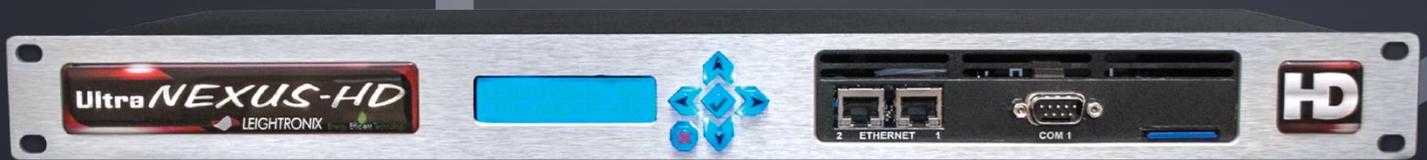


PRODUCT MANUAL

Installation, Configuration, and Operation Instructions

Ultra NEXUS-HD™



H.264 HD/SD Digital Video Server
Television Automation

END-TO-END Solutions for
Broadcast & Streaming



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TABLE OF CONTENTS

INTRODUCTION	14
Important Safety Instructions	15
Features/Specifications.....	16
Device Control Options	21
Slide, Overlay, and Background File Specifications.....	22
<i>Slides</i>	22
<i>Overlays</i>	22
<i>Slide Backgrounds</i>	22
Digital Video Recorder Specifications	23
UltraNEXUS-HD Front Panel	25
<i>Display Screens</i>	26
UltraNEXUS-HD Rear Panel.....	29
SERVER INSTALLATION & CONFIGURATION.....	30
About this Section	30
Packing List	30
Connecting UltraNEXUS-HD Signal Wiring	31
Configuring Ethernet Network Host Management.....	40
<i>Connecting the UltraNEXUS-HD to an Existing Ethernet Network</i>	41
<i>Connecting an UltraNEXUS-HD System Directly to a PC via Ethernet</i>	41
Turning an UltraNEXUS-HD System ON/OFF	42
Configuring Front Panel Settings	42
<i>Entering Password</i>	42
<i>Total Share network addresses (Ethernet port 2): see "Editing DNS"</i>	42
<i>Editing TCP/IP Network Addresses</i>	43
<i>Set DHCP</i>	43
<i>IP Address</i>	43
<i>Subnet Mask</i>	45
<i>Gateway Address</i>	45
<i>Editing DNS</i>	46
<i>Editing TOTAL SHARE Network Addresses</i>	46
<i>IP Address 2</i>	47
<i>Subnet Mask 2</i>	47
<i>Gateway 2 Address</i>	48
<i>Editing Shared Switcher IP Address</i>	49
<i>Editing Web Schedule Port</i>	50
<i>Selecting Serial Port Settings</i>	50

<i>Sharing External Time Clock with Multiple UltraNEXUS-HD Servers</i>	51
SOFTWARE INSTALLATION & CONFIGURATION	52
About this Section	52
WinLGX Minimum System Requirements.....	53
Installing WinLGX Software	53
Changing WinLGX Appearance (Themes).....	55
Adding / Deleting UltraNEXUS-HD Locations in the Site Manager	57
Connecting to Your UltraNEXUS-HD Server	60
Creating New UltraNEXUS-HD Image Files	62
Configuring WinLGX	63
<i>About the Main Window Components</i>	63
Click on this menu item to display the following options (see “ <i>Scheduling/Editing/Deleting All Events,</i> ” starting on page 192):.....	65
<i>Configuring the Main Window Components</i>	69
<i>Configuring WinLGX Interface Colors</i>	73
<i>Schedule Colors Tab</i>	73
<i>Control Panel Colors Tab</i>	74
<i>Other Colors Tab</i>	74
<i>Setting User Account Rights (Including WinLGX Password Changes)</i>	75
<i>Changing Front Panel Password</i>	78
<i>Configuring Site Information, Clock, Updating Firmware, and Rebooting</i>	79
<i>Creating Templates for Exporting/Printing Schedules</i>	81
<i>Configuring Page Layouts For Schedules Printed from WinLGX</i>	83
<i>Configuring Printer and Paper Settings for Schedules Printed from WinLGX</i>	83
<i>Creating Custom Schedule Columns</i>	85
<i>Setting WinLGX Viewing and Communication Preferences</i>	87
<i>Application Tab</i>	88
<i>Event Editor Tab</i>	90
<i>Preview Monitor Tab</i>	94
<i>Resource Library Tab</i>	96
<i>Resource View Tab</i>	97
<i>Schedule Tab</i>	98
<i>Configuring the Switch Type of an UltraNEXUS-HD</i>	99
<i>No Switch Configuration</i>	99
<i>External Switcher Configuration</i>	101
<i>Shared Switcher Configuration</i>	105
<i>Configuring Digital Video Recording Presets</i>	109
<i>Editing Internal Digital Video Playback and Recording Device Resources</i>	111
<i>Digital Video Player</i>	112
<i>Digital Video Recorder</i>	113

Creating External Switch Device Resources.....	115
Creating ePRO-BUS-Controlled Device Resources.....	118
Creating Overlays.....	120
Step 1: Create Individual Overlays.....	121
Step 2: Create Overlay Template.....	124
Step 3: Add an Overlay Template to a Digital Program.....	125
Creating Library Resources.....	126
Switch Library Resources—External Switcher Configurations Only.....	130
Digital Video Library Resources.....	132
Digital Video Loop Library Resources.....	138
Slide Library Resources.....	142
Slide Show Library Resources.....	146
Onscreen Program Guide Library Resources.....	150
Digital Video/Slide Playlist Library Resources.....	154
Virtual Channel (VC) List Library Resources.....	155
Exporting Library Resources.....	159
SOFTWARE OPERATION.....	161
About this Section.....	161
Performing General WinLGX Operations.....	162
Opening WinLGX and Connecting to an UltraNEXUS-HD Server.....	162
Displaying WinLGX Version Number.....	164
Disconnecting from an UltraNEXUS-HD Server.....	165
Exiting WinLGX.....	165
Opening UltraNEXUS-HD Image Files.....	166
Opening a Saved Image File.....	167
Opening an Image File as New.....	168
Receiving Image Files from the Connected UltraNEXUS-HD Server(s).....	169
Associating UltraNEXUS-HD Image Files with WinLGX.....	170
Saving UltraNEXUS-HD Image Files.....	171
Importing Digital Video Library Resources.....	173
Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX.....	175
Scheduling Events.....	177
About Schedule Window Components.....	177
Product Tabs.....	177
Schedule View.....	177
Overlay Templates View.....	178
Channel Output Tabs.....	178
Day Tabs.....	179
WinLGX-LT Tab.....	180

Channel and Day/WinLGX-LT Tab Configurations	181
Schedule Columns	181
Scheduling/Editing/Deleting All Events	184
Scheduling an Event on a Day/Channel Output Event Window.....	184
Scheduling an Event on the WinLGX-LT Event Window	185
Copying/Cutting/Pasting an Event.....	187
Editing an Event	187
Deleting an Event	188
Replacing Library Resource Events	189
Inserting Library Resource Events	192
Scheduling/Editing Device Resources	193
Switch Device Resources—External Switcher Configurations Only	193
Internal Digital Video Player Device Resources.....	195
Internal Digital Video Recorder Device Resource	200
Scheduling/Editing ePRO-BUS-Controlled Device Resources.....	204
Remote ePRO-BUS-Controlled Devices	204
Local ePRO-BUS-Controlled Devices	206
Scheduling/Editing Library Resources	210
Switch Library Resources—External Switcher Configurations Only	210
Digital Video Library Resources	211
Digital Video Loop Library Resources	215
Slide Library Resources	217
Slide Show Library Resources	219
Program Guide Library Resources	222
Digital Video/Slide Playlist Resources.....	224
VC List Library Resources.....	225
Changing Channel Switchbacks	227
Adding Digital Video Library Resources to Channel Switchbacks	227
Changing Channel Switchback Inputs.....	229
Checking Schedule and Library Resources for Missing Digital Video Files.....	229
Sending UltraNEXUS-HD Image Files	231
Printing Schedules from WinLGX.....	232
Exporting Schedules into Comma Separated Values Files.....	233
Using Control Panel to Perform Immediate Device and Switch Actions.....	235
Stop/Start a Schedule.....	236
EXTERNAL SWITCHER Configurations Only—Performing Forced Switches and Viewing Switcher Status	236
“List” View	236
Controlling Internal Digital Video Player.....	237
Queuing a File	238
Looping a Digital Video File.....	241
Playing a File	241

<i>Queuing the Next File</i>	241
<i>Displaying a Slide with Audio from a Video File</i>	241
<i>Stopping a File</i>	242
<i>Pausing a Digital Video File</i>	242
<i>Creating a Library Video Clip Resource</i>	243
<i>Activating the Default Virtual Channel Playlists</i>	245
<i>Selecting and Displaying Virtual Channel Playlist Files</i>	246
<i>Controlling the Internal Digital Video Recorder</i>	247
<i>Monitoring a Video File Recording</i>	250
<i>Controlling ePRO-BUS Record Devices</i>	252
Managing Storage of Video, SLIDE, and OVERLAY Files	253
<i>Choosing File Storage Devices</i>	254
<i>Managing All Digital Files</i>	255
<i>Previewing Video Files</i>	257
<i>Enabling and Authorizing Slides for Display in Slide Shows</i>	258
<i>Creating a Default Slide</i>	258
<i>Creating & Managing Background SubFolders</i>	259
<i>Transferring Graphic/Text Layers with Slides Created in a WebNEXUS Slide Editor</i>	261
Retrieving Log Files	263
<i>As Played Log Files</i>	263
<i>System Log Files</i>	265
Updating Firmware/Software	268
<i>Updating UltraNEXUS-HD Server</i>	268
<i>Updating WinLGX Software</i>	270
WEB CONTROL	271
About this Section	271
Opening and Logging into Web Interface	273
<i>“Site Information”</i>	274
<i>“Storage”</i>	274
<i>Video Player/Recorder Statuses</i>	274
<i>“Network Settings”</i>	275
<i>“Switcher Status”</i>	275
Managing Digital Video Files	275
<i>Setting Up Transfer Destinations</i>	275
<i>Setting up Video File Record Settings</i>	279
<i>Recording</i>	280
<i>Manually Transferring Digital Video Files</i>	282
Managing Log Files	285
<i>Save/Open a Log File</i>	286

<i>Search a Log File</i>	286
<i>Delete a Log File</i>	287
Managing Slides	288
<i>Uploading Slides to a UltraNEXUS-HD Server/Controller</i>	289
<i>Creating New Slides</i>	292
<i>Creating a Default Slide</i>	306
<i>Finding Slides/User Folders</i>	306
<i>Adding Slide Show Settings to Slide Metadata</i>	307
<i>Approving Slides for Display in Slide Shows</i>	309
<i>Editing Slides Created in WebNEXUS</i>	310
<i>Renaming Slides on a UltraNEXUS-HD Server/Controller</i>	311
<i>Deleting Slides from a UltraNEXUS-HD Server/Controller</i>	311
Creating Emergency and Overlay Messages.....	312
<i>Creating a New Emergency Message</i>	312
<i>Activating an Emergency Message</i>	316
<i>Deactivating an Emergency Message</i>	316
Viewing Web Program Guide.....	317
<i>Viewing Program Guide within the Web Interface</i>	317
<i>Viewing Program Guide from a Web Browser or Your Own Website</i>	319
<i>Web Browser</i>	319
<i>Your Own Website</i>	320
Using The Virtual Channel	322
<i>Overview</i>	322
<i>TOTAL INFO-HD Configuration</i>	325
<i>Creating/Modifying Virtual Channel Playlists</i>	330
<i>Saving Virtual Channel Playlists</i>	335
<i>Displaying Virtual Channel Playlists</i>	338
<i>Deleting Virtual Channel Playlist Files</i>	341
Editing ULTRANEXUS-HD Site Name and Location	342
Changing UltraNEXUS-HD System Time	343
Configuring ePRO-BUS Settings	344
Configuring Total Share Settings	346
Logging Out of Web Interface	347
SUPPORT	348
Parts Replacement	348
Contacting LEIGHTRONIX Technical Support.....	348
WARRANTY	349
DECLARATION OF STANDARDS CONFORMITY	350

FCC Notice	350
APPENDIX A: COPYRIGHT STATEMENTS.....	351
The PHP License, version 5.3.4	351
GD Statement	352
IJPEG Statement	353
FREETYPE Statement.....	353
APPENDIX B: CABLE PINOUTS FOR LEIGHTRONIX-SUPPORTED EXTERNAL SWITCHERS	354
GLOSSARY.....	359
INDEX	362

TABLES AND ILLUSTRATIONS

Illustration 1, UltraNEXUS-HD Default Recording Presets	23
Illustration 2, UltraNEXUS-HD Front Panel	25
Illustration 3, Digital Video Playback Status Screen	26
Illustration 4, Serial Number Status Screen.....	26
Illustration 5, IP Address Status Screen	26
Illustration 6, Processor Voltage Status Screen	27
Illustration 7, Temperature Status Screen	27
Illustration 8, Current Day Status Screen	27
Illustration 9, Firmware Version Status Screen	27
Illustration 10, Up Time Status Screen	28
Illustration 11, UltraNEXUS-HD Rear Panel.....	29
Illustration 12, Audio Terminal Blocks on Rear Panel of UltraNEXUS-HD Server.....	33
Illustration 13, Example of Wire Prepared for an UltraNEXUS-HD Server Terminal Block	33
Illustration 14, Example of AES Terminal Block Wiring	36
Illustration 15, Example of Two-Channel Analog Terminal Block Wiring	36
Illustration 16, Tension Clamp Release Slot on an UltraNEXUS-HD Server Terminal Block	37
Illustration 17, Screwdriver Inserted into Tension Clamp Release Slot	37
Illustration 18, Boot Progress Screens	38
Illustration 19, Password Entry Screen.....	42
Illustration 20, Configuration Menu Screen	42
Illustration 21, "Skins and Themes" Tab Window	55
Illustration 22, Example of Custom WinLGX Interface Theme	56
Illustration 23, "Controller Site Manager" Window	57
Illustration 24, "Add New" Window	58
Illustration 25, "Add New" Window	59
Illustration 26, "Site Manager" Window.....	60
Illustration 27, "Save As" Window	62
Illustration 28, WinLGX Main Window	63
Illustration 29, Menu Bar	64
Illustration 30, Main Toolbar	67
Illustration 31, View Window Close Option.....	69
Illustration 32, "View" Menu.....	69
Illustration 33, Schedule Columns Selection Menu	70
Illustration 34, Resizing Schedule Column	71
Illustration 35, "Select Destination Folder" Window.....	72
Illustration 36, "Schedule Colors" Tab	73
Illustration 37, "Control Panel Colors" Tab Window.....	74
Illustration 38, "User Accounts" Window.....	75
Illustration 39, "Set Front Panel Password" Window	78
Illustration 40, "Controller" Window	79
Illustration 41, "Export/Print Templates" Window	81
Illustration 42, "Page Setup" Window	83
Illustration 43, Example of a Schedule Header	83

Illustration 44, “Print Setup” Window	84
Illustration 45, Example of Schedule with User-Defined Fields	85
Illustration 46, “User Defined Data” Window	85
Illustration 47, “Edit Field Options” Window.....	86
Illustration 48, “Add Menu Item” Window.....	86
Illustration 49, “Edit Menu Item” Window.....	87
Illustration 50, Menu Item Delete Confirmation Box	87
Illustration 51, “Application” Tab.....	88
Illustration 52, Example of Event Properties Window	91
Illustration 53, “Event Editor” Tab Window	92
Illustration 54, “Preview Monitor” Tab.....	94
Illustration 55, "Resource Library" Tab.....	96
Illustration 56, “Resource View” Tab Window.....	97
Illustration 57, “Schedule” Tab Window.....	98
Illustration 58, No Switch Type Properties.....	99
Illustration 59, Virtual Channel WinLGX Output Tab Assignments.....	100
Illustration 60, External Switcher Properties.....	101
Illustration 61, Shared Switcher Properties	105
Illustration 62, UltraNEXUS-HD Record Preset Fields	109
Illustration 63, “Devices” Window	111
Illustration 64, UltraNEXUS-HD Record Channel Output Tab Configuration.....	113
Illustration 65, New Switch Device Properties.....	115
Illustration 66, Switch Event Properties Window	116
Illustration 67, New Device Properties.....	118
Illustration 68, ePRO-BUS Resource Properties Window	119
Illustration 69, Overlay Library Resource Properties	121
Illustration 70, “Overlay Graphic Editor” Window.....	123
Illustration 71, Add Overlay Template	124
Illustration 72, Adding Overlays to Template.....	125
Illustration 73, “Library View” Windows	126
Illustration 74, New Library Resource Windows	127
Illustration 75, Library "Export" Option.....	128
Illustration 76, "Export MPEG Resource" Window.....	128
Illustration 77, "Export Resource" Library Resource Filename.....	129
Illustration 78, Example of Switch Library Resource Properties	130
Illustration 79, Digital Video Library Resource Properties	132
Illustration 80, “Select File” Window	133
Illustration 81, Instant Video Preview Monitor	134
Illustration 82, WinLGX Video Clip Editor with Preview Monitor	135
Illustration 83, Digital Video Loop Library Resource Properties	138
Illustration 84, “Select File” Window	139
Illustration 85, Instant Video Preview Monitor	140
Illustration 86, Video Loop Calculator.....	141
Illustration 87, Slide Library Resource Properties	143
Illustration 88, “Select Slide” Window	144
Illustration 89, Slide Show Library Resource Properties.....	147

Illustration 90, "User list" Window	148
Illustration 91, Example of Onscreen Program Guide	150
Illustration 92, Program Guide Library Resource Properties	151
Illustration 93, "Select Slide" Window	152
Illustration 94, Playlist Library Resource Properties	154
Illustration 95, "Playlist Editor" Window	154
Illustration 96, VC List Library Resource Properties	156
Illustration 97, Library "Export" Option.....	159
Illustration 98, "Export Video Resource" Window	159
Illustration 99, "Export Resource" Library Resource Filename	160
Illustration 100, "Site Manager" Window.....	162
Illustration 101, About WinLGX Window.....	164
Illustration 102, WinLGX Exit Dialog Box	165
Illustration 103, Open Image File Window	167
Illustration 104, Open Image File as New Window	168
Illustration 105, Image Status Window	169
Illustration 106, "Save As" Window.....	171
Illustration 107, Library "Import" Option.....	173
Illustration 108, "Import MPEG Resource" Window.....	173
Illustration 109, Selecting File on "Import MPEG Resource" Window	174
Illustration 110, Imported Library Resources	174
Illustration 111, Preview Monitor Controls	176
Illustration 112, Schedule Window	177
Illustration 113, "Overlay Templates" View in WinLGX.....	178
Illustration 114, Day/Channel Output Event Properties Box	184
Illustration 115, WinLGX-LT Event Properties Box.....	186
Illustration 116, Delete Dialog Box	188
Illustration 117, Playlist Delete Dialog Box.....	189
Illustration 118, "Replace" Button on Event Properties Window	190
Illustration 119, "Find and Replace" Window.....	191
Illustration 120, "Insert" Button on Event Properties Window	192
Illustration 121, Switch Device Event Properties Window	193
Illustration 122, Digital Video Player Event Properties Window.....	195
Illustration 123, WinLGX Video Clip Editor with Preview Monitor	197
Illustration 124, Digital Video Recorder Event Properties Window	200
Illustration 125, "Add to library folder" Window.....	201
Illustration 126, Remote ePRO-BUS Record Event Properties Window	204
Illustration 127, Local ePRO-BUS Record Event Properties Window	207
Illustration 128, Switch Event Properties Window	210
Illustration 129, Digital Video Library Event Properties Window	211
Illustration 130, WinLGX Video Clip Editor with Preview Monitor	212
Illustration 131, Digital Video Loop Event Properties Window.....	215
Illustration 132, JPEG Slide Event Properties Window.....	217
Illustration 133, JPEG Slide Show Event Properties Window.....	219
Illustration 134, Program Guide Event Properties Window.....	222
Illustration 135, Playlist Event Properties Window	224

Illustration 136, VC List Event Properties Window	225
Illustration 137, Channel Switchbacks.....	227
Illustration 138, Digital Library Resource Apply to all Switchbacks Option	228
Illustration 139, "Channel Switchback Editor"	229
Illustration 140, Synced Schedule	230
Illustration 141, "Send image" Status Box	231
Illustration 142, "Select Export/Print Template" Window	232
Illustration 143, "Save As" Window.....	233
Illustration 144, "Select Export/Print Template" Window	234
Illustration 145, Control Panel Window.....	235
Illustration 146, Control Panel Device Sorting Menu	235
Illustration 147, Control Panel "Switch" "List" View.....	237
Illustration 148, Digital Video Player Control Panel	237
Illustration 149, "Select File" Video Window	238
Illustration 150, Queued Video File Properties	239
Illustration 151, "Select File" Slide Window	240
Illustration 152, Queued JPEG Slide	240
Illustration 153, Digital Video File Playback Counter	241
Illustration 154, Queued and Currently Playing Files	241
Illustration 155, Digital Video File Playback Counter with Frame Number Displayed..	242
Illustration 156, Digital Video Clip Creation Panel	243
Illustration 157, "Select File" Window	244
Illustration 158, "Add to library folder" Window	245
Illustration 159, "Select Virtual Channel List" Window	246
Illustration 160, Digital Video Recorder Control Panel	247
Illustration 161, "Add to library folder" Window	248
Illustration 162, Digital Video Ingest Window for a "No Switch" Configuration.....	249
Illustration 163, "MPEG Ingest" Window.....	250
Illustration 164, MPEG Recorder Confidence "Monitor" Tab Window	251
Illustration 165, Control Panel: ePRO-BUS Record Device Control	252
Illustration 166, "Storage Manager" Window	253
Illustration 167, Storage Manager Copy Dialog Box.....	256
Illustration 168, Storage Manager Digital File Delete Option.....	256
Illustration 169, Slide Show Authorize and Enable Options.....	258
Illustration 170, "Create directory" Backgrounds Option.....	259
Illustration 171, "Show Edit Files" Option	261
Illustration 172, Transfer Slide and Layer Files	262
Illustration 173, "Select Controller Log File" Window.....	263
Illustration 174, Example of Event Log File	264
Illustration 175, "System" Tab on the "Select Controller Log File" Window	265
Illustration 176, Example of Log File	267
Illustration 177, Controller Window.....	268
Illustration 178, "Choose Controller Firmware File" Window	269
Illustration 179, "Select Firmware Options" Window.....	270
Illustration 180, Accessing UltraNEXUS-HD from Internet Explorer	273
Illustration 181, Login Prompt.....	273

Illustration 182, "System Dashboard" Screen	274
Illustration 183, "UltraNEXUS-HD" File Destinations Tab.....	276
Illustration 184, "VieBit" File Destinations Tab	277
Illustration 185, "FTP Server" File Destinations Tab.....	278
Illustration 186, "Record Settings"	279
Illustration 187, Video Recorder Closeup	280
Illustration 188, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen	282
Illustration 189, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen	283
Illustration 190, Pop-Up Menu for "Video Transfers" Listing on the "File Management" Screen.....	284
Illustration 191, "Log Files" Screen.....	285
Illustration 192, "JPEG Slide Management" Screen	288
Illustration 193, New Slide Upload Window	289
Illustration 194, "Choose File to Upload" Window	290
Illustration 195, "Upload File" Window.....	291
Illustration 196, Advanced Slide Editor Window	292
Illustration 197, Advanced Slide Editor Toolbox	293
Illustration 198, Graphic Toolbar	294
Illustration 199, Webcam "Privacy" Setting	295
Illustration 200, Gradient Toolbar	295
Illustration 201, Shape Toolbar	297
Illustration 202, "Gradient Fill" Window	297
Illustration 203, Text Toolbar.....	299
Illustration 204, "Swatches" Tab Panel.....	300
Illustration 205, "Bevel" Effect Window.....	304
Illustration 206, "Save Slide" Window.....	305
Illustration 207, Slide Metadata Fields.....	307
Illustration 208, WebNEXUS Authorize and Enable Buttons	310
Illustration 209, WebNEXUS Slide Editing Feature	310
Illustration 210, "Rename File" Window.....	311
Illustration 211, Overlay Screen	312
Illustration 212, New Graphic Overlay Upload Window	313
Illustration 213, "Select file(s)" Window	314
Illustration 214, "Upload Graphics" Window	314
Illustration 215, Text Entry on Emergency Messaging Screen	315
Illustration 216, "Options" Panel.....	316
Illustration 217, Web Interface Program Guide Screen	317
Illustration 218, Program Guide Screen in Week Mode with Day Headers "ON"	318
Illustration 219, Program Guide URL Link	319
Illustration 220, Program Guide "Embed Script".....	321
Illustration 221, Virtual Channel Editor	323
Illustration 222, "TOTAL INFO-HD" Configuration Message on Virtual Channel Editor	325
Illustration 223, "TOTAL INFO Subscription Configuration" Box	326

Illustration 224, TOTAL INFO Subscription Configuration Information	327
Illustration 225, Adding TOTAL INFO-HD Content to Current Playlist.....	328
Illustration 226, Loading a Playlist Preset into the Virtual Channel Playlist Window ...	330
Illustration 227, Virtual Channel Playlist	332
Illustration 228, Slide Show Audio Settings	334
Illustration 229, "Save Preset" Window	336
Illustration 230, Virtual Channel WinLGX Tab Assignments.....	338
Illustration 231, Default External Switcher Settings	339
Illustration 232, "Site Information" Screen	342
Illustration 233, "ePRO-BUS" Tab Screen.....	344
Illustration 234, "Total Share" Tab Screen	346
Illustration 235, DB9F-DB9M Straight-Through Cable, Part #10-4869	356
Illustration 236, DB9F-DB9F Null Cable, Part #10-4421	357
Illustration 237, DB9F-DB9M 6' Null Cable, Part #10-2372.....	358

Introduction

The UltraNEXUS-HD video server/controller is a multi-function device that:

- Plays high-definition (HD) and standard definition (SD) video with accompanying audio
- Records HD and SD video with accompanying audio
- Supports embedded, balanced AES, and balanced analog audio input and output signals
- Includes a programmable scheduler for automated playback and recording functions
- Includes a dedicated graphics generator which is used to play slides and generate overlays that are superimposed upon playing video
- Includes the ability to control compatible external routing switchers
- Allows for flexible media storage via external USB hard drive and/or network attached storage (NAS)
- Publishes a programmed schedule to a Web framework or by way of an embedded code
- Provides a rich, Web-based graphics editor
- Outputs an SD replica of the main output (HD or SD) as a composite video signal

Included with the UltraNEXUS-HD is WinLGX, a software application that provides all of the tools necessary for local and remote system operation. WinLGX offers a system control panel, digital media resource library, and an easy-to-use, drag-and-drop scheduling interface.

Important Safety Instructions

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the grounding-type plug. A grounding-type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

When the apparatus is turned off, certain components in the power supply and system board remain energized. In order to remove all electrical power from the apparatus, unplug the power cord from the MAINS socket outlet.



To reduce the risk of electric shock, do not expose this apparatus to rain or moisture.



This apparatus must be connected to a MAINS socket outlet with a protective earthing connection.

Features/Specifications

NOTE: In no event shall LEIGHTRONIX be liable for any damages whatsoever resulting from loss of use, data, or profits, whether or not advised of the possibility of damage, and on any theory of liability, arising out of or in connection with the use or performance of the UltraNEXUS-HD high-definition server/system controller and WinLGX software.

FEATURE	SPECIFICATIONS
Dimensions	1.75"H X 19.0"W X 8.0"D
Weight, without carton or cables	6.4 lbs.
Display	2 X 16 character liquid crystal display
Keypad	Six push buttons which allow password protected front panel status and configuration
Power Supply	Internal power supply which accepts 90–264VAC @ 47–63Hz
Product Safety	Audio, Video and Similar Electronic Apparatus — Safety Requirements certification by ETL Semko for U.S. Standards (UL-60065) and Canadian Standards (CAN/CSA C22.2 No. 60065)
Emissions Compliance	FCC Part 15
Hardware Encoder (Recorder)	<ul style="list-style-type: none"> • One HD/SD digital video channel, operating as a recorder • H.264 High Profile video encoding, HD Level 4 and SD Level 3 • ACC-LC audio encoding • Automatic video and audio multiplexing during recording results in a single MPEG-2 transport stream (.m2t) file containing an H.264 High Profile video stream and AAC-LC audio. • Supports HD-SDI (1080i and 720p) and SD-SDI (480i) recording <ul style="list-style-type: none"> ➤ High Definition <ul style="list-style-type: none"> ○ 1920 x 1080 (29.97 Hz Interlaced, IBP group of pictures [GOP] structure) ○ 1280 x 720 (59.94 Hz progressive, IBBP GOP structure)

FEATURE	SPECIFICATIONS
	<ul style="list-style-type: none"> ➤ Standard Definition: 720 x 480 (29.97 Hz interlaced, IBBP GOP structure) • 4:2:0 Chroma subsampling, 8-bit, YCbCr • Variable video bit rate encoding up to 10 Mb/s • 48 KHz audio sampling frequency with audio bit rates of 128, or 192 Kb/s
Hardware Decoder (Player)	<ul style="list-style-type: none"> • Supports playback of the following formats: • MPEG-2 Transport stream (.m2t) <ul style="list-style-type: none"> ➤ Video codec: H.264 HIGH profile, up to level 4.0 <ul style="list-style-type: none"> ○ 1920 x 1080 (29.97 fps, interlaced) ○ 1280 x 720 (59.94 fps, progressive) ○ 720 x 480 (29.97 fps, interlaced) <ul style="list-style-type: none"> ○ Constant and variable video bit rate encoding up to 10 Mb/s ○ Chroma sampling: 4:2:0 ➤ Audio format: AAC-LC, Layer-2 <ul style="list-style-type: none"> ○ AAC-LC 128 kb/s, 192 kb/s ○ Layer-2 128 kb/s, 192 kb/s, 224 kb/s, 256 kb/s ○ 44.1 kHz, 48 kHz • MPEG-2 Program stream (.mpg) <ul style="list-style-type: none"> ➤ Video codec: MPEG-2 program stream, MAIN profile, MAIN or HIGH level <ul style="list-style-type: none"> ○ 1920 x 1080 (29.97 fps, interlaced) ○ 1280 x 720 (59.94 fps, progressive) ○ 720 x 480 (29.97 fps, interlaced) ○ 352 x 480 (29.97 fps, interlaced) <ul style="list-style-type: none"> ○ Constant and variable video bit rate encoding up to 10 Mb/s ○ Chroma sampling: 4:2:0 ➤ Audio format: Layer-2 <ul style="list-style-type: none"> ○ 128 kb/s, 192 kb/s, 224 kb/s, 256 kb/s ○ 44.1 kHz, 48 kHz • MPEG-4 (.mp4) <ul style="list-style-type: none"> ➤ Video codec: H.264 HIGH profile, up to level 4.0 <ul style="list-style-type: none"> ○ 1920 x 1080 (29.97 fps, interlaced) ○ 1280 x 720 (59.94 fps, progressive) ○ 720 x 480 (29.97 fps, interlaced)

FEATURE	SPECIFICATIONS
	<ul style="list-style-type: none"> ○ Constant and variable video bit rate encoding up to 10 Mb/s ○ Chroma sampling: 4:2:0 ➤ Audio format: AAC-LC <ul style="list-style-type: none"> ○ 128 kb/s, 192 kb/s ○ 44.1 kHz, 48 kHz • MOV (.mov) <ul style="list-style-type: none"> ➤ Video codec: H.264 HIGH profile, up to level 4.0 <ul style="list-style-type: none"> ○ 1920 x 1080 (29.97 fps, interlaced) ○ 1280 x 720 (59.94 fps, progressive) ○ 720 x 480 (29.97 fps, interlaced) <ul style="list-style-type: none"> ○ Constant and variable video bit rate encoding up to 10 Mb/s ○ Chroma sampling: 4:2:0 ➤ Audio format: AAC-LC <ul style="list-style-type: none"> ○ 128 kb/s, 192 kb/s ○ 44.1 kHz, 48 kHz
Digital Video Input/Output	<ul style="list-style-type: none"> • One BNC-F HD/SD-SDI video input • One BNC-F HD-SDI video output (HD-SDI signal pass-through not available) • Society of Motion Pictures and Television Engineers (SMPTE) standards for inputs/outputs: <ul style="list-style-type: none"> ➤ HD: SMPTE292M ➤ SD: SMPTE259M • Support for embedded audio
Analog Video Input/Output	<ul style="list-style-type: none"> • One BNC composite video input (not used) • One BNC composite video output • NTSC composite video 1Vp-p
Digital and Analog Audio Inputs/Outputs	<ul style="list-style-type: none"> • Digital AES balanced audio connections • Analog balanced audio connections
Secured Digital (SD) Card	<p>8 GB SD Card for operating system and other system files.</p> <p>Warning: Do not remove the SD card during operation. Serious damage may occur.</p>
Internal Hard Drive	<p>1 TB of storage, of which 32 GB is reserved for system processing and information, including schedule and log</p>

FEATURE	SPECIFICATIONS
	<p>files, and 968 GB is partitioned for temporary digital video storage</p> <p>NOTE: To preserve the life span of your internal hard drive, primarily record and store your digital video on external USB hard drives and/or NAS storage devices.</p>
Three RS-232 Serial Interface “COM” Ports	<ul style="list-style-type: none"> • Control up to 250x250 inputs/outputs on a compatible external switcher • Terminal communications
Ethernet Network Host Management	<ul style="list-style-type: none"> • Network Support Interface: <ul style="list-style-type: none"> ➤ Eight-position, eight-conductor RJ-45 modular jack, 10/100/1000 BASE-T, unshielded twisted pair, Ethernet ➤ Ethernet II frame type ➤ Protocol: TCP/IP ➤ Services: Telnet, FTP, and HTTP • Remote system management via TCP/IP network • Digital media upload/download capabilities
Logging	Internal, file-based
Firmware	Updateable via Ethernet
WinLGX Software	<ul style="list-style-type: none"> • Compatible with Windows® 7/8/10 operating systems • Standalone operation • Event capacity: 3000 • Control modes: <ul style="list-style-type: none"> ➤ Drag and drop event scheduling with error checking and conflict reporting ➤ System control panel for immediate control • Library stores up to 6000 resources, including digital video files
Web Interface	<ul style="list-style-type: none"> • Connects to your UltraNEXUS-HD server’s IP address with Edge, Chrome, Firefox, and Safari Web browsers • Password protected with user rights maintained from WinLGX 7 • Contains system status and digital storage drive information, configures and activates Virtual Channels, and view current schedule • Controls the transfer of digital video files to another

UltraNEXUS-HD
Introduction

FEATURE	SPECIFICATIONS
	UltraNEXUS-HD, LEIGHTRONIX VieBit Video-On-Demand Streaming Service, or third party server (FTP capable)

Device Control Options

FEATURE	SPECIFICATIONS
External, Scalable File Storage	<p>Increase file storage capacity with up to two external USB hard drives purchased from LEIGHTRONIX. LEIGHTRONIX formats each drive with an EXT3 file system and a digital video file directory.</p> <p>Each USB drive used with the UltraNEXUS-HD must be:</p> <ul style="list-style-type: none"> • Only used to store digital video files • Powered on until the UltraNEXUS-HD is shut down. • Only removed or installed after the UltraNEXUS-HD is shut down. Do not connect the drives to a PC for file management operations. <p>The UltraNEXUS-HD supports a total USB drive storage capacity of 4 TB.</p> <p>For more information on using USB drives with the UltraNEXUS-HD, refer to www.leightronix.com or contact LEIGHTRONIX at (800) 243-5589.</p> <p>See “Digital Video Recorder Specifications,” on page 23, for information on the server’s digital video recording rates.</p>
Support for NAS Storage/Expanded Channel Capacity	<p>Included TOTAL SHARE option provides support for an additional 16 Terabytes of digital media storage. TOTAL SHARE allows users to create a dedicated, high-speed network that supports a combination of up to four UltraNEXUS-HD units and up to four network attached storage (NAS) devices</p>
Support for Compatible External Routing Switcher	<p>Control up to 250x250 inputs/outputs on a compatible external switcher</p>
ePRO-BUS Control	<p>NOTE: The ePRO-BUS feature is included with the UltraNEXUS-HD.</p> <ul style="list-style-type: none"> • Control up to 16 devices by sending PRO-BUS commands over your Ethernet network • Compatible with select LEIGHTRONIX controllers • Provides two or four function control

Slide, Overlay, and Background File Specifications

Slides, overlays, and backgrounds may be created with third-party graphic software, including Adobe Photoshop® and Corel PaintShop Pro®, as long as each is saved with the supported file format.

NOTE: Slides/overlays with resolutions larger than 1920 x 1080 cannot be uploaded to the UltraNEXUS-HD.

Slides

- Slide resolutions (pixels)
Slides for the UltraNEXUS-HD must be created as 1920 x 1080 images.
- Save slides as JPEG (.jpg) files. Slide filenames may contain up to 27 characters (no spaces or symbols) in addition to the required “.jpg” extension.
- Maximum slide file size is 2 MB.
- Use RGB color space. Avoid CMYK.

Overlays

- The recommended overlay resolution (pixels) is 1920 x 1080.
- Save overlays as PNG (.png) files. PNG files support transparency and allow overlay graphics and text to layer over digital programming without blocking the entire screen. Overlay filenames may contain up to 27 characters (no spaces or symbols) in addition to the required “.png” extension.

Slide Backgrounds

Background files are used in the WebNEXUS slide editors for slide creation. Upload to your WebNEXUS slide editor through the WinLGX Storage Manager window (see “Managing Storage of Video, SLIDE, and OVERLAY Files,” on page 253, for more details).

- Recommended background resolutions (pixels)
Images of any size resolution may be uploaded to a WebNEXUS slide editor, but keep in mind the editor’s slide creation area and save resolution is 1920 x 1080.
- Backgrounds may be saved as either JPEG (.jpg) or PNG (.png) files. Background filenames may contain up to 27 characters (no spaces) in addition to the required “.jpg” or “.png” extension.

Digital Video Recorder Specifications

NOTE: Video being fed to the UltraNEXUS-HD digital video recorder must have a stable signal. If you are unsure of the stability of the signal being fed to the UltraNEXUS-HD, the use of a frame synchronizing switch or standalone device in-line prior to the UltraNEXUS-HD input is recommended.

NOTE: The maximum recorded file length allowed by the UltraNEXUS-HD is 23 hours, 59 minutes, and 50 seconds.

Digital video recording results are based on a combination of the user-defined record presets and the quality of the input source. In each new UltraNEXUS-HD image file, the record presets for the internal digital video player/recorder contain default settings under the names “Good,” “Better,” and “Best,” as shown in Illustration 1.

Illustration 1, UltraNEXUS-HD Default Recording Presets

The screenshot shows the 'System Configuration View' interface. The 'Resource View' section contains three icons: 'Switch', 'Internal Video Recorder', and 'Settings'. The 'Properties View' section displays a table of recording presets.

Properties View	
* Record Preset 1	Good
Input source	SDI
Video resolution	4:3
Bitrate type	VBR
Min video bitrate	3.00 Mb/sec
Max video bitrate	5.00 Mb/sec
Record audio source	Analog
Audio bitrate	128 kb/sec
Audio sample rate	48 kHz
* Record Preset 2	Better
Input source	SDI
Video resolution	16:9
Bitrate type	VBR
Min video bitrate	4.00 Mb/sec
Max video bitrate	7.00 Mb/sec
Record audio source	Embedded 1-2
Audio bitrate	128 kb/sec
Audio sample rate	48 kHz
* Record Preset 3	Best
Input source	SDI
Video resolution	16:9
Bitrate type	VBR
Min video bitrate	7.00 Mb/sec
Max video bitrate	9.00 Mb/sec
Record audio source	Embedded 1-2
Audio bitrate	192 kb/sec
Audio sample rate	48 kHz

You may use the default recording presets or change the presets based on your recording needs. When selecting your recording presets, consider how video bit rate,

UltraNEXUS-HD Introduction

video resolution, and audio quality settings will affect the quality and file size of your recordings (refer to the following sections for more information). Once you have selected your recording presets, create short files for playback on your UltraNEXUS-HD to test the quality of your presets.

- **Video Bit Rate**

The size and overall quality of your file is directly related to the selected video bit rates. The H.264 High Profile video compression standard used by the UltraNEXUS-HD for encoding allows you to create files with high quality video at lower bit rates. Higher bit rates result in higher quality recordings, but keep in mind that your file sizes will be larger and you will be able to fit less video onto your storage devices.

NOTE: Digital video recording does not improve the quality of your input sources. When recording a low quality source, use higher bit rate settings to record a digital file of equal quality.

- Variable Bit Rate (VBR)

The UltraNEXUS-HD encodes using a variable bit rate. When VBR is used for recording, the UltraNEXUS-HD records most of the source at the selected minimum bit rate. WinLGX allows you to select a minimum bit rate between 1.50-10.00 Mb/s, at intervals of .10. The lowest recording quality results at a minimum bit rate of 1.50 Mb/s and the best at 10.00 Mb/s.

The video maximum bit rate does not impact file size. The UltraNEXUS-HD only records at the maximum bit rate when there is a lot of movement in the source and returns to the minimum bit rate when the movement decreases. The maximum bit rate must be set at least 2 Mb/s above the minimum bit rate.

- **Video Resolution**

The picture quality of your recorded video also depends on the video resolution. The UltraNEXUS-HD will record a video signal at its native resolution. During playback it will scale the file to match the UltraNEXUS-HD's output resolution setting – normally 1080i. Keep in mind that the UltraNEXUS-HD (or any recorder) cannot improve the quality of a video signal and if it requires scaling up this will not improve its quality. Resolution setting options for the UltraNEXUS-HD recorder are as follows:

- The UltraNEXUS-HD recorder has two resolution setting options: 4:3 or 16:9.
- HD-SDI content: The UltraNEXUS-HD will ignore this setting – it is 16:9.
- SD-SDI content: Select either “4:3” or “16:9” to match the input signal.

- **Audio Quality Settings**

- Audio bit rate: select 224 or 256 kb/s for sources with audio tracks or 192 kb/s for sources with little or no audio.
- Audio sample rate: the 48k sample rate captures data from the audio signal 48,000 times per second to ensure high quality audio recording.

UltraNEXUS-HD Front Panel

The UltraNEXUS-HD's front panel layout includes, from left to right, top to bottom (see **Error! Reference source not found.**):

Illustration 2, UltraNEXUS-HD Front Panel



- A: Display — View system status, diagnostic information, and current configurations through the UltraNEXUS-HD's LCD display. (See Display Screens section below.)
- B: Keypad — The UltraNEXUS-HD server has a six-button keypad for displaying system information, configuring network addresses, rebooting and shutting down/starting up the unit. The four arrow keys are used to display status information as well as for the entry of TCP/IP network addresses. If you hold down an arrow key for more than one second, it begins to scroll through all of the available options. Release the key when the desired option is displayed.

The front panel keypad also reboots the UltraNEXUS-HD. When held for 10 seconds, the green check button reboots the UltraNEXUS-HD.

The front panel keypad also shuts the UltraNEXUS-HD down. When held for 8 seconds, the red "X" button shuts down the UltraNEXUS-HD. After it shuts down the front display will read, "System halting Remove power" at that point use the power switch on the back to turn the power off. To turn the UltraNEXUS-HD back on, move the power switch to the on position.

- C: 2 RJ-45 Ethernet jacks with corresponding LED indicators
 - Ethernet port (1): 10/100/1000 BASE-T
 - Ethernet port (2): 10/100/1000 BASE-T (Cannot be on same subnet as port 1)
- D: "COM 1" communication port with 9-pin male RS-232 connectors for use with a LEIGHTRONIX-compatible external switcher with an input/output capacity of 4x4 (minimum) to 250x250 (maximum), or Host mode (factory testing) for terminal communications.
- E: Secured Digital (SD) Card — The UltraNEXUS-HD SD card contains operating system and other system files.

Warning! Do not remove the SD card during operation. Serious damage may occur.

Display Screens

After the UltraNEXUS-HD has been booted up, press the up or down arrows on the server's keypad to display the following status screens:

NOTE: The status screens are currently subject to change.

- **Video Playback Status**

The bottom line of this screen shows the playback status for the UltraNEXUS-HD digital video player (see Illustration 3, Digital Video Playback Status Screen). When the UltraNEXUS-HD is playing a video file, the playback time is indicated on the bottom line of the screen.

Illustration 3, Digital Video Playback Status Screen

Jul 21	10:42:37
01	00:0:01:07

- **Serial Number**

The bottom line of this screen displays your UltraNEXUS-HD serial number (see Illustration 4, Serial Number Status Screen).

Illustration 4, Serial Number Status Screen

Jul 10	10:42:37
SN: 100012	

- **IP Address**

The bottom line of this screen displays the IP address for Ethernet port 1 on the UltraNEXUS-HD (see Illustration 5, IP Address Status Screen).

Illustration 5, IP Address Status Screen

Jul 10	10:42:37
IP: 10.16.0.18	

- **Internal Voltage (Support use)**

The bottom line of this screen displays the voltages of the UltraNEXUS-HD processor (see Illustration 6, Processor Voltage Status Screen).

Illustration 6, Processor Voltage Status Screen

```
Jul 21      10:42:37
I1: 3.625  I5: 1.25
```

- **Temperature**

The bottom line of this screen displays the internal temperatures of your UltraNEXUS-HD server (see Illustration 7, Temperature Status Screen).

Illustration 7, Temperature Status Screen

```
Jul 10      10:42:37
T1: 35C  T2: 42.250
```

- **Schedule Day (future use)**

The bottom line of this screen displays the current day of the UltraNEXUS-HD server (see Illustration 8, Current Day Status Screen).

Illustration 8, Current Day Status Screen

```
Jul 10      10:42:37
Day 3 of 7
```

- **Firmware Version**

The bottom line of this screen displays the firmware version of your UltraNEXUS-HD server (see Illustration 9, Firmware Version Status Screen).

Illustration 9, Firmware Version Status Screen

```
Jul 10      10:42:37
V16.06.30.1613
```

- **UP Time**

UltraNEXUS-HD Introduction

The bottom line of this screen displays how long the UltraNEXUS-HD has been running since its last reboot or power up (see Illustration 10, Up Time Status Screen).

Illustration 10, Up Time Status Screen

Jul 10	10:42:37
UP: 0:04:20	

UltraNEXUS-HD Rear Panel

The UltraNEXUS-HD's rear panel layout includes, from left to right, top to bottom (see Illustration 11, UltraNEXUS-HD Rear Panel):

Illustration 11, UltraNEXUS-HD Rear Panel



- A: “COM 2” — RS-232 port with 9-pin male connector for serial communications (not used)
- B: BNC Serial Digital Interface (SDI) input and output connectors
- C: Audio input and output tension clamp terminal blocks for analog or AES digital audio connections
- D: BNC composite video input and output connectors (input not available)
- E: “COM 3” — RS-232 port with 9-pin male connector for serial communications (not used)
- F: 2 USB 2.0 ports for external USB hard drive connections
- G: Internal Solid State Drive (SSD) — The UltraNEXUS-HD comes equipped with a one terabyte (1TB) SSD for digital media storage. **NOTE:** The internal SSD is non-serviceable.
- H: Cooling fan
- I: Power switch — use to turn the unit on/off. Press the red “X” button on the front panel for 8 seconds to shut the unit down before powering off.
- J: Power cord connector

Server Installation & Configuration

About this Section

Use this section for step-by-step instructions on connecting your UltraNEXUS-HD system wiring, including devices and Ethernet. This section also includes information on entering your TCP/IP and serial settings through the front panel.

Packing List

Ensure your UltraNEXUS-HD shipment box contains the following:

- (1) UltraNEXUS-HD High-Definition Video Server
- (1) (1) Part #10-0311, AC Power Cord, 6 ft.
- (1) Part #10-4856, CAT 5e Ethernet Cable, 7 ft.

Connecting UltraNEXUS-HD Signal Wiring

Throughout the following instructions, refer to Illustration 11, UltraNEXUS-HD Rear Panel and **Error! Reference source not found.**

Mount your UltraNEXUS-HD in an equipment rack as follows, ensuring the ventilation fan on the back of the unit is not covered and adequate space is available behind the back panel for the USB hard drives:

- NOTE:** LEIGHTRONIX recommends leaving an empty space above and below the UltraNEXUS-HD. The UltraNEXUS-HD is not intended to have anything stacked on top of it.
- a. Insert the UltraNEXUS-HD into the rack, aligning the holes of the server's mounting bracket with those of the rack.
 - b. Secure the UltraNEXUS-HD to the rack with user-supplied rack screws.

The UltraNEXUS-HD is compatible with the external switchers listed in Table 1 and supports switcher input/output capacities of 4x4 (minimum) to 250x250 (maximum). Install your switcher according to the following steps:

NOTE: Contact the routing switcher manufacturers listed below for help in selecting specific models.

- a. Connect the switcher to the UltraNEXUS-HD's "COM 1" port. (Future firmware should allow the choice to use the "COM 3" port if desired.)
- b. Configure your switcher according to the corresponding parameters listed in Table 1, Supported External Switchers and Parameters. This is necessary to ensure your switcher works with the UltraNEXUS-HD.

UltraNEXUS-HD Server Installation & Configuration

Table 1, Supported External Switchers and Parameters

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
AMX/Autopatch 8Y-XL™, 4YDM™, EPICA™, Precis™ and Optima™ Switchers Using BCS Protocol	9600 baud, 8N1 (Level 1: Video, Level 0: All)
Blackmagic Design Smart Videohub 12x12 And Smart Videohub 16x16 or 40x40, Micro Videohub, Compact Videohub	9600 baud, 8N1 Cable RS-2/3J from Addenda.com or Ethernet control (requires firmware addition) Cable RS-2/3R from Addenda.com or Ethernet control (requires firmware addition)
EXTRON A (most common) & B (ISS series) MAV, Crosspoint, Matrix	9600 baud, 8N1
KNOX Chameleon 64 & 64i, RS Series, ProSwitch Series	9600 baud, 8N1
KRAMER Switchers Using Communications Protocol 2000; contact Kramer to determine if null or straight cable is needed	9600 baud, 8N1
Imagine Communications/Harris/Leitch Platinum™, VIA 32™, X-Plus™, Integrator™, and Panacea™	9600 baud, 8N1
PESA Serial Routing Switchers supporting CPU Link Serial Protocol	9600 baud, 8N2
PESA P1N Network Routing Switchers supporting P1N Network Protocol	N/A
SIERRA Aspen, Lassen, Ponderosa, and Yosemite	9600 baud, 8N1
SIGMA A & B Dagger Series, ADX Series, MRX Series, SLX Series, 12X, 2100 Series, 3200 Series, and 9600 Series	9600 baud, 8N1
UTAH A	38400 baud, 8N1
UTAH B	1200 baud, 7E2
UTAH Sandar	9600 baud, 7O1

- c. Route the video/audio from any studio/satellite feeds, character generator, etc. to the switcher input connectors.
- d. Connect switcher output connectors to the desired destinations (such as modulators or television monitors).

Connect playback destinations to the UltraNEXUS-HD's SDI or CVBS video outputs as follows:

- SDI Out: Connect the desired destination or switcher input to the

- CVBS Out: UltraNEXUS-HD SDI video output.
Connect the desired destination or switcher input to the UltraNEXUS-HD composite video output.

Connect video sources for recording to the UltraNEXUS-HD's SDI video input as follows:

- SDI Input: Connect the desired video source or switcher output to the UltraNEXUS-HD SDI video input.
- CVBS IN: Not available.

Your UltraNEXUS-HD audio connections are determined by the type of audio signal you wish to record and play out, as described below:

- **Embedded** Digital Audio: part of your digital video signal; no additional audio connections are needed to play or record this type of audio signal.
Non-Embedded Audio Signals: the UltraNEXUS-HD supports two-channel analog and AES balanced digital audio signals. The UltraNEXUS-HD server comes equipped with two audio terminal blocks for playing/recording your non-embedded audio signals (see Illustration 12).

Illustration 12, Audio Terminal Blocks on Rear Panel of UltraNEXUS-HD Server

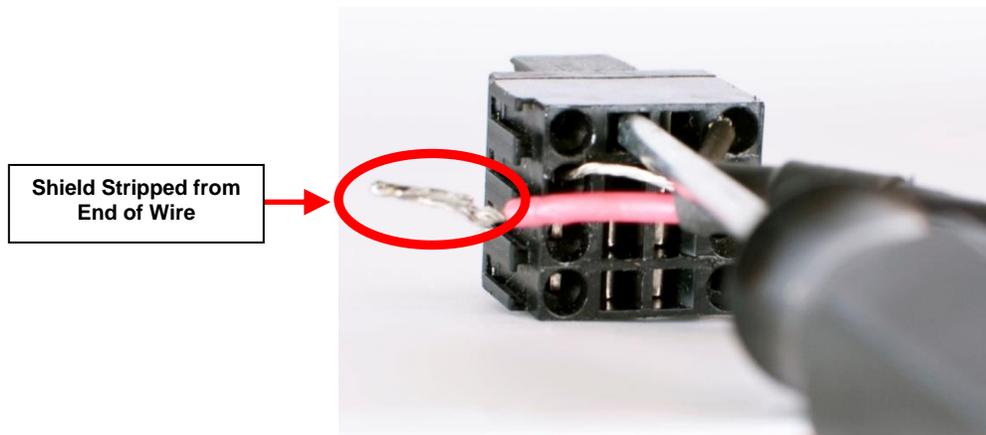


To play/record any of the UltraNEXUS-HD's supported, non-embedded audio signals, connect your audio signal wiring according to the following steps:

- NOTES:**
- **The illustrations for the following examples show the terminal blocks in vertical positions.**
 - When connected to the rear panel, the blocks are horizontal with the AES terminals on each block rotated toward its "SDI IN" BNC video input.
 - The UltraNEXUS-HD supports an audio wiring gauge range of 18 (maximum) to 28 (minimum) AWG.
- a. Prepare your audio wiring for connection to the terminal blocks by stripping approximately a 1/4 inch of shield off the end of each wire. Twist each wire's individual strands together to prevent separation.

Illustration 13, Example of Wire Prepared for an UltraNEXUS-HD Server Terminal Block

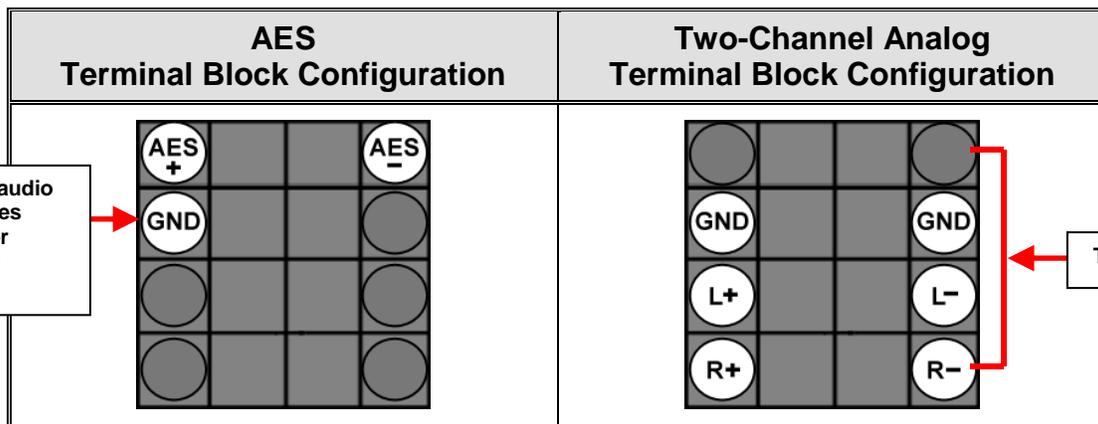
UltraNEXUS-HD Server Installation & Configuration



Shield Stripped from End of Wire

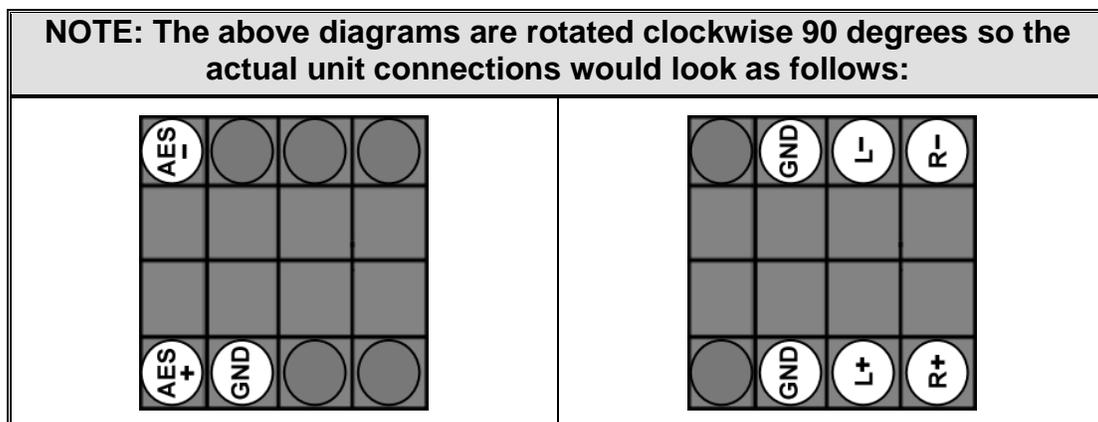
- b. Perform the following steps for the UltraNEXUS-HD to play and/or record non-embedded audio (refer to Illustration 12, Audio Terminal Blocks on Rear Panel of UltraNEXUS-HD Server).
 - i. With your fingers, gently grasp the desired terminal block on the UltraNEXUS-HD's rear panel and pull to separate the block from the server.
 - ii. Secure each of your prepared audio wires in their appropriate terminals as follows, referring to Table 2 for each wire's placement on the terminal block:

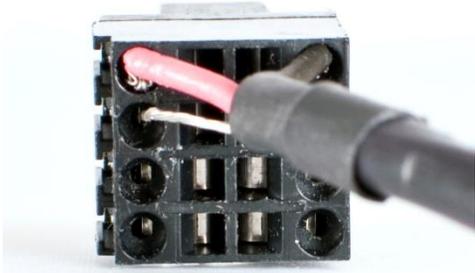
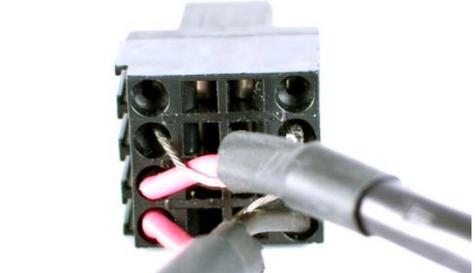
Table 2, Non-Embedded Audio Terminal Block Configurations



NOTE: The AES audio configuration uses only one of either common ground terminal.

Terminals



AES Terminal Block Configuration	Two-Channel Analog Terminal Block Configuration
<p><i>Illustration 14, Example of AES Terminal Block Wiring</i></p>  A close-up photograph of a black terminal block with a grey cable being inserted. The cable has a red wire connected to the top-left terminal and a white wire connected to the terminal directly below it. The rest of the terminal block is empty.	<p><i>Illustration 15, Example of Two-Channel Analog Terminal Block Wiring</i></p>  A close-up photograph of a black terminal block with a grey cable being inserted. The cable has two red wires connected to the two terminals in the second row from the top. The rest of the terminal block is empty.

- (1) Using a slotted, pocket clip screwdriver with a maximum tip width of 2.5mm and thickness of .4mm, open the terminal's tension clamp by inserting the screwdriver tip into the clamp's corresponding tension release slot (see Illustration 16 for an example). Firmly push the screwdriver into the slot until the clamp in the bottom of the terminal slides open (see Illustration 17).

Illustration 16, Tension Clamp Release Slot on an UltraNEXUS-HD Server Terminal Block

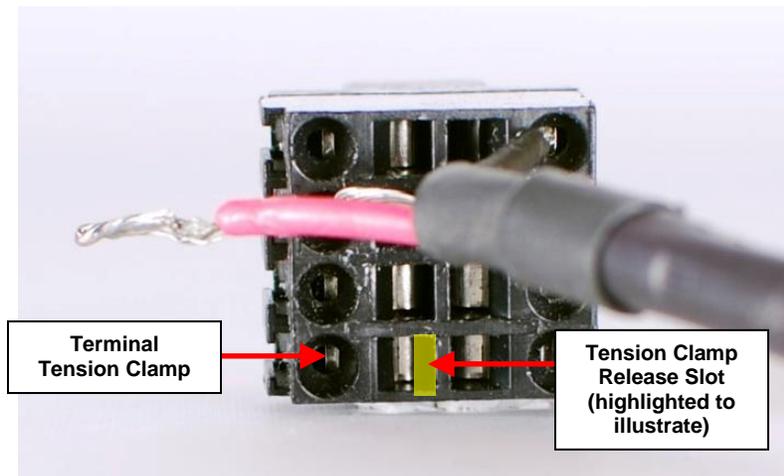
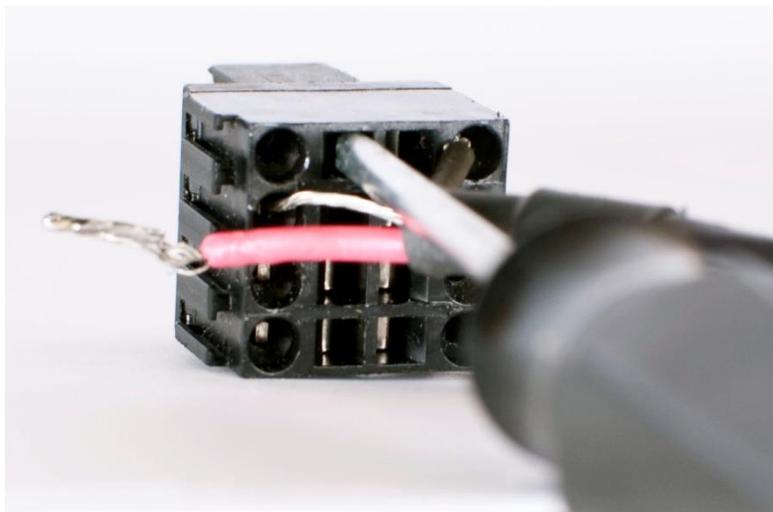


Illustration 17, Screwdriver Inserted into Tension Clamp Release Slot



UltraNEXUS-HD Server Installation & Configuration

- (2) Insert the audio wire into its corresponding terminal until it touches the bottom.
 - (3) While holding the wire in place, pull the screwdriver from the slot. The wire should now be clamped into place and should not fall out of the terminal if gently tugged.
 - (4) Repeat steps b.ii(1)–(3) for each of the remaining terminals in your audio terminal block configuration.
- iii. Push the wired terminal block back into its slot on the rear panel of the UltraNEXUS-HD server, with the AES terminals on the block rotated towards BNC video input (“SDI In”). The block only fits one way into its holder on the rear panel.

Attach up to two, LEIGHTRONIX-approved USB hard drives to the USB ports. The UltraNEXUS-HD system can support up to 4 TB of storage. For more information on USB drives compatible with the UltraNEXUS-HD, refer to www.leightronix.com or contact LEIGHTRONIX at (800) 243-5589.

NOTE: USB drives can be removed or installed **only** after the UltraNEXUS-HD is shut down from its front panel. **Do not connect the drives to a PC for file management operations.**

Attach the included power cord to the power cord connector on the back of the UltraNEXUS-HD, and then plug it into an AC power source.



CAUTION

LEIGHTRONIX strongly recommends the use of an Uninterruptible Power Supply (UPS) with the UltraNEXUS-HD and associated USB drives. Damage from power loss or spikes is not covered under warranty.

Turn on the UltraNEXUS-HD by using the power switch on the back of the unit.

NOTE: The UltraNEXUS-HD can be shut down by pressing the red “X” button on the front panel for 8 seconds. After it shuts down the front display will read, “System halting remove power” at that point use the power switch on the back to turn the power off. To turn the UltraNEXUS-HD back on, move the power switch to the on position.

The UltraNEXUS-HD will automatically boot up and display the boot up progress screens shown in Illustration 18, Boot Progress Screens. During startup, any saved UltraNEXUS-HD settings and active schedule are implemented.

Illustration 18, Boot Progress Screens

Main Power ON
Now Booting . . .

Starting Up . . .

Proceed to “Configuring Ethernet Network Host Management,” on page 40, to configure the UltraNEXUS-HD for remote control through Ethernet network host management.

Configuring Ethernet Network Host Management

- NOTES:**
- Your PC must have a Windows 7/8/10 operating system in order to run WinLGX 7 software (see “WinLGX Minimum System Requirements,” on page 53 for further details).
 - Each UltraNEXUS-HD system requires the following ports:
 - 23 (Telnet)
 - 21 (FTP Control Connection)
 - 20 (FTP Data)
 - 80 (HTTP — UltraNEXUS-HD Web Interface)
 - 443 (HTTPS — UltraNEXUS-HD Web Interface)
 - 2000 (UDP): needed for ePRO-BUS control
 - 50001 (Web Program Guide): This port can be changed from the UltraNEXUS-HD front panel.
 - If you will be connecting to your UltraNEXUS-HD system remotely, the following ways can be used to set up your router to access your UltraNEXUS-HD system. Keep in mind that more than one method can be used, such as VPN, for WinLGX 7 access and port forwarding for program guide access. Consult your network administrator and network router manual before implementing any of the following methods.
 - The preferred method is using Virtual Private Networking (VPN) to gain access to the network from outside of your firewall. You would then run WinLGX and connect to the UltraNEXUS-HD system as if you were local to it.
 - Another method is to use PC control software such as PCAnywhere® or GoToMyPC® to take control of the WinLGX PC from outside the network.
 - **Ports 80, 443, and/or 50001 only:** use port forwarding in your firewall router to give public access to Ports 80 and/or 50001. Public access to Port 50001 is required when you want to embed the UltraNEXUS-HD program guide on your own website (see “Viewing Program Guide from a Web Browser or Your Own Website,” on page 319). Port 80 should be made publically available when you want to access the UltraNEXUS-HD web interface from public IP addresses on the Internet.

Port forwarding requires an external, public IP address which is configured in the network router to have the desired ports forwarded to the UltraNEXUS-HD system’s internal IP Address.

Do not use port forwarding to make the other ports for your UltraNEXUS-HD system remotely available, as it allows anyone to connect to your UltraNEXUS-HD system and attempt to log in. Some advanced network routers can limit external connections to a certain address range, providing protection.

Each UltraNEXUS-HD server is designed to interact with a host PC through a 100/1000 BASE-T Ethernet TCP/IP Network. Two of the most common connection scenarios are outlined below.

NOTE: In order to share one external audio/video routing switcher between multiple UltraNEXUS-HD servers, **your UltraNEXUS-HD system and PC must be networked together.**

Connecting the UltraNEXUS-HD to an Existing Ethernet Network

Obtain the following from your technical support personnel or network administrator and enter into the front panel of your UltraNEXUS-HD system (see “Configuring Front Panel Settings,” on page 423):

- IP address
- Subnet mask
- Gateway address

Using a straight-through RJ-45 Ethernet cable, connect the UltraNEXUS-HD system’s right Ethernet port (labeled “1”) to a 100/1000 BASE-T switch on the TCP/IP network.

Ensure the PC from which you wish to control your UltraNEXUS-HD system has been configured and attached to the TCP/IP network.

Connecting an UltraNEXUS-HD System Directly to a PC via Ethernet

Obtain your PC’s TCP/IP networking IP address and subnet mask as follows:

- a. Open the Command Prompt by clicking Windows **Start > All Programs > Accessories > Command Prompt.**
- b. Type in “IPconfig” at the prompt to reveal your PC’s IP and subnet mask address.

Enter the following IP and subnet mask addresses into the front panel of your UltraNEXUS-HD system (see “Configuring Front Panel Settings,” on page 42):

- IP address: A similar but not the same number as your PC’s IP address (for example, if your PC’s IP address is 10.255.9.15, set your server’s IP address to 10.255.9.50)
- Subnet mask: your PC’s subnet mask address

Using an Ethernet cord, connect the UltraNEXUS-HD Ethernet port 1 to the PC’s network interface card (NIC).

Turning an UltraNEXUS-HD System ON/OFF

The UltraNEXUS-HD will start up automatically when the rear panel power switch is turned on. The UltraNEXUS-HD can be shut down by pressing the red “X” button on the front panel for 8 seconds. After it shuts down the front display will read, “System halting Remove power” at that point use the power switch on the back to turn the power off. To turn the UltraNEXUS-HD back on, move the power switch to the on position.

The front panel keypad also reboots the UltraNEXUS-HD. When held for 10 seconds, the green check button reboots the UltraNEXUS-HD.

Configuring Front Panel Settings

NOTE: All crucial configuration information, such as user information, schedule information, time, and network information are stored in battery backed memory or on the internal hard drive. Thus the UltraNEXUS-HD system configuration is protected in the instance of an extended power failure.

Entering Password

From the front panel of your UltraNEXUS-HD server, press the right arrow key from any one of the status screens to display the password entry screen (see Illustration 19, Password Entry Screen).

Illustration 19, Password Entry Screen



Use arrows to
enter pwd:*****

Press five-key password.

NOTE: The factory-default password is five right arrow keys. To change the front panel password, refer to “Changing Front Panel Password,” on page 78.

If the password entered is correct, the UltraNEXUS-HD system’s configuration menu will be displayed (see Illustration 20, Configuration Menu Screen).

Illustration 20, Configuration Menu Screen



CONFIG MENU
Set XXXX

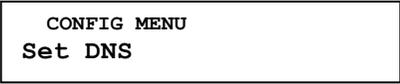
If an incorrect password is entered, the display returns to the status screens. The configuration menu allows you to activate optional features and edit the following UltraNEXUS-HD system settings:

- TCP/IP addresses: see “Editing TCP/IP Network Addresses,” on page 43

Total Share network addresses (Ethernet port 2): see “Editing DNS

Obtain a DNS address from your technical support personnel or network administrator. See Table 8, Editing Subnet Mask 2 from Front Panel, for editing instructions.

Table 6, Editing DNS from Front Panel

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set DNS." 2. Press "→" to select "Set DNS."	 <pre> CONFIG MENU Set DNS </pre>
3. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" to enter next screen.	 <pre> Enter DNS >> 8. 8. 8. 8 </pre>
5. Either press "→" again to save your changes or "←" to abort changes.	 <pre> Press -> to Confirm DNS </pre>
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

- Editing TOTAL SHARE Network Addresses," on page 46
- Shared Switch: see "Editing Shared Switcher IP Address," on page 49
- Web schedule port: see "Editing Web Schedule Port," on page 50
- Serial port usage: see "Selecting Serial Port Settings," on page 50

Editing TCP/IP Network Addresses

Set DHCP

Currently the UltraNEXUS-HD can only be set to static IP mode.

IP Address

UltraNEXUS-HD Server Installation & Configuration

Obtain IP address from your technical support personnel or network administrator. See Table 3, Editing IP Address from Front Panel, for editing instructions.

NOTE: If you wish to use the ePRO-BUS option to control a LABvault-HD digital recorder, a static IP address is required for your UltraNEXUS-HD server/controller.

Table 3, Editing IP Address from Front Panel

IP ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> 1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set IP Address." 2. Press "→" to select "Set IP Address." 	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>CONFIG MENU Set IP Address</p> </div>
<ol style="list-style-type: none"> 3. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" past all of the editable fields to enter the next screen. 	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Enter IP Addr 1 >> 10. 16. 0. 18</p> </div>
<ol style="list-style-type: none"> 5. Either press "→" again to save your changes or "←" to abort changes. 	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Press -> to Confirm IP Addr</p> </div>
<p>NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).</p>	

Subnet Mask

Obtain subnet mask address from your support personnel or network administrator. See Table 4, Editing Subnet Mask from Front Panel, for editing instructions.

NOTE: If you are sharing one external routing switcher between multiple UltraNEXUS-HD servers, enter the same subnet mask into the front panel of each UltraNEXUS-HD system.

Table 4, Editing Subnet Mask from Front Panel

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set Subnet Mask." Press "→" to select "Set Subnet Mask." 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">CONFIG MENU Set Subnet Mask</p> </div>
<ol style="list-style-type: none"> Press "→" or "←" to position the underscore under the editable fields and press "↑" or "↓" to edit the values. Press "→" to enter next screen. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">Enter Subnet Mask >> 255. 255. 0. 0</p> </div>
<ol style="list-style-type: none"> Either press "→" again to save your changes or "←" to abort changes. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">Press -> to Confirm Subnet 1</p> </div>
<p>NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).</p>	

Gateway Address

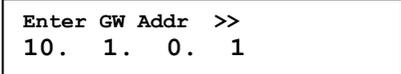
Obtain gateway address from your technical support personnel or network administrator. See Table 5, Editing Gateway Address from Front Panel, for editing instructions.

NOTE: If you are sharing one external routing switcher between multiple UltraNEXUS-HD servers, enter the same gateway address into the front panel of each UltraNEXUS-HD system.

Table 5, Editing Gateway Address from Front Panel

GATEWAY ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set Gateway 1." Press "→" to select "Set Gateway 1" 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">CONFIG MENU Set Gateway 1</p> </div>

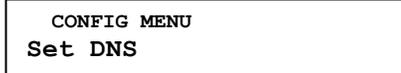
UltraNEXUS-HD Server Installation & Configuration

GATEWAY ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
3. Press “→” or “←” to position the cursor under the editable fields and press “↑” or “↓” to edit the values. 4. Press “→” to enter next screen.	
5. Either press “→” again to save your changes or “←” to abort changes.	
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

Editing DNS

Obtain a DNS address from your technical support personnel or network administrator. See Table 8, Editing Subnet Mask 2 from Front Panel, for editing instructions.

Table 6, Editing DNS from Front Panel

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
6. From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Set DNS.” 7. Press “→” to select “Set DNS.”	
8. Press “→” or “←” to position the cursor under the editable fields and press “↑” or “↓” to edit the values. 9. Press “→” to enter next screen.	
10. Either press “→” again to save your changes or “←” to abort changes.	
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

Editing TOTAL SHARE Network Addresses

The LEIGHTRONIX TOTAL SHARE networking option included with the UltraNEXUS-HD digital video server allows users to increase both local digital media storage and overall digital playback/record channel capacity. With TOTAL SHARE, you can create a dedicated, high-speed network that supports a combination of up to four UltraNEXUS-HD units and up to four network attached storage (NAS) devices.

NOTE: You can use the same network as Ethernet port 1 to access a NAS device. You are not required to use Ethernet port 2.

For proper network operation, enter an IP address and subnet mask for your Ethernet port 2 network according to the following steps. The Ethernet port 2 addresses must be different from those used for the UltraNEXUS-HD system control network (port 1).

IP Address 2

Obtain an IP address for your Ethernet port 2 network from your technical support personnel or network administrator. See Table 7, Editing IP Address 2 from Front Panel, for editing instructions.

Table 7, Editing IP Address 2 from Front Panel

IP ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> 1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set IP Address2." 2. Press "→" to select "Set IP Address2." 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre>CONFIG MENU Set IP Address 2</pre> </div>
<ol style="list-style-type: none"> 3. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" past all of the editable fields to enter the next screen. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre>Enter IP Addr 2 >> 255. 255. 0. 0</pre> </div>
<ol style="list-style-type: none"> 5. Either press "→" again to save your changes or "←" to abort changes. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre>Press -> to Confirm IP Addr</pre> </div>
<p>NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).</p>	

Subnet Mask 2

Obtain a subnet mask address for your Ethernet port 2 network from your technical support personnel or network administrator. See Table 8, Editing Subnet Mask 2 from Front Panel, for editing instructions.

Table 8, Editing Subnet Mask 2 from Front Panel

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> 11. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set Subnet Mask2." 12. Press "→" to select "Set Subnet Mask2." 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre>CONFIG MENU Set Subnet Mask 2</pre> </div>
<ol style="list-style-type: none"> 13. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre>Enter Subnet Mask 2 >> 255. 255. 0. 0</pre> </div>

UltraNEXUS-HD Server Installation & Configuration

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
14. Press “→” to enter next screen.	
15. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Press -> to Confirm Subnet Mask </div>
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

Gateway 2 Address

Obtain gateway address from your technical support personnel or network administrator. See Table 5, Editing Gateway Address from Front Panel, for editing instructions.

Table 9, Editing Gateway 2 Address from Front Panel

GATEWAY ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
6. From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Set Gateway 2.” 7. Press “→” to select “Set Gateway 2”	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> CONFIG MENU Set Gateway 2 </div>
8. Press “→” or “←” to position the cursor under the editable fields and press “↑” or “↓” to edit the values. 9. Press “→” to enter next screen.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Enter GW 2 Addr >> 192. 168. 0. 1 </div>
10. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Press -> to Confirm GW 2 Addr </div>
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

Editing Shared Switcher IP Address

If you are sharing an external routing switcher between multiple UltraNEXUS-HD systems, enter the IP address of the UltraNEXUS-HD system connected directly to the switcher into the front panel of each additional UltraNEXUS-HD system. See Table 10, Editing Shared Switcher Configuration from Front Panel, for editing instructions.

