

User Manual

Neo[®] VR Command Center Control Software Application

Edition D

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Delivering the Moment

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Publication Information

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NEO VR Command Center Control Software Application

User Manual

Edition D January 2008

Preface

Manual Information

Purpose

This manual details the features, installation, operation, maintenance, and specifications of the NEO VRTM Command Center and Command Center Lite software.

Audience

This manual is written for technicians and operators responsible for the installation, setup, maintenance, and operation of the NEO VR Command Center and Command Center Lite products.

Revision History

Table	P-1.	Revision	History
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Edition	Date	Revision History
Edition A	February 2004	Initial Command Center Lite release
Edition B	July 2004	Add functionality information for the full version of Command Center
Edition C	February 2005	Update software descriptions to Command Center 2.1 and minor corrections to content
Edition D	January 2008	Updated Harris branding

Writing Conventions

To enhance your understanding, the authors of this manual have adhered to the following text conventions:

Term or Convention	Description
Bold	Indicates dialog boxes, property sheets, fields, buttons, check boxes, list boxes, combo boxes, menus, submenus, windows, lists, and selection names
Italics	Indicates E-mail addresses, the names of books or publications, and the 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, or 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 within the electronic document or elsewhere
Internet address	Indicates a jump to a Web site or URL
Mote	Indicates important information that helps to avoid and troubleshoot problems

Table P-2. Writing Conventions

Obtaining Documents

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

Safety

Carefully review all safety precautions to avoid injury and prevent damage to this product or any products connected to it. You will find a complete list of safety precautions in the *NEO Safety Instructions and Precautions Manual*. Only qualified personnel should perform service procedures.

Safety Terms and Symbols in This Manual



WARNING

Statements identifying conditions or practices that may result in personal injury or loss of life. High voltage is present.



CAUTION

Statements identifying conditions or practices that can result in damage to the equipment or other property.

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Introducing NEO VR Command Center

Welcome to NEO VR Command Center

After installing NEO VR Command Center software on a PC, you can control and configure the DVR-3901 Digital Video Recorder (NEO VR) for a variety of broadcast applications.

Command Center Lite is designed to control a single module, using an RS-422 connection between your NEO VR and your PC.

The full version of NEO VR Command Center enables you to control up to 16 NEO VR modules and to create playlists, as well as other software enhancements that are not available in the Lite version. See "Command Center and Command Center Lite Feature Sets" on page 2 for more information.

Using NEO VR Command Center and Command Center Lite, you can manually control the NEO VR so you can ingest (record) and broadcast (play) video and audio material in a non-linear fashion. NEO VR Command Center can be used for a variety of applications in a variety of environments.

This section contains the following topics:

- "Command Center and Command Center Lite Feature Sets" on page 2
- "Touring the NEO VR Command Center Interface" on page 4

Command Center and Command Center Lite Feature Sets

This manual describes the features of both the full version of Command Center and the free version, Command Center Lite. The following table outlines the features that are available in both Command Center and Command Center Lite.



Audio and video proc amps are not available on the VR View interface of Command Center Lite. Command Center Lite administrator users can access Proc Amps through the VR Settings

Table 1-1. Features That Appear in both C	Command Center and
Command Center Lite	

Feature	Reference	
Recording IDs	"Recording an ID" on page 39	
Loading IDs	"Loading an ID" on page 44	
Playing back IDs	"Cueing and Playing IDs" on page 45	
Monitoring audio levels	"Monitoring Audio Levels" on page 53	
Cueing IDs	"Cueing an ID Using Fast Cue" on page 54	
Creating sub clips	"Creating a Sub Clip" on page 56	
Adjusting general settings	"General Settings" on page 88	
Adjusting communication settings	"Communication Settings" on page 90	
Creating user accounts	"Working with User Accounts" on page 91	
Adjusting NEO VR specific settings	"NEO VR Settings" on page 93	

If you are running the full version of Command Center you will have additional features. The following table outlines the features that are only available in the full version of Command Center:

Feature	Reference
Control of up to 16 NEO VRs	"Controlling Multiple NEO VRs" on page 23
Ganging more than one VR	"Using Gang Roll" on page 52
ID trimming	"Trimming an ID" on page 59
Audio and Video level controls on the VR View	• "Using VR View Audio Proc Amps" on page 61
	"Using VR View Video Proc Amps" on page 62
On and off-line inventory	"Viewing On-Line and Off-Line Inventories" on page 72
FTP transfer	"Performing FTP Transfer" on page 74
Playlist creation	"Using Playlists" on page 77
ShotBox control	"ShotBox Overview" on page 83
Ethernet Control over LAN or WAN	"Communication Settings" on page 90

Table 1-2. Command Center Features Not Available in	
Command Center Lite	

Throughout the manual, features that are only available in the full version of NEO VR Command Center have been noted.

Touring the NEO VR Command Center Interface

The NEO VR Command Center interface is modular, with different windows that you can open or close depending on the function you are trying to perform. You can move each of these windows in relation to each other. Figure 1-1 shows a typical view of the Command Center interface.



Figure 1-1. The NEO VR Command Center Interface

The following areas are described in more detail:

- "Main Screen" on page 5
- "VR View" on page 6
- "Time Code Window" on page 7
- "SpotBase View" on page 8
- "ShotBox" on page 9

Main Screen

The main screen provides you with a work space in which to control all aspects of the software. When Command Center is open, other windows sit on top of the main screen, which can be resized.

Figure 1-2 shows the background menu bar and toolbar located at the top of the main screen.



Figure 1-2. NEO VR Command Center Main Toolbar and Background Menu Bar

For more information on the functions of the main screen, see the following:

- "VR View" on page 6
- "Logging In and Logging Out" on page 21
- "ShotBox" on page 9
- "Privilege Levels" on page 22

VR View

The **VR View** provides a graphical interface replicating the front panel controls of a typical VTR. The buttons visible in the **VR View** are fully functional.

Figure 1-3 highlights the **VR View** on a typical Command Center interface.



Figure 1-3. VR View in the Command Center Interface

Use the VR View window to record and play back clips stored on the NEO VR, and monitor input and output audio levels.

See "Using the VR View" on page 29 for more information.

Time Code Window

The **Time Code** window of the **VR View** provides information about the currently loaded ID, including the time remaining, the total duration, and the title. The Time Code window also contains a series of sub menus, each dedicated to a particular set of features for controlling the clip functions on the NEO VR.

Figure 1-4 highlights the **Time Code Window** on a typical Command Center interface.



Figure 1-4. Time Code Window in the Command Center Interface

See "Time Code Window" on page 31 for more information.

SpotBase View

The **SpotBase View** displays the inventory of clips stored on the NEO VR. Use the **SpotBase View** to sort clips, change clip information, select clips for playback, and delete clips. If you have the full version of Command Center (not Command Center Lite) you can also use the SpotBase View to organize and trim clips and generate and edit playlists.

Figure 1-5 highlights the **SpotBaseView** on a typical Command Center interface.



Figure 1-5. SpotBase View in the Command Center Interface

See "Using the SpotBase View" on page 65 for more information.

ShotBox

The **ShotBox** is a quick way to access clips on any NEO VR accessible to the Command Center software. Use this view when you require spontaneous access to any clip on a NEO VR.

Figure 1-6 highlights the **ShotBox** on a typical Command Center interface.



In the Lite version of Command Center, you can open the ShotBox and view the agencies that clips are stored in, but you cannot load clips from the ShotBox.



Figure 1-6. ShotBox in the Command Center Interface

See "Using the ShotBox" on page 83 for more information.

Chapter 2 Installing NEO VR Command Center

Installation Overview

See the following topics for information about installing the NEO VR Command Centre software:

- "System Requirements" on page 12
- "Installing NEO VR Command Centre Software" on page 14
- "Installing the USB Shuttle Knob" on page 17

System Requirements

The system requirements are divided into these groups:

- "Required Hardware" below
- "Required Operating System and Software" on page 13
- "Installation Considerations" on page 13

Required Hardware

Install the NEO VR Command Centre software on a PC that meets or exceeds the following hardware requirements:

- Pentium III
- 128 MB RAM
- 8 MB video card
- RS-232 or RS-422 serial port



Ethernet control is not supported in the Lite version.

Additional Requirements if you are connecting Via Ethernet

The best way for the NEO VR Command Center software to communicate with the NEO VR(s) is via IP network over Ethernet connection. You can set up the IP address, subnet mask, and gateway address of the NEO VR using CCS Pilot software or the card edge controls on the module. Or, you can connect to an RS-422 port first and use the Command Center NEO VR Settings screen to set up the IP Address for that NEO VR. After the IP Address set-up, make sure that from the PC where Command Center is installed, you are able to "ping" the NEO VR(s) which are to be controlled.

Additional Cabling Requirements if you are Connecting Via RS-422 Connection

NEO VR Command Centre can communicate with the NEO VR using serial ports on the computer, though an Ethernet connection is preferred. Use the RS-232 to RS-422 conversion cable supplied with the NEO VR, if the length (6 ft/1.83 m) is adequate. Otherwise, use a standard RS-422 cable with a high quality RS-232 to RS-422 converter.

The full version of Command Center can communicate over either serial or a standard IP network connection. For the best performance, use an IP network interface.



To avoid possible damage to your computer or NEO VR, ensure you have a Harris supplied RS-232-to-RS-422 conversion cable, or—if you are using an RS-422 cable only—a correct RS-232-to-RS-422 adapter. The NEO VR RS-422 connection is pin-compatible with standard broadcast VTRs. See the *DVR-3901 Digital Video Recorder Installation and Operation Manual* for more details.

Required Operating System and Software

You can install NEO VR Command Centre on a PC running a Windows[®] XP[®] or Windows[®] 2000[®] operating system. Although the software should run adequately on Windows[®] 98[®], this operating system is not supported.

Installation Considerations

Before installing NEO VR Command Centre, you need to determine the physical location of both the NEO VR, and the computer that you will be using to control it. Some of the items you need to consider are listed below.

- Adequate cooling within the NEO frame
- VGA, keyboard and mouse location
- Distance to, and type of communication with, the NEO VR
- Distance to the quality control monitoring station
- NEO VR speaker location and distance
- UPS availability and power considerations

Installing NEO VR Command Centre Software

The NEO VR Command Centre software is contained in a single executable file (NeoVR.exe). After a proper installation, this file is all that is required to run NEO VR Command Centre. Two .ini files are also used to store your settings, NeoVR.ini and user.ini. NEO VR Command Centre saves all setting changes made to the program in the NeoVR.ini file, and user settings are stored in the separate user.ini file. This user.ini file can also be removed, and a new one created when you save any new user settings.

For information on installing the software, see the following topics:

- "Initially Installing Command Center Software" on page 15
- "Updating NEO VR Command Centre Software" on page 16
- "Returning NEO VR Command Centre to Factory Presets" on page 16

Initially Installing Command Center Software

To install the NEO VR Command Centre software for the first time, complete the following steps:

1. Close all other applications running on the PC and insert the Installation CD into the PC CD-ROM drive.

The setup program automatically runs when the drive closes.



Ensure you make a backup of all crucial data prior to installing the software. If you will be installing a USB dongle to enable the full version of Command Center, you MUST install the software BEFORE inserting the USB dongle into your system. The software install contains the necessary drivers to enable the USB dongle.

- 2. When the **NEO VR Command Centre Startup** dialog box appears, click **Next**.
- 3. When the **NEO VR Command Centre Setup Wizard** dialog box appears, click **Next**.
- 4. When the **Software License Agreement** dialog box appears, read the agreement carefully, and then perform one of the following actions:
 - To continue the installation select the I Agree option.
 - If you do not agree with the Software License Agreement, select the **I Do Not Agree** option. This will cancel the installation.

See the "Software Licence Agreement" on page 113.

The **Select Installation Folder** opens. The default installation location appears in the **Folder** field.

- 5. If you wish to change the default folder, click **Browse...**, or to find out whether any particular drive has sufficient space, click the **Disk Cost** button. The installation requires about 35 MB.
- 6. Click **Next** to proceed.
- 7. When the **Confirm Installation** dialog box appears, click **Next** to begin the installation.

When the installation is finished, the **Installation Complete** dialog box appears.

- 8. Click **Close** to exit the installation.
- 9. Before running NEO VR Command Centre, restart your computer to enable Windows to register all of the components.
- 10. If you were provided a USB dongle to enable the full version, insert the dongle.

Windows should detect the dongle, and by stepping through the install, automatically find the drivers for the dongle.

Updating NEO VR Command Centre Software

From time to time, software updates will be available from the Harris Broadcast Communications Division website. These updates may contain improvements and adjustments in the way that the software works. Most upgrades can be performed in a very short period of time, and will likely require changing only one or two files. Follow the upgrade instructions that are included with the update.

Returning NEO VR Command Centre to Factory Presets

The NEO VR Command Centre software automatically starts in factory mode if the NEO VR.ini file does not exist. If you wish to return the system back to factory settings, follow this procedure:

1. Backup the NeoVR.ini file.

It is located in the same directory as NeoVR.exe.

- 2. Delete the NeoVR.ini file.
- 3. Start NEO VR Command Centre.

The program will launch in factory mode.

4. To log in after deleting the user.ini file, use the user name "System" and no password.

Once you save any setting changes, a new NeoVR.ini file is created.



With no configurations in the registry, the INI file can also be sent back to the Harris Broadcast Communications Division factory for troubleshooting purposes.

Installing the USB Shuttle Knob

You may use an optional USB shuttle knob to control NEO VR Command Center (Harris part number NEO VR USB CONT).

To install the shuttle knob, please follow the directions from the manufacturer to properly install and register the drivers. Before using the knob with Command Center, you must load the NeoVR.Pref file into the settings of the shuttle knob. Then apply these settings to the executable program NeoVR.EXE which should be located in the "C:\Program Files\Leitch\NEO VR" folder. Please refer to the directions that came with your shuttle knob. You will find the preference file located in the same directory as the executable. You can use the shuttle knob for other applications on your system as well by setting up other preference files and applying them to other executables.

