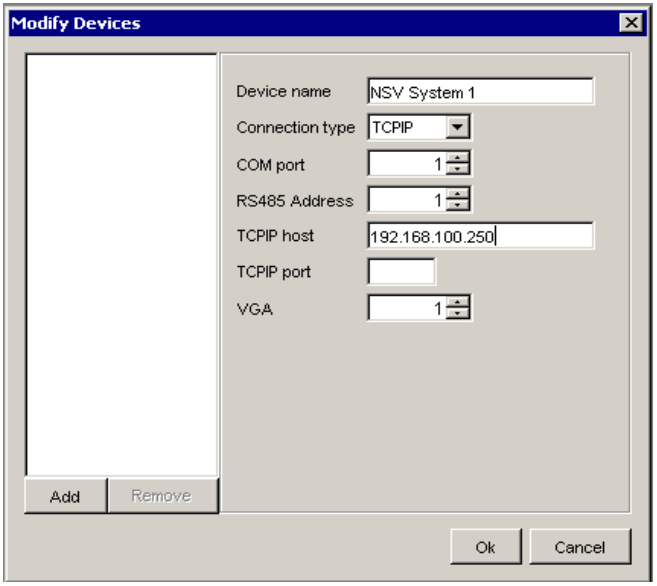

Figure 1-1. Modify Devices Dialog Box

3. To set up a new NEO SuiteView system, click **Add**, and then enter a device name for the system in the text box.

   The device name identifies the system in the NEO SuiteView Layout Manager application and is analogous to a computer network name.

4. Select a connection type from the **Connection Type** list.

5. If your connection type is **RS232** or **RS485**, select or enter the COM port used to serially connect your NEO SuiteView system to the network.

   RS485 connections also require you to enter the RS485 address in the corresponding box.

6. If your connection type is **TCP/IP**, you will need to enter the IP address of your device's RES3901-E resource card in the **TCPIP Host** box. The TCP/IP host address and the PC IP address should be on the same PC subnet.

   You must also enter the TCP/IP port number in the **TCPIP Port** box. Port numbers are always "`5000 + x`", where x is the slot number of the NSV-OUT module. (For example, type `5004` if the NSV-OUT module is installed in slot 4.)

Note

Your installed RES3901-E resource card must be version res3901-rel-2-9-b4 or later to enable the TCP/IP connection. See "Ensuring the Use of Compatible CCS Application Version" on page 6 for more information.

7. If you want to use SVG (background) graphics with your layouts, you must enter the VGA port used to connect your PC to the NEO SuiteView system.

8. Click **OK**.

9. To connect your NEO SuiteView system to the NEO SuiteView Layout Manager software, do one of the following:

   - On the left side of the NEO SuiteView Layout Manager window, double-click the **Device** icon that represents your newly added NEO SuiteView system.

   OR

- Select **File > Connect** or click **Connect** on the toolbar.

When the connection is successfully established, available NEO SuiteView preset layouts will appear in the Explorer-style Device and Preset pane (left), and The connection status at the bottom of the SuiteView Layout Manager dialog box will read **OK**.

10. To be sure that your NEO SuiteView System is connected and properly working, select different presets from Device and Preset pane.

    If you receive a connection error message when NEO SuiteView Layout Manager attempts to connect to your NEO SuiteView system, see the next section.

Note

For TCP/IP connections, ensure that the IP address has been entered correctly in the **Modify Devices** dialog box (see "Connecting to NEO SuiteView Systems" on page 7), that the NEO SuiteView system is turned on, and that all cables are properly connected.

Resolving a Connection Error

If NEO SuiteView Layout Manager was unable to connect with your NEO SuiteView system, you will receive the following error message:

Attempt to resolve the connection error by checking that your serial or TCP/IP connection is correct. To do this following these instructions.

- For serial connections, ensure that RS-422 null modem cable is connected to the COM 1 port at the NEO SuiteView side for proper communication.
- For TCP/IP connections, use the "ping" command in a DOS window to make sure the connection is successful:
  a. Open a DOS window (Command Prompt icon in your Windows **Start** menu).
  b. Type `ping xx.xx.xx.xx`, where "`xx`" is the IP address of your NEO frame.

c. Press `Enter`.

A DOS message will appear indicating if the connection is successful or if it has failed.

Go back to step **9** of the previous section to retry establishing a connection. See "Connecting to NEO SuiteView Systems" on page 7 for details.

The NEO SuiteView Layout Manager Work Space

When you have successfully connected to your NEO SuiteView system using NEO SuiteView Layout Manager (as described “Connecting to NEO SuiteView Systems” on page 7, the Layout Manager main window opens. Figure 1-2 illustrates the default view (Manager view) of the NEO SuiteView Layout Manager work space. For information about the NEO SuiteView Layout Manager Wall view, see “Using the Layout Wall View” on page 78.

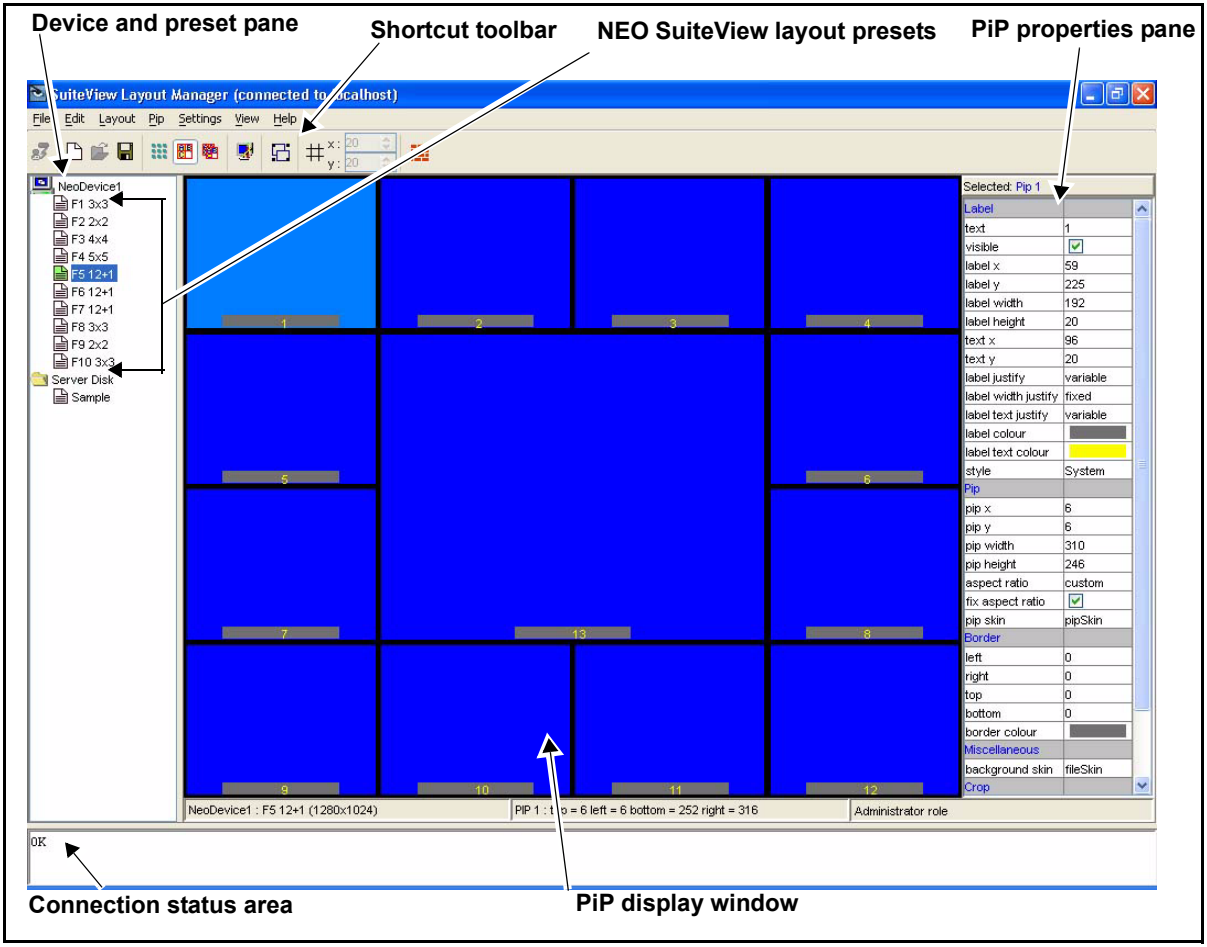

Figure 1-2. NEO SuiteView Layout Manager Main Window

Each NEO SuiteView Layout Manager work space element is described below:

- **Device and Preset pane** Displays the name of the NEO SuiteView systems that are currently connected to NEO SuiteView Layout Manager. The default display layout presets and any customized display layouts are also listed in this pane.
- **Shortcut toolbar** Provides quick access to commonly used NEO SuiteView Layout Manager functions and options. See "NEO SuiteView Layout Manager Toolbar Shortcuts" on page 17 for toolbar shortcuts names and descriptions.
- **NEO SuiteView layout presets** Provides 10 layout presets that can be used for your multiviewer display layout. For more information, see "Working With NEO SuiteView Display Layouts" on page 55.
- **PiP Properties pane** Displays a list of all the modifiable PiP properties. For information, see "PiP Properties" on page 58.
- **Connection status area** Displays the current connection status of the NEO SuiteView systems that are connected to the NEO SuiteView Layout Manager software.
- **PiP display window** Displays the currently selected display layout. Use this window to view layouts, modifications to layouts, and modifications to PiP Properties. For more information, see "Working With NEO SuiteView Display Layouts" on page 55.

NEO SuiteView Layout Manager Menus and Toolbar Shortcuts

The following sections describe the NEO SuiteView Layout Manager menus, and toolbar shortcuts. In some cases, the menus duplicate functions accessible via the toolbar shortcuts (see "NEO SuiteView Layout Manager Toolbar Shortcuts" on page 17). Some advanced configuration options are only available via the menus.

Note the following menu information:

- Shortcut keystrokes are listed in the selected menu drop-down lists.
- Commands that are not relevant to the selected mode are unavailable.
- Context menus can be accessed by right-clicking items in the Device and Preset pane or in the PiP display window.

The following tables describe each NEO SuiteView Layout Manager menu item and its options:

- Table. 1-1. “File Menu Items and Options” on 13
- Table. 1-2. “Edit Menu Items and Options” on 14
- Table. 1-3. “Layout Menu Items and Options” on 15
- Table. 1-4. “PiP Menu Items and Options” on 15
- Table. 1-5. “Settings Menu Items and Options” on 16
- Table. 1-6. “View Menu Items and Options” on 17

Table 1-1. File Menu Items and Options

Menu Item	Description
Connect	Establishes a connection with the Layout Manager software (your PC) and a selected NEO SuiteView system. See“Connecting to NEO SuiteView Systems” on page 7.
Disconnect	Disconnects Layout Manager software (your PC) from a selected NEO SuiteView system
Modify Device	Opens the **Modify Devices** dialog box from which you can add, remove, and name new NEO SuiteView systems. See “Connecting to NEO SuiteView Systems” on page 7.
Refresh Devices List	Refreshes the selected device list in the Device and Preset pane
Display Active File	Sends the layout that is currently open in the Layout Manager to the output display device
Create File on Server Disk	Opens the **Create File** dialog box from which you can add a new layout file to the **Server Disk** (local or network drives). See “Creating New Display Layouts” on page 72.
Refresh Server Files	Refreshes the list of layout files on the local or network drive.
Delete Server File	Deletes the currently selected layout file from the local or network drive
Open	Opens a layout file that is stored on the local or network drive
Close	Closes the currently open layout file

Table 1-1. File Menu Items and Options*(Continued)*

Menu Item	Description
Save	Saves the current layout file to the **Server Disk** (local or network drive).
Save To	Opens the **Save To** dialog box from which you can save a layout file to a NEO SuiteView device list, or to a local or network drive
Rename	Renames an opened layout file that is in devices list or **Server Disk**
Revert	Reverts to the last saved version of an opened layout file on either the devices list or the server disk (local or network drive); unsaved layout changes will be lost
Auto Save	Enables periodic, automatic saving of the current open layout file
Import Layout Files	Opens the **Import Files** dialog box from which you import layout files from a designated local or network drive location
Export Layout Files	Opens the **Export Files** dialog box from which you can export multiple layout files to a designated local or network drive location
Exit	Closes the NEO SuiteView Layout Manager application

Table 1-2. Edit Menu Items and Options

Menu Item	Description
Undo	Removes the last edit operation to the currently open layout. Multiple levels of the undo command are supported.
Redo	Re-instates the last edit operation to the currently open layout when the **Undo** command has been used

Table 1-3. Layout Menu Items and Options

Menu Item	Description
Refresh Display	Refreshes the display of the currently open layout on your PC. It does not affect the output device display.