Table 10, Editing Shared Switcher Configuration from Front Panel

SHARED SWITCH CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> 1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set Shared SW IP." 2. Press "→" to select "Set Shared SW IP." 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre style="margin: 0;">CONFIG MENU Set Shared SW IP</pre> </div>
<ol style="list-style-type: none"> 3. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" past all of the editable fields to enter the next screen. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre style="margin: 0;">Enter Shared SW IP >> 0. 0. 0. 0</pre> </div>
<ol style="list-style-type: none"> 5. Either press "→" again to save your changes or "←" to abort changes. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <pre style="margin: 0;">Press -> to Confirm Shared SW IP</pre> </div>

UltraNEXUS-HD Server Installation & Configuration

Editing Web Schedule Port

Each UltraNEXUS-HD server uses Port 50001 as the default for the web program guide. If you have already assigned this port number, select a different, unassigned port number for the web program guide. See Table 11, Editing Web Schedule Port from Front Panel, for editing instructions.

Table 11, Editing Web Schedule Port from Front Panel

WEB SCHED PORT CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none">1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set Web Sch Port."2. Press "→" to select "Set Web Sch Port."	<div style="border: 1px solid black; padding: 5px; text-align: center;">CONFIG MENU Set Web Sch Port</div>
<ol style="list-style-type: none">3. Press "↑" or "↓" to edit the value.4. Press "→" to apply change and enter reboot message screen or "←" to abort.	<div style="border: 1px solid black; padding: 5px; text-align: center;">Set Web Sch Port 50001</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Press RIGHT Arrow to confirm</div>
NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).	

Selecting Serial Port Settings

Com 1 is used to control an external router switch. Com 2 and 3 are for diagnostic and future use.

Sharing External Time Clock with Multiple UltraNEXUS-HD Servers

The UltraNEXUS-HD servers can be synchronized to clock time on an NTP (Network Time Protocol) external master clock. The UltraNEXUS-HD servers that you wish to synchronize to the master clock's time must be networked together by configuring each server with the same subnet mask address (see "Editing TCP/IP Network Addresses" on page 43).

To configure each UltraNEXUS-HD server for time synchronization, you will need to input the NTP clock IP address in the UltraNEXUS-HD. See Table 12, Editing "NTP address" Options from Front Panel, for editing instructions.

Table 12, Editing "NTP address" Options from Front Panel

TIME SETTING CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> 1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Set NTP IP Address." 2. Press "→" to select "Set NTP IP Address." 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">CONFIG MENU Set NTP IP Address</p> </div>
<ol style="list-style-type: none"> 3. Press "→" or "←" to position the cursor under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" past all of the editable fields to enter the next screen. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">Enter NTP Addr >> 0. 0. 0. 0</p> </div>
<ol style="list-style-type: none"> 5. Either press "→" again to save your changes or "←" to abort changes. 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="margin: 0;">Press -> to Confirm NTP Addr</p> </div>
<p>NOTE: The UltraNEXUS-HD must be rebooted to apply any network address changes (Press the green check button on the front panel for 10 seconds to reboot the UltraNEXUS-HD).</p>	

Software Installation & Configuration

About this Section

This section introduces the UltraNEXUS-HD system management software, WinLGX, and provides instructions on how to enter the configuration settings necessary to control your UltraNEXUS-HD through the software. Your UltraNEXUS-HD configuration properties define your switch type and digital video recording presets along with your system's devices and media resources. The configuration properties must be entered into the current image file before you can go on to creating a schedule of events (refer to the next section, "Software Operation," on page 161, to learn how to create a schedule). **Each UltraNEXUS-HD image file holds your schedule events along with your system, device, and library resource properties.** To avoid reentering your configuration information every time you create a new schedule, save your image once you have entered the system, device, and library properties and before entering any schedule events. Open and rename this saved image each time you wish to create a new schedule.

WinLGX Minimum System Requirements

For the best results while operating WinLGX, LEIGHTRONIX recommends using a display at 1024x768 plus the following, based on your operating system:

NOTE: WinLGX does not have to be continuously running on your PC for standard UltraNEXUS-HD operation.

Microsoft Windows 7/8/10
1.6 GHz or faster processor
1 GB of RAM (2 GB recommended)

Installing WinLGX Software

NOTE: The following steps were written for Windows 7 and 8 operating systems, and may vary for earlier and later versions.

Log in to the LEIGHTRONIX Support Center website.

- a. Link: www.supportcenter.leightronix.com
- b. If you don't have an account you can create one by clicking the register button.

Once logged in, from the Welcome page, click the button for your UltraNEXUS-HD server product. This will load a new page with content specifically for your system.

From your UltraNEXUS-HD's web page, click on the "WinLGX Software" link. If the file does not automatically download, choose the save file option when prompted.

Navigate to where the WinLGX installer ("WinLGX v* Installer.EXE") was saved on your computer.

Right click the WinLGX installer and choose the "Run as administrator" option to start the installation. Follow the prompts to complete setup.

As WinLGX installs, a succession of two additional installation windows will be displayed. Refer to the following for a description of each window and installation guidelines:

- Microsoft Visual C++ library window
This window is used to install the Microsoft Visual C++ runtime components needed to run WinLGX on your computer or network. Click the "Repair" button if you are using a version of WinLGX starting with 6 or less (for ex., WinLGX version 6.0.1.48). If you are already running WinLGX 7 or greater, click the "Cancel" button on the bottom of the popup window.
NOTE: Choosing "Cancel" does not stop the WinLGX installation process, which will continue as a background operation.

UltraNEXUS-HD

Software Installation & Configuration

- VLC media player setup wizard

VLC media player is necessary in order to use the WinLGX software preview and confidence monitor features (for more information on these features, see “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” on page 175 and “Monitoring a Video File Recording” on page 250). If you do not intend to use the WinLGX software monitor features, you may opt out of the VLC installation process by clicking the “Cancel” button on the bottom of the setup wizard. If you choose to install VLC media player, but do not want the player to be automatically chosen for playback of your audio and other types of media files on your computer, deselect “Audio Files” and “Other” under the “File type associations” settings during installation.

Click “Finish” to close the WinLGX setup wizard and return to Windows.

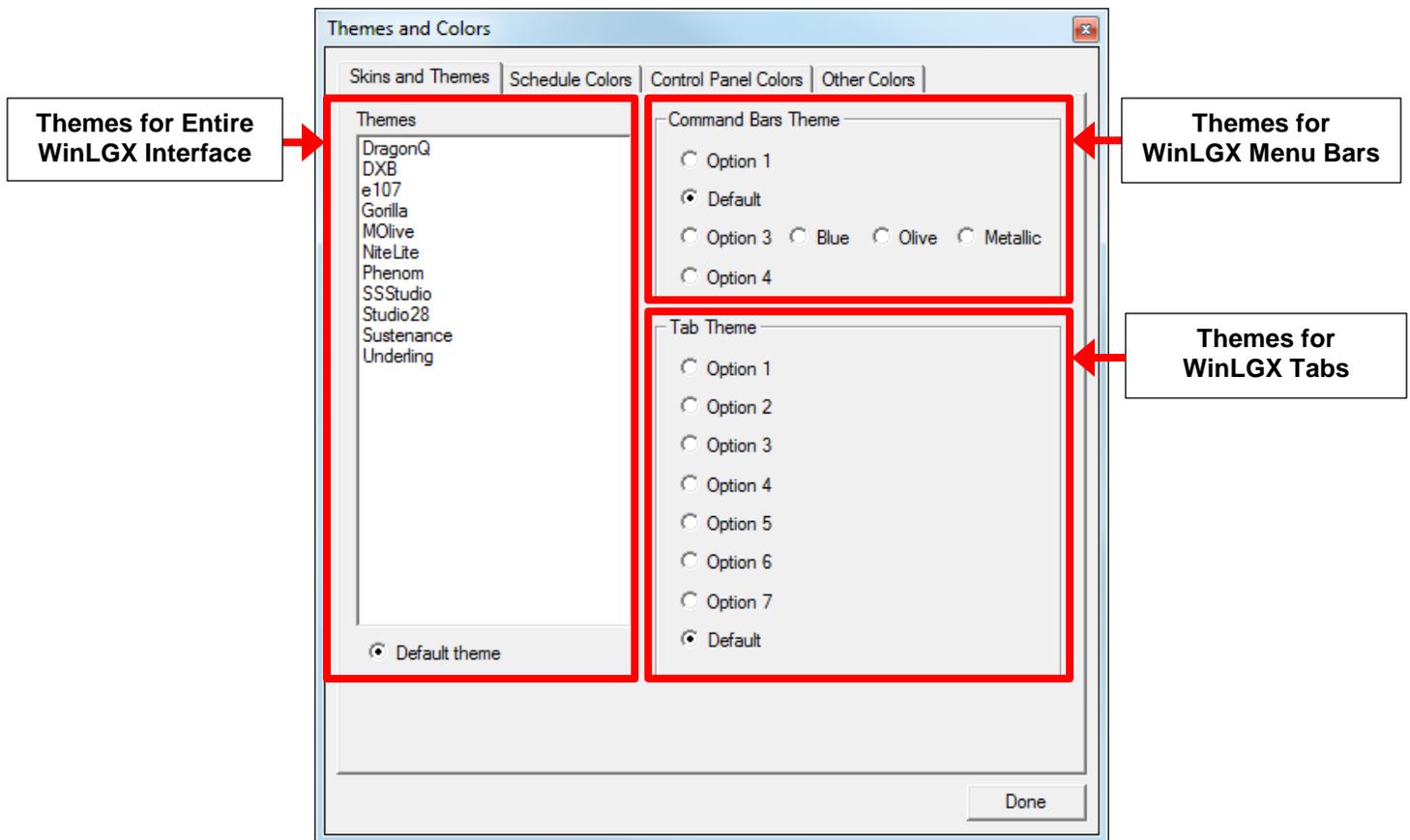
Changing WinLGX Appearance (Themes)

WinLGX provides the option for changing the appearance or “theme” of its menu bars, tabs, and even the entire interface window. To customize the WinLGX interface:

NOTE: The “Skins and Themes” options are **not** available when you are connected to your UltraNEXUS-HD server/controller.

1. Go to the “View” drop down menu and select “Themes and Colors.”
2. On the "Themes and Colors" window, click the "Skins and Themes" tab if it is not already selected (see Illustration 21).

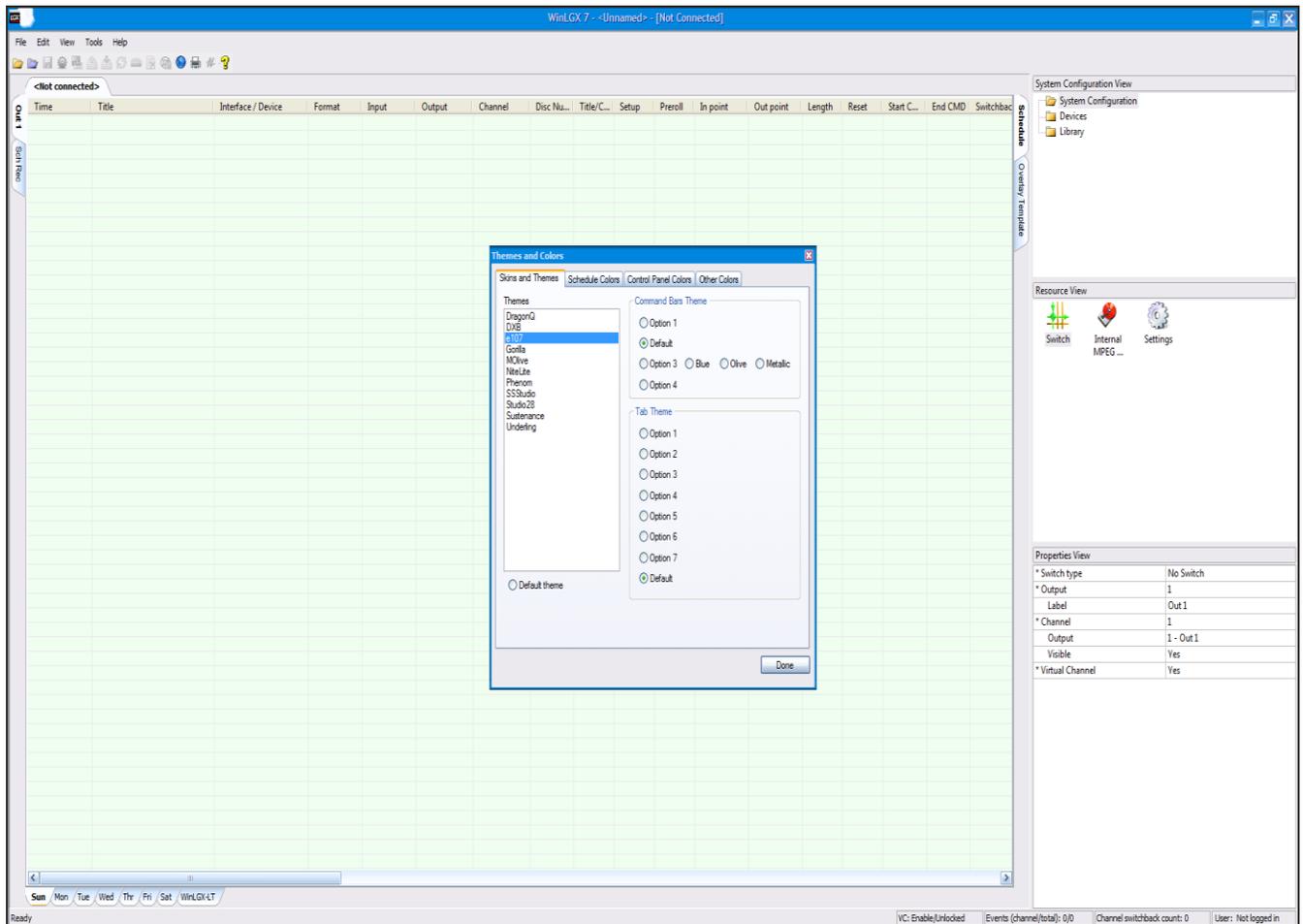
Illustration 21, "Skins and Themes" Tab Window



Click to choose a different interface, menu bar, and/or tab theme (see Illustration 22). To return to the WinLGX default appearance, just select the "Default" button for each theme that was changed.

UltraNEXUS-HD Software Installation & Configuration

Illustration 22, Example of Custom WinLGX Interface Theme



Once you are finished with your changes, either click the “Done” button or the close icon in the upper right corner of the pop-up window.

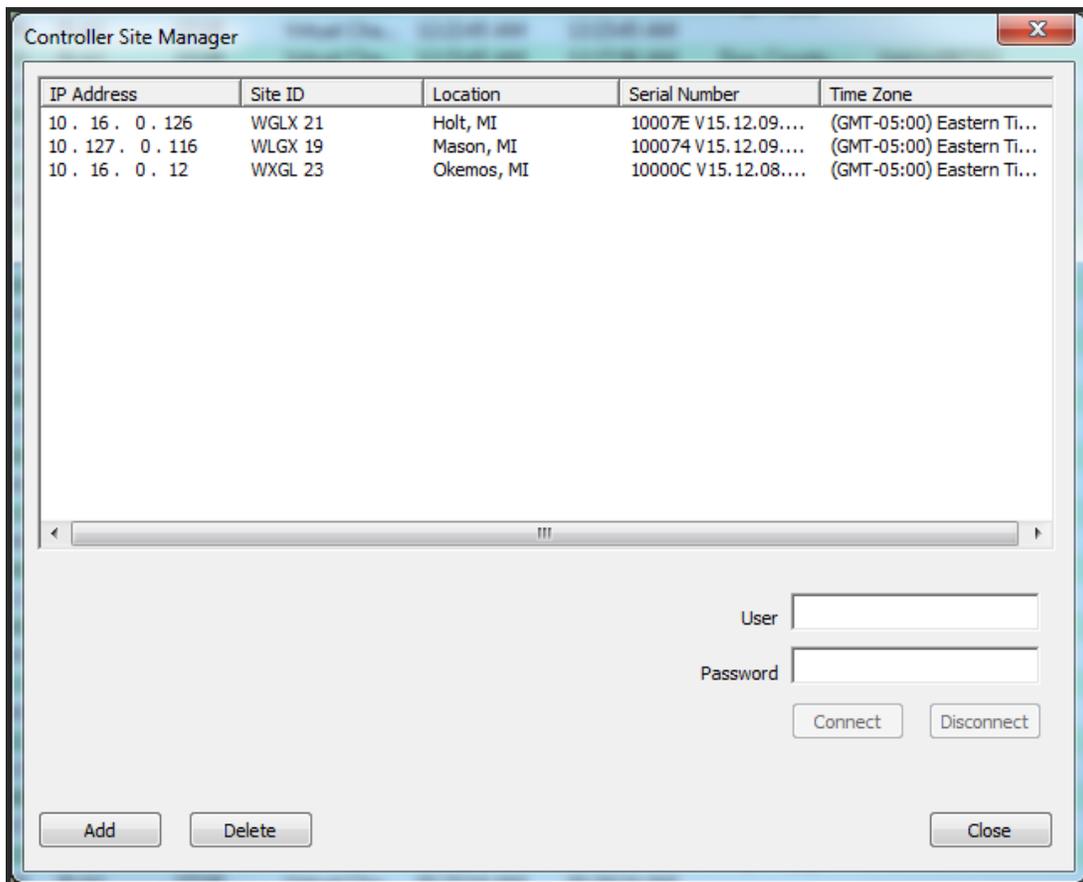
Adding / Deleting UltraNEXUS-HD Locations in the Site Manager

Use the WinLGX “Site Manager” window to manage your UltraNEXUS-HD server’s network IP address information. WinLGX uses each server’s IP address to locate the server and send/receive the server’s system information. Manage the IP address listing of your UltraNEXUS-HD as follows:

ADDING ULTRANEXUS-HD IP ADDRESSES

If not already open, click “Site manager” in the “Tools” menu or the  icon on the main toolbar to open the “Controller Site Manager” window shown in Illustration 23.

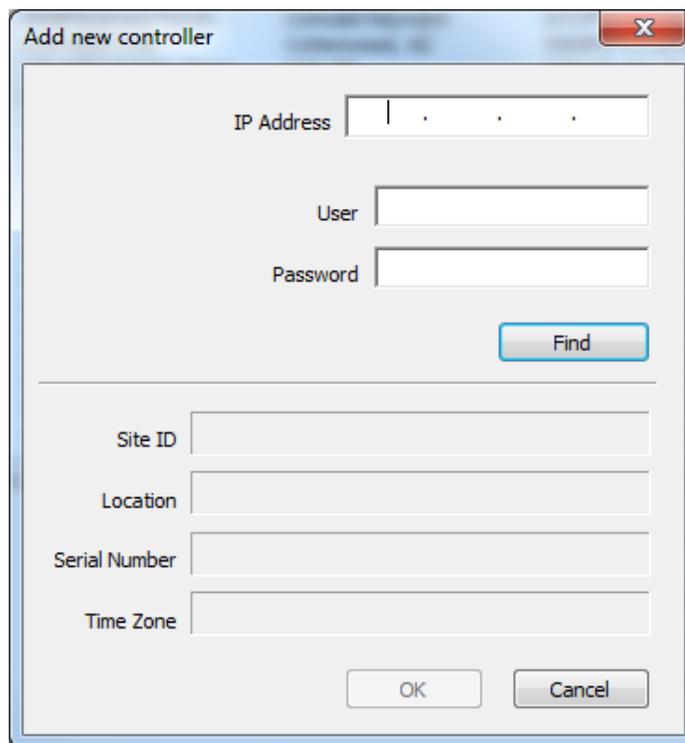
Illustration 23, “Controller Site Manager” Window



UltraNEXUS-HD Software Installation & Configuration

Click “Add” on the “Controller Site Manager” window (see Illustration 23) to open the “Add new controller” window shown in Illustration 24. Complete the following fields:

Illustration 24, “Add New” Window



- “IP Address”: enter the IP address displayed on the UltraNEXUS-HD server’s front panel. This address can be viewed from the front panel by pressing the up or down arrows until the IP Address is shown.

NOTE: Do not enter 255.255.255.255 in the “IP Address” field.

- Enter your user account name in the “User” field.
- Enter your password in the “Password” field.

NOTES:

- Your username and password may only contain letters and numbers.
- If you have not changed the username and password from the factory defaults, they are as follows:

FACTORY-DEFAULT USERNAME AND PASSWORD FOR ULTRANEXUS-HD
“User” field: “admin” in lower-case letters
“Password” field: the last six digits of your UltraNEXUS-HD server’s serial number
NOTE: Enter any letters in upper case (e.g., 100ABC).

Click “Find.” If you are adding the correct IP address, your server’s site ID, location, serial number, and time zone displays in the “Add new” window.

NOTE: If this is the first time your UltraNEXUS-HD server has been added to the site manager database, the following information will be displayed:

- “Site ID”: name of the product
- “Location”: “undefined”
- “Serial Number”: your UltraNEXUS-HD server’s serial number
- “Time Zone”: your time zone

Illustration 25, “Add New” Window

The screenshot shows a dialog box titled "Add new controller". It has a standard Windows-style title bar with a close button (X). The dialog contains several input fields and buttons. The "IP Address" field contains "10 . 16 . 0 . 18". The "User" field contains "admin". The "Password" field contains "****". Below these fields is a "Find" button. Further down, there are more input fields: "Site ID" contains "UltraNEXUS-HD", "Location" contains "undefined", "Serial Number" contains "100012 V15.12.15.1549", and "Time Zone" contains "(GMT-05:00) Eastern Time (US and Canada)". At the bottom of the dialog are "OK" and "Cancel" buttons.

Click “OK” to enter your UltraNEXUS-HD server in the site manager database or “Cancel” to abort entry.

If applicable, repeat the steps for each additional UltraNEXUS-HD server in your system.

DELETING ULTRANEXUS-HD IP ADDRESSES FROM SITE MANAGER

Click “Site manager” in the “Tools” menu or the  icon on the main toolbar to open the “Controller Site Manager” window shown in Illustration 23. Perform the following steps:

1. Highlight the UltraNEXUS-HD IP address you wish to delete.

Click “Delete” to display the delete confirmation box. Click “OK” to delete the UltraNEXUS-HD IP address from the site manager location.

Click “OK” at the bottom of the “Site Manager” window to save your changes to the database, or click “Cancel” to discard your changes.

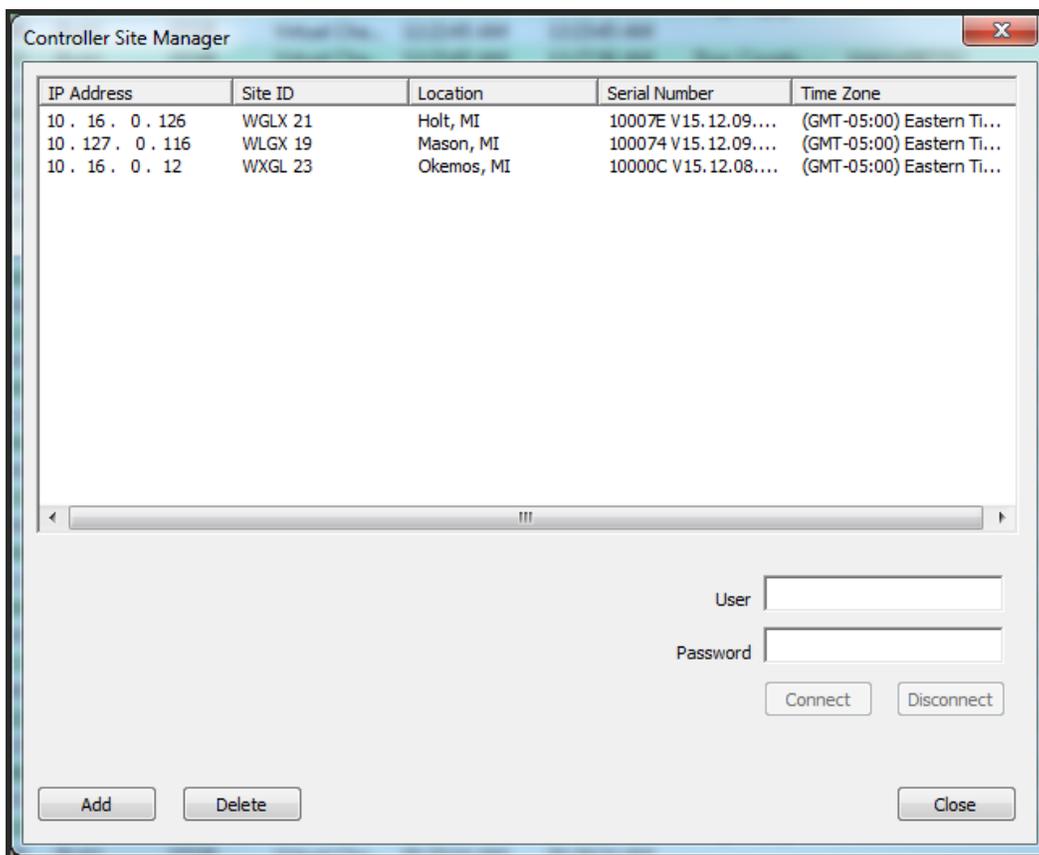
Connecting to Your UltraNEXUS-HD Server

Before you can start controlling your UltraNEXUS-HD server(s), you must first connect to each of your UltraNEXUS-HD servers. This allows WinLGX to locate the server(s) you wish to operate and enables the software to send your settings and commands to each connected UltraNEXUS-HD.

Open the WinLGX “Site Manager” window (see Illustration 32) by performing one of the following:

- Select “Site manager” in the “Tools” menu
- Click the  icon on the toolbar

Illustration 26, “Site Manager” Window



Once the WinLGX “Site Manager” is open, you should see a list of your UltraNEXUS-HD systems. If not, refer back to “Adding / Deleting UltraNEXUS-HD Locations in the Site Manager,” on page 57.

If desired, reorder your UltraNEXUS-HD server listing. Clicking on any column header in the “Site Manager” sorts the associated information in ascending order, while clicking the header again sorts the list in descending order.

Connect as follows (see Illustration 32):

NOTE: The WinLGX title bar on the main window states whether or not you are connected.

- a. Select one or more IP addresses. You may select up to eight IP addresses by holding down your keyboard “Ctrl” key and clicking each address with the left mouse button.
- b. Log in with the username and password given to you by the UltraNEXUS-HD system administrator. To simultaneously log into multiple servers, all of the selected IP addresses must have the same username and password.

NOTE: Connect to multiple UltraNEXUS-HD servers with different usernames and passwords by logging in separately to each controller.

If the username and password have not been changed from the factory defaults, enter the following:

UltraNEXUS-HD FACTORY-DEFAULT USERNAME AND PASSWORD
“User” field: “admin” in lower-case letters
“Password” field: the last six digits of your UltraNEXUS-HD system’s serial number
NOTE: Enter any letters in upper case (e.g., 100ABC).

- NOTES:**
- Only letters and numbers may be used in your username and password.
 - Logins are case sensitive.
 - If the correct characters are not entered, an error message will be displayed.
 - An administrator can assign various degrees of rights to each username, so not all menu items or functions may be available to a user.
 - The last six digits of your UltraNEXUS-HD server’s serial number are viewable from the front panel (see “Configuring Front Panel Settings,” on page 42) and a sticker on the back of your UltraNEXUS-HD server.
- c. Click “Connect” or press “Enter” to connect to the chosen UltraNEXUS-HD server(s) and close the login dialog box. Once you are connected, a tab appears for each UltraNEXUS-HD server on the main window beneath the toolbar. If you logged into more than one UltraNEXUS-HD server, switch between the servers by clicking on the product tabs on the main window.

Creating New UltraNEXUS-HD Image Files

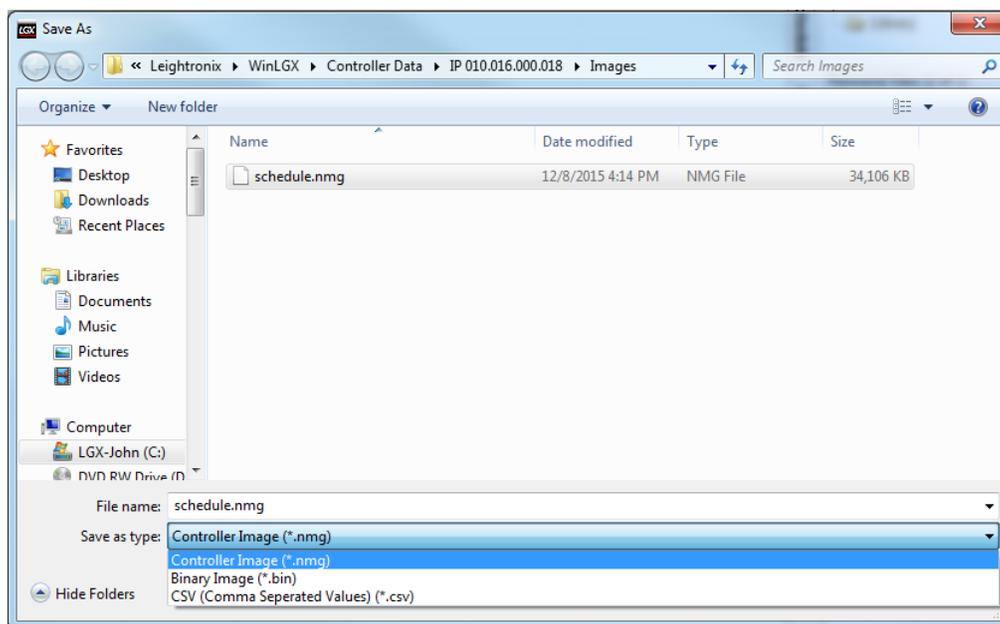
Before you get started entering your system settings into WinLGX, create and save an UltraNEXUS-HD system image file. UltraNEXUS-HD system image files hold your system, device, and library resource properties as well as your schedule events. UltraNEXUS-HD image files have a .nmg file extension (e.g., *schedule.nmg*).

NOTE: To open a saved UltraNEXUS-HD image file, go to “Opening a Saved Image File,” on page 167.

WinLGX automatically opens with an empty image file loaded. If you need to clear any settings, select “New” under the “File” menu.

Select “Save as/Export” in the “File” menu to open the window shown in Illustration 27.”

Illustration 27, “Save As” Window



From the “Save in” drop down box at the top of the window, navigate to the folder where you want to save the UltraNEXUS-HD image file.

Type a name for the image in the “File name” field.

Ensure the “Controller Image (*.nmg)” option has been selected in the “Save as type” field.

Click “Save” to save the image under the entered name or “Cancel” to abort the “Save as.”

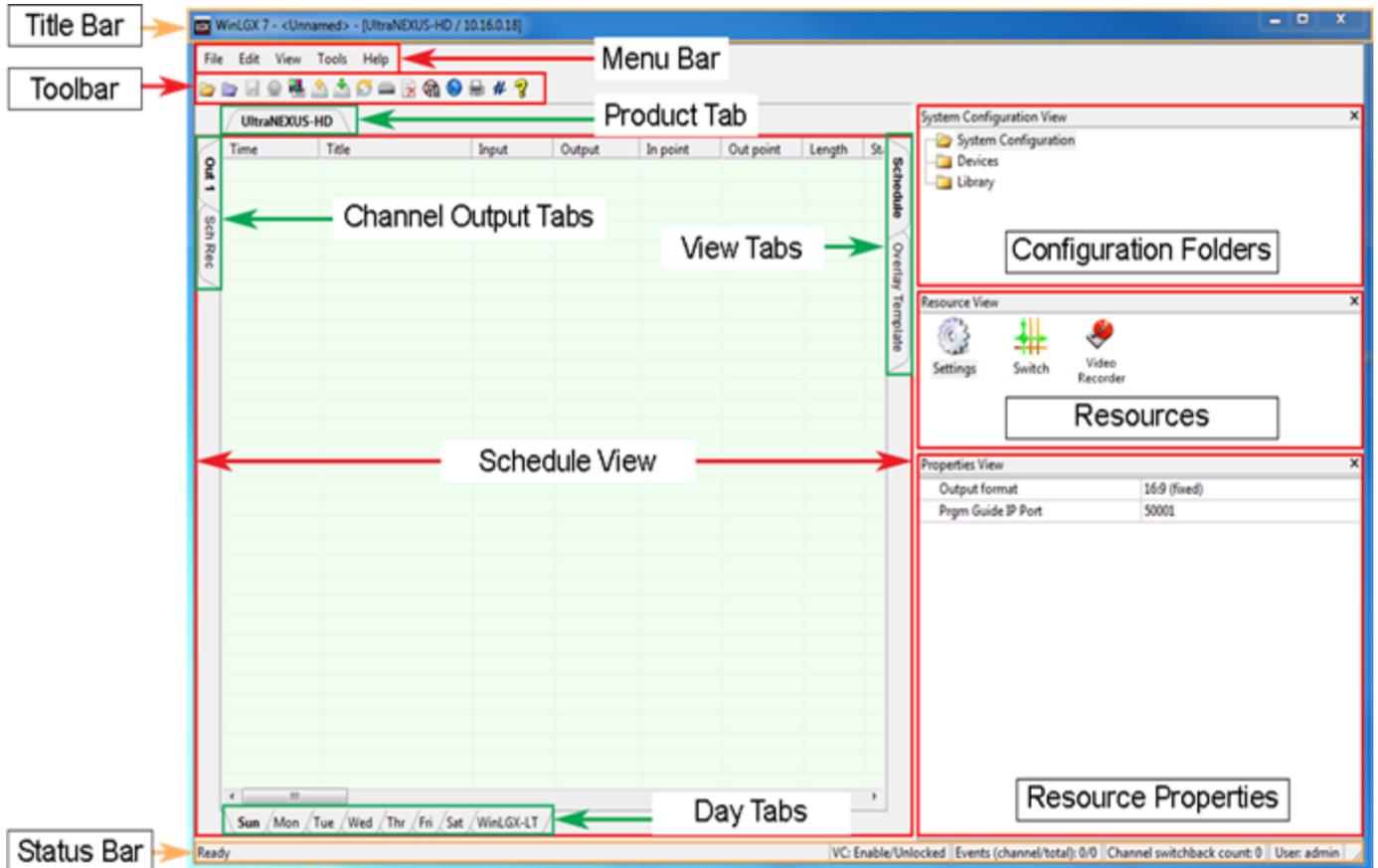
As you enter your configuration settings according to the “Configuring WinLGX” section starting on page 63, periodically save your settings in your image file by selecting “Save” from the “File” menu or clicking the  toolbar button.

Configuring WinLGX

About the Main Window Components

Icons to run the WinLGX software are installed on the Windows desktop and in the “Start Menu\Programs\Leightronix, Inc.” folder. Choosing either of these icons opens the WinLGX main window shown in Illustration 28.

Illustration 28, WinLGX Main Window



The components of the main window are as follows:

- **Product Tab(s):** a tab appears for each login connection so that users with more than one UltraNEXUS-HD server or other supported LEIGHTRONIX product can switch between product views in WinLGX. Each product view is self-contained, allowing users to enter separate configuration and scheduling information for each LEIGHTRONIX product.
- **Channel Output Tabs:** each tab corresponds to an output on either your UltraNEXUS-HD’s rear panel or external switcher, depending on your system setup, and is selected in combination with a day tab to create a scheduling window

UltraNEXUS-HD Software Installation & Configuration

- **Day Tabs:** each tab corresponds to a day of the week and is selected in combination with a channel output tab to create a scheduling window
- **Schedule view tab:** contains any scheduled events
- **Overlay Template view tab:** Used to create and edit overlay templates.
- **Configuration folders window:** contains the “System Configuration,” “Devices,” and “Library” folders
- **Resources window:** displays the icons of the folder selected in the configuration folders window
- **Resource properties window:** displays the properties of the icon selected in the “Resources View” window
- **Title bar:** displays the program name and connection status, as well as buttons for minimizing, restoring/maximizing, and closing WinLGX.
- **Menu bar:** contains drop-down menus of WinLGX operations (see Illustration 29, Menu Bar and Table 13, Menu Bar Items).

Illustration 29, Menu Bar



Table 13, Menu Bar Items

MENU ITEM	FUNCTION
"File"	<p>Click on this menu item to display the following options:</p> <ul style="list-style-type: none"> • "New": Creates a new image file with default configurations (see page 62) • "Open": opens file selection window for selecting image files (see page 167) • "Open as New": opens file selection window to open an image file without scheduled events but maintains system configurations (see page 168) • "Close": disconnects WinLGX from UltraNEXUS-HD server on currently selected product tab • "Close all": disconnects WinLGX from all connected UltraNEXUS-HD servers • "Save": saves an UltraNEXUS-HD image that was previously saved as a file or opens file window for saving an UltraNEXUS-HD image under a user-specified name and folder (see page 171) • "Save as": opens file window for saving an UltraNEXUS-HD image under a user-specified name and folder (see page 171) • "Send": select to send an UltraNEXUS-HD image with a schedule to the UltraNEXUS-HD server (see page 231) • "Send all": sends currently open image files to their corresponding UltraNEXUS-HD servers with one click (see page 231)

MENU ITEM	FUNCTION
	<ul style="list-style-type: none"> • “Receive”: select to receive image from the connected UltraNEXUS-HD server (see page 169) • “Receive all”: downloads image files from each of the currently connected NEXUS series servers/controllers with one click (see page 169) • “Get log”: select to obtain log file from the connected UltraNEXUS-HD server (see page 263) • “Page setup”: opens window to configure schedule printout (see page 83) • “Print setup”: opens window to configure the printer and paper settings (see page 83) • “Print”: click to select template and then print or exports schedule (see page 232) • “Exit”: closes WinLGX program (see page 165)
“Edit”	<p>Click on this menu item to display the following options (see <u>“Scheduling/Editing/Deleting All Events,” starting on page 184</u>):</p> <ul style="list-style-type: none"> • “Edit”: use to edit an event in the schedule • “Edit switchback”: when an event or channel switchback is selected, option displays the “Channel Switchback Editor” window. The switchback editor allows users to quickly change the inputs assigned to the channel switchbacks between programs (see page 229) • “Cut”: select to remove an event from a schedule and send to WinLGX’s clipboard • “Copy”: select to copy an event in the schedule to WinLGX’s clipboard • “Paste”: select to paste a copied event into the schedule • “Delete”: select to remove an event from a schedule • “Select All”: select all events on the selected channel and day/WinLGX-LT tab configuration’s schedule event window
“View”	<ul style="list-style-type: none"> • Check the following options to display the corresponding toolbar, window, or schedule columns (see page 69): <ul style="list-style-type: none"> ➤ “Schedule Columns”: displays a window that allows you to show and hide the schedule columns of your choice ➤ “Status Bar”: allows you to hide/show the WinLGX status bar ➤ “System Configuration”: allows you to show the “System Configuration View” window if it has been hidden ➤ “Resource”: allows you to show the “Resource View” window if it has been hidden

UltraNEXUS-HD
Software Installation & Configuration

MENU ITEM	FUNCTION
	<ul style="list-style-type: none"> ➤ “Properties”: allows you to show the “Properties” window if it has been hidden • “Reset views”: returns the “System Configuration View,” “Resource View,” and “Properties” windows to their default positions and sizes on the main window • “Themes and colors”: displays pop-up window with options for changing the WinLGX interface appearance (themes) as well as the schedule and control panel colors (see “Changing WinLGX Appearance (Themes),” on page 55 and “Configuring WinLGX Interface Colors,” on page 73)
“Tools”	<p>Click on this menu item to display the following options:</p> <ul style="list-style-type: none"> • “Control Panel”: opens the control panel window for immediate control of digital video playback and recording as well as switching (see page 232) • “Controller”: opens window for configuring site information, setting clock, performing firmware updates, and rebooting (see page 79) • “Set front panel password”: opens window for setting front panel password (see page 78) • “Export/Print Templates”: opens window for creating templates that determine which schedule information is exported or printed (see page 81) • “User defined data”: opens window for configuring user-defined schedule event columns (see page 85) • “Storage Manager”: opens window for managing digital videos (see page 253) • “Site Manager”: opens window for adding or deleting UltraNEXUS-HD system locations (see page 57) • “User accounts”: opens window for configuring user account settings (see page 74) • “Web Interface”: opens the UltraNEXUS-HD web interface login prompt for the connected UltraNEXUS-HD server IP address in your default web browser • “Total Backup”: not for use with UltraNEXUS-HD servers • “System tools”: <ul style="list-style-type: none"> ➤ “Switchback editor”: provides access to the “Channel Switchback Editor” window. The switchback editor allows users to quickly change the inputs assigned to the channel switchbacks between programs (see page 229) ➤ “Sync Library Resources”: checks UltraNEXUS-HD image files for library resources and schedule events referencing digital video files no longer on the UltraNEXUS-HD’s storage device(s) (see page 229) • “Preferences”: opens window for configuring WinLGX main window components, including time format, sorting filter for library resource items, and display of schedule columns (see page 87)

MENU ITEM	FUNCTION
"Help"	<ul style="list-style-type: none"> • "Leightronix Support Center": opens the LEIGHTRONIX Support Center in your default web browser. Support Center provides manuals, tutorials, and software and firmware updates for your UltraNEXUS-HD server. • "WebEx": opens the LEIGHTRONIX WebEx portal in your default web browser. LEIGHTRONIX uses WebEx with customers for training and technical support. • Click on "About WinLGX" to display a window with the WinLGX version number (see "Displaying WinLGX Version Number," on page 164).

- **Main Toolbar:** contains icons for some of the most frequently used operations (see Illustration 30 and Table 14, Toolbar Items).

Illustration 30, Main Toolbar



Table 14, Toolbar Items

TOOLBAR BUTTON	FUNCTION
	Opens file selection window for selecting image files (see "Opening a Saved Image File" on page 167)
	Opens file selection window for opening an image file with a blank schedule (see "Opening an Image File as New," on page 168)
	Saves an UltraNEXUS-HD image that was previously saved as a file or opens file window for saving an UltraNEXUS-HD image under a user-specified name and folder (see "Saving UltraNEXUS-HD Image Files," on page 171)
	Opens window for selecting preferences on WinLGX's appearance and select operations (see "Setting WinLGX Viewing and Communication Preferences," beginning on 87)
	Displays control panel window (see "Using Control Panel to Perform Immediate Device and Switch Actions," beginning on page 235)
	Sends an image file to the connected UltraNEXUS-HD server (see "Sending UltraNEXUS-HD Image Files," on page 231)
	Receives image from the connected UltraNEXUS-HD server (see "Receiving Image Files from the Connected UltraNEXUS-HD Server(s)" beginning on page 169)
	Checks UltraNEXUS-HD image files for library resources and schedule events referencing digital video files no longer on the UltraNEXUS-HD system's storage device(s) (see "Checking Schedule and Library Resources for Missing Digital Video Files" on page 229)

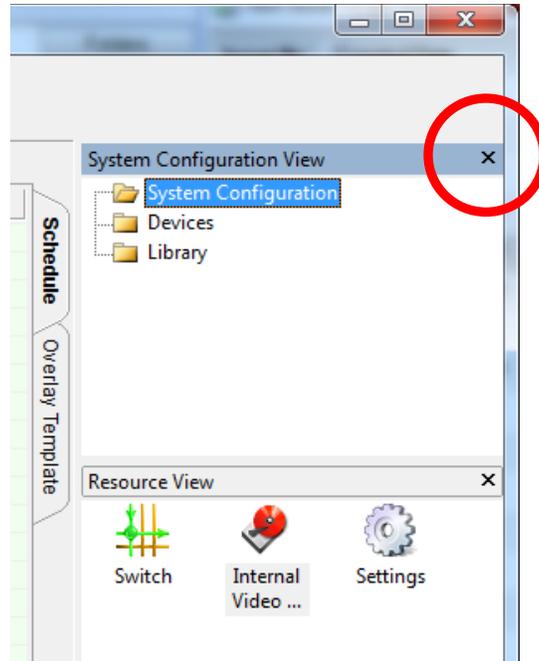
UltraNEXUS-HD
Software Installation & Configuration

TOOLBAR BUTTON	FUNCTION
	Displays window for managing digital videos (see “Managing Storage of Video, SLIDE, and OVERLAY Files,” on page 253)
	Obtains log file from the connected UltraNEXUS-HD server (see “Retrieving Log Files,” on page 263)
	Not for use with the UltraNEXUS-HD servers
	Displays window for adding or deleting UltraNEXUS-HD locations (see “Adding / Deleting UltraNEXUS-HD Locations in the Site Manager,” on page 57)
	Displays window for selecting an export/print template (see “Printing Schedules from WinLGX,” on page 232, and “Exporting Schedules into Comma Separated Values Files,” on page 233)
	Opens the UltraNEXUS-HD web interface login screen in your default web browser
	Displays a window with the WinLGX version number (see page 164)

Configuring the Main Window Components

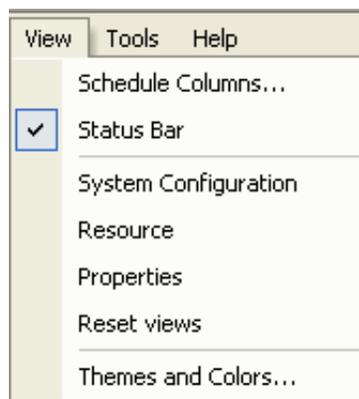
- Product Tabs: you can change the order of your product tabs. Simply click on each tab with the left mouse button and then, while holding down the left mouse button, drag the tab into the desired position.
- Close Icon: to remove a view window from the WinLGX interface, click the close icon on the window's toolbar (see Illustration 31). To display the window again, go to the "View" menu and select "Reset views."

Illustration 31, View Window Close Option



- Hiding/Displaying Windows and Schedule Columns through the "View" Menu
The "View" menu, shown in Illustration 32, may be used to hide or show the schedule column headings and status bar, as well as display hidden/closed "System Configuration," "Resource," and "Properties" windows.

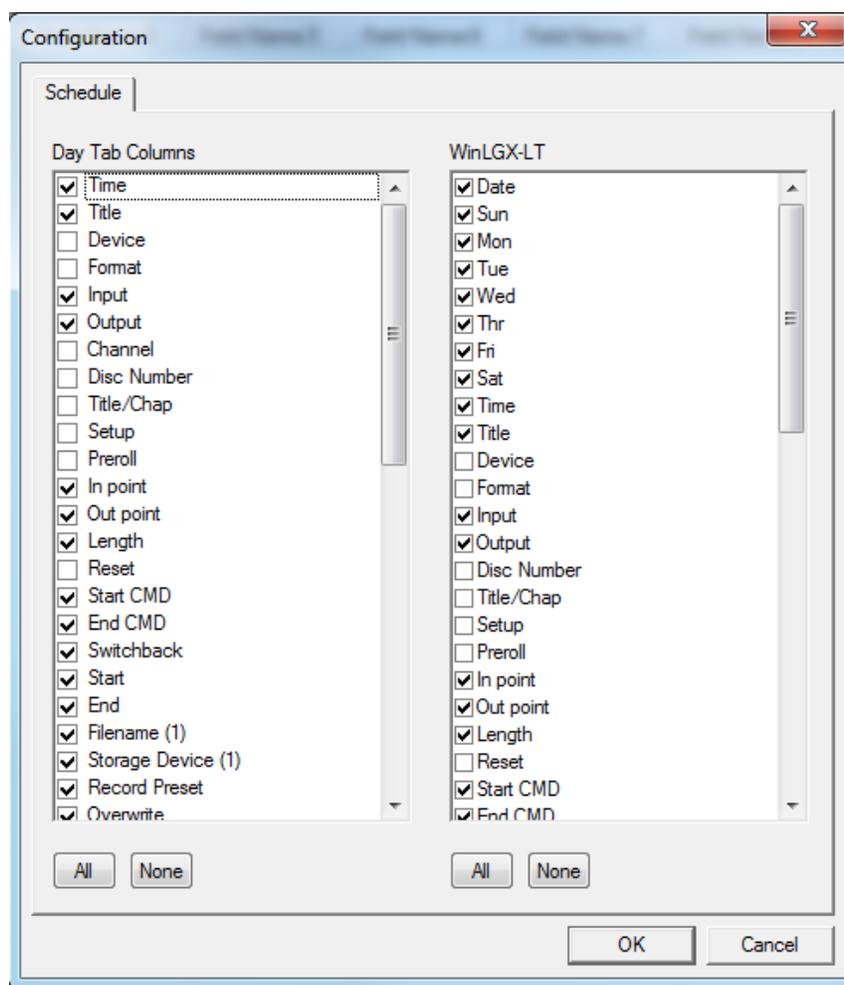
Illustration 32, "View" Menu



UltraNEXUS-HD Software Installation & Configuration

- To show/hide the WinLGX status bar, click on “Status Bar” in the “View” menu to hide it on the main window or uncheck item to display it.
- To show hidden/closed “System Configuration,” “Resource,” or “Properties” windows, click on the desired window in the “View” menu to display it on the main window.
- To return the “System Configuration,” “Resource,” and “Properties” view windows to their default positions on the main window, select “Reset views” in the “View” menu.
- To show/hide schedule columns, click on “Schedule Columns” in the “View” menu or the “Schedule” tab under “Preferences” in the “Tools” menu (see “Setting WinLGX Viewing and Communication ,” on page 87). Note that the “Day Tab Columns” listing corresponds to the columns on the schedule window’s day tabs and the “WinLGX-LT” listing corresponds to the columns in the schedule’s WinLGX-LT tab (see Illustration 33, Schedule Columns Selection Menu). Perform the following steps:

Illustration 33, Schedule Columns Selection Menu



1. Show/hide columns as follows:

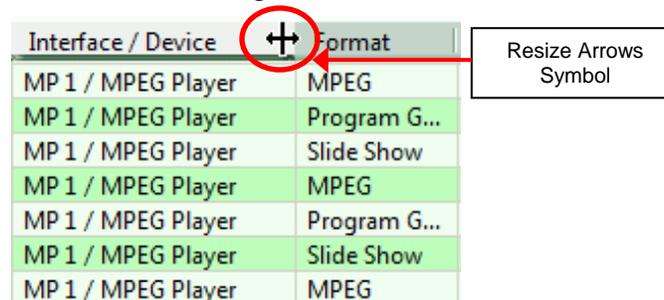
- Click to check column headings you want to show on the schedule window and uncheck columns you want to hide
 - Click the “All” button to display all of the columns on the corresponding schedule windows
 - Click the “None” button to remove all columns on the corresponding schedule windows
2. When all selections have been made, click “OK” to display changes on schedule or “Cancel” to abort changes.
- **Moving Windows**

The “System Configuration,” “Resources,” and “Properties” windows may be moved to any location on the main window by clicking on the windows’ title bars and dragging the windows to the desired position on the WinLGX interface. To re-dock the windows, click on the windows’ title bars and drag to the far right side of the main window.
 - **Rearranging Schedule Column Headings**

To rearrange the order of the schedule column headings, click on the desired heading and drag it over the heading you would like it to displace. The displaced heading will shift to the left of the newly positioned heading.
 - **Resizing Schedule Column Widths**

To resize a column heading, move the mouse pointer over the right-side border of the column you wish to resize. When the pointer changes to the resize arrows symbol (see Illustration 34, Resizing Schedule Column), you may perform one of the following:

Illustration 34, Resizing Schedule Column



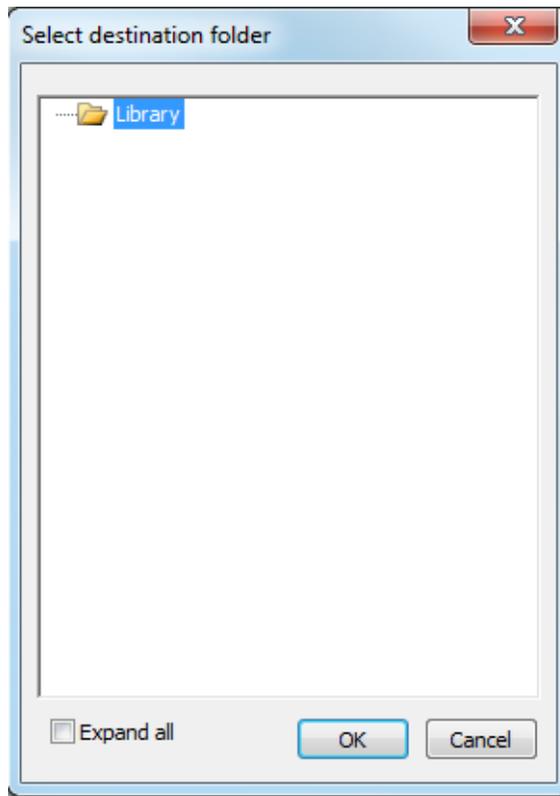
Interface / Device	Format
MP 1 / MPEG Player	MPEG
MP 1 / MPEG Player	Program G...
MP 1 / MPEG Player	Slide Show
MP 1 / MPEG Player	MPEG
MP 1 / MPEG Player	Program G...
MP 1 / MPEG Player	Slide Show
MP 1 / MPEG Player	MPEG

- Drag the column border to the desired width.
 - Double click to resize the column so it is only wide enough to accommodate the column’s largest field item.
- **Using Subfolders to Organize “Library” Folder Resources**
 - **Creating library subfolders**
 1. Right click in the configuration folders window and select “New” in the right-click menu that appears.

UltraNEXUS-HD Software Installation & Configuration

2. A new subfolder will be displayed under the “Library” folder. To rename the subfolder, right click on its name and select “Rename” in the right-click menu that appears. Enter a new folder name.
- Adding existing library resources to subfolders
- Right click on a library resource icon and select “Move to” in the menu that appears to display the window shown in Illustration 35. Display the “Library” folder’s subfolders by either clicking on the “+” next to the folder icon or checking the “Expand all” box.

Illustration 35, “Select Destination Folder” Window



- Adding new library resources to a subfolder
- Select the desired “Library” subfolder in the configuration folders window and create a new library resource in the “Resources View” window.
- Deleting a library subfolder
- Right click on the desired library subfolder and select “Delete” in the menu that appears.

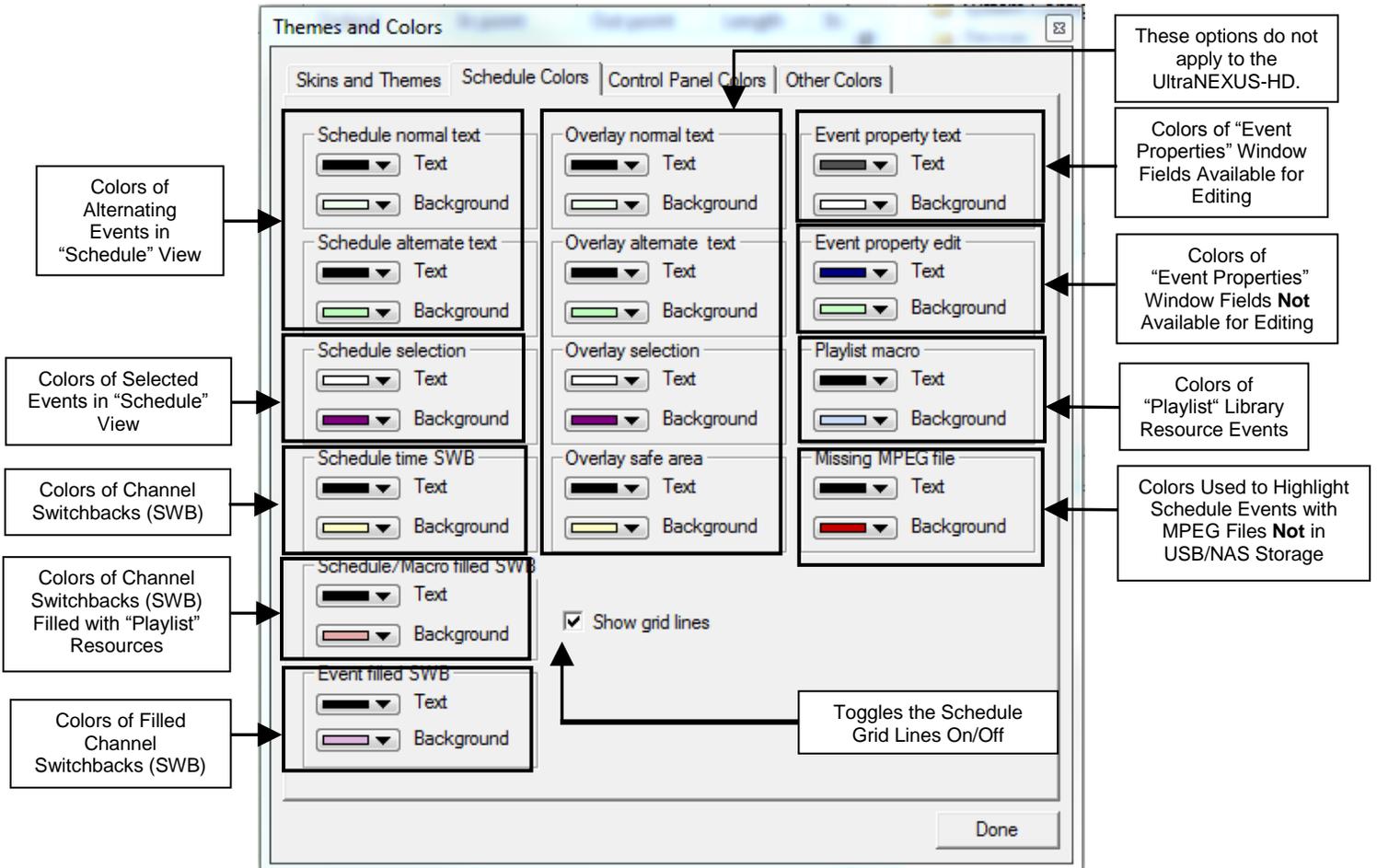
Configuring WinLGX Interface Colors

From the “View” drop down menu, select “Themes and Colors” to display the corresponding window. Perform the following tasks from the window’s three color selection tabs. Click “Done” on the bottom of the “Themes and Colors” window to save changes you have made in any of the tabs and close the window.

Schedule Colors Tab

Click the “Schedule Colors” tab and choose the text and background colors shown in Illustration 36 for the following elements on the “Schedule” view window:

Illustration 36, “Schedule Colors” Tab



- Event rows in the “Schedule” view
- Selected events in the “Schedule” view
- Channel switchbacks (SWB)
- Filled channel switchbacks (SWB)
- “Event Properties” window fields available for editing
- “Event Properties” window fields not available for editing
- “Playlist” library resource events

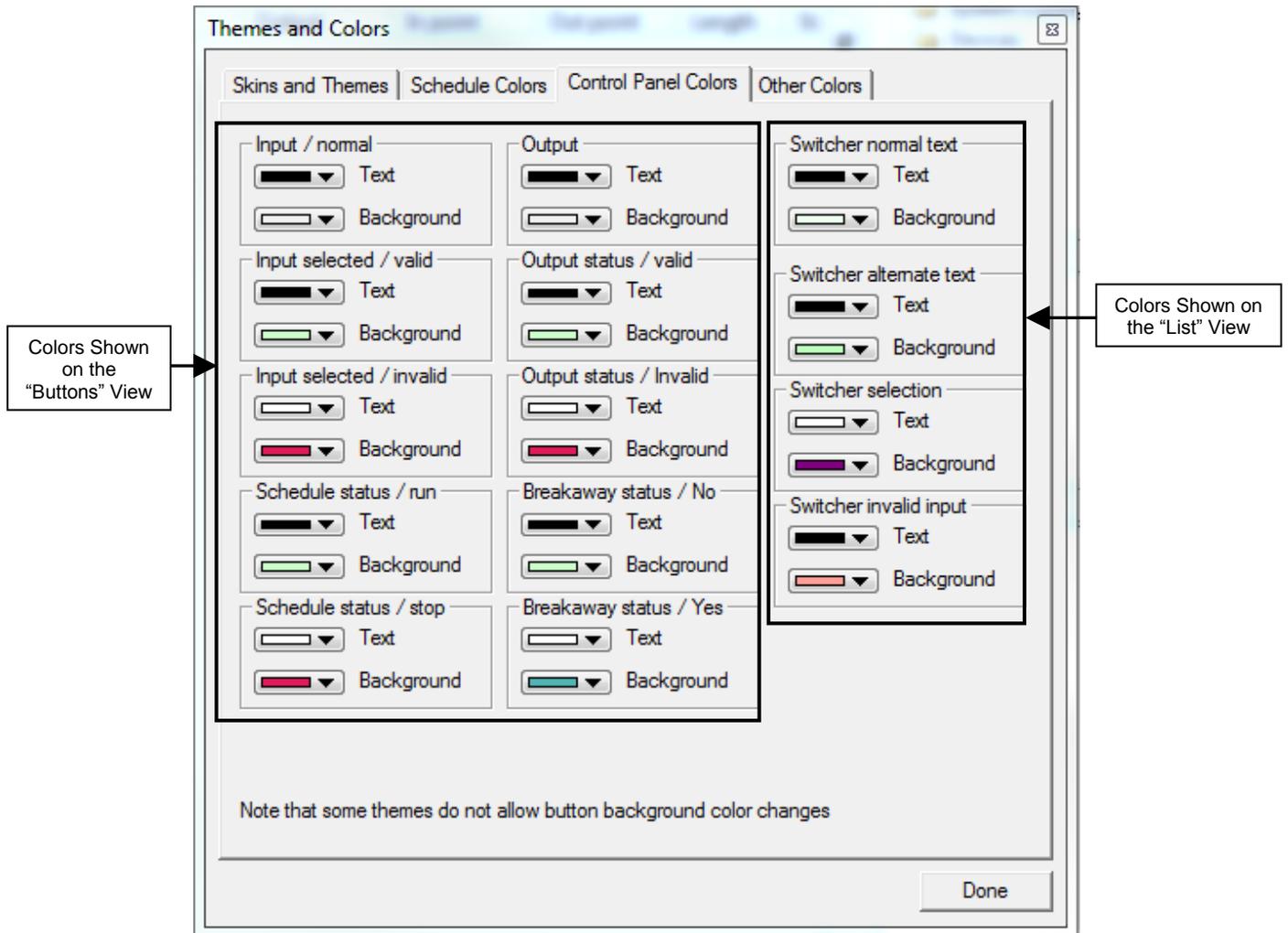
UltraNEXUS-HD Software Installation & Configuration

- Selected day and output channel tabs
- Day and output channel tabs with and without schedule events

Control Panel Colors Tab

Click the “Control Panel Colors” tab (see Illustration 37) and choose the text and background colors for the UltraNEXUS-HD control panel.

Illustration 37, “Control Panel Colors” Tab Window



Other Colors Tab

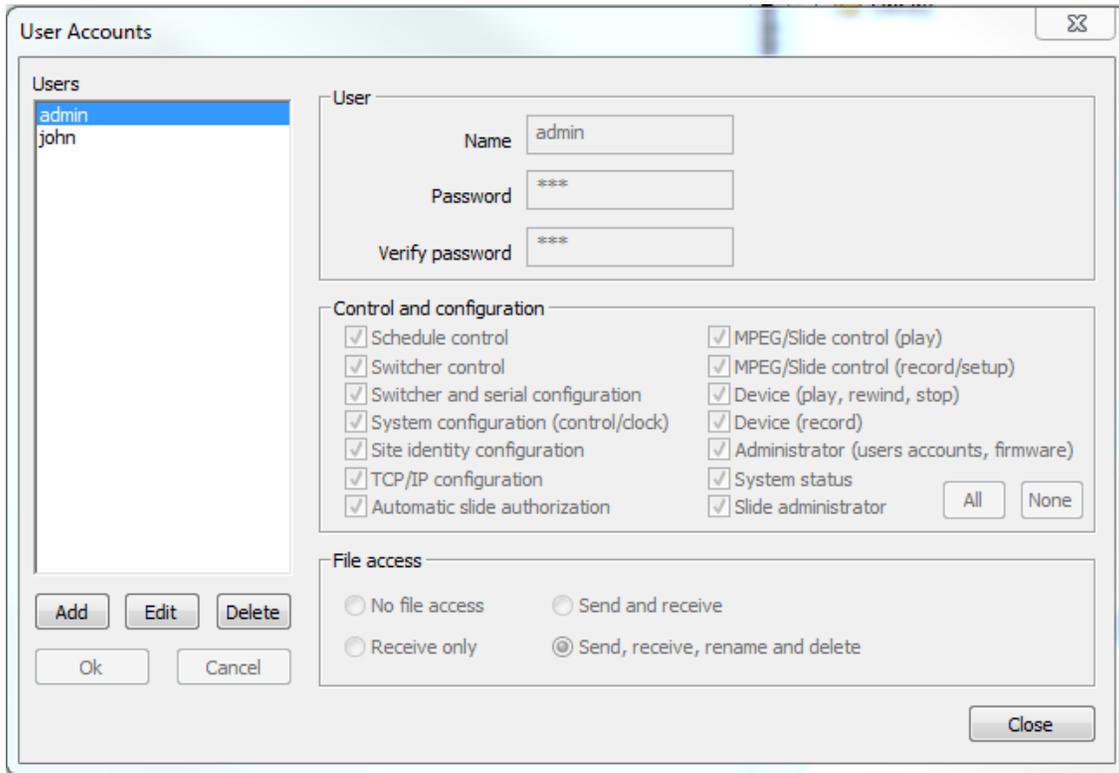
The “Other Colors” tab does not apply to the UltraNEXUS-HD.

Setting User Account Rights (Including WinLGX Password Changes)

Select “User accounts” in the “Tools” menu to open the “User Accounts” window (see Illustration 38).

NOTE: This menu item will only become enabled upon login for users with “Administrator” rights.

Illustration 38, “User Accounts” Window



WinLGX and UltraNEXUS-HD web interface user rights are described in Table 15, User Control and Configuration Rights (see page 77) and Table 16, User File Access Rights (see page 78). Perform any of the following according to the steps below:

- Add a user account
- Edit a user account
- Delete a user account

NOTE: All functions controllable from the UltraNEXUS-HD server’s front panel are only restricted by the front panel password.

When finished configuring user information, exit the “User Accounts” window by clicking the “Close” button.

- **Add a user account**
 - a. Click “Add.”
 - b. Enter new username and password.

NOTES: • Logins are case sensitive.

UltraNEXUS-HD

Software Installation & Configuration

- Your username and password may only contain letters and numbers.
- c. Select the user rights you want the user to be able to access as follows:
 - Click the “All” button to select all of the “Control and configuration” user rights.
 - Click the “None” button to deselect all of the “Control and configuration” user rights, except “System Status.”
NOTE: The “System Status” right is automatically given to each user and may not be deselected.
 - Individually select the rights you want the user to possess by checking the corresponding user rights boxes. To deselect a right, uncheck it by clicking on its box.
- d. Click “Ok” to send the new user settings to the UltraNEXUS-HD server or “Cancel” to abort the addition.
- **Edit a user account**
NOTE: When editing the “admin” user account, only the password may be changed.
 - a. Highlight the desired username and click “Edit.”
 - b. If desired, change username and/or password.
 - c. Select the user rights you want the user to be able to access as follows:
 - Click the “All” button to select all of the “Control and configuration” user rights.
 - Click the “None” button to deselect all of the “Control and configuration” user rights, except “System Status.”
NOTE: The “System Status” right is automatically given to each user and may not be deselected.
 - Individually select the rights you want the user to possess by checking and unchecking the corresponding user rights boxes.
 - d. Click “Ok” to send the new user settings to the UltraNEXUS-HD server or “Cancel” to abort the edit.
- **Delete a user account**
 - a. Highlight the desired username and click “Delete.”
 - b. In the dialog box that appears, click “Yes” to delete user or “No” to abort the change.

Table 15, User Control and Configuration Rights

USER RIGHTS	DESCRIPTIONS
“Administrator (user accounts, firmware)”	<ul style="list-style-type: none"> • WinLGX: allows user to change user account rights, front panel password, and volume names and perform firmware updates • Web Interface: allows user to perform Virtual Channel and program guide functions
“Automatic slide authorization”	Causes any slides uploaded or created in the Advanced Slide Editor to be automatically approved for display
“Device (play, rewind, stop)”	Allows user to cause a device to play, rewind, or stop
“Device (record)”	Allows user to cause a device to record
“MPEG/Slide control (play)”	Allows user to play a digital video file from the WinLGX Control Panel; also,allows user to schedule a slide or slide show
“MPEG/Slide control (record/setup)”	<ul style="list-style-type: none"> • WinLGX: allows user to record MPEG files from the Control Panel • WebNEXUS: allows user to set up file transfer destinations
“Schedule control”	Allows user to stop or run a schedule
“Site identity configuration”	Allows user to edit the UltraNEXUS-HD site name and location and reboot the server
“Slide Administrator”	<ul style="list-style-type: none"> • WinLGX: allows user to authorize slides for display in slide shows and create emergency messages • WebNEXUS: allows user to perform slide management within all user folders and authorize slides for display in slide shows; perform emergency messaging and program guide functions
“Switcher control”	Allows user to perform switches from the WinLGX Control Panel
“Switcher and serial configuration”	Not used
“System configuration (control/clock)”	Allows user to set clock from the “Controller” window under the “Tools” menu
“System status”	This is a default right that allows all users to view the UltraNEXUS-HD server status from the WinLGX Control Panel
“TCP/IP configuration”	Allows user to set up the TCP/IP addresses

**UltraNEXUS-HD
Software Installation & Configuration**

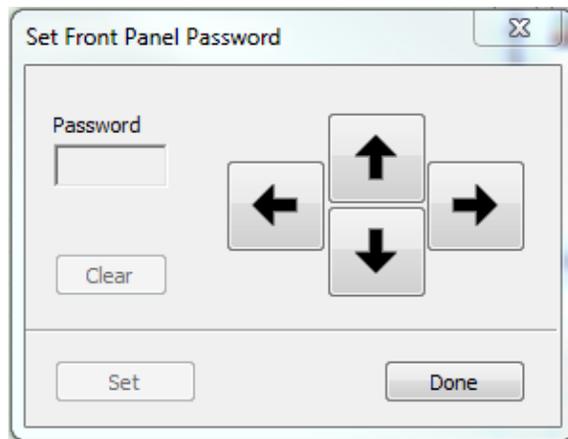
Table 16, User File Access Rights

USER RIGHTS	DESCRIPTIONS
"No file access"	WinLGX: user prevented from performing the following: <ul style="list-style-type: none"> • Sending and receiving UltraNEXUS-HD image files • Opening the "Storage Manager" window (see "Managing Storage of Video, SLIDE, and OVERLAY Files," on page 253, for more information on the "Storage Manager" window). • Accessing current log files
"Receive only"	WinLGX: user prevented from sending UltraNEXUS-HD image files and moving/copying digital video files from one storage device to another
"Send and receive"	WinLGX: user allowed to send digital video files to UltraNEXUS-HD servers, but not image (schedule) files; user prevented from renaming and deleting files on the remote storage devices
"Send, receive, rename and delete"	WinLGX: user allowed to perform all software functions, including sending and receiving UltraNEXUS-HD images (schedules) and renaming and deleting digital video files on the remote storage devices

Changing Front Panel Password

Select "Set front panel password" in the "Tools" menu to open the window shown in Illustration 39.

Illustration 39, "Set Front Panel Password" Window



Click on a combination of five arrows for the new front panel password.

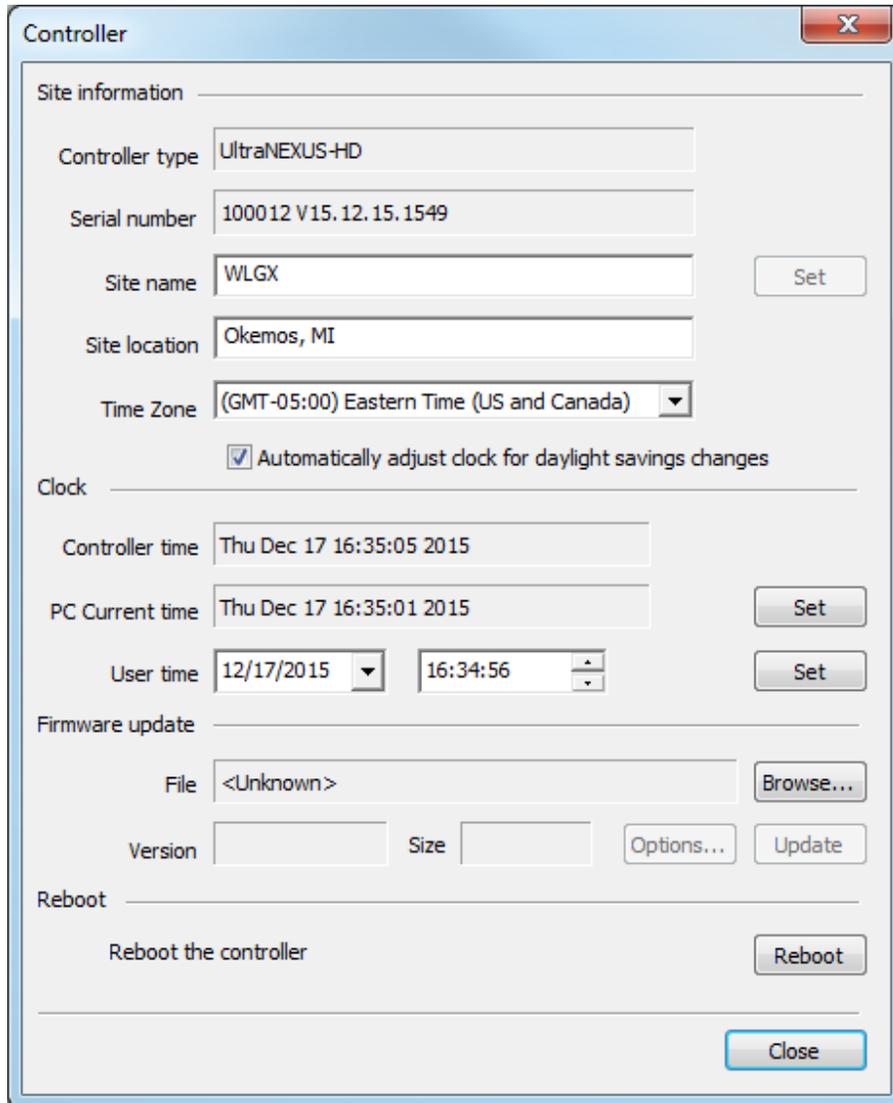
Click "Set" to accept new password or "Clear" to cancel.

Click "Done" to close the "Set Front Panel Password" window.

Configuring Site Information, Clock, Updating Firmware, and Rebooting

In the “Tools” menu, choose “Controller” to open the window shown in Illustration 40, “Controller” Window.

Illustration 40, “Controller” Window



Use the “Controller” window to set the following configuration maintenance settings. After clicking “Set,” “Update,” or the “Reboot” button, you will be prompted for confirmation to perform the action on the connected UltraNEXUS-HD server. Clicking “Yes” opens a box showing location name, action status, progress bar, and connection and action attempt counts. An “action completed” box appears when finished. If the action appears to be stalled or if you would like to interrupt the action, click the “Cancel” button.

UltraNEXUS-HD Software Installation & Configuration

- Site name
Click on the “Site name” field and enter an alias into the field. Click “Set” to make the change. This name will appear on the server’s product tab on the main window.
- Site location
Click on the “Site location” field and enter the server’s location into the field. Click “Set” to make the change.
- Time Zone
Select the desired time zone from the list and click the “Set” button above the time zone field. The list contains the standard Windows time zones for the United States. If you would like the clock to automatically adjust for daylight savings time, check the corresponding box under the time zone field.
- Clock
Set your server’s clock using one of the following methods:
 - Use your PC’s time: click the “Set” button to the right of the “PC Current time” field. WinLGX uses the PC time, PC time zone, and server time zone to set the time, adjusting the time to account for zones crossed. All of these items need to be correct for the set time to be accurate.
 - Enter the date and/or time in the “User time” date and time fields. Either type or use each field’s drop down menu to enter the new date and/or time and click the “Set” button.
- Firmware Update
To perform a firmware update, refer to “Updating UltraNEXUS-HD Server,” on page 268.
- Reboot
To reboot the connected UltraNEXUS-HD server, click the “Reboot” button.

Click “Close” to close the “Controller” configuration window.