Keystroke Equivalent Chart

If you have problems importing the preference file, you can create your own under the global settings in the shuttle knob settings.

The table below describes the key structure used for NEO VR Command Centre.

Button/Function	Keystroke Equivalent
1	Shift+Control+Alt+1
2	Shift+Control+Alt+2
3	Shift+Control+Alt+3
4	Shift+Control+Alt+4
5	Shift+Control+Alt+5
6	Shift+Control+Alt+6
7	Shift+Control+Alt+7
8	Shift+Control+Alt+8
9	Shift+Control+Alt+9
10	Shift+Control+Alt+0
11	Shift+Control+Alt+F1
12	Shift+Control+Alt+F2

Table 2-1. Keystroke Equivalents

Button/Function	Keystroke Equivalent
13	Shift+Control+Alt+F3
Jog Left	Shift+Control+Alt+Y
Jog Right	Shift+Control+Alt+Z
Shuttle in Left 7	Shift+Control+Alt+A
Shuttle in Left 6	Shift+Control+Alt+B
Shuttle in Left 5	Shift+Control+Alt+Q
Shuttle in Left 4	Shift+Control+Alt+D
Shuttle in Left 3	Shift+Control+Alt+E
Shuttle in Left 2	Shift+Control+Alt+F
Shuttle in Left 1	Shift+Control+Alt+G
Shuttle Centered	Shift+Control+Alt+H
Shuttle in Right 1	Shift+Control+Alt+I
Shuttle in Right 2	Shift+Control+Alt+J
Shuttle in Right 3	Shift+Control+Alt+K
Shuttle in Right 4	Shift+Control+Alt+L
Shuttle in Right 5	Shift+Control+Alt+M
Shuttle in Right 6	Shift+Control+Alt+N
Shuttle in Right 7	Shift+Control+Alt+O
Set All	
Frequency	Once Only
Sync release	Not Checked
All Other	
User Action	Do Nothing

Table 2-1. Keystroke Equivalents(Continued)

For information on using the USB shuttle knob to move around within IDs, see "Using the USB Shuttle Knob" on page 51.

Chapter 3 Getting Started

Getting Started Overview

The following topics are covered in this section:

- "Launching the Software" on page 20
- "Logging In and Logging Out" on page 21
- "Controlling Multiple NEO VRs" on page 23

Launching the Software

Depending on how the software was installed, NEO VR Command Centre can be launched from the **Start** menu, or by double clicking the shortcut on the desktop. The following figure shows the NEO VR Command Center desktop icon.



When NEO VR Command Centre opens, the splash screen appears, and the program immediately starts to retrieve the ID inventory for the SpotBase from the NEO VR.

See the following topics for more information:

- "Logging In and Logging Out" on page 21
- "Privilege Levels" on page 22



If you have installed the USB dongle correctly, the splash screen should no longer read Command Center Lite. The correct splash screen for the full version is Command Center.

Logging In and Logging Out

When NEO VR Command Centre first launches, the **Log In/Out** dialog box appears. The **Log In/Out** dialog box can be accessed on the right side of the main tool bar in the NEO VR Command Centre window. This dialog box allows you to log out of the system as well. Passwords are case-sensitive, but user names are not.

To log in, complete these steps:

1. Type your user name in the User Name box.

The user name is not case-sensitive.

2. Tab to the **Password** box and type in your password. The password is case-sensitive. The default user login and password are:

User: system

Password: (blank)

3. Click **OK** to close the dialog box and start NEO VR Command Centre.

The currently logged-in user, and his or her privilege level, are shown in the top right-hand side of the main tool bar.

If you do not log in, by pressing **Cancel** on the **Log In/Out** dialog box, you will still be able to view the operational dialog boxes.

However, you must be logged in to NEO VR Command Centre to control or make changes to the NEO VR. If you are not logged in and you attempt to control or change anything, a message will appear warning that you do not have the correct privileges.

If you are an administrator, you can create new user accounts and assign them privilege levels. See "Working with User Accounts" on page 91.

Privilege Levels

A registered user can have one of three privilege levels:

- Operator
- Master Operator
- Administrator

Operator

An operator can control every aspect of the software, except the ability to change system settings and delete items from the SpotBase.

Master Operator

In addition to performing all the same actions as an operator, this level allows you to delete items from the server SpotBase.

Administrator

This is the highest privilege level, allowing you to control all aspects of the software, including deleting from the SpotBase and making changes to the system settings. Only an administrator can add or remove users.

Privilege levels are set by the administrator when creating a user profile. For more information, see "Overview of the Administrator Settings" on page 87 and "Working with User Accounts" on page 91.

Controlling Multiple NEO VRs

Ethernet networking is the preferred method of connecting multiple NEO VR units for control. For more information on Communication Settings, please see "Communication Settings" on page 90.



The multiple NEO VR feature is only available with the full version of Command Center.

Connecting NEO VRs Via Ethernet

The IP address for the NEO VR is static. To configure up to 16 NEO VRs for control by one Command Center, follow this procedure:

- 1. Connect all the NEO VRs via Ethernet to the same network.
- 2. In the Command Center software, choose **Communication Settings** from the **Settings** menu. The **Communication Settings** window opens.
- 3. For each NEO VR, place a check beside **Network Port (IP)** and enter the IP address of the NEO VR.
- 4. Click Apply and Save.

You should now be able to control multiple NEO VRs from the Command Center interface.

Connecting NEO VRs Via Serial Port

To connect multiple NEO VR units using communication ports, you will need to connect the NEO VRs to a multiport serial card.

- 1. Connect all the NEO VRs via serial cables to a multiport serial card, which you will have to purchase separately.
- 2. In the Command Center software's application background menu bar, choose **Settings** and then choose **Communication Settings**. The **Communication Settings** window opens.
- 3. For each NEO VR, place a check beside **Communication Port** (Serial) and select the com port that the NEO VR is connected to.
- 4. Click Apply and Save.

You should now be able to control multiple NEO VRs from the Command Center interface.

Overall VR View

Using the **Overall VR View**, you can check the status of each NEO VR connected to the Command Center software.

To open a window that will tell you the status of all connected NEO VRs, on the background menu bar, click **View** > **Overall VR View**. Figure 3-2 shows an **Overall VR View** with four NEO VRs attached.

🗞 LEITCH 🛛 VR View 🛛 🗵		
VR	Time Code	Status
VR #1	01:12:27;20	Playing
VR # 2	No	Comm.
VR#3	No	Comm.
VR# 4	No	Comm.
VR#5	No	Comm.
VR#6	No	Comm.
VR # 7	Not	Connected
VR# 8	No	Comm.
VR# 9	No	Comm.
VR #10	No	Comm.
VR # 11	No	Comm.
VR#12	No	Comm.
VR # 13	No	Comm.
VR # 14	No	Comm.
VR # 15	No	Comm.
VR# 16	No	Comm.

Figure 3-2. Overview VR View

The sixteen rows in the **Overall VR View** each represent a different NEO VR. No communication with a NEO VR is indicated with **No** in the **Time Code** column and **Comm** in the **Status** column. VRs that are currently controlled by another Command Center are indicated with **Not** in the **Time Code** column and **Connected** in the **Status** column.

The **Time Code** column indicates the position of the playhead for that VR. The **Status** column indicates the current state of that VR. Status information is also available at a glance through the color-coding of each individual row.

There are various methods of accessing the clips on any of the NEO VRs attached to your Command Center software. For information on these various methods, see: "Choosing Which NEO VR to Control" on page 38.



The Overall VR View is only available in the full version of Command Center.
Sharing NEO VRs

Version 2.1 or higher supports NEO VR sharing between computers. Two or more computers can access a single NEO VR. Only one system can control a NEO VR at a time.

If you need to allow for more than a single control point, then by installing another instance of the Command Centre software on a second computer on the network, you are able to switch the control of the NEO VR back and forth.

This feature will work both over IP control and RS-422 control when using the full version of Command Center.

In the top corner of the **VR View** or **ShotBox** is a Connect/Disconnect button (the name toggles between **Connect** and **Disconnect**, depending on the communication state of the selected NEO VR). If the button indicates **Connect**, you can press it to attempt to take control over the VR from another user (see "Taking Control of a NEO VR" on page 26).

If the button indicates **Disconnect**, press it to release control of the NEO VR, so that NEO VR will be available to other users (see "Releasing Control of a NEO VR" on page 28).



Figure 3-3. VR View with Connect/Disconnect Button Labelled



This feature is only available in the full version of Command Center.

				Connec button	t/Disconnect	
@LEITCH		Shot	Box (NEO-VR47)			
Start Play	Start Play Stop Load > Stop VR: NEO-VR47 00:17:08:16 Document Id Image: Stop Load > Play VR: NEO-VR47 NOT CONNECTED Duration: 01:00:00;00 Remaining: 01:36:43:21 VR: Channel					
		ALL ID's				
1 Editsuite1	2 EditSuite2	3 EditSuite3	4 EditSuite4	5 EditSuite5	Agency	
6 EditSuite6	7 EditSuite7	8 EditSuite8	9 Studio55	10 StudioCAM1	ID's	
11 StudioCAM2	12 StudioCAM3	13 StudioCAM4	14 StudioCAM5	15 StudioCAM6	KEY LOCK	
16 StudioCAM7	17	18	19	20	Page IIn	
21	22	23	24	25		
26	27	28	29	30	Page Down	
0 ALL ID's	0 All ID's	0 ALL ID's	0 All ID's	0 ALL ID's	Close	

Figure 3-4. ShotBox with Connect/Disconnect Button Labelled

Taking Control of a NEO VR

If you would like to take control, follow this procedure:

1. On the VR View, press **Connect**. (If there is no **Connect** button, you already have control of the NEO VR.)

A Warning will appear like that in the figure below. The IP address listed in the warning message will depend on your network's configuration, but will state the computer that is currently controlling the NEO VR.



Figure 3-5. Connect Button Warning Message

2. Press Yes.

A window as in the below figure appears.

3. If you wish to send a customized message to the user of the system that is currently controlling the NEO VR, type it in the white field at the bottom of this window, and then click **OK**.



Figure 3-6. User Message Window

If you do not wish to send the other user a message, click Cancel.

The user that had the control taken away will receive an **Interruption Notice**, indicating the computer name that has taken control and the message if it was included. The generic message appears in the figure below.



Figure 3-7. Generic Message When Another User Takes Control of the NEO VR

You now have control of the NEO VR in question. The **Connect** button in the top right corner of your **VR View** is replaced by a Disconnect button.

Releasing Control of a NEO VR

If you would like to release control of the currently selected NEO VR, follow this procedure:

1. On the **VR View**, press **Disconnect**. (If there is no **Disconnect** button, you do not have control of the NEO VR.)

A warning will appear to verify that you would like to disconnect. (See the figure below.)



Figure 3-8. Message that Appears When You Click the Disconnect Button

2. Press Yes.

You now have released control of the NEO VR in question. The label display on the button in the **VR View** switches from **Disconnect** to **Connect**.



The **Disconnect** button is useful when switching back and forth between Command Centre and a RS-422 hardware-based controller. By releasing communication, the DVR will switch over to the RS-422 controller within 15 seconds of pressing the **Disconnect** button.

Chapter 4 Using the VR View

VR View Overview

The VR View window of the NEO VR Command Centre is the primary control panel for the NEO VR. This window contains controls similar to those found on a VTR, a Time Code window that provides information about the currently load ID, and menus for detailed clip manipulation and control.

If you have the full version of Command Center, you can have numerous **VR Views** open at the same time, possibly one for each NEO VR connected to NEO VR Command Center. If you have Command Center Lite, you are limited to one **VR View** window.

The **VR View** ("VR View Window" on page 30) contains a number of areas for monitoring and controlling the NEO VRs. These areas include the Time Code window, manual controls (key board and the search dial), playback speed controls, audio level monitor, and notification lights for ID Protect, and Key Lock.

See these topics describing the sections of the VR View window.

- "Opening the VR View" on page 30
- "Time Code Window" on page 31
- "Using the Time Code Window Menus" on page 32
- "Cueing and Playing IDs" on page 45
- "Trimming an ID" on page 59
- "Using the USB Shuttle Knob" on page 51

Opening the VR View

You can open the **VR View** from the application background menu bar by clicking **View** > **VR View**. Or you can click **Open VR View** in the main tool bar (see the figure below).



Figure 4-1. Open VR View Button on the Command Center Screen

The VR View is shown below.



Figure 4-2. VR View Window

Time Code Window

The **Time Code** window displays parameters for the currently loaded ID. Table 4-1 describes the different parts of the **Time Code** window.



Figure 4-3. Time Code Window

Table 4-1. Area	as of the	Time	Code	Window
-----------------	-----------	------	------	--------

Areas	Description
Mark In	Marks the beginning of material when you are making sub clips
Mark Out	Marks the end of material when you are making sub clips
ID/Description	Presents the name of the currently loaded clip on the NEO VR
Agency	States what agency the ID is sorted with for the purpose of clarification
Duration	Indicates the length of the ID
Remaining	Indicates the time remaining in the ID relative to the current position; a progress bar gives a visual representation of the current location within the ID
Time Code	Represents the current time code location of the current ID
Menu	Allows for additional control over the server

See the following topics for information on using the **Time Code** window:

- "Cueing and Playing IDs" on page 45
- "Controlling a NEO VR in the VR View" on page 38
- "Using the Time Code Window Menus" on page 32

Using the Time Code Window Menus

The menu is located across the bottom of the **Time Code** window. It consists of six buttons. Above these buttons is a label which always indicates which menu you are in. (If you click **Main** while you are in the **Main** menu, there is no effect.)