Table 1-4. PiP Menu Items and Options

Function	Description
Add/Remove PiP	Opens the **Add/Remove PiPs** dialog box from which you can add or removes PiPs from the selected layout. See "Adding and Removing PiPs From a Layout" on page 73.
Create 2×2 Layout Create 3×3 Layout Create 4×4 Layout Create 5×5 Layout	Applies a quick-format preset layout template to the currently open layout See "Quick-Formatting a Display Layout" on page 76.
Toggle PiP Properties	Toggles the **PiP Properties** pane (right side) in which you can modify individual PiP properties. See "PiP Properties" on page 58.
Copy PiP Properties	Opens the **Copy PiP Properties** dialog box from which you can copy properties from a selected PiP to other PiPs in a layout. See "Copying PiP Properties To Other PiPs" on page 68.
Show Preview PiP	Enables the PiP preview feature. See "Using the PiP Preview" on page 75.
Toggle PiP Grouping	Toggles the PiP grouping feature on and off. See "Grouping PiPs" on page 77.
Audio Follow Selected PiP	Enables audio level monitoring capabilities for the selected PiP.

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Table 1-5. Settings Menu Items and Options

Function	Description
Display	Opens the **Display** dialog box from which you can configure your output display settings. See "Configuring Your Output Display Properties" on page 23.
Inputs	Opens the **Input Channel Properties** dialog box where you can view and modify your input video settings. See "Configuring Your Input Channel Properties" on page 26.
Audio	Opens the following dialog boxes: • **Configuration** Provides access to settings used to configure audio bar meters. See"Setting Up Your Audio Configuration" on page 28. • **Channel Mapping** Provides access to audio mapping settings. See "Mapping Audio to PiPs" on page 33.
Alarms	Opens the following dialog boxes: • **Audio Alarm Thresholds** Provides access to slider controls used to set audio alarm threshold values. See "Audio Alarms" on page 35. • **Video Alarm Thresholds** Provides access to slider controls used to set video alarm threshold values. See "Video Alarms" on page 38.
UMD	Opens a dialog box which you can use to enter the UMD license information and configure UMD support. See "Setting Up UMD Support" on page 45.
Advanced	Opens the **Advanced** dialog box from which you can view NEO SuiteView System information such as the unit serial number and the card types installed in the system. See "Viewing Your System Configuration Information" on page 49.

Table 1-5. Settings Menu Items and Options*(Continued)*

Function	Description
Clock Setup	Opens the **Clock Setup** dialog box from which you can configure the NEO SuiteView clock display. See "Configuring the NEO SuiteView Clock Display" on page 47.
Turn Off Clock	Turns the NEO SuiteView clock display off.

Table 1-6. View Menu Items and Options

Function	Description
Toggle Grid	Superimposes a grid in the PiP Display window to help align and resize PiPs accurately. See "Using the Layout Grid" on page 77.
Toggle Wall View	Displays the layouts of all NEO SuiteView systems currently connected to the NEO SuiteView Layout Manager. See "Using the Layout Wall View" on page 78
Toggle Extended Graphics	Toggles the Extended Graphics mode on and off. See "Configuring Your Output Display Properties" on page 23.

NEO SuiteView Layout Manager Toolbar Shortcuts

You can use the NEO SuiteView Layout Manager toolbar shortcuts to access frequently used functions. For information about each toolbar options, see "NEO SuiteView Layout Manager Menus and Toolbar Shortcuts" on page 12.

Figure 1-3 illustrates the NEO SuiteView Layout Manager shortcut toolbar. Figure illustrates the shortcut button in the Wall view.

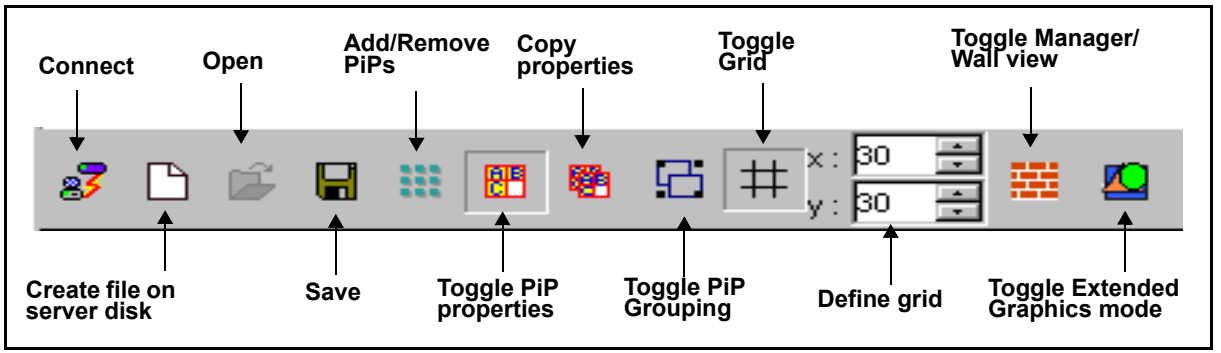


Figure 1-3. NEO SuiteView Layout Manager Toolbar Shortcuts

Chapter 2

NEO SuiteView Configuration

Using NEO SuiteView Layout Manager

This section describes how use NEO SuiteView Layout Manager to configure your system, and to select and modify layouts for display. It also describes how to modify PiP properties, add audio bar meters to your layouts and configure audio and video alarms. The remaining sections of this chapter are divided into the following main topics: NEO SuiteView system configuration and working with NEO SuiteView display layouts.

Sections on system configuration include:

- "NEO SuiteView System Configuration Overview" on page 21
- "Configuring Your Output Display Properties" on page 23
- "Configuring Your Input Channel Properties" on page 26
- "Configuring Audio" on page 28
- "Configuring Audio and Video Alarms" on page 35
- "Setting Up UMD Support" on page 45
- "Configuring the NEO SuiteView Clock Display" on page 47
- "Viewing Your System Configuration Information" on page 49
- "Calibrating Display Devices" on page 51

You can configure your NEO SuiteView system using a Leitch CCS software application such as CCS Pilot or Navigator. For information about using your NEO SuiteView Layout Manager with CCS software, see your *NEO SuiteView Hardware Installation and Operation Manual* or you CCS software user guide.

NEO SuiteView Video Inputs, Layouts, and PiPs

Before you begin configuring your NEO SuiteView system, it is important to understand the relationship between your NEO SuiteView hardware and NEO SuiteView layouts.

In a NEO frame, NEO SuiteView video inputs are numbered starting with the first input module installed in the frame and then continues sequentially. NEO SuiteView assigns each PiPs to one of these video inputs. Therefore, when PiPs are displayed in a layout, they are numbered as PiP1 through to PiP 44, which correspond to video input 1 through to 44. For example, PiP1 always displays video input 1. This assignment of PiP to video inputs cannot be modified.

The number of video inputs available depends on the NEO SuiteView hardware you have installed in your system. The number of PiPs that you can display in a layout is directly related to the number of video inputs you have in you NEO SuiteView system. If you have a total of 12 video inputs (3 input modules with 4 inputs each) the maximum number of PiPs that you can display in your layout is 16. If you choose a preset layout that displays more PiPs then you have inputs, the extra PiPs display blue video and a “No Card” message.

The inputs that you use for a display must all come from a single SuiteView system. For example, if you have two separate NEO SuiteView systems connected to your NEO SuiteView Layout Manager software, you cannot choose to use video inputs from both systems in the same layout.

This information should be kept in mind when configuring your NEO SuiteView system.

NEO SuiteView System Configuration Overview

The easiest way to configure your NEO SuiteView system, is to select a preset layout display. After you've completed the configuration, you can choose to use the select preset layout, modify or select another preset layout.

Starting a NEO SuiteView Configuration

NEO SuiteView has 10 default preset layouts (templates) that you can choose for your display when configuring your system. The preset layout's PiP properties are set to factory default settings, but they can be modified at any time.

You can also create new display layouts (see "Creating New Display Layouts" on page 72 for more information). The layout that you use to configure your system can be modified or substituted for another layout at any time. However, you cannot save a layout (using the **Save** or **Save To** options) while is it being used as current display layout.

To start your NEO SuiteView system configuration, from the **Device and Preset** pane, select a preset display layout from the list.

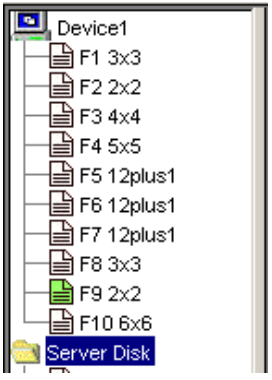


Figure 2-1. Selecting a Preset Layout

After the NEO SuiteView Layout Manager main window opens displaying the selected preset layout, you can complete the following configuration tasks:

sections on system configuration include:

- "NEO SuiteView System Configuration Overview" on page 21

- “Configuring Your Output Display Properties” on page 23
- “Configuring Your Input Channel Properties” on page 26
- “Configuring Audio” on page 28
- “Configuring Audio and Video Alarms” on page 35
- “Setting Up UMD Support” on page 45
- “Configuring the NEO SuiteView Clock Display” on page 47
- “Viewing Your System Configuration Information” on page 49

“Calibrating Display Devices” on page 51

Configuring Your Output Display Properties

You can configure your output display properties, such as selecting an output resolution and background color for your output display. Setting your output display properties also involves the option of setting up NEO SuiteView to operate with external graphics enabled. This is also known as configuring your system for Background Graphics mode (using external graphics).

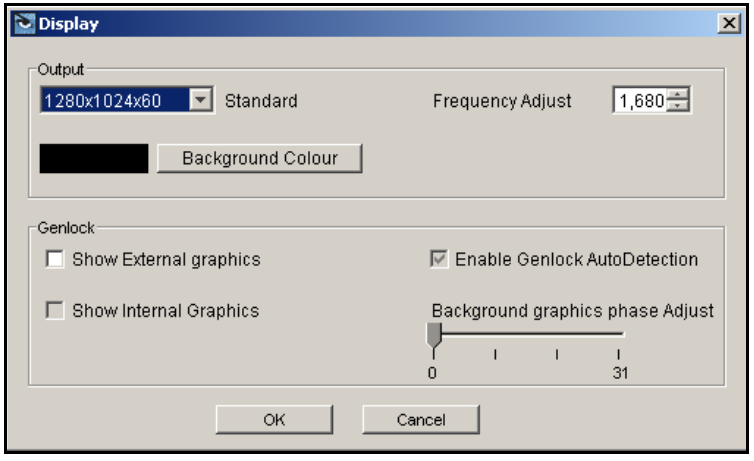
By default, the display processor is responsible for all output timing and basic labels, borders, and audio meters. When using external graphic (Background Graphics mode), you can optionally connect an external graphic input to provide a background image underneath the other source windows. The background input allows a wide variety of externally generated backgrounds, including labels, textured borders (skins), logos, and animations, to be included in the multi-window display.

See Step **7** on page 24 for instructions on how to configure your NEO SuiteView system to use internal graphics (Standalone mode) or external graphics (Background Graphics mode).

To set your output display properties, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Display**.

   The **Display** dialog box opens.



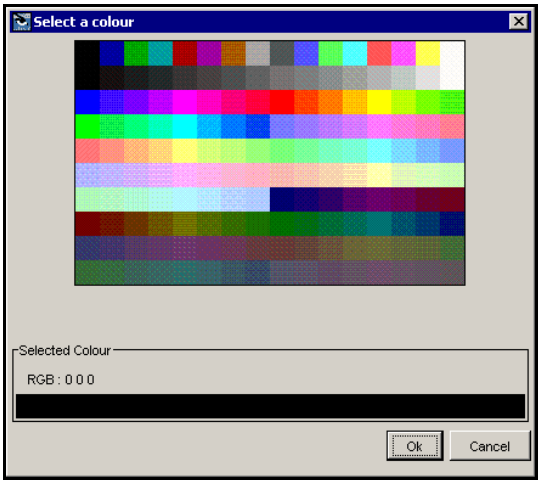
2. Under **Output**, select a video output resolution video from the **Standard** list. Output resolutions are expressed as height×width×frequency.

   When choosing an output resolution for a high-quality output, select an output display resolution that matches the native resolution of the output display device.

3. Under **Frequency Adjust**, adjust the frequency of your output display device.

4. Click **Background Color** to select a color for the background of your output display.

   The **Select a Color** dialog box opens.



5. Double-click a color from the palette, and then click **OK**.

6. Under **Genlock**, select **Show External Graphics** if you want to enable the External Graphics option (Background Graphics mode).

   When using the external graphics option, system timing and resolution are forced to match the externally applied graphic input. Typically, this means that resolutions from 1024 × 768 up to UXGA (1600×1200) will be used as the output display resolution.

7. If you selected the **Show External Graphics** option, you can also make the following selections:

   - **Show Internal Graphics** Select this option if you want to show NEO SuiteView generated graphics, such as labels and boarders.