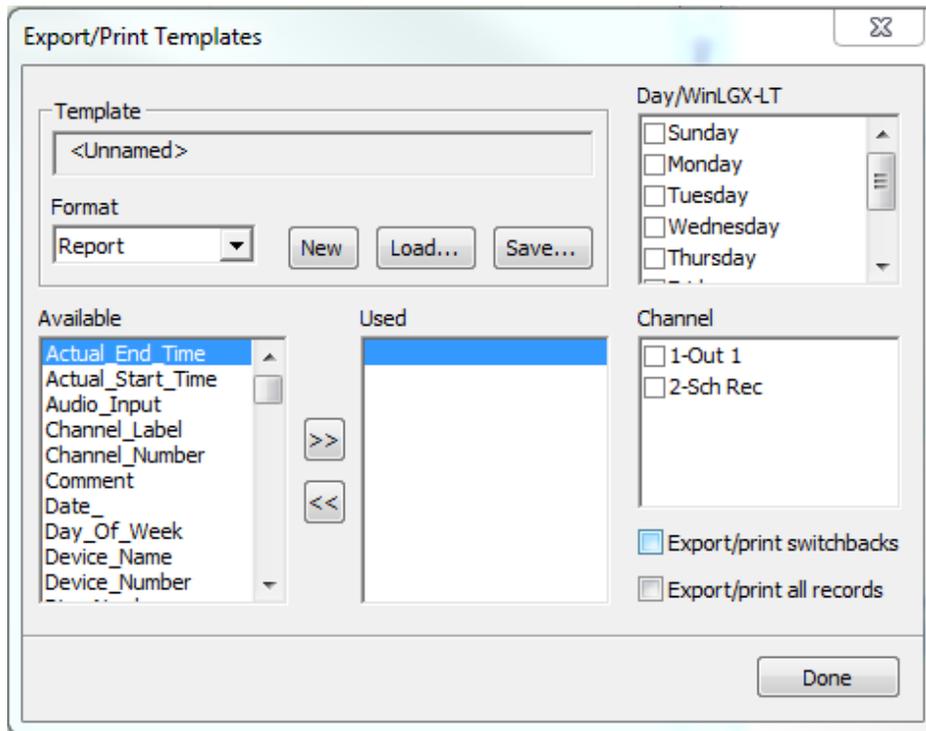
Creating Templates for Exporting/Printing Schedules

Schedule templates allow you to determine what schedule information will be exported or printed. Schedules can be exported into a comma separated values format and then printed (see “Exporting Schedules into Comma Separated Values Files,” on page 233) or printed directly from WinLGX (see “Printing Schedules from WinLGX,” on page 232).

Create a schedule template per the following steps:

- a. Click “Export/Print templates” in the “Tools” menu to open the window shown in Illustration 41.

Illustration 41, “Export/Print Templates” Window



- b. Select template display items as follows:

NOTES:

- The “Format” field is intended for future use and may only be set to “Report.”

- Click “New” to clear all settings.

- Determine which event windows will be filtered for the schedule template:
 1. Check the boxes in “Day/LT” section to select the desired days (or LT).
 2. Check the boxes in the “Channel” section to select the channel outputs that should be included for the selected days.

NOTE: The channel list varies depending on your system switcher configuration.

UltraNEXUS-HD

Software Installation & Configuration

- Check the “Export/print switchbacks” checkbox to display channel switchbacks between programs.
- Check “Export/print all records” to include all events in the selected event windows.
NOTE: This function overrides any export or print values set to “No” in the device and library resource and event properties.
- Add/remove schedule fields (columns) in template as follows:
 - Add a field to the “Used” list by double clicking a field item in the “Available” list or selecting it and clicking “>>.” The fields in the “Used” list will be printed/exported in the selection order listed.
 - To add a field in a specific order within the “Used” list, highlight the “Used” display item you would like to display the new field before. Double click a field item in the “Available” list or select it and click “>>.” The new field is added above the selected field (select the blank field at the bottom to add a field to the end of the list).
 - Remove a “Used” field, by double clicking it or selecting it and clicking “<<.”
- c. Click “Save” to save the template to a file.

To revise a template:

- d. Click “Export/Print Templates” in the “Tools” menu to open the window shown in Illustration 41, “Export/Print Templates” Window.
- e. Click “Load.” In the “Select Export/Print Template” window that appears, browse for the desired template and open. The filename will then appear in the “Template” box at the top of the “Export/Print Templates” window.

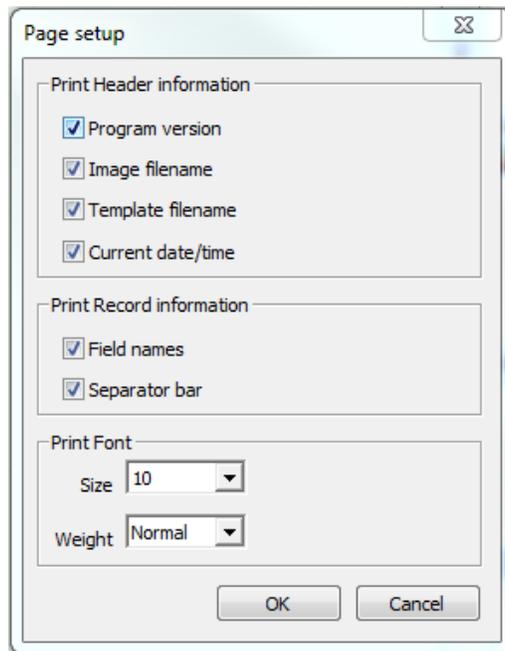
Click “Done” when finished to close the “Export/Print Templates” window.

Configuring Page Layouts For Schedules Printed from WinLGX

The following steps allow you to determine the page layout of schedules printed directly from WinLGX.

Select “Page Setup” in the “File” menu to open the box shown in Illustration 42, “Page Setup” Window, and configure the schedule printout according to the following options:

Illustration 42, “Page Setup” Window



- “Print Header information” section: check the items you want to appear at the top of the printout. “Program version” refers to the top two lines shown in Illustration 43, Example of a Schedule Header.

Illustration 43, Example of a Schedule Header

```
WinLGX Version 7.0.1.12                                     Page 1
Copyright © 2015, LEIGHTRONIX, INC.
Image Filename: UltraNEXUS-HD.nmg
Template Filename: nxs.xpt
Today is: Mon Apr 02 13:02:33 2015
```

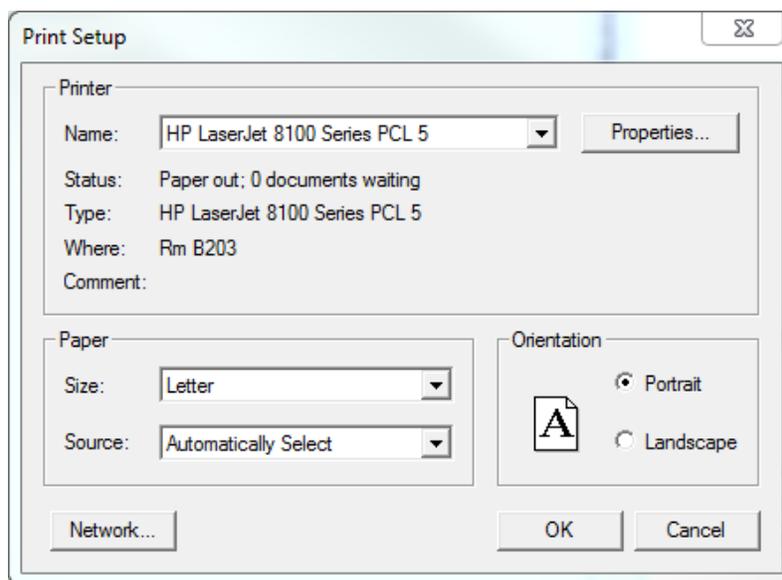
- “Print Record information” section: check the items you want to appear above the schedule data.
 - “Field names” shows the column headers.
 - “Separator bar” inserts a line of dashes.
- “Print Font” section: choose the font size and weight (normal/bold).

Click “OK” to save your settings or “Cancel” to close the window without saving.

Configuring Printer and Paper Settings for Schedules Printed from WinLGX

Selecting “Print Setup” in the “File” menu opens the box shown in Illustration 44, “Print Setup” Window, which allows you to configure the printer and paper settings as follows:

Illustration 44, "Print Setup" Window



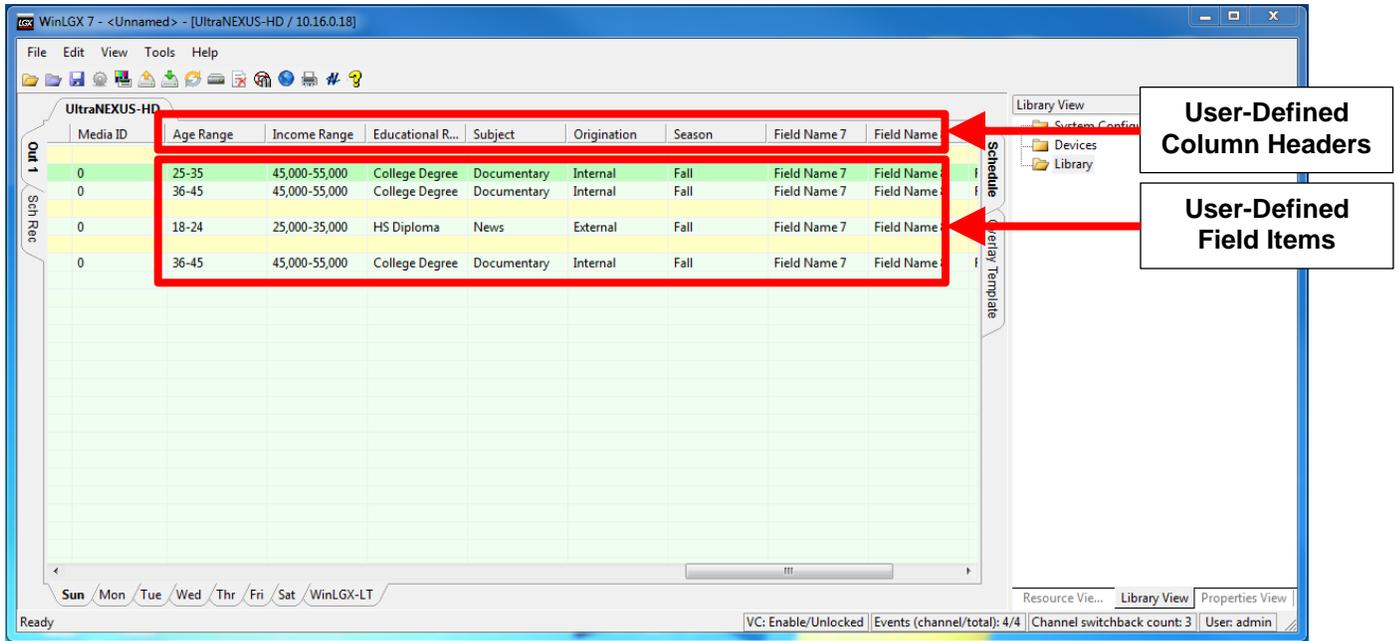
- “Printer” section: choose the desired printer from a list of your PC’s available printers. When a printer is chosen, its status appears below the “Name” field.
- “Properties” button”: click to open a window specific to the printer, so that detailed printer settings can be made.
- “Paper” section: choose the size and source tray of the paper.
- “Orientation” section: choose to print in portrait or landscape mode. If your printing template has many fields (columns) chosen, you may want to print in “Landscape” mode to fit it all from left to right. Print in “Portrait” mode if you don’t have many fields (columns) and want to fit more events on a page.
- “Network” button: click to open a network printing window so that you can attach to and print to a network printer, if it is not already in the upper list.

Click “OK” to save your settings or “Cancel” to close the window without saving.

Creating Custom Schedule Columns

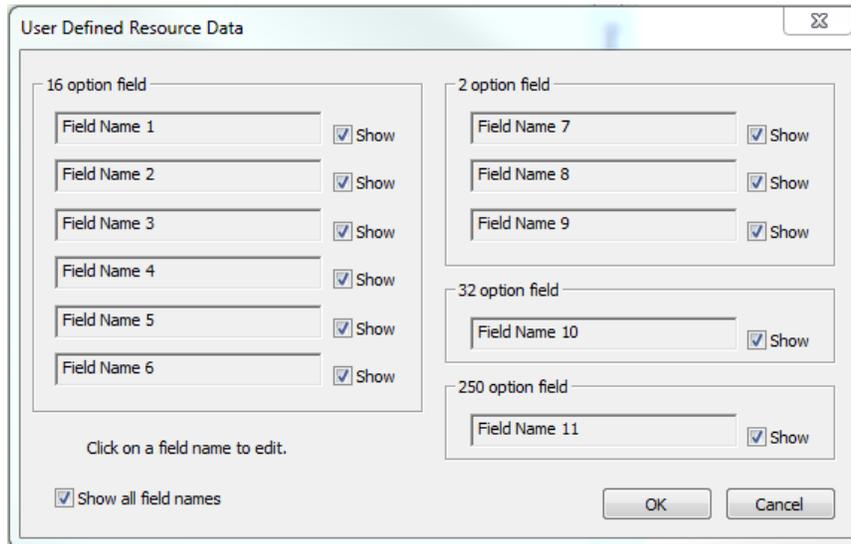
The 11 generic “Field Name” schedule columns allow you to categorize the events in your schedule. Users may assign each of these columns a new heading along with a list of menu items that can be used to classify each event added to the schedule. Using the “User Defined Data” window, shown in Illustration 46, rename and add menu items to the desired field columns as follows:

Illustration 45, Example of Schedule with User-Defined Fields



Click “User defined data” under the “Tools” menu to open the window shown in Illustration 46.

Illustration 46, “User Defined Data” Window



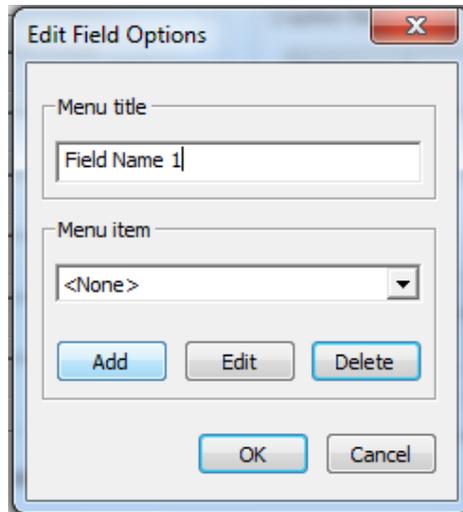
UltraNEXUS-HD Software Installation & Configuration

Select the fields displayed on your schedule as follows:

- To show all fields, ensure the “Show all field names” box is checked.
- To hide all fields, ensure the “Show all field names” box is unchecked.
- To hide one or more fields, uncheck the “Show” box next to the each field you would like to hide.

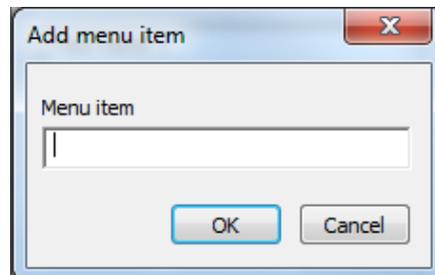
Click on the field which you would like to rename. In the “Edit Field Options” window that appears (see Illustration 47), perform the following:

Illustration 47, “Edit Field Options” Window



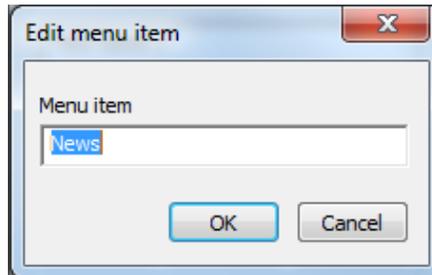
- a. Enter a new schedule heading into the “Menu title” field.
- b. Add a list of menu items that will be used to define schedule events under the renamed column. The number of menu items that may be added corresponds to the number of options shown over each section of field names on the window.
 - Add new menu items: click the “Add” button to display the “Add menu item” window (see Illustration 48). Enter the desired menu item and click “OK” to add to the “Menu item” drop down list or “Cancel” to abort the change.

Illustration 48, “Add Menu Item” Window



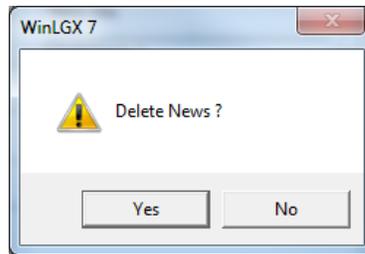
- Edit menu items: select the desired menu item from the drop down list and click the “Edit” button to display the “Edit menu item” window (see Illustration 49). Enter a new menu item and click “OK” to change the “Menu item” drop down list or “Cancel” to abort the change.

Illustration 49, “Edit Menu Item” Window



- Delete menu items: select the desired menu item from the drop down list and click the “Delete” button to display a confirmation window (see Illustration 50). Click “Yes” to change the “Menu item” drop down list or “No” to abort the change.

Illustration 50, Menu Item Delete Confirmation Box



Click “OK” to accept changes or “Cancel” to abort all editing changes made in the “Edit Field Options” window and return to the “User Defined Data” window.

Click “OK” to accept or “Cancel” to abort all field changes and close the “User Defined Data” window.

Setting WinLGX Viewing and Communication Preferences

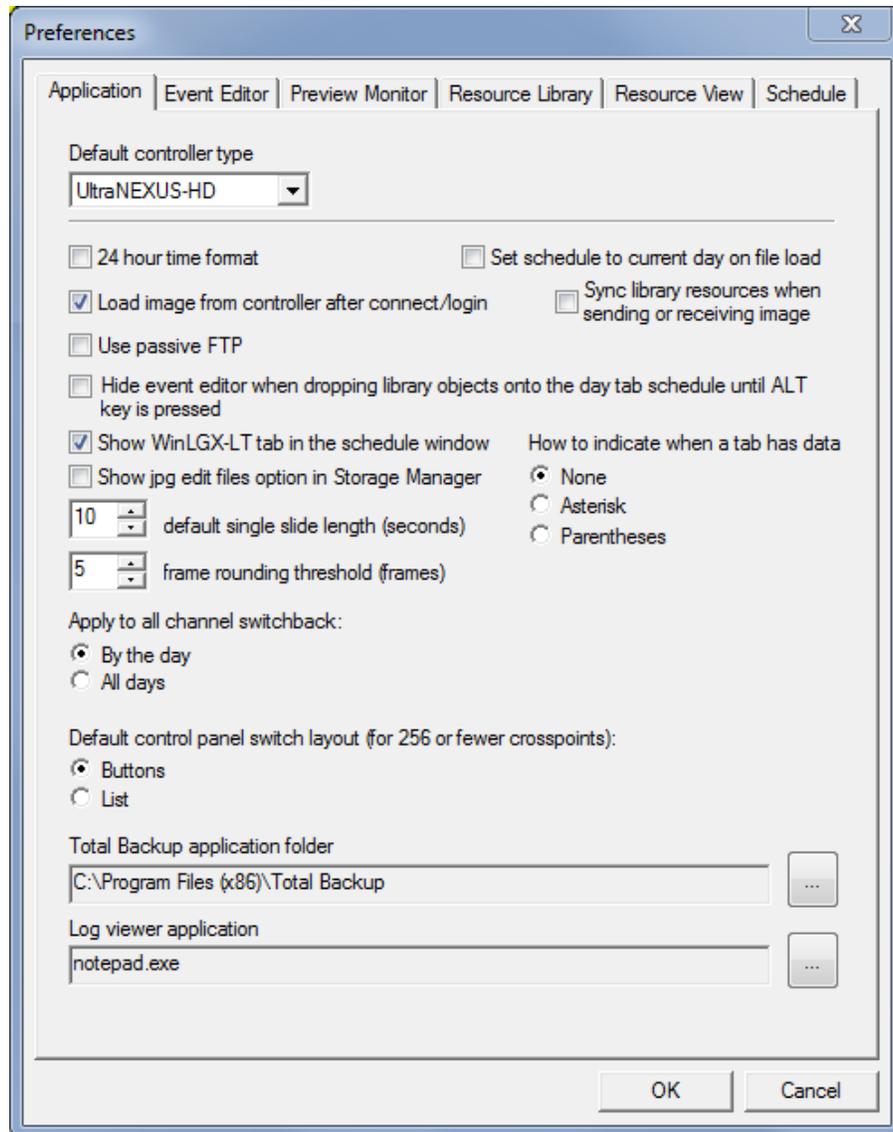
In the “Tools” menu, choose “Preferences” to open the “Preferences” window. Perform the following tasks from the window’s five tabs. Click “OK” on the bottom of the “Preferences” window to save changes you have made in any of the tabs or “Cancel” to discard them.

UltraNEXUS-HD Software Installation & Configuration

Application Tab

Click the “Application” tab (see Illustration 51, “Application” Tab) and perform any of the following:

Illustration 51, “Application” Tab



- **“Default controller type”**: select a default controller type from the drop down menu. When opened, WinLGX will automatically display the window settings for the selected controller type. This allows you to create and save image files when you are not connected to your server.
- **“Set schedule to current day on file load”**: this preference causes WinLGX to select the current day tab when an UltraNEXUS-HD image file is loaded
- **“Sync library resources when sending or receiving image”**: when this option is selected, WinLGX automatically checks UltraNEXUS-HD image files for library resources and schedule events referencing digital video files no longer on the

UltraNEXUS-HD system's storage device(s) (see "Checking Schedule and Library Resources for Missing Digital Video Files" on page 229 for more details). The check is triggered when the WinLGX open, receive, and send image file operations are performed.

- **"How to indicate when a tab has data"**: to highlight which of your day and channel output tabs contain schedule events, select either the "Asterisk" or "Parentheses" indicator options. The default is "None."
- **"24 hour time format"**: select to change WinLGX to a 24 hour (military) time format. If left unselected, WinLGX defaults to a 12 hour (A.M./P.M.) time format.

NOTE: This does NOT change the time format on the front of your UltraNEXUS-HD server.

- **"Load image from controller after connect/login"**: selecting this option causes the image file last sent to the server to be loaded after the user logs into WinLGX.
- **"Use passive FTP"**: if your firewall is blocking your schedule and digital video files, check this option and then resend the files to your UltraNEXUS-HD server.
- **"Hide event editor when dropping library objects"**: if selected, an event properties window will **not** be displayed when a library item is dragged onto any of the schedule's day tabs unless you are holding down the keyboard "Alt" key.
- **"Show WinLGX-LT tab in the schedule window"**: select this box to display the corresponding tab at the bottom of the schedule window. Refer to "WinLGX-LT Tab" in the "About Schedule Window Components" section on page 177 for more information on this tab.
- **"Default single slide length"**: Set the default length for a slide when uploaded using the Storage Manager. This does not apply to WebNEXUS slide uploads.
- **"Frame rounding threshold (frames)"**: type or use the up/down arrows to set a rounding threshold from 5–29 frames (the default value is 5 frames). This option allows you to control the playback duration of your digital video files based on the last milliseconds of video/audio frames (1 second of a digital video file = 30 frames). Once the threshold value is set, the digital video player will round the playback duration of any files with frames equal to or greater than the threshold **up** to the nearest second. If the number of frames at the end of a file is less than the threshold value, the file's playback duration will be trimmed **down** to the nearest second.
- **"Apply to all channel switchbacks"**: when a digital library resource is dragged onto a channel switchback and the "Apply to all switchbacks" option is checked (see page 227 for more information on changing channel switchbacks), the following will occur based on which of the options below is selected:
 - "By the day": adds resources to channel switchbacks between scheduled program events on the selected channel output's day tab
 - "By the week": adds resources to channel switchbacks between scheduled program events on all of the selected channel output's day tabs

UltraNEXUS-HD

Software Installation & Configuration

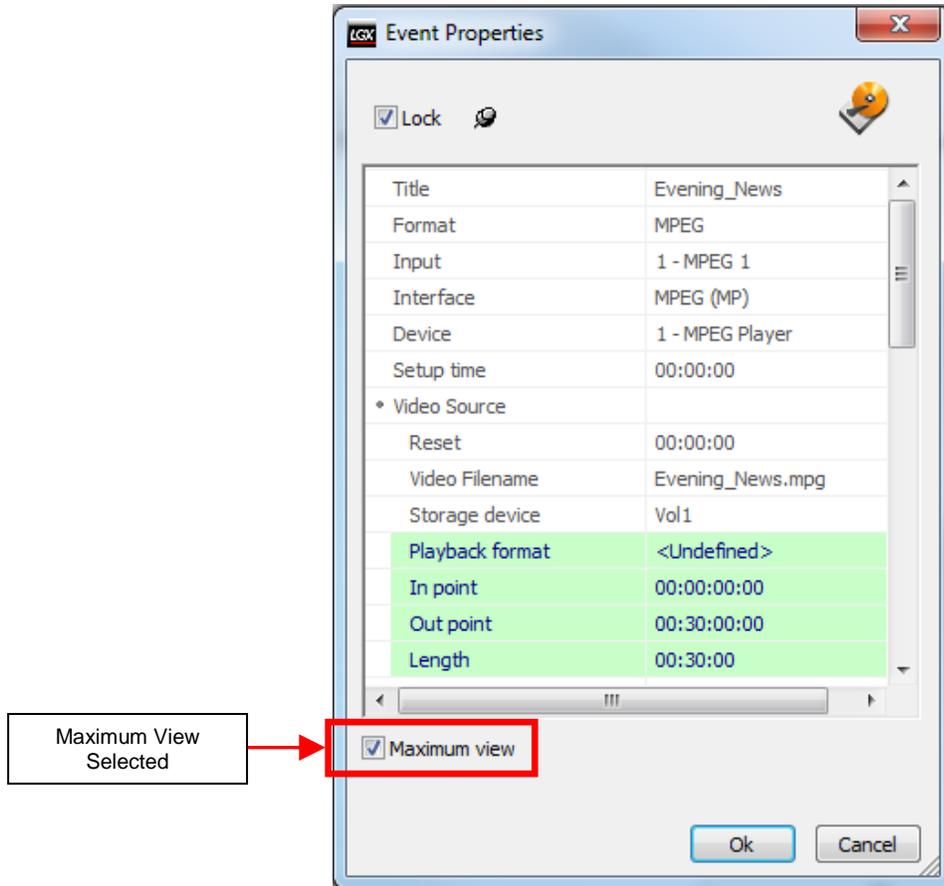
- **“Default control panel switch layout (for 256 or fewer crosspoints)”**: if you are using an external routing switcher, the UltraNEXUS-HD only uses List view, Button view is not available. Those with an external switcher will automatically see their inputs/outputs in the “List” view on the Control Panel. Refer to “EXTERNAL SWITCHER Configurations Only—Performing Forced Switches and Viewing Switcher Status” on page 236 for more details on both options.
- **“Total Backup application folder”**: not for use with the UltraNEXUS-HD
- Under **“Log viewer,”** click the button to the right of the log viewer field to select a software program for viewing your UltraNEXUS-HD log files.

Event Editor Tab

Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view. During scheduling, you

may toggle between these views by selecting and deselecting the “Maximum view” checkbox on the event properties dialog (refer to Illustration 52).

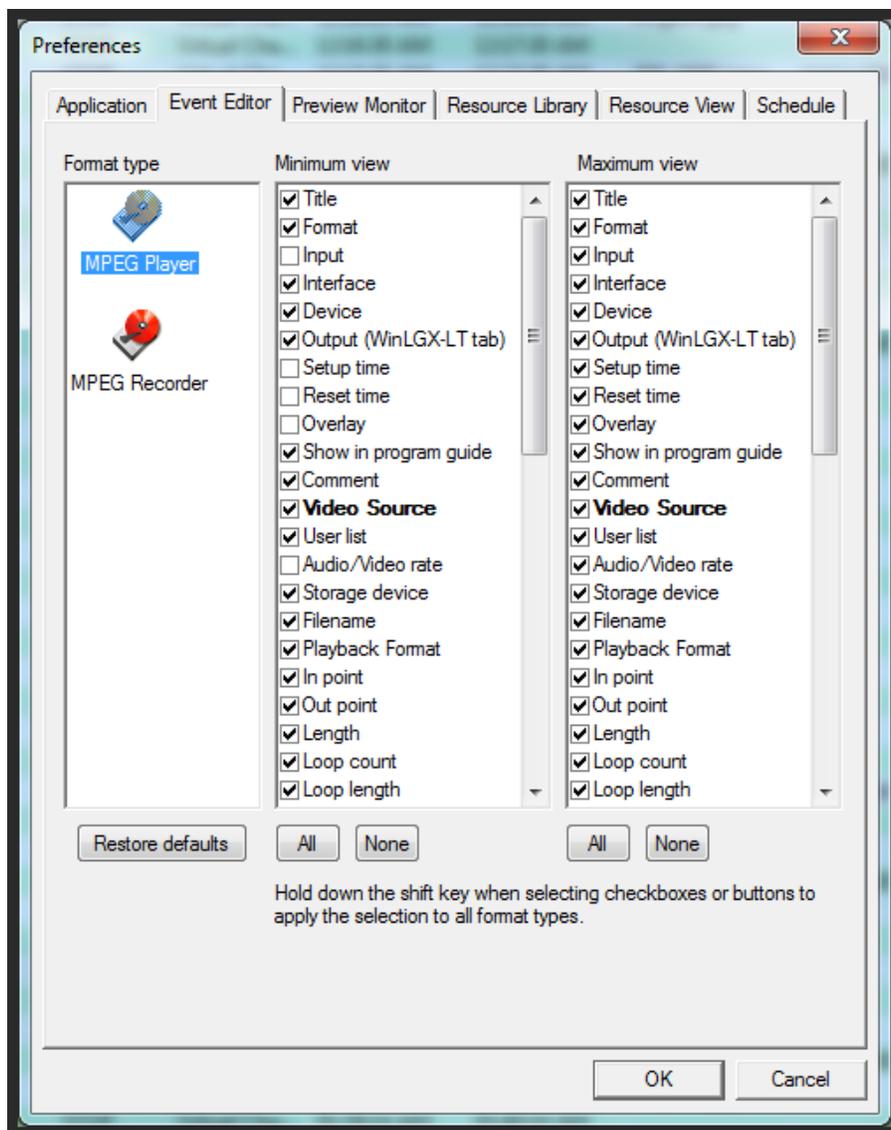
Illustration 52, Example of Event Properties Window



UltraNEXUS-HD Software Installation & Configuration

To configure the field views for your device and library event properties windows, click the “Event Editor” tab (see Illustration 53, “Event Editor” Tab Window) and perform the following:

Illustration 53, “Event Editor” Tab Window



Under “Format type,” select the format of the device/library event properties window you would like to configure.

Perform any of the following options:

- “Restore defaults” button: click to return the selected format’s minimum and maximum views to the factory default settings.
- “Minimum view” column
 - Click the desired boxes to select/deselect individual event property fields. A checkmark indicates the corresponding field will appear in the minimum view for the event properties dialog.

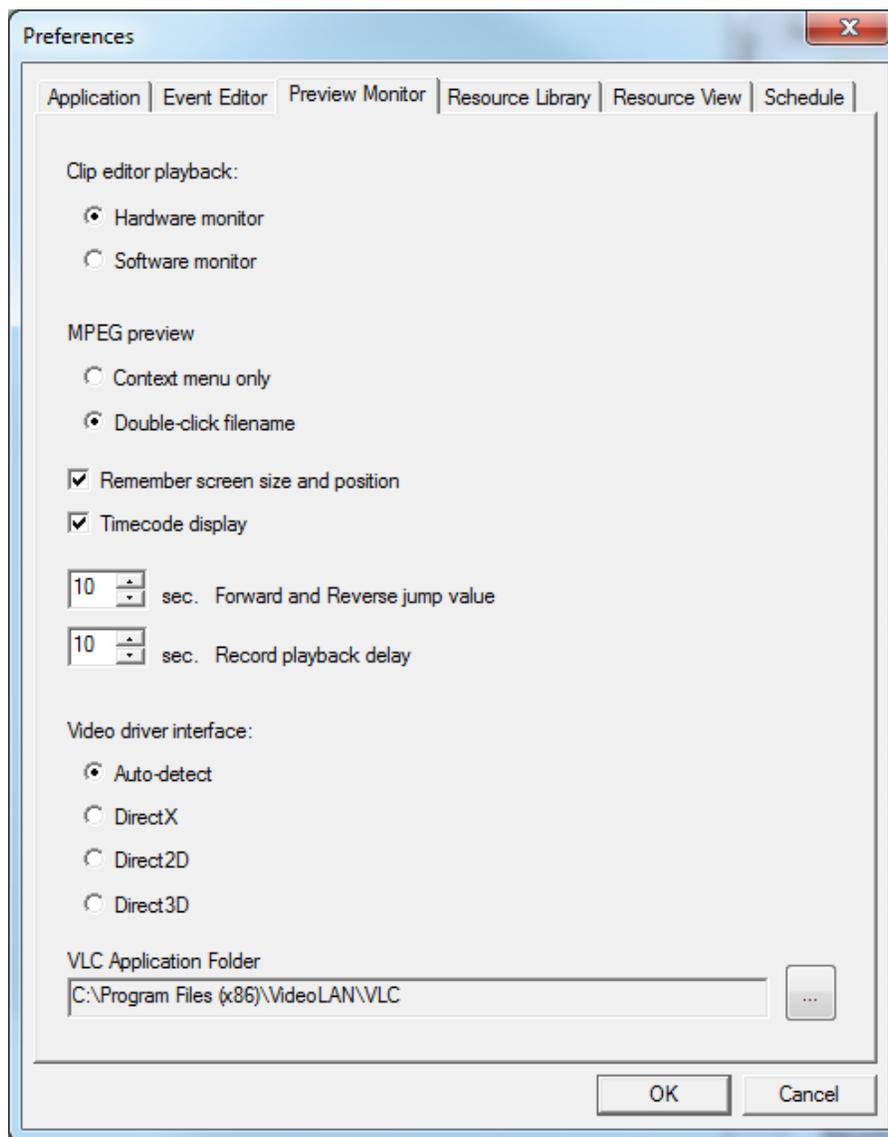
- “All” button: click to show all fields within the minimum view for the event properties dialog.
- “None” button: click to hide all fields within the minimum view for the event properties dialog.
- “Maximum view” column
 - Click the desired boxes to select/deselect individual event property fields. A checkmark indicates the corresponding field will appear in the maximum view for the event properties dialog.
 - “All” button: click to show all fields within the maximum view for the event properties dialog.
 - “None” button: click to hide all fields within the maximum view for the event properties dialog.

UltraNEXUS-HD Software Installation & Configuration

Preview Monitor Tab

WinLGX includes preview monitor windows for displaying digital video files prior to scheduled or immediate playback and as files are recorded. Set up and control the operation of these software monitors by clicking the “Preview Monitor” tab (see Illustration 54, “Preview Monitor” Tab) and performing any of the following:

Illustration 54, “Preview Monitor” Tab



- **“Clip editor playback”**: choose “Software monitor” to view and edit clips with the WinLGX video clip editor or “Hardware monitor” if you would prefer during editing to view your video clips on an external monitor attached to the UltraNEXUS server. Using the hardware monitor will interrupt any programming currently playing on the UltraNEXUS-HD. The software monitor will not interrupt any programming.
- **“MPEG preview”**: choose one of the following options for previewing your

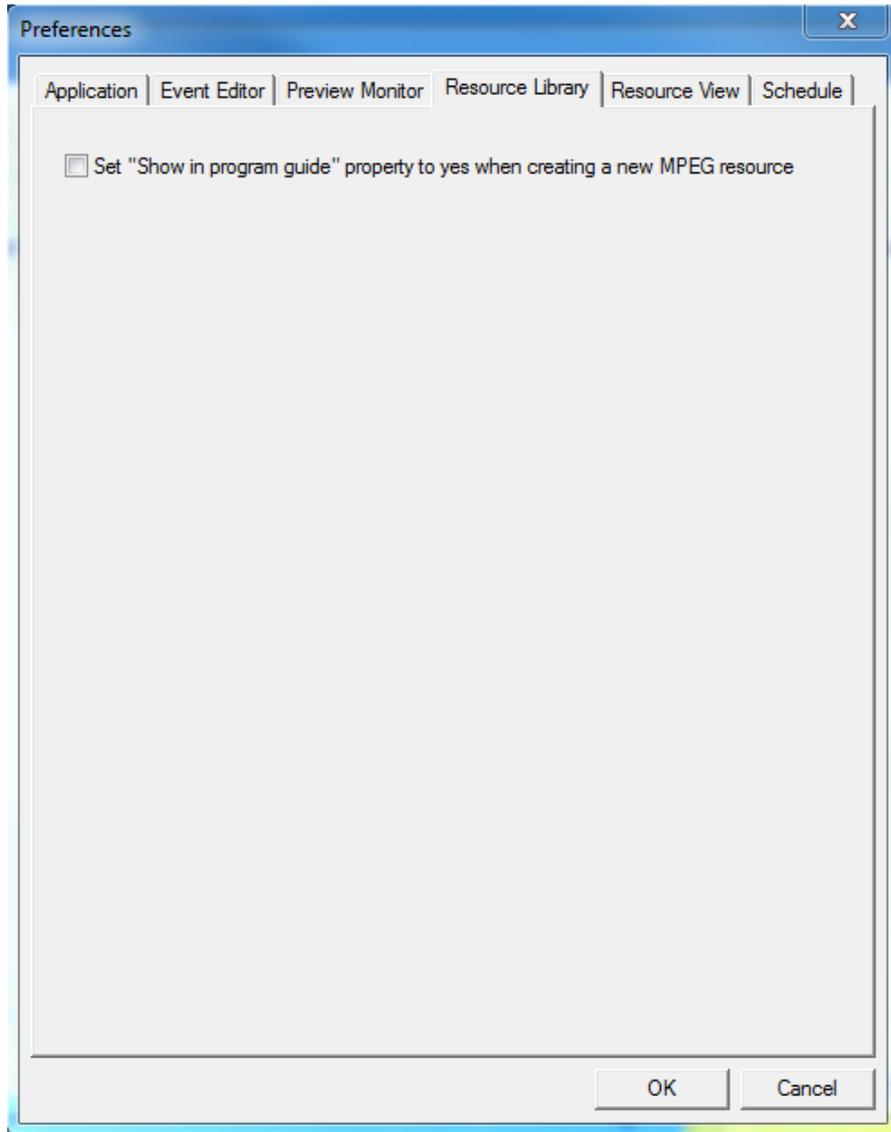
- video library resources in the WinLGX instant video preview monitor:
- **“Context menu only”**: video library resources may only be displayed in the instant video preview monitor by right clicking on a resource and choosing the “View resource” option.
 - **“Double-click filename”**: video library resources can be displayed in the instant video preview monitor by either double clicking a resource or by right clicking on a resource and choosing the “View resource” option.
- **“Remember screen size and position”**: causes the WinLGX instant video preview monitors to display in the last place and size they were changed to
 - **“Timecode display”**: causes the selected video clip’s total time length as well as the current playback time to be displayed on the WinLGX video clip editor and instant video preview monitors.
 - **“Forward and Reverse jump value”**: does not apply to the UltraNEXUS-HD.
 - **“Record playback delay”**: specify how long (five to ninety seconds) after a recording begins before the resulting file will display on the WinLGX confidence monitor.
 - **“Video driver interface”**: leave this option set to “Auto-detect,” unless you find the WinLGX preview monitors will not display your digital videos. In that case, try the other options until you find the one compatible with your computer’s video card.
 - **“VLC Application Folder”**: VLC media player must be installed on the computer running WinLGX if you wish to display digital videos in the WinLGX preview monitor windows. If WinLGX states that it cannot find the VLC media player when you open a preview monitor window, first ensure that VLC player is installed on your computer. If the VLC player is not installed, download the free program from the Internet. Once installation has been verified or completed, find your computer’s file path for the folder containing the VLC executable file (“vlc.exe”). Enter your file path into the “VLC Application Folder” field (for example, C:\Program Files\VideoLAN\VLC).

UltraNEXUS-HD Software Installation & Configuration

Resource Library Tab

Click the “Resource Library” tab (see Illustration 55, “Resource Library” Tab) and check the “Show in program guide” property to automatically populate the corresponding fields when creating digital video file playback library resources (go to page 132 for more information on creating digital video library resources).

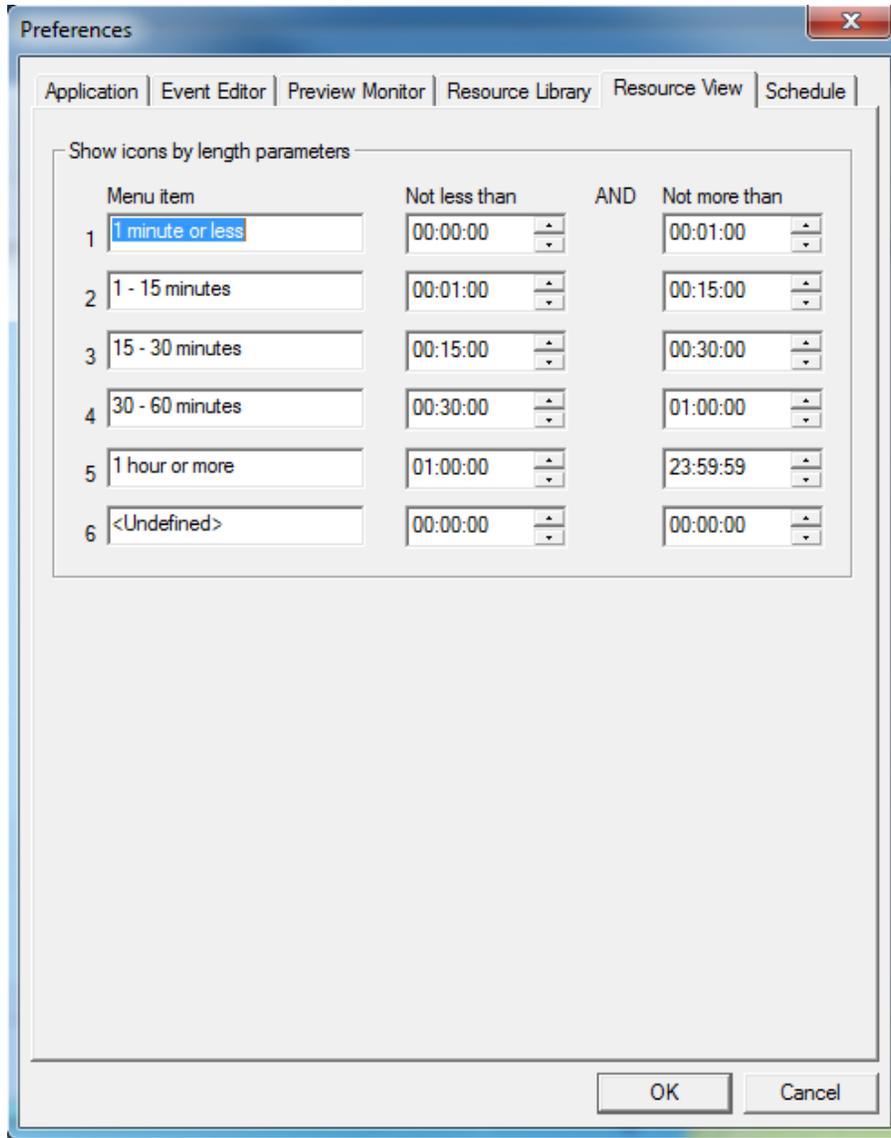
Illustration 55, “Resource Library” Tab



Resource View Tab

Click the “Resource View” tab (see Illustration 56, “Resource View” Tab Window) and configure the icon sorting filter for your library resource items.

Illustration 56, “Resource View” Tab Window

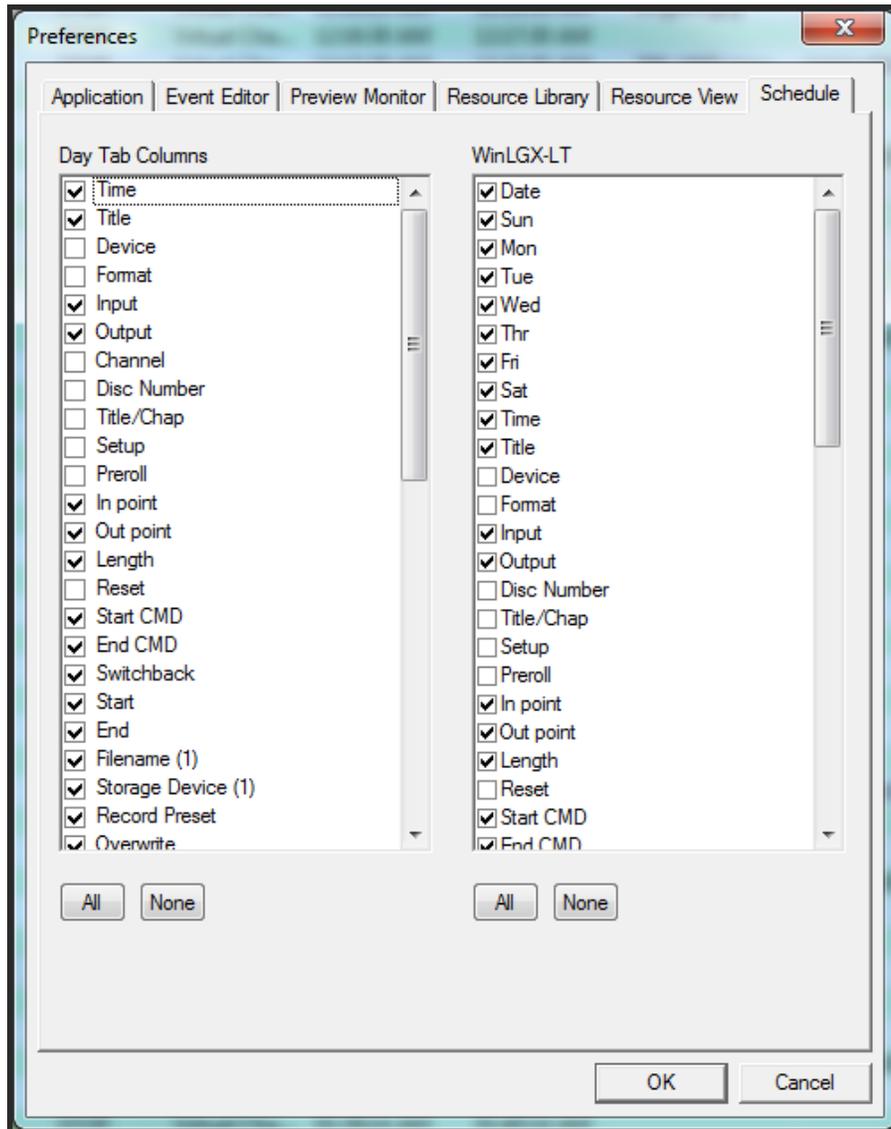


UltraNEXUS-HD Software Installation & Configuration

Schedule Tab

Click the “Schedule” tab (see Illustration 57, “Schedule” Tab Window) and hide/display columns in the “Schedule” view. Note that the “Day Tab Columns” listing corresponds to the columns in the schedule day tabs and the “WinLGX-LT” listing corresponds to the columns in the schedule WinLGX-LT tab. Perform the following steps:

Illustration 57, “Schedule” Tab Window



1. Select the columns displayed on your schedule as follows:
 - To show all columns in the corresponding schedule tab, click the “All” button.
 - To hide all columns in the corresponding tab, click the “None” button.
 - To hide one or more columns in the corresponding tab, uncheck the boxes next to the columns you would like to hide.
2. When all changes have been made, click “OK” to display changes on schedule or “Cancel” to abort changes.

Configuring the Switch Type of an UltraNEXUS-HD

In order to control your system’s inputs and outputs from WinLGX, you will need to specify the switch type setup of your UltraNEXUS-HD system. Your switch type setup indicates whether your destinations and sources are directly wired to your UltraNEXUS-HD server or connected through one of a wide range of compatible external switchers.

Click on the “System Configuration” folder on the right side of the schedule editor window to display the UltraNEXUS-HD “System Configuration” windows. Click on the “Switch” icon and complete the “Properties” fields for the switch type that applies to your UltraNEXUS-HD system. Each switch type and its properties are described in the following subsections:

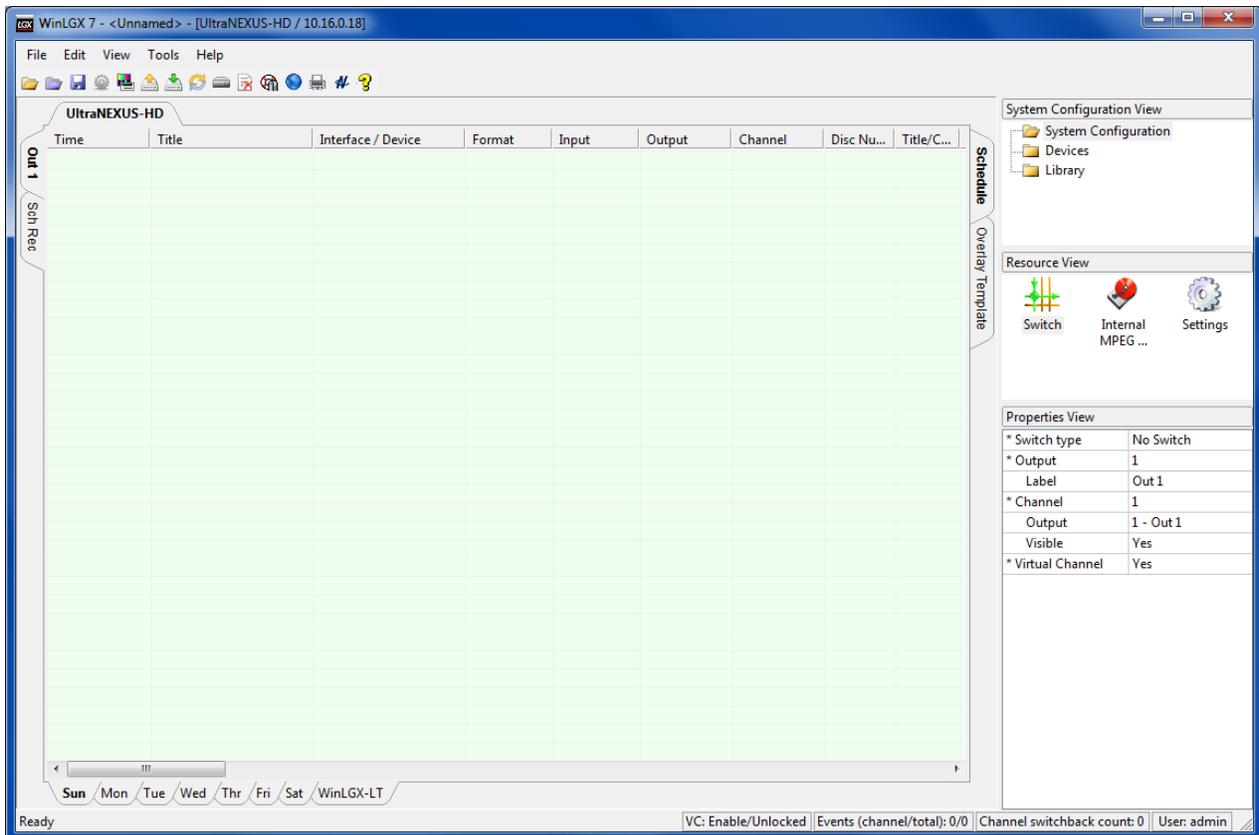
- “No Switch Configuration” on page 99
- “External Switcher Configuration” on page 101
- “Shared Switcher Configuration” on page 105

NOTE: Input and output label, description, and icon assignments are optional.

No Switch Configuration

An UltraNEXUS-HD server not connected to an external switcher is represented by the WinLGX “No Switch” type. Refer to Illustration 58, No Switch Type Properties throughout the “Direct Connect Configuration” section.

Illustration 58, No Switch Type Properties



UltraNEXUS-HD Software Installation & Configuration

- “Switch type”: if not already selected, choose “No Switch.”
- Channel Tab Assignments

The UltraNEXUS-HD has one digital video playback/record channel, which is represented by its playback and record functions on the channel tab on the left side of the schedule window. WinLGX automatically assigns playback on Player (“Out 1”) to Channel 1, recording on the Recorder (“Sch Rec”) to Channel 2.

- Hide/Show Channel Output Tabs on Schedule Window

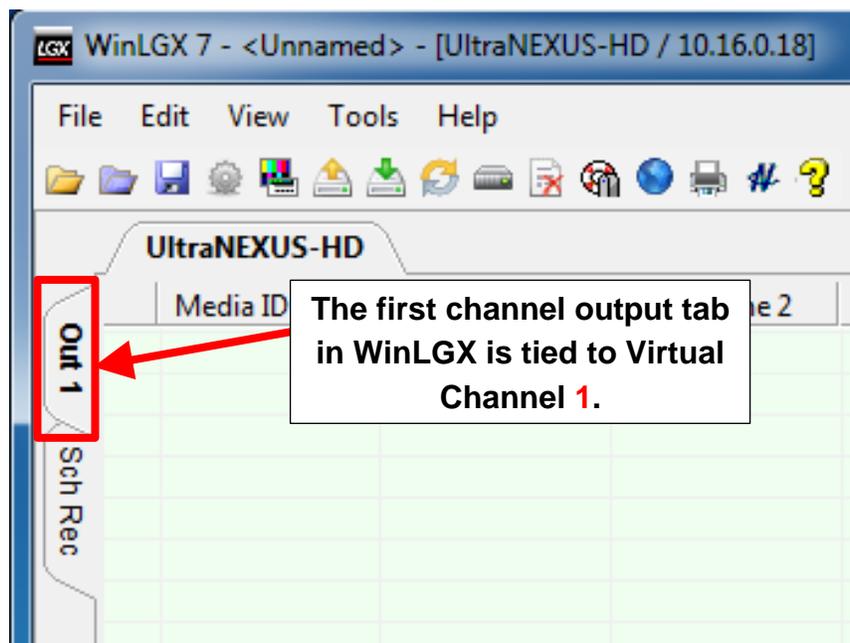
The “Visible” field under “Channel” gives you the option to hide channel tabs on your WinLGX schedule window. From the “Channel” drop down box, select the channel tab you would like to hide and then select “No” from the “Visible” drop down box. To display the tab, again select the channel and then choose “Yes” under “Visible.”

- Virtual Channel

“Yes” enables the Virtual Channel video source for use as a switchback input in a schedule, while “No” disables the Virtual Channel feature for this purpose.

NOTE: If enabled, you will only be able to schedule HD/SD digital video Player on the first WinLGX channel output tab (see Illustration 59, Virtual Channel WinLGX Output Tab Assignments).

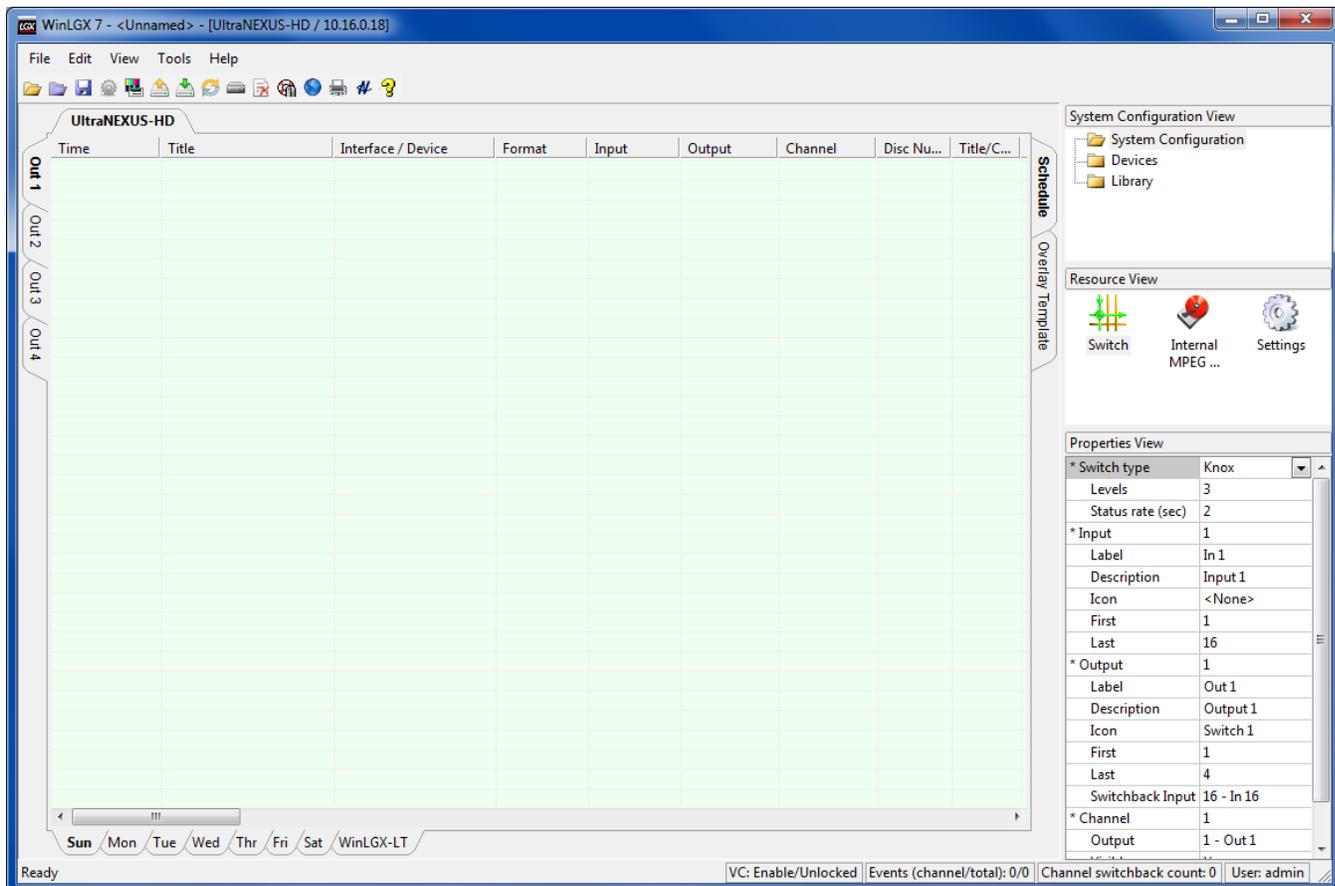
Illustration 59, Virtual Channel WinLGX Output Tab Assignments



External Switcher Configuration

Refer to Illustration 60, External Switcher Properties, throughout the “External Switcher Configuration” section.

Illustration 60, External Switcher Properties



- “Switch type”: select the choice that matches your external switcher and complete the following steps:
 - **Non-LEIGHTRONIX external switchers only**: enter the number of levels in the “Levels” field (video, audio left, audio right, etc.).
 - NOTES:**
 - Consult your switcher’s manual to determine how many levels should be assigned.
 - Pesa switchers automatically send level information to UltraNEXUS-HD servers.
 - “Status rate (sec)” field: use to configure the interval at which the UltraNEXUS-HD server polls the external switcher for output status information. The range is 0 – 60 seconds, where 0 means never poll. The default is 2 seconds.
 - To ensure your switcher works with the UltraNEXUS-HD server, set your switcher’s serial parameters according to Table 17, Supported External

UltraNEXUS-HD
Software Installation & Configuration

Switchers and Parameters (refer to your switcher's manual for further instructions).

Table 17, Supported External Switchers and Parameters

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
AMX/Autopatch 8Y-XL™, 4YDM™, EPICA™, Precis™ and Optima™ Switchers Using BCS Protocol	9600 baud, 8N1 (Level 1: Video, Level 0: All)
Blackmagic Design Smart Videohub 12x12 And Smart Videohub 16x16 or 40x40, Micro Videohub, Compact Videohub	9600 baud, 8N1 Cable RS-2/3J from Addenda.com or Ethernet control (requires firmware addition) Cable RS-2/3R from Addenda.com or Ethernet control (requires firmware addition)
EXTRON A (most common) & B (ISS series) MAV, Crosspoint, Matrix	9600 baud, 8N1
KNOX Chameleon 64 & 64i, RS Series, ProSwitch Series	9600 baud, 8N1
KRAMER Switchers Using Communications Protocol 2000; contact Kramer to determine if null or straight cable is needed	9600 baud, 8N1
Imagine Communications/Harris/Leitch Platinum™, VIA 32™, X-Plus™, Integrator™, and Panacea™	9600 baud, 8N1
PESA Serial Routing Switchers supporting CPU Link Serial Protocol	9600 baud, 8N2
PESA P1N Network Routing Switchers supporting P1N Network Protocol	N/A
SIERRA Aspen, Lassen, Ponderosa, and Yosemite	9600 baud, 8N1
SIGMA A & B Dagger Series, ADX Series, MRX Series, SLX Series, 12X, 2100 Series, 3200 Series, and 9600 Series	9600 baud, 8N1
UTAH A	38400 baud, 8N1
UTAH B	1200 baud, 7E2
UTAH Sandar	9600 baud, 7O1

- Input Settings

In the “Input” field, select an input (the number of available inputs matches the capabilities of the switch type selected) and complete the following settings:

NOTE: Any combination of alpha-numeric characters, underscore and dashes may be used for labels and descriptions.

- “Label”: type the label you would like to appear on the corresponding Control Panel input button (up to 10 characters total—the number of characters that fit will depend on the case and characters you choose).
- “Description”: type the description (up to 32 characters total) you would like to appear when your mouse cursor moves over the corresponding Control Panel input button.
- “Icon”: select an icon to represent the selected input in the Control Panel window.
- **Non-LEIGHTRONIX external switchers only**: enter the switcher’s first and last input values into the “First” and “Last” input fields.

NOTE: The “First” and “Last” fields are locked once an event is scheduled. To change these fields delete any events or use the “Open as New” function in the File menu. (See page 168)

- Output Settings

In the “Output” field, select an output (the number of available outputs matches the capabilities of the switch type selected) and complete the following settings:

NOTE: Any combination of alpha-numeric characters, underscore and dashes may be used for labels and descriptions.

- “Label”: type the label you would like to appear on the corresponding Control Panel output button, schedule editor window channel output tab, and the web program guide (up to 10 characters total—the number of characters that fit will depend on the case and characters you choose).
- “Description”: type the description (up to 32 characters total) you would like to appear when your mouse cursor moves over the corresponding Control Panel output icon and schedule editor window channel output tab.
- “Icon”: select an icon to represent the selected output in the Control Panel window.
- **Non-LEIGHTRONIX external switchers only**: enter the switcher’s first and last output values.

NOTE: The “First” and “Last” fields are locked once an event is scheduled. To change these fields delete any events or use the “Open as New” function in the File menu. (See page 168)

UltraNEXUS-HD Software Installation & Configuration

- “Switchback Input”: select one of your inputs as the video source you would like WinLGX to automatically switch to the selected output at the end of a scheduled event. During scheduling, the switchback input may be changed in the event properties window.

- NOTES:**
- If you would like to use a “Virtual Channel” video source, ensure “Yes” has been selected in the “Virtual Channel” field.
 - The Virtual Channel video source is tied to the first WinLGX channel output tab (see Illustration 59, Virtual Channel WinLGX Output Tab Assignments).

- **Channel Output Tab Assignments**

An external switcher configuration can have up to 16 outputs represented by channel output tabs on the left side of the schedule window. WinLGX automatically assigns Output 1 to Channel 1, Output 2 to Channel 2, and so on. WinLGX allows you to change the default channel-output assignments according to the following steps. This is especially useful if you have a large switcher, as you can choose which 16 outputs that you’d like to automate for scheduling.

NOTE: The highest numbered channel output tab automatically represents the record function of the UltraNEXUS-HD recorder. You may reassign the UltraNEXUS-HD record function to any of your switcher’s available outputs.

NOTE: The Channel fields are locked once an event is scheduled. To change these fields, delete any events or use the “Open as New” function in the File menu. (See page 168)

1. In the “Channel” field, select the channel number you would like to reassign to a different output.
 2. Perform one of the following:
 - Select Output 17 or higher from the “Output” drop down menu
 - Associate one of Outputs 1–16 with the channel by first unassigning the output according to the steps below:
 - a. In the “Channel” field, select the channel number for the output you want to reassign.
 - b. From the “Output” drop down menu, select “None.”
 - c. In the “Channel” field, select the channel number you would like to reassign to the output.
 - d. Select the newly unassigned output from the “Output” drop down menu. The change will be reflected by the channel output tabs on the schedule window.
- **Hide/Show Channel Output Tabs on Schedule Window**

The “Visible” field under “Channel” gives you the option to hide channel output tabs on your WinLGX schedule window. From the “Channel” drop down box, select the

channel tab you would like to hide and then select “No” from the “Visible” drop down box. To display the tab, again select the channel and then choose “Yes” under “Visible.”

- Virtual Channel

“Yes” enables the Virtual Channel video source for use as a switchback input in a schedule, while “No” disables the Virtual Channel feature for this purpose.

NOTE: To use the Virtual Channel feature during scheduling, you will need to configure and schedule your UltraNEXUS-HD system’s HD/SD digital video Player on the first WinLGX channel output tab (see Illustration 59, Virtual Channel WinLGX Output Tab Assignments).

Shared Switcher Configuration

The “Shared Switch” type allows users to share one external routing switcher between multiple UltraNEXUS-HD servers. Use the following steps to configure each UltraNEXUS-HD server not directly connected to the external switcher it is sharing (refer to Illustration 61, Shared Switcher Properties, throughout this section). Follow the “External Switcher Configuration” section on page 101 to configure the UltraNEXUS-HD server directly connected to the external switcher.

Illustration 61, Shared Switcher Properties

Properties View	
* Switch type	Shared Switch
Levels	3
Status rate (sec)	2
* Input	1
Label	In 1
Description	Input 1
Icon	<None>
First	1
Last	16
* Output	1
Label	Out 1
Description	Output 1
Icon	Switch 1
First	1
Last	4
Switchback Input	16 - In 16
* Channel	1
Output	1 - Out 1
Visible	Yes
* Virtual Channel	Yes

- Switch Type: select “Shared Switch” from the switch type drop down menu. WinLGX treats the “Shared SW” switch type as an external switcher. Complete the following properties:
 - “Levels”: ignore, as WinLGX does not use this setting for the shared switch type

UltraNEXUS-HD

Software Installation & Configuration

- “Status rate (sec)”: set to specify how often the UltraNEXUS-HD server polls the UltraNEXUS-HD server directly connected to the routing switcher for switcher status information. The range is 0 – 60 seconds, with the default set to 2 seconds. Do not select 0, as this means never poll.

- Input Settings

In the “Input” field, select an input (the number of available inputs matches the capabilities of the switch type selected) and complete the following settings:

NOTE: Any combination of alpha-numeric characters, underscore and dashes may be used for labels and descriptions.

- “Label”: type the label you would like to appear on the corresponding Control Panel input button (up to 10 characters total—the number of characters that fit will depend on the case and characters you choose).
- “Description”: type the description (up to 32 characters total) you would like to appear when your mouse cursor moves over the corresponding Control Panel input button.
- “Icon”: select an icon to represent the selected input in the Control Panel window.
- “First” and “Last” input fields: to allow access to all inputs connected to the routing switcher, enter the switcher’s first and last input values. If you would like the UltraNEXUS-HD server to only control a dedicated range of inputs on the shared routing switcher, enter the first and last input values for the dedicated range. Dedicating a range of inputs would limit the programming the UltraNEXUS-HD server could display and record.

- Output Settings

In the “Output” field, select an output (the number of available outputs matches the capabilities of the switch type selected) and complete the following settings:

NOTE: Any combination of alpha-numeric characters, underscore and dashes may be used for labels and descriptions.

- “Label”: type the label you would like to appear on the corresponding Control Panel output button, schedule editor window channel output tab, and the web program guide (up to 10 characters total—the number of characters that fit will depend on the case and characters you choose).
- “Description”: type the description (up to 32 characters total) you would like to appear when your mouse cursor moves over the corresponding Control Panel output icon and schedule editor window channel output tab.
- “Icon”: select an icon to represent the selected output in the Control Panel window.
- “First” and “Last” output fields: to allow access to all outputs connected to the routing switcher, enter the switcher’s first and last output values. If you would

like the UltraNEXUS-HD server to only be able to access a dedicated range of outputs on the shared routing switcher, enter the first and last output values for the dedicated range.

- “Switchback Input”: select one of your inputs as the video source you would like WinLGX to automatically switch to the selected output at the end of a scheduled event. During scheduling, the switchback input may be changed in the event properties window.

- NOTES:**
- If you would like to use a “Virtual Channel” video source, ensure “Yes” has been selected in the “Virtual Channel” field.
 - The Virtual Channel video source is tied to the first WinLGX channel output tab (see Illustration 59, Virtual Channel WinLGX Output Tab Assignments).

- **Channel Output Assignments**

An external routing switcher can have up to 16 outputs represented by channel output tabs on the left side of the schedule window. WinLGX automatically assigns Output 1 to Channel 1, Output 2 to Channel 2, and so on. WinLGX allows you to change the default channel-output assignments according to the following steps. This is especially useful if you have a large switcher, as you can choose which 16 outputs that you’d like to automate for scheduling.

NOTE: The highest numbered channel output tab automatically represents the record function of the UltraNEXUS-HD recorder. You may reassign the UltraNEXUS-HD record function to any of your switcher’s available outputs.

1. In the “Channel” field, select the channel number you would like to reassign to a different output.
2. Perform one of the following:
 - Select Output 17 or higher from the “Output” drop down menu.
 - Associate one of Outputs 1–16 with the channel by first un-assigning the output according to the steps below:
 - a. In the “Channel” field, select the channel number for the output you want to reassign.
 - b. From the “Output” drop down menu, select “None.”
 - c. In the “Channel” field, select the channel number you would like to reassign to the output.
 - d. Select the newly unassigned output from the “Output” drop down menu. The change will be reflected by the channel output tabs on the schedule window.

- **Hide/Show Channel Output Tabs on Schedule Window**

The “Visible” field under “Channel” gives you the option to hide channel output tabs on your WinLGX schedule window. From the “Channel” drop down box, select the channel tab you would like to hide and then select “No” from the “Visible” drop down

UltraNEXUS-HD

Software Installation & Configuration

box. To display the tab, again select the channel and then choose “Yes” under “Visible.”

- Virtual Channel

“Yes” enables the Virtual Channel video source for use as a switchback input in a schedule, while “No” disables the Virtual Channel feature for this purpose.

NOTE: To use the Virtual Channel feature during scheduling, you will need to configure and schedule your UltraNEXUS-HD system’s HD/SD digital video Player on the first WinLGX channel output tab (see Illustration 59, Virtual Channel WinLGX Output Tab Assignments).

Configuring Digital Video Recording Presets

Click on the “System Configuration” folder on the right side of the schedule editor window to display the UltraNEXUS-HD “System Configuration View” windows. Click on the “Internal Video Record” icon and complete the “Properties” fields for each record preset according to the following steps (see Illustration 62, UltraNEXUS-HD Record Preset Fields). For more information on recording a video file, refer to “Digital Video Recorder Specifications,” on page 23.

Illustration 62, UltraNEXUS-HD Record Preset Fields

The screenshot shows the 'System Configuration View' window. It is divided into three main sections: 'System Configuration' (a tree view with folders for System Configuration, Devices, and Library), 'Resource View' (containing icons for Switch, Internal Video Recorder, and Settings), and 'Properties View' (a table of recording presets).

Properties View	
* Record Preset 1	Good
Input source	SDI
Video resolution	4:3
Bitrate type	VBR
Min video bitrate	3.00 Mb/sec
Max video bitrate	5.00 Mb/sec
Record audio source	Analog
Audio bitrate	128 kb/sec
Audio sample rate	48 kHz
* Record Preset 2	Better
Input source	SDI
Video resolution	16:9
Bitrate type	VBR
Min video bitrate	4.00 Mb/sec
Max video bitrate	7.00 Mb/sec
Record audio source	Embedded 1-2
Audio bitrate	128 kb/sec
Audio sample rate	48 kHz
* Record Preset 3	Best
Input source	SDI
Video resolution	16:9
Bitrate type	VBR
Min video bitrate	7.00 Mb/sec
Max video bitrate	9.00 Mb/sec
Record audio source	Embedded 1-2
Audio bitrate	192 kb/sec
Audio sample rate	48 kHz

UltraNEXUS-HD Software Installation & Configuration

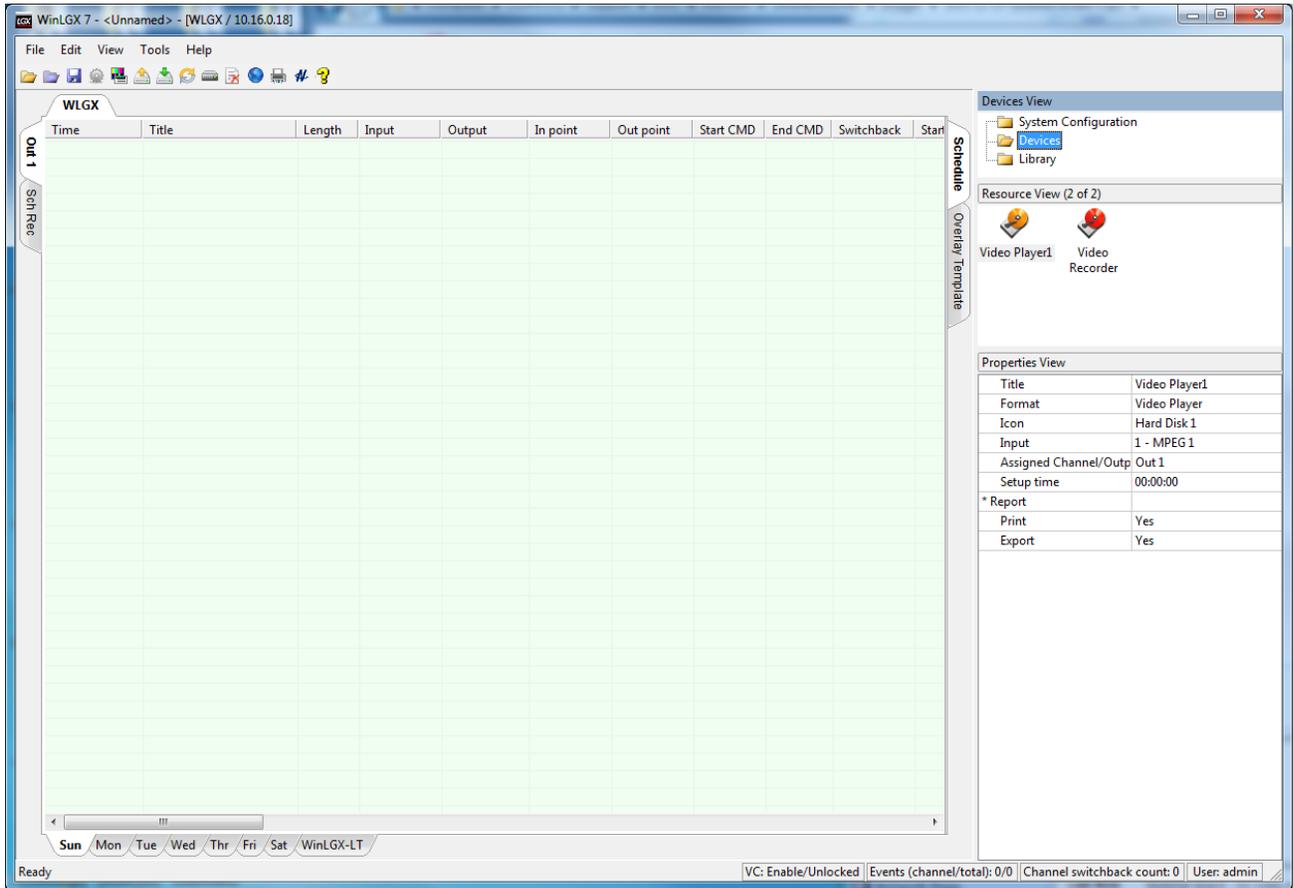
- “Record Preset x”: if desired, click in the field and enter a new name for the preset.
- “Input source”: Select to record the incoming audio video signals from either the “SDI” or “Composite” inputs. (NOTE: Composite option not functional – will work in future firmware.)
- “Video resolution”:
 - The UltraNEXUS-HD recorder will record the incoming signal at its native resolution.
 - HD content: The UltraNEXUS-HD will ignore this setting – it is 16:9.
 - SD content: Select either “4:3” or “16:9” to match the input signal.
- “Bitrate type”: The UltraNEXUS-HD only uses “VBR” for variable bit rate.
 - The “Min video bitrate” and “Max video bitrate” fields will be displayed: click on the fields and use the up/down arrows to set your minimum and maximum video bitrates. WinLGX requires that an increment of two be left between the bit rates. Select a minimum of at least 1.50 Mb/sec and a maximum of up to 10.00 Mb/sec
- “Record audio source”: from the “Record audio source” drop down, select the type of embedded or non-embedded (“Analog” or “AES”) audio signal your system is setup to record.
 - “Analog”: corresponds to the analog audio inputs on the UltraNEXUS-HD’s back panel terminal blocks
 - “AES”: corresponds to the AES audio inputs on the UltraNEXUS-HD’s back panel terminal blocks
 - “Embedded 1-2”, “Embedded 3-4,” “Embedded 5-6,” and “Embedded 7-8”: if your audio is embedded within the incoming video signal, select the embedded audio channel pair that you want to record
- “Audio bitrate”: select 128 or 192 kb/sec from the drop down list
- “Audio sample rate”: fixed at 48 kHz

Editing Internal Digital Video Playback and Recording Device Resources

The UltraNEXUS-HD contains one digital video play/record channel, which is represented in the WinLGX “Resource View” window as separate player and recorder device icons (see Illustration 63, “Devices” Window). The following steps describe how to change the optional settings for the UltraNEXUS-HD server’s built-in play/record devices:

Click on the “Devices” folder on the right side of the schedule editor window to display the “Devices” window (refer to Illustration 63, “Devices” Window).