The **Main** menu consists of buttons for five sub-menus.Use the **Main** menu to access the other menus of the **VR View** window. To select a sub-menu, click on its button. Figure 4-4 displays the **Main** menu. Table 4-2 defines the functions of the different menu items.



Figure 4-4. Main Menu View

	I	
Sub-Menu	Function	Reference
ID	Adds or load new IDs into the VR view	"Navigating the ID Menu" on page 33
Mark	Inserts start- and end-point markers into the current ID clip	"Navigating the Mark Menu" on page 34
Sub Clip	Creates sub-clips	"Navigating the Sub Clip Menu" on page 35
Goto	Cue the currently loaded ID	"Navigating the Goto Menu" on page 36
Playlist	Adds and extract playlists	"Navigating the Playlist Menu" on page 37

Table 4-2. Main Menu Options

Navigating the ID Menu

In the **Main** menu, when you click **ID**, you open the ID menu. Use the **ID** menu to create IDs (record or capture media) and load IDs into the **VR View** for playback. Figure 4-5 displays the **ID** menu. Table 4-3 defines the functions of the different menu items.

					ľ	lorthE	last		×
Mark In: Mark Out ID / Desc Agency:	00:00 00:00 ription.	1.00,00		00::	29:	17;1	16 0 ¹ⁿ -6 -10	SHUTTLE JOG	VAR
IDURAION ID M Main	tenu Add		- 1	Load -	Tri	n Rel	resh u		
LOOP	START	FRAME	RECORD	FRAME	END	IN OUT	PROTECT		
S P	ы	-4E		110	м		CHASE	ALEITCH	
EIECT	REW	PLAY	PAUSE	PLAY	F FWD	STOP	🗖 CHASE LOCK	A second second	
			H	P.	bb)		🗖 KEY LOCK 🔄 DISK OK		

Figure 4-5. ID Menu View

Button	Function	Reference
Main	Returns to the Main menu	"Using the Time Code Window Menus" on page 32
Add	Adds a new ID	"Recording an ID" on page 39
Load	Loads a previously created ID	"Loading an ID" on page 44
Trim	Permanently removes the material between the in point (Mark In) and the out point (Mark Out)	"Trimming an ID" on page 59
	Note: Trim will not work on playlists or sub clips, and does not function in the Lite version of Command Center.	
Refresh	Reloads the entire SpotBase Note: Please allow the SpotBase to finish loading before performing any other functions.	"Using the SpotBase View" on page 65

Table	4-3.	ID	Menu	0	ptions
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Navigating the Mark Menu

In the **Main** menu, you can click **Mark** to open the **Mark** menu. Use the **Mark** menu to insert start- and end-point markers into the current ID. That ID can be a clip, sub clip or playlist. Figure 4-6 displays the **Mark** menu buttons. Table 4-4 describes the functions of the **Mark** menu.



Figure 4-6. Mark Menu View

Button	Result	Reference
Main	Returns to the Main menu	"Using the Time Code Window Menus" on page 32
In	Stores the current time code position as an in-point for a trim or sub clip (same function as the Mark In button in menu)	"Trimming an ID" on page 59
Out	Stores the current time code position as an out-point for a trim or sub clip (same function as the Mark Out button in menu)	"Trimming an ID" on page 59
Fast Cue	Opens the fast cue form to quickly work through a long ID	"Cueing an ID Using Fast Cue" on page 54

Navigating the Sub Clip Menu

In the **Main** menu, click **Sub Clip** to open the **Sub Clip** menu. Use the **Sub Clip** menu to create sub clips by inserting in-points and out-points in the current ID. Figure 4-7 shows the items in the **Sub Clip** menu. Table 4-5 describes the functions of the items in the **Sub Clip** menu.

	NorthEast	X
Mark In: 00:00:00;00 Mark Out: 00:00:00;00 ID / Description: Agency:	00:29:17;16 🔒	S
Duration: 00:00:00:00	-20 SHUTTLE JOG VAR	
Main In Out	Add Fast Cue	<u>i</u> fff
LOOP START FRAME R	CORD FRAME END IN OUT TO PROTECT	
		G
EJECT REW PLAY P	RUSE PLAY F FUD STOP CHASE LOCK	10

Figure 4-7. Sub Clip Menu View

Button	Result	Reference
Main	Returns to the Main menu	"Using the Time Code Window Menus" on page 32
In	Stores the current time code position as an in-point for a sub clip (same function as the Mark In button in the menu)	"Creating a Sub Clip" on page 56
Out	Stores the current time code position as an out-point for a sub clip (same function as the Mark Out button in the menu)	"Creating a Sub Clip" on page 56
Add	Opens a form to create a sub clip of the currently loaded ID	"Creating a Sub Clip" on page 56
Fast Cue	Opens the fast cue form to quickly work through a long ID	"Cueing an ID Using Fast Cue" on page 54

Navigating the Goto Menu

In the **Main** menu, click **Goto** to open the **Goto** menu. Use the **Goto** menu to cue the currently loaded ID for playback. Figure 4-8 displays the options in the Goto menu. Table 4-6 describes their functions.



Gang Roll is only available in the full version of Command Center.



Figure 4-8. Goto Menu View

Table 4-6.	Goto	Menu	Options
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Button	Result	Reference
Main	Returns to the Main menu	"Using the Time Code Window Menus" on page 32
In	Cues the currently loaded ID to the position indicated by Mark In (same function as the Mark In button in the menu)	"Trimming an ID" on page 59
Out	Cues the currently loaded ID to the position indicated by Mark Out (same function as the Mark Out button in the menu)	"Trimming an ID" on page 59
Sync	(Used with gang roll) transmits a Cue to Current Time Code command from the active NEO VR to all receiving NEO VRs	"Using Gang Roll" on page 52
Chase	Opens the Chase Mode form so you can either enter chase mode or make adjustments to the timing of an existing chase	"Using Chase Mode" on page 55
Fast Cue	Opens the fast cue form to quickly work through a long ID	"Cueing an ID Using Fast Cue" on page 54

Navigating the Playlist Menu

In the **Main** menu, click **Playlist** to open the **Playlist** menu. Use the Playlist menu to either add new playlists or to extract current playlists. Figure 4-9 displays the items in the **Playlist** menu. Table 4-7 describes the functions of the **Playlist** menu items.

						1	North	East		X
\otimes	Mark In: Mark Ou ID / Des Agency	00:0 t: 00:0 cription	0:00;00 0:00;00 : :00:00		00:	29:		16 0 h -6 -6 -10	SHUTTLE JOG VAR	T
	Plaγ L Main	ist Men Adı	u d Ex	tract	-	-		- 1 - 10 - 10 - 10 - 10 - 10 - 10 - 10		-777
	LOOP	START	FRAME	RECORD	FRAME	END	IN OU	T 🗖 PROTECT		
(JA)	R	14	-41		11-	м		CHASE	ALEITCH	a
O	EIECT	REW	PLAY	PAUSE	PLRY	F FWD	STOP	🗖 CHASE LOCK	And address of the second s	
	4	-		н	P)	b9		🗖 KEY LOCK 🔲 DISK OK		

Figure 4-9. Playlist Menu View

Button	Result	Reference
Main	Returns to the Main menu	"Using the Time Code Window Menus" on page 32
Add	Opens the playlist view in Add mode and create a new playlist	"Creating a Playlist" on page 78
Extract	Opens the playlist window, listing all the existing clips within the currently loaded playlist ID	"Reopening a Playlist" on page 80



The **Playlist** feature is only available in the full version of Command Center.

Controlling a NEO VR in the VR View

You can use the **VR View** window to command a NEO VR connected to the system to perform actions using your PC.

The VR View deals primarily with IDs. There are three types of ID.

- **Clips** are parent IDs that hold the actual recorded video material.
- **Sub clips** are pointers that refer to selected sections of existing clips. Sub clips do not require much hard drive space as they are not copies of the clip information.
- **Playlists** are lists of clips or sub clips that can be arranged for playback. Each NEO VR contains a playlist called the Full SpotBase which contains all the clips stored on that NEO VR's hard drives. The Full SpotBase cannot be edited or deleted.



The only playlist you can use in Command Center Lite is the **Full SpotBbase**. With the full version of Command Center, you can create and edit other playlists and view the **Full SpotBase**.

For more information about these functions, see the following:

- "Choosing Which NEO VR to Control" on page 38
- "Recording an ID" on page 39
- "Creating a Sub Clip" on page 56
- "Trimming an ID" on page 59
- "Cueing an ID Using Fast Cue" on page 54
- "Using Chase Mode" on page 55
- "Playlist Overview" on page 77
- "Adjusting Audio and Video Levels" on page 59

Choosing Which NEO VR to Control

The NEO VR which is currently controlled by the Command Center software is the NEO VR listed in the **VR Channel** box in the upper right of the **VR View** window. To choose a different NEO VR, click **VR Channel** and then click the desired NEO VR in the list that appears.

Recording an ID

Before you can record data into the NEO VR Command Center, you should review the relevant settings. For more information, see the following sections:

- "Adjusting Hard Drive Settings" on page 96
- "Adjusting Video Input and Output Settings" on page 98
- "Adjusting Video Proc Amps" on page 100
- "Setting Audio Input and Output Preferences" on page 102
- "Adjusting Audio Proc Amps" on page 103
- "Setting Reference Preferences" on page 105

Recording Using the Add ID Window

To create a new ID, follow these steps:

1. From the **Main** menu, select the **ID** menu and then press **Add**. The **Add ID** dialog box opens. (See Figure 4-10.)



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When the **Add ID** dialog box opens, the NEO VR is automatically changed to **E to E** mode so that you can view what is being presented to the input of the NEO VR card.



Figure 4-10. Add ID Dialog Box

2. In the **ID** / **Description** field, enter a descriptive name for the ID. This is the only required field.

- (Optional) From the Agency drop-down menu, choose which folder or category you wish to store your ID under. Agencies must be created by an administrator on the system. For more information on creating agencies, see "Creating Agencies" on page 109. For information about using agencies, see "Playlist Overview" on page 77.
- 4. (Optional) If you wish to protect this ID from accidental deletion, click the box beside **Protect ID**. ID's that are protected cannot be deleted until the Protect ID has been removed. See "Changing an ID's Information" on page 69 for more information.
- 5. (Optional) To set a fixed length for the recording, either type a number in the **Duration** field, or choose a default duration from the drop-down menu. A duration of 00:00:00:00 is considered open-ended. See "Setting the Default Durations" on page 88 to change the default durations.

Or you click the box to the right of **Open Ended**, the Duration field resets to 00:00:00:00. The button turns red. This indicates that when you start recording, recording will continue until either it is manually stopped, or until the hard drives become full.

6. If you wish to set a time when the ID will indicate that it is ready for deletion, click **Expiry Date**. A calendar will appear. (See Figure 4-11.)



Figure 4-11. Expiry Date Calendar

Select the date when this ID is to expire, then press **OK** to close the calendar. The **Expiry Date** field updates. Expired IDs are identical to other IDs, except that they have a different color in the spotbase.

You can change the color of expired clips by going to the application background menu bar and clicking **Settings** > **General Settings** > **Spotbase Colors**. See "Setting the SpotBase Colors" on page 88 for more information.

- 7. Ensure that your video and audio sources are connected to the NEO VR and that they are playing.
- 8. Press **Record** to start recording.

The NEO VR records for the specified duration as long as there is sufficient disk space available. The new ID does not appear in the SpotBase until the recording has either been completed, or is manually stopped.

Crash Recording an ID

Another way to start recording is by performing a crash record. To crash record, follow this procedure:

1. Ensure that your video and audio sources are connected to the NEO VR and that they are playing.

2. In the **VR View**, press and hold the left mouse button while you use the right mouse button to click **Record**. This two-button mouse action is used to prevent accidental recordings.

If you have made a previous recording during this session, recording begins. The new ID is automatically created based on the last ID, and will be open-ended.

If you have not made a recording during this session, the Add ID dialog box appears.

For information on filling out the Add ID fields, see "Recording" Using the Add ID Window" on page 39. At a minimum, you must enter something in the **ID** / **Description** field. Then press **Record**. Subsequent recordings made using Crash Recording will not open the Add ID box again.



NOTE

While the server is recording new material, a number of elements within the software are prevented from occurring as most resources that are normally available on the card are busy with the recording.

See the following for more information about IDs:

- "Recording an ID" on page 39
- "Using the Full SpotBase" on page 70
- "Using the SpotBase View" on page 65

Remaining Space Form

Use the **Remaining Space** form to constantly monitor the storage space that is available on the NEO VR. To access this form, in the application background menu bar, select **View** > **Remaining Space**. (See Figure 4-12.)



Figure 4-12. Remaining Space Form

If you are using Command Center Lite, the **Up/Down** arrows will not appear beside the name of the NEO VR. If you are using the full version of Command Center and have multiple NEO VRs available, use the **Up/ Down** arrows to scroll through the NEO VRs on the system. The **On-Line** and **Off-Line** fields update to describe the state of the chosen NEO VR.

During recording, the time will change as the available space is used.



The time listed is approximate. Compression rates may vary based on the complexity of each frame. The remaining space can also change if the compression settings are changed. See also "Adjusting Video Input and Output Settings" on page 98.

Loading an ID

Once you have loaded an ID you can play or trim the ID, or you can create a sub clip from it.

You can load an ID in four ways:

- "Loading an ID From the VR View" below
- "Loading an ID by Dragging it From the SpotBase" below
- "Load an ID Using SpotBase Context Menus" on page 45
- "Loading an ID From the ShotBox" on page 45

Loading an ID From the VR View

Starting from the VR View's Main menu, follow this procedure:

- 1. From the Main menu, click **ID**, and then click **Load**. The **Load ID** window opens.
- 2. Enter the name of the ID you wish to load and then click OK.