- **Enable Genlock AutoDetection** Select this option if you want NEO SuiteView to automatically detect and use the resolution of a genlock input. Leitch recommends leaving this feature enabled unless the system is attempting to genlock to an unsupported resolution.
- **Background Graphics Phase Adjust** Use the slider to adjust the phase of the external background graphics.

8. Click **OK** to save your output display properties.

Before you use your NEO SuiteView system in the broadcast environment, it is recommended that you calibrate your output display device. For information about calibrating your output display device, see “Calibrating Display Devices” on page 51.

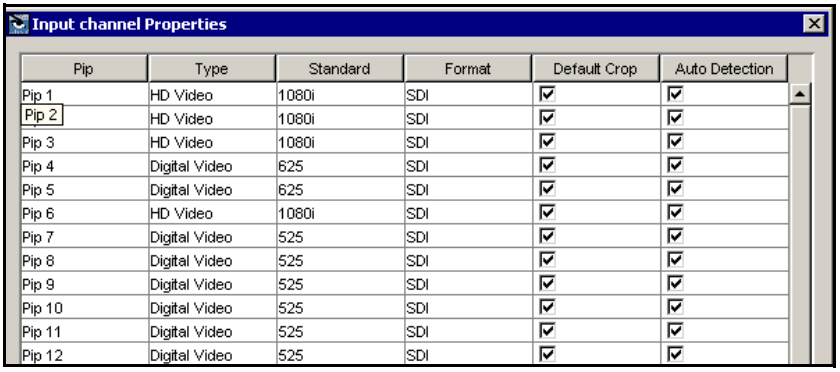
Configuring Your Input Channel Properties

By default, NEO SuiteView detects the type, standard, and format of each input video channel. However, you can access the input channel properties and manually change these settings. Since PiPs are directly associated with a video channel, the input channel properties apply to each corresponding PiP. In the **Input Channel Properties** dialog box, each video channel is represented by a PiP number.

To change the input channel properties, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Inputs**.

   The **Input Channel Properties** dialog box opens.



Note

When you click under **Type**, **Standard**, and **Format**, a drop-down list appears from which you can select options.

2. Under **Auto Detection**, select this option if you want NEO SuiteView to detect the Type, Standard, and Format of an input video channel.

   By default, the **Auto Detection** option is enabled. If you want to manually set the Type, Standard, and Format for a PiP, you must clear this option.

3. To change the type of video for a PiP (video channel), under **Type**, click beside the PiP you want to change, and then select a video type from the list.

4. To change the video standard for a PiP (video channel), under **Standard**, click beside the PiP you want to change, and then select a video standard from the list.

   The options available from the **Standard** list depend on the video type of the selected PiP (input channel). For example, if a PiP's type is **HD Video**, then **1080i** and **720p** are the only options available from the **Standard** list.

5. To change the video format for a PiP (video channel), under **Format**, click beside the PiP you want to change, and then select a video format from the list.

   The options available from the **Format** list depend on the video standard of the selected PiP (input channel). For example, if a PiP's standard is **1080i**, then **SDI** is the only option available from the **Format** list

6. Under **Default Crop**, select this option to prevent crop settings from being made in the **PiP Properties** pane for the selected PiP.

   By default, the Default Crop option is enabled. If you want to apply crop settings to a PiP (video input) using the **PiP Properties** pane, you must clear this option.

   For information about the **PiP Properties** pane, see "A typical plasma display will have both sampling frequency and phase adjustments accessible from a menu on the display device itself. In general it is recommended to adjust the display device's sampling frequency to remove any vertical banding patterns. Only then should the display device's sampling phase be adjusted so that each individual pixel of the checkerboard is visible." on page 54.

7. Click **OK** to save your input channel properties.

Configuring Audio

If you are using embedded audio or have an NVS-AUD16-FM or AES16-FM installed or connected to your NEO SuiteView system, you can associate up to eight individual audio channels (or four channel pairs) to each PiP for monitoring purposes. Audio alarm and bar meters for each of these assigned channels is overlayed on the left and right sides of a PiP. A typical arrangement will have two groups of four bar meters on each side, although you can choose any number of channels to monitor (to a maximum of eight). You can configure how the audio bar meters appear in the PiP, and choose in which PiPs you want to place audio bar meters.

Note

If you are using embedded audio, you must enable your embedded audio license before configuring the audio. For information about enabling your embedded audio license, see "Enabling Embedded Audio Support" on page 50.

The following sections describe how to use the **Audio Configuration** and **Channel Mapping** dialog boxes, to configure your NEO SuiteView system to display audio bar meter and audio alarms within a selected layout.

Setting Up Your Audio Configuration

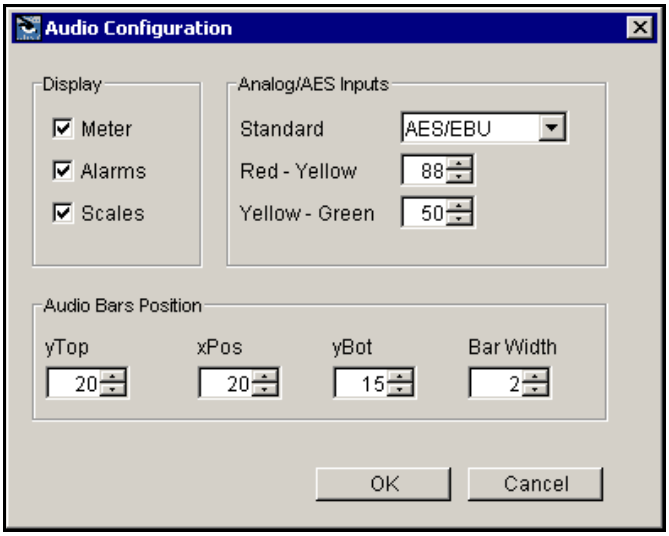
Using the **Audio Configuration** dialog box, you can define the layout properties for the audio bar meters. Settings that are configured using the **Audio Configuration** dialog box are globally applied to each PiP in the layout. You can then choose to enable or disable audio metering for individual PiPs using the **Audio Mapping** dialog box (See "Mapping Audio to PiPs" on page 33 for information).

Note

You must either be using embedded audio, or have an NVS-AUD16-FM installed or connected to your NEO SuiteView system to configure audio bar meters.

To access the **Audio Configuration** dialog box, from the NEO SuiteView Layout Manager main menu, select **Settings > Audio > Configuration**.

The **Audio Configuration** dialog box is displayed:



Selecting Audio Display Options

Under **Display**, you can choose the audio metering display options that you want to use for the layout. To select your audio display options, from the **Audio Configuration** dialog box, make the selections:

- **Meter** Select this option to display audio bar meters for each audio channel you associate with a PiP
- **Alarms** Select this option to globally enable on-screen audio alarms within associated PiPs
- **Scale** Select this option to display graduated numeric scales along with the audio bar meters

Selecting Audio Metering Options

Under **Analog/AES Inputs,** you choose the type of audio bar meters you want to use in your PiPs and configure the color orientation of the audio meter scales. There are six bar/scale types that you assign to your input audio channels: BBC, DIN, VU, VU-EXT, NORDIC and AES/EBU.

Note

If you are using an SDI embedded audio source, only AES/EBU bar meters are available.

Figure 2-2 illustrates the appearance of each available audio bar meter type.

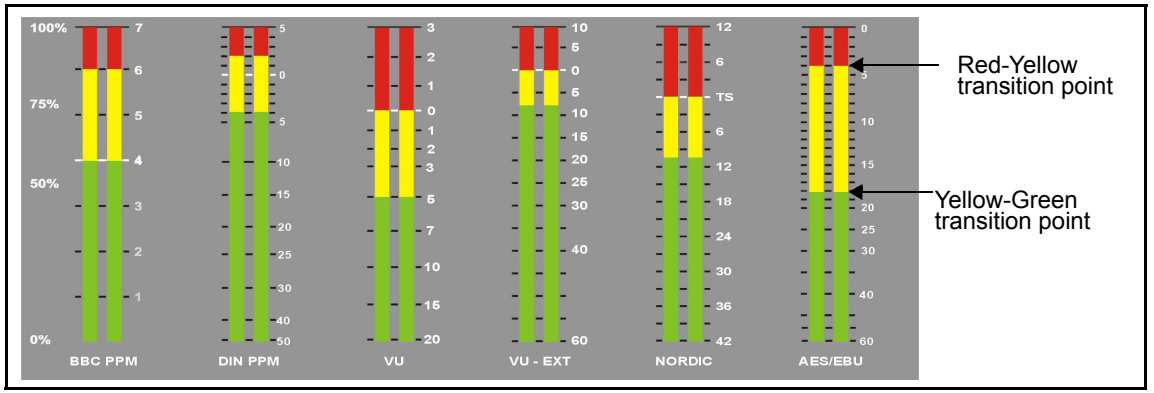


Figure 2-2. Available Audio Bar Meters

Each audio bar meter type has default red-yellow and yellow-green transition points. These transitions points can be modified to suite your audio sources. For example, you can customize the transition point, in percentage of the overall meter height, of where the yellow portion of the meter turns to red (see steps **2** and **3** below for more information).

Each audio bar meter types has its own properties, such as scale and dynamic range. Table 2-1 lists important specifications about each type of audio bar meter.

Table 2-1. Audio Bar Meter Dynamic Range and Ballistics

Scale	Dynamic Range	Attack Time	Decay Time
BBC	24 dB +12 dB to -12 dB	10 msec per 80%	2.8 sec per 24 dB decay
DIN	55 dB +5 dB to -50 dB	10 msec per 90%	1.5 sec per 20 dB decay
VU	23 dB +3 dB to -20 dB	300 msec per 99%	300 msec/1%

Table 2-1. Audio Bar Meter Dynamic Range and

VU-EXT	80 dB +10 dB to -70 dB	300 msec per 99%	300 msec per 1%
NORDIC	54 dB +12 dB to -42 dB	10 msec	1.7 sec per 20 dB decay
AES/ EBU	60 dB 0 to -60 dB	One sample	1.5 sec per 20 dB decay

To set your audio configuration settings, follow these steps:

1. Beside **Standard**, select the audio metering type that you want to use from the list.

   See Figure 2-2 and Table 2-1 for information about available audio bar types.

2. Beside **Red-Yellow**, use the controls to set the transition point, in percentage of the overall meter height, where the yellow portion of the meter turns to red. Typically, the red-yellow transition corresponds with 0 dB on analog audio scales.
3. Beside **Yellow-Green**, use the controls to set the transition point, in percentage of the overall meter height, where the green portion of the meter turns to yellow.
4. Click **OK** to save your settings or continue to the next section.

Setting Audio Bar Position and Width

Under **Audio Bars Position**, you can specify where the audio bar meters are positioned within PiPs. You can also specify the width of the audio meter color bar.

There are four control settings, **yTop**, **XPos**, **yBot**, and **Bar Width** that you can use to specify the position and width of the audio bars within the PiP. These settings are global for all the PiPs in the layout in which you want audio bar meters to appear. Figure 2-3 illustrates each of the audio bar position settings that you can configure.

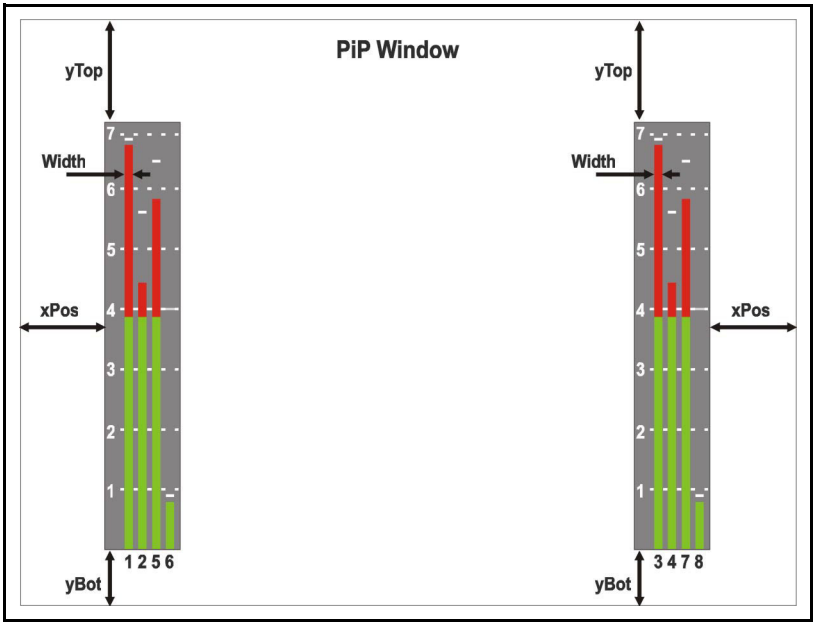


Figure 2-3. Audio Bar Positioning

To set your audio bar positions and width, under, **Audio Bars Position**, use the controls to specify the position and width of the audio bars in your PiPs.