Illustration 63, “Devices” Window



In the “Resource View,” click on the desired device icon to reveal the corresponding properties fields.

Digital Video Player

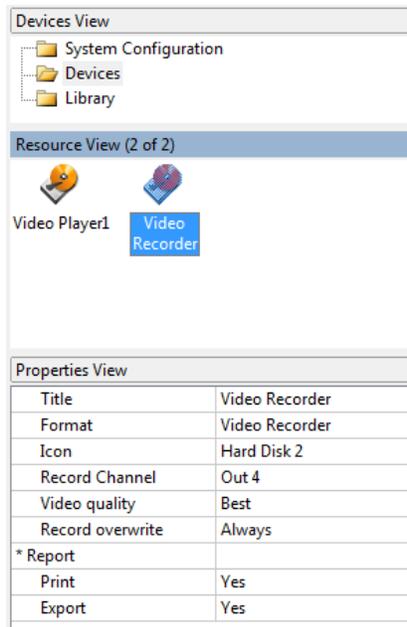
- “Title”: if desired, click on “Title” field and enter new alias.
- “Icon”: if desired, click on the “Icon” field button and select a new icon to represent the selected player or recorder.
- **External switcher configurations only:** under “Input,” choose the external switcher input connected to the selected output on the rear panel of your UltraNEXUS-HD. Selecting an input number removes it from the input list.
- “Assigned Channel/Output”: the function of this property depends on whether or not the “Virtual Channel” feature has been enabled in the “Switcher Configuration” properties (see “Configuring the Switch Type of an UltraNEXUS-HD,” on page 99 for more details). The following outlines both scenarios:
 - **Virtual Channel Feature Enabled:** select the output you would like to display playback from the UltraNEXUS-HD digital video player from the “Assigned Channel/Output” drop down menu.
 - **Virtual Channel Feature Disabled:** you may assign a channel output to the UltraNEXUS-HD digital video player to automate device selection for digital video library resources during scheduling. Whenever a digital video library resource is dragged onto the selected HD/SD player/recorder’s assigned channel/output, the player will automatically appear in the library resource’s “Device” field.
- “Setup time”: if desired, indicate how long after the selected player receives a PLAY command that picture and/or sound is produced.
- “Print”: select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:
 1. Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource.
 2. All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
- “Export”: select “Yes” to allow all of the resource’s event records to be exported into comma separated values format. If “No” is selected, then you can enable the export function as follows:
 1. Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource.
 2. All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

Digital Video Recorder

- “Title”: if desired, click on “Title” field and enter new alias.
- “Icon”: if desired, click on the “Icon” field button and select a new icon to represent the selected player or recorder.
- **External switcher configurations only:** select a “Record Channel” that corresponds to the external switcher output connected to the UltraNEXUS-HD’s SDI or Composite input on the rear panel of the server (see Illustration 64, UltraNEXUS-HD Record Channel Output Tab Configuration).

NOTE: WinLGX automatically completes this field for the HD/SD digital video Recorder with the output assigned to the highest numbered channel under “System Configuration.”

Illustration 64, UltraNEXUS-HD Record Channel Output Tab Configuration



- “Video Quality”: if desired, select a digital video recording quality mode for your recording events. This mode may be changed for each recording event action—see “Internal Digital Video Recorder Device Resources,” starting on page 200, for more details.
- “Record overwrite”: if desired, select one of the following:
 - “Always”: prompts WinLGX to automatically record over an existing file with the same name.
 - “Create unique”: if an existing filename is entered, WinLGX automatically records the file under the first 14 characters of the original filename followed by

UltraNEXUS-HD

Software Installation & Configuration

“yy/mm/dd-hh/mm/ss” (yy/mm/dd is the file record date specified as year/month/day and hh/mm/ss is the file record time in hours/minutes/seconds).

The “Record overwrite” option may be changed for each recording event action—see “Internal Digital Video Recorder Device Resources,” starting on page 200, for more details.

- “Print”: select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:
 1. Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource.
 2. All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
- “Export”: select “Yes” to allow all of the resource’s event records to be exported into a comma separated values format. If “No” is selected, then you can enable the export function as follows:
 1. Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource.
 2. All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

Creating External Switch Device Resources

NOTE: This section only applies to those using an external switcher with their UltraNEXUS-HD server.

A device resource must be created for each external switch device attached to the external switcher connected to your UltraNEXUS-HD server. Creating a device causes a new set of user-configurable information fields to be displayed in the “Properties” window. The UltraNEXUS-HD system uses this information to identify your external device. Create external switch device resources as follows:

Click on the “Devices” folder on the right side of the schedule editor window to display the “Devices View” window (refer to Illustration 65, New Switch Device Properties).

Illustration 65, New Switch Device Properties



Right click in the “Resource View” window and select “New” to display the device type menu. Select the “SWITCH” device type to add a new device to the window (see Illustration 65, New Switch Device Properties).

Complete the switch device “Properties” field shown in Illustration 66, Switch Event Properties Window. Refer to Table 18, Switch Event Properties, for a description of the editable switch resource properties.

Illustration 66, Switch Event Properties Window

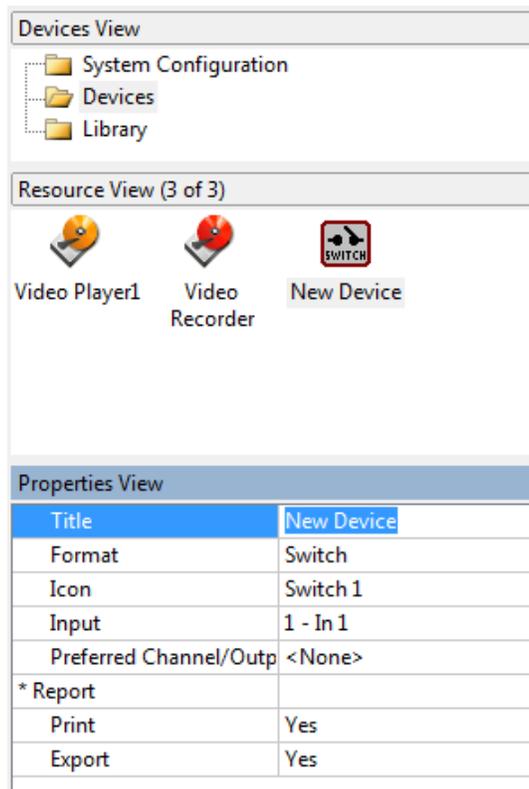


Table 18, Switch Event Properties

FIELD	DESCRIPTION
Title	Allows a name of up to 31 characters to be entered.
Format	Choose one of the following switch types: <ul style="list-style-type: none"> • External CG • IRD • Switch • Studio
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the “Icon” field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click “OK.” Click “Cancel” to abort selection.
Input	Choose the switcher input number to which the device is connected. If the device is not connected to a switcher input, select “<None>.” Assigning an input to a device removes the input number from the input list.

FIELD	DESCRIPTION
Preferred Playback Channel/Output	You may assign a channel output to your device to automate device selection for same-type <u>library</u> resources during scheduling. Whenever a library resource of the same format is dragged onto this device's preferred playback channel, this device will automatically appear in the library resource's "Device" field.
Interface	"Switch (SW)" is automatically assigned.
Device	The device numbers for switch resources are automatically assigned.
Print	Select "Yes" to enable all of the resource's event records for printing. If "No" is selected, then you can enable printing as follows: <ul style="list-style-type: none"> • Individual event records: select "Yes" in the "Print" field of each event properties window that appears during scheduling of the resource. • All of the resource's event records: check the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow all of the resource's event records to be exported into a comma separated values format. If "No" is selected, then you can enable the export function as follows: <ul style="list-style-type: none"> • Individual event records: select "Yes" in the "Export" field of each event properties window that appears during scheduling of the resource. • All of the resource's event records: check the "Export/print all records" option under the "Export/Print Templates" window.

UltraNEXUS-HD Software Installation & Configuration

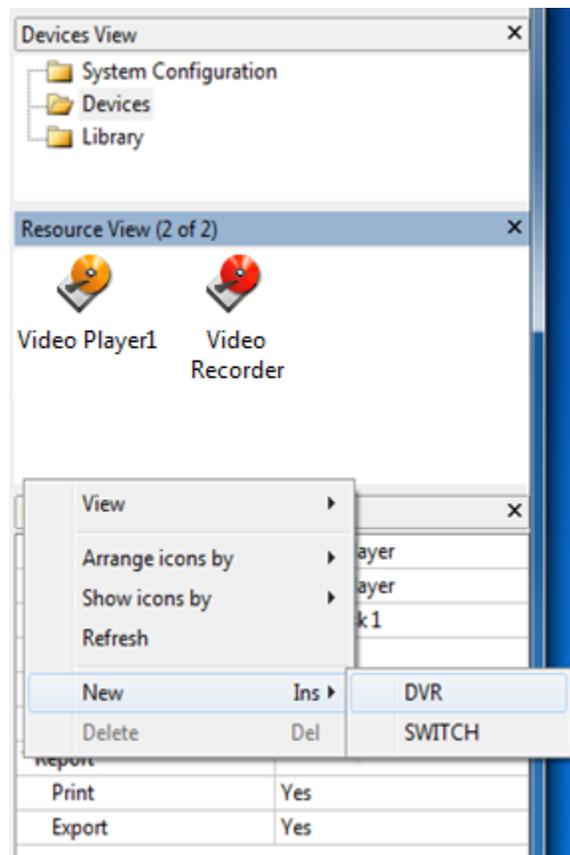
Creating ePRO-BUS-Controlled Device Resources

The UltraNEXUS-HD ePRO-BUS control feature uses your Ethernet network rather than additional wiring to send start/stop RECORD commands to up to 16 remote or locally connected LABvault-HD digital video recorders. To use, create an ePRO-BUS resource for each LABvault-HD digital video recorder that will be receiving ePRO-BUS control commands from your UltraNEXUS-HD system. Create and configure ePRO-BUS-controlled resources as follows:

NOTE: Ensure that you have assigned each LABvault-HD recorder's IP address to an ePRO-BUS address number in the UltraNEXUS-HD web interface (see the "Configuring ePRO-BUS Settings" section on page 344 for more details).

Click on the "Devices" folder on the right side of the schedule editor window to display the "Devices View" window (refer to Illustration 65, New Switch Device Properties).

Illustration 67, New Device Properties



Right click in the "Resource View" window and select "New" to display the device type menu. Select "DVR" device type to add a new device resource to the window (see Illustration 67, New Device Properties).

Complete the properties fields shown in Illustration 68, ePRO-BUS Resource Properties Window according to Table 19, ePRO-BUS Resource Properties.

Illustration 68, ePRO-BUS Resource Properties Window

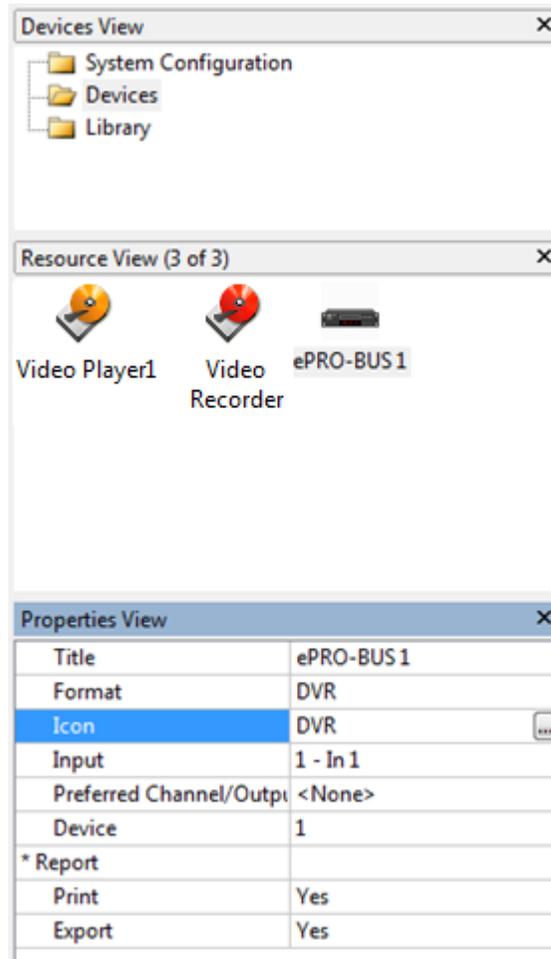


Table 19, ePRO-BUS Resource Properties

FIELD	DESCRIPTION
Title	Enter a name of up to 31 characters.
Format	Leave at the default setting
Icon	Select the desired icon to represent your library item. 1. Open the icon selection window by selecting the “Icon” field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click “OK.” Click “Cancel” to abort selection.
Input	External switcher configurations only: select “<None>,” as the device is not connected to a switcher input.

UltraNEXUS-HD
Software Installation & Configuration

FIELD	DESCRIPTION
Preferred Channel/ Output	External switcher configurations only: select “<None>.”
Interface	Select “PRO-BUS (PB)” for the method being used to control the device.
Device	<p>Select the PRO-BUS address number that was chosen for the LABvault-HD device in the UltraNEXUS-HD web interface ePRO-BUS configuration window (see the “Configuring ePRO-BUS Settings” section on page 344 for more details). When a number is chosen, it is removed from the “Device” list.</p> <p>NOTE: Each LABvault-HD will only respond to those ePRO-BUS commands which contain its address number.</p>
Setup time	Not used
Print	<p>Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow all of the resource’s event records to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function during scheduling for all or individual playlist resources.

Creating Overlays

Quickly and conveniently enhance your digital programming with graphic and text message overlays. In just a few steps, schedule MPEG clips and programs, slides, and slide shows to display with your station icon, “coming up next” program messages, community event reminders, holiday greetings, or any other announcements of your choosing.

You can create up to 25 overlay templates, with each template holding up to 10, individual overlay library resources. During scheduling of digital video media, you then have the option of selecting an overlay template to accompany the media during playback. Each overlay resource in the template will display in the assigned order for 10 percent of the scheduled digital program (subtract 60 seconds for the safe area buffers from the total length of the program before calculating the 10 percent display length). **To create an overlay template and then add it to a digital program, perform the following three steps:**

Step 1: Create Individual Overlays

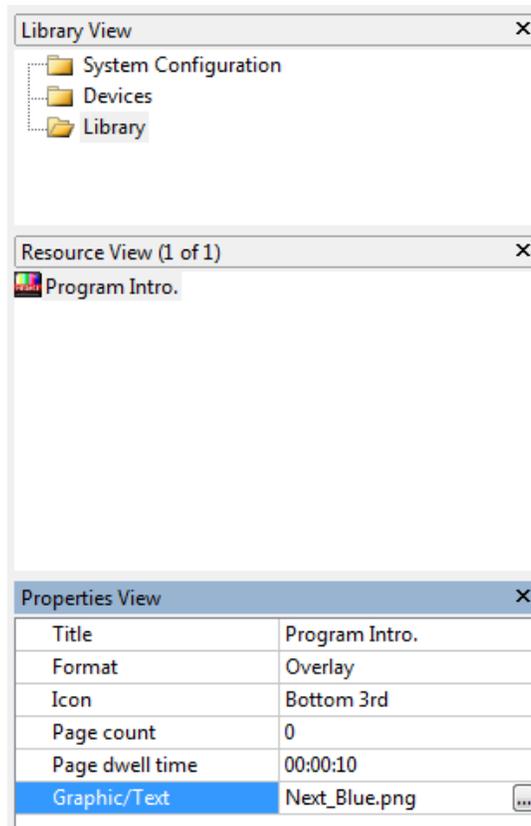
Add individual overlay resources to each overlay template to form a custom overlay listing that may be reused for a variety of digital programs. Assign to each overlay library resource the properties for a partial or full screen PNG and, if desired, enter a series of up to 12, two-line text messages that you would like displayed with the graphic.

NOTE: Overlay library resources utilize “.png” files, which allow an image to contain transparent areas. This allows your overlay to float over rather than block the programming on your MPEG players.

Either use one of the included graphics or upload your own .png overlay through the “Storage Manager” window per “Managing Storage of Video, SLIDE, and OVERLAY Files,” on page 253.

To create a library resource for an overlay, click the “Library” folder and then right click in the “Resource View” window and select “New.” Select “Overlay” under “Format” in the “Properties View” window and then complete the remaining properties described in Table 20, referring to Illustration 69 throughout.

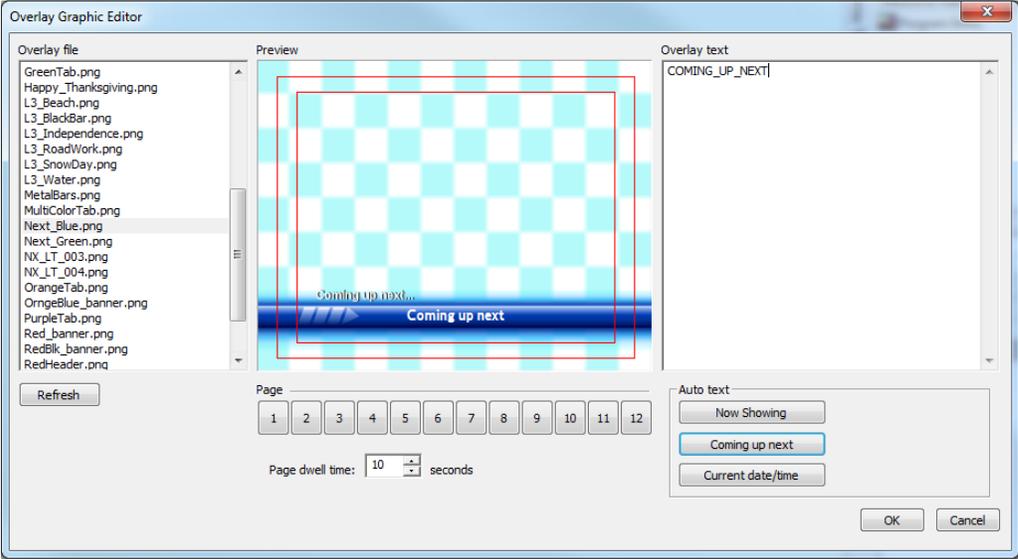
Illustration 69, Overlay Library Resource Properties



UltraNEXUS-HD
Software Installation & Configuration

Table 20, Overlay Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Overlay" from the drop down list.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none">1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears.2. Select the desired icon.3. Double click icon or click "OK." Click "Cancel" to abort selection.
Page count	Displays pages added through the "Graphic/Text" field's "Overlay Graphic Editor" window.
Page dwell time	Displays selection made in the "Graphic/Text" field's "Overlay Graphic Editor" window.

FIELD	DESCRIPTION
Graphic /Text	<p>Select a graphic image and, if desired, add a text message as follows:</p> <ol style="list-style-type: none"> Select the “Graphic/Text” field and click the right-hand button to open the “Overlay Graphic Editor” window shown in Illustration 70. <p style="text-align: center;"><i>Illustration 70, “Overlay Graphic Editor” Window</i></p>  <ol style="list-style-type: none"> Select a graphic from the “Overlay file” list. Use the “Overlay text” window to add a sequence of up to 12, two-line messages to the lower third position of the overlay screen. Beneath the overlay preview window, the buttons numbered 1–12 correspond to separate text message pages on the overlay. Each button turns green when you move the text cursor to the corresponding page. Enter text on each message page as follows: <ul style="list-style-type: none"> Click the “Coming up next” and/or “Current date/time” buttons to automatically enter the corresponding text. Type up to two lines of the default 22 pt, bold Ligurino text. The bottom line of text on each page is positioned on the overlay just above the safe title guideline. Move to each new line of text by pressing “Enter” on your keyboard. Select from the “Page dwell time” drop down list to specify a display time between 8-90 seconds for each of your messages. When displayed, your messages will fade from one to another on the selected overlay. Click “OK” to close the “Overlay Graphic Editor” window.

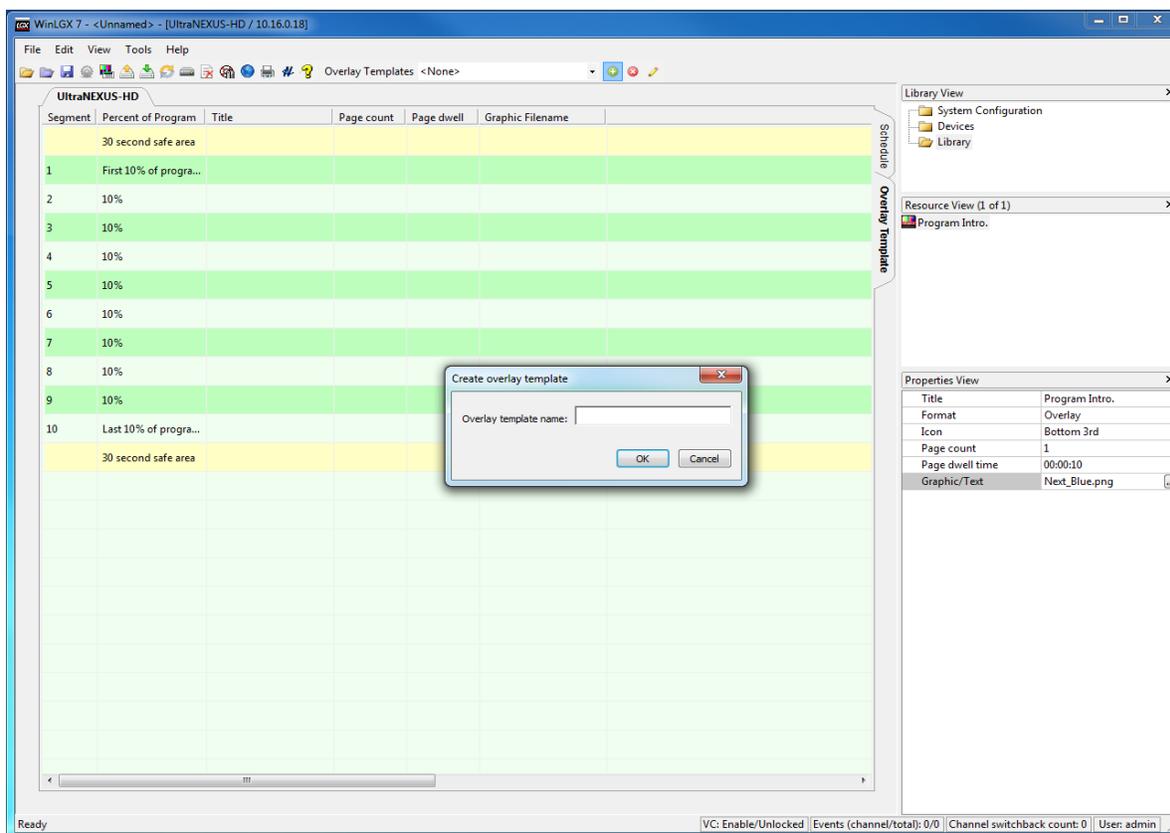
UltraNEXUS-HD Software Installation & Configuration

Step 2: Create Overlay Template

Create a customized listing of up to ten overlays according to the following steps.
Select the “Overlay Templates” tab view on the main WinLGX window.

Add an overlay template to the template listing by clicking the  icon and assigning a title in the “Create overlay template” box that appears (see Illustration 71, Add Overlay Template). Click “OK” to create template or cancel to abort. Click the  icon to rename the overlay template.

Illustration 71, Add Overlay Template

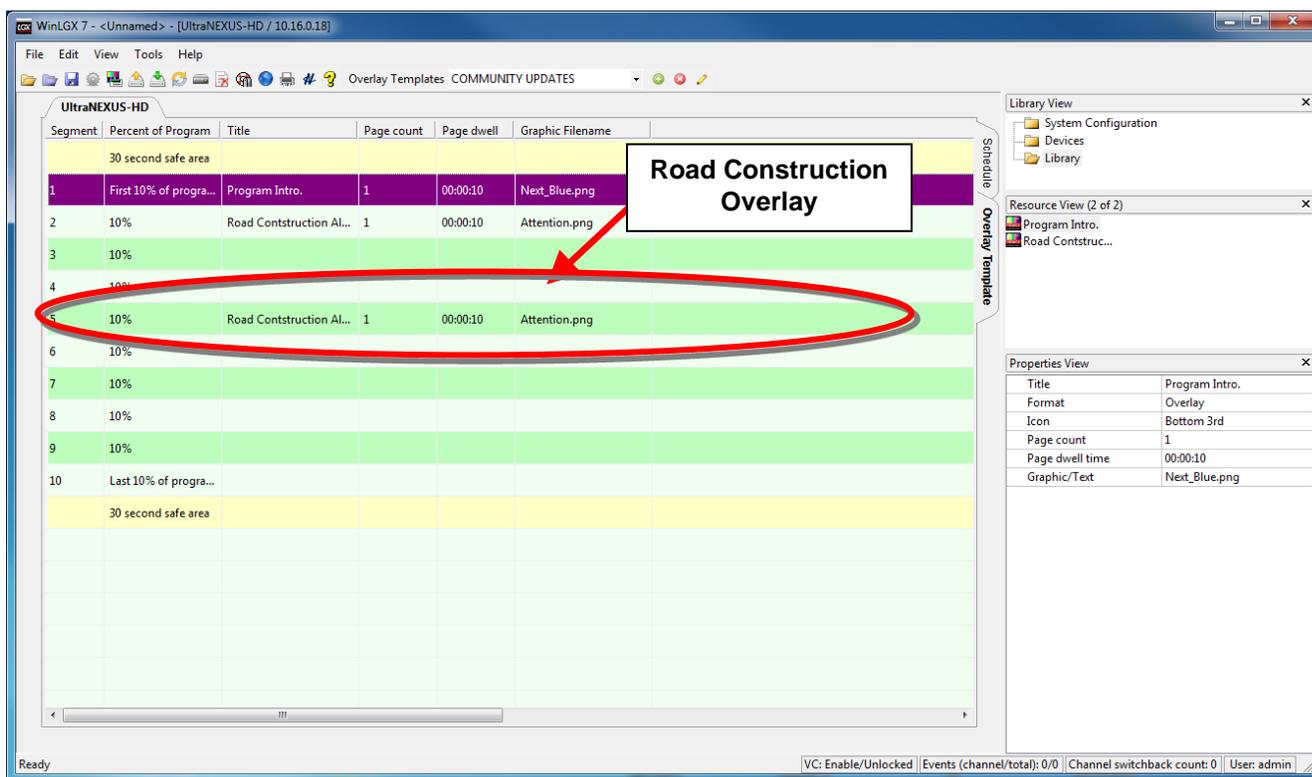


Drag up to ten overlay library resources into the desired segments on the overlay template and click “OK” in each overlay properties box that appears.

NOTE: In order to preserve your digital program’s beginning and ending graphics, each template has 30 second safe area boundaries.

The display length of each segment is based on the length of the digital program the overlay template is scheduled to accompany. To obtain the display length, subtract 60 seconds (the total length of the “safe area” buffers) from the total length of the digital program and divide the remainder by ten. For example, if the “WEEKDAY LINEUP” overlay template shown in Illustration 72 is selected to display with an hour-long video, the “Road Construction” overlay would display for 5 minutes and 54 seconds.

Illustration 72, Adding Overlays to Template



Step 3: Add an Overlay Template to a Digital Program

Display overlay templates with digital programming in either of two ways:

NOTE: Overlay templates must be paired with digital programs at least 65 seconds in length.

- **When Creating Digital Library Resources**

Assign an overlay template to a digital program when creating a digital library resource. Every time the digital library resource is scheduled, the overlay template will display with it.

- **During Scheduling**

When a digital resource is added to the schedule, you may select an overlay template or edit the assigned template.

UltraNEXUS-HD Software Installation & Configuration

Creating Library Resources

Use the “Library View” windows to create library resources for drag and drop scheduling of frequently aired programs. Then just add properties for a specific digital video or switch action to each new library resource. Before scheduling library resources for external devices, ensure you have created resources for the corresponding devices that each library resource will be played or recorded on (see “Creating External Switch Device Resources,” starting on page 115).

Create library resources as follows:

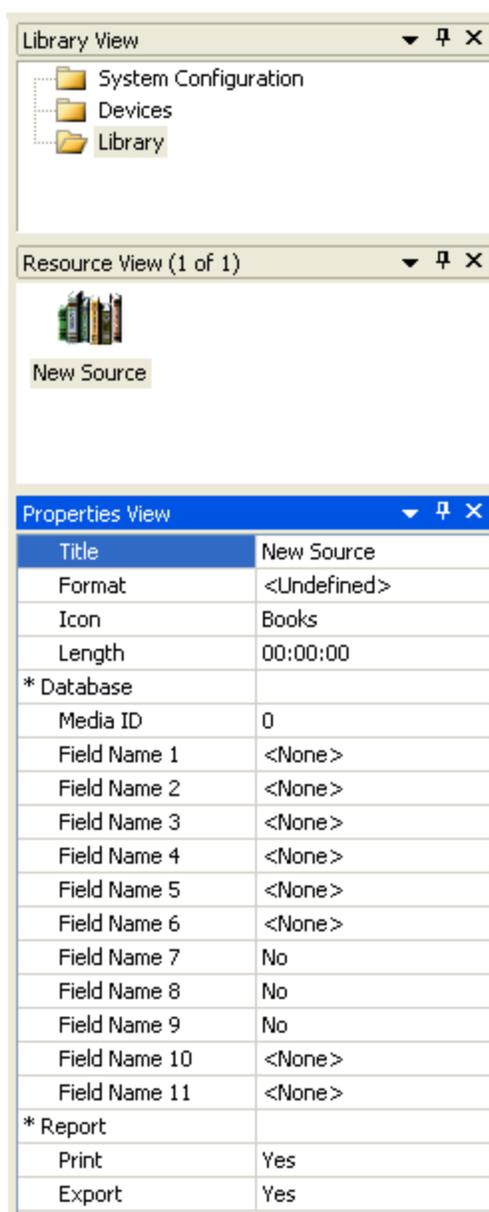
1. Click on the “Library” folder on the right side of the schedule editor window to display the library view (see Illustration 73, “Library View” Windows).

Illustration 73, “Library View” Windows



2. Right-click in the “Resource View” window and select “New” in the context menu to insert an undefined, new resource in the window (see Illustration 74, New Library Resource Windows).

Illustration 74, New Library Resource Windows



3. Complete the “Properties” fields for one of the following library resources:

- “Switch Library Resources,” on page 130
- “Digital Video Library Resources,” on page 132
- “Digital Video Loop Library Resources,” on page 138
- “Digital Video File Playlist Library Resources,” on page 154
- “Virtual Channel (VC) List Library Resources,” on page 156

- NOTES:**
- Only digital video library resource properties can be exported into a resource file.
 - Only the library resource properties are exported into a resource file.

UltraNEXUS-HD Software Installation & Configuration

The digital video files remain in their current storage locations.

- a. Right click on the “Library” configuration folder containing the library resources you wish to export and select “Export” from the pop-up menu (see Illustration 75) to display the “Export MPEG Resource” window (see Illustration 76). Resource files may only be exported and imported on a folder by folder basis.

Illustration 75, Library “Export” Option

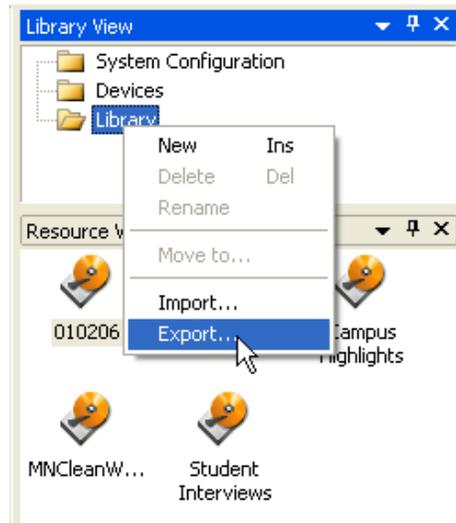
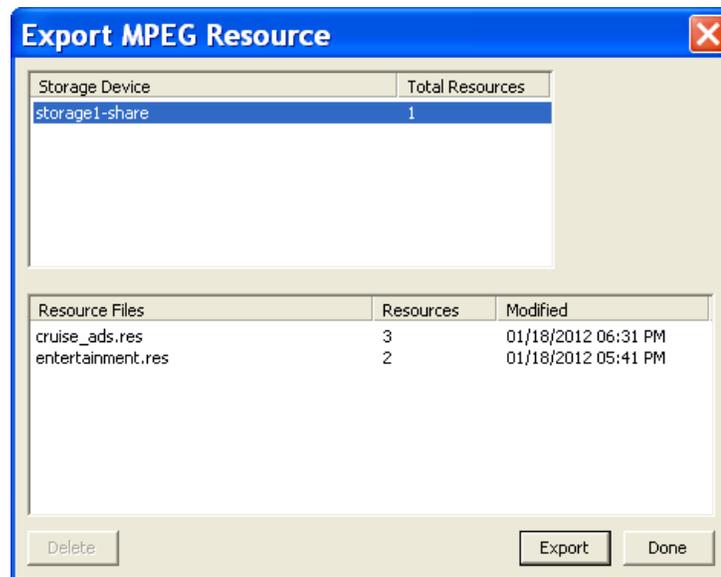
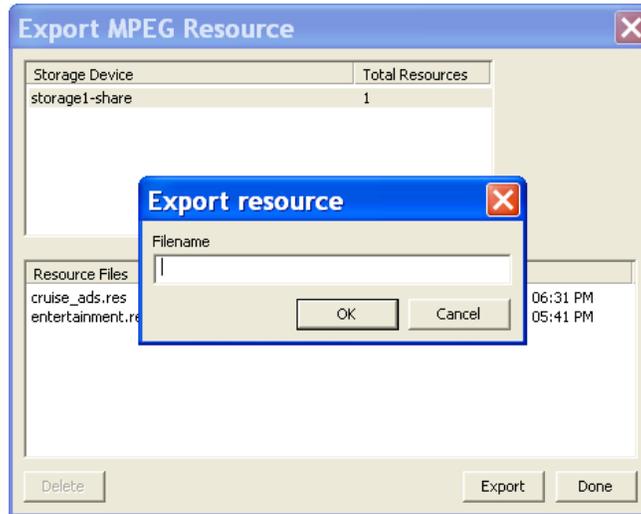


Illustration 76, “Export MPEG Resource” Window



- b. If the selected library folder contains resources for digital videos on more than one USB or NAS device, single click to select a storage device in the “Export MPEG Resource” window (see Illustration 76, “Export MPEG Resource” Window). Only the library resources referencing digital video files on the selected storage device will be exported in the resource file.

Illustration 77, "Export Resource" Library Resource Filename



- c. When the resource file has been uploaded to the selected UltraNEXUS-HD USB or NAS storage device, click "Ok" when you are prompted.
- d. If desired, repeat steps a–c for each set of library resources in the folder referencing digital videos on your other storage devices.

UltraNEXUS-HD Software Installation & Configuration

Switch Library Resources—External Switcher Configurations Only

Create switch library resources containing properties for switch inputs, such as studio feeds or external character generators (CG) connected to your external switcher. Click the “Library” folder and then right click in the “Resource View” window and select “New.” Select a switch input type under “Format” in the “Properties” window and then edit the remaining properties described in Table 21, referring to Illustration 78 throughout.

Illustration 78, Example of Switch Library Resource Properties

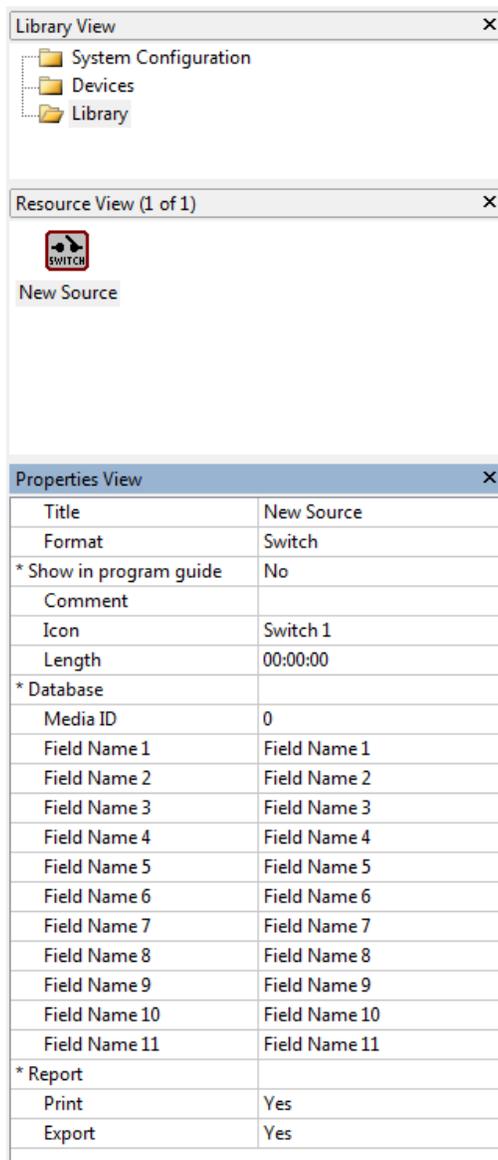


Table 21, Switch Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters
Format	Choose one of the following switch types:

FIELD	DESCRIPTION
	<ul style="list-style-type: none"> • External CG • IRD • Switch • Studio
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on the web program guide (see "Viewing Web Program Guide," on page 317). The scheduled resource will be listed according to its event start time and the text entered into the "Comment" field.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Length	Enter the on-air length of the program medium.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	Select "Yes" to enable all of the resource's event records for printing. If "No" is selected, then you can enable printing as follows: <ul style="list-style-type: none"> • Individual event records: select "Yes" in the "Print" field of each event properties window that appears during scheduling of the resource. • All of the resource's event records: check the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow all of the resource's event records to be exported into a comma separated values format. If "No" is selected, then you can enable the export function as follows: <ul style="list-style-type: none"> • Individual event records: select "Yes" in the "Export" field of each event properties window that appears during scheduling of the resource. • All of the resource's event records: check the "Export/print all records" option under the "Export/Print Templates" window.

UltraNEXUS-HD Software Installation & Configuration

Digital Video Library Resources

Create digital file library resources containing properties for video files that will be displayed by the UltraNEXUS-HD. Click the “Library” folder and then right click in the “Resource View” window and select “New.” Select “Video” under “Format” in the “Properties” window and then edit the remaining properties described in Table 22, referring to Illustration 79 throughout.

Illustration 79, Digital Video Library Resource Properties

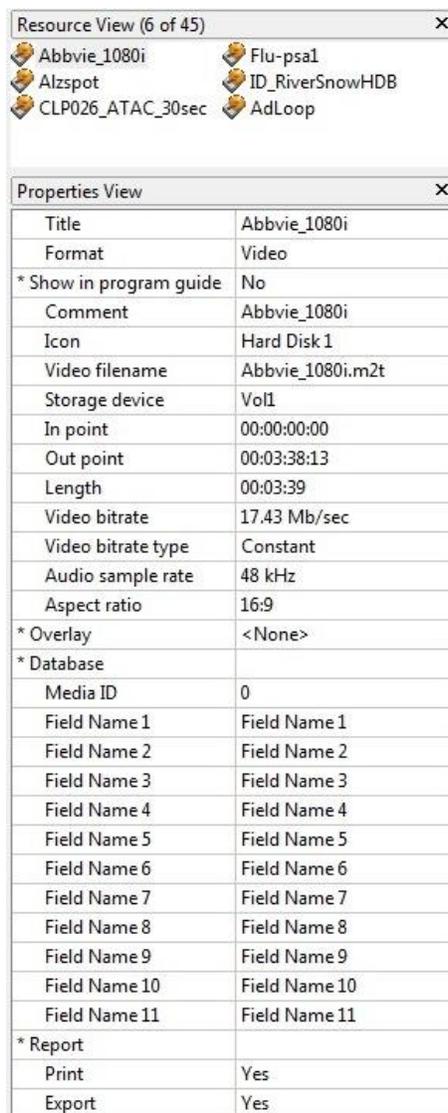
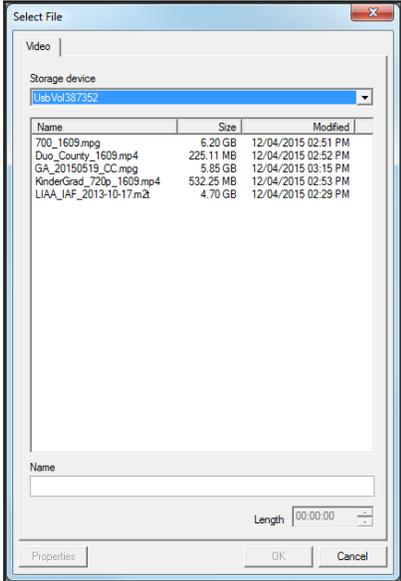


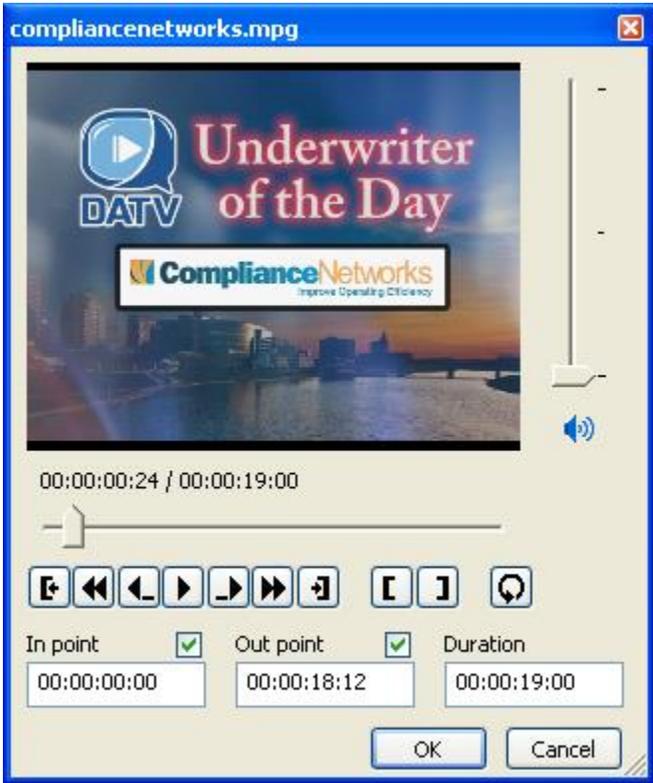
Table 22, Digital Video Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select “Video” from the drop down list.

FIELD	DESCRIPTION
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on the web program guide (see "Viewing Web Program Guide," on page 317). The scheduled resource will be listed according to its event start time and the text entered into the "Comment" field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Video filename	<p>Use the "Filename" field to select the appropriate filename for the source as follows:</p> <ol style="list-style-type: none"> 1. Select the "Filename" field. Click the ellipsis button to open the "Select File" window (see Illustration 80, "Select File" Window). <p style="text-align: center;">Illustration 80, "Select File" Window</p>  <ol style="list-style-type: none"> 2. Select a USB drive from the "Storage device" drop down list to display the drive's stored Digital video files. 3. To display a file's properties and view the clip before

UltraNEXUS-HD Software Installation & Configuration

FIELD	DESCRIPTION
	<p>completing the selection, either right click on the file or click “Properties” to display the instant video preview monitor window (see Illustration 81). For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.</p> <p style="text-align: center;"><i>Illustration 81, Instant Video Preview Monitor</i></p> <div style="text-align: center;"></div> <p>4. Perform one of the following:</p> <ul style="list-style-type: none">• Enter a filename for a file that will be recorded and played within the same schedule:<ul style="list-style-type: none">NOTE: The digital video record library resource is scheduled for recording through the UltraNEXUS-HD digital video recorder device resources. Refer to “Internal Digital Video Recorder Device Resources” on page 200 for further instructions.a. Type a filename in the “Name” field.b. In the “Length” field, enter the record time for the file.c. From the “Select file” dialog, click “OK” to accept filename or “Cancel” to abort.• Select the filename of a pre-recorded file:<ul style="list-style-type: none">➤ Double-click the desired file to automatically accept selection and close “Select file” window.➤ Select the desired file. From the “Select file” dialog, click

FIELD	DESCRIPTION
	“OK” to accept selection or “Cancel” to abort.
Storage device	The USB drive containing the digital video file is automatically displayed once the filename is selected.
In/Out point (in HH:MM:SS:FF, where FF=frames)	<p>To specify where in the selected file you would like playback to begin and end, use the “In point” and “Out point” fields. Either type the desired file start and end times into the fields or click either field’s ellipsis button to open the clip editor.</p> <p><u>Software Monitor</u></p> <p>The WinLGX video clip editor combines clip editing controls with a preview window for quick and convenient clip editing that does not interrupt programming playback on your UltraNEXUS-HD server’s video player. To use this option, ensure the “Software Monitor” option is selected on the “Preview Monitor” tab in the “Preferences” window.</p> <p style="text-align: center;"><i>Illustration 82, WinLGX Video Clip Editor with Preview Monitor</i></p> <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 1. If desired, adjust the volume control. Audio is set to the lowest level by default. 2. Ensure each point you wish to set has a green checkmark next to its time field.

UltraNEXUS-HD
Software Installation & Configuration

FIELD	DESCRIPTION
	<p>3. If in and out points have already been set (there will be time values in the corresponding fields), you can use the seek  in and  out point buttons to move the playback bar to those points in the clip.</p> <p>4. Specify the clip's playback in and out points using one of the following methods:</p> <ul style="list-style-type: none"> • Click the  button to start playing the file and click the  set in point button and  set out point button at the desired spots. If you would like the clip to restart each time the end is reached, click the  loop button. • Drag the playback bar to the desired spot and click the  set in point or  set out point button. • Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  set in point or  set out point button. • Click the  or  button to move forward or back in the MPEG file by the number of seconds specified on the "Playback Tab" of the "Preferences" window. Click the  set in point or  set out point button. <p>Once the in and out points are selected, their begin and end time values will be displayed in the corresponding fields, and the total length of time from in to out point will be shown in the "Duration" field.</p> <p>NOTE: When you seek the current in or out point on the playback bar, you will notice a slight discrepancy between the current time displayed above the playback bar and the in or out point field values. Clip playback between your in and out points will be as shown on the clip editor's preview window.</p>
Length	Automatically displayed once the digital video filename is selected.
Video bit rate	Automatically displayed once the digital video filename is selected.
Video bitrate type	Automatically displayed once the digital video filename is selected.
Audio sample rate	Automatically displayed once the digital video filename is selected.

FIELD	DESCRIPTION
Aspect ratio	Set the desired playback aspect ratio.
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view. The graphic and text message overlays that are part of the selected template will then display with the program.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow all of the resource’s event records to be exported into a comma separated values format. If “No” is selected, then you can enable the export function as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

Digital Video Loop Library Resources

Create digital video loop library resources containing properties for digital video files that will be repeatedly displayed on the UltraNEXUS-HD server’s internal HD/SD digital video players. Each digital video loop library resource displays the selected digital video file for a specified number of times or loops. Click the “Library” folder and then right click in the “Resource View” window and select “New.” Select “Video Loop” under “Format” in the “Properties” window and then edit the remaining properties described in Table 23, referring to Illustration 83 throughout.

Illustration 83, Digital Video Loop Library Resource Properties

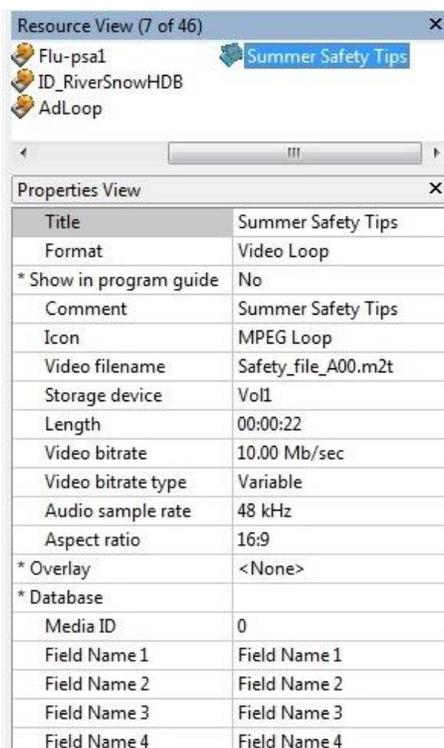


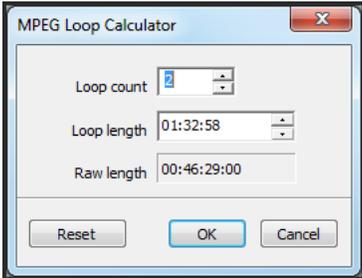
Table 23, Digital Video Loop Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select “Video Loop” from the drop down list.

FIELD	DESCRIPTION
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on the web program guide (see "Viewing Web Program Guide," on page 317). The scheduled resource will be listed according to its event start time and the text entered into the "Comment" field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the ellipsis button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Video filename	Use the "Filename" field to specify the file you wish to loop as follows: <ol style="list-style-type: none"> 1. Select the "Filename" field and click the ellipsis button to open the "Select File" window (see Illustration 84, "Select File" Window). <p style="text-align: center;">Illustration 84, "Select File" Window</p> <div> </div> 2. Select a hard drive or NAS storage device from the "Storage device" drop down list to display the drive's stored Digital video files. 3. To display a file's properties and view the clip before completing the selection, either right click on the file or click "Properties" to display the instant video preview monitor window (see Illustration

**UltraNEXUS-HD
Software Installation & Configuration**

FIELD	DESCRIPTION
	<p>85). For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.</p> <p><i>Illustration 85, Instant Video Preview Monitor</i></p>  <p>The screenshot shows a window titled "European_Festivals.m2t". The main area displays a video of a lake with a stone tower and snow-capped mountains in the background. Below the video is a progress bar and a volume icon. At the bottom, technical details are listed: Storage device: Vol1, Name: European_Festivals.m2t, Length: 00:07:50:04, Video bitrate: 24.00 Mb/sec Variable, and Audio sample rate: 44.1 kHz.</p> <p>4. Perform one of the following:</p> <ul style="list-style-type: none"> • Enter a filename for a file that will be recorded and played within the same schedule: <ul style="list-style-type: none"> NOTE: The digital video record library resource is scheduled for recording through the UltraNEXUS-HD digital video recorder device resources. Refer to “Internal Digital Video Recorder Device Resources” on page 200 for further instructions. a. Type a filename in the “Name” field. b. In the “Length” field, enter the desired record time for the file. c. From the “Select file” dialog, click “OK” to accept filename or “Cancel” to abort. • Select the filename of a pre-recorded file: <ul style="list-style-type: none"> ➤ Double-click the desired file to automatically accept selection and close “Select file” window. ➤ Select the desired file. From the “Select file” dialog, click “OK” to accept selection or “Cancel” to abort.

FIELD	DESCRIPTION
Storage device	The storage device containing the digital video file is automatically displayed once the filename is selected.
Length	<p>The file length is automatically displayed once the filename is specified. To specify the number of times or length of time you would like the file to loop, perform the following:</p> <ol style="list-style-type: none"> 1. Select the “Length” field and then click the ellipsis button to display the “Video Loop Calculator” (see Illustration 86). <p style="text-align: center;">Illustration 86, Video Loop Calculator</p>  <ol style="list-style-type: none"> 2. Enter the number of times you would like the file to loop in the “Loop count” field and/or enter a length of time, up to 24 hours, in the “Loop length” field.
Video bit rate	Automatically displayed once the digital video filename is selected.
Video bit rate type	Automatically displayed once the digital video filename is selected.
Audio sample rate	Automatically displayed once the digital video filename is selected.
Aspect ratio	Set the desired playback aspect ratio.
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view. The graphic and text message overlays that are part of the selected template will then display with the program.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	<p>Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

UltraNEXUS-HD Software Installation & Configuration

FIELD	DESCRIPTION
Export	<p>Select “Yes” to allow all of the resource’s event records to be exported into a comma separated values format. If “No” is selected, then you can enable the export function as follows:</p> <ul style="list-style-type: none">• Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource.• All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

Slide Library Resources

Slide library resources contain properties for JPEG slides that will be displayed on the UltraNEXUS-HD system’s internal Video player. Before creating a slide library resource, upload the desired slide into an UltraNEXUS-HD user folder(s) through the WinLGX Storage Manager window or WebNEXUS:

- WinLGX Storage Manager: refer to “Managing All Digital Files,” on page 255.
- WebNEXUS interface: see the “Uploading Slides to a UltraNEXUS-HD Server/Controller” on page 289 to learn how to upload slides through WebNEXUS and “Approving Slides for Display in Slide Shows” on page 309 for instructions on how to enable the slide for display.

To create a library resource for a slide, click the “Library” folder and then right click in the “Resource View” window and select “New.” Select “Slide” under “Format” in the “Properties” window and then complete the remaining properties described in Table 24, referring to Illustration 87 throughout.

NOTE: The UltraNEXUS-HD system ships with sample slides under “ADMIN” and a variety of background slides available to all user accounts. Sample slides are provided to demonstrate possible usages for the digital messaging feature. Users may create their own slide shows by adding text and graphics to the included template backgrounds.

Illustration 87, Slide Library Resource Properties

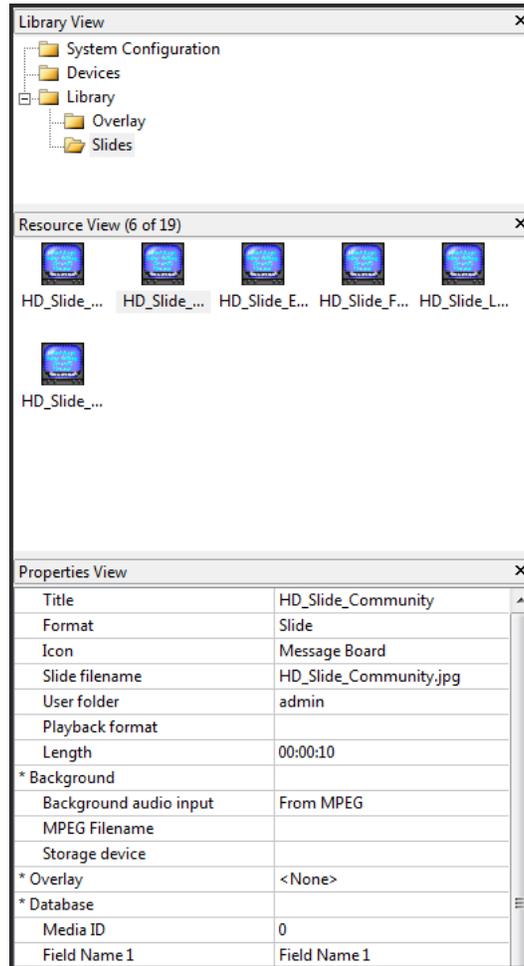
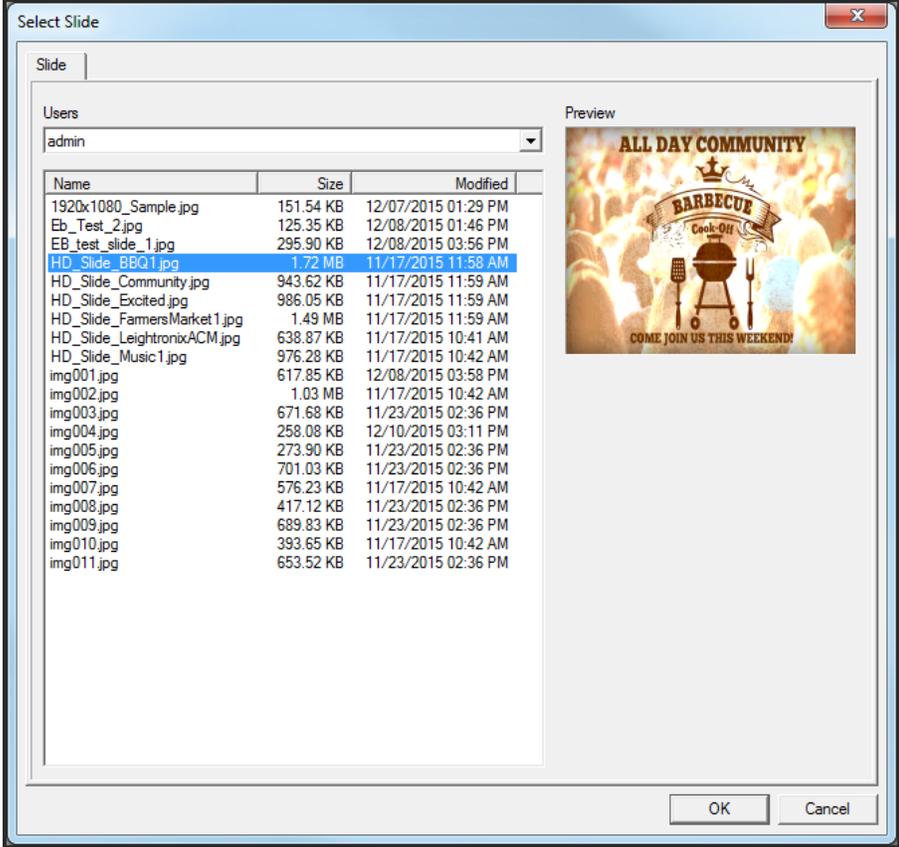


Table 24, Slide Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Slide" from the drop down list.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Slide filename	Use the "Slide filename" field to select the appropriate slide filename for the source as follows: <ol style="list-style-type: none"> 1. Select the "Filename" field and click the button that appears to open the "Select Slide" window (see Illustration 88, "Select Slide"

**UltraNEXUS-HD
Software Installation & Configuration**

FIELD	DESCRIPTION
	<p>Window).</p> <p style="text-align: center;"><i>Illustration 88, "Select Slide" Window</i></p>  <p>2. Select a username from the "Users" drop down list to display the JPEG slides in the corresponding remote user folder.</p> <p>3. Select a slide as follows:</p> <ul style="list-style-type: none"> • Double-click the desired file to accept selection and close "Select slide" window. • Select the desired file and click "OK" to accept or "Cancel" to abort selection.
User folder	Automatically displayed once the slide is selected.
Length	The default slide length specified in the "Application" tab of the "Preferences" window is automatically displayed once the slide filename is selected (see page 88 for more information), but may be edited to any value greater than 5 seconds.

FIELD	DESCRIPTION
Background	<p>If desired, select an audio source to play with your slide file display. Under the “Background audio input” field, perform one of the following:</p> <ul style="list-style-type: none"> • Select “from MPEG” to play the audio from a video file. Load a video file using the “MPEG filename” field that appears. • Select the type of audio signal connected to your UltraNEXUS-HD: <ul style="list-style-type: none"> ➤ “<u>Analog</u>”: corresponds to the analog audio inputs on the UltraNEXUS-HD’s back panel terminal blocks (see Table 2, Non-Embedded Audio Terminal Block Configurations, for analog audio wiring diagram) ➤ “<u>AES</u>”: corresponds to the AES audio inputs on the UltraNEXUS-HD’s back panel terminal blocks (see Table 2, Non-Embedded Audio Terminal Block Configurations, for AES audio wiring diagram) ➤ “<u>Embedded 1-2</u>,” “<u>Embedded 3-4</u>,” “<u>Embedded 5-6</u>,” and “<u>Embedded 7-8</u>”: if your audio is embedded within the SDI video signal, select the embedded audio channel pair that you want under your slide
Overlay	<p>If desired, select one of the overlay templates created in the “Overlay Templates” view. The graphic and text message overlays that are part of the selected template will then display with the program.</p>
Media ID	<p>If desired, assign a library tracking number.</p>
Field Name 1–11	<p>If desired, select the user-defined column field items that pertain to the new library item.</p>
Print	<p>Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	<p>Select “Yes” to allow all of the resource’s event records to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

UltraNEXUS-HD Software Installation & Configuration

Slide Show Library Resources

Slide show library resources contain properties for sequences of JPEG slides that will be displayed on the UltraNEXUS-HD system's internal player. The slides displayed in a slide show are the slides within each of the selected user account folder(s).

Before creating a slide show library resource, upload the desired slides into an UltraNEXUS-HD user folder(s) and enable/authorize each slide for display in slide shows through the WinLGX Storage Manager window or WebNEXUS:

- WinLGX Storage Manager: refer to "Managing All Digital Files," on page 255.
- WebNEXUS interface: see the "Uploading Slides to a UltraNEXUS-HD Server/Controller" on page 289 to learn how to upload slides through WebNEXUS and "Approving Slides for Display in Slide Shows" on page 309 for instructions on how to enable the slide for display.

If the slide was **not** uploaded by a user with the "Automatic slide authorization" or "Slide administrator" user right, it must also be authorized for display in slide shows by the "admin" user account or a user with the "Slide administrator" right (see "Enabling and Authorizing Slides for Display in Slide Shows" on page 258 or "Approving Slides for Display in Slide Shows," on page 309).

To create a library resource for a slide, click the "Library" folder and then right click in the "Resource View" window and select "New." Select "Slide Show" under "Format" in the "Properties" window and then complete the remaining properties described in Table 25, referring to Illustration 89 throughout.

NOTE: Each UltraNEXUS-HD server/controller ships with sample slides under "ADMIN" and a variety of background slides available to all user accounts. Sample slides are provided to demonstrate possible usages for the digital messaging feature. Users may create their own slides by adding text and graphics to the included template backgrounds.

Illustration 89, Slide Show Library Resource Properties

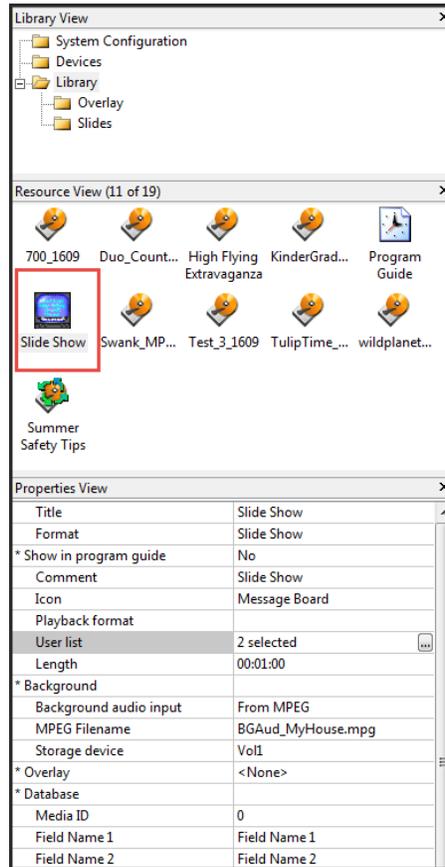
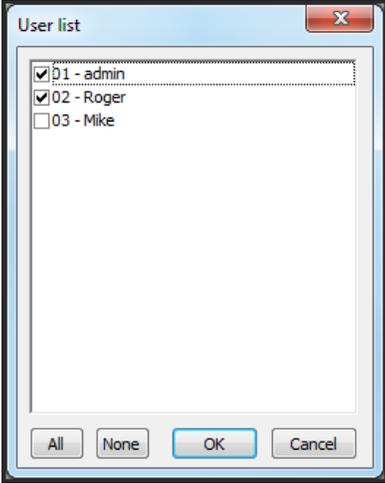


Table 25, Slide Show Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Slide Show."
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on onscreen program guides (see "Onscreen Program Guide Library Resources," on page 150) and the web program guide (see "Viewing Web Program Guide," on page 317).
Comment	Enter a unique and descriptive name with up to 31 characters to represent the resource on the onscreen and web program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.

UltraNEXUS-HD
Software Installation & Configuration

FIELD	DESCRIPTION
Icon	<p>Select the desired icon to represent your library item.</p> <ol style="list-style-type: none">1. Open the icon selection window by selecting the “Icon” field and clicking the button that appears.2. Select the desired icon.3. Double click icon or click “OK.” Click “Cancel” to abort selection.
User list	<p>Select one or more usernames to display the JPEG slides in the corresponding remote user folders as follows:</p> <p>NOTE: Create a default slide to display in case the selected user folder is empty or does not contain approved slides (refer to “Creating a Default Slide,” on page 306).</p> <ol style="list-style-type: none">1. Select the “User list” field and click the button that appears to open the user selection window shown in Illustration 90, “User list” Window. <p>NOTE: The UltraNEXUS-HD systems ship with sample slides under “ADMIN” and a variety of background slides available to all user accounts.</p> <p style="text-align: center;"><i>Illustration 90, “User list” Window</i></p> <div style="text-align: center;"></div> <ol style="list-style-type: none">2. Select the desired username(s) as follows:<ul style="list-style-type: none">• Click the “All” button to select all usernames.• Click the “None” button to deselect all usernames.• Individually select usernames by clicking on the desired username boxes.3. Click “OK” to accept selections or “Cancel” to abort.

FIELD	DESCRIPTION
Length	Edit to the desired run time for the entire slide show. Each slide within the slide show will automatically display for 10 seconds at a time. The display duration for each slide may be changed from the WebNEXUS interface (see “Adding Slide Show Settings to Slide Metadata307,” on page 306).
Background	<p>If desired, select an audio source to play with your slide file display. Under the “Background audio input” field, perform one of the following:</p> <ul style="list-style-type: none"> • Select “from MPEG” to play the audio from a video file. Load a video file using the “MPEG filename” field that appears. • Select the type of audio signal your UltraNEXUS-HD has been wired to record: <ul style="list-style-type: none"> ➤ “<u>Analog</u>”: corresponds to the analog audio inputs on the back panel terminal blocks (see Table 2, Non-Embedded Audio Terminal Block Configurations, for analog audio wiring diagram) ➤ “<u>AES</u>”: corresponds to the AES audio inputs on the SDI’s back panel terminal blocks (see Table 2, Non-Embedded Audio Terminal Block Configurations, for AES audio wiring diagram) • “<u>Embedded 1-2</u>,” “<u>Embedded 3-4</u>,” “<u>Embedded 5-6</u>,” and “<u>Embedded 7-8</u>”: if your audio is embedded within the SDI video signal, select the embedded audio channel pair that you want to record.
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view. The graphic and text message overlays that are part of the selected template will then display with the program.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	<p>Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	<p>Select “Yes” to allow all of the resource’s event records to be exported into comma delimited or Microsoft Excel[®] formats. If “No” is selected, then you can enable the export function as follows:</p> <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Export” field of

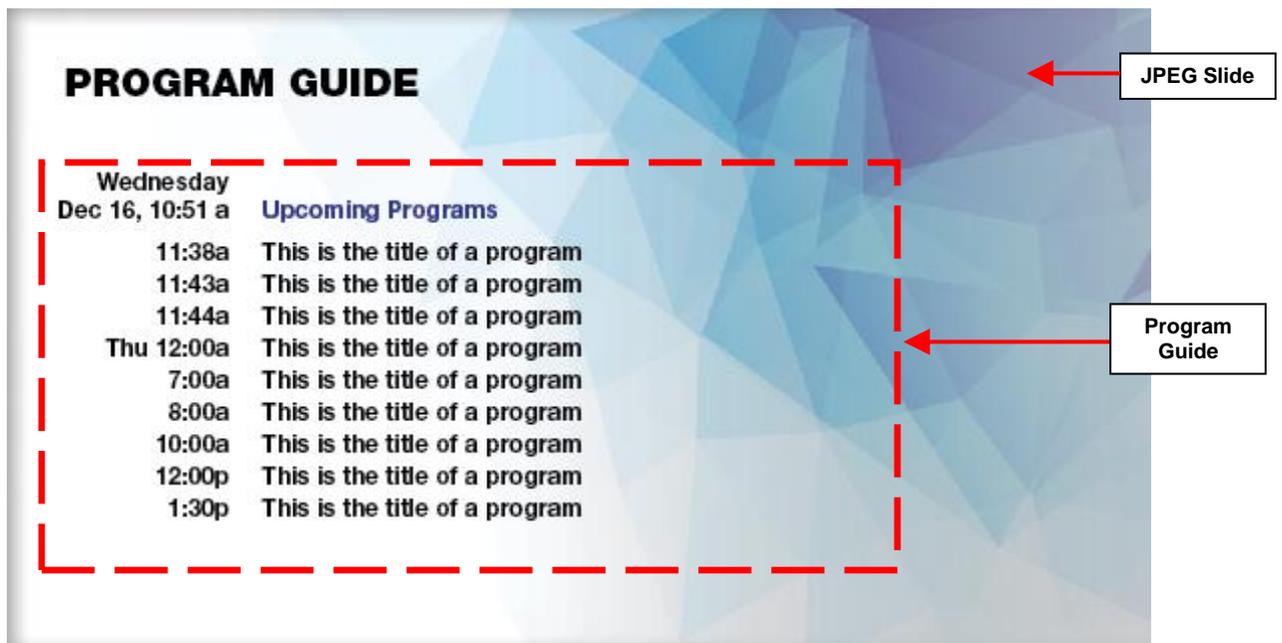
**UltraNEXUS-HD
Software Installation & Configuration**

FIELD	DESCRIPTION
	<p>each event properties window that appears during scheduling of the resource.</p> <ul style="list-style-type: none"> All of the resource's event records: check the "Export/print all records" option under the "Export/Print Templates" window.

Onscreen Program Guide Library Resources

Create dynamic onscreen program guide resources that layer the most current schedule events over JPEG slide backgrounds (see Illustration 91 for an example of a program guide). Once a program guide event is executed, up to ten of the upcoming programs on the selected channel output tab are displayed on the selected slide. Each program on the guide is listed according to its event start time and "Comment" text in the default font size, color, and style shown in Illustration 91.

Illustration 91, Example of Onscreen Program Guide



To create a library resource for a program guide, click the "Library" folder and then right click in the "Resource View" window and select "New." Select "Program Guide" under "Format" in the "Properties" window and then edit the remaining properties described in Table 26, referring to Illustration 92 throughout.

Illustration 92, Program Guide Library Resource Properties

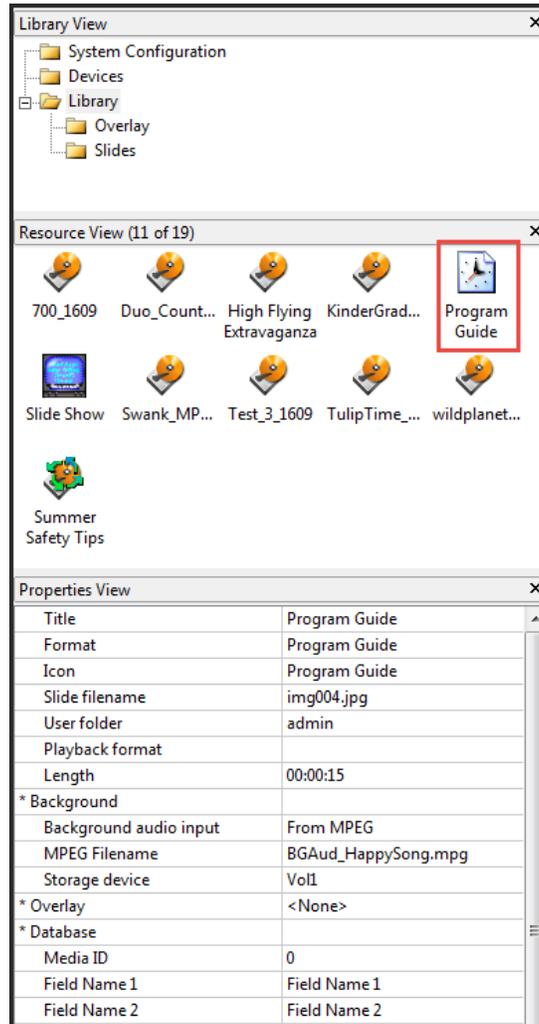
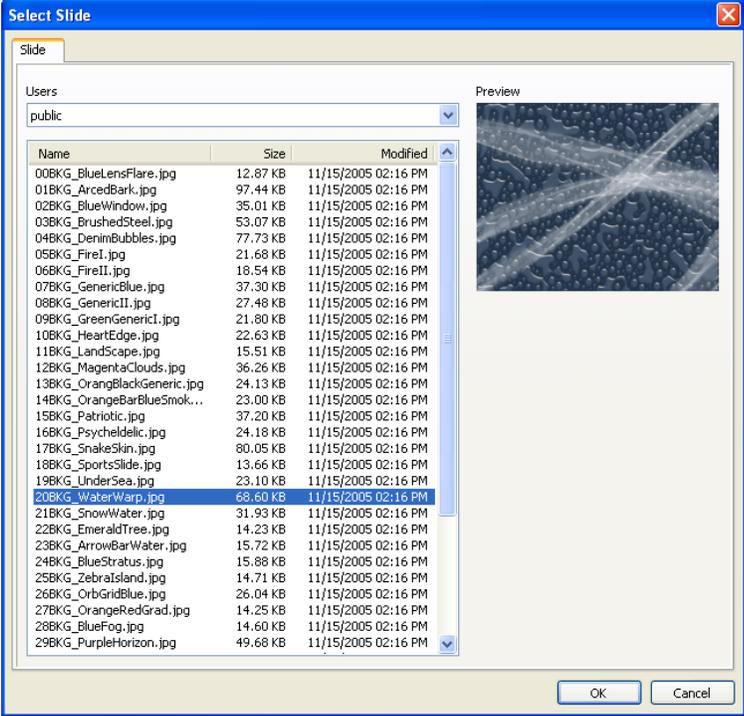


Table 26, Program Guide Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Program Guide" from the drop down list.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Slide filename	Use the "Slide filename" field to select the appropriate slide filename for the source as follows:

**UltraNEXUS-HD
Software Installation & Configuration**

FIELD	DESCRIPTION
	<p>1. Select the “Filename” field and click the button that appears to open the “Select Slide” window (see Illustration 93, “Select Slide” Window).</p> <p style="text-align: center;"><i>Illustration 93, “Select Slide” Window</i></p>  <p>2. Select a username from the “Users” drop down list to display the JPEG slides in the corresponding remote user folder.</p> <p>3. Select a slide as follows:</p> <ul style="list-style-type: none"> • Double-click the desired file to accept selection and close “Select slide” window. • Select the desired file and click “OK” to accept or “Cancel” to abort selection.
User folder	Automatically displayed once the slide is selected.
Length	Automatically displayed once the slide file is selected, but may be edited to any value greater than 5 seconds.
Background	<p>If desired, select an audio source to play with your slide file display. Under the “Background audio input” field, perform one of the following:</p> <ul style="list-style-type: none"> • Select an audio input. • Select “from MPEG” to play the audio from a video file. Load a video file using the “MPEG filename” field that appears.

FIELD	DESCRIPTION
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view. The graphic and text message overlays that are part of the selected template will then display with the program.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow all of the resource’s event records to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

UltraNEXUS-HD Software Installation & Configuration

Digital Video/Slide Playlist Library Resources

Create digital video/slide file playlist library resources containing properties for multiple digital video files that will be displayed by the UltraNEXUS-HD's internal HD/SD player/recorder. Playlist resources allow users to simultaneously schedule one or more digital video files and/or slides. Click the "Library" folder and then right click in the "Resource View" window and select "New." Select "Playlist" under "Format" in the "Properties" window and then edit the remaining properties described in Table 27, referring to Illustration 94 and Illustration 95 throughout.