If the ID exists, the ID is loaded. If the ID does not exist, the you are presented with a message. Find the correct name of the ID you wish to load and try again.

For more information on the ID menu, see "Navigating the ID Menu" on page 33.

Loading an ID by Dragging it From the SpotBase

With the SpotBase open, follow this procedure:

- 1. Click on the ID that you wish to load in the SpotBase.
- 2. Holding the mouse button down, drag the ID onto the Time Code window of the VR View and then release the mouse button.

The ID loads into the VR View ready for manipulation. See also the following topics:

- "Using the SpotBase View" on page 65
- "Controlling the Hard Drives" on page 71
- "Using SpotBase Context Menus" on page 73

Load an ID Using SpotBase Context Menus

- 1. Right-click an item within the SpotBase. A context menu opens.
- Select Load and Play to load the ID and simply begin playing it back, or Load ID to load it without starting playback, or Load and Chase to load the ID in Chase mode. For more information on Chase mode, see "Using Chase Mode" on page 55.

Loading an ID From the ShotBox

If you have many NEO VRs, you may wish to load clips using the **ShotBox**, which is designed to navigate more easily.



You can only load clips using the **ShotBox** feature in the full version of Command Center.

Follow these steps to use ShotBox:

- 1. Click **Open ShotBox** in the NEO VR Command Center toolbar. The **ShotBox** opens in VR Channel mode.
- 2. Click a blue tile to choose the NEO VR where the ID you are searching for resides. The tiled section of the **ShotBox** displays the Agencies within that NEO VR.
- 3. Click the purple tile for the Agency in which the ID you are searching for resides. The tiled section of the **ShotBox** displays the IDs that are stored within that Agency.
- 4. Click an ID (a green tile). This loads the ID.
- Depending on whether the Load > Stop or Load > Play button in the ShotBox is lit, the clip will either sit in pause mode in the VR View, or it will begin to play.

For more information, see "ShotBox Overview" on page 83.

Cueing and Playing IDs

You can cue and play back IDs, and mark in- and out-points, using various tools. These tools are described in the following sections:

- "Using the Manual Controls" on page 46
- "Using the Search Dial" on page 50
- "Using the USB Shuttle Knob" on page 51

Using the Manual Controls

The manual controls in the VR View are fairly straightforward, and work very much like a standard VTR. Figure 4-13 highlights the buttons on a **VR View**. Table 4-8 describes the uses for the buttons.



Figure 4-13. VTR Buttons on the VR View

Table 4-8.	VTR-style	Buttons	on	VR	View
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Button	Effect
Loop	Sets playback mode to loop
	• When lit, during playback, when the playhead reaches the end of the ID, it returns to the start of the ID and continues playback until stopped manually
	• When unlit, playback stops when the playhead reaches the end of the ID
Start	Cues to first frame of ID
Frame (back)	Moves back one frame at a time
Record	Creates a new ID (press first the left mouse button and while holding it down, press the right mouse button to enter Record mode)
Frame (forward)	Moves forward one frame at a time
End	Cues to last frame of ID
In	Marks current time code as in point of ID
Out	Marks current time code as out point of ID
Eject	Loads full SpotBase

Table 4-0. VITC-style Dations on VIT view		
Button	Effect	
Rew	Plays reverse at high speed	
Play (reverse)	Plays backwards at normal speed	

Table 4-8. VTR-style Buttons on VR View

KC W	r lays reverse at high speed
Play (reverse)	Plays backwards at normal speed
Pause	Stops playback
Play (forward)	Plays at normal speed in the forward direction
F. Fwd	Plays at high speed in the forward direction
Stop	Stops play back or record

Using the Start and End Buttons

When playing an ID that is a single clip, the **Start** and **End** buttons behave pretty much as you would expect, going to the beginning and end of the clip, respectively. This gets more complicated when you are trying to move around within a Playlist ID. Whether you are in BVW mode or Playlist mode determines the functions of the **Start** and **End** buttons on a Playlist ID in the Command Center interface.

For more information on choosing the NEO VR's operating mode, see "Adjusting Hard Drive Settings" on page 96.

Playlist mode

In Playlist mode, during a playback of a single clip, **Start** cues to the first frame of the clip and **End** cues to the last frame of the clip. However, a playlist ID normally consists of more than one clip.

The following table shows how the **Start** and **End** buttons behave with Playlist clips in Playlist mode:

Button	Result
Start - double click	Cues to the first frame of the first clip in the playlist
Start - single click	Cues to the first frame of the current clip in the playlist, unless the playhead is already on the first frame of the clip, in which case it cues to the first frame of the previous clip in the playlist
End - double click	Cues to the last frame of the last clip that makes up the playlist
End - single click	Cues to the last frame of the current clip, unless you are on the last frame of the current clip, in which case it cues to the last frame of the next clip

Table 4-9. Start and End Buttons on a Playlist in Playlist Mode

BVW Mode

In BVW mode, a NEO VR records timecode along with clips, and when you put a playlist together, it places black between the clips to fill in the missing time codes. Hence, clips in a BVW playlist are most likely separated by segments of black. These black segments are treated just like clips. So, if a clip is preceded by an area of black, and you press Start, the playhead goes to the start of the current clip. If you press **Start** again, it goes to the first frame of the black region preceding that clip, which is the frame right after the previous clip.

The functions of the **Start** and **End** buttons on a Playlist ID in BVW mode are described in Table 4-10.

Button	Result
Start - double click	Cues to the time code 00:00:00:00
Start - single click	Cues to the first frame of the current clip, unless the playhead is already on the first frame of a clip, in which case it will cue to the first frame of the preceding region of black, the frame right after the previous clip
End	Cues to the last frame of the recorded material with the highest time code position

Table 4-10. Start and End Buttons on a Playlist in BVW Mode

For more information on using BVW mode, see Chapter 5 of your *DVR-3901 Digital Video Recorder Installation and Operation Manual*.

Using the Search Dial

Use the Search dial to move your virtual playhead through an ID quickly or slowly. Figure 4-14 highlights the location of the Jog-Shuttle wheel on the **VR View**. Table 4-11 describes the modes of the Jog-Shuttle Wheel.



Figure 4-14. Jog-Shuttle Wheel on the VR View Interface

The on-screen Leitch search dial works very much like a conventional VTR jog-shuttle wheel. To enter Shuttle, Jog or Variable mode, press that mode's button. Then move the mouse over the search dial, press the mouse button and move the mouse in either a clockwise (forward) or counter-clockwise (reverse) direction.

Table 4-11. Jog Shuttle Modes in VR View

Mode	Effect
Shuttle	Moves forward or backward quickly when you press the mouse button and drag it on the wheel
Jog	Moves forward or backward slowly
Var	Varies the search speed depending on how quickly you drag the mouse

The NEO VR pauses whenever the mouse button is released.



The **VR Channel** menu only appears in the full version of Command Center.

Using the USB Shuttle Knob

The optional USB shuttle knob provides another means of moving around within an ID. It is Leitch part number NEO VR USB CONT.

For installation instructions and programming instructions on the USB shuttle nob, please see "Installing the USB Shuttle Knob" on page 17.

Figure 4-15 defines the functions of the buttons on the shuttle knob.



Figure 4-15. USB Shuttle Knob Labelled Buttons

Outer Shuttle Knob

Turn the outer shuttle knob to shuttle backwards or forwards at variable speeds and switch direction.

Inner Jog Wheel

Twist the inner wheel to slow jog forwards and backwards to find the exact frame you are looking for.

Using Gang Roll

Use gang roll to send the transport commands of one NEO VR to other NEO VRs. A single NEO VR can transmit to 1-15 other NEO VRs. The **Gang Roll View** configures which NEO VR will be transmitting commands to other NEO VRs.

To configure gang roll, follow this procedure:

 From the main Command Center menu, select View > Gang Roll. The Gang Roll window opens. (See Figure 4-16.)

&LEITCH	Gang Roll		X
-Enable Gang Roll-			
Transmit VR	Receive VR(s)		
WB#1	VB#1	☐ VR#9	
	└ VR#2	🗖 VR# 10	
	□ VR#3	🗖 VB# 11	
	🖵 VR# 4	🗖 VR# 12	
	└── VR#5	🗖 VR#13	
	□ VR#6	🗖 VR# 14	
	🗖 VR# 7	🔽 VR# 15	
	🗖 VR# 8	🗂 VR# 16	
	1		
	Save (ancel	

Figure 4-16. Gang Roll Window

- 2. From the **Transmit VR** drop-down menu, choose the NEO VR that will be controlling the other(s).
- 3. In the **Receive VRs** section of the screen, place a check mark beside the NEO VR(s) which you would like to receive the commands. Note that the VR which has been chosen in the **Transmit VR** section of the screen is unavailable for selection.

Gang roll supports most transport commands and commands like adding an ID. It does not support loading, trimming, sub clipping, etc. To achieve frame accuracy among the ganged NEO VRs, you may lock the PC clock to the master time code. However, if the NEO VRs are off-sync after a fast forward or rewind, you can press **Sync** to re-sync them. (See "Navigating the Goto Menu" on page 36.)



Gang Roll is not available in the Lite version of NEO VR Command Center.

Monitoring Audio Levels

The **VR View** has audio monitoring for input and output levels. Audio level monitoring is displayed within the **Time Code** window, and automatically changes between monitoring the input or output of the NEO VR based on the current status of the NEO VR channel. The audio input can be monitored while the NEO VR is in E to E mode.

To place the NEO VR in E to E mode, press **Record**. If the NEO VR is in any other state than was previously mentioned, it would monitor the output of the NEO VR channel.

For optimal quality, it is recommended that you keep the audio levels toward the top of the yellow section, with some peaks into the red.

Figure 4-17 highlights the location of the VU meter on the VR View.



Figure 4-17. Audio Level Monitor

Cueing an ID Using Fast Cue

Use the **Fast Cue** dialog box to cue to a specific point in a long ID. With an ID loaded, follow these steps to do a fast cue:

1. From the Main menu, click Mark and then click Fast Cue. The Fast Cue window opens. (See Figure 4-18)



Figure 4-18. Fast cue Dialog Box

- 2. Use the buttons on the screen to move to the desired point on the ID.
 - Enter time code in time code field.
 - Advance one column of numbers by clicking **Up** and **Down**.
 - Click Start of clip to go to the first frame of the clip
 - Click **Time code at which Fast Cue was opened** to go to that time code

When the time code is changed, the NEO VR automatically cues to that point.

3. When you have cued to the desired timecode in your ID, click on the main **VR View**. The **Fast Cue** window will close automatically.

Using Chase Mode

Use chase mode to play back an ID following the time code that is coming in to the NEO VR through its LTC In jack. If the time code is not exactly matched, you can enter in a time code offset. You can use chase mode to synchronize key and fill animation and run synchronized multichannel displays.

Once in Chase mode, the NEO VR will predict the next time code that comes in from LTC IN jack. If the input time code leaps from one time code to another, the NEO VR will continue to follow, but will be temporally out of sync at the leap. Therefore, please ensure that the input time code is continuous.

To operate in chase mode, follow these steps:

- 1. Make sure you have proper time code input from LTC IN jack. See your *DVR-3901 Installation and Operation Manual* for more information.
- 2. Load an ID. For more information, see "Loading an ID" on page 44.
- 3. Starting from the **Main** menu, click **Goto**, and then click **Chase**. The **Chase Mode** window opens. (See Figure 4-19.)



Figure 4-19. Chase Mode View

4. Adjust the offset as necessary by either typing numbers in the time code field or by using the up and down buttons for each set of numbers. Click in the +/- field to toggle it.

For example, in key and fill applications, adjust this offset to make sure the key and fill are synchronized properly during playback. 5. Click **Enter Chase Mode**. The **Chase Mode** window automatically closes.

When you are in Chase mode, the **Chase** indicator is lit on the **VR View** screen. When Chase mode is in operation (playing), the **Chase Lock** indicator is lit also. See "Using the Search Dial" on page 50 for more information.

To exit Chase mode, click on a transport command button (for example, **Play**, **Stop**, etc.).



Administrator users can also set a default chase offset. See "Setting the Default Chase Offset" on page 89 for more information.

Creating a Sub Clip

A sub clip is a new clip made up of a portion of an existing ID. Sub clips require very little disk space and appear as a different color within the SpotBase. See "Using the SpotBase View" on page 65 for more information about the SpotBase.

Sub clips cannot be trimmed or revised. If you wish to edit a sub clip, you should return to the original ID from which it was created.

To create a sub clip, follow these steps:

- 1. Load the ID from which you wish to create the sub clip, if it is not already loaded. See "Loading an ID" on page 44 for more information.
- 2. Use the transport controls on the VR View or the Shuttle knob (if you have one) to search for the first video frame you wish to have in the sub clip. See "Cueing and Playing IDs" on page 45 for information on the various transport control options you may have available.
- 3. Press In to mark the in point.
- 4. Search for the last video frame you wish to have in the sub clip, and then press **Out** to mark the out point.



The **Start TC** and **End TC** fields denote the sub clip's **Mark In** and **Mark Out** points. The **Duration** field indicates the complete length of the sub clip. The information in these fields cannot be edited.

5. Click **Add** in the **Sub Clip** menu of the **VR View** to open the **Create Subclip** dialog box. (See Figure 4-20.)



Figure 4-20. Create Subclip Dialog Box

- 6. In the **ID** / **Description** field, enter a descriptive name for the ID.
- (Optional) From the Agency drop-down menu, choose which folder or category you wish to store your sub clip under. Agencies must be created by an administrator on the system. For more information on creating agencies, see "Creating Agencies" on page 109. For information about using agencies, see "Playlist Overview" on page 77.
- 8. (Optional) If you wish to protect this sub clip from accidental deletion, click the box beside **Protect ID**. Sub clips that are protected cannot be deleted until the Protect ID has been removed. See "Changing an ID's Information" on page 69 for more information.