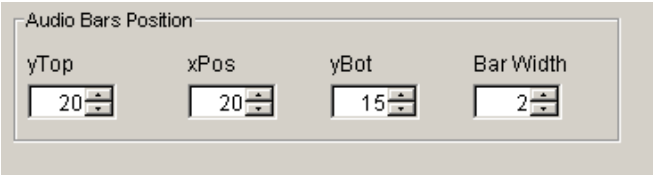


Figure 2-4. Audio Bar Position Control Settings

Click **OK** to apply your audio configuration settings.

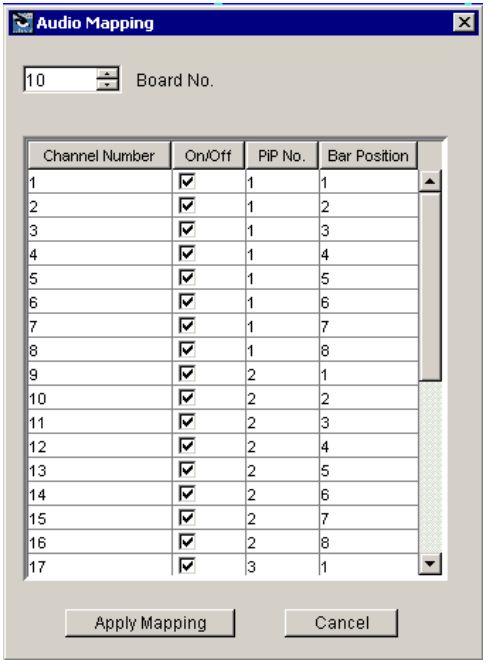
Mapping Audio to PiPs

Using the **Audio Mapping** dialog box, you can select which audio channels you want to monitor, and select in which PiP you want audio bar meters to appear.

To map your audio channels to PiPs follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Audio > Channel Mapping**.

   The **Audio Mapping** dialog box is displayed:



2. Beside **Board No**., select the NSV-AUD16-FM module that you want to map.

   For embedded audio, select **0**.

3. Each audio channel associated to the selected Board No is assigned a channel number. To configure audio mapping settings for each audio channel (**Channel Number**), make the following selections:

   a. Under **PiP No** select the PiP that you associate with the **Channel Number** (audio channel).

      You can select a maximum of eight audio channels for each PiP.

b. Under **Bar Position**, select the audio bar that you want to assign to the **Channel Number** (audio channel).

   See Figure 2-4 on page 32 for an illustration of audio bar position.

c. To enable or disable audio metering for a **Channel Number** (audio channel), under **On/Off,** select (enable) or clear (disable) the check box.

Configuring Audio and Video Alarms

You can configure NEO SuiteView Layout Manager to display audio and video alarms on each PiP in a layout. When you configure alarms, you can globally specify threshold values that trigger an alarm condition which is then displayed in a layout PiP. Figure 2-5 illustrates a PiP with audio and video alarms displayed.

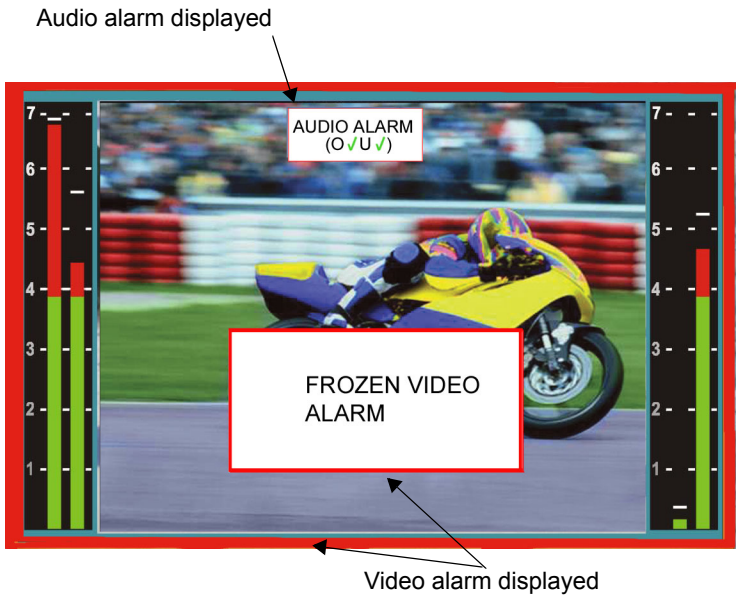


Figure 2-5. Audio and Video Alarms

Audio Alarms

There are two audio alarms that you can enable for each PiP: Audio Overlevel and Audio Underlevel. Details about each alarm is described below:

- **Audio Overlevel Alarm** Indicates that the input audio level of the audio channel is above the set upper threshold dB values; in the alarm display an overlevel alarm is represented by an "**O**"
- **Audio Underlevel Alarm** Indicates that the input audio level of the audio channel is below the set lower threshold dB values for more than the user-defined maximum time; in the alarm display an underlevel alarm is represented by an "**U**"

For information about setting threshold values for overlevel and underlevel audio alarms, see "Setting Audio Alarms Threshold Values" on page 37.

Figure 2-6 describes the audio alarm display.

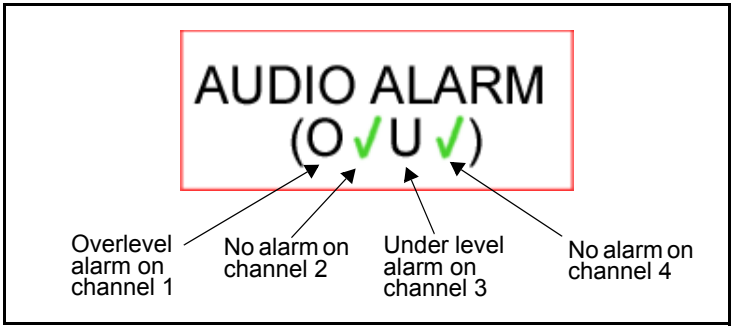


Figure 2-6. Audio Alarm Display Description

Enabling Audio Alarms

Audio alarms are enabled and disabled in the NEO SuiteView Layout Manager **PiP Properties** pane. You can choose to enable alarms for individual PiPs or for all the PiPs in a layout.

To enable audio alarms, follow these steps:

1. To access the **PiP Properties** pane, select **PiP** > **Toggle PiP Properties** from the NEO SuiteView Layout Manager main menu.

   OR

   Click the **Toggle PiP Properties** icon from the NEO SuiteView Layout Manager toolbar.
2. From the **PiP Properties** pane, click the **Alarm Settings** tab.
3. In the PiP display window, select the PiP for which you want to enable audio alarms.

4. On the **Alarm Settings** tab, under **Audio**, select the audio alarms you want to enable.

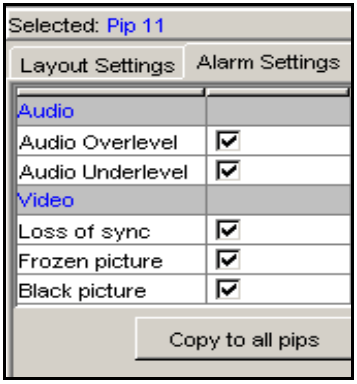


Figure 2-7. Selecting Audio Alarms

5. To enable the selected audio alarms on all the PiPs in the layout, click **Copy to all pips**.

For information about setting threshold values for the enabled audio alarms, see the next section.

Setting Audio Alarms Threshold Values

Using the **Audio Alarm Thresholds** dialog box, you can set the global threshold values for the Audio Overlevel, Audio Underlevel, and Audio Underlevel Delay. When one of the current input audio levels (in dB) is equal to or greater than the overlevel threshold values (in dB), the Audio Overlevel alarm is triggered. When one of the current input audio levels (in dB) is less than or equal to the underlevel threshold value (in dB) for a period of time that exceeds the user-defined underlevel delay, the Audio Underlevel is triggered.

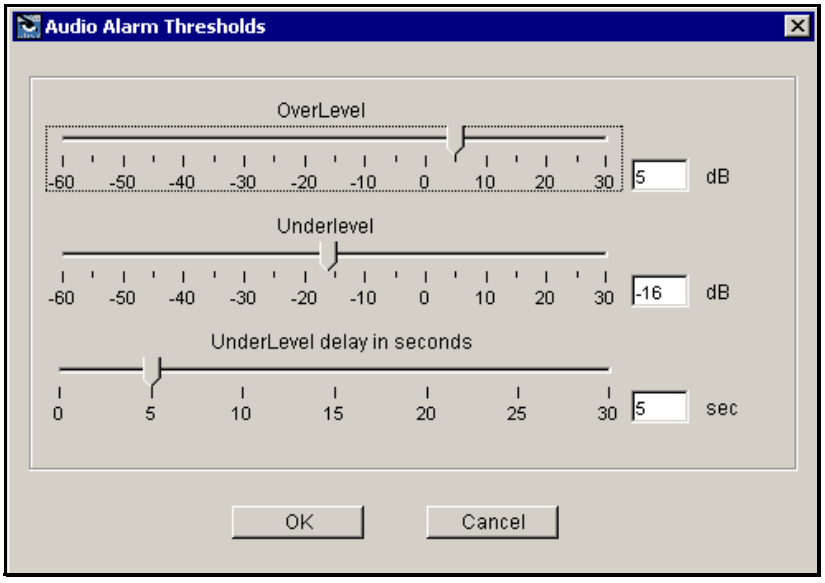
Note

The audio alarm threshold values apply to all input audio channels. You cannot specify threshold values for individual audio channels. Audio alarms must be enabled in the **Audio Configuration** dialog box and **Alarm Settings** tab of the PiP Properties pane and before they appear in individual PiPs. For more information, see “Setting Up Your Audio Configuration” on page 28 and “Enabling Audio Alarms” on page 36.

To set your audio alarm threshold values, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Alarms > Audio**.

   The **Audio Alarm Thresholds** dialog box opens:



2. Under **Overlevel**, use the slider (or enter a value) to set the audio overlevel threshold value.
3. Under **Underlevel**, use the slider (or enter a value) to set the audio underlevel threshold value.
4. Under **Underlevel delay in seconds**, use the slider (or enter a value) to set the maximum time (in seconds) an audio input level can be at the underlevel threshold value.
5. Click **OK** to save your settings.

Video Alarms

There are three video alarms that you can enable for each PiP: loss of sync, frozen picture, and black picture. When an input video signal triggers an alarm, an alarm message is displayed in the associated PiP (see Figure 2-5 on page 35).

Details about each alarm are described below:

- **Loss of sync alarm** Indicates that NEO SuiteView can no longer detect a video signal from the video channel.
- **Frozen picture alarm** Indicates that the input video image is frozen (static) according to user-defined frozen picture delay and a frozen picture error threshold values. When the alarm is triggered, a **Frozen Picture** message is displayed in a PiP.
- **Black picture** Indicates that the input video image is considered a black picture according to user-defined percentage non black picture and black level threshold values. When the alarm is triggered, a **Black Picture** message in a PiP.

For information about setting video alarm threshold values, see "Setting Video Alarm Threshold Values" on page 40. To enable video alarms, see the next section.

Enabling Video Alarms

Video alarms are enabled in the NEO SuiteView Layout Manager **PiP Properties** pane. You can choose to enable alarms for individual PiPs or for all PiPs in a layout.

To enable video alarms, follow these steps:

1. To access the **PiP Properties** pane, select **PiP** > **Toggle PiP Properties** from the NEO SuiteView Layout Manager main menu.

   OR

   Click the **Toggle PiP Properties**  icon from the NEO SuiteView Layout Manager toolbar.
2. From the **PiP Properties** pane, click the **Alarm Settings** tab.
3. In the PiP display window, select the PiP for which you want to enable audio alarms.

4. On the **Alarm Settings** page, under **Video**, select the video alarms you want to enable.

Figure 2-8. Selecting Video Alarms

5. To enable the selected video alarms on all the PiPs in the layout, click **Copy to all pips**.

For information about setting threshold values for the enabled video alarms, see the next section.

Setting Video Alarm Threshold Values

Using the **Video Alarm Thresholds** dialog box, you can set the global threshold values that trigger Frozen Picture and Black Picture video alarms.

To determine if a video image is frozen, NEO SuiteView uses the combination of frozen picture delay and percentage error (in the frozen image) threshold values. Each threshold value is described below:

- **Frozen Picture Delay** Defines the maximum time (in seconds) a picture can be frozen or static before it is considered frozen.
- **Frozen Picture- Percentage Error Allowed** Defines an error value (in percent) that compensates for motion that is detected in the frozen video image. This motion can be caused if the video is frozen between two video fields or video frames.