Illustration 94, Playlist Library Resource Properties

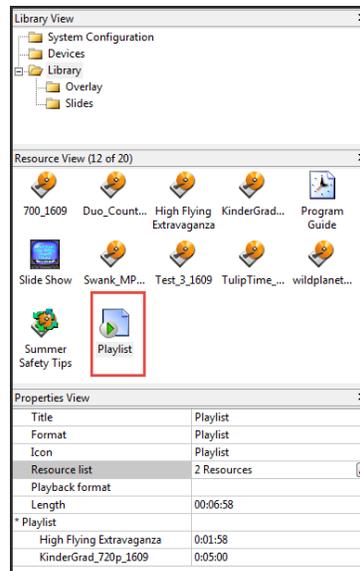


Illustration 95, "Playlist Editor" Window

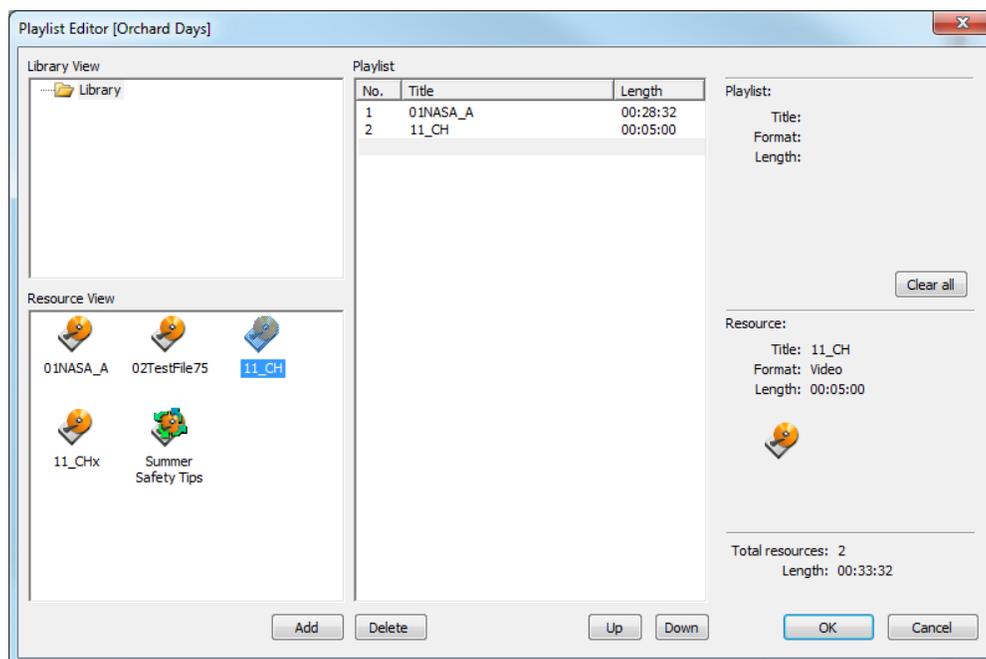


Table 27, Playlist Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Playlist."
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the "Icon" field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click "OK." Click "Cancel" to abort selection.
Resource list	Select the "Resource list" field and click the button that appears to open the "Playlist Editor" window shown in Illustration 95 and perform the following steps: <ol style="list-style-type: none"> 1. Under "Library View," click on the library folder to display the resource you would like to add to the playlist. 2. Select the desired resource under "Resource View." 3. Click the "Add" button to add resource to the "Playlist" window. 4. Repeat steps for each additional resource you would like to place in the playlist. 5. Use any of the following options to edit playlist: <ul style="list-style-type: none"> • To remove an item from the playlist, highlight the resource and click the "Delete" button. • To remove all items from the playlist, click the "Clear All" button and select "Yes" in the dialog that appears or "No" to abort the operation. • To reorder playlist, highlight a resource and click the "Up" and/or "Down" buttons to move resource into new playlist position. 6. Click "OK" to create playlist resource or "Cancel" to abort changes.
Length	Displays total length of library resources added to playlist.
Playlist	Displays filename and length of each library resource added to playlist.

Virtual Channel (VC) List Library Resources

Virtual Channel library resources allow you to use your Virtual Channel playlist files as scheduled programming. **Before** you can create a Virtual Channel library resource, you must first create one or more Virtual Channel playlist files in the UltraNEXUS-HD web

UltraNEXUS-HD Software Installation & Configuration

interface (see “Creating/Modifying Virtual Channel Playlists,” on page 330). Click the “Library” folder and then right click in the “Resource View” window and select “New.” Select “VC List” under “Format” in the “Properties” window and then edit the remaining properties described in Table 27, referring to Illustration 94 and Illustration 95 throughout.

Illustration 96, VC List Library Resource Properties

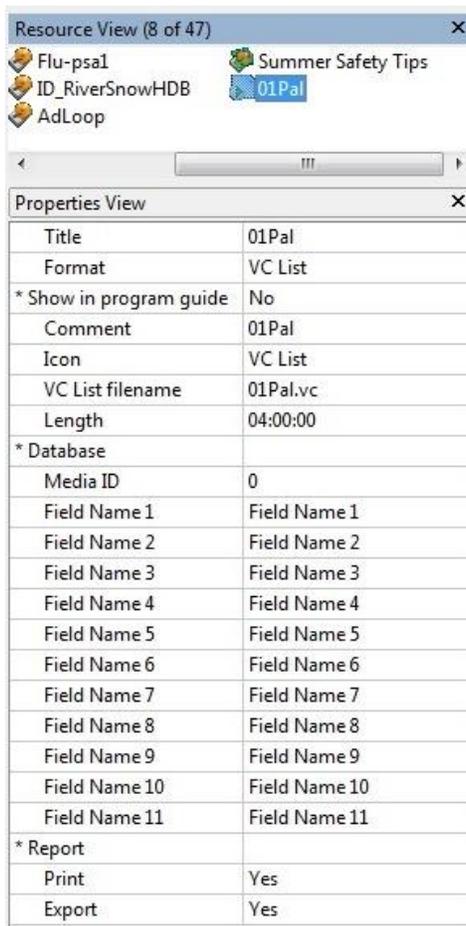


Table 28, Playlist Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select “VC List.”
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 150) and the web program guide (see “Viewing Web Program Guide,” on page 317).

FIELD	DESCRIPTION
Comment	Enter a unique and descriptive name with up to 31 characters to represent the resource on the onscreen and web program guides. The text entered in the “Title” field is automatically placed in the “Comment” field, but may be changed.
Icon	Select the desired icon to represent your library item. <ol style="list-style-type: none"> 1. Open the icon selection window by selecting the “Icon” field and clicking the button that appears. 2. Select the desired icon. 3. Double click icon or click “OK.” Click “Cancel” to abort selection.
VC List Filename	Click the ellipsis button to open the “Select Virtual Channel” popup window. Single click to select a Virtual Channel playlist file from the listing and click “OK” to add the file to your library resource’s properties or “Cancel” to abort.
Length	Defaults to the total length of all resources in the playlist, but may be changed to any length of time up to 23 hours:59 minutes:59 seconds. If a longer length is specified, the playlist will repeat in order, and if less, not all of the playlist resources will be displayed.
Media ID	If desired, assign a library tracking number.
Field Name 1–11	If desired, select the user-defined column field items that pertain to the new library item.
Print	Select “Yes” to enable all of the resource’s event records for printing. If “No” is selected, then you can enable printing as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Print” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow all of the resource’s event records to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function as follows: <ul style="list-style-type: none"> • Individual event records: select “Yes” in the “Export” field of each event properties window that appears during scheduling of the resource. • All of the resource’s event records: check the “Export/print all records” option under the “Export/Print Templates” window.

Exporting Library Resources

When you have finished creating your library resources, you have the option of exporting any MPEG library resource properties into resource files (.res) on your UltraNEXUS-HD system's USB and NAS storage devices. Resource files are useful for quickly importing library resource properties into a new NEXUS series image file and, if saved on a NAS storage device, are accessible to any NEXUS series server in your system. To export library resources into a resource file, perform the following:

- NOTES:**
- Only video library resource properties can be exported into a resource file.
 - Only the library resource properties are exported into a resource file. The video files remain in their current storage locations.

1. Right click on the "Library" configuration folder containing the library resources you wish to export and select "Export" from the pop-up menu (see Illustration 97) to display the "Export Video Resource" window (see Illustration 98). Resource files may only be exported on a folder by folder basis.

Illustration 97, Library "Export" Option

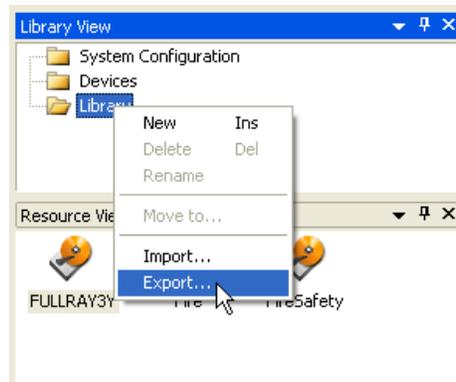
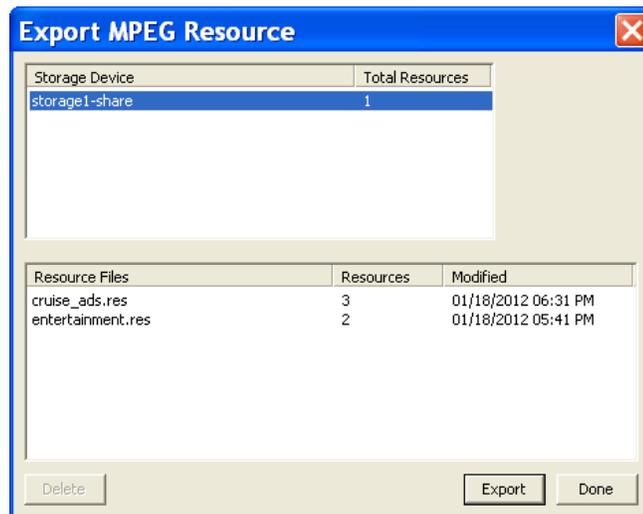


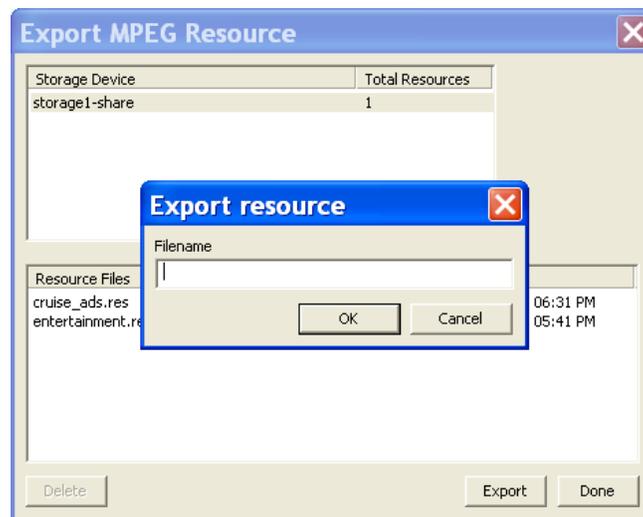
Illustration 98, "Export Video Resource" Window



UltraNEXUS-HD Software Installation & Configuration

2. If the selected library folder contains resources for MPEG videos on more than one USB or NAS device, you will see a list of storage devices at the top of the “Export MPEG Resource” window (see Illustration 98). Single click to select the storage device containing the MPEG files in the library resources you wish to export. To export all of your MPEG library resources, you will need to create a separate export file for each storage device.
3. If you wish to overwrite an existing resource file, single click to select the file in “Resource Files” listing. Click the “Export” button and, if saving a new resource file, enter an alphanumeric filename without spaces into the “Export resource” window (see Illustration 99). Click “Ok” to upload the file to the selected storage device or “Cancel” to abort.

Illustration 99, "Export Resource" Library Resource Filename



4. When the resource file has been uploaded to the selected NEXUS series USB or NAS storage device, click “Ok” when you are prompted.
5. If desired, repeat the steps in this section for each set of library resources in the folder referencing MPEG videos on your other storage devices.

Software Operation

About this Section

Introduced in the previous section, the tabs, icons, and menu items for the WinLGX schedule view will now be explained in greater detail. The first part of this section teaches you how to use the schedule view components to add events to your UltraNEXUS-HD image files for automated playback and recording. The system, device, and library (media) properties must be entered into the current image file before event scheduling can occur (see “Software Installation & Configuration,” starting on page 52, for instructions). To create a schedule, simply drag and drop your device and library icons onto the schedule view and then complete the corresponding event properties windows. This section also shows you how to use the WinLGX control panel for the times you wish to immediately perform switching and device control or start/stop a schedule.

At the end of this section, you will learn how to manage the storage of any digital videos on your UltraNEXUS-HD system’s internal and external storage areas. With the WinLGX “Storage Manager” window, you can delete, move, and copy digital video files between your local (PC) and remote storage areas.

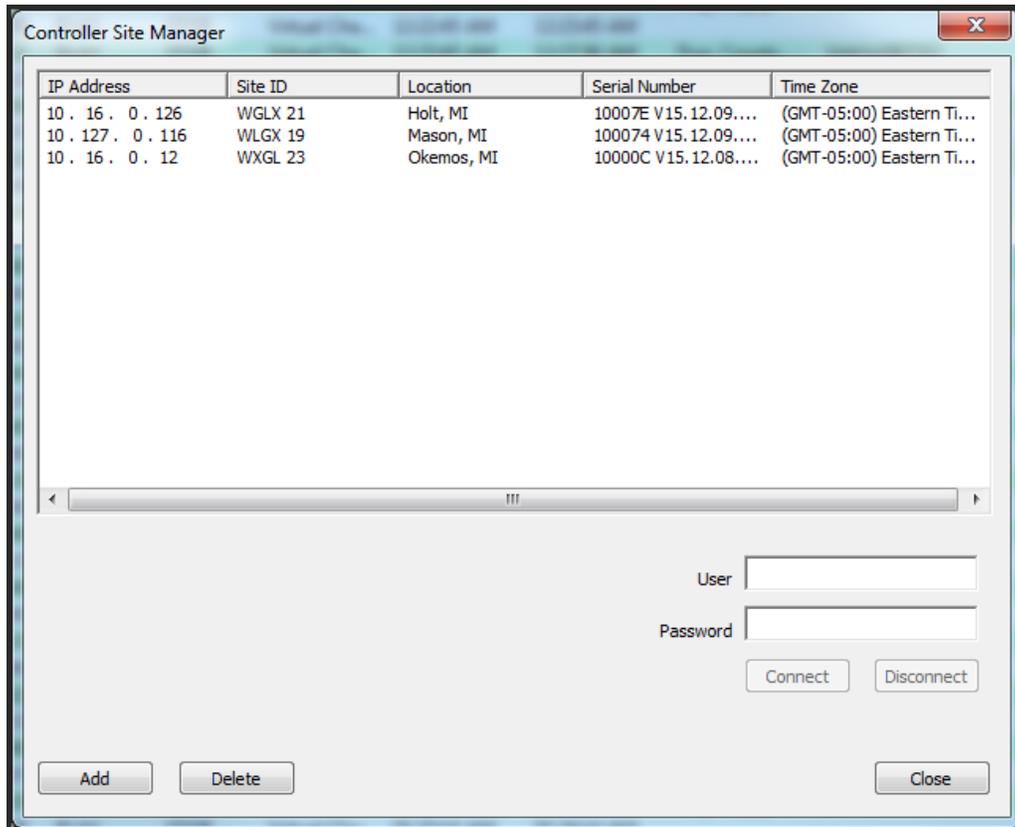
Performing General WinLGX Operations

Opening WinLGX and Connecting to an UltraNEXUS-HD Server

Double click the WinLGX desktop icon. The login window shown in Illustration 100 automatically appears when WinLGX is opened or when you click one of the following:

- Select “Site manager” in the “Tools” menu
- Click the  icon on the toolbar

Illustration 100, “Site Manager” Window



If desired, reorder your IP address listing. Clicking on any column header in the “Site Manager” sorts the associated information in ascending order, while clicking the header again sorts the list in descending order.

Connect as follows (see Illustration 100, “Site Manager” Window):

- NOTE:** The WinLGX title bar on the main window states whether or not you are connected.
- a. Select one or more IP addresses. You may select up to eight IP addresses by holding down your keyboard “Ctrl” key and clicking each address with the left mouse button.

- b. Log in with the username and password given to you by the UltraNEXUS-HD system administrator. To simultaneously log into multiple servers, all of the selected IP addresses must have the same username and password.

NOTE: Connect to multiple UltraNEXUS-HD servers with different usernames and passwords by logging in separately to each system.

If the username and password have not been changed from the factory defaults, enter the following:

UltraNEXUS-HD FACTORY-DEFAULT USERNAME AND PASSWORD
➤ “USER” FIELD: “ADMIN” IN LOWER-CASE LETTERS
➤ “PASSWORD” FIELD: THE LAST SIX DIGITS OF YOUR UltraNEXUS-HD SYSTEM’S SERIAL #
NOTE: ENTER ANY LETTERS IN UPPER CASE.

- NOTES:**
- Only letters and numbers may be used in your username and password.
 - Logins are case sensitive.
 - If the correct characters are not entered, an error message will be displayed.
 - An administrator can assign various degrees of rights to each username, so not all menu items or functions may be available to a user.
 - The last six digits of your UltraNEXUS-HD server’s serial number are viewable from the front panel (see “Configuring Front Panel Settings,” on page 42) and a sticker on the back of your UltraNEXUS-HD server.
- c. Click “Connect” or press “Enter” to connect to the chosen UltraNEXUS-HD server(s) and close the login dialog box. Once you are connected, a tab appears for each UltraNEXUS-HD server on the main window beneath the toolbar.
- d. If you logged into more than one UltraNEXUS-HD system, switch between the servers by clicking on the product tabs on the main window.

Displaying WinLGX Version Number

Select “About WinLGX” in the “Help” menu or click the  main toolbar icon to open a window with the WinLGX version number. Click on the window to close it.

Illustration 101, About WinLGX Window



Disconnecting from an UltraNEXUS-HD Server

To disconnect WinLGX from your UltraNEXUS-HD system, perform the following steps:

NOTE: The UltraNEXUS-HD system will continue to operate while disconnected from WinLGX.

Select “Site manager” in the “Tools” menu or click the  icon on the toolbar to open the “Site Manager” window shown in Illustration 100.

Select the UltraNEXUS-HD address(es) you would like to disconnect. If you want to disconnect from more than one address, hold down your keyboard “Ctrl” key and click on each address with the left mouse button.

Click the “Disconnect” button. A box will appear asking whether or not you would like to disconnect from the current UltraNEXUS-HD location(s). Click “Yes” to disconnect or “No” to remain connected.

Exiting WinLGX

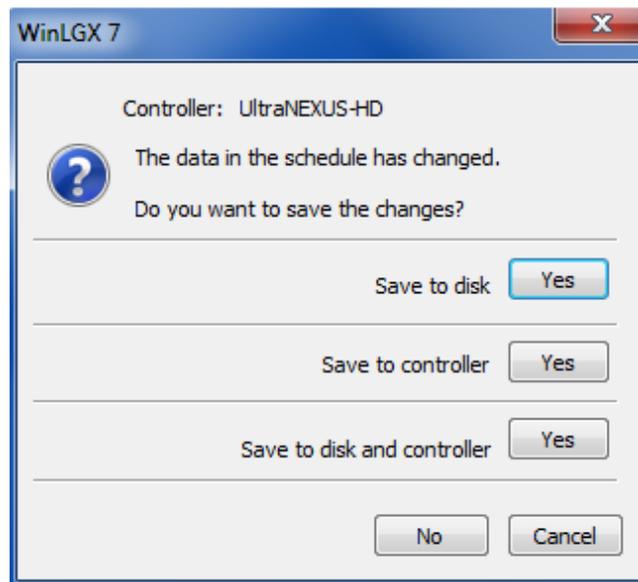
To disconnect from your UltraNEXUS-HD server(s) and close the WinLGX software, perform the following steps:

NOTE: The UltraNEXUS-HD server will continue to operate while disconnected from WinLGX.

Select “Exit” in the “File” menu or click the  in the upper right corner of the main window.

If an image file has not been saved for one of the connected UltraNEXUS-HD servers, the dialog box shown in Illustration 102 appears and asks if you want to save the changes. Select one of the following options:

Illustration 102, WinLGX Exit Dialog Box



UltraNEXUS-HD Software Operation

- **“Save to disk”**: click “Yes” to open the “Save As” window. Once you browse to the desired file path and save your changes (see “Saving UltraNEXUS-HD Image Files,” on page 171), WinLGX will automatically close.
- **“Save to controller”**: click “Yes” to send the image file to the UltraNEXUS-HD server. Once the send is complete, the server will contain and execute the schedule and WinLGX will automatically close.
- **“Save to disk and controller”**: click “Yes” to open the “Save As” window. Once you browse to the desired file path and save your changes (see “Sending UltraNEXUS-HD Image Files,” on page 231), WinLGX will send the image file to the UltraNEXUS-HD server. Once the send is complete, the UltraNEXUS-HD server will contain and execute the schedule and WinLGX will automatically close.
- Select “No” to discard any changes made since the last save and close WinLGX.
- Select “Cancel” to prevent WinLGX from closing and keep the current image file open.

Opening UltraNEXUS-HD Image Files

Each UltraNEXUS-HD image file (.nmg) holds your schedule events along with your system, device, and library resource properties. The “Configuring WinLGX” section, starting on page 63, describes how to define these configuration properties. The image file’s configuration properties must be entered into the current image file before event scheduling can occur.

NOTE: If you have not yet created an UltraNEXUS-HD image file, go to “Creating New UltraNEXUS-HD Image Files,” on page 62.

If an unsaved image is open in WinLGX when you attempt to open another image, a dialog box (see Illustration 102) appears and asks if you want to save the changes. Select one of the following options:

- **Save to disk**: click “Yes” to open the “Save As” window. Browse to the desired file path and save your changes (see “Saving UltraNEXUS-HD Image Files,” on page 171).
- **Save to controller**: click “Yes” to send the image file to your UltraNEXUS-HD system. Once the send is complete, the UltraNEXUS-HD system will contain and execute the schedule.
- **Save to disk and controller**: click “Yes” to open the “Save As” window. Once you browse to the desired file path and save your changes (see “Saving UltraNEXUS-HD Image Files,” on page 171), WinLGX will send the image file to the UltraNEXUS-HD system. Once the send is complete, the UltraNEXUS-HD system will contain and execute the schedule.
- Select “No” to discard any changes made since the last save and close WinLGX.
- Select “Cancel” to prevent WinLGX from closing and keep the current image file open.

Open an UltraNEXUS-HD image file according to one of the following subsections:

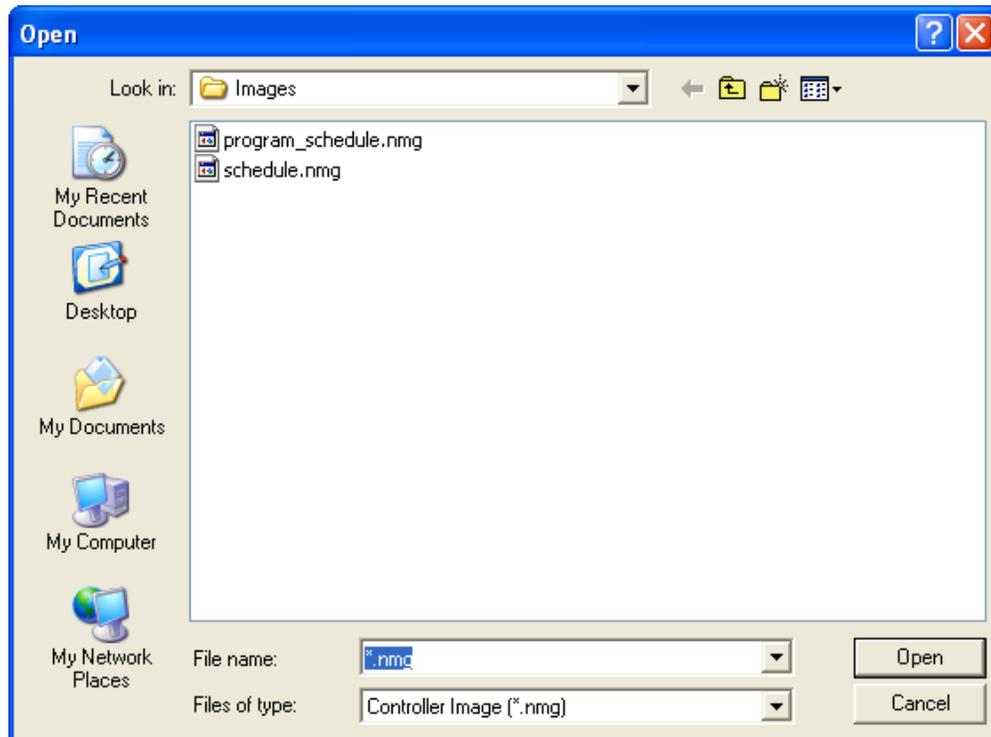
- “Opening a Saved Image File,” on page 167
- “Opening an Image File as New,” on page 168
- “Receiving Image Files from the Connected UltraNEXUS-HD Server(s),” on page 169
- “Associating UltraNEXUS-HD Image Files with WinLGX,” on page 170

Opening a Saved Image File

An image file contains any data that was entered and saved in the schedule and system, device, and library properties windows. Open a saved image file as follows:

Select “Open” in the “File” menu or click the  icon on the main toolbar to open the file selection window shown in Illustration 103.

Illustration 103, Open Image File Window



- NOTE:** If your image file was saved without the Virtual Channel feature enabled and the image file contains MPEG events scheduled on the first channel output tab, WinLGX will display a “schedule fixup” message.
- No external switcher configurations will be given the option to automatically enable the Virtual Channel feature and assign the video player to the first channel output tab.
 - External switcher users who would like to use the Virtual Channel feature must manually make the necessary image changes. Assign

UltraNEXUS-HD Software Operation

channel to the Video player, change existing MPEG events on the first channel output tab to display on the assigned MPEG player, and then enable the Virtual Channel feature.

Ensure the “Controller Image (*.nmg)” option has been selected in the “Files of type” field.

Select an image file folder from the “Look in” drop down box at the top of the window.

Single click a .nmg file to select it and click “Open” or double click the file. The image file data is then loaded into WinLGX.

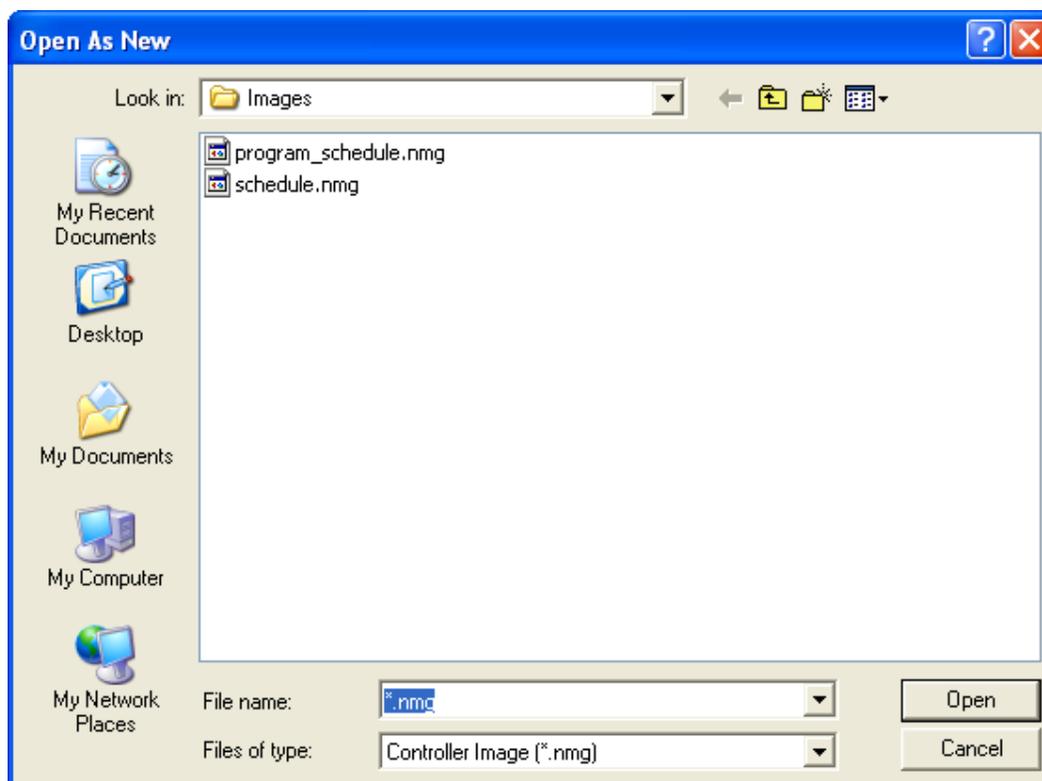
As you enter/edit your schedule events according to the “Scheduling Events” section starting on page 177, periodically save your settings in an image file as described in “Saving UltraNEXUS-HD Image Files,” on page 171.

Opening an Image File as New

Opening a previously saved image file as new causes WinLGX to load any system, device, and library configuration properties contained within the file. Any schedule events will not be imported.

Select “Open as new” in the “File” menu or click the  icon on the main toolbar to open the file selection window shown in Illustration 104, Open Image File as New Window.

Illustration 104, Open Image File as New Window



Ensure the “Controller Image (*.nmg)” option has been selected in the “Files of type” field.

Select an image file folder from the “Look in” drop down box at the top of the window. Single click a .nmg file to select it and click “Open” or double click the file. The image file data minus the schedule is then loaded into WinLGX as an unnamed file.

As you enter/edit your schedule events according to the “Scheduling Events” section starting on page 177, periodically save your settings in an image file as described in “Saving UltraNEXUS-HD Image Files,” on page 171.

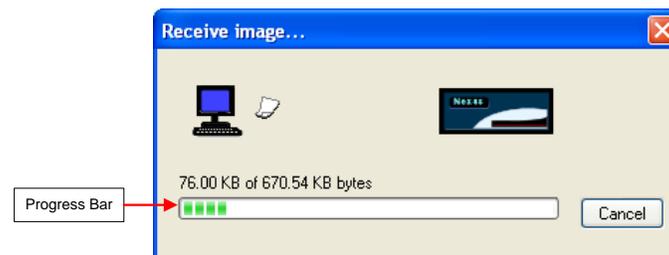
Receiving Image Files from the Connected UltraNEXUS-HD Server(s)

An image received from a connected UltraNEXUS-HD server contains any schedule events and system, device, and library properties last sent to the server.

Download the last image file sent to one or more of your UltraNEXUS-HD servers as follows:

- **One server:** ensure the server’s product tab is selected and choose “Receive” in the “File” menu or click its  icon on the main toolbar. A dialog box will ask whether you want to receive the image currently loaded on the connected UltraNEXUS-HD server. Click “Yes” to complete the receive and display the status box shown in Illustration 105.

Illustration 105, Image Status Window



- **Multiple servers:** from any of the product tabs, select “Receive all” in the “File” menu. Click “Yes” when prompted to download each connected server’s image file into WinLGX. You will see a status box like the one shown in Illustration 105 for each image file.

- NOTE:** If your image file was saved without the Virtual Channel feature enabled and the image file contains video events scheduled on the first output tab, WinLGX will display a “schedule fixup” message.
- **No external switcher configurations** will be given the option to automatically enable the Virtual Channel feature and assign the video player to the first channel output tab. Be aware that all events on the first channel output tab will then be changed to display on Video Player 1.
 - **External switcher users** who would like to use the Virtual Channel feature must manually make the necessary image changes. Assign channels to the MPEG players, change existing MPEG events on the first channel output tab to display on the MPEG player, and then enable the Virtual Channel feature.

UltraNEXUS-HD Software Operation

As you enter/edit your schedule events according to the “Scheduling Events” section starting on page 177, periodically save your settings in an image file as described in “Saving UltraNEXUS-HD Image Files,” on page 171.

Associating UltraNEXUS-HD Image Files with WinLGX

Associating an UltraNEXUS-HD image (.nmg) files with WinLGX enables you to double click on an image file and have it automatically open in WinLGX. Perform the following procedure:

1. Browse to an UltraNEXUS-HD image (.nmg) file.
2. Right click on the UltraNEXUS-HD image file and choose "Open with" or "Open."
3. Choose "Select the program from a list."
4. Browse to and choose the WinLGX executable file path.
5. Check the "Always use ..." checkbox and click "OK."

Saving UltraNEXUS-HD Image Files

Save a copy of your current image file to your PC or network through one of the following options:

- “Save” Option

If an UltraNEXUS-HD image has not been saved to your PC or network or has been modified, the “Save” option becomes enabled. Select “Save” from the “File” menu or click the  toolbar button.

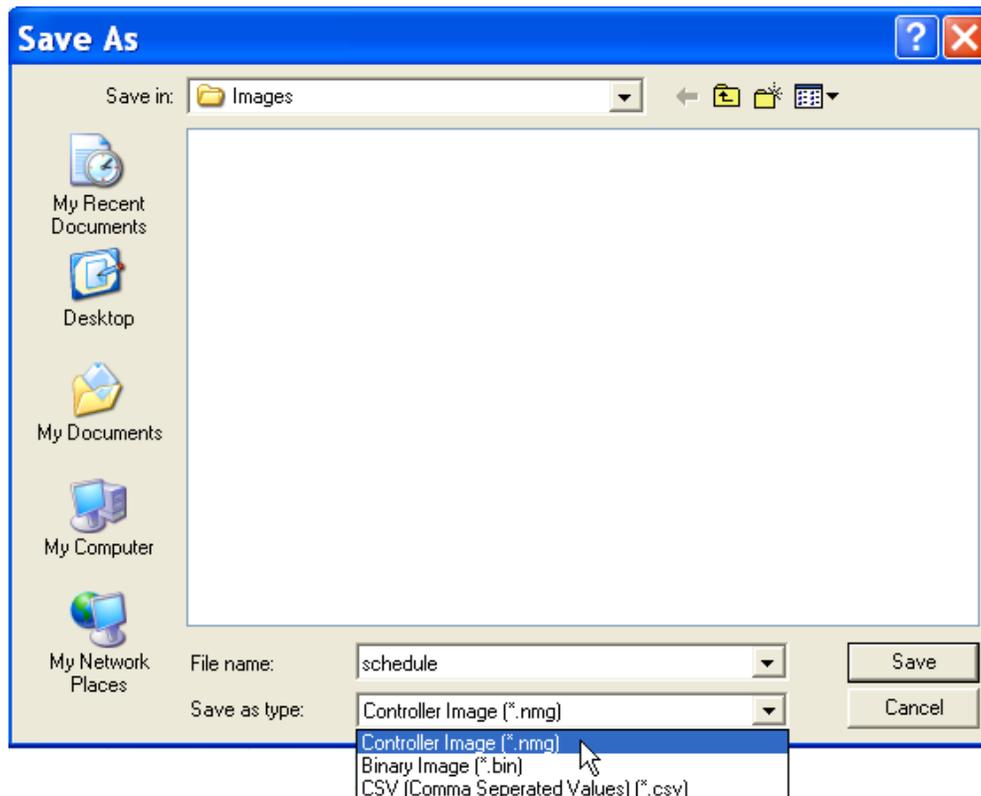
- If the UltraNEXUS-HD image already has a local filename, visible in the title bar (WinLGX – *filename.nmg*), the “Save” option saves the loaded image to that name without prompting, overwriting the old file.

- If the image does not have a local filename, “Save” opens the “Save as” box shown in Illustration 106, allowing a name and file path to be specified.

- “Save as” Option

The “Save as” option allows you to save an UltraNEXUS-HD image under a new filename. Select “Save as” in the “File” menu to open the window shown in Illustration 106, and perform the following steps:

Illustration 106, “Save As” Window



From the “Save in” drop down box at the top of the window, navigate to the folder where you want to save the UltraNEXUS-HD image file.

UltraNEXUS-HD Software Operation

Type a name for the image in the “File name” field.

If you plan to re-open this file in WinLGX, ensure the “Controller Image (*.nmg)” option has been selected in the “Save as type” field.

Click “Save” to save the image under the entered name or “Cancel” to abort the “Save as.” If you enter a name of a file that already exists, WinLGX will ask you if you want to overwrite it.

Importing Digital Video Library Resources

If your digital video library resource properties have been exported into one or more resource files (see step “Exporting Library Resources” on page 159 for information on exporting digital video library resource properties), simply upload the resources into your current UltraNEXUS-HD image file as follows:

Right click on the “Library” configuration folder you wish to import digital video library resources into and select “Import” from the pop-up menu (see Illustration 107) to display the “Import MPEG Resource” window (see Illustration 108). Resource files may only be imported on a folder by folder basis.

Illustration 107, Library "Import" Option

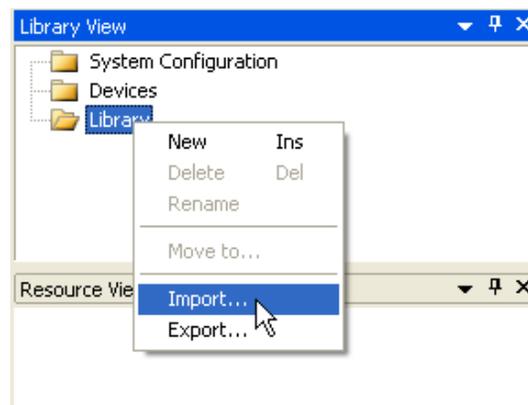
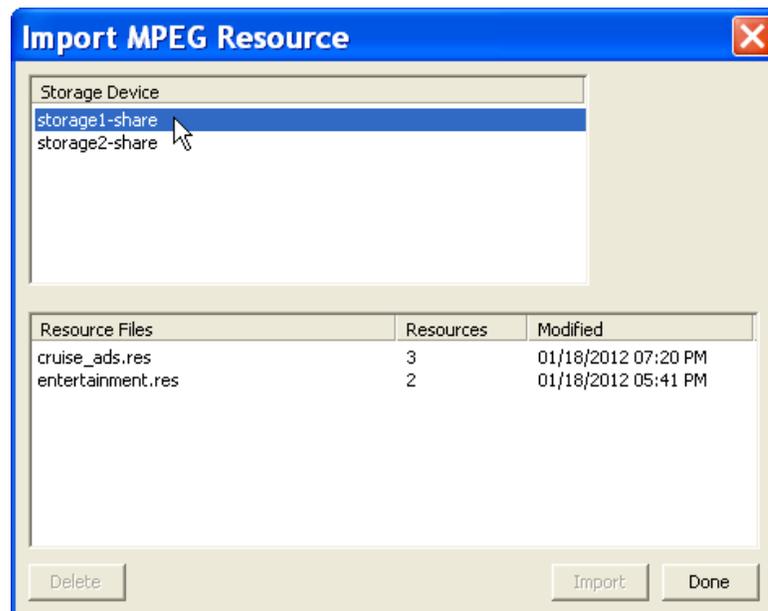


Illustration 108, "Import MPEG Resource" Window

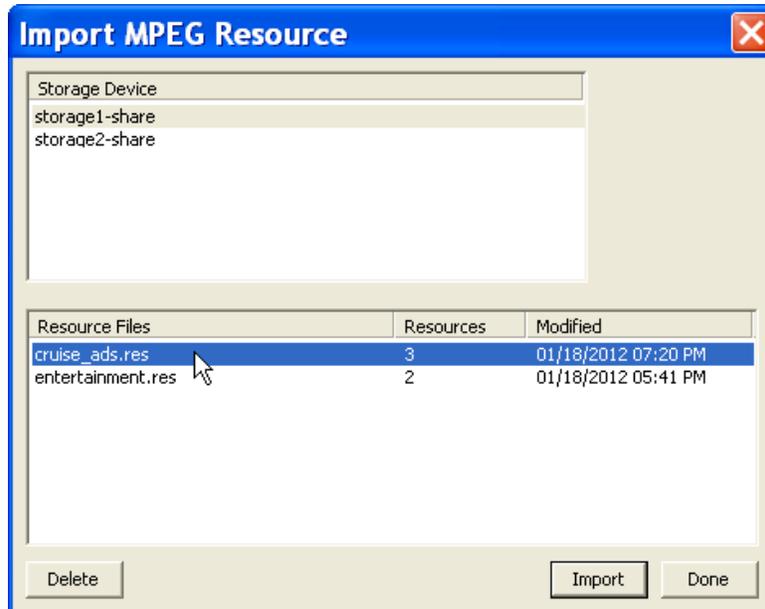


If more than one device is shown in the “Storage Device” listing on the “Import MPEG Resource” window (see Illustration 108, “Import MPEG Resource” Window), single click to select the storage device containing the resource files with the library resource properties you wish to import.

UltraNEXUS-HD Software Operation

If more than one resource file exists, single click to select the file with the library resources you wish to import (see Illustration 109).

Illustration 109, Selecting File on "Import MPEG Resource" Window



Click the "Import" button to start importing the resources or "Done" to cancel the operation and close the "Import MPEG Resource" window.

After clicking the "Import" button, click "Yes" when prompted to import the file's digital video library resource properties or "No" to abort.

When the digital video library resource properties have been imported, click "Ok" when you are prompted. The imported library resources will be shown in the "Resource View" (see Illustration 110 for an example).

Illustration 110, Imported Library Resources



Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX

WinLGX gives you the option to preview the digital video files on your remote (USB and/or NAS devices) and local (PC, network) storage areas through its instant video preview monitor window. Conveniently access the instant video preview monitor when you are scheduling a digital video device or library resource, choosing a digital video file for immediate display through the control panel, or using the Storage Manager window to manage your digital videos.

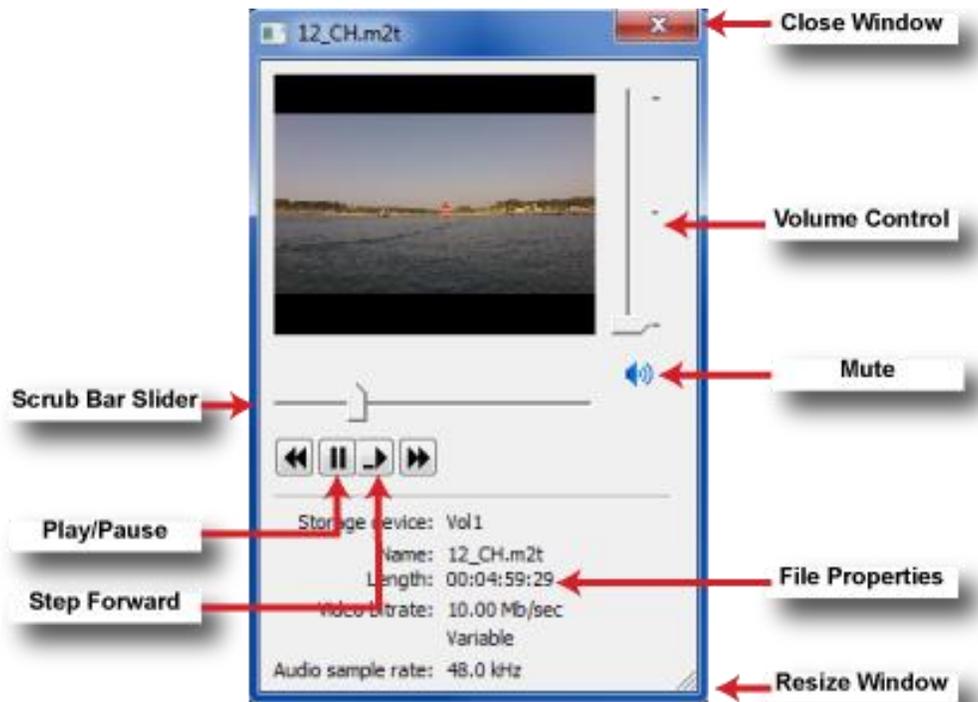
Access the instant video preview monitor (see Illustration 111) from any of the following:

- Storage Manager window
 - Double click a digital video file
 - Right click a digital video file and select “View” from the right-click menu
- “Select File” window (available when initiating playback from control panel, scheduling digital video device resources, and creating library resources):
 - Right click on digital video file
 - Single click an digital video file and click the “Properties” button
- Library Resource View Window
 - Double click a library resource
 - Right click a library resource and select “View Resource” from right-click menu

IMPORTANT! VLC media player must be installed on the computer running WinLGX if you wish to display digital video videos in the WinLGX preview monitor windows. If WinLGX states that it cannot find the VLC media player when you open a preview monitor window, first ensure that VLC player is installed on your computer. If VLC player is not installed, download the free program from the Internet. Once installation has been verified or completed, find your computer’s file path for the folder containing the VLC executable file (“vlc.exe”). Open the WinLGX “Preferences” window, select the “Preview Monitor” tab, and enter your file path into the “VLC Application Folder” field (for example, C:\Program Files\VideoLAN\VLC).

The instant video preview monitor includes controls for managing playback of the selected digital video file. Refer to the following for more information on each of the controls labeled in Illustration 111, Preview Monitor Controls:

Illustration 111, Preview Monitor Controls

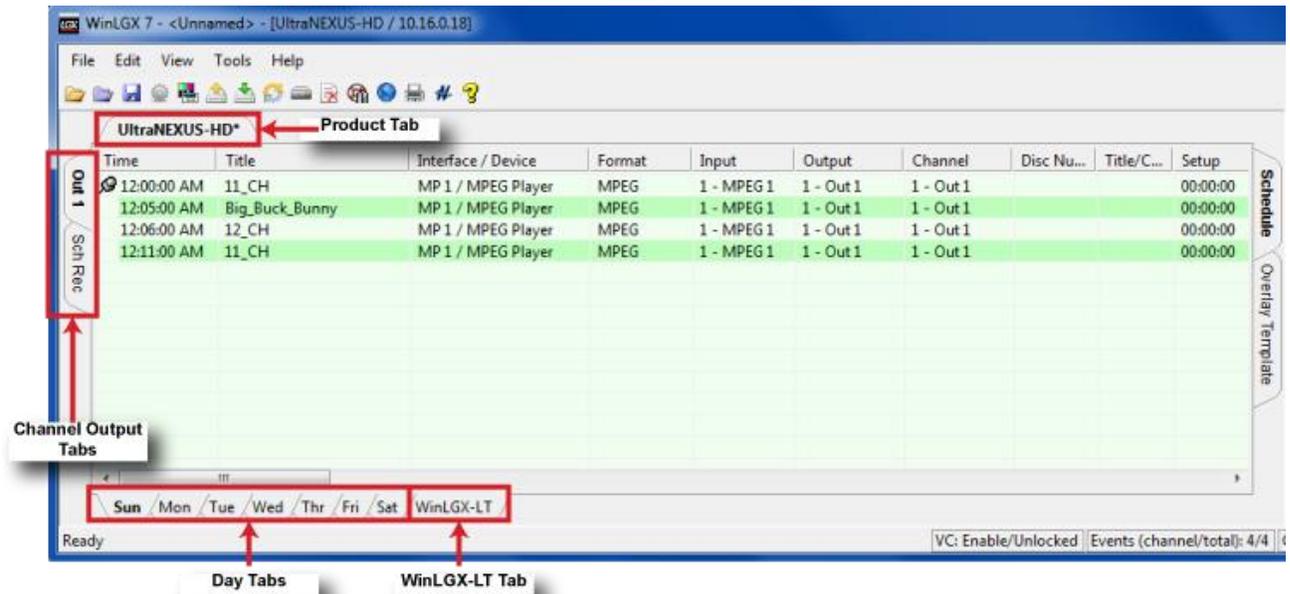


- **Scrub Bar Slider:** click and drag with your mouse pointer to go forward or backward in the video
- **Play/Pause Button:** click to toggle between pause and playback of the video
- **Step Forward Button:** moves the video one frame forward each time it is clicked
- **Close Window Red X Icon:** closes preview monitor window when clicked
- **Volume Control:** click and drag the volume control slider to adjust video's volume. The volume control defaults to no audio.
- **Mute Button:** click the mute button to toggle between silenced and restored audio.
- **File Properties:** provides the name, length, video bit rate, audio sample rate, and storage device of the selected digital video file
NOTE: The digital video file's properties are only displayed when the preview monitor is accessed from the "Select File" window.
- **Resize Window Control:** use to expand or shrink the size of the preview monitor window.

Scheduling Events

The “Schedule” window, shown in Illustration 112, with a sample schedule loaded, is where an event schedule is created.

Illustration 112, Schedule Window



About Schedule Window Components

Product Tabs

For each LEIGHTRONIX product you are logged into, a separate tab appears on the main window. Click on a tab to display the corresponding product view and then enter your scheduling information for the selected product.

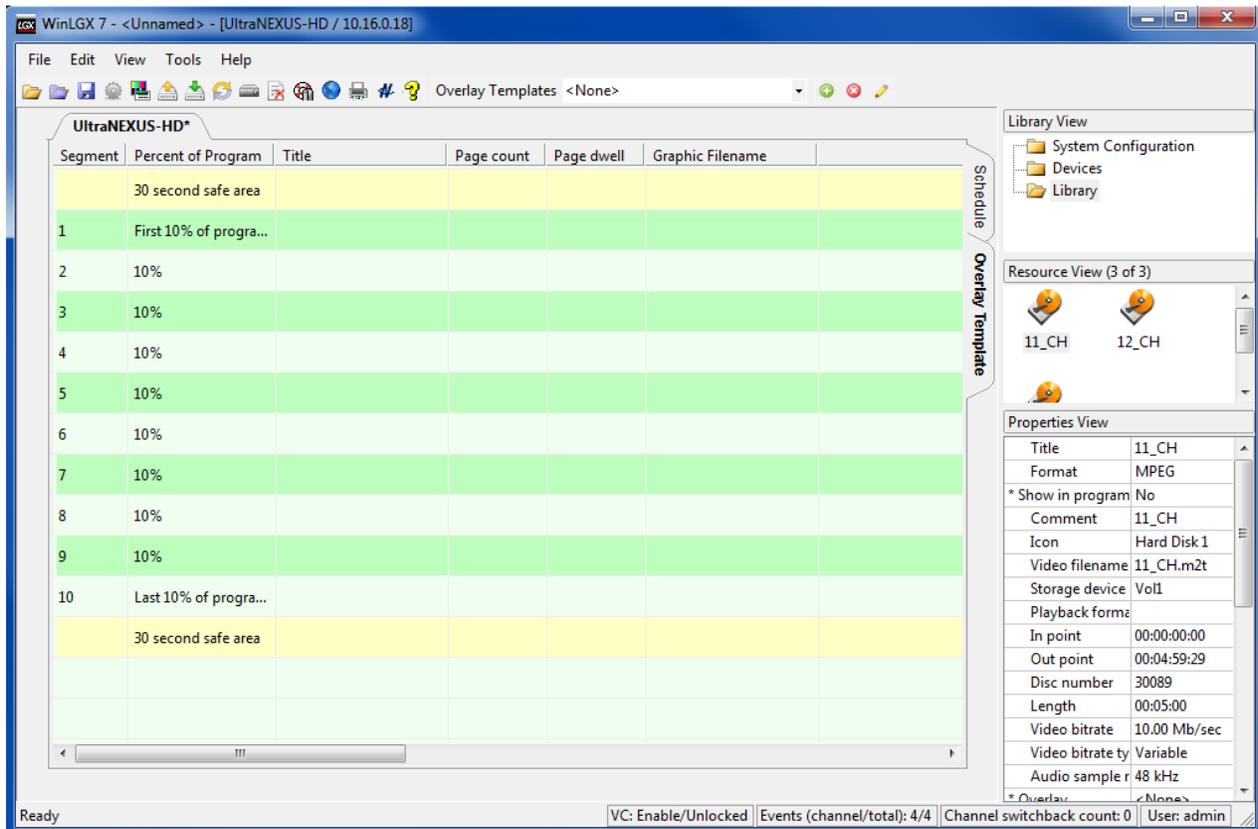
Schedule View

The schedule view window displays the channel output tabs, day tabs, WinLGX-LT tab, and schedule columns. Add (drag and drop) your events to this window.

Overlay Templates View

The “Overlay Templates” view displays the overlay template creation icons and the program segments available for your individual overlay resources. Use this window to create overlay templates for your digital media resources.

Illustration 113, "Overlay Templates" View in WinLGX



Channel Output Tabs

- Channel output tabs: use to schedule events that contain switches to the selected tab's assigned output.
NOTE: The number of outputs, labels, and channel/output assignments are entered in the “System Configuration View” (see “Configuring the Switch Type of an UltraNEXUS-HD,” on page 99). On external switchers, WinLGX only allows scheduling on up to 16 channel output tabs.
- No external switcher configurations: use “Sch Rec” tab to schedule record events on the HD/SD digital video Recorder.

Day Tabs

Day tabs are used to schedule events on specified days. The day tabs perform output and device conflict checking across all of the channel tabs, so that an output or a device can never have more than one event scheduled at the same time.

Each event contains all of the starting and ending actions for a program, and thus uses up a block of time for the length of the program. WinLGX orders these blocks vertically in the schedule window, one row per event, so that for a particular output on a particular day, you can see the day's 24 hours divided into programs.

- **Locked Events**

If an event is locked, it has a fixed time entered by the user. This allows it to be scheduled away from the end of the previous event or away from the beginning of the day. If this is done, a channel switchback is indicated between the events, or at the beginning of the day. Each channel switchback equals the length of time separating the preceding event from the next scheduled event. Channel switchbacks appear in a different color (yellow by default).

- **Unlocked Events**

An unlocked event's time is assigned by WinLGX to coincide with the ending time of the event above it. This time is not fixed and will be adjusted by WinLGX if events above the unlocked events are inserted, deleted, moved, or modified. If an added or edited event's time or length causes it to overlap an unlocked event, the unlocked event will move downward in the schedule if it can.

NOTE: If adding, editing, or deleting an event causes two events to conflict, an error message appears. If the added/edited event is one of the conflicting events, the event it conflicts with is listed, the error is described, and the outcome is given. If the added/edited/deleted event is not one of the conflicting events, the two conflicting events are listed, the error is described, and the outcome is given. Use this information to correct the conflict.

WinLGX-LT Tab

The WinLGX-LT tab (see Illustration 112, Schedule Window) has its own date/day and time entry and does not assign blocks of time in a linear fashion like the day tabs.

NOTE: To display the WinLGX-LT tab on the bottom of your schedule window, select the “Show WinLGX-LT tab in the schedule window” option on the “Application” tab of the Tools\Preferences window.

The WinLGX-LT tab is useful in the following situations:

NOTE: The WinLGX-LT tab does not prevent two events from occupying the same time.

- **External Switcher Configuration Only:** schedule device or library resources attached to external switcher outputs outside the range of the 16 channel output tabs.
- When you would like to use the same event on multiple days, schedule the event on the WinLGX-LT tab once and avoid having to recreate or copy the event on multiple day tabs.
- If you would like to create a schedule that encompasses more than the next seven days, use the WinLGX-LT tab and schedule according to date.
- Schedule a device-only event without a switch on the WinLGX-LT tab to test a device-only event action before sending it to the destination or to perform nonplayback events such as recording.

Channel and Day/WinLGX-LT Tab Configurations

Each pair of channel and day tabs displays its own event window. In addition, the WinLGX-LT tab displays a single event window, regardless of the channel. Selecting one of the channel output tabs merely causes its output to be the default when adding an event, with the ability to select a different output. The channel output tabs will appear as follows based on the switcher configuration (see Table 29, Channel Output Tabs and Available Event Windows).

NOTE: On an UltraNEXUS-HD server without an external switcher, Output 2, labeled as “Sch Rec,” is automatically assigned to the internal digital video Recorder. For external switcher configurations, the highest numbered channel output tab is automatically assigned to the internal digital video recorder.

Table 29, Channel Output Tabs and Available Event Windows

SWITCHER	CHANNEL OUTPUT TABS	# OF EVENT WINDOWS
No switcher	Output 1, Sch Rec	15 event windows (2 channels x 7 days + 1 WinLGX-LT tab)
External 4 Output Switcher	Output 1–Output 4	29 event windows (4 channels x 7 days + 1 WinLGX-LT tab)
External 16 Output Switcher	Output 1–Output 16	113 event windows (16 channels x 7 days + 1 WinLGX-LT tab)

Schedule Columns

The schedule window columns display the events’ fields, giving all the information and actions of the event. When the schedule window contains an event, the columns can be moved and resized by dragging the headers and header boundaries. A horizontal scroll bar at the bottom of the window is used to view all of the columns. For a listing of the fields, see Table 30, Schedule Columns.

Table 30, Schedule Columns

FIELD	DESCRIPTION
Time	Program’s scheduled time: reflects time of any initial switch and the beginning of the program time block. If the event time is fixed (locked), this field will also contain a thumbtack symbol  .
Title	Name of the event. The title may be assigned in the resource’s “Title” field either when the resource is configured or when it is added to the schedule. If the event consists of a channel switchback, the field shows which user-configured input or video source switchback will be displayed during the unscheduled time slot.
Interface/ Device	N/A

UltraNEXUS-HD
Software Operation

FIELD	DESCRIPTION
Format	Format selected for the device or library resource in the “Properties” window.
Input	Number and name of the device or switch input that will be taken to the output at the scheduled time (shown in “Time” field).
Output	Number and name of the output the initial input switches to at the schedule time (shown in “Time” field).
Channel	Number and name of the channel in which the event resides.
Title/Chap	N/A
Setup	Time the device takes to produce video and/or sound after receiving a PLAY command.
Preroll	Indicates amount of unwanted video (black, etc.) at the beginning of the program.
In point	If assigned, indicates an digital video’s playback starting point
Out point	If assigned, indicates an digital video’s playback ending point
Length	Length of the program block and the time between initial and ending switches, if any. WinLGX subtracts “End” from “Time” to obtain the “Length” value.
Reset	Time the device is busy and unavailable for scheduling after the end of the block (“End”), usually due to rewind time.
Start CMD	Device command that occurs initially at “Start.”
End CMD	Device command that occurs at “End” (usually “Stop” or “Rewind”).
Switchback	Indicates the input that is switched to the event’s channel output following the “End” command. Back to back scheduled events have the “End” time of the first event equal to the “Time” of the second event. This puts the first event’s switchback at the same time as the second event’s initial switch. If this occurs, the UltraNEXUS-HD system cancels the switchback.
Start	Indicates time of the initial device command. WinLGX subtracts “Setup” plus “Preroll” from “Time” to obtain the “Start” value, which is the start time of the device command. “Start” is not included in the time block used for vertical positioning within the schedule. The time progression is as follows: <ol style="list-style-type: none"> 1. At the time shown in the “Start” field, a PLAY command is issued. 2. The event waits for “Setup” and “Preroll” to complete before performing the initial switch.
End	Indicates end of the program block, end time of the device command, and switchback, if any. WinLGX adds “Length” to “Time” to obtain “End” value.

FIELD	DESCRIPTION
Filename (1)	Displays the filename of the chosen digital video file.
Storage Device (1)	Indicates the storage device of the chosen digital video file.
Record Preset	Displays the title of the selected record preset for a digital video recording event.
Overwrite	Displays the selected file overwrite option for a digital video recording event.
Record CC data	Indicates whether or not a digital video recording event will capture any closed caption data from the source.
Filename (2)	N/A
Storage Device (2)	N/A
Audio Input	N/A
Print	Determines if the event will be included in a print operation.
Export	Determines if the event will be included in an export operation.
Overlay	N/A
Show in program guide	Indicates whether or not an event will be shown on the web program guide
Comment	Used to enter an event comment up to 31 characters.
Media ID	Assigned by user as a library tracking number.
Field Name (1–11)	Schedule column headings that may be assigned by user.

Scheduling/Editing/Deleting All Events

Scheduling an Event on a Day/Channel Output Event Window

Select a scheduling event window as follows:

- a. Click the desired day tab to select the day you want the event to occur.
- b. Select one of the following channel tabs:
 - **Digital video recording events only:** select the “Sch Rec” tab for UltraNEXUS-HD servers without an external switcher or the channel output tab assigned to the digital video recorder in an external switcher configuration (see “Editing Internal Digital Video Playback and Recording Device Resources,” on page 111 for more information on configuring channel output tabs).
 - Channel output tab

Drag an icon from the “Device” or “Library” “Resource View” into the selected event window. This opens an “Event properties” box with editable event information like the one shown in Illustration 114, Day/Channel Output Event Properties Box.

Illustration 114, Day/Channel Output Event Properties Box



To add or change the event information, click on each of the desired editable fields (described on pages 193–228) and enter the new information. An icon can be dragged and dropped into a day/channel output event window in the following five ways:

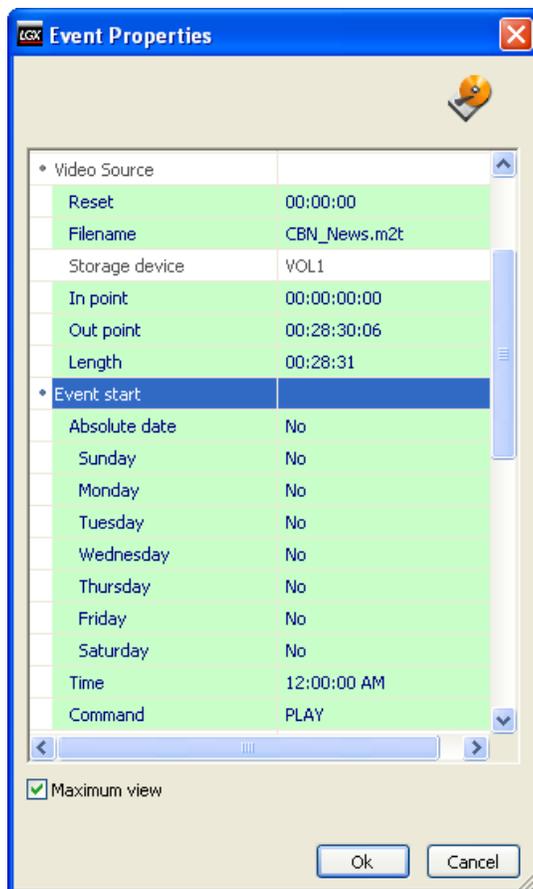
- Empty Window—the event is locked and given the initial time of 12:00 A.M. (Unless a previous day’s event overlaps midnight, in which case, its “End” time is used.)
- Initial Channel Switchback—if an event is dragged onto a channel switchback at the start of the day (1st row), it is locked and given the initial time of 12:00 A.M. (Unless a previous day’s event overlaps midnight, in which case, its “End” time is used.)
- Any Other Channel Switchback—the event is initially unlocked, with a time equal to the “End” time of the previous event.
- On Top of an Unlocked Event—the new event is initially unlocked and given the time of the event on which it was dragged. The existing event is pushed downward and out of the way if possible. If not, an error box appears. Dragging an icon on top of a locked event instantly generates an error.
- Below the Bottom Event—the event is initially unlocked, with a time equal to the “End” time of the previous event.

Scheduling an Event on the WinLGX-LT Event Window

NOTE: To display the WinLGX-LT tab on the bottom of your schedule window, select the “Show WinLGX-LT tab in the schedule window” option on the “Application” tab of the Tools\Preferences window.

1. Click the “WinLGX-LT” tab to open the corresponding event window.
2. Drag an icon from the “Device” or “Library” “Resource View” onto the WinLGX-LT event window. This opens an event properties box like the one shown in Illustration 115, WinLGX-LT Event Properties Box.

Illustration 115, WinLGX-LT Event Properties Box



3. To add or change the event information, click on each of the desired editable fields (described on pages 193–212) and enter the new information. The WinLGX-LT event properties box is the same as the event edit box displayed for the day/channel output event windows with the following exceptions.
 - There is no Lock/Unlock checkbox; you must enter a time for each event.
 - If an output assignment is desired, the output must be selected from the “Output” field drop down menu.
 - A date and/or day(s) must be selected as follows:

NOTE: If a date is selected, the event happens on that date. If days are selected, the event happens on those days. If both are selected, the event happens on the selected date and days.

- c. To select a date, change “Absolute date” to “Yes.” A date field appears below to allow date entry.
 - d. To enter a day, change the desired day field(s) to “Yes.” These fields can be toggled quickly by double clicking on the day name.
4. If desired, you may edit the properties of a device or library resource and then apply those changes to any events added to the WinLGX-LT event window by performing the following steps:
- a. Select the desired device or library resource icon.
 - b. Click on the desired editable resource fields in the “Properties” window and make the changes.
 - c. WinLGX displays a dialog box that gives you the option to merge the resource editing changes into each event in the WinLGX-LT event window that was created from the same resource.

Copying/Cutting/Pasting an Event

To move or replicate an event or group of events to another location on the schedule, perform the following steps:

1. Select the desired event(s) using one of the following options:
 - Highlight an individual event.
 - Hold down your keyboard’s “Ctrl” key and highlight multiple events.
 - Highlight all events on an event window by selecting “Select All” from the “Edit” menu or the right-click menu or simultaneously pressing your keyboard’s “Ctrl” and “A” keys.
2. Copy, cut (if you wish to move event), and paste by selecting the function you wish to perform from either the “Edit” menu or the right-click pop-up menu.
3. In the “Event Properties” box that appears once the paste has been completed, click “Ok” if one event was pasted or “Ok to all” if more than one event was pasted.

NOTE: If the event(s) is pasted channel switchback of a shorter duration than the event(s) itself, WinLGX will display a dialog asking whether or not you would like to trim/discard the ending playlist items to fit the channel switchback or cancel the operation.

Editing an Event

To edit an event in the schedule, double click event, right click event and choose “Edit” in the right-click menu, or select “Edit” from the “Edit” menu. Edit the event information in the “Event properties” box that appears. To add or change the event information, click on each of the desired editable fields (described on pages 193–212) and enter the new information.

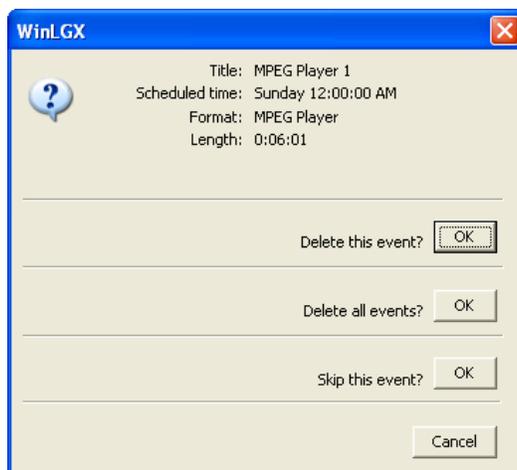
Deleting an Event

If the first event in the schedule window is deleted, the next event is locked in place, if necessary. If any other event is deleted, any unlocked events immediately below it will float up until they rest against the event above (unless this causes a device conflict, in which case the first unlocked event will be locked in place).

To delete an event(s), perform the following steps:

1. Select the desired event(s) using one of the following options:
 - Highlight an individual event.
 - Hold down your keyboard’s “Ctrl” key and highlight multiple events.
 - Highlight all events on an event window by selecting “Select All” from the “Edit” menu or the right-click menu or simultaneously pressing your keyboard’s “Ctrl” and “A” keys.
2. Press the “Delete” key, right click event and choose “Delete” in the right-click menu, or select “Delete” from the “Edit” menu. You will be prompted for confirmation before the event is deleted. If you selected multiple events, one of the following dialog boxes is displayed:
 - If you selected a **list of events that includes non-playlist events**, the dialog shown in Illustration 116 appears. Perform one of the following options:

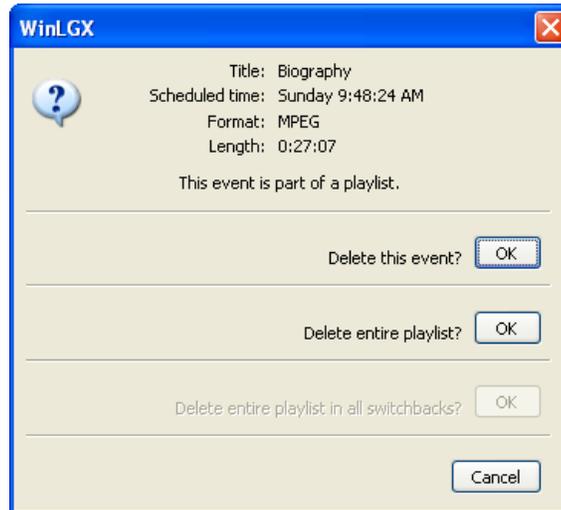
Illustration 116, Delete Dialog Box



- **“Delete this event?”**: click “OK” to delete the current selection in a list of selected events.
- **“Delete all events?”**: click “OK” to simultaneously delete all of the selected events.

- “Skip this event?”: click “OK” to keep the current selection in a list of selected events.
- If you only selected a **playlist of events**, the dialog shown in Illustration 117 appears. Perform one of the following options:

Illustration 117, Playlist Delete Dialog Box



- “Delete this event?”: click “OK” to delete the current selection in the playlist.
- “Delete entire playlist?”: click “OK” to simultaneously delete the entire playlist.
- “Delete entire playlist in all switchbacks?”: this option will be enabled if the selected playlist was added to a channel switchback between programs. Click “OK” to simultaneously delete all instances of the playlist from the selected channel output’s switchbacks.

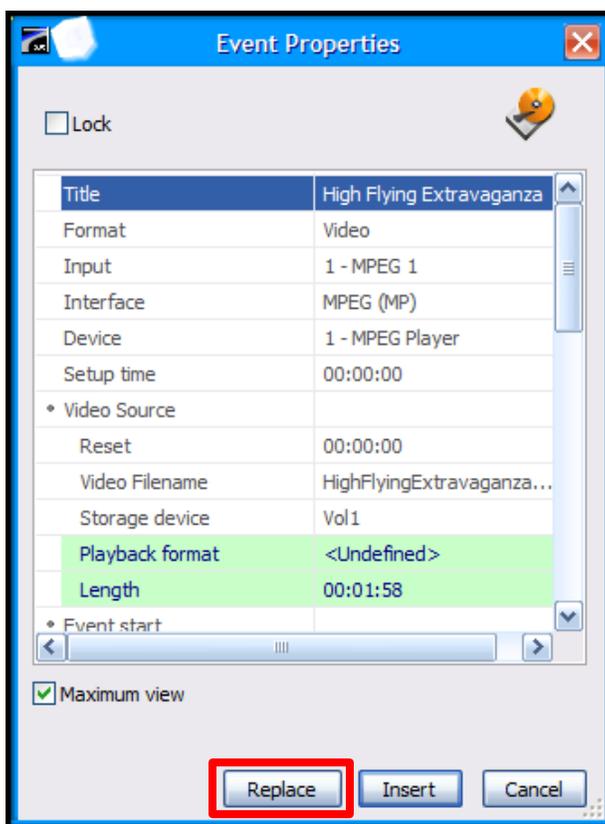
Replacing Library Resource Events

UltraNEXUS-HD Software Operation

By performing the following steps, you can replace one or more schedule events created with the same library resource with any library resource *of the same format*:

1. If you would like to change your library resource before using it to replace event(s), select the library resource in the “Resource View” window and then edit its resource properties.
2. Drag a library resource onto a same-format library resource event you would like to replace. The event properties window for the library resource will open, displaying a “Replace” button on the bottom of the window (see Illustration 118).

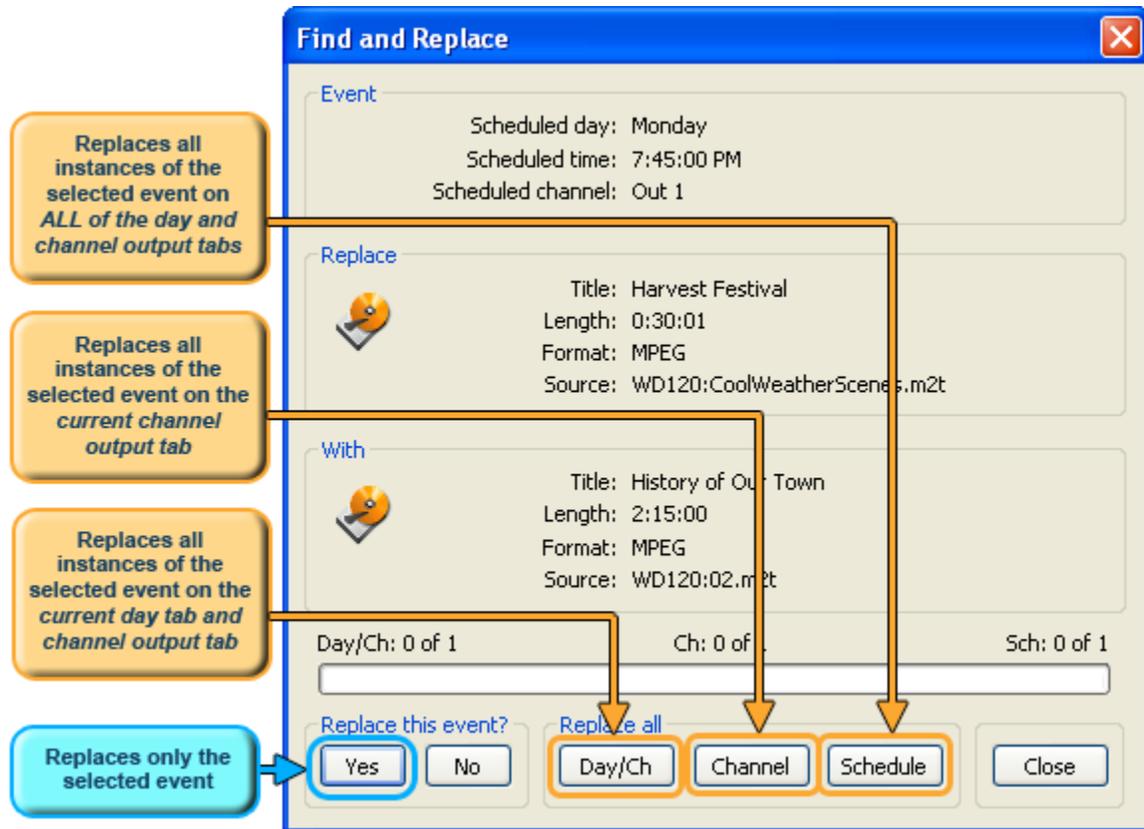
Illustration 118, "Replace" Button on Event Properties Window



3. If desired, edit the properties of the library resource.
4. Click the “Replace” button to open the “Find and Replace” window shown in Illustration 119. This window gives you a variety of options for replacing the selected event or all schedule events like the selected one with the dragged library resource.
5. To make a replacement, click one of the replacement buttons on the bottom of the “Find and Replace” window. The replacement buttons are described in Illustration 119.

NOTE: If your library resource is too long for the schedule time slot, you will be given the option to trim the resource to fit or cancel the replacement.

Illustration 119, "Find and Replace" Window



If you plan to replace multiple instances of the selected event, pay attention to the indicators above the replacement buttons on the "Find and Replace" window. The indicators give a quick overview of how many instances of the selected event exist throughout your schedule. Here is a quick description of each indicator:

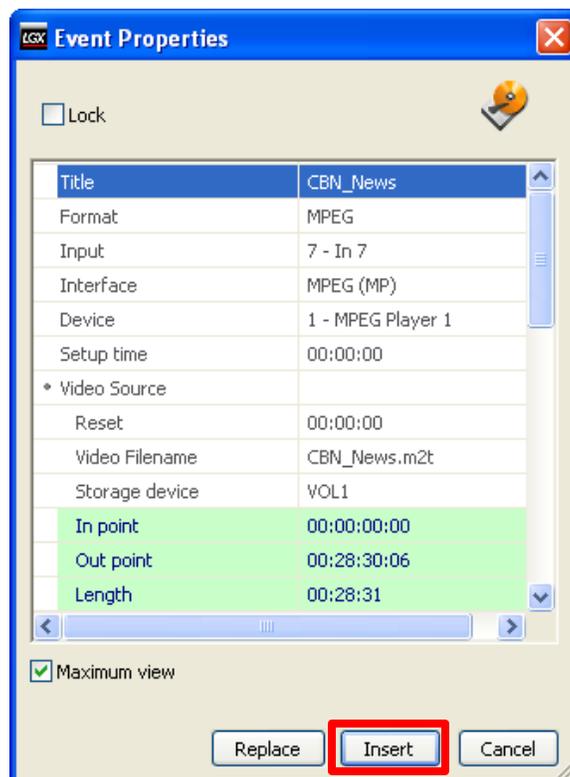
- "Day/Ch: x of **x**:" the second "**x**" indicates how many instances of the selected library resource event exist on the current day tab and channel output tab window, while the first "**x**" shows how many of the events have been replaced on the same window
- "Ch: x of **x**:" the second "**x**" indicates how many instances of the selected library resource event exist on the current channel output tab windows, while the first "**x**" shows how many of the events have been replaced on the same windows
- "Sch: x of **x**:" the second "**x**" indicates how many instances of the selected library resource event exist on **all** of the day and channel output tab windows, while the first "**x**" shows how many of the events have been replaced on the same windows

Inserting Library Resource Events

By performing the following steps, you can insert a library resource into the time slot of an unlocked library resource event *of the same format*. The inserted event will take the start time of the event onto which it was dragged. Unlocked events below the inserted event will be automatically pushed downward in the schedule by an amount of time equal to the length of the inserted event.

- If there are locked events above and/or below the selected event, the desired time slot may not be long enough to accommodate the dragged library resource.
 - If there is not a channel switchback between the selected event and a locked event, the “Insert” button will be unavailable on the resource’s “Event Properties” window.
 - If there is a short channel switchback between the selected event and a locked event, you will be given the option of trimming the resource to fit the available time slot or cancelling the insert.
1. If you would like to change your library resource before inserting it in your schedule, select it in the “Resource View” window and then edit its resource properties.
 2. Drag a library resource onto an unlocked library resource event of the same format. The event properties window for the library resource will open. If there is enough time available to accommodate the new resource’s length, an “Insert” button will be displayed on the bottom of the window (see Illustration 120).

Illustration 120, "Insert" Button on Event Properties Window



3. If desired, edit the properties of the library resource.
4. Click the “Insert” button to assign the selected event’s start time to the dragged library resource event. All unlocked events below the inserted event will shift downward in the schedule by an amount of time equal to the length of the inserted event.

Scheduling/Editing Device Resources

Adding or editing device resource events opens windows like the examples shown in this section. Editable event fields are highlighted in each event properties window. Click “OK” to submit the event or “Cancel” to abort the add/edit.

Switch Device Resources—External Switcher Configurations Only

Dragging an external switch device resource onto the schedule reveals a box in Illustration 121, Switch Device Event Properties Window. Refer to Table 31, Editable Switch Device Event Properties, for a description of the editable event properties.