9. If you wish to set a time when the sub clip will indicate that it is ready for deletion, click **Expiry Date**. A calendar will appear. (See Figure 4-21.)



Figure 4-21. Expiry Date Calendar

Select the date when this ID is to expire, then press **OK** to close the calendar. The **Expiry Date** field updates. Expired IDs are identical to other IDs, except that they have a different color in the spotbase.

You can change the color of expired IDs by going to the application background menu bar and clicking **Settings** > **General Settings** > **Spotbase Colors**. See page 88 for more information.

10. Once you have entered all the necessary information in the **Create Subclip** dialog box, press **OK** to create the sub clip.

The software performs a number of tests to ensure the sub clip can be created and added to the SpotBase. Once the sub clip is created, it is loaded so you can review it.

Trimming an ID

Trimming an ID permanently removes a portion of it. Trimming can only occur on actual clips, and not on a playlist or sub clip. When trimming a clip, all the audio and video material will be removed between the in point (Mark In) and out point (Mark Out). The section removed will no longer exist and out point will be positioned at the in point. This means it is possible to completely remove sections within a clip and shorten the clip's duration. Once a trim has occurred the storage required by the section removed is released.



The **Trim** feature is available in the full version of Command Center only.

To trim an ID, follow these steps:

- 1. Load the ID you wish to trim. See "Loading an ID" on page 44 for more information.
- 2. Use the transport controls on the VR View or the Shuttle knob (if you have one) to search from the start of the clip for the first video frame you want to delete. See "Cueing and Playing IDs" on page 45 for information on the various transport control options you may have available.
- 3. Press **In** to mark this as the first frame of the trim.
- 4. Search for the last video frame you wish to delete from the clip.
- 5. Press **Out** to mark this frame as the last frame of the trim.
- 6. From the **Main** menu, click **ID** and then click **Trim**. A message will pop up and ask you to confirm the trim. Click **OK** and the frames from mark-in to mark-out are permanently removed.

Adjusting Audio and Video Levels

There are two sets of proc amplifiers for adjusting both the input and output audio and video levels. They must be turned on by an administrator in the settings section of the program.

See "Adjusting Video Proc Amps" on page 100.

Opening and Closing the Proc

On the VR view, there is a fader button on the far right hand side that will hide the search knob and display one of two sets of proc amplifiers. Figure 4-22 displays the location of the **Show Audio / Video Faders** button.



Figure 4-22. Show Audio / Video Faders button

If you click **Proc Amps** once, the video procs replace the search knob. If you click **Proc Amps** again, the audio procs replace the video procs. If you click **Proc Amps** a third time, the search knob returns to the VR View screen.



The Proc control on the VR view is only available in the full version of Command Center. An administrator user can control the video and audio procs in the Lite version, but must do so from the NEO VR Settings window. See "Adjusting Video Proc Amps" on page 100 and "Adjusting Audio Proc Amps" on page 103 for more information.
Using VR View Audio Proc Amps

Audio proc amps control either the audio input or audio output levels. These faders toggle between input and output based on if the NEO VR is in E-E mode. Figure 4-23 highlights the audio proc controls on the **VR View**.



Figure 4-23. Audio Proc Controls

In the top right of the time code window on the VR View, the **In** or **Out** label indicates the mode the NEO VR is in and hence the function of the faders.

Click **Join** (located above the faders) to gang the faders together to make stereo adjusting easier.

Click U (there's one located below each fader) to return that fader to the unity position.

Each fader offers 18dB of gain or reduction on the audio signal.



Audio proc amps are not available in the VR View of Command Center Lite. If you are an administrator user, you can adjust audio procs from the NEO VR Settings window. See "Adjusting Audio Proc Amps" on page 103 for more information.

Using VR View Video Proc Amps

Video proc amps control video, setup, chroma and hue on both the input or output levels. These controls toggle between input and output based on if the NEO VR is in E-E mode. Figure 4-24 highlights the video proc amps on the **VR View**.



Figure 4-24. Video Proc Controls

In the top right of the time code window on the VR View, the "In" or "Out" will indicate the mode the NEO VR is in and hence the function of the controls.

Use the **Up** and **Down** arrows to make adjustments to each control. The arrows can be pressed down once for a small change or held down to make a progressive change. The blue progress bar provides visual notifications of where the limits are located.

Click **Unity** to return a control back to its default position.



Video proc amps are not available in the VR View of Command Center Lite. If you are an administrator user, you can adjust audio procs from the NEO VR Settings window. See "Adjusting Video Proc Amps" on page 100 for more information.

Notification Lights

The five boxes to the right of the VTR controls indicate various states of the software. Figure 4-25 highlights the location of the notification lights on the **VR View**. Table 4-12 describes when these lights are active.



Figure 4-25. Notification Lights on the VR View Interface

Table 4-12. Notification Lights on the VR View
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Light	Meaning
Protect	Indicates that the selected ID cannot be deleted until its Protected status is removed
Chase	Indicates that chase mode is on (see "Using Chase Mode" on page 55)
Chase lock	Indicates that chase mode is functioning correctly
Key lock	When red, indicates that the NEO VR is locked and cannot be controlled (for information on locking and unlocking the NEO VR, see "Locking a NEO VR" on page 95)
Disk OK	Indicates that the hard disks on the NEO VR are functioning correctly

Using the SpotBase View

Overview of the SpotBase View

The **SpotBase View** appears below the **VR View**. It can be opened and closed when the **VR View** is open. The **SpotBase View** contains a list that displays the full inventory of IDs residing on a NEO VR, also referred to as the Full SpotBase. The Full SpotBase you view in this window is always the Full SpotBase belonging to the NEO VR selected in the **VR View**. For information on switching the controlled NEO VR, please see "Choosing Which NEO VR to Control" on page 38.

IDs in the **SpotBase View** are color-coded. To change the colors for ID types in the SpotBase view, see "Setting the SpotBase Colors" on page 88.

If you have the full version of Command Center, the **SpotBase View** contains a series of buttons allowing you to switch the Online/Offline mode of the selected NEO VR's two dedicated drives. In Online mode, you can play and record clips. In Offline mode, you can FTP IDs from one NEO VR to another or to a computer for archival purposes. You can import archived IDs from the computer to an offline drive. The full version of Command Center also makes it possible to create custom playlists. See page 77 for more information.

Command Center Lite only supports Online mode. If a drive is offline, Command Center Lite will not display the offline inventory.

For more information about the **SpotBase View**, see the following topics:

- "Using the SpotBase View" on page 66
- "Controlling the Hard Drives" on page 71

Using the SpotBase View

You can open and close the **SpotBase View** by clicking the small arrow at the bottom left of the **VR View**. Figure 5-1 shows a typical Command Center (not Command Center Lite) **SpotBase View**.



Figure 5-1. SpotBase and VR Views

Each ID is represented by a single entry in the **SpotBase View**. IDs are color-coded for clarity. By default, playlists, clips, expired clips and sub clips each have a different color. For information on changing the color coding, see "Setting the SpotBase Colors" on page 88.

The SpotBase View has several columns of information that help describe the IDs it contains. Drag the scroll bar at the bottom of the **SpotBase View** to see all the columns.Table 5-1 describes what information can be found in the various columns.

Column	Description
ID/Description	Identifier, or name, for the clip (the same ID can be used more than once)
Duration	Playback duration of the ID
Agency	(Optional) NEO VR directory to which the ID belongs (used in sorting IDs in the ShotBox)
Expiry date	Date when the ID changes color in the SpotBase (Expired ID's can still be accessed, they are simply flagged in the SpotBase for possible deletion)
Record date	Date the ID was created
ID Type	Clip, sub clip or playlist
Size KB	ID's file size (hard drive space used), in KB
Data Rate	ID's recording data rate (quality)

Table 5-1. SpotBase View Column Descriptions

Sorting the SpotBase

You can sort the **SpotBase View** by clicking on any column header. If you click the column header a second time, the sort is inverted (ascending/descending order).



The SpotBase menu in the application background menu bar only appears when the VR View is open.

You can also sort the **SpotBase View** by using the **SpotBase** menu. To change the sorting order using the menu, follow these steps:

1. From the application background menu bar, select **SpotBase** > **Sort SpotBase**. (See Figure 5-2.)



Figure 5-2. Sort SpotBase Menu

- 2. From the list, select the column that you want to use as the main sorting parameter.
- 3. Select whether to have the IDs listed in ascending or descending order.

Working with IDs in the SpotBase View

You can use a drag-and-drop operation to move IDs from the **SpotBase View** to the **Time Code** window for immediate loading.

You can also add IDs to the playlist view by dragging and dropping them from the **SpotBase View**.

Other functions you can perform on clips in the SpotBase view include:

- "Changing an ID's Information" on page 69
- "Using the Full SpotBase" on page 70
- "Controlling the Hard Drives" on page 71

Changing an ID's Information

You can change a number of the information fields for IDs that already exist. To make changes, follow these steps:

1. In the **SpotBase View**, double click the ID you want to edit. The **ID Information** window appears. (See Figure 5-3)

LEITCH	ID Informat	ion
	ID / Description	
News Clip 7		
Agency	Record Date	Expiry Date
•	8/24/2004	9/23/2004
		Duration
		00:16:02;07
ID A	Attributes	
Data Rate = 42000 Video Standard = 6	Kbps 25	
Protect ID		
	OK Cancel	
5		

Figure 5-3. ID Information Window

2. Make the changes to the ID parameters. Parameters that you can change are described in Table 5-2.

Table 5-2. Editable Parameters in the SpotBase View

Field	Description
ID / Description	The name of the ID
Agency	The directory or folder that the ID is assigned to; agencies are used to sort clips in the ShotBox (See "ShotBox Overview" on page 83 for more information)
Expiry Date	The date at which the clip ID turns color in the SpotBase View (usually used to indicate clips that are ready to be deleted)
Protect ID	The clip's protected status (a clip that is protected cannot be deleted accidentally. The Protect light in the VR View is red when the loaded clip is protected. If a clip is protected, you must change its status before deleting it)

3. Click **OK** to close the dialog box, saving your changes.

Loading an ID into the VR View for Playback

When you right click on an ID in the **SpotBase View**, you will see three loading options. These options are defined in Table 5-3.

Load Option	Result
Load and play	Loads the ID and begins playing at normal speed from the beginning
Load ID	Loads the ID into the VR View ready to play, trim, create a sub clip, etc.
Load and Chase	Loads ID and places the NEO VR in Chase mode (see "Using Chase Mode" on page 55 for more information)

Table 5-3. Load Options in the SpotBase View

Using the Full SpotBase

Full SpotBase is one of the IDs that appears in the list. Full SpotBase is a playlist of all the clips on the NEO VR. Unlike other playlists, the Full SpotBase cannot be edited in the **Playlist View**. You can load the Full SpotBase like any other ID. You cannot delete the Full SpotBase.

Deleting an ID

To delete IDs using the NEO VR Command Centre software, you must have Master Operator or Administrator privileges. If you are using the full version of Command Center, you can delete IDs in both Online and Offline modes.

To delete an ID complete the following steps:

- 1. Select the ID in the **SpotBase View**.
- 2. Press the **Delete** key on your keyboard, or right click on the ID and select **Delete ID** from the menu that appears.

A message appears to confirm the delete action. If the ID is not protected, the ID is permanently removed from the **SpotBase View**. For more information about protecting IDs, see "Cueing an ID Using Fast Cue" on page 54.



An Administrator user can also delete all clips by formatting the NEO VR. See "Adjusting Hard Drive Settings" on page 96 for more information.

Controlling the Hard Drives

If you are using the Full version of Command Center, there are additional buttons at the top of the **SpotBase View**. Figure 5-4 highlights the location of these buttons. Their functions are described in Table 5-4.

Use these buttons to choose which drives are on-line or off-line (off-line operation is not supported in the Lite version). Drives that are online are ready to record or play back IDs. Drives that are offline can FTP IDs to other NEO VRs or to computer storage for archival purposes. You can import archived IDs from the computer to the offline drive.

ID / Description	Duration	Agency	Expiry Date	Rec ^
CLIP0002				30/
GAME	00:26:59;29		22/11/2003	22/
Goal	00:00:03;04		26/11/2003	26/
House Fire	00:00:10;15		30/11/2003	307
Jay Leno	00:06:59;27		22/11/2003	22/
NEWS	00:04:11;21		22/11/2003	22/
News Bumper	00:00:30:00		30/11/2003	307
				307
Play Of The Week	00:00:12;15		30/11/2003	30/
Sub1	00:00:02;02		26/11/2003	26/
Sub2	00:00:03;07		24/11/2003	24.
Cub3	00-00-02-00		2771172003	27!

Figure 5-4. Drive Control buttons in the SpotBase View

Button	Effect
On-Line	Displays the contents of the drives that are on-line
Off-Line	Displays the contents of the drives that are off-line
Refresh	Updates both on-line and off-line inventory
Тор	When lit, indicates that the upper drive is connected to the video codec (on-line); click to toggle this drive's status
Bottom	When lit, indicates that the lower drive is connected to the video codec (on-line); click to toggle this drive's status

Table 5-4. Command Center Drive Buttons in the SpotBase View

The NEO VR is capable of running in split mode, with one drive on-line and one off-line. In split mode you can do FTP transfers while creating IDs or playing back using the on-line drive.

If you have no plans to use FTP then both drive lights should be lit at all times and the **SpotBase View** should remain in On-Line mode.



When changing drives, the SpotBase is updated.

Viewing On-Line and Off-Line Inventories

The on-line inventory displays the IDs on the drive(s) connected to the video codec for immediate playback or record. The Off-line inventory lists IDs that are capable of being FTP to other NEO VR's or computer storage for archival purposes. (Off-line operation is not supported in the Lite version of Command Center.) When both drives are lit, the on-line view will show all clips on both drives with the off-line showing nothing. If neither drive light is lit, then the on-line inventory will show nothing while the off-line SpotBase shows all clips.