To determine if a video image is a black picture, NEO SuiteView uses the combination of black picture delay, percentage of non-black, and black level threshold values. Each of threshold values are described below:

- **Black Picture Delay** Defines the maximum time (in seconds) a picture (video image) can be “black” before triggering a Black Picture alarm. A black picture is defined by percentage of non-black picture and black level.
- **Percentage of Non-Black Picture** Defines the percentage of the video picture that is not black, according to the black level amount of an error value (in percentage), that compensates for motion that is detected in the frozen video image. This motion can be caused if the video is frozen between two video fields or video frames.For example, when a video image is frozen between two video fields or frames, some motion may be detected
- **Black Level** Defines the IRE level that the picture is considered a black picture.

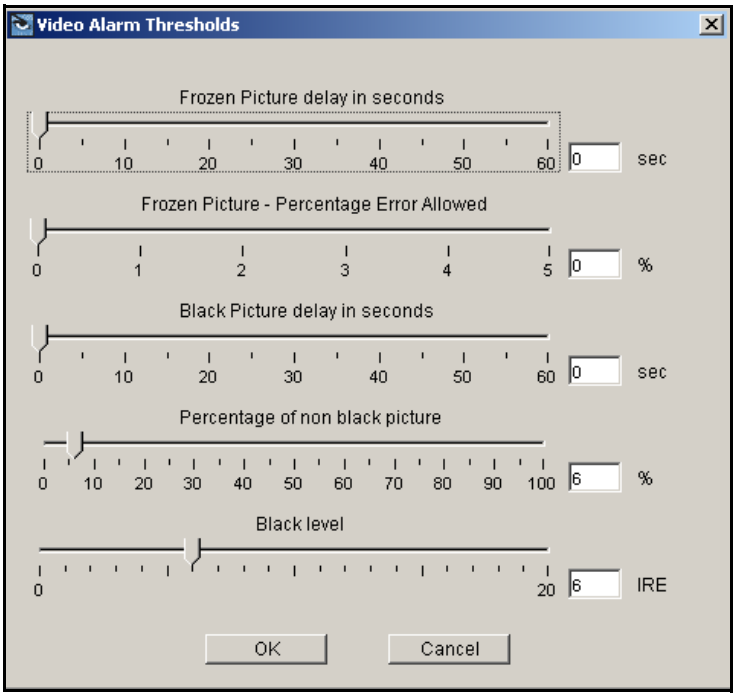
Note

The video alarm threshold values apply to all input video channels. You cannot specify threshold values for individual video channels. Video alarms must be enabled in the **Alarm Settings** tab of the **PiP Properties** pane before they appear in individual PiPs (see “Enabling Video Alarms” on page 39).

To set your audio alarm threshold values, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Alarms > Video**.

   The **Video Alarm Thresholds** dialog box opens:



2. Under **Frozen Picture delay in seconds**, use the slider (or enter a value) to set the maximum time (in seconds) a picture (video image) can be frozen (static) before triggering a Frozen Picture alarm.
3. Under **Frozen Picture- Percentage Error Allowed**, use the slider (or enter a value) to set a percentage error value to compensate for motion in a frozen picture.
4. Under **Black Picture delay in seconds**, use the slider (or enter a value) to set the maximum time (in seconds) a picture (video image) can be "black" triggering a Black Picture alarm. The Black Level and Percentage of non-black picture are used to define a 'black" picture.
5. Under **Percentage of non-black picture**, use the slider (or enter a value) to set a value for percentage of non-black picture. The Black Level setting defines whether a picture is consider a non-black picture.
6. Under **Black level**, use the slider (or enter a value) to set the IRE level that defines whether or not the picture (video image) is considered a "black" picture.

7. Click **OK** to save your settings.

Configuring Under Monitor Display (UMD)

NEO SuiteView offers optional under monitor display (UMD) support. This provides a protocol interface (via RS-232, RS-422, or RS-485) to different third-party routing switcher protocols in order to input in-picture UMD source identification and tally status information. This information automatically updates on screen when the source is updated. NEO SuiteView supports up to two UMD captions per PiP, each consisting of up to five alphanumeric characters.

Note

Before using an RS-422 UMD device with NEO SuiteView, you must do the following:

- You must connect a RS-422 UMD device to the COM2 port of the NEO SuiteView back panel. You cannot use the COM1 port for RS-422 devices.
- You must enable the COM2 port by setting the **COM1_COM2** parameter to either **OFF+TSL** or **CMD+TSL.**

For more information about making UMD connections, switching your NEO SuiteView system to RS-485 mode, and optional UMD support and configuration, see your *NEO SuiteView Hardware Operation and Installation Manual*.

Note

Contact your Leitch customer service representative for new information about interfacing with other third-party router manufacturers.

Tally lamps are useful in knowing which video feed is being output to the display. When a GPI input is shorted to its respective ground, the corresponding video window (PiP) will have a tally lamp in the corner. A red tally lamp indicates that GPI 1 is closed, while a green tally lamp indicates that GPI 2 is closed.

For information about connecting GPI devices to your NEO SuiteView system, see your *NEO SuiteView Hardware Operation and Installation Manual*.

Setting Up UMD Support

To following sections describe how to enable UMD support for your NEO SuiteView system, and how to set the RS485 Base Address for UMD display data.

Entering Your UMD License Key and Enabling Support

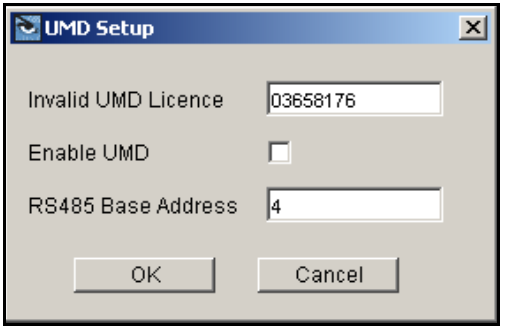
Before you can use the UMD support that you purchased, you will need the enter the UMD license key. If you have not purchased a UMD support for NEO SuiteView, contact your customer service representative.

When UMD support is enabled, PiP label text and tally information is determined by a router destinations or sources via a TSL controller. When UMD support is disabled, the PiP label text comes from the NEO Layout Manger.

To enter the UMD licence number key and enable UMD support, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > UMD**.

   The **UMD Setup** dialog box opens:



2. Beside **Invalid UMD Licence**, enter the UMD license key.

   If your license number is valid, the **Invalid UMD License** label changes to Valid **UMD License**.

3. To enable UMD, select **Enable UMD**.

Entering an RS-485 Base Address

You can send UMD data to more than one NEO SuiteView system. To do this, you need to enter an address in the **RS485 Base Address** box of the **UMD Setup** dialog box. This address is used to identify which UMD display data you want to send to the first PiP of each NEO SuiteView system. In general, the **RS485 Base Address** is the start address for UMD display data.

For example, if you have 16 addresses of UMD display data that you to send to two NEO SuiteView systems (8 addresses to each system), make the following selections:

- Use **0** as the RS485 base address first system to send UMD data (addresses 0 to 7) to PiPs one through eight (on NEO SuiteView System one).
- Use **8** as the RS485 base address second system to send UMD data (8 to 16) to PiPs one through eight (on NEO SuiteView System two).

Note

If you are using UMD display data that is coming from a serial protocol Translator (SPT), the first UMD data address is **1** not **0**.

Prior to entering an RS-485 base address, you need to ensure that the proper RS-485 connection is made between your and UMD devices, and that you are in RS-485 mode. See Appendix C: “UMD/Tally Option” for more information.

Note

This feature is not applicable to applications with RS-232 serial connections.

Configuring the NEO SuiteView Clock Display

You can configure your NEO SuiteView system to display an on-screen clock within the layout. Depending on the size of the clock you choose to add to your layout, the clock will either be superimposed over an existing PiP image, or it will cover the underlying PiP image completely. The NEO SuiteView clock can be configured to accept time code from an external time code generator as a time source. Otherwise, the clock is driven by the output module's internal clock.

Note

If you want to use an external LTC source to drive the NEO SuiteView clock, you must do the following:

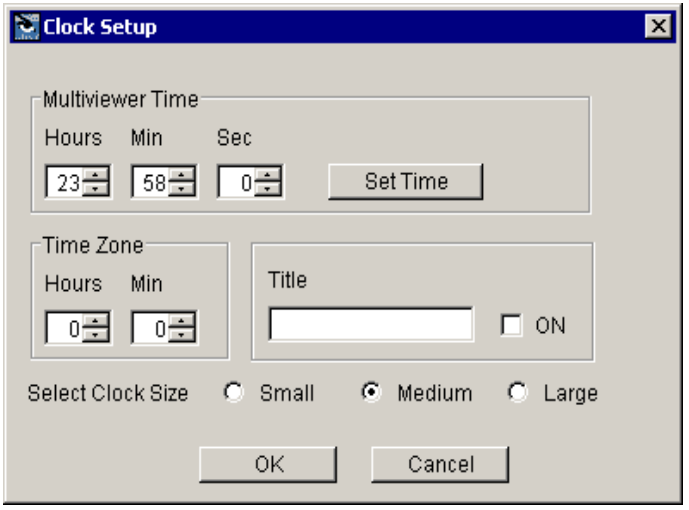
- You must connect the LTC source to the COM2 port of the NEO SuiteView back panel. You cannot use the COM1 port for LTC sources.
- You must enable the COM2 port by setting the **COM1_COM2** parameter to either **OFF+LTC**, **CMD+TSL,** or **TSL+LTC.**

The NEO SuiteView clock can be disabled at any time by selecting **Settings > Turn off Clock** from the NEO SuiteView Layout Manager main menu.

To set up the NEO SuiteView clock, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **Settings > Clock Setup**.

The **Clock Setup** dialog box is displayed:



2. Under **Time Zone**, set any time zone offsets you require for the clock.
3. If you want to a name to appear with your clock, in the **Title** field, enter a name that you want to appear, and then select **ON**.
4. Beside **Select Clock Size**, select a clock size
5. Under **Multiviewer Time**, set the clock's time, and then click **Set Time**, and then click **OK**.

Viewing Your System Configuration Information

In the **Advanced** dialog box, you can view a summary of your NEO SuiteView system configuration and enter embedded audio license information. A listing of the card types installed in the system and the number of the frame slot in which they are installed is also provided in the **Advanced** dialog box. You can select test patterns to calibrate your display device. See, "Configuring Your Input Channel Properties" on page 26 for more information. You can also recall factory default values from the **Advanced** dialog box.

To access the **Advanced** dialog box, from the NEO SuiteView Layout Manager main menu, select **Settings > Advanced**.

The **Advanced** dialog box opens.

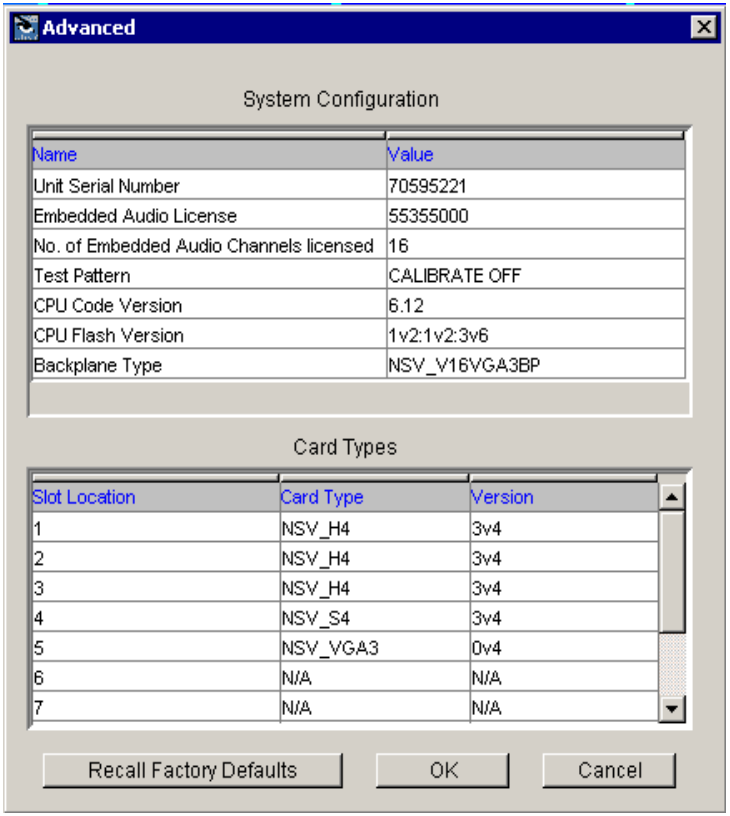


Figure 2-9. Advance Dialog Box.

Enabling Embedded Audio Support

Before you can use the embedded audio support you purchased for NEO SuiteView, you will must enter the embedded audio license key in the **Advanced** dialog box. If you have not purchased embedded audio support for NEO SuiteView, contact your customer service representative.