Illustration 121, Switch Device Event Properties Window

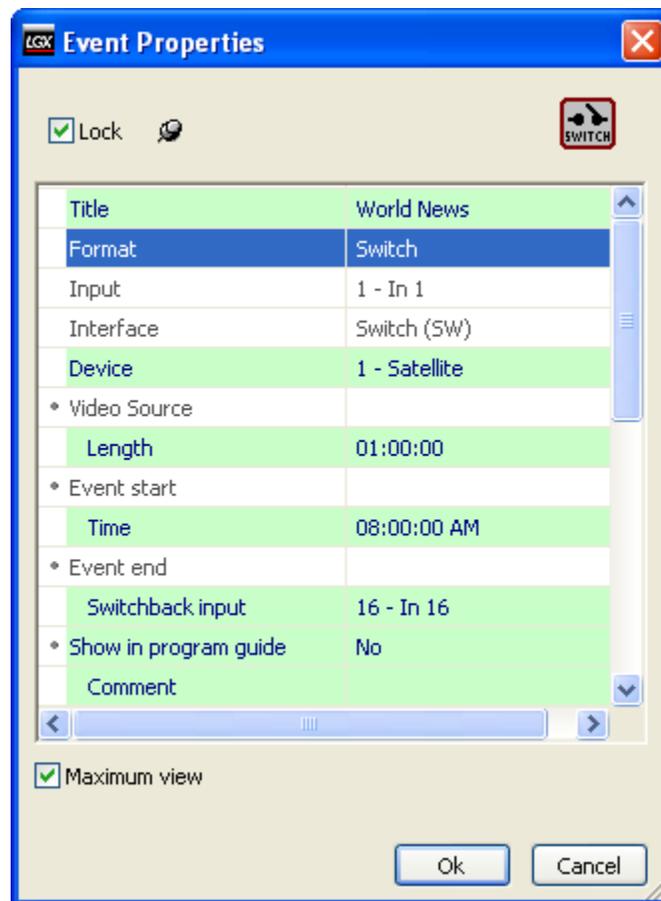


Table 31, Editable Switch Device Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Title	Allows a name up to 31 characters to be typed.
Device	Ensure you have selected the device you wish to schedule.
Length	Enter duration of the event.
Time	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on the web program guide (see “Viewing Web Program Guide,” on page 317). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.

Internal Digital Video Player Device Resources

Dragging an UltraNEXUS-HD digital video player device resource onto the schedule reveals the window shown in Illustration 122, Digital Video Player Event Properties Window. Refer to Table 32, Editable Digital Video Player Event Properties, for a description of the editable event properties.

NOTE: The digital video player may only be scheduled on its assigned playback channel (see “Editing Internal Digital Video Playback and Recording Device Resources,” on page 111, for more information on digital video playback channel assignments).

Illustration 122, Digital Video Player Event Properties Window

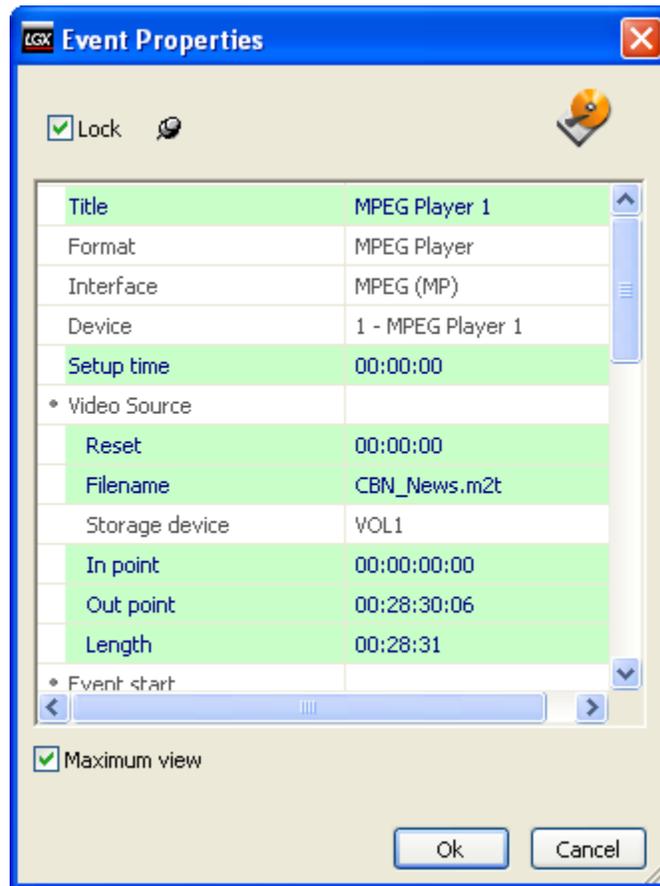
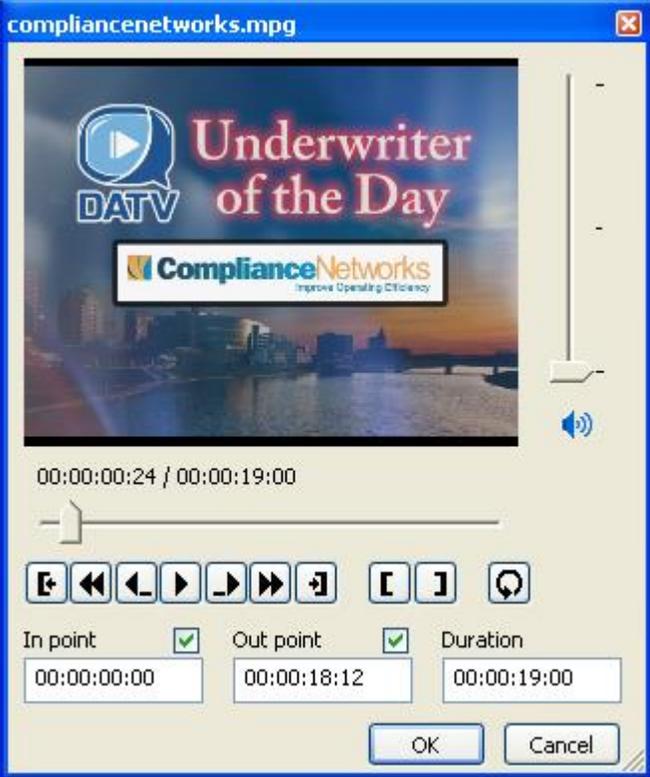


Table 32, Editable Digital Video Player Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.

FIELD	DESCRIPTION
Title	Allows a name with up to 31 characters to be typed.
Device	The digital video player.
Setup time	If desired, indicate how long after the digital video player is activated that picture and/or sound is produced.
Reset	If desired, enter time the digital video player will be busy and unavailable for scheduling after the end of the program.
Filename	<p>Use the “Filename” field to select the appropriate filename for the source as follows:</p> <ol style="list-style-type: none"> 1. Select the “Filename” field. Click the ellipsis button to open the “Select File” window. 2. Select a USB drive from the “Storage device” drop down list to display the drive’s stored digital video files. 3. Perform one of the following: <ul style="list-style-type: none"> • Enter a filename for a file that will be recorded and played within the same schedule: <p>NOTE: The digital video recording library resource is scheduled for recording through the MPEG device resource. Refer to “Internal Broadcast MPEG Recorder Device Resources” on page 200 for further instructions.</p> <ol style="list-style-type: none"> a. Type a filename in the “Name” field. b. In the “Length” field, enter the record time for the file. c. From the “Select file” dialog, click “OK” to accept filename or “Cancel” to abort. • Select the filename of a pre-recorded file through one of the following methods listed below. To display a file’s properties and view the clip before completing the selection, either right click on the file or click “Properties” to display the instant video preview monitor. For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175. <ul style="list-style-type: none"> ○ Double-click the desired file to automatically accept selection and close the “Select file” window. ○ Click to select the desired file. From the “Select file” dialog, click “OK” to accept selection or “Cancel” to abort.
In/Out point (in HH:MM:SS:F	To specify where in the selected file you would like playback to begin and end, use the “In point” and “Out point” fields. Either type the desired file start and end times into the fields or click either field’s ellipsis button to

FIELD	DESCRIPTION
<p>F, where FF=frames)</p>	<p>open the clip editor.</p> <p><u>Software Monitor</u></p> <p>The WinLGX video clip editor combines clip editing controls with a preview window for quick and convenient clip editing that does not interrupt programming playback on your UltraNEXUS-HD server's video player. To use this option, ensure the "Software Monitor" option is selected on the "Preview Monitor" tab in the "Preferences" window.</p> <p><i>Illustration 123, WinLGX Video Clip Editor with Preview Monitor</i></p>  <p>5. If desired, adjust the volume control. Audio is set to the lowest level by default.</p> <p>6. Ensure each point you wish to set has a green checkmark next to its time field.</p> <p>7. If in and out points have already been set (there will be time values in the corresponding fields), you can use the seek  in and  out point buttons to move the playback bar to those points in the clip.</p> <p>8. Specify the clip's playback in and out points using one of the following methods:</p> <ul style="list-style-type: none"> Click the  button to start playing the file and click the  set in point button and  set out point button at the desired spots. If

FIELD	DESCRIPTION
	<p>you would like the clip to restart each time the end is reached, click the  loop button.</p> <ul style="list-style-type: none"> • Drag the playback bar to the desired spot and click the  set in point or  set out point button. • Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  set in point or  set out point button. • Click the  or  button to move forward or back in the MPEG file by the number of seconds specified on the “Playback Tab” of the “Preferences” window. Click the  set in point or  set out point button. <p>Once the in and out points are selected, their begin and end time values will be displayed in the corresponding fields, and the total length of time from in to out point will be shown in the “Duration” field.</p> <p>NOTE: When you seek the current in or out point on the playback bar, you will notice a slight discrepancy between the current time displayed above the playback bar and the in or out point field values. Clip playback between your in and out points will be as shown on the clip editor’s preview window.</p>
Length	The length of the file is automatically entered into this field, but it may be changed to a value between 6 seconds and 23 hours:59 minutes:59 seconds
Time	If the event is locked, the event start “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event start)	The “PLAY” command is automatically displayed.
Command (Event end)	Choose between “STOP” and “<None>.” It will almost always be “STOP.”
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on the web program guide (see “Viewing Web Program Guide,” on page 317). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.

FIELD	DESCRIPTION
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Media ID	Assign as a library tracking number.
Field Name 1-x	Schedule column headings you may assign.
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into a comma separated values format. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Internal Digital Video Recorder Device Resource

Dragging an UltraNEXUS-HD digital video recorder device resource onto the schedule reveals the box in Illustration 124, Digital Video Recorder Event Properties Window. Refer to Table 33, Editable Digital Video Recorder Event Properties, for a description of the editable event properties.

NOTE: When creating Digital video files, first create a short test file for playback on your UltraNEXUS-HD system. Use this test file to verify video playback compatibility with your LEIGHTRONIX system and to check your encoding audio level settings. Verify that your audio levels match the audio levels from other UltraNEXUS-HD sources. Once you have determined the proper digital video record settings, make note of them for use during future recording sessions.

If you would like to play a video file within the same schedule it was recorded, create and schedule a digital video library resource with the same filename and length given to the digital recording event. See “Digital Video Library Resources” on page 132 for further instructions on creating a digital video library resource. The library resource will be available for playback once the digital recording event ends.

Illustration 124, Digital Video Recorder Event Properties Window

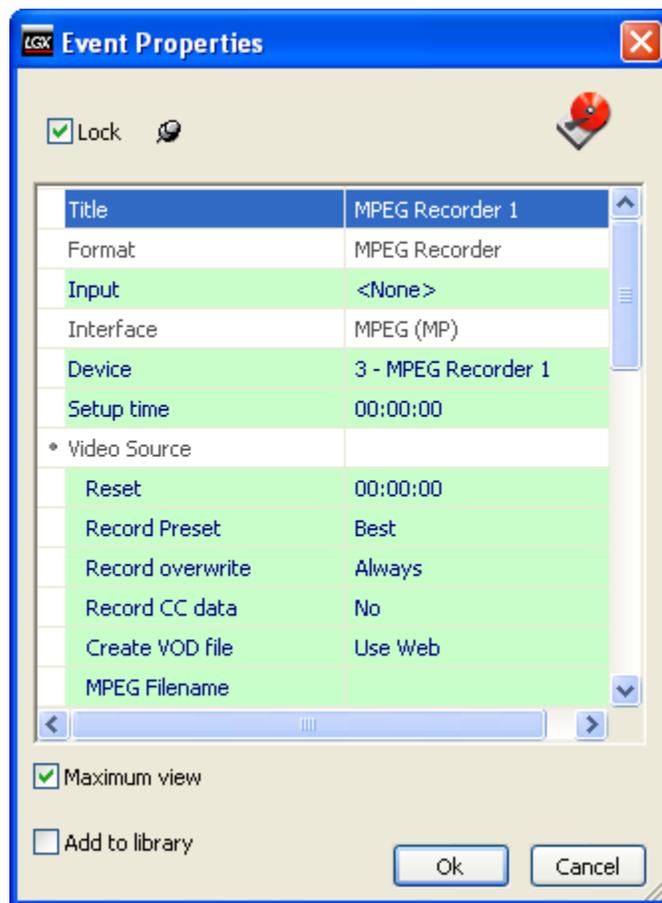
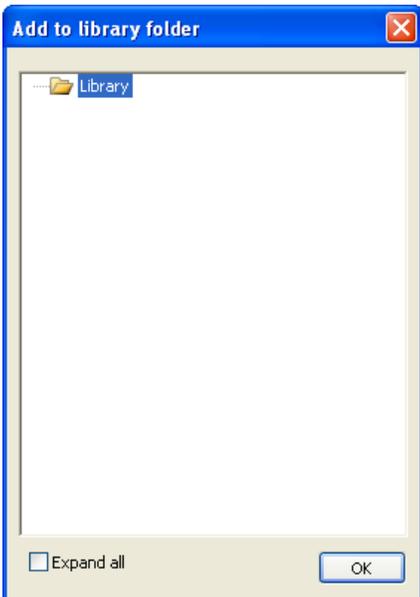


Table 33, Editable Digital Video Recorder Event Properties

FIELD	DESCRIPTION
Lock	<p>At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.</p>
Add to Library	<p>The “Add to library” option causes WinLGX to automatically create a library playback resource for the recording event. This library resource may be used to schedule a playback event with the recorded digital video file. To enable this option, check the “Add to library” box at the bottom of the event properties window. The “Add to library folder” window shown in Illustration 125 will display. Select the library folder you would like to contain the library resource and click “OK.”</p> <p>NOTES:</p> <ul style="list-style-type: none"> • WinLGX will not create a library resource for a file that possesses the same video filename and length as a pre-existing library resource. • If the new file possesses the same title as another resource, but has a different video filename and/or length, WinLGX will copy the new file to the library with a numbered increment added to its title. For example, if this is the first time you have reused the title of a pre-existing library resource, WinLGX will add the new file to the library under the name “title01.” <p><i>Illustration 125, “Add to library folder” Window</i></p> 

UltraNEXUS-HD
Software Operation

FIELD	DESCRIPTION
Title	Allows a name up to 31 characters to be typed.
Input	Select the input signal you want the digital video recorder to record.
Device	Ensure the digital video recorder is selected.
Setup time	If desired, indicate how long after the selected digital video recorder is activated that recording starts.
Reset	If desired, enter time the digital video recorder will be busy and unavailable for scheduling after the end of the program.
Record Preset	Select one of the three recording settings configured under “System Configuration.”
Record Overwrite	Select “Always” to automatically record over an existing file with the same name or “Create Unique” to record a file entered under an existing MPEG filename with the first 14 characters of the original filename followed by “yy/mm/dd-hh/mm/ss” (yy/mm/dd is the file record date specified as year/month/ day and hh/mm/ss is the file record time in hours/minutes/seconds).
Record CC data	Select “Yes” to capture any closed caption data from the source. Closed captions are hidden in the video signal and decoded for display on televisions with built-in decoders or televisions connected to external decoders.
VOD	This option allows you to override the VOD automatic upload enable/disable feature in WebNEXUS. If the VOD auto upload has been enabled in WebNEXUS, selecting “No VOD” stops the VOD transfer. Changing this option to “Use Web” will cause it to operate according to its WebNEXUS enable/disable setting.
MPEG Filename	Perform one of the following: <ul style="list-style-type: none"> • Enter up to 27 characters to create a new filename for the recording event. • If you created a playback library resource for the digital video file to be recorded, enter the exact filename used for the library resource.
Storage device	Select the storage device you would like to hold your recorded file.
Length	Enter recording duration of up to 23 hours:59 minutes:59 seconds. If you created a digital video library resource for the digital video file to be recorded, enter the same time duration used for the library resource.
Time	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.

FIELD	DESCRIPTION
Command (Event start)	The "RECORD" command is automatically displayed.
Command (Event end)	Choose either "STOP" or "<None>." It will almost always be "STOP."
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on the web program guide (see "Viewing Web Program Guide," on page 317). The scheduled resource will be listed according to its event start time and the text entered into the "Comment" field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Media ID	Assign as a library tracking number.
Field 1-x	Schedule column headings you may assign.
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into a comma separated values format. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Scheduling/Editing ePRO-BUS-Controlled Device Resources

Adding or editing an ePRO-BUS record schedule event for your remote or locally connected LEIGHTRONIX LABvault-HD recorder opens an event properties window containing editable properties. Edit the properties for your remote or local ePRO-BUS record event according to the following subsections, clicking “OK” to submit the event or “Cancel” to abort the add/edit.

NOTE: ePRO-BUS record events can only be scheduled on the WinLGX-LT tab. If the WinLGX-LT tab is not displayed at the bottom of your schedule window, go to the “Tools”/“Preferences” menu option and select “Show WinLGX-LT tab” option on the “Application” tab.

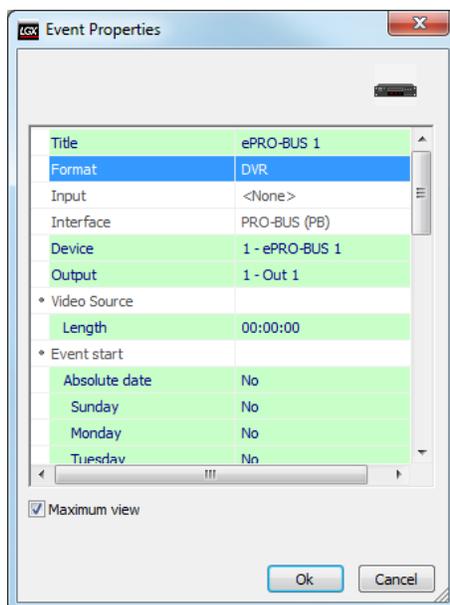
Remote ePRO-BUS-Controlled Devices

A remote ePRO-BUS-controlled device is a LABvault-HD that has been added to the same TCP/IP network as your UltraNEXUS-HD system. This allows you to start and stop recording on a LABvault-HD that is in a different location than your UltraNEXUS-HD. Perform the following steps to schedule or edit a remote ePRO-BUS resource event:

Select the WinLGX-LT tab on the bottom of the scheduling window. If you do not see this tab, go to the “Tools”/“Preferences”/“Applications” tab and select the “Show WinLGX-LT tab” option.

Open the ePRO-BUS record “Event Properties” window (see Illustration 126, Remote ePRO-BUS Record Event Properties Window) by either adding or editing the ePRO-BUS record event. To add a new event, drag the desired ePRO-BUS-controlled device resource onto the schedule window. To edit, double click the ePRO-BUS event row on the schedule.

Illustration 126, Remote ePRO-BUS Record Event Properties Window



Complete or edit the event properties fields according to Table 34, Editable Remote ePRO-BUS Record Event Properties.

Table 34, Editable Remote ePRO-BUS Record Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Title	Allows a name up to 31 characters to be typed.
Device	Ensure this field displays the PRO-BUS address number assigned to the LABvault-HD.
Output	Select “<None>.”
Length	Enter duration of the event in hours:minutes:seconds.
Event Date and/or Days Reset time	Select an absolute date and/or days that you want to event to occur. Not used
TimeEvent Date and/or Days	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event. Select an absolute date and/or days that you want to event to occur.
Command (Event start)Time	Select “RECORD.” If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event end)Command (Event start)	Choose “STOP.” Select “RECORD.”
Switchback inputCommand (Event end)	Not used Choose “STOP.”
Show in program guideSwitchback input	Not used Not used
CommentShow in program guide	Not used Not used
Media	Assign as a library tracking number. Not used

FIELD	DESCRIPTION
IDComment	
Field Name 1–x Media ID	Schedule column headings you may assign. Assign as a library tracking number.
PrintField Name 1–x	Select “Yes” to enable the resource’s event record for printing. If “No” is selected, then you can enable printing for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window. Schedule column headings you may assign.
ExportPrint	Select “Yes” to allow the resource’s event record to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window. Select “Yes” to enable the resource’s event record for printing. If “No” is selected, then you can enable printing for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Maximum view Export	Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view (for instructions, see “Event Editor Tab” on page 92). To toggle between these views, select and deselect the “Maximum view” checkbox. Select “Yes” to allow the resource’s event record to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view (for instructions, see “Event Editor Tab” on page 92). To toggle between these views, select and deselect the “Maximum view” checkbox.

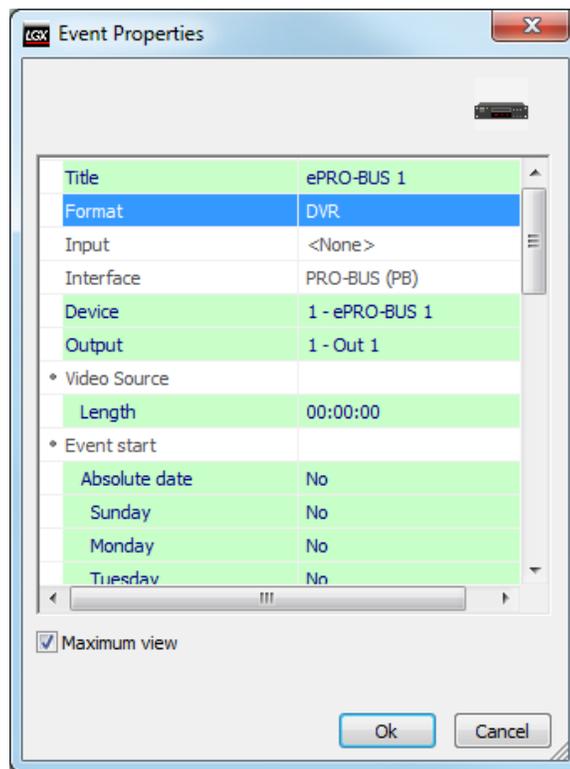
Local ePRO-BUS-Controlled Devices

A local ePRO-BUS-controlled device is a LABvault-HD that has been directly wired to an output on your UltraNEXUS-HD system’s external switcher. Connecting a LABvault-HD to your switcher provides you with another way to record your UltraNEXUS-HD’s external video switch resources. Perform the following steps to schedule or edit a local ePRO-BUS record event:

NOTE: The UltraNEXUS-HD should be connected to an external switcher when creating local ePRO-BUS record events.

1. Select the WinLGX-LT tab on the bottom of the scheduling window. If you do not see this tab, go to the “Tools”/”Preferences”/”Application” tab and select the “Show WinLGX-LT tab” option.
2. In order to capture playback from an UltraNEXUS-HD video switch resource, the video source must be scheduled on the external switcher output connected to your LABvault-HD. For information on scheduling a video switch resource, refer to “Switch Device Resources—External Switcher Configurations Only” on page 193 and “Switch Library Resources—External Switcher Configurations Only” on page 210. This step may be performed from either the day tabs or the WinLGX-LT tab, but the latter is recommended for consistency.
3. Open the ePRO-BUS record “Event Properties” window (see Illustration 127, Local ePRO-BUS Record Event Properties Window) by either adding or editing the ePRO-BUS record event. To add a new event, drag the desired ePRO-BUS-controlled device resource onto the schedule window. To edit, double click the ePRO-BUS event row on the schedule.

Illustration 127, Local ePRO-BUS Record Event Properties Window



4. Complete or edit the properties fields according to Table 35, Editable Local ePRO-BUS Record Event Properties.

Table 35, Editable Local ePRO-BUS Record Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Title	Allows a name up to 31 characters to be typed.
Device	Ensure this field displays the PRO-BUS address number assigned to the device you wish to control.
Setup time	Not used
Output	Select “<None>.”
Length	Enter duration of the event in hours:minutes:seconds.
Preroll	Not used
Reset time	Not used
Event Date and/or Days	Select an absolute date and/or days that you want to event to occur.
Time	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event start)	Select “RECORD.”
Command (Event end)	Choose “STOP.”
Switchback input	Not used
Show in program guide	Not used
Comment	Not used
Media ID	Assign as a library tracking number.
Field Name 1–x	Schedule column headings you may assign.

FIELD	DESCRIPTION
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into comma delimited or Microsoft Excel [®] formats. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Scheduling/Editing Library Resources

Adding or editing a library resource event opens windows like the examples shown in this section. Editable event fields are highlighted in each event properties window. Click “OK” to submit the event or “Cancel” to abort the add/edit.

Switch Library Resources—External Switcher Configurations Only

Dragging a switch library resource onto the schedule reveals a box like Illustration 128, Switch Event Properties Window. Refer to Table 36, Editable Switch Event Properties, for a description of the editable event properties.

Illustration 128, Switch Event Properties Window



Table 36, Editable Switch Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.

FIELD	DESCRIPTION
Device	Allows a same format device to be chosen. Its associated interface and input will appear in the corresponding fields.
Time	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on the web program guide (see “Viewing Web Program Guide,” on page 317). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.

Digital Video Library Resources

To preview a digital video library resource’s video before scheduling the resource, either double click the resource or right click on the file and select “View Resource” to display the file in the WinLGX instant video preview monitor. For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.

Dragging a digital video library resource onto the schedule reveals a box like Illustration 129, Digital Video Library Event Properties Window. Refer to Table 37, Editable Digital Video Library Event Properties, for a description of the editable event properties.

Illustration 129, Digital Video Library Event Properties Window

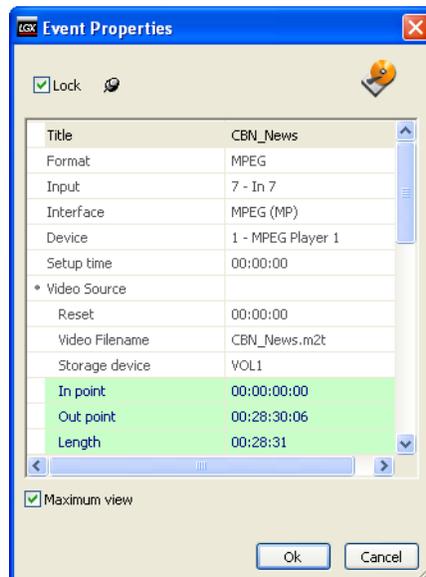
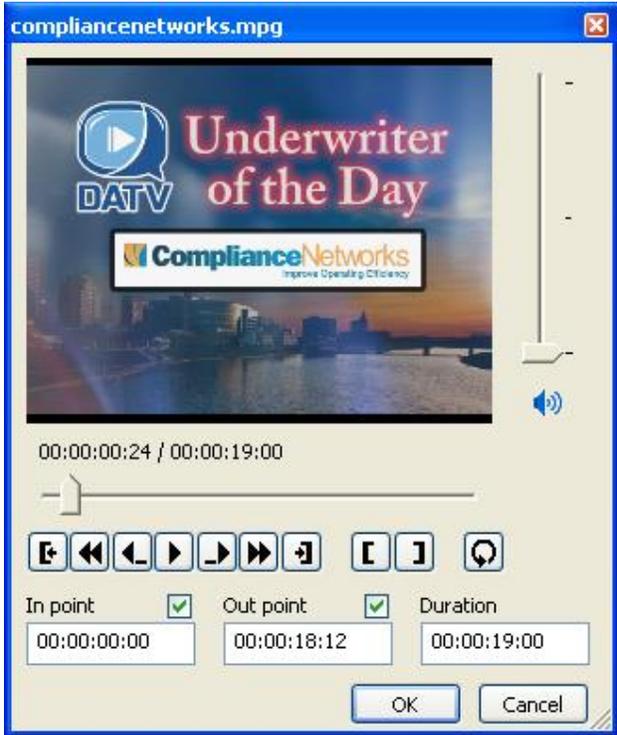


Table 37, Editable Digital Video Library Event Properties

FIELD	DESCRIPTION
Lock Box	<p>At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.</p>
<p>In/Out points (in HH:MM:SS:FF, where FF=frames)</p>	<p>To specify where in the selected file you would like playback to begin and end, use the “In point” and “Out point” fields. Either type the desired file start and end times into the fields or click either field’s ellipsis button to open the clip editor.</p> <p>Software Monitor</p> <p>The WinLGX video clip editor combines clip editing controls with a preview window for quick and convenient clip editing that does not interrupt programming playback on your UltraNEXUS-HD server’s video player. To use this option, ensure the “Software Monitor” option is selected on the “Preview Monitor” tab in the “Preferences” window.</p> <p><i>Illustration 130, WinLGX Video Clip Editor with Preview Monitor</i></p>  <p>9. If desired, adjust the volume control. Audio is set to the lowest</p>

FIELD	DESCRIPTION
	<p>level by default.</p> <p>10. Ensure each point you wish to set has a green checkmark next to its time field.</p> <p>11. If in and out points have already been set (there will be time values in the corresponding fields), you can use the seek  in and  out point buttons to move the playback bar to those points in the clip.</p> <p>12. Specify the clip's playback in and out points using one of the following methods:</p> <ul style="list-style-type: none"> • Click the  button to start playing the file and click the  set in point button and  set out point button at the desired spots. If you would like the clip to restart each time the end is reached, click the  loop button. • Drag the playback bar to the desired spot and click the  set in point or  set out point button. • Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  set in point or  set out point button. • Click the  or  button to move forward or back in the MPEG file by the number of seconds specified on the "Playback Tab" of the "Preferences" window. Click the  set in point or  set out point button. <p>Once the in and out points are selected, their begin and end time values will be displayed in the corresponding fields, and the total length of time from in to out point will be shown in the "Duration" field.</p> <p>NOTE: When you seek the current in or out point on the playback bar, you will notice a slight discrepancy between the current time displayed above the playback bar and the in or out point field values. Clip playback between your in and out points will be as shown on the clip editor's preview window.</p>
Length	The video file library resource length is automatically entered, but it may be edited to a value between 6 seconds and 23 hours:59 minutes:59 seconds.
Time	If the event is locked, the event start "Time" can be modified. This is the scheduled "On-Air" time of the event.

FIELD	DESCRIPTION
Command (Event start)	The "PLAY" command is automatically displayed.
Command (Event end)	Choose "STOP" or "<None>." It will nearly always be "STOP."
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select "Yes" from the drop down list to include the scheduled resource on the web program guide (see "Viewing Web Program Guide," on page 317). The scheduled resource will be listed according to its event start time and the text entered into the "Comment" field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the "Title" field is automatically placed in the "Comment" field, but may be changed.
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into a comma separated values format. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Digital Video Loop Library Resources

Dragging a digital video loop library resource onto the schedule reveals a box like Illustration 131. Refer to Table 38, Editable Digital Video Loop Library Event Properties, for a description of the editable event properties.

Illustration 131, Digital Video Loop Event Properties Window

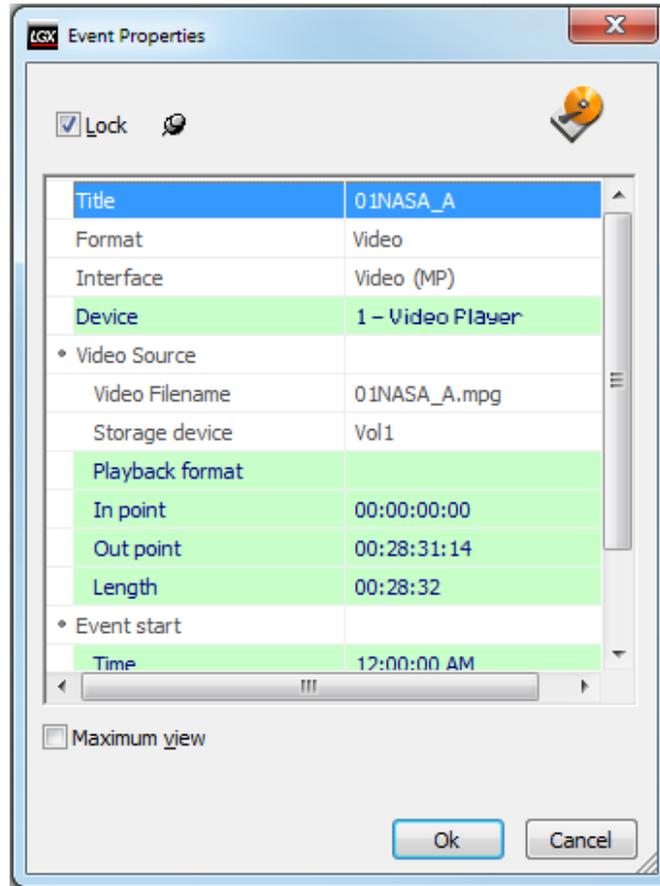


Table 38, Editable Digital Video Loop Library Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.

Length	To change the number of times or length of time you would like the file to loop, perform the following: <ol style="list-style-type: none"> 1. Select the “Length” field and then click the ellipsis button to display the “MPEG Loop Calculator” (see Illustration 86, Video Loop Calculator). 2. Enter the number of times you would like the file to loop in the “Loop count” field and/or enter a length of time, up to 24 hours, in the “Loop length” field.
Time	If the event is locked, the event start “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event start)	The “PLAY” command is automatically displayed.
Command (Event end)	Choose “STOP” or “<None>.” It will nearly always be “STOP.”
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on the web program guide (see “Viewing Web Program Guide,” on page 317). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the “Title” field is automatically placed in the “Comment” field, but may be changed.
Print	Select “Yes” to enable the resource’s event record for printing. If “No” is selected, then you can enable printing for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow the resource’s event record to be exported into a comma separated values format. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view (for instructions, see “Event Editor Tab” on page 92). To toggle between these views, select and deselect the “Maximum view” checkbox.

Slide Library Resources

To preview a slide library resource before scheduling, either double click the resource or right click on the file and select “View Resource” to display the file in the WinLGX preview monitor window. To close the window, click the red “x” icon in the corner.

Dragging a slide library resource onto the schedule reveals a box like Illustration 132, JPEG Slide Event Properties Window. Refer to Table 39, Editable JPEG Slide Library Event Properties, for a description of the editable event properties.

Illustration 132, JPEG Slide Event Properties Window

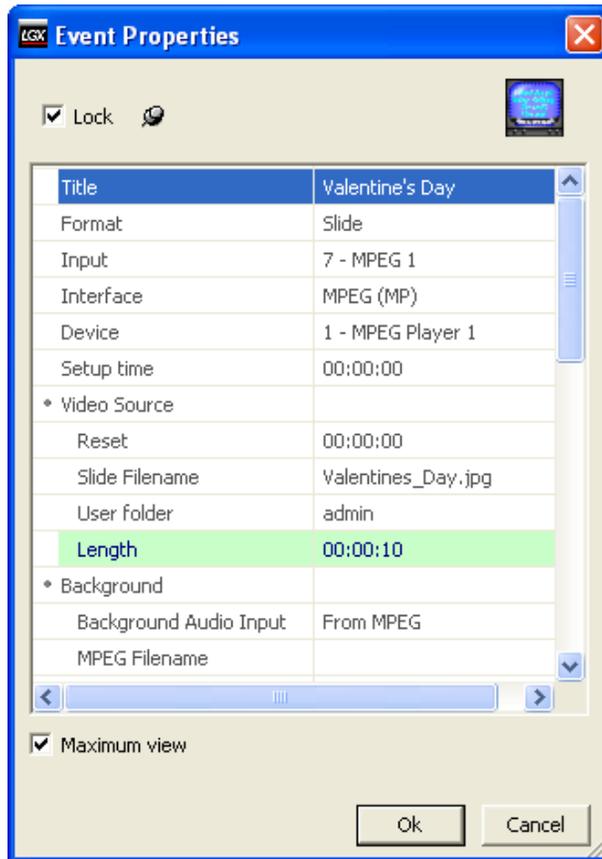


Table 39, Editable JPEG Slide Library Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Device	The video player device.

FIELD	DESCRIPTION
Length	The default slide length specified in the “Application” tab of the “Preferences” window is automatically displayed once the slide filename is selected (see page 88 for more information), but may be edited to any value greater than 5 seconds.
Time	If the event is locked, the event “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event start)	The PLAY command is automatically displayed.
Command (Event end)	Choose “STOP” or “<None>.” It will nearly always be “STOP.”
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view (see “Creating Overlays” on page 120). The graphic and text message overlays that are part of the selected template will then display with the program. Each overlay resource in the template will display in the listed order for ten percent of the total length of the scheduled digital program.
Comment	Enter a descriptor with up to 31 characters to display on schedule.
Print	Select “Yes” to enable the resource’s event record for printing. If “No” is selected, then you can enable printing for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow the resource’s event record to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view (for instructions, see “Event Editor Tab” on page 92). To toggle between these views, select and deselect the “Maximum view” checkbox.

Slide Show Library Resources

Dragging a slide show library resource onto the schedule reveals a box like Illustration 133, JPEG Slide Show Event Properties Window. Refer to Table 40, Editable JPEG Slide Show Library Event Properties, for a description of the editable event properties.

NOTE: Slides must be enabled and authorized in the Storage Manager or WebNEXUS before they will appear in slide shows (see “Enabling and Authorizing Slides for Display in Slide Shows,” on page 258, and “Approving Slides for Display in Slide Shows,” on page 309).

Illustration 133, JPEG Slide Show Event Properties Window

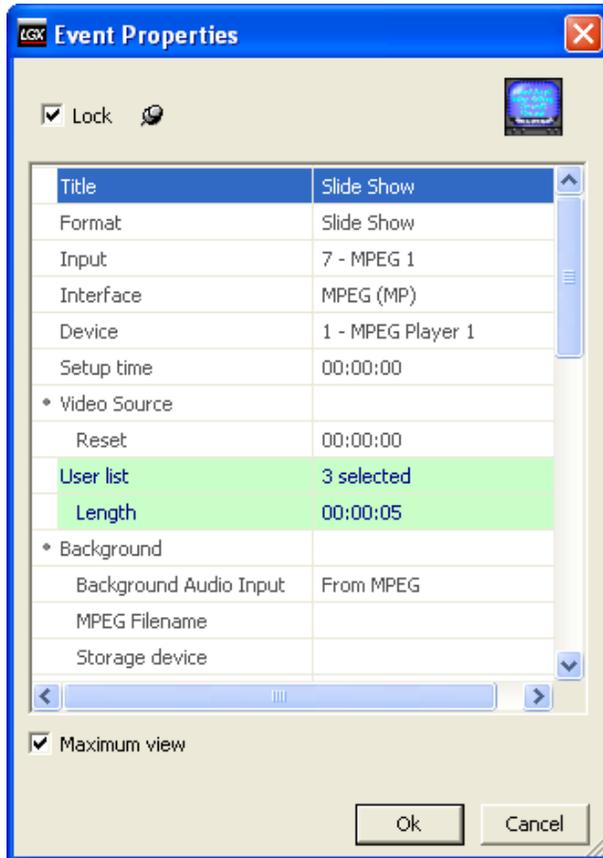


Table 40, Editable JPEG Slide Show Library Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Device	The video player.

UltraNEXUS-HD
Software Operation

FIELD	DESCRIPTION
User list	If desired, edit the user list to change the corresponding slide selections.
Length	Enter the display duration for the slide show. Each slide within the slide show will automatically display for 10 seconds at a time. The display duration for each slide may be changed from the WebNEXUS interface (see “Adding Slide Show Settings to Slide Metadata,” on page 307).
Time	If the event is locked, the event start “Time” can be modified. This is the scheduled “On-Air” time of the event.
Command (Event start)	Choose “PLAY” or “STOP.” It will nearly always be “PLAY.”
Command (Event end)	Choose “STOP” or “<None>.” It will nearly always be “STOP.”
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Overlay	If desired, select one of the overlay templates created in the “Overlay Templates” view (see “Creating Overlays” on page 120). The graphic and text message overlays that are part of the selected template will then display with the program. Each overlay resource in the template will display in the listed order for ten percent of the total length of the scheduled digital program.
Show in program guide	Select “Yes” from the drop down list to include the scheduled resource on onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 150). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.
Comment	Enter a unique and descriptive name with up to 31 characters to identify the resource on program guides. The text entered in the “Title” field is automatically placed in the “Comment” field, but may be changed.
Print	Select “Yes” to enable the resource’s event record for printing. If “No” is selected, then you can enable printing for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.
Export	Select “Yes” to allow the resource’s event record to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “Export/Print Templates” window.

FIELD	DESCRIPTION
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view (for instructions, see “Event Editor Tab” on page 92). To toggle between these views, select and deselect the “Maximum view” checkbox.

Program Guide Library Resources

Dragging a program guide library resource onto the schedule reveals a box like Illustration 134, Program Guide Event Properties Window. The program guide will display up to ten of the upcoming events scheduled on the same channel output. Refer to Table 41, Editable Program Guide Library Event Properties, for a description of the editable event properties.

Illustration 134, Program Guide Event Properties Window

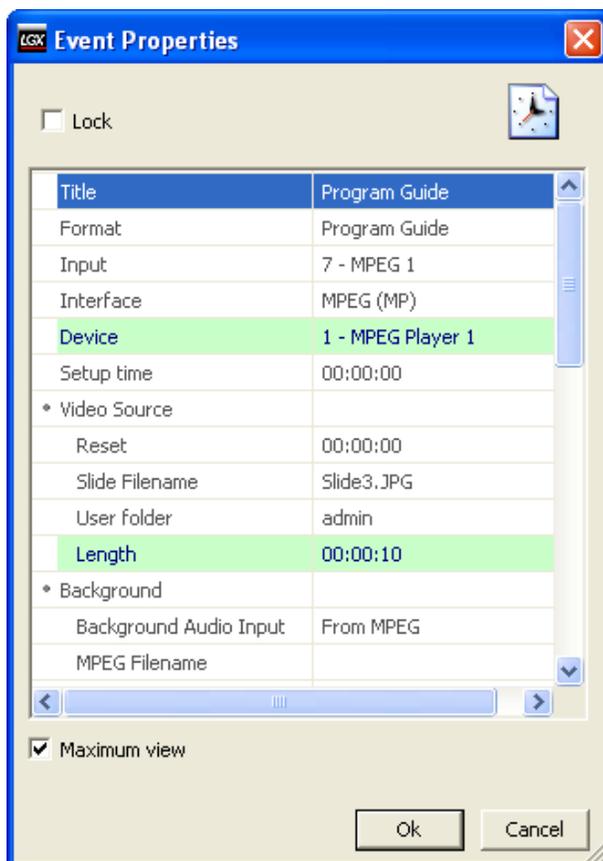


Table 41, Editable Program Guide Library Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Device	Allows you to select internal player or other device. Its associated input will appear in the “Input” field.
Length	If desired, edit the event duration.

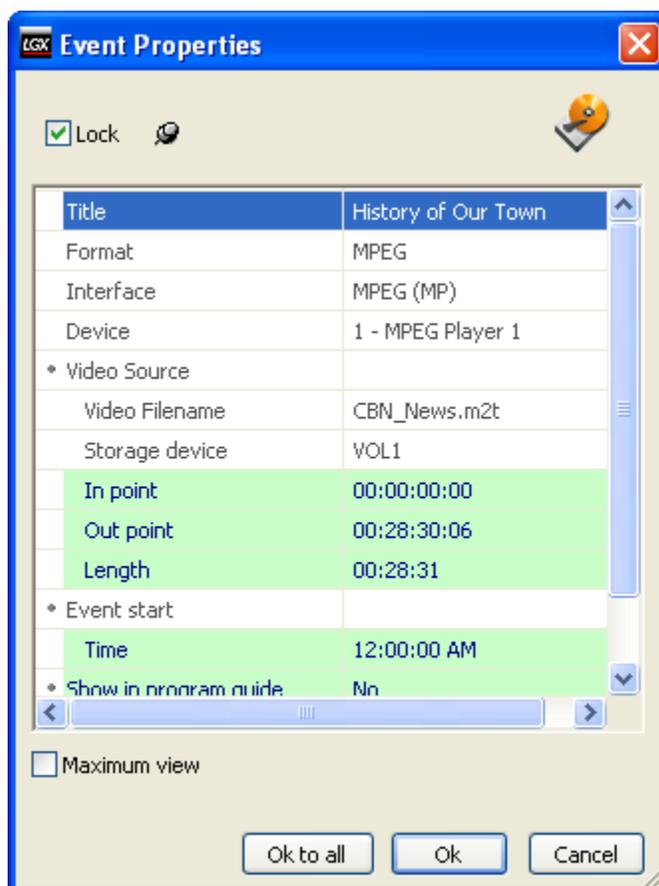
FIELD	DESCRIPTION
Time	If the event is locked, the event "Time" can be modified. This is the scheduled "On-Air" time of the event.
Command (Event start)	The PLAY command is automatically displayed.
Command (Event end)	Choose "STOP" or "<None>." It will nearly always be "STOP."
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Overlay	If desired, select one of the overlay templates created in the "Overlay Templates" view (see "Creating Overlays" on page 120). The graphic and text message overlays that are part of the selected template will then display with the program. Each overlay resource in the template will display in the listed order for ten percent of the total length of the scheduled digital program.
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into comma delimited or Microsoft Excel [®] formats. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Digital Video/Slide Playlist Resources

Dragging a playlist of digital video files and/or slides onto the schedule reveals an event properties window for each item in the playlist (see Illustration 135 for an example). Perform either of the options below:

NOTE: If the playlist resource is dragged onto a channel switchback between events with a shorter time duration than the playlist itself, WinLGX will display a dialog asking whether or not you would like to trim/discard the ending playlist items to fit the channel switchback or cancel the operation.

Illustration 135, Playlist Event Properties Window



- Change the editable fields for each resource item according to the tables referenced below. Click “Ok” after changing or reviewing each resource or “Cancel” to abort entire operation.
 - Slide: see Table 39 on page 217
 - Slide Show: see Table 40 on page 219
 - Digital Video File: see Table 37 on page 212
 - Looped Digital Video File: see Table 38 on page 215
- Click “Ok to all” to enter all playlist resource properties into the schedule without editing or “Cancel” to abort entire operation.

VC List Library Resources

Dragging a VC list library resource onto the schedule reveals a box like Illustration 136, VC List Event Properties Window. Refer to Table 42, Editable VC List Library Event Properties, for a description of the editable event properties.

Illustration 136, VC List Event Properties Window

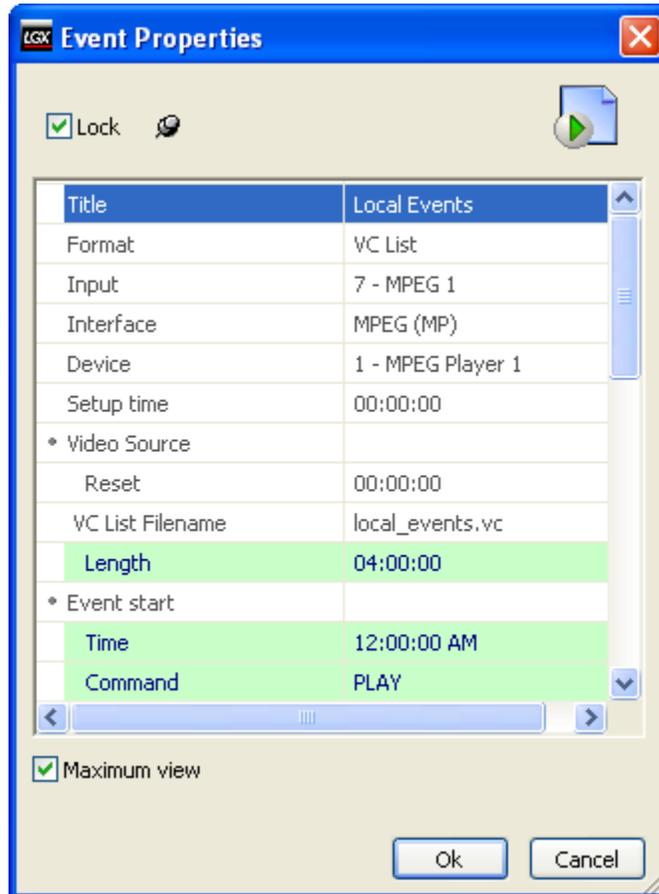


Table 42, Editable VC List Library Event Properties

FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “Time” field, causing WinLGX to assign a time to the event that starts at the end of the event above it in the schedule.
Length	The length assigned to the VC list library resource may be changed to any length of time up to 23 hours:59 minutes:59 seconds. If the combined length of the resources in the Virtual Channel playlist is less than the time in the length field, the resources will be replayed in order (looped) as needed to fill the remaining time.

UltraNEXUS-HD
Software Operation

FIELD	DESCRIPTION
Time	If the event is locked, the event "Time" can be modified. This is the scheduled "On-Air" time of the event.
Command (Event start)	The PLAY command is automatically displayed.
Command (Event end)	Choose "STOP" or "<None>." It will nearly always be "STOP."
Switchback input	If desired, select a video source to be taken to the output at the end of the event.
Comment	Enter a description with up to 31 characters to display on schedule.
Print	Select "Yes" to enable the resource's event record for printing. If "No" is selected, then you can enable printing for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Export	Select "Yes" to allow the resource's event record to be exported into a comma separated values (.csv) format. If "No" is selected, then you can enable the export function for all of the resource's event records by checking the "Export/print all records" option under the "Export/Print Templates" window.
Maximum view	Each event properties window for a device or library resource item may be configured to show different fields under a "minimum" and "maximum" view (for instructions, see "Event Editor Tab" on page 92). To toggle between these views, select and deselect the "Maximum view" checkbox.

Changing Channel Switchbacks

Adding Digital Video Library Resources to Channel Switchbacks

WinLGX gives you the option to use digital video library resources (video files and video playlists) to automatically fill time between all programs on the selected channel output within your schedule. The bottom of the WinLGX schedule window includes a “Channel switchback count” that keeps track of the total number of unscheduled time slots between programs on the selected channel output tab (see Illustration 137, Channel Switchbacks).

To add a resource to a switchback, drag a digital library resource onto a channel switchback and check the “Apply to all switchbacks” option on the resource’s event properties window before clicking “Ok” (see Illustration 137 and

Illustration 138). Whether you selected “By the day” or “By the week” on the “Application” tab of the “Preferences” window will determine if the channel switchbacks will be filled on just the selected channel output’s day tab or all of the channel’s day tabs (see the “Application” tab section of the “Setting WinLGX Viewing and Communication Preferences,” on page 88).

NOTE: If the library resource is shorter in duration than your channel switchbacks, the default channel switchback input will be switched to the channel output for the time remaining after the resource displays. You may add multiple library resources to your channel switchbacks.

Illustration 137, Channel Switchbacks

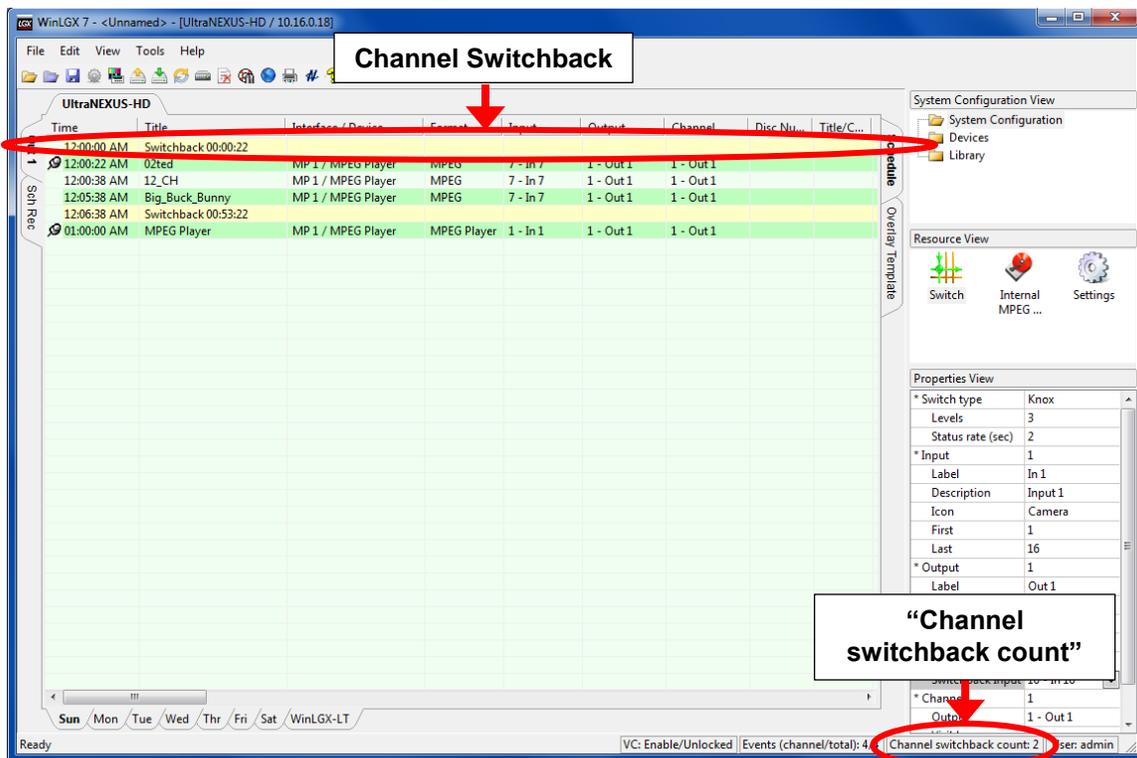
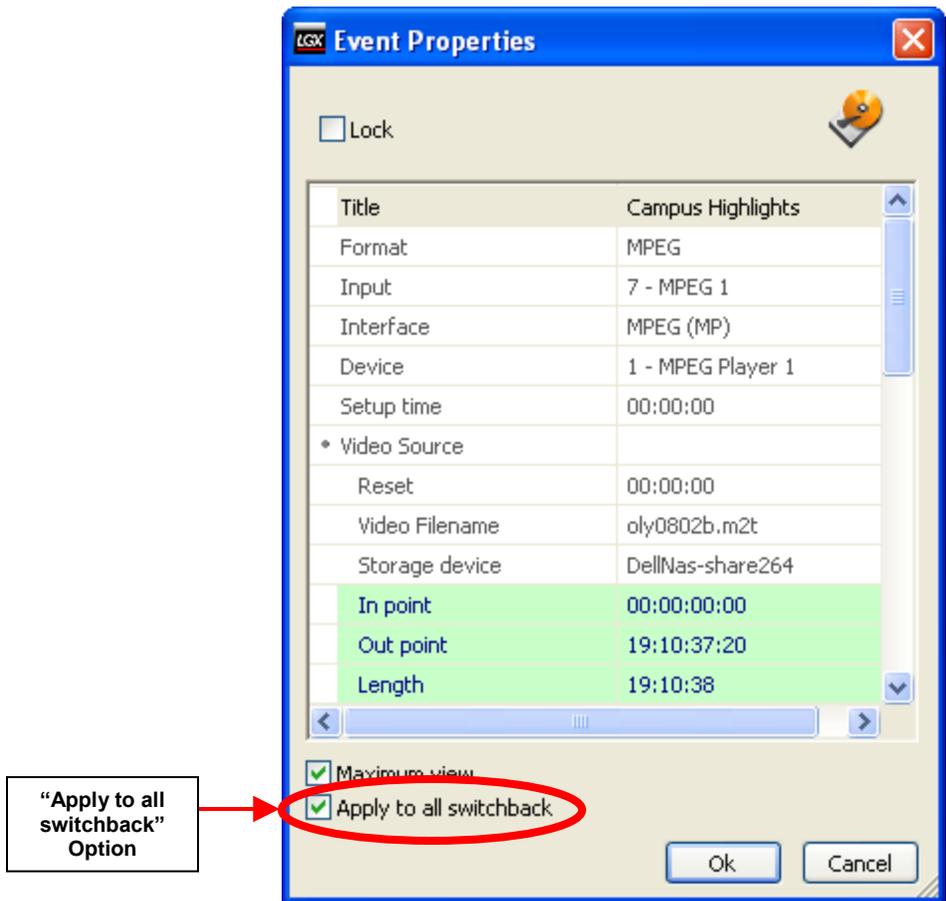


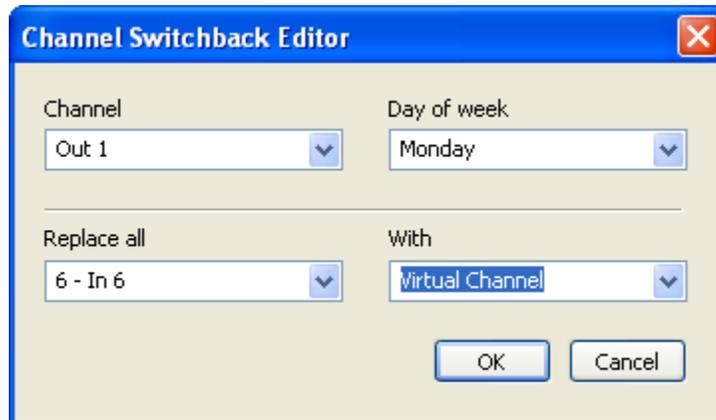
Illustration 138, Digital Library Resource Apply to all Switchbacks Option



Changing Channel Switchback Inputs

The “Channel Switchback Editor” (see Illustration 139), under the WinLGX “Tools”/“System Tools” menu, provides a quick way to change the inputs that will switch to your channel outputs between programs. Change the switchback inputs on each of your channel/day tab windows to the “Virtual Channel” feature or any of your external inputs. Perform the following steps:

Illustration 139, “Channel Switchback Editor”



Select “Switchback editor” under “Tools”/“System Tools” to open the “Channel Switchback Editor” (see Illustration 139).

Select the channel output/day tab schedule window containing the switchback inputs you would like to change by selecting a channel output under “Channel” and a day under “Day of week.” You may select “All” under “Day of week” to select all schedule windows for the channel output.

Under “Replace all,” select the switchback input you would like to change.

Use the “With” drop down menu to select a new switchback input.

Click “OK” to make the changes or “Cancel” to abort.

Checking Schedule and Library Resources for Missing Digital Video Files

Ensure your image files’ schedule events and library resources do not contain digital video files that have been removed from your UltraNEXUS-HD system’s remote storage devices (USB hard drives and NAS) as described below:

If you have not already done so, open an UltraNEXUS-HD image file in WinLGX.

Click the  sync icon on the main toolbar or choose the “Tools”/“System tools”/“Sync Library Resources” menu item. Those events containing missing digital video files are highlighted in the schedule and a “Sync Library Resources” box pops up to report the total number of schedule events and each library resource containing digital video files no longer available on the UltraNEXUS-HD storage device(s). Perform any of the following from the pop-up window:

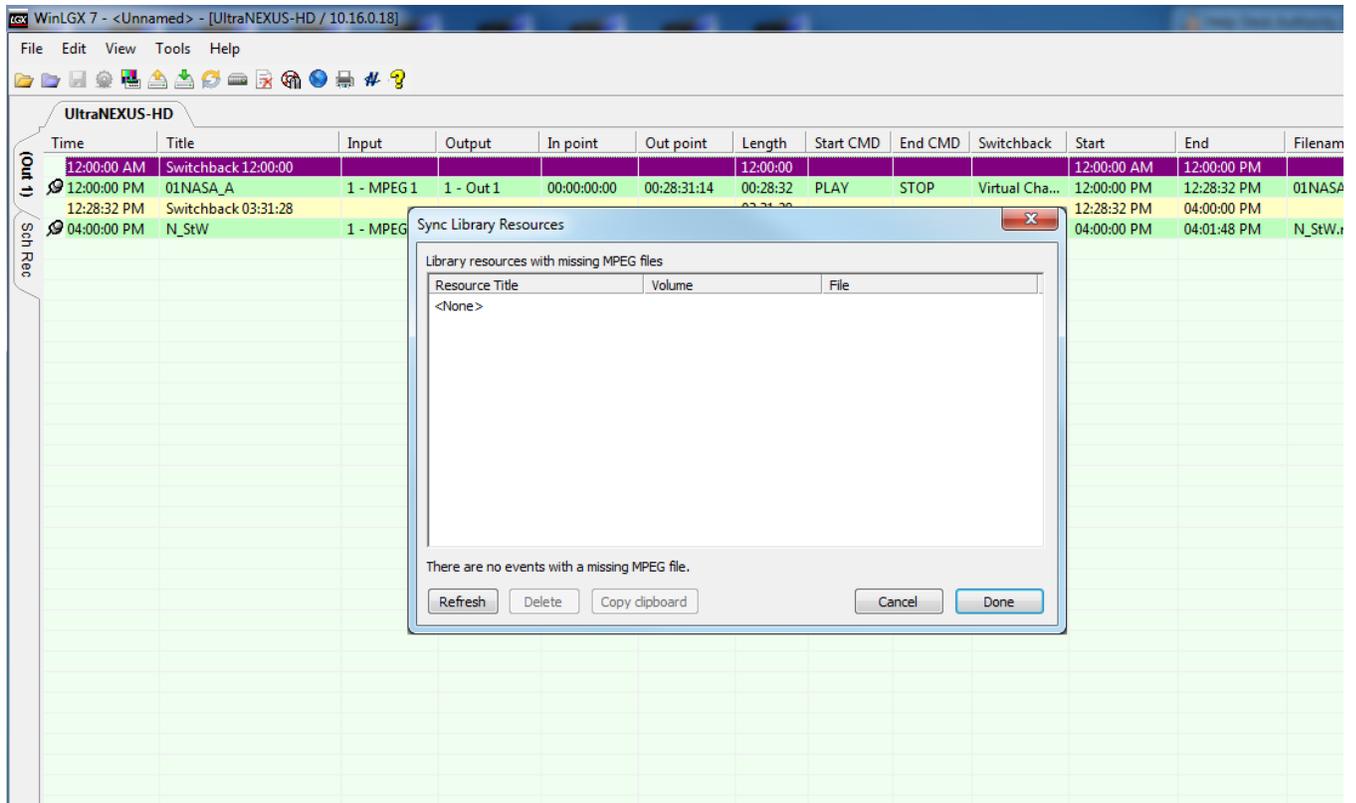
- Delete library resources and corresponding schedule events: empty library resources and their schedule events may be removed from the UltraNEXUS-HD

UltraNEXUS-HD Software Operation

image file by selecting each resource in the “Sync Library Resources” window and then clicking the “Delete” button. When prompted, click “Yes” to delete the library resource and any events scheduled with the resource or “No” to abort.

- Update status report on pop-up window: if modifications are made to the schedule and/or library resources while the “Sync Library Resources” window is open, click the “Refresh” button to update the pop-up window.
- Close pop-up window: click “Done” to close the window.

Illustration 140, Synced Schedule



Sending UltraNEXUS-HD Image Files

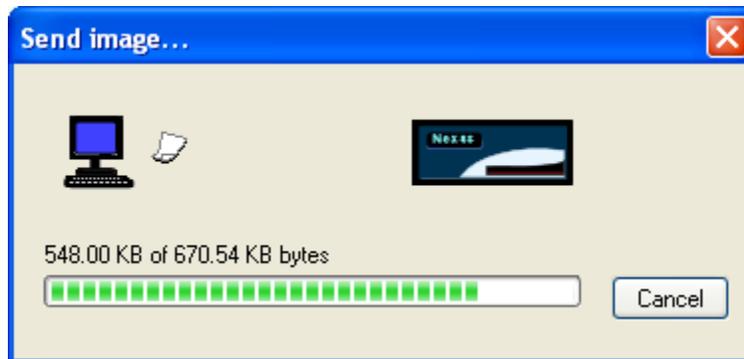
To activate a schedule of event actions, send an image file to each connected UltraNEXUS-HD server as follows:

NOTE: Users **must** have “Send, receive, rename and delete” rights in order to send an image file to an UltraNEXUS-HD system (refer to “Setting User Account Rights (Including WinLGX Password Changes),” on page 75, for more information on user rights).

Send an image file to one or more of the currently connected servers according to the following steps:

- One server: ensure the server’s product tab is selected and choose “Send” in the “File” menu or click its  icon on the main toolbar. A dialog box will ask whether you want to send the tab’s currently open image to the connected UltraNEXUS-HD server. Click “Yes” to complete the send and open the status box shown in Illustration 141.
- Multiple servers: from any of the product tabs, select “Send all” in the “File” menu. Click “Yes” when prompted to send each open image to its server/controller. You will see a status box like the one shown in Illustration 141 for each image file.

Illustration 141, “Send image” Status Box



NOTE: To interrupt the send, click the “Cancel” button. If the send action appears to be stalled, cancel it and check your default location IP address and your network connections.

Once each transfer is completed, the UltraNEXUS-HD system(s) will contain and execute the scheduled events.

Printing Schedules from WinLGX

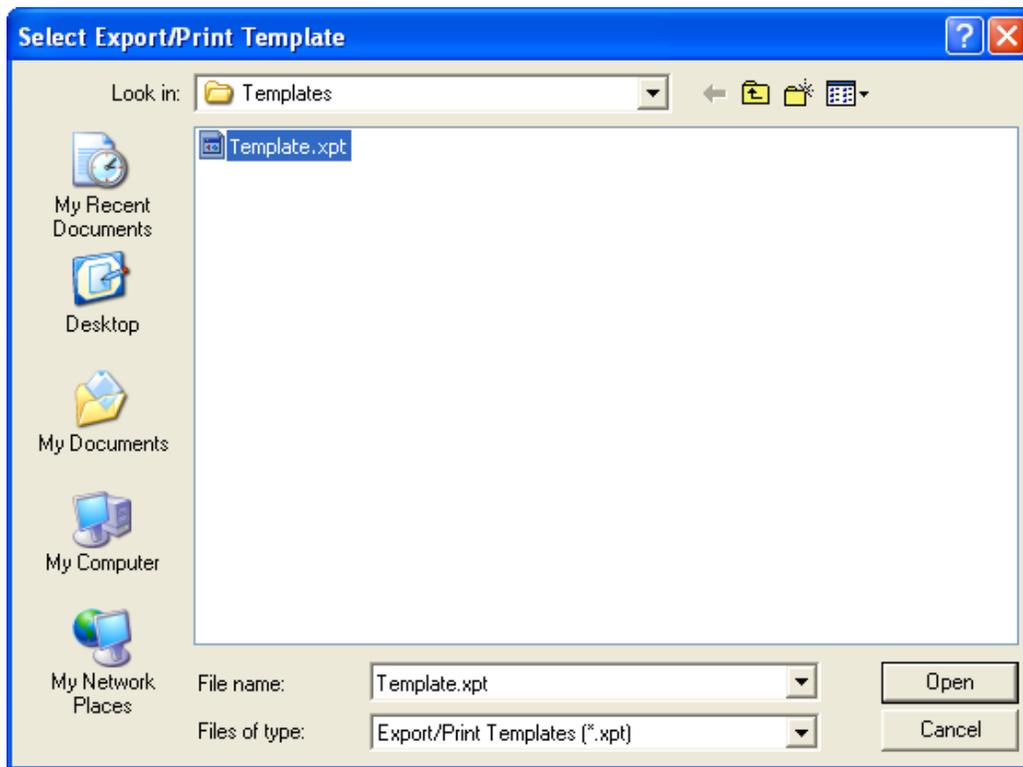
Perform the following steps to print the current schedule from WinLGX:

1. Create a print template to select the desired schedule information for printing (see “Creating Templates for Exporting/Printing Schedules,” on page 81).

Determine the page layout of your schedule printout (see “Configuring Page Layouts For Schedules Printed from WinLGX,” on page 83).

Select “Print” in the “File” menu or click the  icon on the main toolbar to open the template selection window shown in Illustration 142.

Illustration 142, “Select Export/Print Template” Window



Choose the desired template from the “File name” list in the “Select Export/Print Template” Window (see Illustration 142) and click “Open,” or double click the template file to open the “Print” window. Click “Cancel” to abort the print.

In the “Print” window, configure the printer and copy settings according to the following steps. Click “OK” to print or “Cancel” to abort the print.

NOTE: You may have already performed these steps through the “Print Setup” window. See “Configuring Printer and Paper Settings for Schedules Printed from WinLGX,” on page 83.

- “Printer” section: lets you choose the desired printer from a list of your PC’s available printers. When a printer is chosen, its status appears below the printer “Name” field.

- “Properties” button: click to open a window specific to the printer, so that detailed printer settings can be made.
- “Print range” is fixed at “All.”
- “Copies” section: choose the number of schedule copies you wish to print. If you choose more than one, checking “Collate” causes the printer to print each copy’s pages together and in order. If “Collate” is unchecked, all of the first pages will be printed together, the second pages will be printed together, etc.

Exporting Schedules into Comma Separated Values Files

Perform the following steps to export schedules into a comma delimited format:

1. Ensure the schedule you wish to export is currently open in WinLGX (see “Opening UltraNEXUS-HD Image Files,” on page 166).

If you have not already done so, create a template (see “Creating Templates for Exporting/Printing Schedules,” on page 81).

Select “Save as” in the “File” menu to open the window shown in Illustration 143, which allows you to export the loaded schedule as a comma separated values file (.csv) as follows:

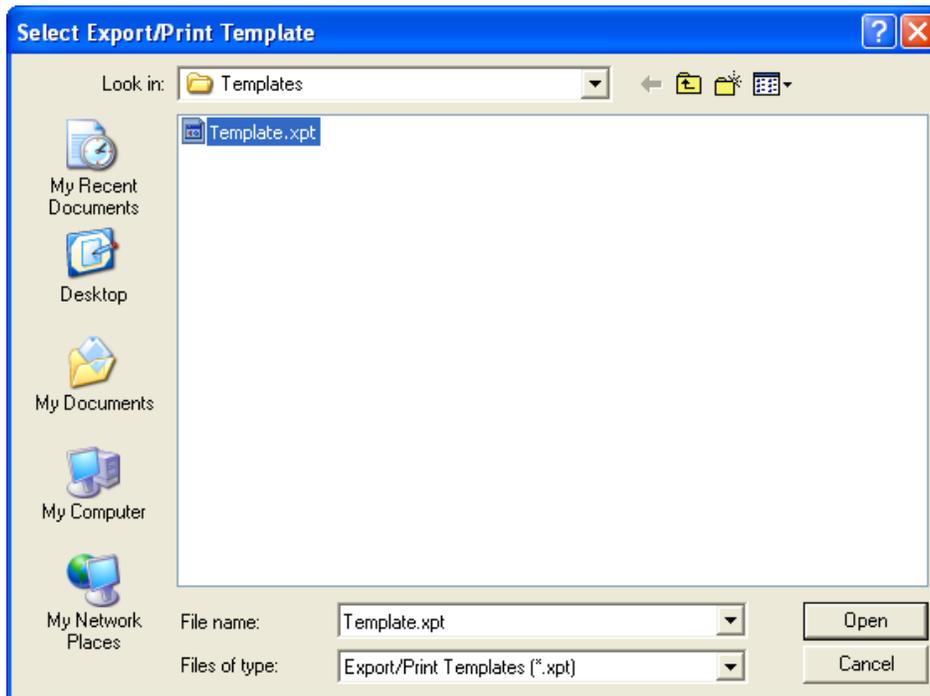
Illustration 143, “Save As” Window



- a. Select a folder in the “Save in” field.

- b. Type a name for the exported file in the “File name” field. If you leave the extension off, WinLGX puts it on for you.
NOTE: If you enter a name of a file that already exists, WinLGX will ask you if you want to overwrite it.
- c. Select the .csv export format in the “Save as type” drop down menu.
- d. Click “Save” to open the template selection window shown in Illustration 144. To apply a template to your schedule information, select the desired template and either click “Open” or double click the template file to create the export schedule .csv file. The file can then be opened in your database program.

Illustration 144, “Select Export/Print Template” Window



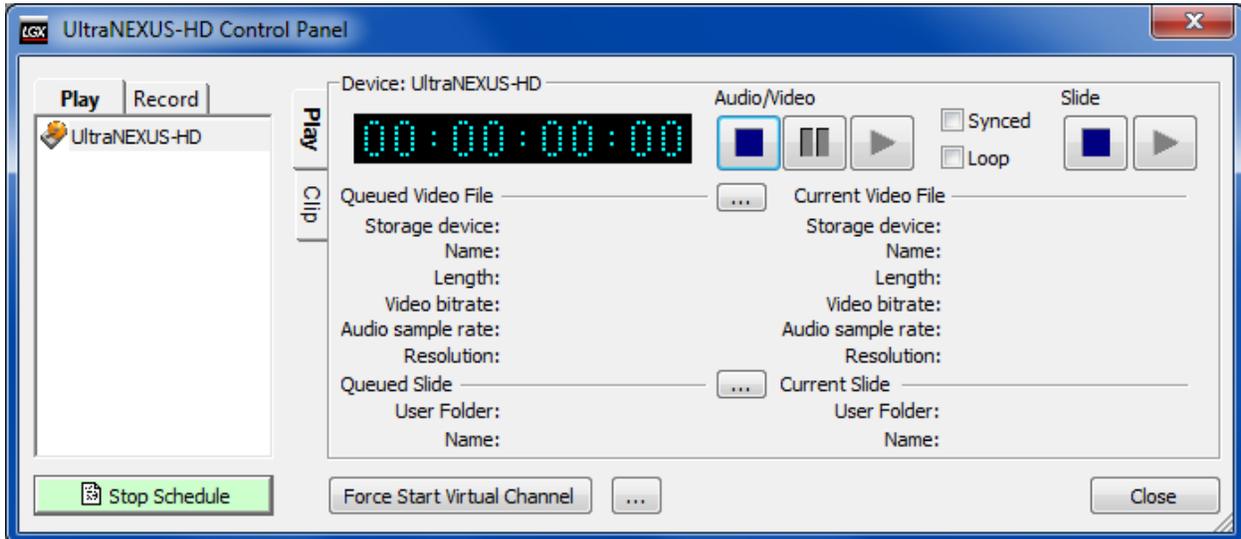
Using Control Panel to Perform Immediate Device and Switch Actions

Use the Control Panel to perform unscheduled control actions, such as starting and stopping a schedule loaded on the UltraNEXUS-HD system, controlling your HD/SD digital video player/recorder, and, for external switcher configurations, switching an input to a different output.

Open the Control Panel window (see Illustration 145) by clicking “Control Panel” under the “Tools” menu or  icon on the main toolbar.

NOTE: The routing switcher and external switch device information displayed in the control panel depends on the switcher configuration (see “Configuring the Switch Type of an UltraNEXUS-HD,” on page 99) and the external switch device configurations (see “Creating External Switch Device Resources,” on page 115).

Illustration 145, Control Panel Window



If desired, sort the device icons by right clicking in the “Devices” column and selecting one of the sorting filters in the right-click menu that appears (see Illustration 146, Control Panel Device Sorting Menu).

Illustration 146, Control Panel Device Sorting Menu



Perform any of the following steps:

- Start/stop a schedule (see page 236).
- Force a switch and view switcher status (see page 236).
 - Select a device in the “Devices” column and refer to one of the following sets of control steps:
 - “Controlling Internal Digital Video Player,” on page 237
 - “Controlling the Internal Digital Video Recorder,” on page 247
 - “Controlling ePRO-BUS Record Devices,” on page 252

When finished, click “Close” to exit the Control Panel.

Stop/Start a Schedule

Once an UltraNEXUS-HD image file with a schedule of events has been sent to your UltraNEXUS-HD server (see “Sending UltraNEXUS-HD Image” on page 231), you may use the stop/start schedule button on the bottom of the Control Panel window (see Illustration 145, Control Panel Window) to perform the following:

- Stop the currently running schedule by clicking the “Stop Schedule” button.
- Restart the current schedule by clicking the “Start Schedule” button.

EXTERNAL SWITCHER Configurations Only—Performing Forced Switches and Viewing Switcher Status

Immediately switch one of your inputs to an output by using the “Switch” portion of the Control Panel.

“List” View

To switch an input to an output from the “List” view (see Illustration 147, Control Panel “Switch” “List” View), single click on an input and then the output you wish to switch it to. When you have both an input and output highlighted, click the “Take” button to make the switch. The “Current Input” column will then change to show the input has been routed to the output. If valid video is present, you will see “Yes” in the “Valid” column of the selected output. Any breakaway audio source accompanying the video will be indicated in the “Break Away” column.