Table 5-5 illustrates the different scenarios of inventory display.

Scenario	Top button	Bottom button	On-Line Inventory	Off-Line Inventory
Both drives are on-line	On	On	Directory list of both drives	Nothing
Top is on-line, bottom is off-line	On	Off	Directory list of top drive	Directory list of bottom drive
Top is off-line, bottom is on-line	Off	On	Directory list of bottom drive	Directory list of top drive
No drives are on-line	Off	Off	Nothing	Directory list of both drives

Table 5-5. Inventory Display Scenarios

Using SpotBase Context Menus

Right-clicking an ID in the **SpotBase View** opens the ID context menu. Depending on whether the ID is in an on-line or off-line drive, there will be different options. Table 5-6 describes the on-line options, and Table 5-7 describes the off-line options.

Command	Description
Load And Play	Loads the selected ID from the SpotBase, and immediately starts playing the ID for review
Load And Chase	Loads the selected clip and place the NEO VR in Chase mode
Load ID	Loads the selected ID from the SpotBase View
Edit ID	Loads the ID Info dialog box, so you can make changes to the selected ID
Delete ID	Deletes the selected ID, if the ID is not protected (see "Using the Full SpotBase" on page 70 for more information)

Table 5-6. ID Context Menu Options for On-Line SpotBase

Command	Description
Delete ID	Deletes the off-line ID
FTP ID To	Opens a window where you can select a computer or to another NEO VR on the same network that has at least one drive in off-line mode, where you can send the selected ID
Import ID	Imports an ID from an archive on a computer

Performing FTP Transfer

Use FTP transfer to move an ID from one NEO VR to another, or to a computer. To perform an FTP transfer between NEO VRs, you have to have multiple NEO VRs under control by the Command Center, and the NEO VRs and the PC must all be on the IP network with communication properly established. To transfer a file from a NEO VR to a PC, only one NEO VR is necessary.

- "Transferring an ID from a NEO VR" below
- "Transferring a Clip from a Computer to a NEO VR" on page 75

The full version of Command Center is required for FTP transfers.

Transferring an ID from a NEO VR

To transfer an ID to from one NEO VR to another, or to your computer or location on the network, follow this procedure:

- 1. Open up a **VR View** for the source NEO VR and another **VR View** for the destination NEO VR.
- 2. Open the **Spotbase View** for the source NEO VR, and click **Off Line** to view the off-line inventory. If the drive containing the desired clip is not off-line, click on that drive to toggle it to off-line.
- 3. Open the **Spotbase View** for the destination NEO VR, and click **Off Line** to view the off-line inventory.
- 4. Examine the size of ID you wish to move and make sure the destination drive has enough space to hold it.
- 5. Right click on the ID and select FTP ID To. A list appears.

The list includes all the off-line drives on the NEO VRs that are available to the local computer, and the computer itself. Drives that are under the control of another computer on the network are not available. (For information on gaining control of other NEO VRs on your local network, see "Sharing NEO VRs" on page 25.)



In order to FTP clips, the drive containing the clip must be off-line.

6. Click on the desired destination drive. An **FTP Transfer Status** window will pop up. This window will actively update the transfer status. (See Figure 5-5.)

Ģ	LEITCH FTP DVR -> DVR
	Source:VR #1 Destination:VR# 2 File Name(s):Hotel Fire Status: Busy File Size: 3742208 Transferred: 1572864

Figure 5-5. FTP Transfer Status

This window must remain open while the transfer is taking place. You can cancel the transfer at any time by clicking \mathbf{X} in the top right corner of the **FTP Status** window. A message box will show up and ask for your confirmation. Otherwise, wait until FTP finishes and you will see that the clip is now added to the destination off-line inventory.

Transferring a Clip from a Computer to a NEO VR

To transfer a clip from the PC to a NEO VR, follow this procedure:

- 1. Right click anywhere on the off-line **SpotBase** and select **Import ID**.
- 2. Select an off-line drive from the menu that appears.

A Windows file selection box appears.

3. Select the file on the PC that you wish to transfer and then press **Open**.

The transfer begins and the FTP Transfer Status window appears.

This window must remain open while the transfer is taking place. You can cancel the transfer at any time by clicking \mathbf{X} in the top right corner of the **FTP Status** window. A message box will show up and ask for your confirmation. Otherwise, wait until FTP finishes and you will see that the clip is now added to the destination off-line inventory.

Chapter 6 Using Playlists

Playlist Overview

A playlist is a group of clips that can be treated as a single clip. You cannot trim a playlist, but you can create sub clips from it. Playlists can be loaded for playback just like other IDs. See "Loading an ID" on page 44.

The Lite version of Command Center has only a single playlist, called the Full Spotbase. The Full Spotbase is a string of all the clips on the NEO VR in the order of their recording. The Full Spotbase is also available in the full version of Command Center. The Full Spotbase is not editable like other playlists that are in the full version of Command Center.

In the full version of Command Center, other playlists are created and edited in the **Playlist View**. Only one **Playlist View** can be open per NEO VR. Here you can add IDs to a playlist, change their order, and delete them.

Because a sub clip does not delete any media from the NEO VR's drives, you can create a sub clip of any playlist, including the Full Spotbase. See "Creating a Sub Clip" on page 56. You cannot trim a playlist.

Playlists (except for the Full Spotbase) can be deleted just like other IDs. See "Using the Full SpotBase" on page 70.

Creating a Playlist

To create a new playlist, follow this procedure:

- 1. From the Main menu, select Playlist and then Add.
- 2. The Add Playlist window opens. (See Figure 6-1.)

₿L	EITCH	Add P	ay List (V	R#1)	×	
	ID / Description					
Se	Seg 1					
	Agency Expiry Date					
Ne	ws 🔽	Protec	t ID	13/08/20	04	
		Play L	ist		1000	
	ID / Description	Duration	Agency	Expiry Date	B 🔺	
	B Roll	00:00:13;03		13/08/2004		
	Hotel Fire	00:00:08;21		13/08/2004	- 11	
	News Bumper	00:00:11;04		13/08/2004	- 11	
					- 11	
					- 11	
					- 11	
					- 11	
		+			- 11	
		-				
					-	
		-		1		
			# of I	Dia Durati		
	Preview 3 00:00:32:28					
	No. of Concession, name					
		Add	Cancel			

Figure 6-1. Playlist Mode View

- 3. In the **ID** / **Description** field, enter a descriptive name for the ID. This is the only required field. If you have already created a playlist, this field may have a unique name based on that one.
- 4. (Optional) From the **Agency** drop-down menu, choose which folder or category you wish to store your ID under.

Agencies must be created by a user with administrator privileges. For more information, see "Creating Agencies" on page 109. For information about using agencies, see "Using Playlists" on page 77.



You cannot create or edit a playlist while the NEO VR is busy with another function.

- 5. (Optional) If you wish to protect this ID from accidental deletion, click the box beside Protect ID. IDs that are protected cannot be deleted until the Protect ID has been removed. See "Changing an ID's Information" on page 69 for more information.
- 6. (Optional) If you wish to set a time when the ID will indicate that it is ready for deletion, click **Expiry Date**. A calendar will appear. Select the date when this ID is to expire, then press **OK** to close the calendar. The Expiry Date field updates. Expired IDs are identical to other IDs, except that they have a different color in the spotbase.
- 7. In the Add Playlist window, add clips and edit the playlist. See the following topics:
 - "Adding Clips to a Playlist" on page 81
 - "Removing Clips from a Playlist" on page 81
 - "Reordering Clips in a Playlist" on page 81



NOTE

You cannot add playlist IDS to playlists.

- 8. Press **Preview** to play the playlist before saving it.
- 9. Press Add to save the playlist.

The playlist is added to the SpotBase and can now be loaded at any time.

Reopening a Playlist

To edit a playlist that has already been saved (for example, if you wish to add or remove a clip), you will need to reopen it.

- 1. In the **SpotBase View**, right click on the playlist you would like to edit and choose Load ID from the menu that appears.
- 2. In the **Playlist** menu, press **Extract**.

The Playlist window opens. You may have to wait a few seconds while the all the IDs are extracted, depending on the size of the playlist.

You may make changes in the same fashion as described in "Adding Clips to a Playlist" on page 81.

- 3. (Optional) Press **Preview** to play the playlist before saving.
- 4. Press Update to save the playlist.



NOTE

Only one playlist can be opened at a time.

Editing a Playlist

To open a playlist, see "Creating a Playlist" on page 78 and "Reopening a Playlist" on page 80.

If you make changes to IDs in a playlist, those changes take effect immediately. If you trim an ID that is part of a playlist, the ID in the playlist will be trimmed as well. If the playlist is open when you trim the clip, you will need to refresh the playlist to see the change in total playlist duration. See "Refreshing a Playlist" on page 82.

Adding Clips to a Playlist

Clips can be added to a playlist in various ways:

- Drag an ID from the SpotBase and drop it in the playlist
- Right click on the playlist grid and choose Add ID >. The next menu that appears contains all the IDs in the Full Spotbase. Click on the ID you wish to add.



You cannot add a playlist ID to a playlist

Removing Clips from a Playlist

Right click in the Playlist section of the Add Playlist or Update Playlist window.

To delete the selected ID, click Delete ID.

To delete all IDs in the playlist, click Delete All.

Reordering Clips in a Playlist

Change the order of the IDs in the playlist by selecting an ID and pressing the arrows to the left of the grid.

Refreshing a Playlist

Changes to a playlist may not be visible until you refresh or reload the playlist. To refresh the playlist, follow this procedure:

- 1. With the playlist open, click **Update** (if the playlist was extracted) or **Add** (if the playlist was newly created). The playlist closes.
- 2. Reload the playlist by right clicking on it in the Spotbase View and then choosing **Extract** from the **Playlist** menu.

Chapter 7 Using the ShotBox

ShotBox Overview

The **ShotBox** is a hierarchical organization of all the clips in all the NEO VRs that Command Center interfaces with. It provides easy access to the clips on multiple NEO VRs. All clips, sub clips and playlists can be quickly recalled for immediate playback.

If you are using the Lite version of Command Center and have clips organized in many Agencies on the one NEO VR that you can control using Command Center Lite, you may find the **ShotBox** a useful tool to help find clips, though you cannot load them from the **ShotBox**.

If you have the full version of Command Center and up to 16 NEO VRs, the **ShotBox** provides easy access to the clips on all the NEO VRs.



The ShotBox can only load clips in the full version of Command Center. In the Lite version, you can navigate agencies, but cannot load clips.

Topics in this section include:

- "Loading an ID From the Shotbox" on page 84
- "Using the ShotBox Controls" on page 85

Loading an ID From the Shotbox

To find a clip the **ShotBox**, follow this procedure:

1. To open the **ShotBox**, click **Open Shotbox** in the button bar at the top of the NEO VR Command Center screen. (See Figure 7-1.)





The **ShotBox** opens in VR Channel mode. The blue **VR Channel** button at the right of the screen lights. Each blue tile on the screen represents a NEO VR.

2. Click on a blue tile to select the VR Channel (NEO VR) you wish to control with the **ShotBox**. Figure 7-2 shows the **ShotBox** in VR Channel mode.

ShotBox (VR #1)						
Start Play	Stop Load > S	itop VR: VR # ID / Descr Duration: 0	rt Ol iption: Seg 1 00:00:33;01	0:00:00;00	Mode VR Channel	
		ALL ID's				
VR #1	VR# 2	VR# 3	VR# 4	VR# 5	Agency	
VR# 6	VR# 7	VR# 8	VR# 9	VR# 10	ID's	
VR# 11	VR# 12	VR# 13	VR# 14	VR# 15	KEY LOCK	
VR# 16		_	_		Page Up	
		_	_			
-	_	_	_		Page Down	
	_	_	_		Close	

Figure 7-2. ShotBox - VR Channel Selection

The blue tiles on the screen are replaced by purple tiles. At the right of the screen, the **Agency** button lights up. The **ShotBox** is now in Agency mode.

Agencies are created by an Administrator user. (See "Creating Agencies" on page 109 for more information.) Agencies are similar to folders. For the purposes of the **ShotBox**, they are used to organize clips.

If there are more agencies than are currently visible, use the **Page Up** and **Page Down** buttons to scroll the **Agency** buttons.

3. Click on a purple tile to choose the Agency you wish to view.

The purple tiles on the screen are replaced by green tiles. These tiles represent all the Ids that belong to the Agency. At the right of the screen, the $\mathbf{ID's}$ button lights up.

4. Press a green tile to play or load a clip (depending on whether Load > Stop or Load > Play is lit at the top of the ShotBox.

To navigate backwards, returning to the Agency level of the **ShotBox**, click **Agency** at the right of the window. To return to the VR Channel level of the **ShotBox**, click **VR Channel**.

Using the ShotBox Controls

In the top left corner of the **ShotBox** are a series of play controls. Their uses are outlined in Table 7-1 on page 86.



The space bar toggles between play and stop on the ShotBox. When Key Lock is lit, you cannot use the ShotBox controls. An administrator user can turn off the Key Lock. For more information, see "Locking a NEO VR" on page 95.

Button	Result
Start	Press to re-cue the loaded ID to the start.
Play	Press to play the loaded ID from its current position.
Stop	Press to stop playback of the loaded ID.
Load > Stop	Press to light. When lit, an ID that is loaded will immediately load and cue to the first frame to await for a subsequent play command.
Load > Play	Press to light. When lit, a ShotBox ID that is loaded will immediately start playing

Table 7-1.	ShotBox	View	Buttons
------------	---------	------	----------------

Administrator Settings

Overview of the Administrator Settings

When logged in with administrator privileges, you will see a **Settings** menu in the Application background menu bar at the top of the main screen. This section describes configuring the system using the tools in the **Settings** menu. The settings are divided into four groups, which are outlined in the table below.