To enter the, embedded audio licence key, follow these steps:

1. In the **Advanced** dialog box under **Value**, select the box beside **Embedded Audio License**.
2. Enter your embedded audio license key in the box.

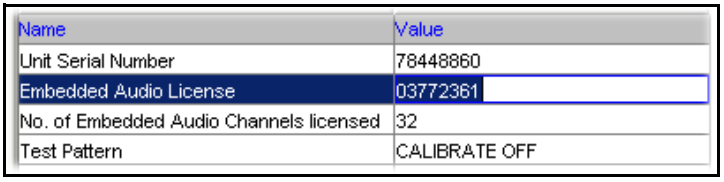


Figure 2-10. Enter Embedded Audio License Key

When you enter a valid embedded audio license key, the **No. of Embedded Audio Channels licensed** box is updated with the number of embedded audio channels purchased.

3. Click **OK**.

When you enter a valid embedded audio license key, the **No. of Embedded Audio Channels licensed** box is updated with the number of embedded audio channels purchased and supported. For example, if you have purchased an license for 32 channels of embedded audio, but have hardware installed in your NEO SuiteView that supports only 16 channels, the **No. of Embedded Audio Channels licensed** box displays **16** and not **32**.

Calibrating Display Devices

It is important to calibrate the attached output display device (not the output signal) to obtain the optimum clarity for the overall output picture. Calibration is particularly important for digital display devices, such as plasmas and LCDs.

NEO SuiteView Layout Manager has test patterns that can help you calibrate your output display device. These test patterns include **Grey Scale** for contrast adjustments, **CheckerBoard** for sample frequency and phase adjustment, **Black** for brightness adjustment, and **Color Bar** for color adjustment. To calibrate your display, you can output these test patterns from NEO SuiteView and make appropriate adjustments using the display device's adjustment controls.

Caution

It is imperative that the cables used to connect displays consist of high quality multiple 75Ω coaxial cable, preferably with RFI screening ferrite collars at each end. On no account should unscreened or twisted pair cable be used in preference to 75Ω video cables. Incorrect cables will cause severe ghosting and noticeable image degradation.

To calibrate an attached output display device, follow these steps:

1. If you have not already done so, determine the native display resolution of the display device, and then do one of the following:
   - If set the output display resolution as explained in step **2** on page 24 (See "Configuring Your Output Display Properties" on page 23).

   OR

   - If you've selected the **Show External Graphics** option (Background Graphics mode) when configuring your output display properties, select an external background image that has the same resolution as the native resolution of the display device. Configure your External Graphics settings as explained in step 8 on page 24. (See "Configuring Your Input Channel Properties" on page 26.)
2. From the NEO SuiteView Layout Manager main menu, select **Settings > Advanced**.

   The **Advanced** dialog box opens.

3. In the **Value** column. click **Calibrate off**, to open the **Test Pattern** list.

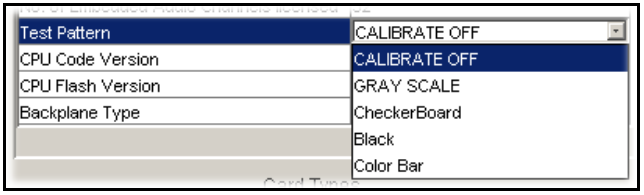


Figure 2-11. Selecting a Test Pattern

The following sections describe how to calibrate your output display device contrast level, brightness level, color levels as well as frequency and phase.

Setting Your Display Device Contrast

Using the **Gray Scale** test pattern, you can calibrate your display device's contrast level. To calibrate your displays device's contrast level, follow these steps.

1. Select **Gray Scale** from the **Test Pattern** list.

   This creates a grey scale ramp pattern across the display, with black on the left side and white on the right side.

2. Using your display device's adjustment controls, set the device's contrast so that the ramp is uniformly distributed across the whole display.

Setting Your Display Device's Brightness

Most NEO SuiteView systems typically display video rather than computer data on an output display. For this reason, the display device brightness control should be adjusted so that it is optimized to render video on the display. To adjust your display device brightness settings, follow these steps:

1. Select **Black** from the **Test Pattern** list.

   This test pattern is used to adjust the brightness of the display so that video detail near black is not lost "below the display black" and remains visible. This pattern fills the display with a uniform black color of RGB (16,16,16). This value has been chosen because this is the absolute minimum black color allowed in a PAL or NTSC video signal.

2. Adjust the device's brightness control until a uniform black color is achieved.

Setting Your Display Device's Color

Using the **Color Bar** test pattern, you can set the color temperatures of your display device. To adjust your display device color settings, follow these steps:

1. Select **Color Bar** from the **Test Pattern** list.

   This pattern outputs a standard color bar. This pattern can be used to adjust the color temperature of the display device.

2. Adjust the device's color control until the proper color temperatures are displayed.

Setting Your Display Device Sample Frequency and Phase

Using the **Checkerboard** test pattern, you can set the sampling frequency and phase of your analog display device. To adjust your display device frequency and phase settings, follow these steps:

1. Select **CheckerBoard** from the **Test Pattern** list.

   This creates a pattern on the output display of alternate white black pixels.

Note

If your output display device is a plasma screen, it may vertically squeeze the image; in this case, the checker board pattern may appear as a flat gray field or a series of one pixel thick vertical lines. See "Why Does the Checker Board Test Pattern Not Look Right on a Plasma Monitor?" in the Trouble Shooting chapter of this manual for more information.

2. To optimize the display device sample frequency, adjust the attached display's frequency (sometimes called "width".) to remove any vertical interference banding patterns.
3. Adjust the display's phase (sometimes called "height") until each individual pixel of the checkerboard pattern can be seen.

If the phase is completely out of calibration, the checkerboard pattern may appear as a series of horizontal lines.

Considerations When Using an Analog Interface

If you are using an analog display device, check the native resolution supported by the plasma or LCD screen in use and configure the output to be the same in Standalone mode. Use the **CheckerBoard** pattern to calibrate the display. If there is even a slight difference in resolution, the output display device is forced to perform its own internal scaling and interpolation. This may result in soft images or other artifacts that may adversely affect the output quality.

Note

When the phase is completely miscalibrated, the checkerboard pattern will appear as a series of horizontal lines. If the plasma is in vertical squeeze mode, it will appear as a flat gray field or a series of 1-pixel thick vertical lines

A typical plasma display will have both sampling frequency and phase adjustments accessible from a menu on the display device itself. In general it is recommended to adjust the display device's sampling frequency to remove any vertical banding patterns. Only then should the display device's sampling phase be adjusted so that each individual pixel of the checkerboard is visible.

Chapter 3

Layouts and PiPs

Working With NEO SuiteView Display Layouts

Using NEO SuiteView Layout Manager, you can select, modify, and create NEO SuiteView display layouts. Depending on the NEO SuiteView hardware that you have installed in your system, display layouts can be comprised of up to 44 picture-in-picture (PiP) images (up to 44 input channels). The display characteristics of a layout are determined by the individual PiP properties, such as the size, position, color, and border size. See “PiP Properties” on page 58 for information about PiP properties.

A maximum of 10 preset layouts can be saved on your NEO SuiteView system at one time. Figure 3-1 illustrates how some of the provided preset display layouts are arranged. In the illustration, each number represents a PiP (or video input channel).

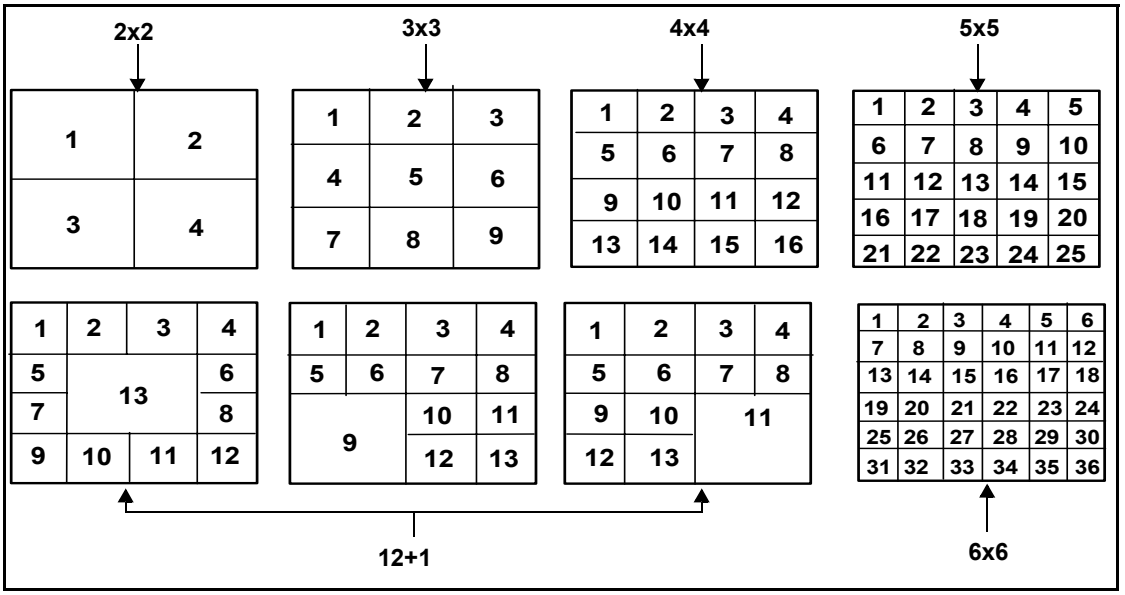


Figure 3-1. Preset Display Layouts

Table 3-1 describes the Layout Manager display preset PiP arrangement.

Table 3-1. Default Preset Descriptions

Preset	Display
2×2	2 picture tile rows, 2 picture tile columns
3×3	3 picture tile rows, 3 picture tile columns
4×4	4 picture tile rows, 4 picture tile columns

Table 3-1. Default Preset Descriptions

Preset	Display
5×5	5 picture tile rows, 5 picture tile columns
6×6	6 picture tile rows, 6 picture tile columns
12+1	13 picture tiles, with one of the following location variations for the included 6×6 PiP: • center of display • bottom left corner of display • bottom right corner of display

PiP Properties

Each PiP has a number of associated properties that determine how PiP are displayed in the layout. PiP properties can be modified and then copied between PiPs. This means that you can modify the PiP properties of a preset display layout to create a customized layout which can then be renamed and saved to NEO SuiteView or to the **Server Disk** (a local or network drive). PiP properties cannot be modified via card-edge, a control panel, or a CCS software application such as CCS Pilot or Navigator. 3-2 illustrates a display layout and its associated layout and PiP elements that can be modified.

Figure 3-2. Typical PiP Attributes for Audio Meters, Alarm Data, Border, and Labels

Using the **PiP Properties** pane, you can display and modify a display layout's PiP properties. To access the **PiP Properties** pane, select **PiP** > **Toggle PiP Properties** from the NEO SuiteView Layout Manager main menu.

Using Preset Display Layouts

The easiest way to use NEO SuiteView as a multiple display viewer, is to use one of NEO SuiteView preset display layouts (see "Working With NEO SuiteView Display Layouts" on page 55 for information about preset display layouts). The preset display layouts have been created to optimize the available display area for each layout arrangement. It is recommended that you do not modify the preset display layouts. Instead, you can use a preset display layout as a starting point in creating a custom layout. Custom display layouts can be saved to the **Server Disk** (a local or network drive) and then loaded into the NEO SuiteView system. This way, you will avoid overwriting one of the ten preset layouts that are (by default) loaded into your NEO SuiteView system.

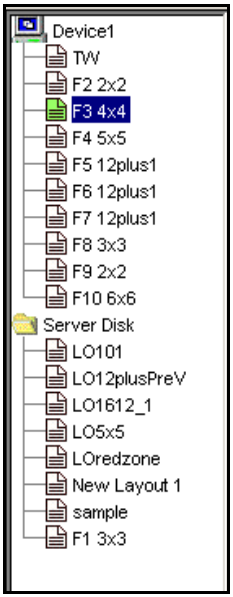
To use a preset display layout, you must be connected to a NEO SuiteView system as described in "Connecting to NEO SuiteView Systems" on page 7.

For best results, it is recommended that you configure your display devices as described in "Configuring Your Output Display Properties" on page 23 and configure your NEO SuiteView system's input video settings as described in "Configuring Your Output Display Properties" on page 23.

For information about modifying a preset layout to create a custom layout, see "Modifying Preset Display Layouts To Create Customized Layouts" on page 62.

Selecting a Preset Display Layout

To select a preset layout to use as a layout display, from the NEO SuiteView Layout Manager's **Device and Preset** Pane, select a preset layout from the list.



Note

To use a preset display layout, you must be connected to a NEO SuiteView system as described in "Connecting to NEO SuiteView Systems" on page 7.

The display layout you select opens in NEO SuiteView Layout Manager displaying PiPs of your video inputs.