Illustration 147, Control Panel “Switch” “List” View

Switch: Knox

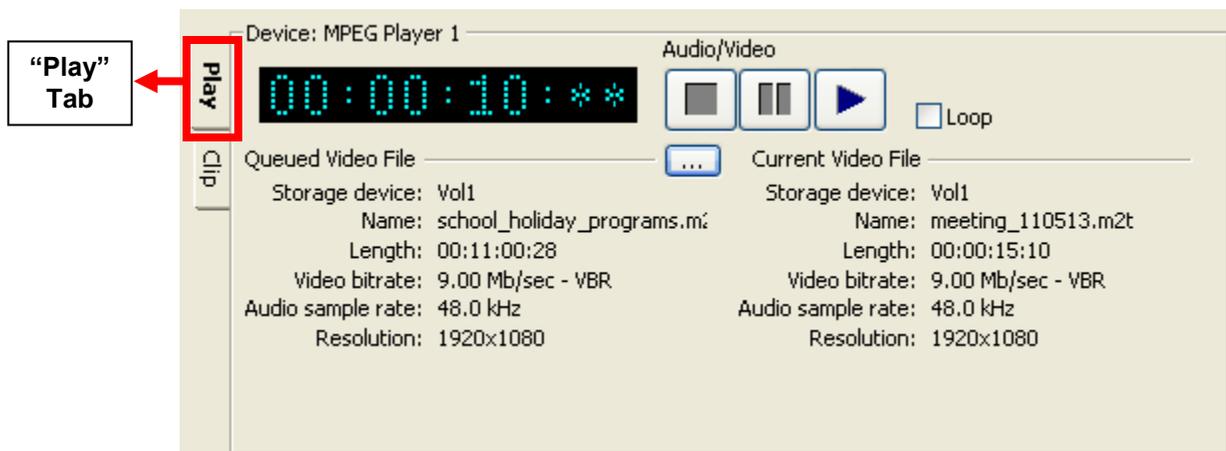
Num	Output	Num	Current Input	Num	Break Away	Valid
1	Out 1	7	MPEG 1			Yes
2	Out 2	8	MPEG 2			Yes
3	Out 3	7	MPEG 1			Yes
4	Sch Rec	6	In 6			Yes

Num	Input
1	In 1
2	In 2
3	In 3
4	In 4
5	In 5
6	In 6
7	MPEG 1
8	MPEG 2

Controlling Internal Digital Video Player

Select the digital video player icon in the Control Panel window’s “Device” list and click the “Play” tab to display the corresponding device control panel (see Illustration 148, Digital Video Player Control Panel).

Illustration 148, Digital Video Player Control Panel



The following is a list of the operations that may be performed:

- **“Queuing a File”** on page 238
- **“Looping a Digital Video File”** on page 241
- **“Playing a File”** on page 241
- **“Queuing the Next File”** on page 241
- **“Stopping a File”** on page 242
- **“Pausing a File”** on page 242
- **“Creating a Library Video Clip Resource”** on page 243

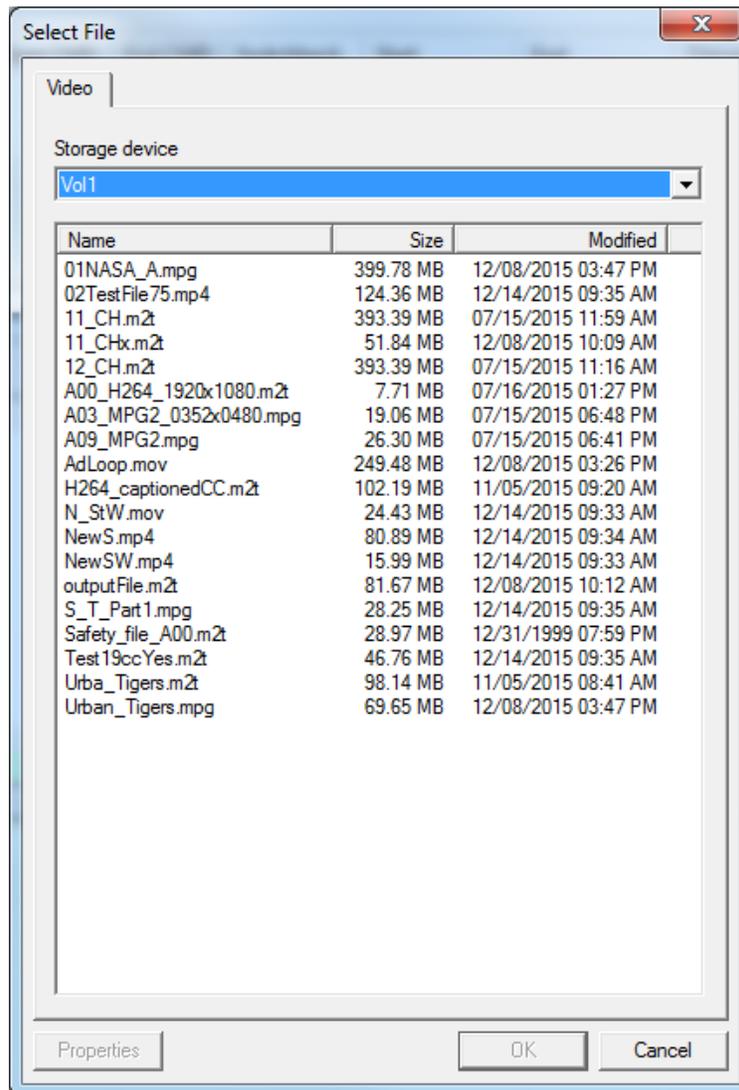
- “Activating the Virtual Channels” on page 245
- “Selecting and Displaying Virtual Channel Playlist Files” on page 246

Queuing a File

Open the “Select File” window for either slides or digital video files as follows:

- Digital video files:
 1. Click the ellipsis button next to “Queued Video File” to open the “Select File” video window (see Illustration 149, “Select File” Video Window).

Illustration 149, “Select File” Video Window



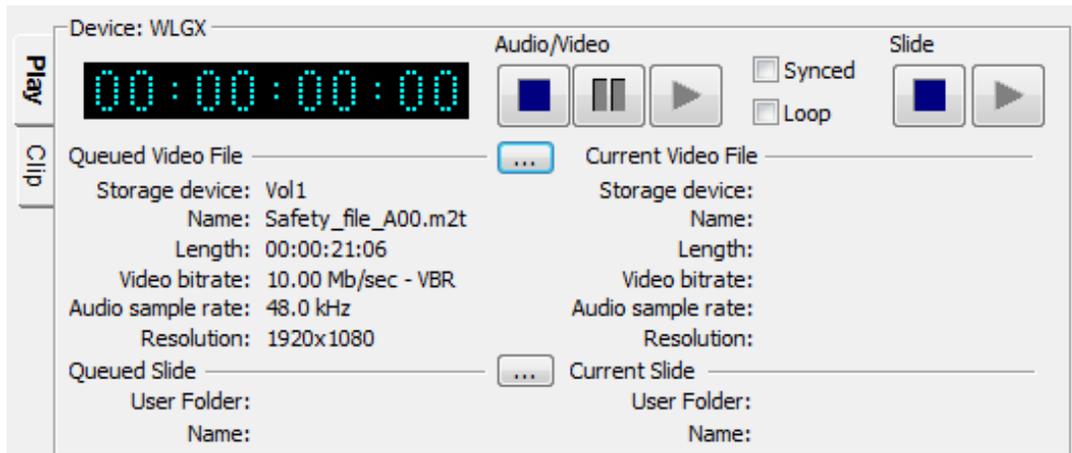
2. Select the storage device containing the desired video file from the “Storage device” drop down list.
3. To display a file’s properties and view the clip before completing the selection, either right click on the file or click “Properties” to display the instant video

preview monitor. For more information on the preview monitor window, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.

4. Select the desired file by double-clicking or highlighting the file and clicking “OK.” The player control panel will then display the properties of the selected file under “Queued Video File” (see Illustration 150, Queued Video File Properties).

NOTE: Click “Cancel” to abort any selections and close the “Select File” video window.

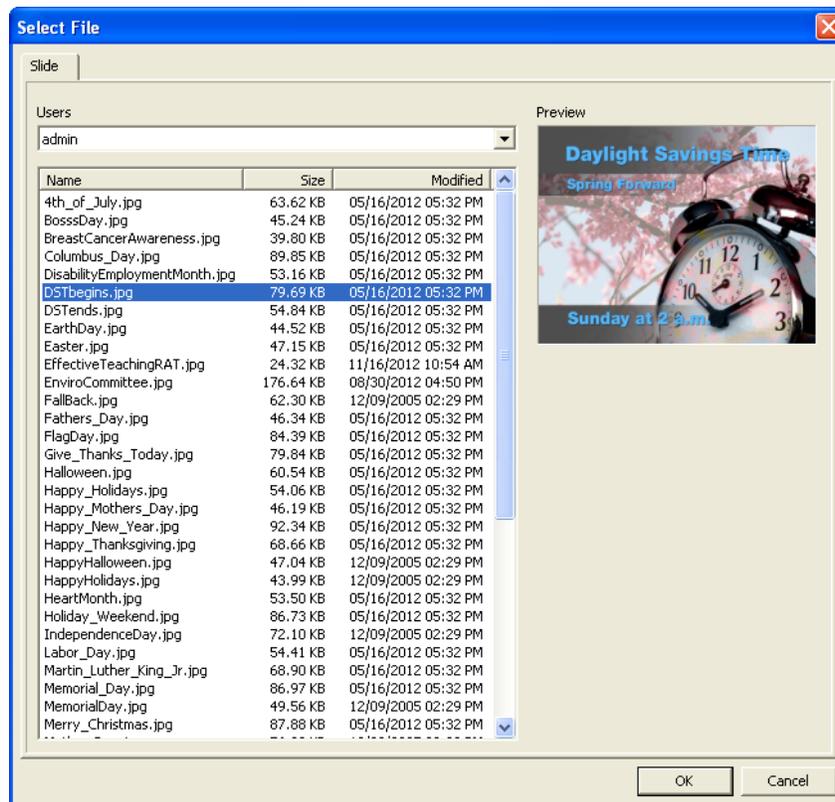
Illustration 150, Queued Video File Properties



UltraNEXUS-HD Software Operation

- Slides:
 1. Click the ellipsis button next to “Queued Slide” to open the “Select File” slide window (see Illustration 151, “Select File” Slide Window).

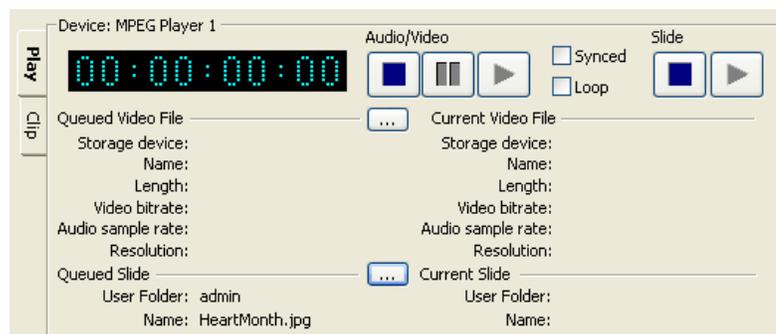
Illustration 151, “Select File” Slide Window



2. Select the desired username from the “Users” drop down list to display the desired slides.
3. Select the desired file by double-clicking or highlighting the file and clicking “OK.” The player control panel will then display the properties of the selected file under “Queued Slide” (see Illustration 152, Queued JPEG Slide).

NOTE: Click “Cancel” to abort any selections and close the “Select File” slide window.

Illustration 152, Queued JPEG Slide



Looping a Digital Video File

Click the “Loop” checkbox to set up a digital video file for repeat playback. Once the  button is clicked, the file will play over and over, from beginning to end, until the  button is clicked or a scheduled event occurs.

Playing a File

Click the  button under “Audio/Video” for a digital video or “Slide” for a slide to play the most recently queued file. The activated file moves into the current position on the control panel. While a .m2t digital video file is playing, the counter displays the file playback time in HH:MM:SS:FF (FF=frames). The counter displays “**” in the FF or frames place holder during playback (furthest to the right) (see Illustration 153), showing the current frame number when the file is paused.

Illustration 153, Digital Video File Playback Counter

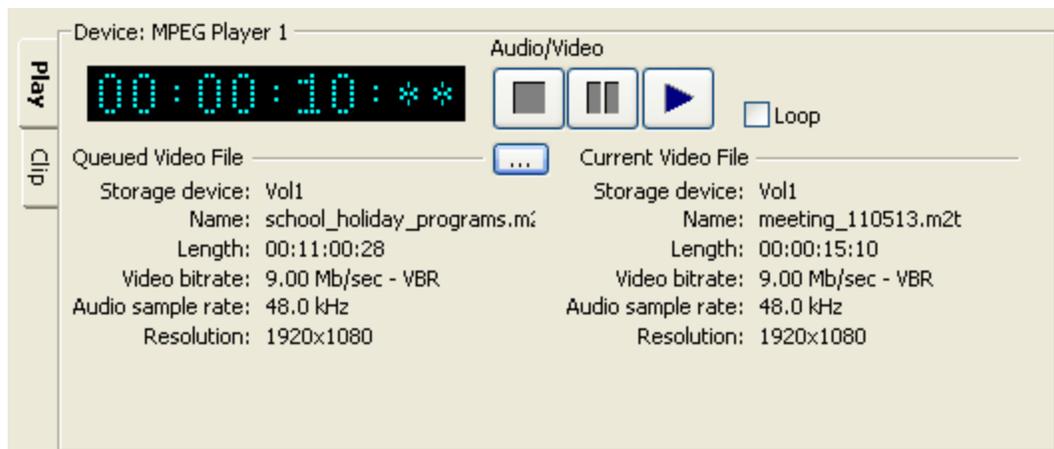


Queuing the Next File

While a file is playing, another file may be loaded into the “Queued Video File” position (see “Queuing a File” on page 238 and Illustration 154, Queued and Currently Playing Files).

NOTE: Clicking the  button while another file is playing will cause the queued file to override the current file and begin playing.

Illustration 154, Queued and Currently Playing Files



Displaying a Slide with Audio from a Video File

1. Ensure the “Synced” box is checked.
2. Ensure that the desired digital video file and slide have been queued (see “Queuing a File” on page 238 for more information).

UltraNEXUS-HD Software Operation

3. Control the synced files as follows from either the “Audio/Video” or “Slide” controls:

- Click the  button to simultaneously activate the video file and slide.
- To stop both files, click the  button.
- To pause the audio track from the video file, click the  button.

Stopping a File

Click the  button under “Audio/Video” for a digital video file to stop a file. Stopping a file unloads it from the “Current Video File” position.

Pausing a Digital Video File

Click the  button under “Audio/Video” to pause a digital video file in the “Current Video File” position. When a digital video file is paused, the counter displays the current frame number in the FF or frames place holder (furthest to the right) (see Illustration 155). To reactivate the file, click the  button again.

Illustration 155, Digital Video File Playback Counter with Frame Number Displayed



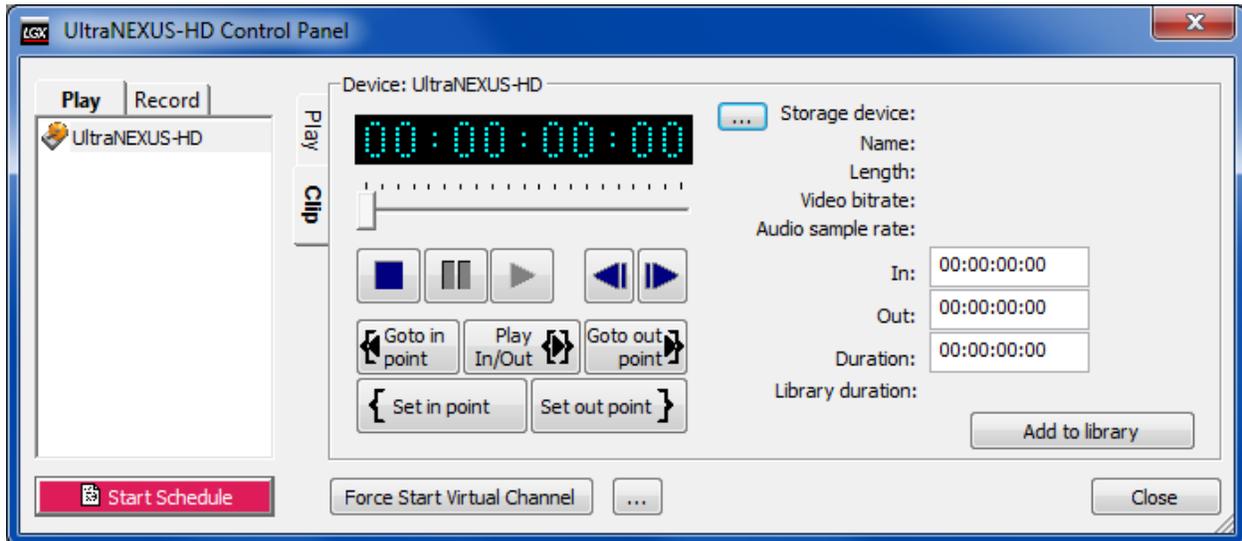
00:00:08:06

Creating a Library Video Clip Resource

Use the digital video clip creation panel to create a library resource for a clip of a video file.

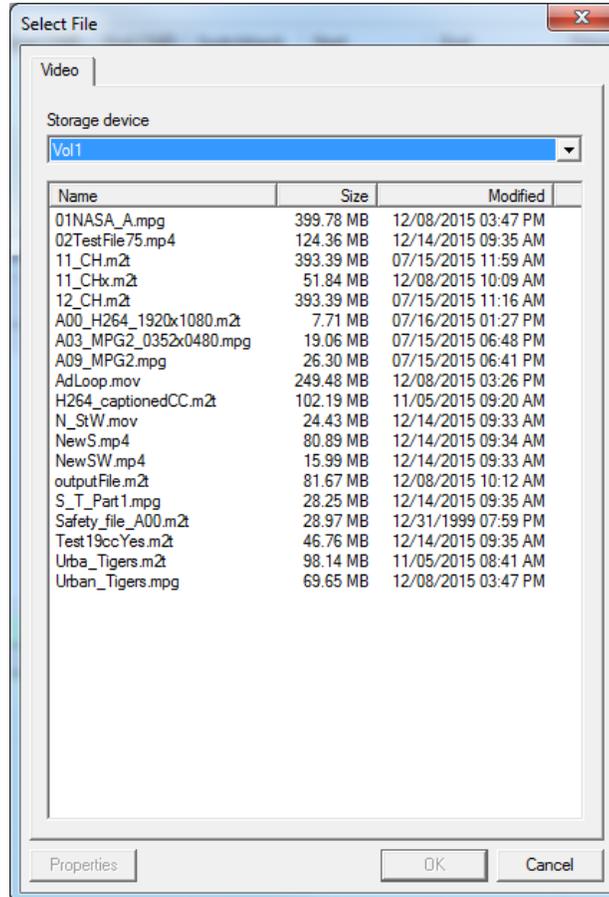
1. Click the “Clip” tab to display the clip creation panel (see Illustration 156).

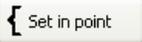
Illustration 156, Digital Video Clip Creation Panel



2. Load the file you would like to use to create a clip according to the following steps:
 - a. Click the button next to “Storage device” to display the “Select File” window (see Illustration 157).

Illustration 157, “Select File” Window



- b. Select the storage device containing the desired digital video file from the “Storage device” drop down list.
 - c. To display a file’s properties and view the clip before completing the selection, either right click on the file or click “Properties” to display the instant video preview monitor. For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.
 - d. Single click on the desired file to highlight it and either double click or click “OK” on the bottom of the window to finish loading the file.
3. Specify the clip’s playback start point using one of the following methods:
 - Click the  button to start playing the file and click the  button at the desired spot.
 - Drag the playback bar to the desired spot and click the  button.

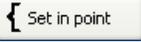
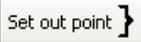
- Click the  or  button to move between groups of pictures (GOPs) in the video file and click the  button.
- 4. Specify the clip's playback end point using one of the methods outlined above for selecting an in point and click the  button.
- 5. To move to the selected in point and/or out point, click the  or  button.
- 6. Preview the clip before airing by clicking the  button.
- 7. Once you have specified the desired in and out points, create a new library item for the clip by clicking the "Add to library" button to display the "Add to library folder" window (see Illustration 158). Perform the following steps:

Illustration 158, "Add to library folder" Window



- a. Select the library folder in which the corresponding MPEG file library resource will be created.
- b. If desired, rename the clip in the "Resource name" field.
- c. Click "OK" to add the clip to the library or "Cancel" to abort the changes.

Activating the Default Virtual Channel Playlists

Before a Virtual Channel's default "Current" playlist will display, the Virtual Channel must be activated through a schedule event or the Control Panel's  button. Select the Virtual Channel's player in the "Devices" column and then just click

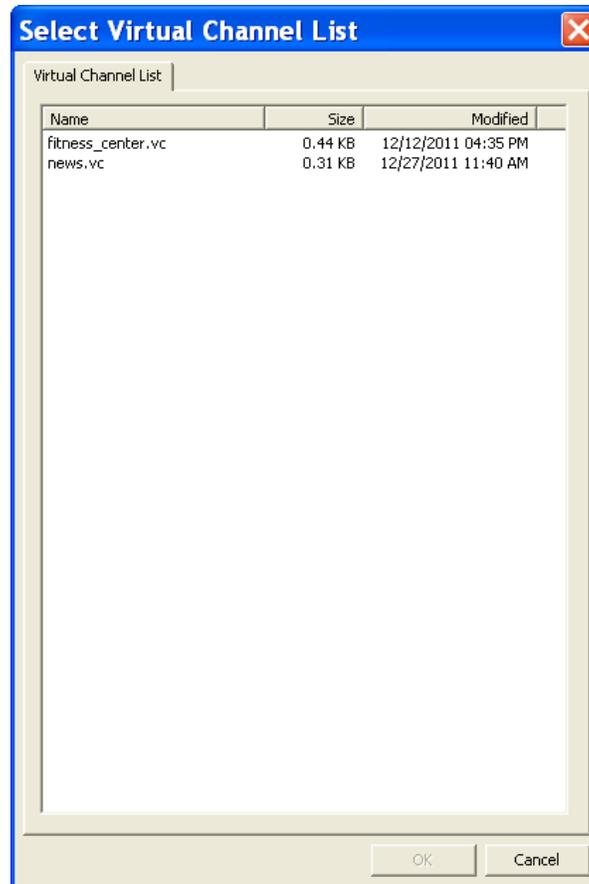
the  button to display the playlist currently saved in the Virtual Channel's default "Current" playlist preset.

Selecting and Displaying Virtual Channel Playlist Files

Virtual Channel playlist files can be displayed from the WinLGX control panel according to the following steps.

1. Select the video player you want to display the playlist file's digital resources in the "Devices" column.
2. Click the ellipsis button next to the "Force Start Virtual Channel" button to display the "Select Virtual Channel List" Window shown in Illustration 159.

Illustration 159, "Select Virtual Channel List" Window



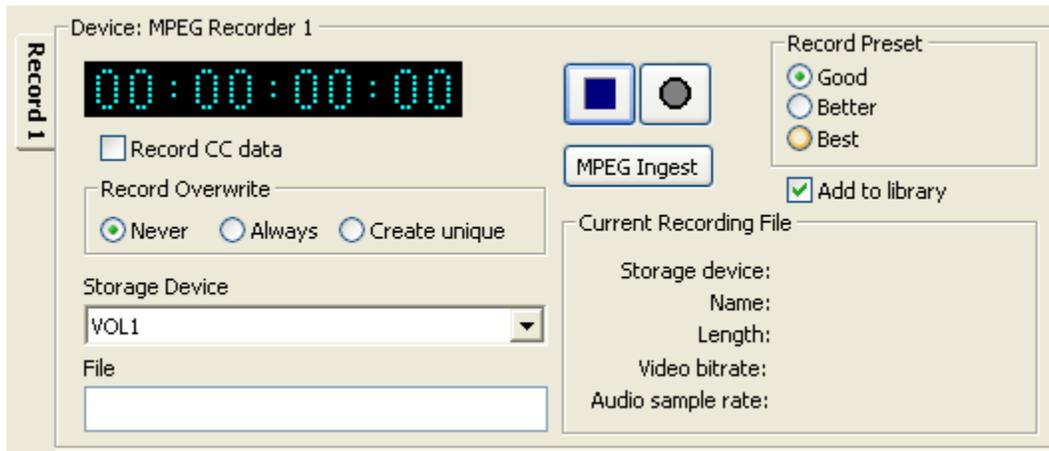
3. Select a Virtual Channel playlist as follows:
 - Double-click the desired file to accept selection and close "Select Virtual Channel List" window.
 - Select the desired file and click "OK" to accept or "Cancel" to abort selection.

Once a playlist file selection is made, the playlist will immediately display.

Controlling the Internal Digital Video Recorder

Select the digital video recorder tab in the control panel window to display the recorder's control panel (see Illustration 160, Digital Video Recorder Control Panel). Perform the following steps:

Illustration 160, Digital Video Recorder Control Panel



Select the digital video file recording parameters:

- a. Check the “Record CC data” box to capture any closed caption data from the source during recording. Closed captions are hidden in the video signal and decoded for display on televisions with built-in decoders or televisions connected to external decoders.
- b. Select one of the following record overwrite options:
 - “Never”: WinLGX does not allow a file entered with an existing filename to record and displays an error message
 - “Always”: WinLGX records over an existing file with the same name
NOTE: Selecting the “Always” option disables the “Add to library” option.
 - “Create unique”: if an existing filename is entered, WinLGX automatically records the file under the first 14 characters of the original filename followed by “yy/mm/dd-hh/mm/ss” (yy/mm/dd is the file record date specified as year/month/ day and hh/mm/ss is the file record time in hours/minutes/seconds)
- c. Select the volume of the drive on which you would like to store the recorded file from the “Storage Device” drop down list.

NOTE: The WinLGX software will store the last selected storage device in the schedule image file.

- d. Under “File,” enter up to 27 characters (no spaces) for the filename.
- e. Select one of the user-defined record presets for the desired recording quality. See “Configuring Digital Video Recording Presets,” on page 109, for more information on defining the recording quality settings.

- f. If you would like a library resource for the video file added to the “Library” tab window, select the “Add to library” option. Once the digital video recorder stops, WinLGX displays the “Add to library” window (see Illustration 161). Select the library folder in which the corresponding digital video file library resource will be created.

- NOTES:**
- WinLGX will not create a library resource for a file that possesses the same video filename and length as a pre-existing library resource.
 - If the new file possesses the same title as another resource, but has a different video filename and/or length, WinLGX will copy the new file to the library with a numbered increment added to its title. For example, if this is the first time you have reused the title of a pre-existing library resource, WinLGX will add the new file to the library under the name “title01.”

Illustration 161, “Add to library folder” Window



Start and stop recording through one of the following options:

- **All Switch Type Configurations (with and without external switcher):**

➤ **Manual Start/Stop**

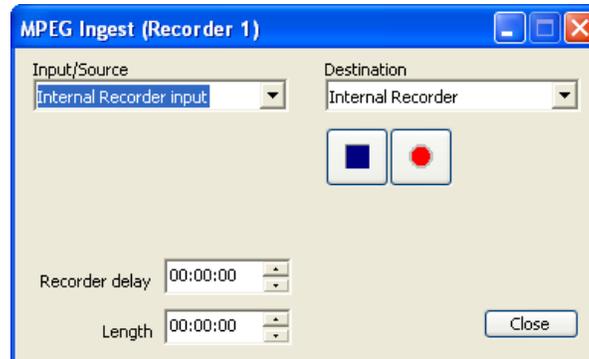
- a. Click the  button to begin recording the source connected to the UltraNEXUS-HD digital video recorder.
- b. When you have captured all of the desired video/audio, click the  button to stop recording.

- **Direct Connect Configuration (no switcher):**

➤ **Manual Start/Automated Stop**

- a. Click on the “MPEG Ingest” button on the digital video recorder control panel to display the window shown in Illustration 162.

Illustration 162, Digital Video Ingest Window for a “No Switch” Configuration

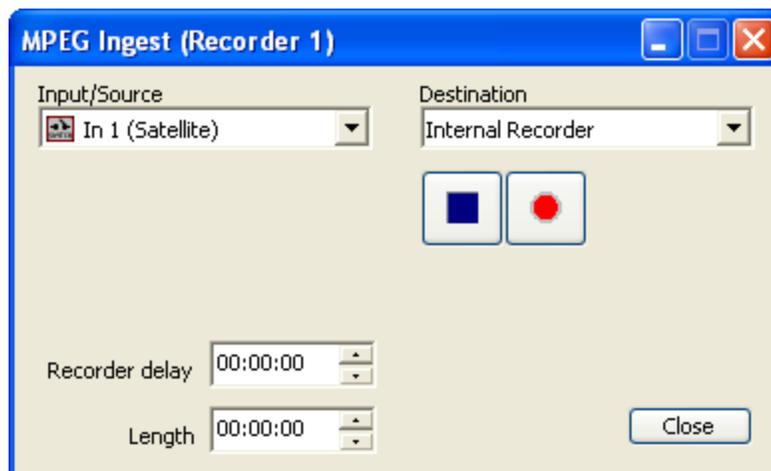


- b. If desired, set a delay time for the digital video recorder from the “Recorder delay” field. Once recording is initiated, this is the time that will elapse before the recorder begins capturing video/audio from the source connected to the recorder input. WinLGX displays a countdown window that allows you to cancel the delay.
 - c. Enter a record time in the “Length” field. The digital video recorder automatically stops at the end of the record time.
 - d. Start recording by clicking the  button.
 - e. Click the “Close” button to exit the window.
- **External Switcher Configurations Only:**
 - **Switcher Panel**
 - a. From the switcher panel on the bottom of the Control Panel window, go to the digital video recorder output row and click on the external input switch resource that you would like to record.
 - b. Click the  button to begin recording.
 - c. Once the file reaches the desired length, click the  button to stop the recording.
 - **Ingest Option**

Use the ingest option to digitally record playback from your switch resources connected to your external switcher inputs. This option also allows you to delay the activation of the selected UltraNEXUS-HD digital video recorder and set a record time length. Perform the following steps:

 - a. Click on the “MPEG Ingest” button on the digital video recorder control panel to display the window shown in Illustration 163, “MPEG Ingest” Window.

Illustration 163, "MPEG Ingest" Window

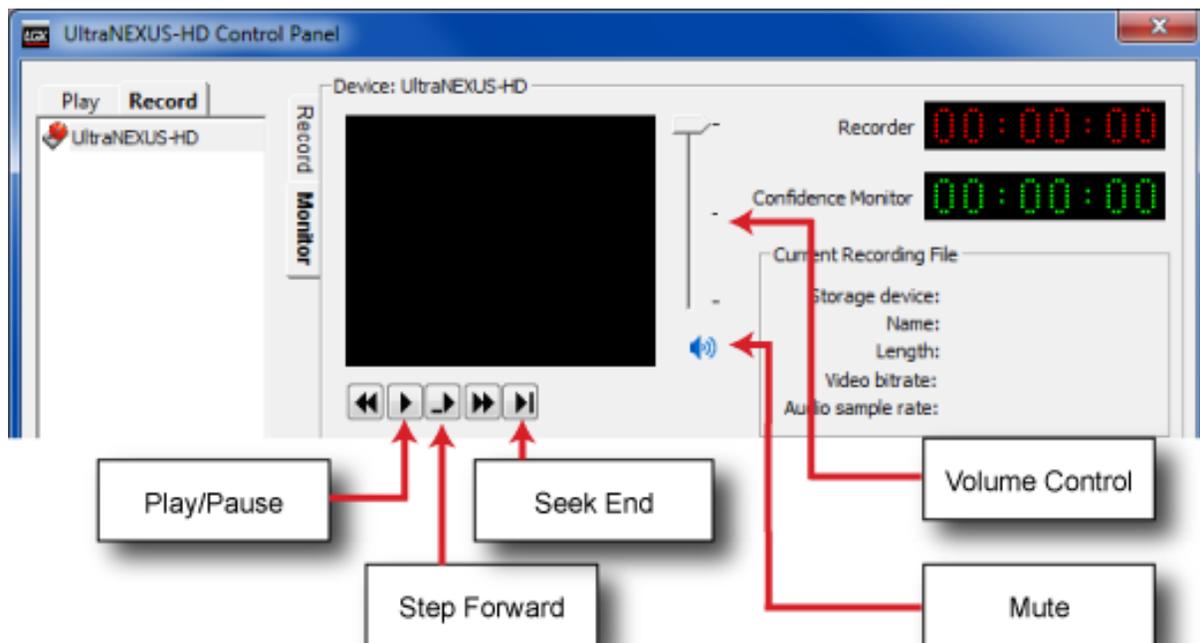


- b. From the "Input/Source" drop down list, select the external switch resource that you would like to record.
- c. Under "Destination," select the UltraNEXUS-HD digital video recorder that you would like to use to record the selected input.
- d. If desired, set a delay time for the digital video recorder from the "Recorder delay" field. Once recording is initiated, this is the time that will elapse before the recorder begins capturing video/audio from the external switch resource. WinLGX displays a countdown window that allows you to cancel the delay.
- e. If desired, enter a record time in the "Length" field. The input device and digital video recorder automatically stop at the end of the record time.
- f. Start recording by clicking the  button.
- g. If you did not enter a record time in the "Length" field, stop the digital video recorder by clicking the  button.
- h. Click the "Close" button to exit the window.

Monitoring a Video File Recording

Once a digital video file recording has been initiated from a scheduled event or the control panel, WinLGX allows you to watch the recorded video on the control panel's confidence monitor. Select the recorder tab in the control panel window to display the recorder control panel and then click the "Monitor" tab (see Illustration 164). After the recording is initiated, the confidence monitor automatically begins to display the recorded video footage after the number of seconds specified on the "Preview Monitor" tab of the "Preferences" window (default is 10 seconds; see page 94 for more details). To control playback of the recorded video, refer to the information below on the confidence monitor controls:

Illustration 164, MPEG Recorder Confidence "Monitor" Tab Window

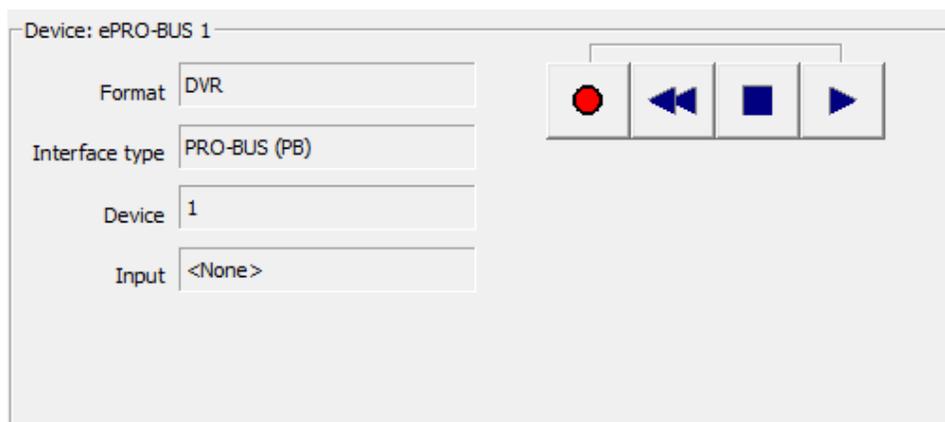


- **“Recorder” Time Display:** shows the total length of the recording file in hours:minutes:seconds
- **Play/Pause Button:** click to toggle between pause and playback of the video.
- **Step Forward Button:** moves the video forward one GOP each time it is clicked.
- **Seek End Button:** moves current playback position to the end of the recorded file.
- **Volume Control:** click and drag the volume control slider to adjust video’s volume. The volume control defaults to lowest audio setting.
- **Mute Button:** click the mute button to toggle between silenced and restored audio.
- **“Current Recording File” Properties:** provides the name, length, video bit rate, audio sample rate, and storage device of the selected video file.

Controlling ePRO-BUS Record Devices

Select the ePRO-BUS record device icon in the “Device” list to display the corresponding control panel (see Illustration 165, Control Panel: ePRO-BUS Record Device Control) with the following information:

Illustration 165, Control Panel: ePRO-BUS Record Device Control



- “Format”: type of device. This should be a DVR device.
- “Interface type”: always a “PRO-BUS” device interface for ePRO-BUS record devices
- “Device”: PRO-BUS address number assigned to the LABvault-HD recorder you wish to control. The PRO-BUS address numbers are configured in the UltraNEXUS-HD web interface (see the “Configuring ePRO-BUS Settings” section on page 344 for more details).
- “Input”: should be set to “<None>,” as ePRO-BUS record devices are outputs

Immediately start/stop a record on your LABvault-HD player/recorder according to the following steps. Start a remote ePRO-BUS record session if the LABvault-HD is networked to your UltraNEXUS-HD server. A local ePRO-BUS record should be initiated for ePRO-BUS record devices that are directly wired to your UltraNEXUS-HD’s external switcher.

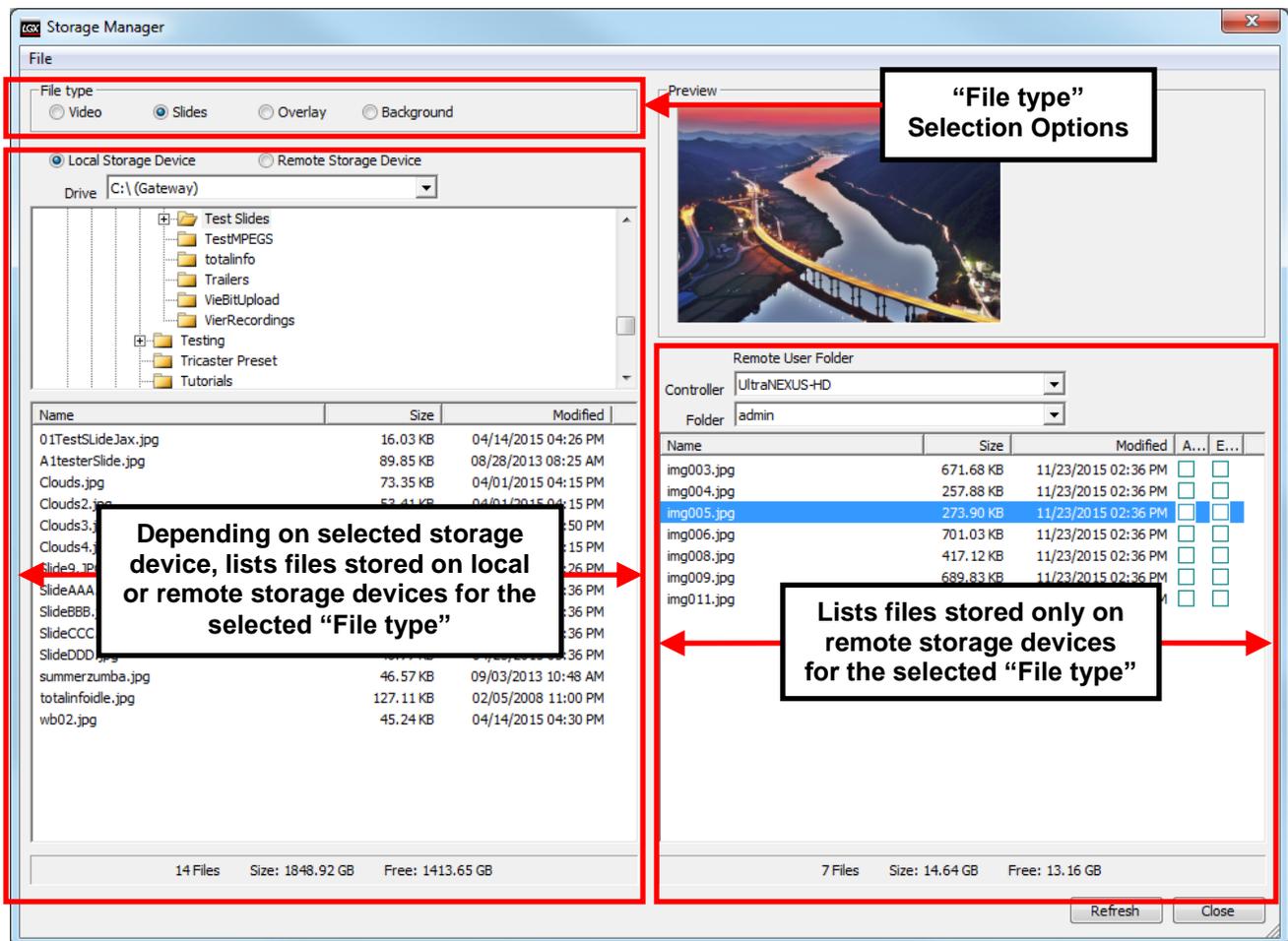
- Remote ePRO-BUS Record: click the record icon to initiate a record on your LABvault-HD. When you have captured the desired footage, click the stop record icon.
- Local ePRO-BUS Record: for LABvault-HDs directly connected to your UltraNEXUS-HD’s external system switcher, you will first need to switch a video source over to your LABvault-HD before initiating a record. Perform the following:
 1. Use the control panel’s switcher subpanel underneath the ePRO-BUS device controls to switch a video source input to the output connected to your LABvault-HD.
 2. If applicable, activate playback on your video source by selecting the input device in the left-hand column of the control panel. Use the corresponding control panel controls to start playback on the video source input.

- Return to the recorder controls by clicking the ePRO-BUS device controls in the control panel's left-hand column. Click the record icon to initiate a record on your LABvault-HD. When you have captured the desired footage, click the stop record icon.

Managing Storage of Video, SLIDE, and OVERLAY Files

Manage digital media storage for one or more LEIGHTRONIX video servers/controllers with the WinLGX "Storage Manager" window. The Storage Manager provides access to your videos, JPEG slides, PNG overlays, and JPG/PNG background images. Just select the file type you want to manage and then add and delete the files to and from your local (PC/network) and remote (UltraNEXUS-HD compact Flash, USB hard drives, and NAS) storage devices. Open the Storage Manager window by selecting "Storage Manager" from the "Tools" menu or click the  icon on the main toolbar to open the window shown in Illustration 166, "Storage Manager" Window.

Illustration 166, "Storage Manager" Window



Perform any of the file management operations listed under the following sections:

- “Choosing File Storage Devices” on page 254
- “Managing All Digital Files” on page 255
- “Previewing Video Files” on page 257
- “Creating a Default Slide” on page 258
- “Creating & Managing Background SubFolders” on page 259
- “Transferring Graphic/Text Layers with Slides Created in a WebNEXUS Slide Editor,” on page 261

When you are finished, click the “Close” button to exit the “Storage Manager” window.

Choosing File Storage Devices

Select one of the following to enable the display of the corresponding file type:

- **“Video”**: displays video files only
- **“Slides”**: displays JPEG slides only
- **“Overlay”**: displays PNG graphic overlays only
- **“Background”**: displays JPEG/PNG graphics available for slide creation in your WebNEXUS slide editor

The left side of the Storage Manager window allows you to access both your local and remote storage devices. Select a storage device as follows:

- **“Local storage device”**: select to access files stored on your PC or network. Use the “Drive” drop down box and file navigation window to find and select your videos or graphics files.
- **“Remote storage device”**: select to access the internal and external storage devices for your UltraNEXUS-HD system. Specify the UltraNEXUS-HD storage device you wish to access as follows:
 - a. Select a UltraNEXUS-HD system from the “Controller” drop down box. All WinLGX connected UltraNEXUS-HD server/controllers will appear in the drop down box, allowing you to access the remote storage devices for the UltraNEXUS-HD system that you choose.
 - b. From the “Device” drop down box, select a remote storage device based on the file type chosen in step 0:
 - **“Video”**: select the USB hard drive or network attached storage (NAS) device containing the MPEG files you wish to access
 - **“Slides”**: select a user account folder containing the slides you wish to access. The “public” folder serves as a common storage area into which all users can add slides and cannot be displayed in slide shows.
 - **“Overlay”**: select the “Emergency” or “Standard” folder
 - **“Background”**: the “Background” subfolders are not accessible from the left side of the “Storage Manager” window. Instead, select “Local Storage Device” to display the UltraNEXUS-HD server’s background subfolders and contents on the right side of the “Storage Manager” window.

The right side of the Storage Manager window only allows you to access your UltraNEXUS-HD remote storage devices. Refer to the remote storage device selection instructions in step 0, while noting the following for the “Background” folder:

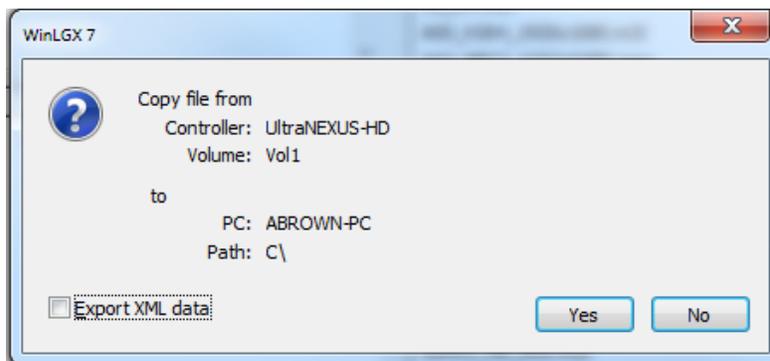
“Background”: when “Background” is selected, the right side of the Storage Manager shows the file folders containing graphics for your WebNEXUS slide editor’s “Images” selection window. By default, your UltraNEXUS-HD server includes several folders of background images and icons available for use during slide creation.

Managing All Digital Files

- **Preview slides, overlays, and backgrounds**: single click on a JPEG or PNG file to display it in the “Preview” window.
- **Select one or more files**
Selected files are highlighted with a blue stripe.
 - Single file: single click on the file
 - All Files: right click on a file and select “Select All” from the right-click menu.
 - Block of Files Next to Each Other: while holding down the “Shift” key on your keyboard, single click two files to select both files plus any in between.
 - Random: hold down the “Ctrl” key on your keyboard and click on the desired files.
- **Copy files from one storage area to another**
Copying leaves the original files in their current locations. Select one or more files and then right click on the selected file(s) to display the right-click menu. Select “Copy” from the menu. A dialog box (see Illustration 167, Storage Manager Copy Dialog Box) will ask whether or not you would like the file copied to the storage device selected on the opposite side of the Storage Manager screen. Depending on your selected storage device/file type, you may also perform the following:
 - Create a library resource for the file: if you are copying a video, slide, or background to a remote storage device, you may click the “Add to library” option to create a WinLGX library resource for the file.

- Export XML data to local storage device: if you are copying a digital file from a remote to a local storage device, you will see an “Export XML data” checkbox in place of the “Add to library option.” *The “Export XML data” checkbox is reserved for future use.*

Illustration 167, Storage Manager Copy Dialog Box



NOTE: Clicking the “Cancel” button on the FTP window stops the transfer, leaving a file fragment which should be deleted. Cancel only when necessary. When multiple files are finished, a summary dialog appears giving the final results.

- **Move file(s) from one storage area to another**

Moved files are removed from their original locations and transferred to the selected storage areas. Select one or more files and then right click on the selected file(s) to display the right-click menu. Select “Move” from the menu. Depending on your selected storage device/file type, you may also perform the following:

- Create a library resource for the file: if you are copying a video, slide, or background to a remote storage device, you may click the “Add to library” option to create a WinLGX library resource for the file.
- Export XML data to local storage device: if you are copying a digital file from a remote to a local storage device, you will see an “Export XML data” checkbox in place of the “Add to library option.” *The “Export XML data” checkbox is reserved for future use.*

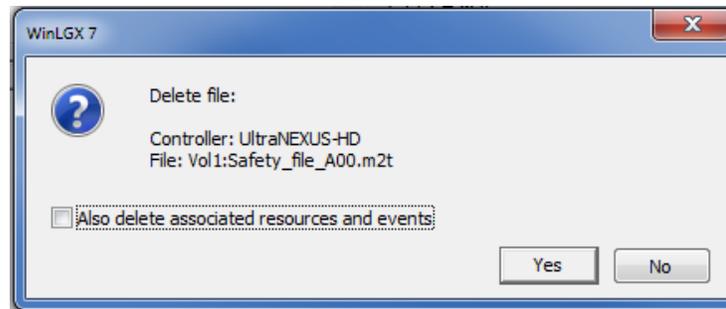
NOTE: Clicking the “Cancel” button on the FTP window stops the transfer, leaving a file fragment which should be deleted. Cancel only when necessary. When multiple files are finished, a summary dialog appears giving the final results.

- **Delete files from your storage areas**

- Select desired file(s) and press the “Delete” key.
- Right click on the selected file(s) and select “Delete” from the right-click menu.

A pop-up box will appear, showing the name and path of the digital file to be deleted. If you are deleting the file off of a remote internal or external storage device for your UltraNEXUS-HD system, the Storage Manager will also allow you to select an option that automatically deletes any library resources and events containing the file. Click “Yes” to complete the deletion or “No” to abort.

Illustration 168, Storage Manager Digital File Delete Option



- **Rename files**

Right click on the selected file(s) and select “Rename” from the menu. Enter new volume name in the “Rename File” window.

NOTE: NEXUS series server/controllers will not display files with filenames containing spaces.

- **Create library resources for your videos and JPEG slides**

Right click on the file(s) selected on one of your remote storage devices and select “Add to library” from the right-click menu to display the “Add to library folder” Window shown in Illustration 161. Select the library folder you want to contain the corresponding library resource(s) and click “OK.”

- NOTES:**
- WinLGX will not create a library resource for a file that possesses the same filename and length as a pre-existing library resource.
 - If the new file possesses the same title as another resource, but has a different filename and/or length, WinLGX will copy the new file to the library with a numbered increment added to its title. For example, if this is the first time you have reused the title of a pre-existing library resource, WinLGX will add the new file to the library under the name “title01.”

- **Rename remote storage device(s)**

In a remote storage device file listing on either side of the Storage Manager window, right click and select “Rename volume.” Enter the new volume name in the “Rename Volume” window and click “OK” to make the change or “Cancel” to abort.

- **Refresh file listing**

Click the “Refresh” button to update the files on the Storage Manager window.

Previewing Video Files

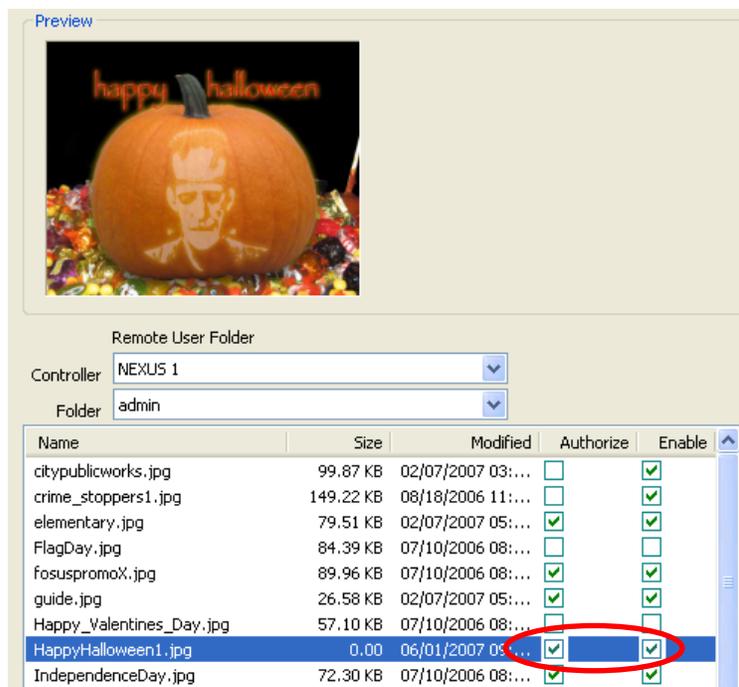
WinLGX gives you the option to display the digital video files in the Storage Manager “Video” listings within the instant video preview monitor by either double clicking the file or right clicking on the file and selecting “View” in the right-click menu. For more information on the preview monitor, go to the “Using Instant Video Preview Monitor to Display Digital Video Files within WinLGX” section on page 175.

Enabling and Authorizing Slides for Display in Slide Shows

Slide .jpg files must be enabled and authorized before they will display in **slides shows** (see

Illustration 169). All users who have the right to upload slides can indicate their slides are appropriate for slide shows by checking the “Enable” box next to each slide in their user folders. However, the “Authorize” box next to each slide must also be checked before it will display on-air in slide shows. Only the “admin” user and users with the “Slide administrator” right can authorize slides in any user folder. Slides uploaded by users with the “Automatic slide authorization” right into their own user folders will be automatically approved for display. Refer to “Setting User Account Rights (Including WinLGX Password Changes)” on page 75.

Illustration 169, Slide Show Authorize and Enable Options



Creating a Default Slide

The default slide will display if a slide show is scheduled in a slide show without slides or without approved slides.

1. The “admin” user must upload the slide into his “admin” user account folder (see the “Managing All Digital Files” on page 255).
2. Right-click on the file and select “Rename” from the menu. Change the slide filename to “Default.jpg.”
3. Enable and approve the slide for display (see the “Enabling and Authorizing Slides for Display in Slide Shows” section on page 258).

Creating & Managing Background SubFolders

Graphic files in the “/Internal/DATA/backgrounds” subfolders are available for use during slide creation from your WebNEXUS slide editor’s “Images” selection window (see “Creating New Slides” on starting on page 292 for more details). The subfolders are on your NEXUS series server’s internal compact Flash storage area and contain factory default slide templates, backgrounds, and icon graphics from LEIGHTRONIX as well as any files you have chosen to upload.

NOTE: The “Background” file type on the “Storage Manager” window only appears for users with the “Slide Administrator” user right. Users must also be granted the “Send and Receive” user right in order to transfer any files between local and remote storage areas. See “Setting User Account Rights (Including WinLGX Password Changes) on page 75 for more information on adding and assigning rights to user accounts.

You may create additional subfolders for your own PNG and/or JPEG background files created with any third-party graphic program. Create and delete background subfolders according to the following steps:

- **Create a background subfolder**

1. Ensure you have selected “Local Storage Device” on the left side of the “Storage Manager” window.
2. On the right side of the “Storage Manager” window, right click in the “backgrounds” directory window and select “Create directory” as shown in Illustration 170. In the “Create directory” window that appears, type in a name for your subfolder and click “OK” to create the subfolder or “Cancel” to abort.

NOTE: Your WebNEXUS slide editor will only display graphics within the “backgrounds” subfolders.

Illustration 170, “Create directory” Backgrounds Option



3. Copy or move files into the new subfolder according to “Managing All Digital Files” on page 255.

NOTE: Images of any size resolution may be uploaded to a WebNEXUS slide editor, but keep in mind the editor slide creation area and save resolution is 1920 pixels wide x 1080 pixels high.

- **Delete a background subfolder**

1. Ensure you have selected “Local Storage Device” on the left side of the “Storage Manager” window.

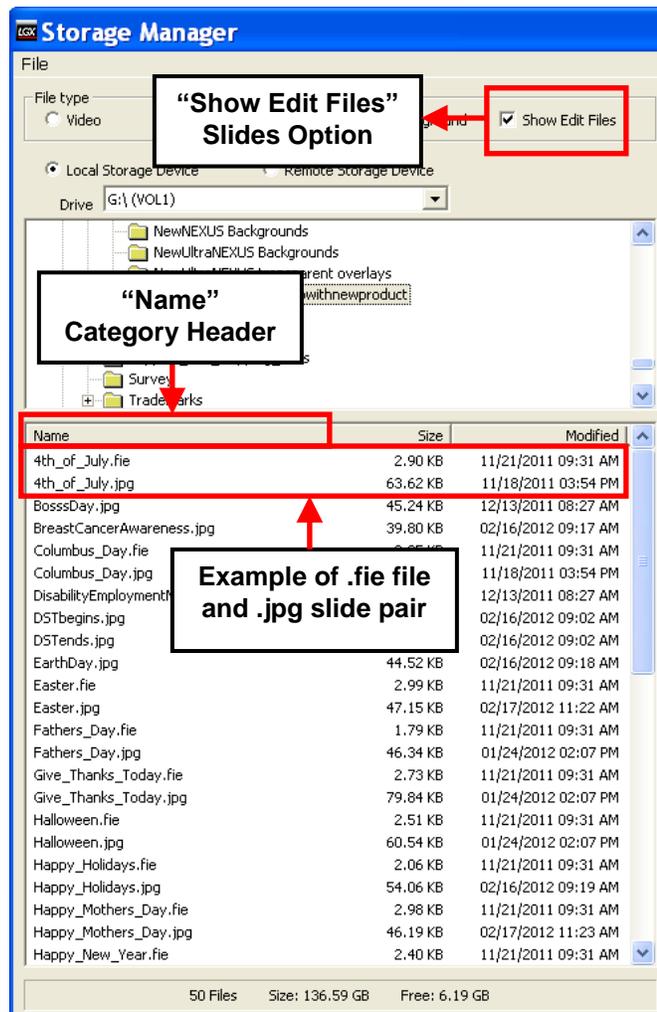
2. On the right side of the “Storage Manager” window, right click on a subfolder in “/Internal/DATA/backgrounds” and select “Delete directory” in the pop-up menu that appears. Click “Yes” to delete the subfolder or “No” to abort.

Transferring Graphic/Text Layers with Slides Created in a WebNEXUS Slide Editor

Slides created in a WebNEXUS slide editor can still be modified after they are transferred to a local storage device or another NEXUS series server if they are copied/moved from the WinLGX Storage Manager with their graphic/text layers. By choosing the Storage Manager’s “Show Edit Files” option and transferring slides with their graphic/text layers to a NEXUS series server (remote storage device), you will be able to modify the slides’ layers in your WebNEXUS slide editor. To transfer a slide with its layers, perform the following:

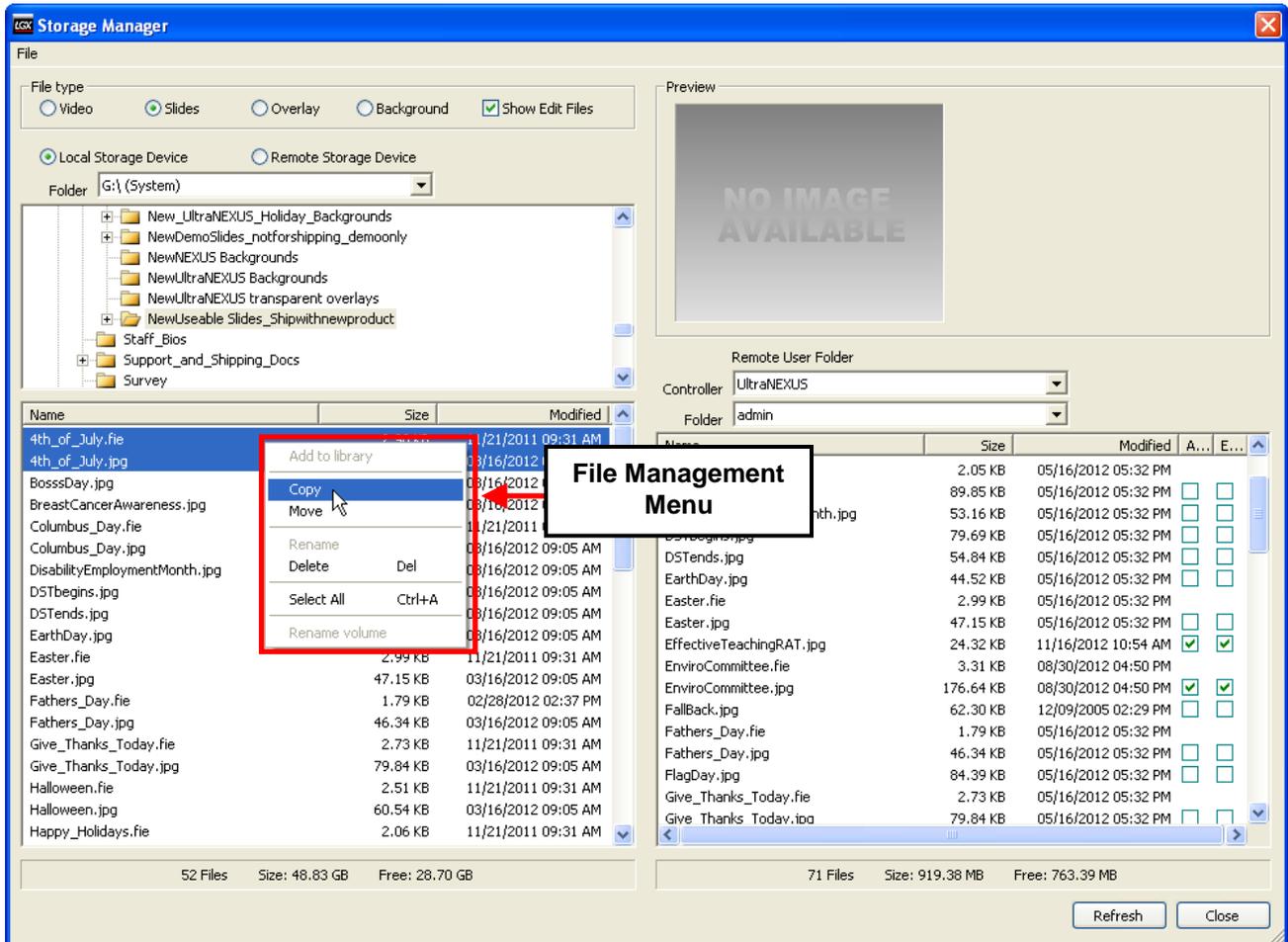
1. Select the “Slides” file type.
2. Select your storage devices on the right and left sides of the Storage Manager window (see “Choosing File Storage Devices,” on page 254 for instructions).
3. Select the “Show Edit Files” option to list the .fie files for any slides originally created in a WebNEXUS slide editor. Each .fie file contains the text/graphic layers used to create the slide with the same name.
4. Show each .fie file next to its corresponding .jpg slide in the slide listing by clicking the “Name” category header. The Storage Manager does not provide preview images of the .fie files.

Illustration 171, “Show Edit Files” Option



5. Select both the slide’s .jpg and .fie files as follows: while holding down your keyboard’s “Ctrl” key, single click both the .jpg and .fie files to select the pair. While still holding down the “Ctrl” key, right click to display the file management menu (see Illustration 172).

Illustration 172, Transfer Slide and Layer Files



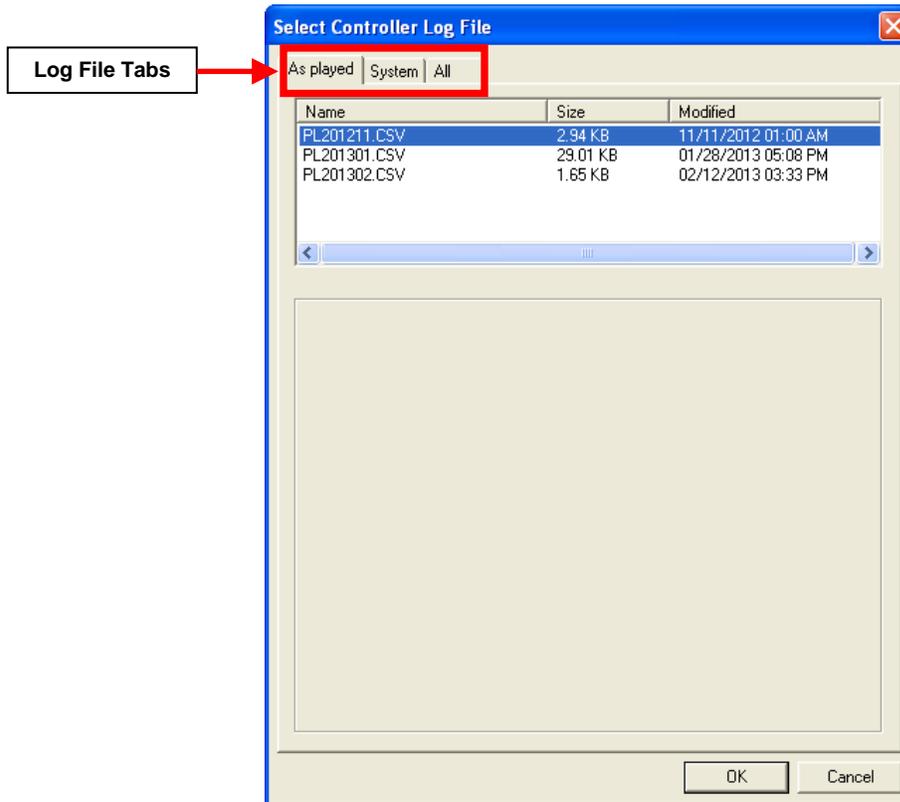
6. From the file management menu (see Illustration 172), select either “Move” to remove the files from the storage device and transfer them to the storage device selected on the opposite side of the Storage Manager window or “Copy” to create a duplicate of the slide files on the other selected storage device. If your target file destination was a slide user folder on a NEXUS series remote storage device, you may modify the slide in the server’s WebNEXUS slide editor (see the "Creating New Slides” section starting on page 292, as applicable).

Retrieving Log Files

Each UltraNEXUS-HD server keeps track of everything done to or by it in internal log files. The UltraNEXUS-HD log files cannot be deleted, written to, or manipulated by a user in any way; however, once downloaded, you can then save, write, and format the file just like any other text document.

WinLGX allows you to access the UltraNEXUS-HD log files with the “Get log” menu item under the “File” menu or  icon on the main toolbar. Selecting one of these options will display the "Select Controller Log File" Window shown in Illustration 173.

Illustration 173, "Select Controller Log File" Window



At the top of the “Select Controller Log File” window, you will see three different tabs for accessing the UltraNEXUS-HD log files. Access the UltraNEXUS-HD event, system, and firmware log files as follows:

As Played Log Files

NOTE: Currently not available. These logs will be available in future firmware.

Especially useful for tracking playback events, each UltraNEXUS-HD server logs its event execution status into a .CSV file spreadsheet on a monthly basis (see Illustration 174). The execution results for each event are logged under the spreadsheet’s “Result” column, with “Ok” indicating the event was successfully executed and “Exception” meaning the event was not executed. For those events with the “Exception” status,

UltraNEXUS-HD Software Operation

refer to the “Report” column on the spreadsheet for more information about why the event did not occur. Also logged are each event’s date and time of execution, format type, device type, and other major event descriptors.

Illustration 174, Example of Event Log File

	A	B	C	D	E	F	G	H	I	J	K	L
1	Date	Time	Type	Result	Channel_L	Channel_N	Output_Nu	Input_Label	Input_Num	Title	Length	Playe
2	11/15/2007	15:25:00	Days	OK	Out 1	1	1	MPEG 1	7	PannyTitle	0:00:23	0:0
3	11/15/2007	15:30:00	Days	OK	Out 1	1	1	MPEG 1	7	PannyTitle	0:00:23	0:0
4	11/19/2007	7:30:00	Days	Exception	Out 1	1	1	In 1	1	Emergenc	1:00:00	0:0
5	11/19/2007	8:30:00	Days	Exception	Out 1	1	1	In 5	5	Student Gi	0:30:00	0:0
6	11/19/2007	9:00:00	Days	Exception	Out 1	1	1	MPEG 1	7	University	0:30:00	0:0
7	11/19/2007	9:30:00	Days	OK	Out 1	1	1	In 4	4	Health Ser	0:30:00	0:3
8	11/19/2007	10:00:00	Days	Exception	Out 1	1	1	MPEG 2	8	Campus M	1:00:00	0:0
9	11/19/2007	11:30:00	Days	OK	Out 1	1	1	MPEG 1	7	Public Saf	0:05:00	0:0
10	11/19/2007	12:00:00	Days	Exception	Out 1	1	1	MPEG 1	7	Campus S	0:30:00	0:0
11	11/19/2007	14:00:00	Days	Exception	Out 1	1	1	In 6	6	Monday At	1:45:00	0:0
12	11/19/2007	17:00:00	Days	Exception	Out 1	1	1	MPEG 1	7	Spotlight:	0:02:12	0:0
13	11/21/2007	18:00:00	Days	OK	Out 1	1	1	In 7	7	4	0:00:54	0:0
14	11/21/2007	18:00:54	Days	OK	Out 1	1	1	In 7	7	CityGovDe	0:01:17	0:0
15	11/21/2007	18:02:11	Days	OK	Out 1	1	1	In 7	7	Lincoln_Rc	0:01:30	0:0
16	11/21/2007	18:03:41	Days	OK	Out 1	1	1	In 7	7	news	0:03:06	0:0
17	11/21/2007	18:06:47	Days	OK	Out 1	1	1	In 7	7	NFPA_Log	0:00:16	0:0
18	11/21/2007	18:07:03	Days	OK	Out 1	1	1	In 7	7	NFPA_Hea	0:00:38	0:0
19	11/21/2007	18:07:41	Days	OK	Out 1	1	1	In 7	7	sports	0:03:05	0:0
20	11/21/2007	18:10:46	Days	OK	Out 1	1	1	In 7	7	weather3a	0:03:05	0:0
21	11/21/2007	18:13:51	Days	OK	Out 1	1	1	In 7	7	Vegas_tes	0:14:11	0:1
22	11/21/2007	18:28:02	Days	OK	Out 1	1	1	In 7	7	NEWS02A	0:00:59	0:0
23	11/21/2007	18:29:01	Days	OK	Out 1	1	1	In 7	7	NEWS03	0:00:58	0:0
24	11/21/2007	18:29:59	Days	OK	Out 1	1	1	In 7	7	Lincoln_Rc	0:01:30	0:0

To access As Played log files, perform the following steps:

Click on the “As played” tab on the “Select Controller Log File” window.

Single click on the desired .CSV file to select it and then click “OK.”

A “Save as Played log File” window will open. Save the .CSV file to a new file path or use the WinLGX default log file path (Shared Documents\Leightronix\WinLGX\Controller Data\IP xxx.xxx.xxx.xxx\Log”).

Click the “Save” button to save the file to your chosen file path. The “Save as Played log File” and “Select Controller Log File” windows will close.

Navigate to the file path for the saved .CSV file and open it in Excel.

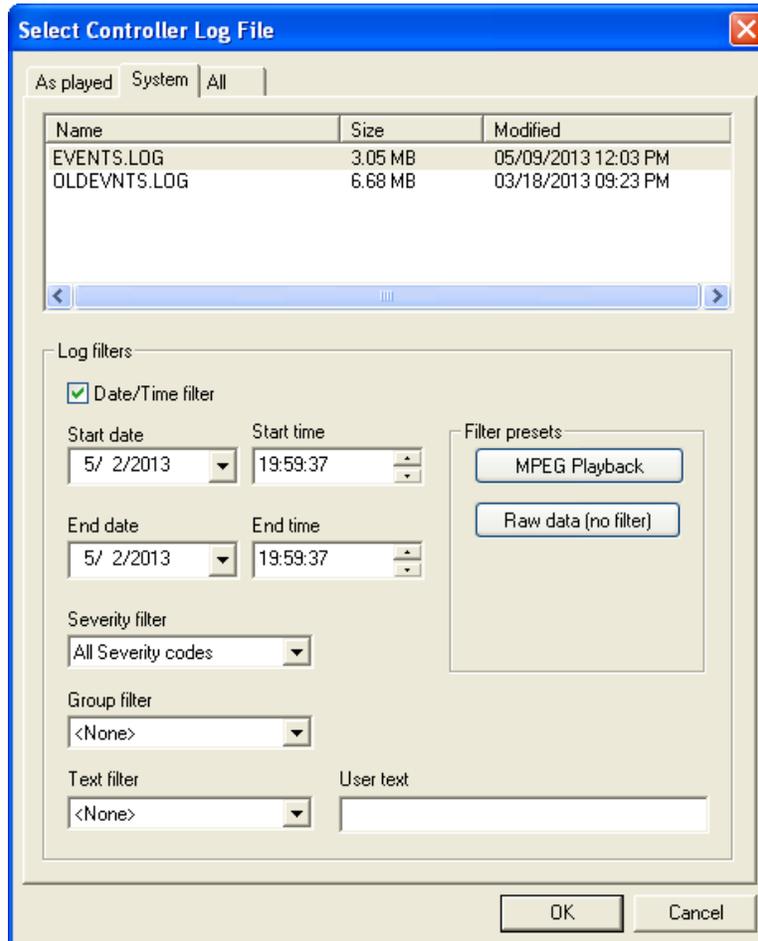
System Log Files

The UltraNEXUS-HD system activity log files are called “EVENTS.LOG” and “OLDEVNTS.LOG.” When a new UltraNEXUS-HD server is powered on for the first time, it creates a file called “EVENTS.LOG.” The UltraNEXUS-HD system will continually write to this file until it reaches 7 MB. Once “EVENTS.LOG” reaches 7 MB, the UltraNEXUS-HD system will rename it to “OLDEVNTS.LOG” (deleting the previous “OLDEVNTS.LOG”) and then create a new “EVENTS.LOG.” This ongoing cycle ensures that recent events are always logged.

The UltraNEXUS-HD system log files are useful in identifying specific events within the system, such as when a particular program aired, when a user logged in from a remote terminal, and more. To view a system log file, perform the following steps:

1. Click on the “System” tab on the “Select Controller Log File” window (see Illustration 175, “System” Tab on the “Select Controller Log File” Window).

Illustration 175, “System” Tab on the “Select Controller Log File” Window

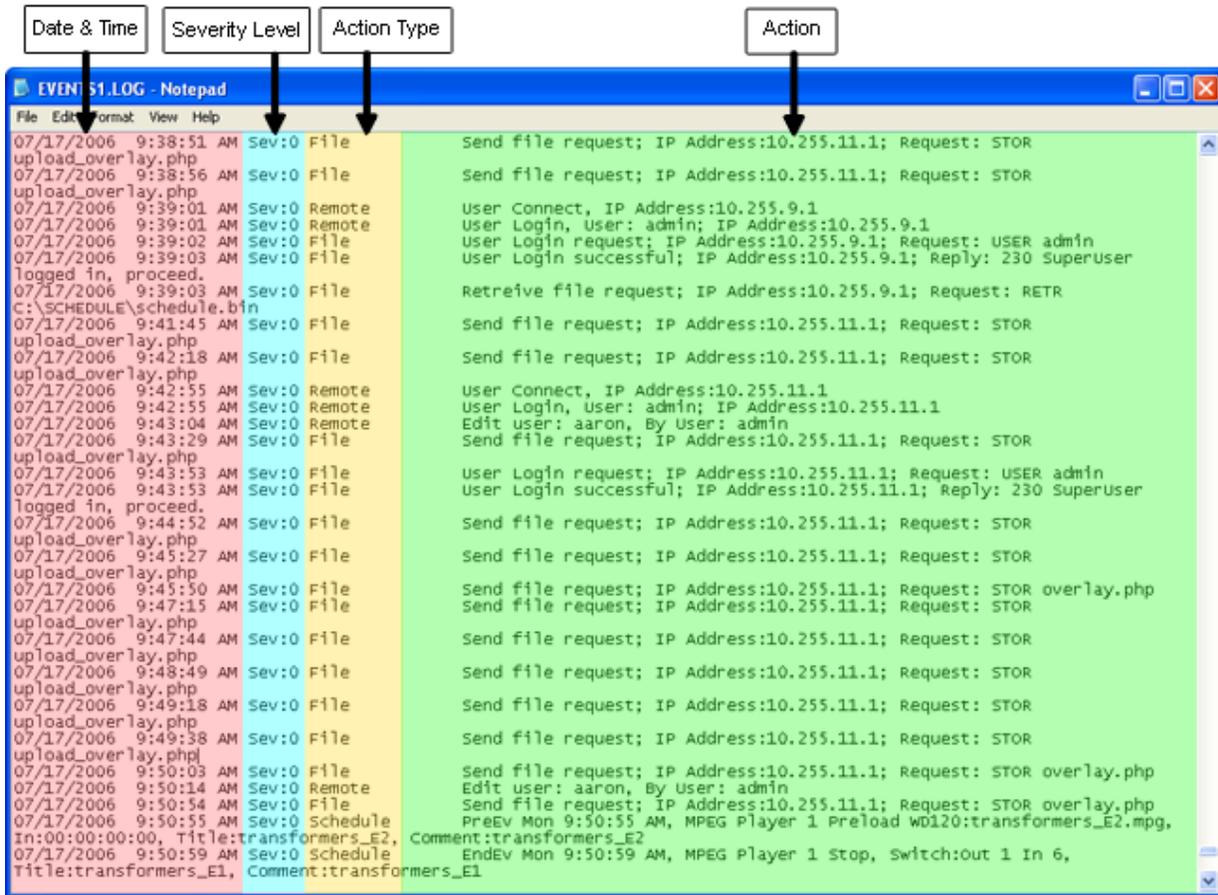


2. Select one of the log files from the listing and then download log records based on the following filter options:
 - **“Date/Time filter”**: check box to enable the date/time fields

- **Within a range of dates and times:** use the start/end date and start/end time fields to download all log records within the selected dates and times
 - **No filter:** click the “Raw data (no filter)” button to download all log records
 - **Digital video playback events of low severity:** click the “MPEG Play” filter preset button to download all noncritical log records containing the text “MPEG Play” in their action descriptions
 - **Severity of event action:** download all log records with the event severity code selected with the “Severity filter” drop down menu
 - **Group action type:** download all log records with the group action type selected with the “Group filter” drop down menu
 - **Action descriptions:** download all log records with action descriptions containing one of the text options selected with the drop down menu under “Text filter.” To create your own action description filter, select “User text” from the drop down menu and type in the desired keyword in the “User text” comment field.
3. Click “OK” to open the “Save Log File” dialog box. Once saved to the desired location, the log is displayed in a text editor of your choosing (see Illustration 176, Example of Log File). This will also turn off the log LED  that appears on the UltraNEXUS-HD system’s front panel when a severity 1 or 2 event action is logged.