Menu Item	Description	Refer to
Communication Settings	Determines how each NEO VR communicates with Command Center	"Communication Settings" on page 90
General Settings	Determines preferences for Command Center as a whole	"General Settings" on page 88
NEO VR Settings	Determines settings per NEO VR module (note, in Command Center Lite you can only have one)	"NEO VR Settings" on page 93
User Settings	Determines user passwords and privilege levels	"Working with User Accounts" on page 91

Table 8-1.

General Settings

The **General Settings** dialog box contains control settings that are applied throughout the NeoVR Command Center software. These are described in the following topics:

- "Setting the SpotBase Colors" on page 88
- "Setting the Default Durations" on page 88
- "Setting the Default Chase Offset" on page 89

Setting the SpotBase Colors

In the **SpotBase Colors** tab of the **General Settings** dialog box, you can select the colors of different IDs as they appear in the **SpotBase View** and **Playlist View**. You can change the color representing the following ID types:

- Parent
- Sub clip
- Expired
- Playlist

To change the color used to represent an ID type in the **SpotBase View**, complete the following steps:

- 1. Click **Change** beside the ID type field.
- 2. Click the color wheel that appears to select the new color.
- 3. Repeat steps 1 and 2 for all the IDs you want to change.
- 4. Click Apply And Save.

Setting the Default Durations

Use the **Durations** tab of the **General Settings** dialog box to edit the default durations that appear in the **Add ID** window. See "Recording an ID" on page 39 for more information. To alter the durations that appear, follow this procedure:

1. From the application background menu bar, choose **Settings** > **General** and then click on the **Durations** tab.

The **Default Durations In Drop Downs** list provides you with a quick selection of popular duration times. (See Figure 8-1.)

≻ General Settings			<u>2</u>
SpotBase Colors	Dura	tions	Other
Def	ault Durations Ir	n Drop Downs —	
	00:00:05;00	00:02:00;00	
	00:00:10;00	00:05:00;00	
	00:00:15:00	00:10:00;00	
	00:00:20;00	00:15:00;00	
	00:00:25;00	00:20:00;00	
	00:00:30;00	00:30:00;00	
	00:00:45;00	01:00:00;00	
	00:01:00;00	02:00:00;00	
		_	
Ар	ply And Save	Cancel	

Figure 8-1. Default Durations Window

- 2. To change a duration setting, highlight the time that you wish to change, and type the new time.
- 3. Click Apply and Save.

Setting the Default Chase Offset

The default chase offset is used when entering chase mode if a new value is not specified on the **Chase Mode** window. See "Using Chase Mode" on page 55 for more information.

To set the default Chase Mode Offset, follow this procedure:

- 1. choose **Settings** > **General Settings** from the main menu.
- 2. Click on the **Other** tab.
- 3. If you need to toggle the +/-, click in the field with the mouse.
- 4. Type the time code number you wish to offset by.
- 5. Click Apply and Save.

Communication Settings

The communication settings are located where the path of communications from Command Center to the NEO VR is configured.

To configure your communications settings, follow this procedure:

 From the main Command Center menu, choose Settings > Communications Settings. The Communication Settings window opens. (See Figure 8-2.)

tings	
IP Address	192.168.90.1
Serial Port	Com Port 1
Cance	÷I
	tings IP Address Serial Port Cance

Figure 8-2. Communications Settings window

2. Place a check to the right of your communication method of choice. The method must match the cabling between computer and NEO VR.

In the lite version, the only option available is to select the serial port connected to the NEO VR.

When running the full version, an administrator can place a check beside Network Port (IP) and enter in an IP address. In the full version, there is a place for each one of the 16 NEO VRs to be configured.



When using the full version of Command Center, it is recommended to connect over the network. If you are using the full version of Command Center, a window will open with 16 panes like the one at the right. Each pane will describe the communication options for a single NEO VR.

3. Click **Apply And Save** to close the Communications Settings window.

You should now have communication between the NEO VR and computer. If you do not, check your cables. One may have come loose.

Working with User Accounts

The **User Settings** dialog box is where you set up the user accounts for NeoVR Command Center. Each user should have a unique name and a password.

Complete the following steps to create a new user account:

1. From the main menu in Command Center, choose **Settings** > **User Settings**. The **User Settings** window opens. (See Figure 8-3.)

User 9	Settings			
Users				
l	Jser Number			
	Name	System		
	Password			
	Privilege	Administrator		
	Apply And Save	Cancel		

Figure 8-3. User Settings Tab

- 1. To select a **User Number**, click the arrow beside the drop-down list and highlight a number that has not yet been used.
- 2. In the **Name** text box, type a unique name for the user.
- 3. In the **Password** text box, enter a password for the user.

4. To select the **Privilege** level for the user, click the arrow beside the drop-down list, and then select from the three options that appear. The three privilege levels are described in the table below.

Privilege LevelAvailable FunctionsOperatorCan perform all the functions available in
NeoVR Command Center except deleting
server items from the SpotBase and changing
system configurationsMaster OperatorCan perform all the functions available in
NeoVR Command Center except changing
system configurationsMaster OperatorCan perform all the functions available in
NeoVR Command Center except changing
system configurationsAdministratorCan perform all the functions available in
NeoVR Command Center

Table 8-2. Privilege Level Descriptions

In the event that the administrator can no longer access the system, delete the user.ini file located in the same folder as the NEO VR.exe application, and run the program by logging in as "System" with no password.

5. Click **Apply And Save** to close the dialog box.

NEO VR Settings

The **NEO_VR Settings** dialog box is where you can view and configure a NEO VR module. NEO VR settings are made per NEO VR, not on all NEO VRs at once. If you have multiple NEO VRs, you must adjust the settings on each one.

In Command Center Lite, you can change settings for the single NEO VR on your system.

In the full version of Command Center, there are sixteen buttons across the bottom of the screen, as in Figure 8-4. Click a button to change the settings of the selected NEO VR. All the other settings on the screen will affect that NEO VR only.



Figure 8-4. NEO VR Settings Window

See the following topics for more information:

- "NEO VR Selection Buttons" on page 94
- "Adjusting Hard Drive Settings" on page 96
- "Adjusting Video Input and Output Settings" on page 98
- "Adjusting Video Proc Amps" on page 100
- "Setting Audio Input and Output Preferences" on page 102
- "Adjusting Audio Proc Amps" on page 103
- "Setting Reference Preferences" on page 105

- "Setting Test Preferences" on page 107
- "Creating Agencies" on page 109
- "Display Tab" on page 110

NEO VR Selection Buttons

In the full version of Command Center, a button corresponding to each NEO VR unit connected to the Command Center is located at the bottom of the NEO VR Settings window. (NEO VR Selection buttons are only available in the full version of Command Center.)

The 16 buttons are named sequentially from **NEO_VR1** to **NEO_VR16**. When you click on any one of the buttons, you will see the corresponding settings showing in this window. For those NEO VR units that have established communication, the Command Center will actively retrieve the settings from the hardware and display them on the screen.

If a **No Communication** message flashes in the top right of the **NEO VR Settings** window, Command Center cannot see the NEO VR that is currently selected (the only one, in Command Center Lite). Check the Communication Settings, your cables, cable connections and the NEO VR. It is also possible that you do not have 16 NEO VRs connected to the system, and this is an empty spot.

For information on configuring multiple NEO VR units, see "Communication Settings" on page 90.

Naming NEO VRs

Each NEO VR has a default name. You can change the name to something more descriptive of your facility.

- From the Application Background Menu Bar, choose Settings > NEO VR Settings.
- 2. (Full version of Command Center only) At the bottom of the screen, select the NEO VR you wish to rename.
- 3. Click in the field to the right of the **Label** field, and type to replace the current name of the selected NEO VR.

This same label will be displayed as part of the OSD information. See "Display Tab" on page 110 for more information.

Locking a NEO VR

When a NEO VR is locked, no administrator or operator can alter the controls on this NEO VR until it is turned off.

- From the Application Background Menu Bar, choose Settings > NEO VR Settings.
- 2. (Full version of Command Center only) At the bottom of the screen, select the NEO VR you wish to lock.
- 3. Place a check beside **Key Lock**.

To re-enable user access to the NEO VR, remove the check from beside **Key Lock** for this NEO VR.

Resetting a NEO VR to Its Original Settings

To reset a NEO VR to its factory-set parameters, follow this procedure:

- From the Application Background Menu Bar, choose Settings > NEO VR Settings.
- 2. (Full version of Command Center only) At the bottom of the screen, select the NEO VR you wish to reset.
- 3. Click Reset Settings.

The NEO VR returns to its factory settings. No data is lost.

Adjusting Hard Drive Settings

The **Hard Drive** tab displays the current status and configurations of the hard drives on the NEO VR card. Figure 8-5 displays the **Hard Drive** tab. Table 8-3 describes the read-only sections of this screen.

NEO_VR Settings							X
Label	VR#1	Key Lock	F R	eset Settings			
Hard Drives	Video V	rideo Proc. 🛛 🕹	kudio Audi	o Proc. Referen	ice Test / Other	Agency	Display
	On-Line Drive(s) Status			Coff-Line Driv	e(s) Status		
	ON-LINE	DISK(S) CONDI OK	<u>FION</u>	<u>OFF-LI</u>	ne disk(s) con OK	DITION	
	MERGE AVAILABLE DISK SIZE: PERCENTAI	ED DRIVE STATI SPACE: 70565430 78140158 KB GE USED: 9.69 %	US I KB	AVAILAB DISK SIZ PERCEN	DRIVES OFF-LI ILE SPACE: 0KB ZE: 0KB ITAGE USED:	NE	
DVR Operating	g Mode	On-Line Drive(:)	- Record Mode-		Format Disk	
		Merged	C Bottom	Normal	Single Frame	Format On-Li	ne Drive(s)
	etics	Clop	C None	C Loop			
				xit			

Figure 8-5. Hard Drive Tab of NEO VR Settings Window

The top portion of the Hard Drive tab is read-only. The data presented here is for informational purposes only.

Section	Description
On-Line Drive(s) Status	Lists the current status of the hard drive(s) that are currently on-line, including the condition, available drive space, total disk size and percentage of disk space used
Off-Line Drive(s) Status	Lists the current status of the hard drive(s) that are currently off-line, including the condition, available drive space, total disk size and percentage of disk space used
Below the read-only section of the screen are a series of radio buttons. The settings you make here may change the read-only information presented above them. These settings are described in Table 8-4.

Section	Description
DVR Operating Mode	Select the operating mode of the DVR-3901. For details about the modes, refer to "Online Operation Modes" on page 70 of your <i>DVR-3901 Digital Video Recorder Installation and Operation Manual</i> .
On-Line Drive(s)	Select which drives are currently on-line
	• Merged - Both drives are on-line.
	• Top - The upper drive is on-line, the lower drive is off-line.
	• Bottom - The upper drive is off-line, the lower drive is on-line.
	• None - No drives are on-line, both are off-line
	These settings can also be changed in the SpotBase View. See "Controlling the Hard Drives" on page 71 for more information.
Record Mode	Select desired recording mode.
	• Single-frame - Each time record button is pressed, the DVR will capture a single frame; to end recording, press Stop .
	• Loop - The recording will loop over available disk space, but won't delete any prior recorded clips.
	• Normal - Recording stops when the NEO VR runs out of space.
	These settings can also be changed in the SpotBase View. See "Controlling the Hard Drives" on page 71 for more information.
Format On-Line Drive(s)	Press this button to format the drives that are currently on-line. All clips will be deleted. (If you wish to delete individual clips, see "Deleting an ID" on page 70.)

Table 8-4. Radio Buttons on Hard Drive Tab

Adjusting Video Input and Output Settings

The **Video** tab displays and configures the video aspects of the NEO VR module. Figure 8-6 shows a typical **Video** tab. Table 8-5 describes the settings on the **Video** tab.

→ NEO_VR Settings	
Label VR#1 KeyLock	Reset Settings
Hard Drives Video Video Proc. Audio	Audio Proc. Reference Test / Uther Agency Display
SDLINPLIT STATUS	COMPRESSION SETTINGS
PRESENT:	PRESENT BIT RATE: 42000 Kops COMPRESSION RATIO; 339 REMAINING TIME: 0000000
STANDARD:	
Vide Creded - Deduct - Vide Oak	5.5 Bis local Antice Director Made
C D1-525 C Off C Black C	Bars C Normal C F1F1F2F2 C Non Drop
C D1-625 C On C Freeze	C F1 Only C 3:2 Pulldown C Drop
	Exit
•	

Figure 8-6. Video Tab of NEO VR Settings Window

The sections of the Video tab are described below.

Table 8-5.	Video	Tab	Section	Descriptions
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Section	Description
SDI Input Status	This field is read-only. It describes the status and video standard detection of the SDI video input.
Video Bit Rate	Use the slider at the bottom of this section to adjust the video bit rate compression settings of the recording. The field above the slider updates the data rate, compression ratio and amount of time you can capture video for at the current setting.
Video Standard	Select between D1-525 (NTSC) or D1-625 (PAL) lines for the DVR-3901 video system. Ensure that the SDI input and output comply with the video system selection.

Section	Description
Pedestal	Yes - Pedestal (black level above the blanking level) is added to the monitoring video output.No - Pedestal is not added.
Video Out in E-E (No Input)	Select what will be displayed when video input is lost. Options are Black , Freeze , and Bars .
Slow Motion Display Modes	Select one of the four options for the slow motion display mode.
	Normal - Frame 1 and then Frame 2
	F1F1F2F2 - Frame 1 twice and then frame 2 twice
	F1 only - No frame 2
	3:2 pull-down - Repeats frame 1 three times and frame 2 twice. Normally used to convert film (24 frames per second) to NTSC
Drop Mode	Select time code drop frame mode.