You can at any time make adjustments to your system settings, such as changing video input formats and alarm configurations, without modifying the preset layout. To modify your system settings, see the following:

- To change your output display settings, see "Configuring Your Output Display Properties" on page 23
- To change your input settings, see "Configuring Your Input Channel Properties" on page 26
- To change your audio settings or audio mapping, see "Configuring Audio" on page 28

- To change you audio or video alarm settings, see “Configuring Audio and Video Alarms” on page 35.
- To change your UMD settings, see “Configuring Under Monitor Display (UMD)” on page 44.
- To change your NEO SuiteView clock settings, see “Configuring the NEO SuiteView Clock Display” on page 47.

Modifying Preset Display Layouts To Create Customized Layouts

You can create a custom layout from a preset layout by modifying the properties of each PiP in the layout. After you complete the modifications to the layout, you can rename it and then save it to the **Server Disk** (local or network drive). Although custom display layouts can be saved directly to the NEO SuiteView system, it is recommended that you save them to the **Server Disk** (local or network drive). This will avoid overwriting one of the ten preset layouts that are (by default) loaded into your NEO SuiteView system. Your customized display layout can then be loaded from the **Server Disk** (your local or network drive) to your NEO SuiteView system.

Note

If you want to create a custom layout by modifying one of the default preset layouts, save the layout using a new name before you begin modifying the layout.

You can use PiP Properties pane of the Layout Manager software to modify all of a PiP’s properties. Modifications to some PiP properties such as increasing the size of the PiP or changing the PiP’s location within the layout can be done using your computer’s mouse.

Note

If you are using your computer mouse to move PiPs in a layout, you can use the PiP grouping option to move multiple PiPs simultaneously. For about using the PiP grouping option, see “Grouping PiPs” on page 77.

Table 3-2 provides a list of PiP properties that you can modify using the **PiP Properties** pane. PiP property default settings are indicated by an asterisk (*). See “General Guidelines For Resizing and Editing PiPs” on page 66 for information about using your computer mouse to modify PiP properties.

Table 3-2. Modifiable PiP Properties

Property	Description	Options
Label		
Text	Changes the text on the PiP label	Maximum of 19 (*single digit identifier) You can use the following characters in the label text: • all letters • all numbers • ! • (•) • _
Visible	Enables/disables the PiP label display	• Enable* • Disable
Label x	Sets the horizontal position (in pixels) of the PiP label (changing this option will override the **label justify** setting)	1 to 376 (*204, centered)
Label y	Sets the vertical position (in pixels) of the PiP label	1 to 306 (*304, bottom)
Label width	Sets the width of the PiP label	Variable, depending on **label x**/ horizontal position of PiP label (*40)
Label height	Changes the height of the PiP labels	Variable, depending on **label y**/ vertical position of PiP label (*24)
Text x	Sets the horizontal position of the text on the PiP label. (changing this option will override the **label text justify** setting)	Variable, depending on the **label width** and **label x**/horizontal position (*0)
Text y	Sets the vertical position of the text on the PiP label	Variable, depending on the **label height** and **label y**/vertical position (*24)

Table 3-2. Modifiable PiP Properties *(Continued)*

Property	Description	Options
Label justify	Justifies the position of the PiP label horizontal position (changing this option will override the **label x** setting)	• Variable* • Left • Center • Right
Label width justify	Justifies the width of the PiP label (changing this option will override the **label x** and **label width** settings)	• Fixed* • PiP width • Text length
Label text justify	Justifies the horizontal position of the text on the PiP label (changing this option will override the **text x** setting)	• Variable* • Left • Center • Right
Label color	Sets the color of the PiP label	Select a color from the palette in the **Select a Color** dialog box (*grey)
Label text color	Sets the color of the text on the PiP label	Select a color from the palette in the **Select a Color** dialog box (*yellow)
Style	Sets the transparency style of the PiP label	• System* • Transparent
PiP		
PiP x	Sets the horizontal position of the PiP within the layout (You can also use your computer mouse to move the PiP around within the layout)	Variable
PiP y	Sets the vertical position on the PiP within the layout (You can also use your computer mouse to move the PiP around within the layout)	Variable
PiP width	Sets the width of the PiP (You can also use your computer mouse to increase or decrease the width of a PiP)	Variable
PiP height	Sets the height of the PiP (You can also use your computer mouse to increase or decrease the height of a PiP)	Variable

Table 3-2. Modifiable PiP Properties *(Continued)*

Property	Description	Options
Aspect ratio	Sets the aspect ratio—image width to image height—of the PiP (changing this option overrides the **PiP width** and **PiP height** settings)	• Custom* • 4:3 • 16:9
Fix aspect ratio	Fixes the aspect ratio of a PiP so that changes to PiP width settings are proportionate to PiP height settings, and vice versa (enabling this option will affect **PiP width** and **PiP height** settings)	• Enable* • Disable
Border		
Left	Sets the size border along the left side of a PiP (Set this option to **0** if you do not want a border to appear)	Variable, depending on PiP dimensions
Right	Sets the size border along the right side of a PiP (Set this option to **0** if you do not want a border to appear)	Variable, depending on PiP dimensions
Top	Sets the size border along the top of a PiP (Set this option to **0** if you do not want a border to appear)	Variable, depending on PiP dimensions
Bottom	Sets the size border along the bottom of a PiP (Set this option to **0** if you do not want a border to appear)	Variable, depending on PiP dimensions
Border color	Sets the color of the border surrounding the PiP	Select a color from palette in the **Select a Color** dialog box (*grey)
Crop		
Crop x	Crops the PiP input horizontally from left to right	Variable, depending on size and location of PiP (*8)
Crop y	Crops the PiP input vertically from top to bottom	Variable, depending on size and location of PiP (*0)

Table 3-2. Modifiable PiP Properties *(Continued)*

Property	Description	Options
Crop width	Crops the PiP width for display on the output display device (The image remains uncropped on PC monitor)	Variable, depending on size and location of PiP (*704)
Crop height	Crops the PiP height for display on the output display device (The image remains uncropped on PC monitor)	Variable, depending on size and location of PiP (*480)

Note

Only the image on the output display device is affected by cropping; the PC image remains unchanged. For cropping to take affect, first clear the **Default Crop** box in the **System Properties** dialog box (see "Allowing Crop Changes From PiP Properties Pane" on page 78 for more information). The cropping origin is the top left corner. Verify the resolution of your input format before cropping in order to avoid entering crop values that are too large (that go beyond the PiP actual width and height); otherwise, picture may become corrupted.

General Guidelines For Resizing and Editing PiPs

You can use NEO SuiteView Layout Manager to resize, move, and edit PiPs within a selected layout. The following section lists some general guidelines for resizing and editing PiPs:

- To select and highlight a PiP, click inside it.
- To resize a selected PiP, click-and-drag the handle on the corner or side of the PiP.

  You can also press and hold `CTRL` while clicking-and-dragging the PiP on a point without a handle.
- To move a selected PiP, click-and-drag from the center of the PiP.
- To retain the PiP aspect ratio, ensure that the PiP property **Fix Aspect Ratio** is checked (PiP properties pane) before you start resizing the PiP.
- To undo an edit, open the **Edit** menu and click **Undo**, or press `Ctrl-Z` on the keyboard.

  To redo an edit, click **Redo** from the **Edit** menu, or press `Ctrl-Y`.

- To define a group of PiPs to later move as one object, first enable **Toggle PiP Grouping** from the **PiP** menu, or click the corresponding button on the toolbar. Then, click each of the PiPs you want to group together (selected PiPs will change background color). Use the mouse to click-and-drag grouped PiPs to a new position.

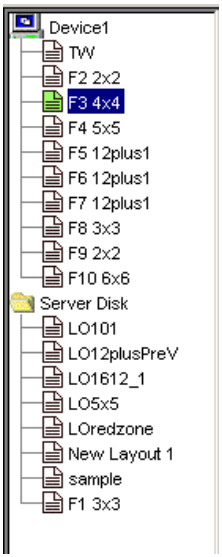
  To remove a PiP from a group, click it again. The ungrouped PiP background will change back to its original color.

  To disable the grouping function, select **Toggle PiP Grouping** from the **PiP** menu a second time, or click the corresponding button on the toolbar.

Modifying Display Layout PiP Properties

To modify the PiP properties of a preset display layout to create a custom layout, follow these steps:

1. Select a preset layout to use as a layout display from the NEO SuiteView Layout Manager's **Device and Preset** Pane by selecting a preset layout from the list.



The display layout you selected opens in NEO SuiteView Layout Manager.

2. To modify PiP properties using the **PiP Properties** pane, select **PiP** > **Toggle PiP Properties** from the NEO SuiteView Layout Manager main menu.
3. Select the PiP that you want to modify.

   The properties for the selected PiP appear in the **PiP Properties** pane
4. To modify a PiP property, double-click in the column next to the property name that you want to modify, and then make the appropriate setting.

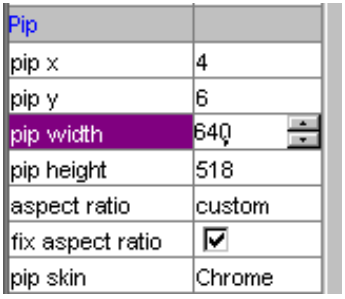


Figure 3-3. Modifying PiP Width Using the PiP Properties Pane

Copying PiP Properties To Other PiPs

Using the **Copy PiP Properties** dialog box, you can copy the properties of a PiP to selected PiPs or to all the PiP in the layout. Using this feature, you can speed up the process of modifying all of the PiPs within a layout. For example, to change the border color of all the PiPs in the layout, you only need to make this change in the **PiP Properties** pane for one PiP. Then, you can use the **Copy PiP Properties** dialog box to copy the PiP border color change to all the PiPs in the layout simultaneously.

The **Copy PiP Properties** dialog box, groups PiP properties into five categories: size, label, border, and crop. When copying PiP properties from a PiP, all the properties that belong to the selected PiP property category are copied over the other PiPs. Table 3-3 lists the PiP property categories and the properties that are copied.

Table 3-3. Copying PiP Properties

Copy PiP Properties Dialog Box Property Categories			
Size	**Label**	**Border**	**Crop**
pip x	visible	left	crop x
pip y	label x	right	crop y
pip width	label y	top	crop width
pip height	label width	bottom	crop height
aspect ratio	label height		
fixed aspect ratio	text x		
pip skin	text y		
	label justify		
	label width justify		
	label text justify		
	label color		
	label text color		
	system		

To copy PiP properties and apply them to other PiPs in your layout, follow these steps:

1. In the PiP display window, select the PiP from which you want to copy properties.

2. To open the **Copy PiP Properties** dialog box, do one of the following:

   Select **PiP** > **Copy PiP Properties** from the main menu.

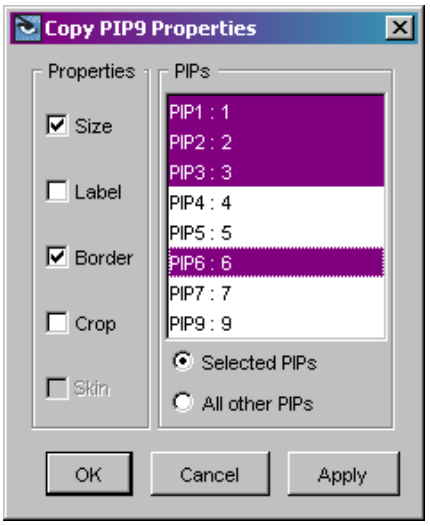
   OR

   Select the Copy PiP properties icon  from the NEO SuiteView Layout Manager toolbar.

   OR

   Right-click on the PiP from which you want to copy properties

   The **Copy PiP Properties** dialog box opens.



3. From the **Properties** list, choose the properties you want to copy.

Note

When you choose to copy the **Label** properties, the label text is not copied from one PiP to other PiPs.

4. To copy the selected properties to specific PiPs only, choose **Selected PiPs**, and then from the **PiPs** list, select the target PiPs to which you the properties copied. To select multiple PiPs, hold down the `Ctrl` button when you are selecting target PiPs.

   To copy the selected properties to all the PiPs in the layout, choose **All other PiPs**.

5. Click **Apply** to apply the copied properties to the selected PiPs, and then click **OK** to close the dialog box.

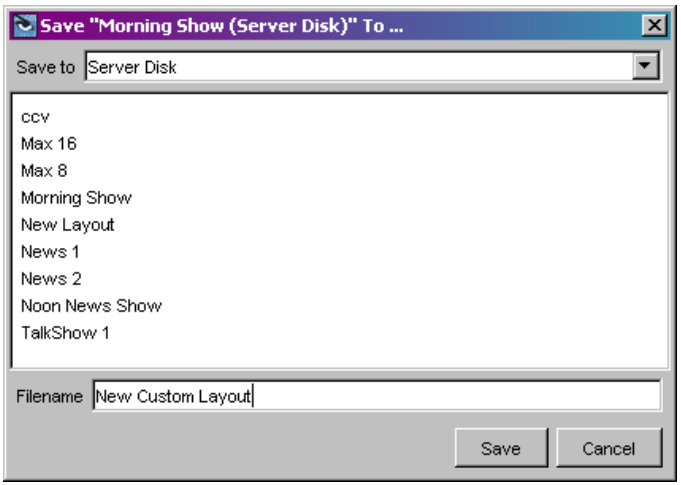
Saving Your Customized Display Layout

When you have completed making modifications to your customized layout, you can rename the layout (if you have not done so already) and save it to the **Server Disk** (a local PC or network drive). Although custom display layouts can be saved directly to the NEO SuiteView system, it is recommended that you save them to the **Server Disk**.