Table 8-5. Video Tab Section Descriptions (Continued)

Adjusting Video Proc Amps

The **Video Proc.** tab displays and configures the video proc amp parameters. There are two identical sets of controls for the record and playback procs. Figure 8-7 displays a typical **Video Proc.** tab.



Figure 8-7. Video Proc Tab of NEO VR Settings Window

It is recommended that you turn on E-E mode when you are setting the video recording proc amp, and turn off E-E mode when you are adjusting the video playback proc amp.



The video proc on the VR View screen is only available on the full version of Command Center. To use video procs in Command Center Lite, an administrator user can adjust video proc amps on this screen.

The sections of the Video Proc. tab are described in Table 8-6.

Section	Description
Video Proc. Enable	Allows the administration to give or not to give operators the control of video proc amp on the VR view (Full version of Command Center only)
Proc Enable	Enables or disables record or playback video proc amp; when disabled, all proc amp settings return to unity the controls do not change the proc amp values
White Clip	Adjusts the threshold above which white will be clipped
Black Clip	Adjusts the threshold below which black will be clipped
Chroma Clip	Adjusts the threshold above which chroma will be clipped
Luma Gain	Adjusts the range of brightness in all areas; turning up the luma gain stretches out the range of the waveform so that it has a bigger amplitude (this is similar to a contrast control in that dark areas remain dark and bright areas become brighter)
Luma Offset	Adjusts the overall brightness of the video
Chroma Gain	Adjusts the color saturation, increasing or decreasing all colors by the same amount ; at 0 the image is black and white, and at 2555 all of the colors are very saturated
Hue	Adjusts the chroma tint (or phase)

 Table 8-6.
 Video Proc.
 Tab Section Descriptions

Setting Audio Input and Output Preferences

The **Audio** tab displays and configures the audio aspects of the NEO VR card. Figure 8-8 displays a typical **Audio** tab. Table 8-7 describes the sections of the **Audio** tab.

	AUDIO STA AES PRESEI GROUP 1 PF GROUP 2 PF	ATUS AL NT ODE RESENT ODE RESENT ODE	JDIO ERROR STATUS MUX CHECK SUM ERROR MUX PARITY ERROR	A / V Delay For Playback
	GROUP 3 PF	Audio Monitor Mode	Audio Demux Group Select	Audio Demux Channel Pair
	ALS Embedded	C Right	C Group 2 C Group 4	 Channel Pair 1 Channel Pair 2
A	udio Embedder © Disabled • Enabled	Audio Output Dithering None On	Audio Embedder Group Select Group 1 C Group 3 C Group 2 C Group 4	Use Time Code Source

Figure 8-8. Audio Tab of NEO VR Settings Window

Table 8-7. Audio	Tab Section	Descriptions
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Section	Description
Audio Status	(Read-only) View the audio groups that are present.
Audio Error Status	(Read-only) View audio errors (if any).
AV Delay	Adjust the audio delay against video at playback for lip sync purposes. This can be used to compensate for audio/video delay in downstream equipment, or to correct the lip sync if lip sync in the recorded material is off.
Audio Input Source	Select between AES (if your audio has separate cables) or Embedded (if your audio is part of the input video stream) at SDI input for the audio channel pair.
Audio Monitor Mode	Select between Left, Right , or Mixed for the mono output audio monitoring mode.
Audio Demux Group Select	Select which audio group is de-embedded.

Section	Description
Audio Demux Channel Pair	Select which audio channel pair within the selected audio demux group is de-embedded.
Audio Embedder	Choose whether the Audio embedder is Enabled or Disabled (this determines whether the audio is output via the video cable or as a separate stream through separate cables).
Audio Output Dithering	Choose between the options of None or On for all audio outputs.
Audio Embedder Group Select	Select to which audio group the audio is embedded. The channel pair will be embedded to channels 1&2 or 3&4.
Use Time Code Source	Enable or disable the source time code output in playback mode.

Table 8-7. Audio Tab Section Descriptions (Continued)

Adjusting Audio Proc Amps

The **Audio Proc.** tab displays and configures the audio proc amp parameters. You can adjust proc amp values for both recording path and playback path. It is recommended that you turn on E-E mode when you are setting the audio recording proc amp, and turn off E-E mode when you are adjusting the audio playback proc amp. Figure 8-9 displays a typical **Audio Proc.** tab. Table 8-8 describes the sections of the **Audio Proc.** tab.



Audio Proc Amps on the VR View are only available in the full version of Command Center. If you are using the Lite version, an administrator user must adjust audio proc amps on the Audio Proc screen.





Table 8-8.	Audio Proc.	Tab Section	Descriptions
------------	-------------	-------------	--------------

Section	Description
Audio Proc. Enable	Administrators can give or not give operators control of the audio proc amps on the VR view. (Audio proc amps on the VR View are only available in the full version of Command Center).
Playback Proc Enable	Enable or disable the audio playback proc amp. When disabled, all playback proc amp settings return to unity and values cannot be accidentally changed.
Audio Playback Invert	For either audio channel, you can invert the playback phase by 180 degrees.
Playback Level Adjustment	When Join is pressed, you can adjust both channels simultaneously. When it is not pressed, adjustment can be done for left and right channel individually. Press U to bring the audio level adjustment to unity.
Record Proc Enable	Enable or disable the audio record proc amp. When disabled, all proc amp settings return to unity and values cannot be accidentally changed.
Audio Record Invert	For each audio channel, you can invert the record phase by 180 degrees.
Record Level Adjustment	When Join is pressed, you can adjust both channels simultaneously. When it is not pressed, adjustment can be done for left and right channel individually. Press U to bring the audio level adjustment to unity.

Setting Reference Preferences

The **Reference** tab displays and configures the timing aspects of the NEO VR module. Figure 8-10 displays a typical **Reference** tab. Table 8-9 describes the functions of the **Reference** tab settings.

>	NEO_VR Settings
	Label VR#1 Key Lock Reset Settings
	Hard Drives Video Video Proc. Audio Audio Proc. Reference Test / Other Agency Display
	GENLOCK INPUT STATUS PRESENT: ND STANDARD: ? Reference Select G Reference Input G SDI Input M G JDT
	Horizontal Phase Vertical Phase Line 0
	DARS Source DARS Phase LTC Input Select Internal External
	Exit



Table 8-9. Reference	Tab Secti	on Description
------------------------------	-----------	----------------

Section	Description				
Genlock Input Status	(read-only) Display whether genlock input is present and what the standard is (525 or 625).				
Reference Select	Choose the NEO VR video source to lock the playback video to using the genlock circuit. Options are Reference Input , SDI Input , and Free Run .				
Horizontal	Adjusts the horizontal timing.				
Phase	• In 525 mode the range is 0 to 63.518 µs				
	• In 625 mode the range is 0 to 63.963 µs				
Vertical Phase	Adjusts the vertical timing of the video output.				
	• In 525 mode the range is from 0 Ln to 524 Ln				
	• In 625 mode the range is from 0 Ln to 624 Ln				

Section	Description
DARS Source	Select the source of DARS (Digital Audio Reference Signal) for AES audio output timing to lock to. Options are None or AES Input .
DARS Phase	Adjust the timing difference between AES audio output and DARS.
LTC Input Select	Select LTC input source to be internal or external.

	Table 8-9.	Reference	Tab Section	Description	(Continuea
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Setting Test Preferences

The **Test/Other** tab displays and configures the internal test generator. Here you can view each card's serial number and version, and change a card's IP address information. Figure 8-11 displays a typical **Test/Other** tab. Table 8-10 describes the settings on the **Test/Other** tab.

► NE	O_VR Setting	15						×
Γ	Label	VR#1	Key Lock 🔲	Reset Sett	ings	NO COMM	UNICATION	
ŀ	Hard Drives	Video Video I	Proc. Audio	Audio Proc.	Reference	Test / Other	Agency	Display
		Color Bars	Tone C Off C On 20 H 40 d		- IP Settings IP address: Subnet mas Default gate	k: way: Change Card IP Av	idess	
		rd Software Version —— 1,10	Card Serial Nurr	ber				
			Î	Exit				



Table 8-10	. Test Settin	gs on the	Test /	Other	Tab
-------------------	---------------	-----------	--------	-------	-----

Section	Description
Color Bars	Select whether the color bar test signal should be Off or On . (When on, this will output color bars no matter whether an ID is selected, until you turn it off.)
Tone	Select whether the audio tone generator should be Off or On . (When on, this will output tone no matter whether an ID is selected, until you turn it off.)
Tone Frequency	Adjust the pitch of the selected audio tone generator. The frequency range is from 20 Hz to 20000 Hz.
Tone Level	Adjust the volume of the selected audio tone.

Viewing Specific Card Information

The **Test / Other** tab also provides hard-coded information on your NEO VR card. This information may be required if you need to contact Leitch technical support. (See Table 8-11.)

Table 8-11. NEO VR Card Information on the Test / Other Tab

Section	Description
Card Serial Number	(Read-only) Displays the serial number of the currently selected NEO VR module.
Card Software Version	(Read-only) Displays the software version of the currently selected NEO VR module.

Configuring IP Address Information

On the **Test / Other** tab, you can set up and change IP address information for each NEO VR card installed in your system. (See Table 8-12.)

Table 8-12. IF	Settings	for the	Selected	NEO	VR	Card
----------------	----------	---------	----------	-----	----	------

Section	Description
IP Address	Set the IP address of the NEO VR.
Subnet Mask	Set the subnet mask for the NEO VR.
Default Gateway	Set the gateway address for the NEO VR.
Change Card IP Address	Enable the change of the IP settings on the card.

Creating Agencies

Agencies are categories or folders for sorting the IDs in the SpotBase. Administrators can use the **Agency** tab to create agencies on each NEO VR. Figure 8-12 displays a typical **Agency** tab.

► N	EO_VR Settings								×
I	Label	VR#1	Kej	v Lock 📃	Reset Sett	ngs			
	Hard Drives	Video	Video Proc.	Audio	Audio Proc.	Reference	Test / Other	Agency	Display
		Age	ncies	Equestrian					
		Bas	eball tball	Cricket					
		Pug	jilism ckey						
		Cur	ling						
		Sw	mming		—				
					Evit				
					E.M.				

Figure 8-12. Agency Tab of NEO VR Settings Window

To create a new agency, highlight an empty box and type a name in the box. Agencies are stored on the NEO VR and will remain intact should the card be moved to another computer.

If you highlight a box that already has a name in it, and then change the name of that agency, the clips that were previously found in the agency with the old name will now be found in the agency with the new name.

To use these agencies, see the following:

- "Loading an ID From the Shotbox" on page 84
- "Loading an ID" on page 44
- "Changing an ID's Information" on page 69

Display Tab

The Display tab displays and configures the On Screen Display (OSD) settings for monitoring video output on an external video monitor connected to the NEO VR. The OSD contains three parts: audio meter, clip name, and time code/status. Each part is assigned a tab. Font size and opacity level controls are common to all OSD parts. Figure 8-13 shows a typical **Display** tab.

Hard Drives	VR#1 Video Video	Proc. Audio	Audio Proc.	Reference	Test / Other Agency	Display
	Audio Meters	Clip Name 1 lay VU VU VU	+ PPM	Font Size C 8×16 Background 0	© 10×18 paqueness Level	_

Figure 8-13. Display Tab of NEO VR Settings Window

The font size and opacity settings affect the time code, clip name and audio meters on the external video monitor. Table 8-13 describes these settings.

Section	Description
Font size	Select the size of the text on the OSD.
Background Opaqueness Level	Each of the OSD items placed on the external video monitor has a background applied to it to aid in seeing it. Adjust the slider while viewing different areas of the screen for optimal viewing.

Table 8-13.	Font Size and	Opacity	/ Level	Control	Descrip	tions

If you choose to view audio meters on the external video monitor connected to a NEO VR, you can position them, as well as choosing what type of VU meter to show. Table 8-14 describes these settings.

Section	Description
Audio meter display	Select what is displayed for audio meter:
	• Off (no VU meter displays)
	• PPM
	• VU
	• VU + PPM
Horizontal position	Drag the slider to move the audio meter left and right on the screen.
Vertical position	Drag the slider to move the audio meter up and down on the screen.
Yellow meter top	Adjust the dB value of the top tip of the yellow section of the audio meter.
Green meter top	Adjust the dB value of the top tip of the green section of the audio meter.

Table 8-14. Audio Meters Tab Descriptions

Settings on the Clip Name Tab

The **Clip Name** tab and the **Time Code** tab on the Display tab window have identical settings. Figure 8-14 shows the controls in the **Clip Name** tab.

On Screen Clip I	Name Display	
Turn On / Off I	Display	
C On		
Vertical Positio	n	



On the **Clip Name** tab, you can choose to display the name of the ID that is currently loaded on the OSD. Table 8-15 describes the settings on the **Clip Name** tab



If you place the clip name and Time code in the same vertical and horizontal position, the Time Code window will be on top.

Section	Description
Turn On/Off Display	Turn on or off the clip name window display.
Horizontal position	Drag the slider to move the clip name window left and right on the screen.
Vertical position	Drag the slider to move the clip name window up and down on the screen.

Table 8-15. Clip Name Tab Descriptions

The **Time Code** tab's controls are identical to those of the **Clip Name** tab. The settings actually control the display of not only the time code, but also of the name of the NEO VR and its status. Table 8-16 describes the settings on the **Time Code** tab.

 Table 8-16.
 Time Code Tab Descriptions

Section	Description
Turn On/Off Display	Turn on or off the time code/status display.
Horizontal position	Drag the slider to move the time code/status window left and right on the screen.
Vertical position	Drag the slider to move the time code/status window up and down on the screen.

Appendix A Software Licence Agreement

NEO VR Command Center Software License Agreement

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