To save your customized layout, follow these steps:

1. From the Layout Manager main menu, select **File** > **Save To**.

   The **Save To** dialog box appears.



2. Enter a name for your custom display layout, choose a device or folder on the **Server Disk**, and then click **Save**.

   You can choose to save the layout as a preset on a device. To save the custom layout directly to a device (A NEO SuiteView system), you must choose which existing preset to replace. Only a maximum of 10 preset layouts can exist on a device. When you click **Save**, the new layout replaces the selected layout on the device layout list.

Note

You cannot modify the layout that is currently being display on your output display device.

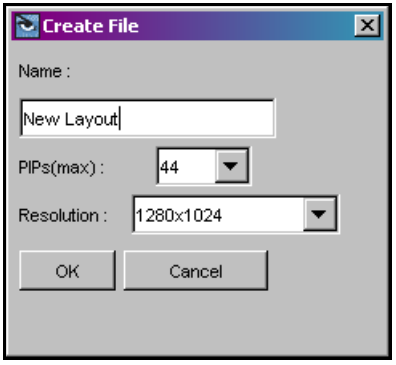
Creating New Display Layouts

You can create new display layouts by creating layout files that can be stored on the **Server Disk** (a local PC drive or a network drive). New display layouts are created ‘offline’, meaning that the layout is not currently being used by the NEO SuiteView system. The new layout file is saved directly to the Server Disk and not to the device layout list. When you create a new layout file, each PiP in the layout is automatically assigned default PiP property settings. These settings are similar to the PiP properties that define the preset display layouts.

To create a new display layout, follow these steps:

1. From the NEO SuiteView Layout Manager main menu, select **File** > **Create File on Server Disk**.

   The **Create File** dialog box opens.



2. From the **PiPs (max)** list, select the maximum number of PiPs you want available for your layout.

   Your layout does not have display the maximum number of PiPs. You can choose to hide or add PiPs to your layout at any time. For example, if you select **44** from the **PiPs (max)** list, you can choose to display 32 PiPs. However, if select **16** from the list, you cannot display more than 16 PiPs in your layout.

   For information about adding and hiding PiPs see “Adding and Removing PiPs From a Layout” on page 73.

3. From the **Resolution** list, select a resolution for your display layouts.

4. To save your new layout to the **Server Disk** (a local or network drive), click **OK**.

   Your new display layout file appears in the Device and Preset pane within the **Server Disk** folder.

Setting Up Your New Display Layout

There are a number of ways that you can set up your new display layout so that it meets your customized requirements. You can modify PiP properties, copy PiP properties to and from PiP, and add and/or remove PiPs from the layout. To set up your new display layout, see the following sections:

- For information about modifying PiP properties, see "Modifying Display Layout PiP Properties" on page 67.
- For information about copying PiP properties, see "Copying PiP Properties To Other PiPs" on page 68.
- For information about saving your display layout modifications, see "Saving Your Customized Display Layout" on page 71.

Adding and Removing PiPs From a Layout

Using the **Add/Remove PiP** dialog box, you choose to add or remove PiPs from a layout display. The follow information should be considered when adding or removing PiPs from a layout:

- PiPs that are added are not automatically aligned with the other PiPs in the layout. You must modify the layout's PiP properties to properly realign all the PiPs in the layout.
- PiPs that are added have default PiP property settings.
- PiPs that are removed are replaced with a blank space in the layout. You must modify the layout's PiP properties to properly realign all the PiPs in the layout.
- PiPs that are removed lose any customized PiP property settings.

To add or remove PiPs, follow these steps:

1. To open the **Add/Remove PiPs** dialog box, do one of the following

   Select **PiP** > **Add/Remove PiPs** from the main menu.

   OR

   Select the Add/Remove PiPs icon  from the NEO SuiteView Layout Manager toolbar.

   The **Add/Remove PiPs** dialog box opens displaying the maximum PiPs in the layout and indicates which PiPs are currently selected for display.

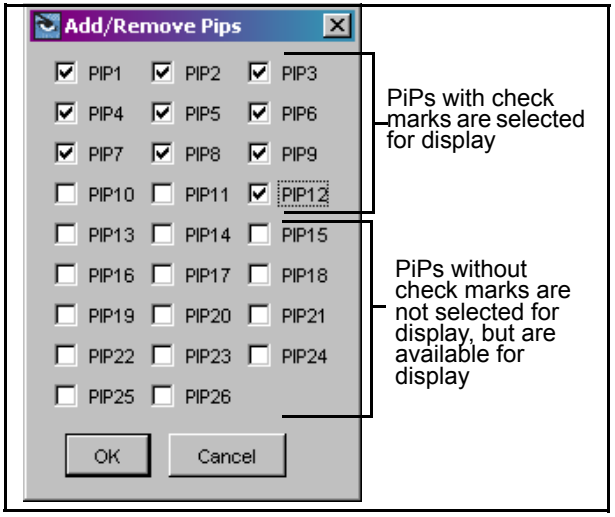


Figure 3-4. Adding and Removing PiPs

2. Select which PiPs you want to add or remove.
3. Click **OK** to apply your selections.

Managing Display Layouts

There are a number of features that you can apply to PiPs and layouts that help you manage your layouts. For example, you can group PiPs so that they can be moved within the layout space as a group.

This section includes information on the following topics:

- "Using the PiP Preview" on page 75
- "Quick-Formatting a Display Layout" on page 76
- "Grouping PiPs" on page 77
- "Using the Layout Grid" on page 77
- "Using the Layout Wall View" on page 78

Using the PiP Preview

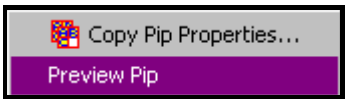
You can use the PiP Preview feature to view an enlarged version of a selected PiP to get a closer look of the input's signal integrity. By default, a previewed PiP is displayed in the center of the layout. When a PiP is selected for preview, its input is displayed in the enlarged version of the PiP. The PiP's original place in the layout displays gray video and the PiP label displays PiP "IN PREVIEW" for the duration of time that the PiP is previewed. The PiP preview does not display any activated alarms or audio meters that are associated with the PiP that is being previewed.

When you enable the PiP preview feature, only the video of any PiPs that are overlapped by the previewed PiP is updated (refreshed). This means that any audio meters and alarms associated with the overlapped PiPs are not updated (refreshed) until the preview is disabled. Any UMD and tally information that is updated on a PiP while it is overlapped by the previewed PiP, will be visible through the display of the previewed PiP.

To enable the PiP Preview feature for a selected PiP, follow these steps:

1. To enable the PiP Preview, from the NEO SuiteView Layout Manager, select **PiP** > **Show PiP Preview**.
2. Select the PiP in the layout that you want to preview.

3. Right-click on the selected PiP and choose **PiP Preview** from the context menu.



4. To disable the PiP preview and return to regular viewing, from the NEO SuiteView Layout Manager, select **PiP** > **Show PiP Preview**.

Quick-Formatting a Display Layout

You can use the NEO SuiteView Layout Manager quick-formatting commands to reformat an existing display layout. You can choose to reformat your layout to display a 2×2, 3×3, 4×4, or 5×5 PiP arrangement.

Note

The PiPs in your re-formatted layout will be set to default PiP property values. Any customized PiP property settings are lost when you use the quick-formatting feature.

To use a quick-format command, either select **PiP** from the main menu, or right-click on the selected layout in the device and preset pane, and then choose from one of the following quick-format commands:

- **Create 2 by 2 Layout** Reformats the current layout arrangement to a 2 PiP by 2 PiP layout
- **Create 3 by 3 Layout** Reformats the current layout arrangement to a 3 PiP by 3 PiP layout
- **Create 4 by 4 Layout** Reformats the current layout arrangement to a 4 PiP by 4 PiP layout
- **Create 5 by 5 Layout** Reformats the current layout arrangement to a 5 PiP by 5 PiP layout

Your display layout will be re-formatted with the selected layout arrangement.

Grouping PiPs

Multiple PiPs can be selected and moved simultaneously by using the PiP grouping function. To group PiPs, follow these steps:

1. Select **PiP** > **Toggle PiP Grouping** from the main menu.

   OR

   Select the Toggle PiP Grouping icon  from the NEO SuiteView Layout Manager toolbar.

2. In the PiP display window, click the PiPs you want to group.

   PiPs change color to indicate that have been grouped. If you want to remove a single PiP from the group, click it. Ungrouped PiPs return to the previous color.

3. To move the grouped PiPs to a new location, click and hold the mouse button while you drag the PiPs to the new location.

   You can also use the keyboard arrows to move the grouped PiPs to the new location.

4. Click **Toggle PiP Grouping** from the toolbar to disable the grouping function.

   Grouped PiPs will return to their previous color.

Using the Layout Grid

You can enable the grid function to help you reposition and align PiPs within the layout. When the grid is enabled, a series of horizontal and vertical dotted lines, which makeup the grid pattern, appear in the layout. The grid spacing can be modified as well by entering new values in the X and Y boxes on the toolbar. The grid is only a visual guide; PiPs cannot snap to it.

To enable the grid feature, click Toggle Grids  icon from the toolbar.

Using the Layout Wall View

You can enable Wall View to see the layouts that are currently being used by multiple, networked NEO SuiteView systems. The default Manager View displays the layout of one connected NEO SuiteView system. The Wall View displays multiple selected systems in a way that resembles a control room monitor wall.Wall view is useful when planning an entire video wall layout. Figure 3-5 illustrates a portion of the window in Wall view.

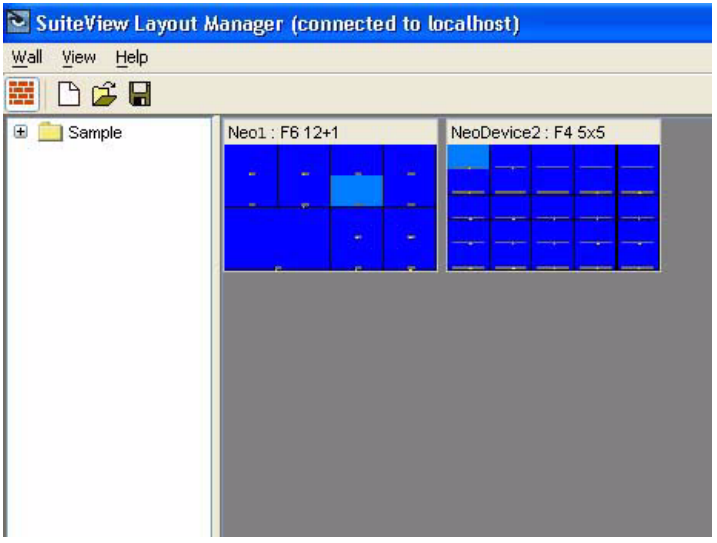


Figure 3-5. Wall View

To enable Wall View, from the NEO SuiteView Layout Manager main menu, select **View** > **Toggle Wall View**.You can also enable Wall View by clicking the Toggle Wall View icon from the NEO SuiteView Layout Manager toolbar.

Allowing Crop Changes From PiP Properties Pane

By default, NEO SuiteView Layout Manager prevents crop changes from being made in the **PiP Properties** pane (see using these attributes: **Crop X**, **Crop Y**, **Crop Width**, **Crop Height**. To disable this preventative feature and allow crop changes from the **PiP Properties** pane, follow these steps:

1. Right-click a system in the Device and Preset pane and then select **System Properties** to open the **Properties** dialog box.
2. Select a PiP from the list, and the clear the associated **Default Crop** box.
3. Click **OK** to set the change, and then close the dialog box.
4. Return to the main window and then set the desired **Crop X**, **Crop Y**, **Crop Width**, **Crop Height** values within the PiP properties pane. The cropping origin is the top left corner of the PiP.

You will only see the effect of your PiP cropping changes on the output display device. PiPs on your PC monitor remain unchanged. Table 3-4 lists the default crop settings for the each video format:

Table 3-4. Default Crop values

Video Format	Crop X	Crop Y	Crop Width	Crop Height
720 p	21	0	1247	719
1080i	8	0	1912	1080
525 (NTSC)	8	0	704	480
625 (PAL)	8	0	704	480

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