NOTE: The default viewer is Notepad, but the viewer can be changed from the “Tools”/“Preferences”/“Application” tab (for more details, see “Setting WinLGX Viewing and Communication Preferences,” beginning on page 87).

Illustration 176, Example of Log File



Each action performed through or by the UltraNEXUS-HD server is recorded in the log file along with its date and time, severity, and action type. The following information identifies and explains each part of the “EVENTS.LOG” file in more detail.

- Date
- Time
- Severity of event action—event actions are classified according to the following three levels of severity:
 - 0: events that occur during the course of normal operations
 - 1: warning events
 - 2: critical events or failures
- Types of actions recorded:
 - Diagnostic: UltraNEXUS-HD system health and status
 - File: actions involving files, typically file transfers (also UltraNEXUS-HD image send/retrieve)
 - Front Panel: actions performed based on commands given by user through the front panel of the UltraNEXUS-HD system

UltraNEXUS-HD Software Operation

- MPEG: digital video player/recorder actions
- Remote: actions performed based on commands given by user from the WinLGX control panel
- Schedule: actions performed based on user-created schedule
- Switcher: actions based on switcher events and functions
- USB drive: actions pertaining to the external USB hard drives
- Web: actions performed through the UltraNEXUS-HD's web interface
- Descriptive message of actions performed

Updating Firmware/Software

LEIGHTRONIX places the most current firmware/software files for each LEIGHTRONIX product on its Support Center website. Save the update files to an accessible directory on your PC.

Updating UltraNEXUS-HD Server

Open the WinLGX software and log in to your UltraNEXUS-HD system (see “Opening WinLGX and ” on page 162).

Choose “Controller” under the “Tools” menu to open the “Controller” window shown in Illustration 177.

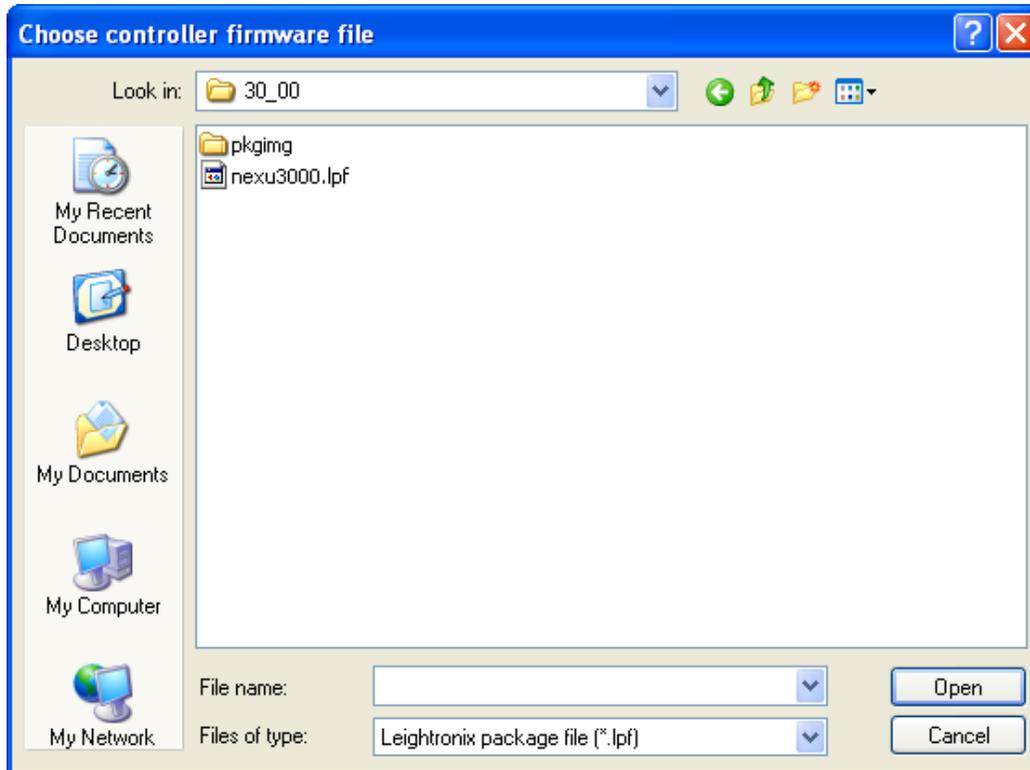
Illustration 177, Controller Window

The screenshot shows the 'Controller' window with the following fields and controls:

- Site information:**
 - Controller type: UltraNEXUS-HD
 - Serial number: 100012 V15.12.15.1549
 - Site name: WLGX (with 'Set' button)
 - Site location: Okemos, MI
 - Time Zone: (GMT-05:00) Eastern Time (US and Canada) (dropdown menu)
 - Automatically adjust clock for daylight savings changes
- Clock:**
 - Controller time: Thu Dec 17 16:35:05 2015
 - PC Current time: Thu Dec 17 16:35:01 2015 (with 'Set' button)
 - User time: 12/17/2015 (dropdown) 16:34:56 (spinners) (with 'Set' button)
- Firmware update (highlighted with a red box):**
 - File: <Unknown> (with 'Browse...' button)
 - Version: (empty field)
 - Size: (empty field)
 - Options... (button)
 - Update (button)
- Reboot:**
 - Reboot the controller (with 'Reboot' button)
- Close (button)**

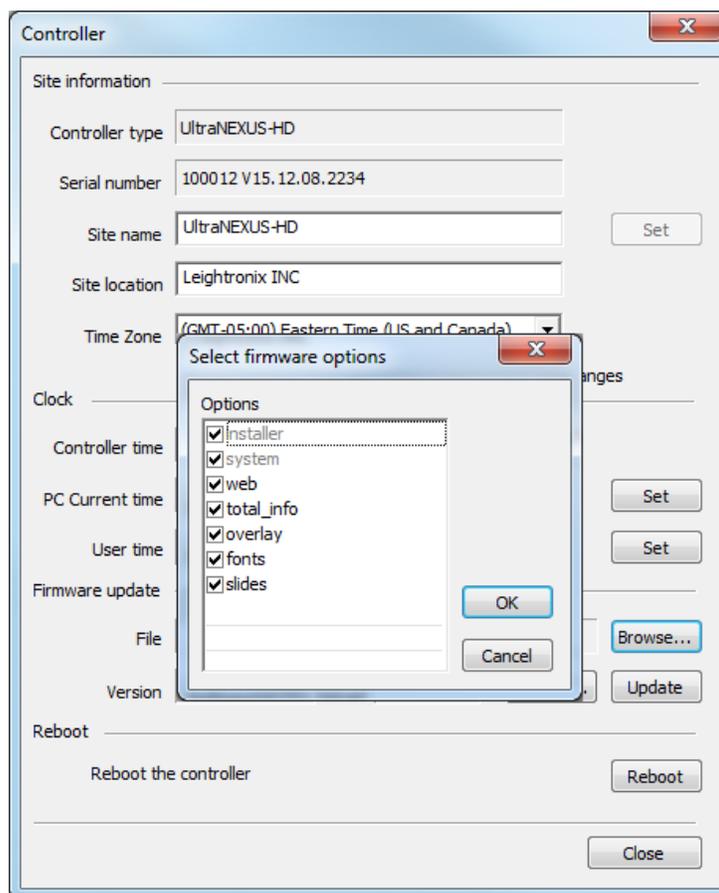
Under “Firmware update,” click “Browse” to open the “Choose controller firmware file” window shown in Illustration 178.

Illustration 178, “Choose Controller Firmware File” Window



Navigate to and open the current **.lpf** file to update your UltraNEXUS-HD server’s firmware and, if needed, your web interface. Once you have selected and opened the file, the “Select firmware options” window is displayed (see Illustration 179). **Leave all options checked** and click “OK” to save your firmware update options or “Cancel” to abort the changes and close the dialog. If you would like to reopen the window, click the “Options” button under “Firmware update.”

Illustration 179, “Select Firmware Options” Window



Click “Update” to continue the firmware update. Click “Yes” when prompted to start the update.

Once the update has completed, click “OK” to apply the changes and reboot the UltraNEXUS-HD server. You will be logged out and the “Site Manager” window will be displayed.

NOTE: You will not be able to log back in until the UltraNEXUS-HD system finishes rebooting. The update may take several minutes.

After the UltraNEXUS-HD system finishes rebooting, log back in and confirm the UltraNEXUS-HD system has been upgraded to the latest firmware version in the “Site Manager” database.

Updating WinLGX Software

Close WinLGX.

Navigate to and open the WinLGX_vx.x.x.x_Installer.exe. Follow the prompts to install the latest version of the client software.

Click “OK” to continue WinLGX update.

Follow the prompts to complete the installation.

Web Control

About this Section

Access your UltraNEXUS-HD system from the Internet with WebNEXUS, a built-in, password-protected web interface. WebNEXUS provides the ability to manage slides, create and display emergency messages, create looping playlists for display between, as, or in place of scheduled programming, transfer video files to specified destinations, record video files, and view the UltraNEXUS-HD system's status, program guide, and log files. Note that slides can only be activated for broadcast through the WinLGX scheduler and control panel.

WebNEXUS works on any computer with Microsoft Internet Explorer 8 and above, Google Chrome, Firefox, Safari, and Opera. While WebNEXUS may work with other browsers, full functionality is not guaranteed. No special software installation is required.

Up to 32 different users can log into WebNEXUS. **All user accounts** may perform the following:

- Upload slides into their own user folders on the UltraNEXUS-HD's internal storage drive
- Specify slide availability settings for slide shows
- Add text and program guides to slides
- View UltraNEXUS-HD system status

Some user accounts have access to additional WebNEXUS features, as outlined in Table 43. The "admin" user account has access to all WebNEXUS features. See "Setting User Account Rights (Including WinLGX Password Changes)" on page 75, for instructions on assigning rights to user accounts.

Table 43, User Rights with Access to Additional WebNEXUS Features

Description	"Administrator" Right	"Slide Administrator" Right	"MPEG/Slide control (record/setup)" Right	"No file access" Right	"Receive only," "Send and receive," and "Send, receive, rename, & delete" Rights
Create and display emergency messages over digital programs	✓	✓			

**UltraNEXUS-HD
Support**

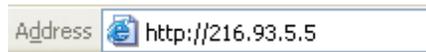
Description	"Administrator" Right	"Slide Administrator" Right	"MPEG/Slide control (record/ setup)" Right	"No file access" Right	"Receive only," "Send and receive," and "Send, receive, rename, & delete" Rights
Authorize slides for on-air display in slide shows		✓			
Add, edit, rename, and delete slides with all user account folders		✓			
Configure file transfer destinations as well as enable recording of VOD files for VieBit	✓		✓		
Transfer video files to another UltraNEXUS-HD, FTP destination, and/or VieBit	✓				✓
Record Video files and add VieBit index points	✓		✓		
Display program guide	✓	✓			
View log files	✓				
Manage "System" settings	✓				
Create looping Virtual Channel playlists	✓				

Opening and Logging into Web Interface

Open the UltraNEXUS-HD web interface through one of the following steps:

- If you already have WinLGX open and are logged into the desired UltraNEXUS-HD's IP address, select "Web interface" from the "Tools" menu or click on the  toolbar icon to open the web interface in your default web browser.
- Enter your UltraNEXUS-HD's IP address into the address bar of Internet Explorer (see Illustration 180).

Illustration 180, Accessing UltraNEXUS-HD from Internet Explorer



A login prompt will appear (see Illustration 181, Login Prompt). Enter your username and password.

NOTE: Your username and password are assigned through WinLGX. Refer to "Setting User Account Rights (Including WinLGX Password Changes)" on page 75 for information on adding/editing usernames and passwords.

Illustration 181, Login Prompt



If login is successful, the window shown in Illustration 182, “System Dashboard” Screen, opens. All web-based control functions are accessible from the menu sidebar.

Illustration 182, “System Dashboard” Screen

Dashboard Friday, December 11, 2015 1:57:31 PM

Site Information

Site Name: LEIGHTRONIX UltraNEXUS-HD
Site Location: Mason, MI
Serial Number: F35A0C
Firmware Version: 15.12.11.1746

Storage

Volume Name: **internal**
Total Capacity: 234.61GB
Used Space: 149.58GB
Free Space: 85.03GB

Volume Name: **Vo1**
Total Capacity: 938.9GB
Used Space: 65.38GB
Free Space: 873.52GB
Recorded Files: 13

Volume Name: **freenas**
Total Capacity: 3.57TB
Used Space: 1.24TB
Free Space: 2.33TB
Recorded Files: 0

Network Settings

Interface: eth0
IP Address: 10.16.0.22
Subnet Mask: 255.128.0.0
Gateway: 10.127.0.1
DNS Server: 8.8.8.8
MAC Address: 00-E0-FB-F3-5A-0C

Interface: eth1
IP Address: 0.0.0.0
Subnet Mask: 0.0.0.0
MAC Address: 00-E0-FB-F3-5A-0d

Switcher Status
Switcher Not Configured

Video Player 1 Status

File Name: swepvii-itr2_h1080p.m2t
Volume: Vo1
Length: 00:02:18:13
Time: 00:01:39:23

“Site Information”

Displays your UltraNEXUS-HD’s site information, including serial number and firmware version.

“Storage”

Displays the storage availability on your UltraNEXUS-HD’s internal hard drive and for any connected USB drive and NAS storage device.

Video Player/Recorder Statuses

Displays the properties of the files currently playing on the Video Player and the files currently being recorded by the Video Recorder. Click the tab of the desired Video Player or Recorder to display the corresponding information.

“Network Settings”

Displays your UltraNEXUS-HD’s network addresses.

“Switcher Status”

If using an external switcher, provides a quick overview of which of your inputs are currently switched to the switcher outputs.

Managing Digital Video Files

The “File Management” and “Destinations” screens provide the ability to control digital video file transfers from the Internet.

Setting Up Transfer Destinations

Easily control where your recorded files are transferred by clicking the “DESTINATIONS” button and using the “Destinations” screen tabs. Recorded files may be automatically or manually transferred to another UltraNEXUS-HD server/controller, LEIGHTRONIX VieBit streaming VOD website, and/or third party server with FTP capabilities, as outlined below. The settings apply to each recording session until you change them.

ULTRANEXUS-HD VIDEO SERVER DESTINATION

If you own another LEIGHTRONIX UltraNEXUS-HD video server, you can send your digital video files to any of the other server’s storage volumes. Enter the destination UltraNEXUS-HD server’s IP address, username, and password along with the name of the volume that you want to store the files. The names of your storage volumes can be viewed in the WinLGX “Storage Manager” window. Complete the remaining settings according to the steps below and click the “Apply Changes” button when you have finished (refer to Illustration 183).

“Verify Connectivity”: after entering your UltraNEXUS-HD’s IP address, username, and password, click the “Verify Connectivity” button to ensure your UltraNEXUS-HD can connect to the destination server.

“Automatic Upload”: when selected, files will be automatically transferred to the specified UltraNEXUS-HD after each recording session.

“Transfer Holdoff Schedule”: 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS-HD will transfer files to your destination UltraNEXUS-HD. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).

“Enable Auto-Play CH”: once the “PEGcasting” option is enabled on the UltraNEXUS “Record Settings” tab (see “Setting up Video File Record ,” on page 279), you may choose to have a transferring file stream automatically begin playing on your second UltraNEXUS-HD system’s video player while the file is still recording. Select a “Playback

Delay” of 2-60 minutes to specify how long after the file stream is transferred that it should begin playing.

Illustration 183, "UltraNEXUS-HD" File Destinations Tab

Destinations

UltraNEXUS-HD VieBit FTP Server Record Settings

IP Address: 10 | 16 | 42 | 42

Username: admin

Password: ...

Confirm Password: ...

Destination Volume: Vol1

Verify Connectivity

Automatic Upload: Automatically uploads newly recorded files when finished recording to this destination

Transfer Holdoff Schedule

	12AM	12PM	12AM
Sunday	Green	Green	Green
Monday	Green	Green	Green
Tuesday	Green	Green	Green
Wednesday	Green	Green	Green
Thursday	Green	Green	Green
Friday	Green	Green	Green
Saturday	Green	Green	Green

Legend:
Green: Allow Transfer
Red: Restrict Transfer

Apply Changes

PEGcasting N2L (Next to Live) Broadcast

Enable Auto-Play CH1: Playback Delay: 02 Minutes

Enable Auto-Play CH2: Playback Delay: 02 Minutes

LEIGHTRONIX VIEBIT VIDEO-ON-DEMAND WEBSITE (INTERNET VOD)

This option causes the UltraNEXUS-HD to transfer a copy of manually or scheduled recorded files to the LEIGHTRONIX VieBit Web hosting and streaming video-on-demand service. Complete the settings according to the steps below and click the “Apply Changes” button when you have finished (refer to Illustration 184).

“Automatic Upload”: when checked, files will be automatically transferred to LEIGHTRONIX streaming video-on-demand site after each recording session.

“Transfer Holdoff Schedule”: 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS-HD will transfer files to your VieBit server. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).

Illustration 184, "VieBit" File Destinations Tab

UltraNEXUS-HD Web NEXUS

Destinations

UltraNEXUS-HD VieBit FTP Server Record Settings

Automatic Upload: Automatically uploads newly recorded files when finished recording to this destination

Note: Enabling this destination forces the recorded file quality setting to **Streaming**. See the **File Settings** tab for other quality settings.

Transfer Holdoff Schedule

	12AM	12PM	12AM
Sunday	Allow	Restrict	Allow
Monday	Allow	Restrict	Allow
Tuesday	Allow	Allow	Allow
Wednesday	Allow	Restrict	Allow
Thursday	Allow	Allow	Allow
Friday	Allow	Restrict	Allow
Saturday	Allow	Allow	Allow

Legend:
Allow Transfer (Green)
Restrict Transfer (Red)

Apply Changes

Server with FTP Capabilities

Push your files to another LEIGHTRONIX or third party video server with FTP capabilities. Enter your server's IP address, username, and password along with the name of the destination path. Complete the remaining settings according to the steps below and click the "Apply Changes" button when you have finished (refer to Illustration 185).

1. **"Verify Connectivity"**: after entering your server's IP address, username, and password, click the "Verify Connectivity" button to ensure your UltraNEXUS-HD can connect to the destination server.

"Automatic Upload": when checked, video files will be automatically transferred to the specified server after each recording session.

"Transfer Holdoff Schedule": 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS-HD will transfer files to your destination server. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).

Illustration 185, "FTP Server" File Destinations Tab

The screenshot displays the 'Destinations' configuration page for an FTP server. The interface is titled 'UltraNEXUS-HD Web NEXUS'. On the left is a sidebar with navigation buttons: Dashboard, File Management, Destinations, System Settings, Log Files, Slides, Overlay, Program Guide, Virtual Channel, and Logout. The main area is titled 'Destinations' and has tabs for 'UltraNEXUS-HD', 'VieBit', 'FTP Server', and 'Record Settings'. The 'FTP Server' tab is active, showing the following fields: IP Address (10.25.5.11), Username (admin), Password (masked), Confirm Password (masked), and Destination Path (Vol1/mpeg). A 'Verify Connectivity' button is located below the Destination Path field. An 'Automatic Upload' checkbox is checked, with the text 'Automatically uploads newly recorded files when finished recording to this destination'. Below this is a 'Transfer Holdoff Schedule' grid. The grid has 7 rows (Sunday to Saturday) and 24 columns (representing hours from 12AM to 12AM). All cells in the grid are green, indicating that transfer is allowed for all hours of all days. A legend at the bottom left of the grid shows a green square for 'Allow Transfer' and a red square for 'Restrict Transfer'.

Setting up Video File Record Settings

From WebNEXUS, UltraNEXUS-HD users can change their record quality and automation settings for video file recordings.

Click the “DESTINATIONS” button and then select the “Record Settings” tab. Edit any of the following record settings and then click the “Apply Changes” button to send the changes to your UltraNEXUS-HD or “Cancel” to abort. The settings will be applied to every web recording session until they are changed.

Illustration 186, "Record Settings"

The screenshot displays the 'Destinations' configuration page for UltraNEXUS-HD. The left sidebar contains navigation links: Dashboard, File Management, Destinations, System Settings, Log Files, Slides, Overlay, Program Guide, Virtual Channel, Logout, and Video Recorder. The main content area is titled 'Destinations' and has tabs for UltraNEXUS-HD, WebBit, FTP Server, and Record Settings. The 'Record Settings' tab is active, showing the following settings:

- Volume:** A dropdown menu set to 'Vol100012-01'. Below it, text reads: 'Default storage volume for recorded files started from UltraNEXUS-HD'.
- File Name:** A text input field containing 'CouncilMeet'. To the right, there is a checked checkbox for 'Create Unique Files' with the note: 'Creating unique files will automatically append a timestamp to the end of the filename.' Below the input field, text reads: '14 characters max, letters, numbers, and underscores only—no spaces.'
- Automatic Delete:** A checked checkbox for 'Enable'. Below it, text reads: 'Automatic Delete will force the recorded file to be deleted when all transfers are complete.'
- File Quality:** Three radio button options: 'Best' (selected), 'Better', and 'Good'. Each option has associated technical specifications:
 - Best:** VBR of 7.00-9.00 Mb/s, resolution same as source, 224 kb/s audio bit rate, 48 kHz audio sample rate
 - Better:** VBR of 4.00-7.00 Mb/s, resolution same as source, 192 kb/s audio bit rate, 48 kHz audio sample rate
 - Good:** VBR of 3.00-5.00 Mb/s, resolution same as source except 1920→1440, 192 kb/s audio bit rate, 48 kHz audio sample rate
- Audio Source:** A dropdown menu set to 'Embedded 1-2'. Below it, text reads: 'Choose the audio input source you wish to record.'
- Closed Captions:** A checked checkbox for 'Enable Closed Captions' with the note: 'Check to enable closed captions.'
- PEGcasting:** A checked checkbox for 'Enable'. Below it, text reads: 'PEGcasting allows recorded files to automatically transfer to the desired destinations as they are still being recorded.'

At the bottom of the form is an 'Apply Changes' button.

- “Volume”: select the USB hard drive or NAS storage device that WebNEXUS broadcast file recordings will be added to.
- “File Name”: in the “File Name” field, enter up to 14 characters (letters, numbers, and underscores only—no spaces). If you use the same filename for more than one recording session, the record date and start time will be appended to the name of each additional recorded file as “yy/mm/dd-hh/mm/ss” (year/month/day-hours/minutes/seconds).
- “Create Unique Files”: when this option is selected, the record date and start time will be appended to the filename of every recorded file as “yy/mm/dd-hh/mm/ss” (year/month/day-hours/minutes/seconds).
- “File Quality”: select a “File Quality” recording preset. Each recording quality preset represents the range of bit rates within which your broadcast files will be recorded.

- “PEGcasting”: if you want your recorded files transferred to a second UltraNEXUS-HD 15 seconds after the files begin recording, select the “Enable” “PEGcasting” option. To use the PEGcasting Next to Live autoplay feature for simulated live broadcasting, you must still complete the “PEGcasting N2L” configuration settings on the “UltraNEXUS-HD” tab (see “Setting Up Transfer Destinations,” on page 275).
- “Closed Captions”: Select the “Enable Closed Captions” option to capture any closed caption data from the source. Closed captions are hidden in the video signal and decoded for display on televisions with built-in decoders or televisions connected to external decoders.

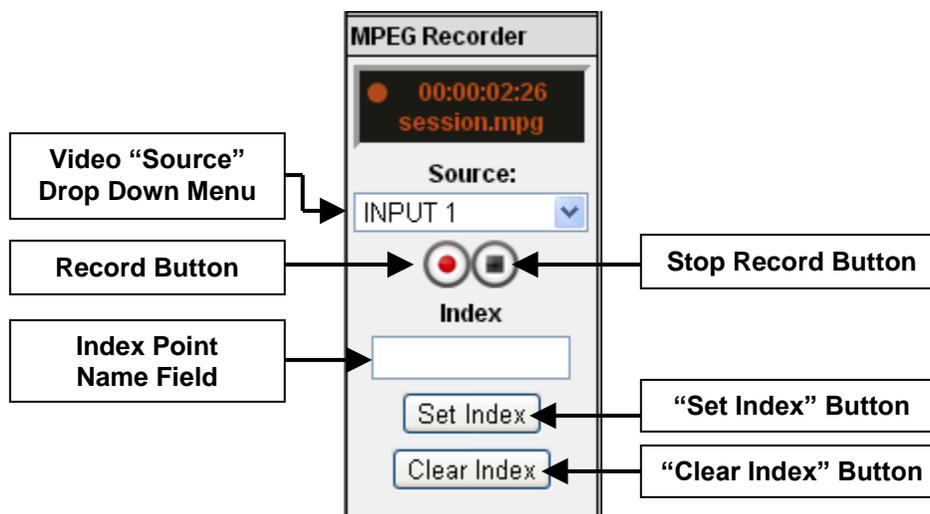
Recording

NOTE: *Currently, the index point and Input selection does not function. This should be functional in a future firmware version. The recorder will record whatever input is selected in the WinLGX Control Panel.*

WebNEXUS allows users to immediately start/stop file recordings and add index point to any VieBit VOD file that is being recorded. Start/Stop recording and add index points to your files through the “Video Recorder” panel on the WebNEXUS sidebar as follows:

NOTE: Ensure the desired record quality, name, and automation settings have been selected on the “File Destinations”/“Record Settings” tab (see “Setting up Video File Record Settings,” on page 279 for instructions).

Illustration 187, Video Recorder Closeup



Choose the video source you want to record from the “Source” drop down menu. You may select one of your UltraNEXUS-HD’s player or a video source connected to your switcher.

Click the record button to start recording your file.

LEIGHTRONIX VieBit VOD Streaming Service Users Only: add video index points for use in LEIGHTRONIX VieBit VOD streaming application. Index points appear as links next to the published video in the streaming application’s player window, allowing viewers to quickly move to points of interest within the video.

Either enter a custom name (64 characters maximum) for your index points into the index name field or leave it blank and the UltraNEXUS-HD will use the current date/time as the name. Each index point also indicates the hours:minutes:seconds into the video that it marks. When you have chosen your naming method, click the “Set Index” button to add an index point to the recording file. Create additional index points at key intervals in the recording with each click of the “Set Index” button. If a custom name was entered, each additional index point will be assigned the same custom name until the name field is reset. To add an index point with a new custom name, click the “Clear Index” button and then type a new name into the name field before clicking the “Set Index” button.

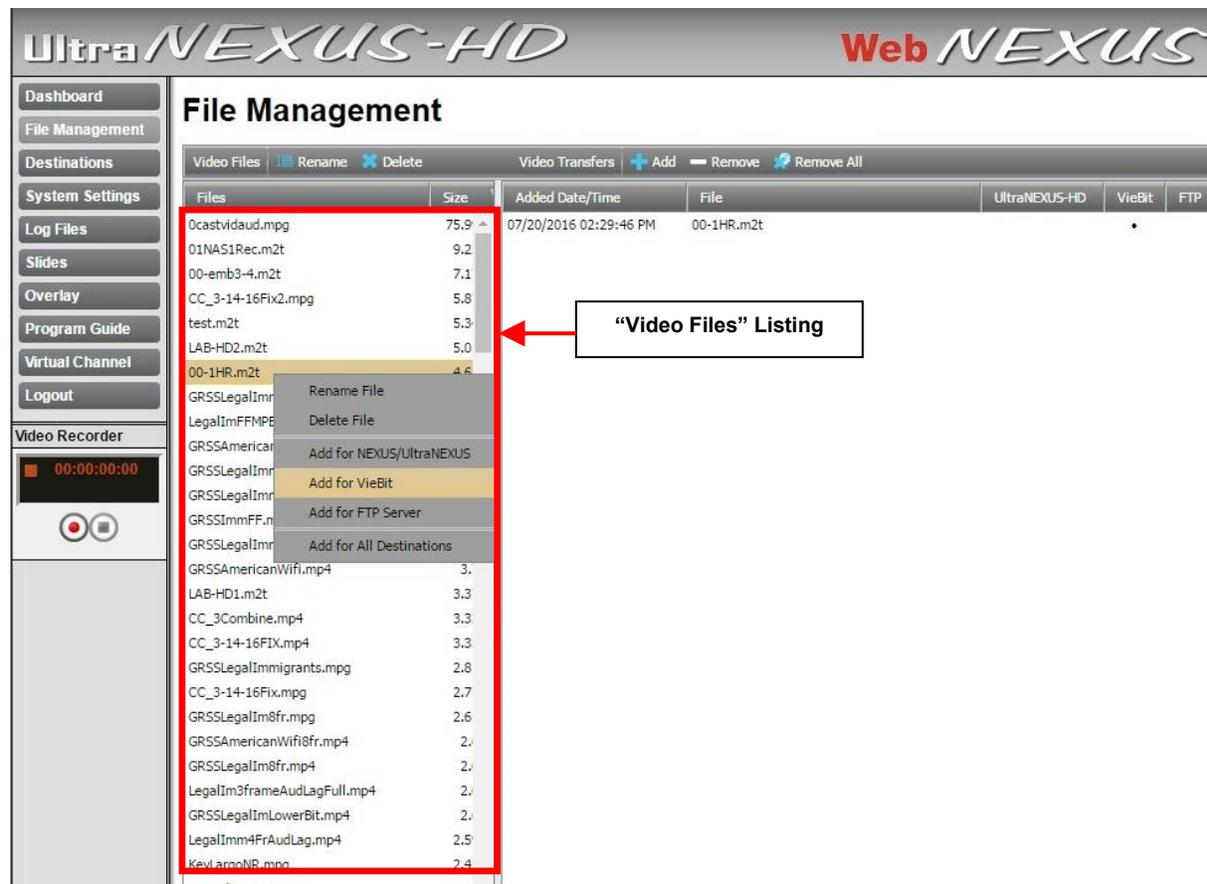
To end the recording session, click the stop recording button. If a file destination was configured and enabled in WebNEXUS, your recorded file will be automatically transferred to the destination.

Manually Transferring Digital Video Files

Click the “Files” menu button to display the screen shown in Illustration 188. The “File Management” screen displays a “Video Files” listing of the digital video files on your UltraNEXUS-HD’s storage volumes and a video file transfer queue.

NOTE: Ensure that any destinations you want to receive files have been configured on the “File Destinations” screen.

Illustration 188, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen



VIEW FILE INFORMATION

Hovering over a filename in the “Video Files” listing with your mouse pointer will bring up a popup that shows the file’s storage volume, filename, length, size, and date of creation. Except for storage volume, this information is also displayed in each row of the “Video Files” listing.

ADD FILES TO TRANSFER QUEUE

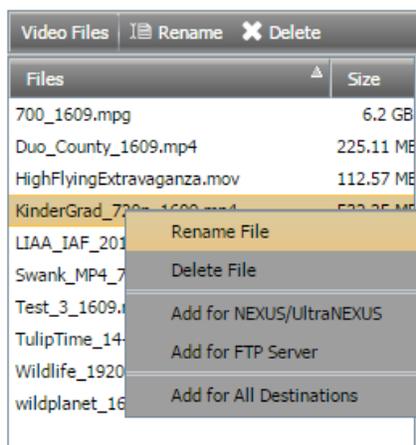
Under the “Video Files” listing, use one of the following methods to add a digital video file to your transfer queue:

- Drag the desired file to the right side of the screen
- Double click the desired file
- Single click on the digital video file you would like to transfer and click the “Add” button to transfer the file to any configured destination(s)
- Right click on the file and select a configured destination(s) from the pop-up menu (see Illustration 188).

RENAME FILES ON DIGITAL STORAGE DEVICES

Under the “Video Files” listing on the left side of the screen, either single click on the file you would like to rename and then click the “Rename” button or just right click on the file and select “Rename” from the menu that appears (see Illustration 189). In the “Rename File” window that appears, enter a new filename of up to 27 alphanumeric characters, no spaces, and click “Ok” to accept the change or “Cancel” to abort.

Illustration 189, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen



DELETE FILES FROM STORAGE DEVICE/TRANSFER QUEUE

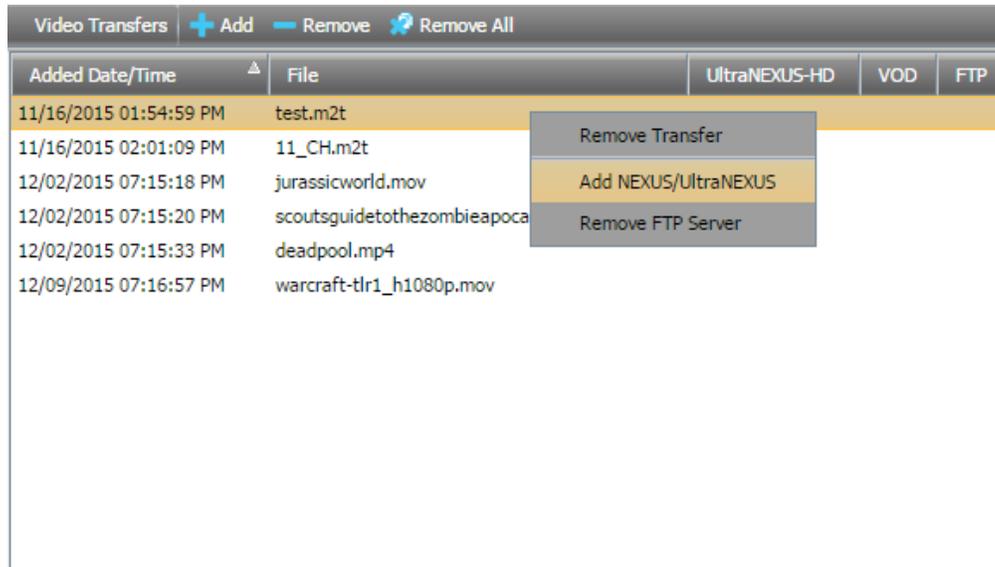
- **Storage Device:** under the “Video Files” listing, either single click on the file you would like to delete and then click the “Delete” button or just right click on the file and select “Delete File” from the pop-up menu. Click “Yes” when prompted to delete the file or “No” to abort.
- **Transfer Queue:** to delete a single file under “Video Transfers,” either single click on the file you would like to delete and then click the “Remove” button or just right click on the file and select “Remove Transfer” from the pop-up menu. To remove all files from the transfer catalog, either single click on a file and then click the “Remove All” button or just right click on the file and select “Remove All Transfers” from the pop-up menu. Click “Yes” when prompted to delete the file(s) or “No” to abort.

CHANGE FILE TRANSFER DESTINATIONS

UltraNEXUS-HD Support

Change the destination of any file in the “Video Transfers” queue by right clicking on the file and selecting one of the add/remove options in the popup menu (see Illustration 190). The remove options de-select current file transfer destinations, while the add options transfer the file to the corresponding destinations.

Illustration 190, Pop-Up Menu for "Video Transfers" Listing on the "File Management" Screen



STOP FILE TRANSFERS

End a file transfer from the “Video Transfers” queue by either single clicking the filename and then clicking the “Remove” button or right clicking on the file and selecting the remove option for the file’s intended destination. To end all file transfers, either click the “Remove All” button or right click on a file and select the “Remove All Transfers” option.

Managing Log Files

Each UltraNEXUS-HD server keeps track of everything done to or by it in internal log files which are accessible from its web interface. Click the “LOGS” menu button to display the list of current logs for your UltraNEXUS-HD on the “Log Files” screen (see Illustration 191 and Table 44).

Illustration 191, "Log Files" Screen

Name	Size	Date Modified
lgx-ms-tester.log	1.34 MB	12/11/2015 02:21:22 PM
lgx-schedule.log	39.87 KB	12/11/2015 12:29:04 AM
lgx-switcher.log	2.1 KB	12/09/2015 05:10:17 PM
lgx-telnet.log	1.76 MB	12/10/2015 01:50:52 PM
lgx-telnet.log.0	4.88 MB	12/10/2015 01:25:54 PM
lgx-telnet.log.1	4.88 MB	12/10/2015 12:16:35 AM

```

Dec 5 11:33:55 dm8168 local2.emerg lgx-ms-tester: lgx-ms-tester started
Dec 5 11:33:58 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:34:02 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:36:29 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:36:33 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:36:33 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:39:00 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:39:03 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:39:04 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:41:31 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:41:34 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:41:35 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:44:02 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:44:05 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:44:06 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:46:32 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:46:36 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:46:36 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:49:03 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:49:07 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:49:07 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
Dec 5 11:51:34 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t playback completed successfully at 0:02:30
Dec 5 11:51:37 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully preloaded
Dec 5 11:51:38 dm8168 local2.emerg lgx-ms-tester: /media/mpeg/h264/angrybirds-tlr1_h1080p.m2t successfully started playback
    
```

Table 44, Log File Types

Log File Type	Description
Playback Event	<p>Each playback event log file is a monthly record of digital video playback events scheduled on your UltraNEXUS-HD (see Illustration 174 for an example). Playback event log filenames are formatted as “PLyear-month.CSV.”</p> <p>Tracked in each playback event log are playback event dates and start times, format types, device types, and other major</p>

Log File Type	Description
	<p>event descriptors, including the status of each event. Event execution results are logged in the file's "Result" column, with "OK" indicating the event was successfully completed and "Exception" meaning the event did not occur. For those events with the "Exception" status, refer to the "Report" column in the file for more information about why the playback event was not executed.</p>
System Event	<p>The UltraNEXUS-HD activity log files are called "EVENTS.LOG" and "OLDEVNTS.LOG" (see Illustration 191 for example). When a new UltraNEXUS-HD is powered on for the first time, it creates a file called "EVENTS.LOG." The UltraNEXUS-HD will continually write to this file until it reaches 7 MB. Once "EVENTS.LOG" reaches 7 MB, the UltraNEXUS-HD will rename it to "OLDEVNTS.LOG" (deleting the previous "OLDEVNTS.LOG") and then create a new "EVENTS.LOG." This ongoing cycle ensures that recent events are always logged.</p> <p>The system event logs are useful in identifying specific events occurring on the UltraNEXUS-HD, such as when a particular program aired, user logins, file transfers, all schedule event actions, and more. Refer to page 267 for more detailed information on system event logs.</p>
Firmware Update	<p>The UltraNEXUS-HD server creates log files that specifically track firmware installations. LEIGHTRONIX uses firmware update logs to troubleshoot unsuccessful firmware updates. A separate firmware update log is created each time you update your UltraNEXUS-HD server and is named after the corresponding firmware update file.</p>

Manage your UltraNEXUS-HD server log files according to the following:

Save/Open a Log File

From the top panel on the "Log Files" screen, single click on the desired log file to select it and then click the "Save" button to display an open/save file dialog box. Either open or save the selected log file on your computer or network as a .txt file.

Search a Log File

Search for specific entries within either of the event or firmware logs. From the top panel on the "Log Files" screen, single click the desired log file to display the "Find" box and corresponding log information. Enter your search term into the "Find" box and click the "Search" button to filter out any entries not containing the search term. Use the "Previous" and "Next" buttons to move up and down between entries in the log file.

Delete a Log File

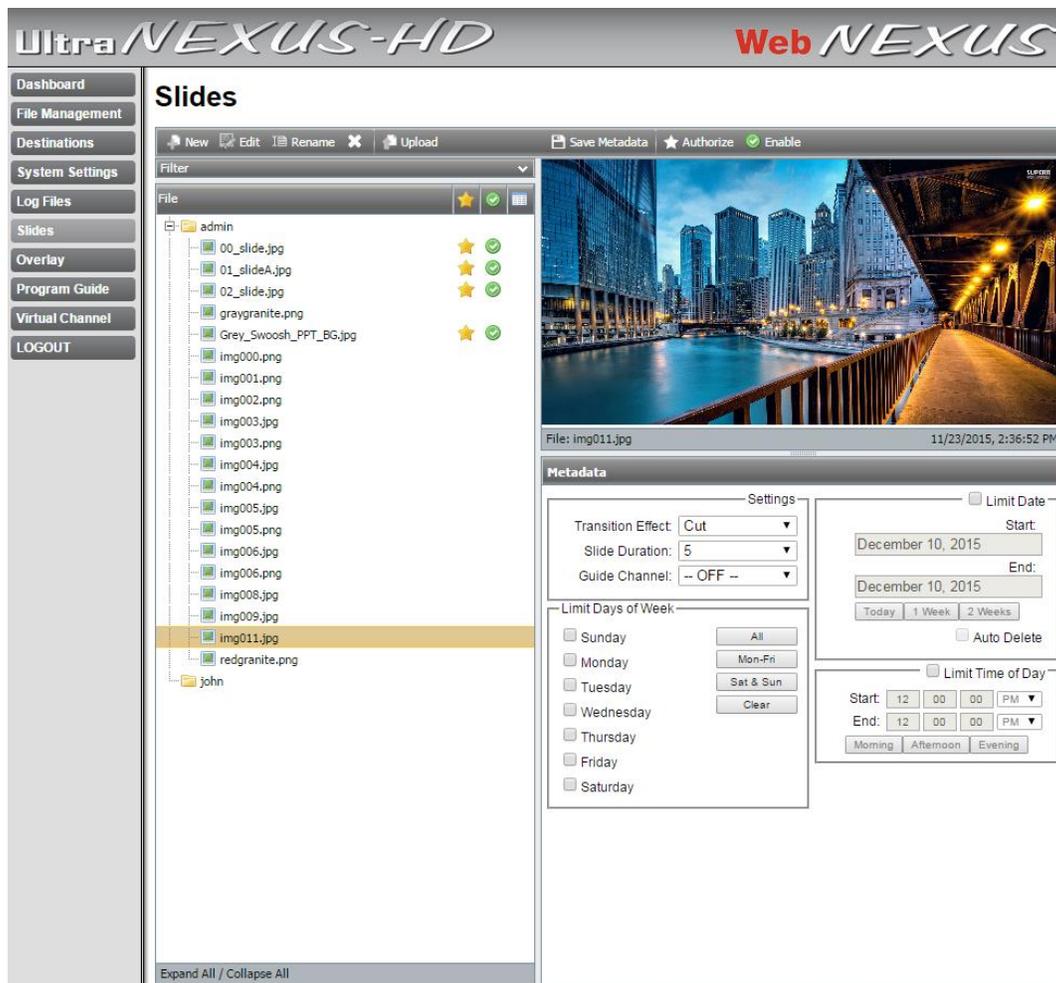
From the top panel on the “Log Files” screen, single click the desired log file to select it and then click the “Delete Log” button. A popup box will appear, asking whether or not you wish to delete the file. Click “Yes” to delete or “No” to abort.

Managing Slides

Click the “Slides” menu button to display the "JPEG Slide Management" Screen (see Illustration 192, "JPEG Slide Management" Screen, "JPEG Slide Management" Screen). The WebNEXUS slide management screen allows all users to upload, create, edit, and delete slides in their own user account folders on your UltraNEXUS-HD server/controller. Additionally, all users may specify if and when their slides will appear in slide shows through each slide’s metadata settings. The following subsections provide instructions for using the slide management features.

- IMPORTANT!**
- **SLIDES MUST BE AUTHORIZED AND ENABLED BEFORE THEY WILL DISPLAY IN SLIDE SHOWS. Refer to “Approving Slides for Display in Slide Shows,” on page 309 for instructions on how to enable and authorize slides.**
 - Slides and slide shows can only be activated for display through the WinLGX scheduler or control panel.

Illustration 192, "JPEG Slide Management" Screen



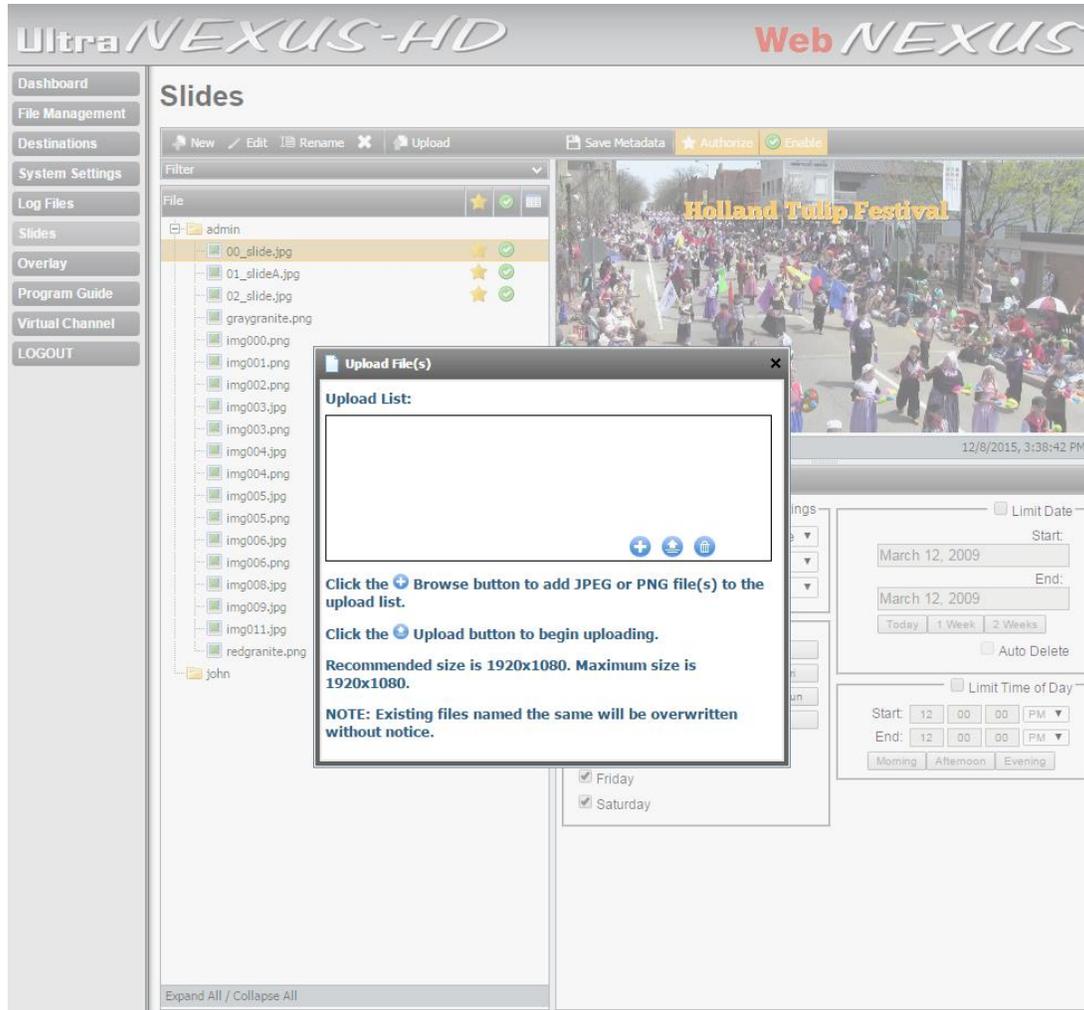
Uploading Slides to a UltraNEXUS-HD Server/Controller

NOTE: Slides within each user folder play back in alphabetical order when scheduled in slide shows, so assign filenames accordingly.

1. In the “File” list on the left hand side of the screen, single click on the user folder you want to contain the slide.

Click the  button to open the upload file window shown in Illustration 193.

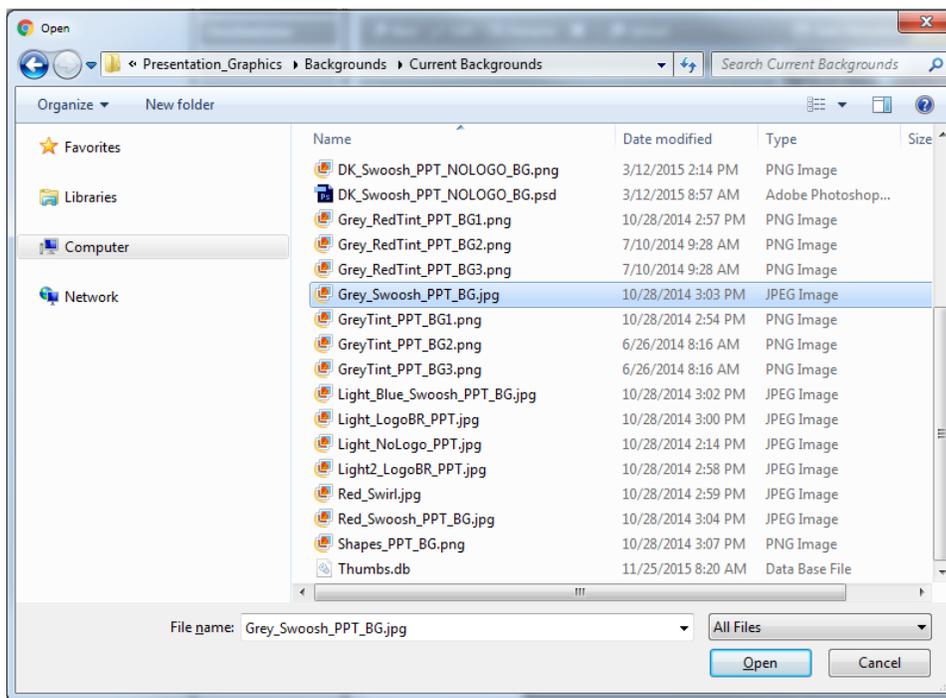
Illustration 193, New Slide Upload Window



Click the  browse button to open the “Select file(s)” window shown in Illustration 194. Navigate to the desired file and click “Open.”

NOTE: UltraNEXUS-HD series server/controllers only support slide names containing up to 27 characters (no spaces and no symbols) in addition to the “.jpg” extension.

Illustration 194, “Choose File to Upload” Window

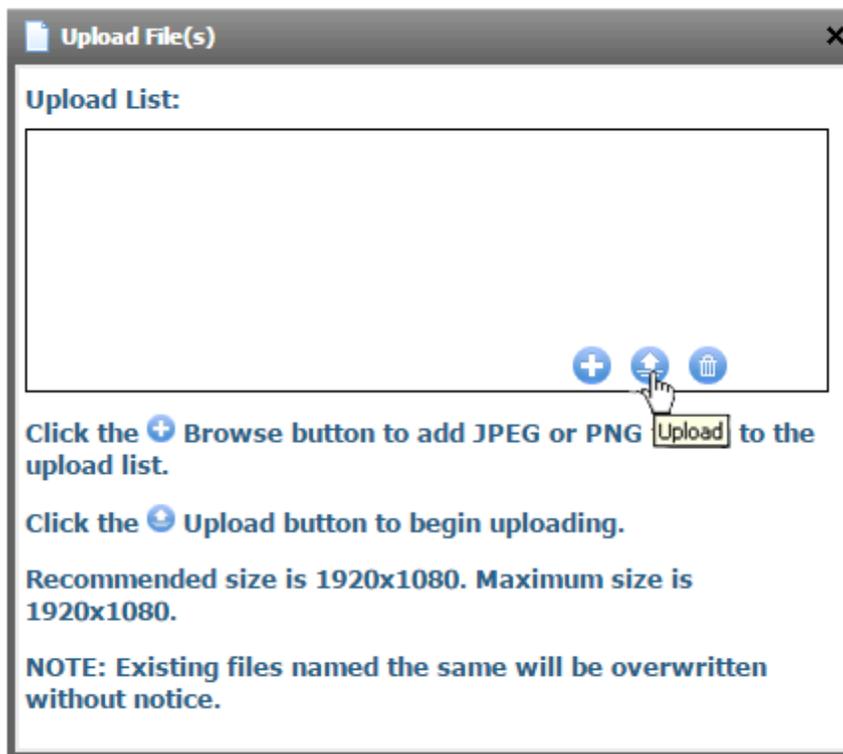


WebNEXUS allows you to add and remove slides from the “Upload File” window as follows:

- Add slides: to upload a batch of slides, click the plus  button and repeat step 3 for each additional slide.
- Remove one slide: click the red “x”  button next to the slide you wish to remove.
- Remove all slides: click the blue trash  button to clear the upload file listing.

Click the  upload button to load the slide(s) onto the UltraNEXUS-HD or “Cancel” to abort the change (see Illustration 195). When each slide has finished loading, the “Upload File(s)” window will indicate the slide is “100%.”

Illustration 195, "Upload File" Window



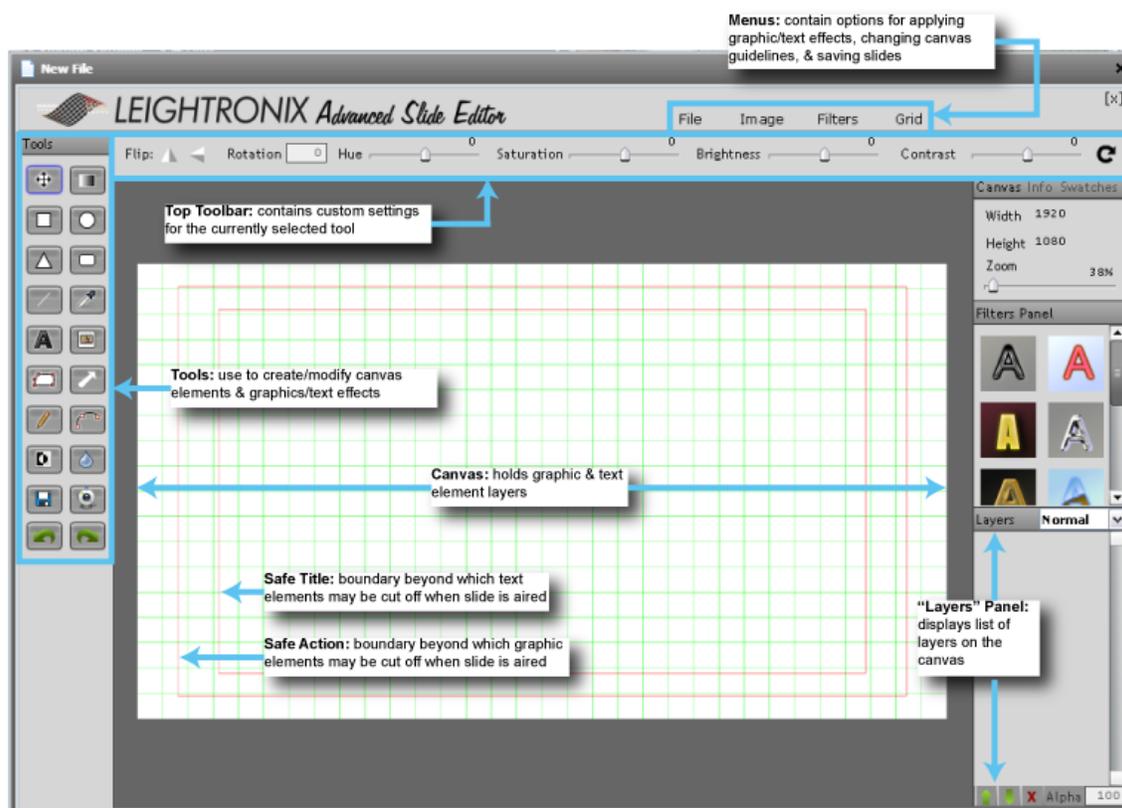
When you have finished uploading files, click the close "x" button in the upper right corner of the window.

Creating New Slides

The following section describes the UltraNEXUS-HD server slide editor. The UltraNEXUS-HD comes with an Advanced Slide Editor, which provides enhanced drawing and image effects tools as well as the ability to capture images from your webcam.

Click the  button on the “JPEG Slide Management” screen to open your UltraNEXUS-HD server’s slide editor window (see Illustration 196, Advanced Slide Editor Window and Illustration 197, Advanced Slide Editor Toolbox) or, if you have already been working in your slide editor, select the “File”/“New” menu option. To abort your changes and close the slide editor, click the  button in the upper right corner of the editor or select the “File”/“Close” menu option and then click the “Close Without Saving” button.

Illustration 196, Advanced Slide Editor Window



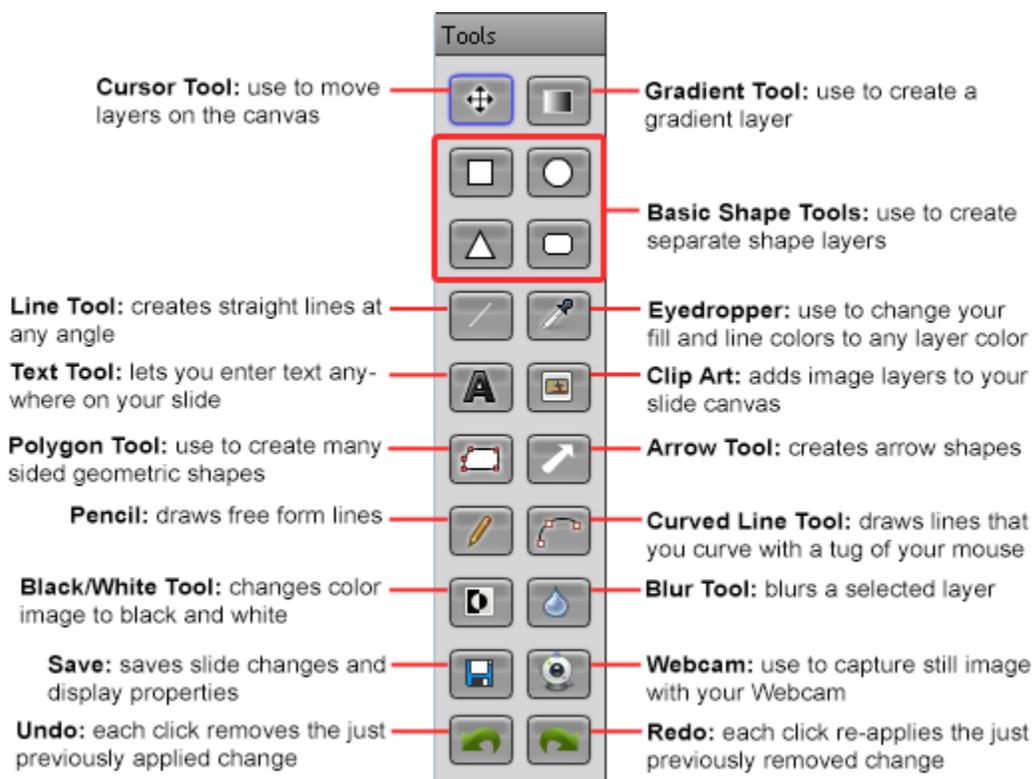
Using the “Grid” menu options, set up your canvas grid and safe title/safe action guidelines to aid in slide layout:

- “Grid Settings”: use to adjust the color and spacing of the canvas grid
- “Show Grid”: toggles the canvas grid on/off
- “Snap to Grid”: when checked, elements re-positioned on the canvas will align with the nearest grid lines

- “Grid at Top”/“Grid at Bottom”: toggle between these options to move the grid from the top of your layer stack to underneath all of your layers
- “Safe Title”: use to toggle the red safe title border on/off. Text that extends beyond the safe title area may be cut off when the slide is displayed on-air.
- “Safe Action”: use to toggle the red safe action border on/off. The portion of any graphic that extends beyond the safe action area may be cut off when the slide is displayed on-air.

Add graphics and/or text to the slide editor’s canvas using the tools in the editor’s toolbox (see Illustration 197). Each new graphic or text element will be automatically placed on a separate layer, allowing you to individually manipulate each image and text message on the canvas (see the “Layer Management” section below). Refer to the following “Layer Types” section for more information on the graphics and text that may be added to the editor’s canvas and the custom display settings available for each layer type.

Illustration 197, Advanced Slide Editor Toolbox



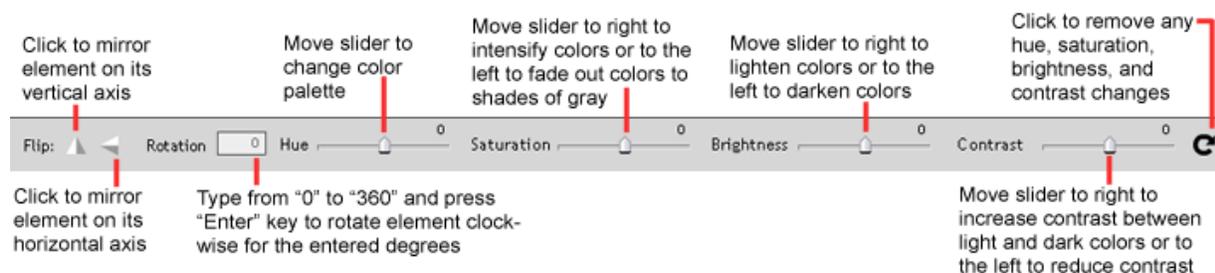
Layer Management

When adding your layers, keep in mind the following slide editor layer management features:

- Zoom: if no layer is selected, the “Canvas Info” panel displays the width and height of the canvas in pixels, while also providing a zoom slider for viewing the canvas in more or less detail.

- **Delete:** to remove a layer from your slide, select the layer on the canvas with the  cursor tool or by clicking on the layer in the “Layers” panel. Click the  icon on the bottom of the “Layers” panel or press your keyboard “Delete” key.
- **Graphic Toolbar:** each slide editor also provides a universal graphic toolbar that provides display settings for any layer type except text (see Illustration 198).
 The graphic toolbar appears at the top of the editor whenever the cursor tool is clicked or an image layer is added to the canvas. To apply any of the settings described in Illustration 198, first select the layer on the canvas with the cursor tool or by clicking on its layer in the “Layers” panel.

Illustration 198, Graphic Toolbar



Layer Types

The following is a list of the graphic/text elements you can add to your slide canvas:

- **Images:** add one or more .JPEG, .PNG, or .GIF image files to the canvas from any of the following sources:
 - **Local storage area**
 - a. Click “Image”/“Import” to open the “Select file to upload” window.
 - b. Navigate to an image file and click “Open.”
 - **Third-party webcam**
 - a. Click “Image”/“Webcam” or click the  webcam tool to open the editor’s “Webcam” window.
 - b. If this is the first time you have opened the “Webcam” window since connecting a webcam to your computer, you will see a settings box. From the “Privacy” panel, allow your UltraNEXUS-HD system to access your webcam by clicking the “Allow” option (see Illustration 199). Save this setting by clicking “Remember” and then click “Close” to exit the settings box.
- NOTE:** If the “Privacy” panel is not currently displayed, click the  icon.

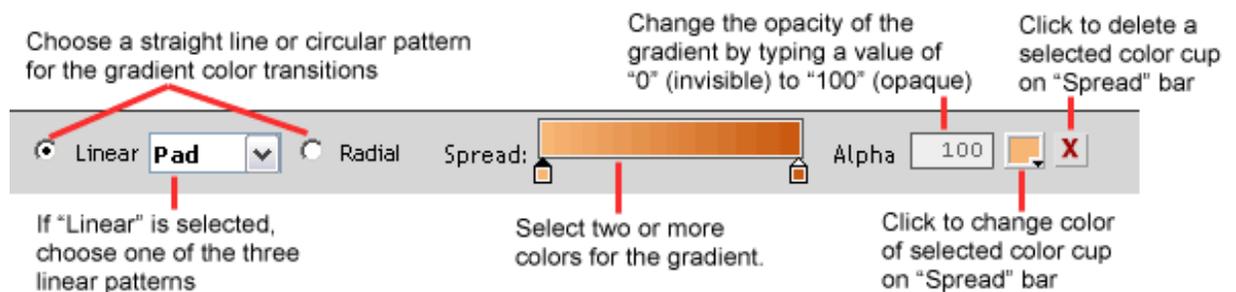
Illustration 199, Webcam "Privacy" Setting



- c. Click the "Ok" button to create a still image from the current webcam display or "Cancel" to return to the canvas without creating an image. Any image created will be in the resolution of your webcam (typically 640 x 480 pixels).
-  **Clip Art Tool:** click the clip art tool to display a window containing the graphic backgrounds and images included with your slide editor along with any custom JPEG/PNG background files that may have been uploaded through the WinLGX "Storage Manager" window. To add an image graphic to the slide canvas, just click on the image.
- **Gradient Layer**

An easy way to create a background for your slide is with the  gradient tool. Click the gradient tool and select your gradient color, pattern, and opacity from the gradient toolbar at the top of the editor (see Illustration 200) according to the following:

Illustration 200, Gradient Toolbar



- **Select gradient pattern**
 - **"Linear":** select "Linear" to create a gradient that transitions in the direction of the line you create when dragging the gradient tool across the canvas. The first and last points of the line mark the start and end of the gradient, which transitions from left to right through the color cup values on the "Spread" bar. The shorter the line, the more abrupt the gradient color transitions will be. Choose one of the three linear gradient patterns:
 - "Pad": extends the last color cup value in your gradient from where your gradient line stops to fill the remainder of your canvas

- “Reflect”: a mirror image of your gradient will be reflected on both ends of your drawn line and, depending on the length of your gradient line, will continue reflecting throughout the canvas
 - “Repeat”: your gradient will repeat the length and direction of your drawn line across the canvas, with short lines resulting in greater repetition
 - o “Radial”: the gradient line you create forms the radius of a circle, with the first point of the line establishing the center of the circle. The radial gradient starts with the leftmost “Spread” color cup value at the center of the circle and concludes with the last color cup value forming the outermost diameter of the circle and filling the remainder of the canvas.
- **Change gradient color values**
- Create a gradient that transitions between two or more colors of your choosing with the “Spread” color value bar. By default, the left end of the bar will automatically show a lighter color cup transitioning to a darker color cup on the opposite end. To change, perform any of the following:
- Change a color: double click the color cup to display the “Color Picker” window. Use the slider to adjust the color palette and then click on a color within the palette. Click “Ok” to make your selection.
 - Add color cups: increase the number of color transitions within your gradient by clicking on the “Spread” bar to add a color cup. Drag the cup to the desired position on the bar.
 - Delete a color cup, single click the color cup icon and then click the “X” button.
- **Change gradient opacity**
- Change the opacity of each color value in your gradient by single clicking on a color cup icon and then typing a number value from 0 to 100 into the “Alpha” box. A value of “0” renders the color invisible, while “100” returns the color to full opacity.

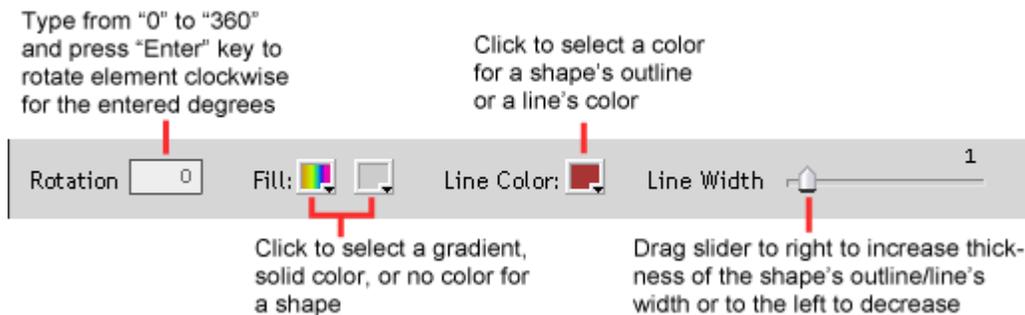
With the gradient tool positioned over the canvas, click your left mouse button and drag the tool across the slide canvas to create your gradient layer. The gradient created will be based on the length and direction of the line you dragged on the canvas. If you don’t like the effect, you can always delete the layer and experiment with dragging your gradient tool in different directions and lengths.

- **Shapes**

Click the desired basic shape tool or the polygon or arrow shape tool (see Illustration 197, Advanced Slide Editor Toolbox). With your mouse pointer positioned over the editor’s canvas, hold down the left button on your mouse and drag the pointer to create your shape. When you let go of your mouse button, the editor will finalize your shape and add the shape element to a canvas layer.

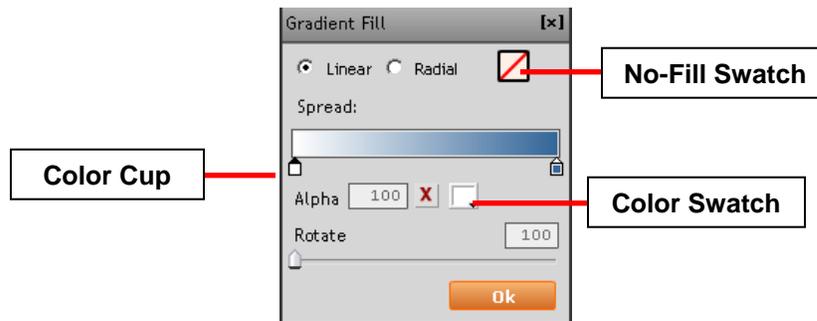
Use the shape/line toolbar at the top of the editor (see Illustration 201) to select the shape’s fill and outline color, outline width, and orientation according to the following:

Illustration 201, Shape Toolbar



Shape Gradients: clicking on the gradient fill swatch will open the window shown in Illustration 202. When you have finished selecting your gradient settings based on the following information, click “Ok” to make your changes.

Illustration 202, "Gradient Fill" Window



- **Select gradient pattern**

- **“Linear”:** select “Linear” to automatically apply a gradient that transitions in a straight line across your selected shape. “Linear” gradients may be rotated clockwise from 0 to 360 degrees within your shape by either using the “Rotate” slider or entering a degree number value in the “Rotate” field and pressing your “Enter” key.
- **“Radial”:** select “Radial” to automatically apply a circular gradient to the center of your shape. Radial gradients begin with the leftmost “Spread” color cup value at the center of the circle and conclude with the last color cup value forming the outermost diameter of the circle and filling the remainder of the shape.

➤ **Change gradient color values**

Create a gradient that transitions between two or more colors of your choosing with the “Spread” color value bar. By default, the left end of the bar will automatically show a lighter color cup transitioning to a darker color cup on the opposite end. To change, perform any of the following:

- Change a color: double click the color cup or first single click the color cup and then the color swatch to display the “Color Picker” window. Use the slider to adjust the color palette and then click on a color within the palette. Click “Ok” to make your selection.
- Add color cups: increase the number of color transitions within your gradient by clicking on the “Spread” bar to add a color cup. Drag the cup to the desired position on the bar.
- Delete a color cup, single click the color cup icon and then click the “X” button.

➤ **Change gradient opacity**

Change the opacity of each color value in your gradient by single clicking on a color cup icon and then typing a number value from 0 to 100 into the “Alpha” box. A value of “0” renders the color invisible, while “100” returns the color to full opacity.

- **Remove fill color from shape:** click the  no-fill swatch to completely remove any color applied to your shape and close the “Gradient Fill” window.

• **Lines**

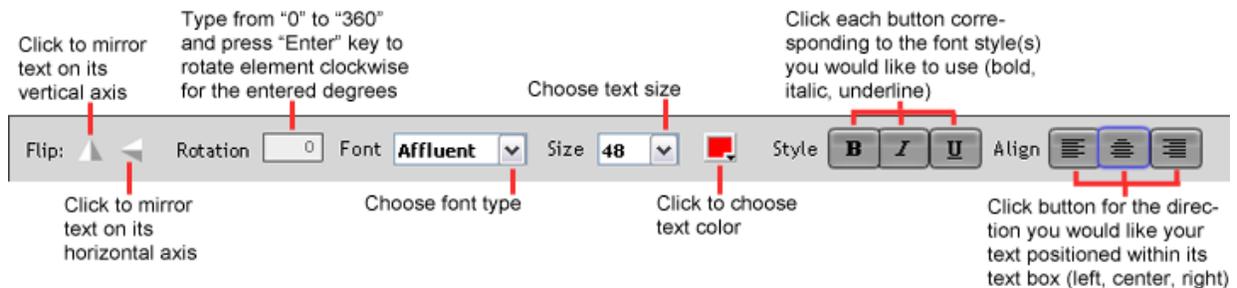
Your slide editor provides the following tools for drawing lines. When you select a line tool, use the shape/line toolbar that appears at the top of the editor (see Illustration 201) to select the line’s color and thickness.

- **Straight line:** click the  line tool and use your mouse to position the tool on the canvas. Hold down your left mouse button and drag the tool to create a straight line at any angle. Let go of the mouse button to finalize your line and add the line element to a canvas layer.
- **Freeform line:** click the  pencil line tool and use your mouse to position the tool on the canvas. While holding down your left mouse button, drag the tool to draw a custom line. Let go of the mouse button to finalize your line and add the line element to a canvas layer.
- **Curved line:** click the  curved line tool and use your mouse to position the tool on the canvas. Hold down your left mouse button and drag the tool to create a straight line at any angle. When the line is the length you want, let go of the mouse button. Then left click on the line and while holding down the mouse button, drag your mouse to curve the line in the direction you are dragging. Let go of the mouse button to finalize your curved line and add the line element to a canvas layer.

- **Text**

Click the  text tool. Use the text toolbar that appears at the top of the editor (see Illustration 203) to select the orientation, font, font size, and color.

Illustration 203, Text Toolbar

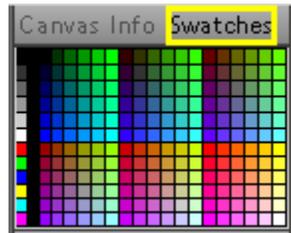


Click your mouse pointer on the area of the canvas that you would like to add text. Type in your message and then press your keyboard "Enter" key to add the text element to a canvas layer.

If desired, enhance individual graphic and/or text layers with graphic effects. To apply an effect, first select a layer on the canvas with the cursor tool or by clicking on its layer in the "Layers" panel. Change any of the following:

- **Layer Position:** when a layer is selected, the "Canvas Info" panel displays the position of the layer along the canvas's x and y axes. The x/y position values for the selected layer may be changed by typing a new value into either or both fields and pressing the "Enter" key.
- **Layer Size**
When a layer is selected, the "Canvas Info" panel displays the height and width of the selected layer element. The height/width values for the selected layer element may be changed by simply typing a new value into the desired field(s) and pressing the "Enter" key. If the height/width values are locked, entering a new value in only one of the fields will keep both values true to the proportion of the original dimensions. To distort the layer element by only changing the height or width, click the padlock to unlock before entering in the new dimension.
- **Color of Shape/Line/Text**
 - **Choose a color from any graphic/text element on the canvas:** select the  eyedropper tool and then click on a color within any canvas element.
 - **Select a color from the "Swatches" color palette:** click on the "Swatches" tab to display the color palette (see Illustration 204). Click on one of the color swatches to select a new color.

Illustration 204, "Swatches" Tab Panel



- Image Saturation:**
 - Desaturate:** click the  black/white tool to remove the color from a selected image layer.
 - Text Filter Effects:** clicking a text filter effect icon will cause selected text to take on the look depicted by the filter icon (see Table 45, Text Filter Effects).

Table 45, Text Filter Effects

Filter Icon	Effect Name	Result
	Black Plastic	
	Candy	
	Casino	
	Chrome	
	Gold	
	Horizon	
	Horizon2	
	Mercury	

Filter Icon	Effect Name	Result
	Metal	
	Neon	
	Plastic	
	Water	

- **Layer Blend Modes:** on the “Layers” panel, click the down arrow next to “Normal” to display a drop down menu of layer blend effects. The blend modes create a composite image from the selected layer and, depending on their canvas size and opacity, the first one or more layers below it in the layer stack. Refer to Table 46, Layer Blend Modes, for a description of each blend mode.

Table 46, Layer Blend Modes

Filter Effect	Result
“Normal”:	Returns the selected image layer to its original settings 
“Add”:	Blends layers together by adding the colors in the selected layer to the colors in the underlying layer(s) 
“Alpha”:	N/A

Filter Effect	Result	
“Darken”:	Blends the selected layer with the layer(s) below it, putting the darker of the colors from each layer on the surface	
“Difference”:	Blends the selected layer with the layer below it, subtracting the RGB values of the darker colors from the RGB values of the lighter colors to the obtain color values for the blended image	
“Erase”:	N/A	
“Hardlight”:	Darkens the darkest areas on the selected layer while blending the lightest areas with the layer(s) below it	
“Invert”:	Displays the layer(s) just beneath the selected layer and changes the colors of the underlying layer(s) to their opposite RGB color values	
“Layer”:	N/A	

Filter Effect	Result	
<p>“Lighten”:</p>	<p>Blends the selected layer with the layer(s) below it, putting the lighter of the colors from each layer on the surface</p>	
<p>“Multiply”:</p>	<p>Blends the selected layer with the layers below it by multiplying the layers’ RGB color values together for a darkening effect</p>	
<p>“Overlay”:</p>	<p>Blends the selected layer with the layer(s) below it by lightening the lighter pixels and darkening the darker pixels in each layer</p>	
<p>“Screen”:</p>	<p>Blends the selected layer with the layer(s) below it by multiplying the opposite RGB color values of the selected layer by the complementary RGB color values of the underlying layer</p>	

Filter Effect	Result
"Subtract":	<p>Subtracts the RGB color values in the selected layer from RGB color values in the underlying layer(s)</p> 

- **Layer Filters:**

- **Blur**

Click the  blur tool or select "Filters"/"Blur" to display the "Blur" window. Adjust the sliding scale between "0" to "50" to decrease/increase the amount of blur applied to the selected element. Click "OK" to make the change or "Cancel" to abort.

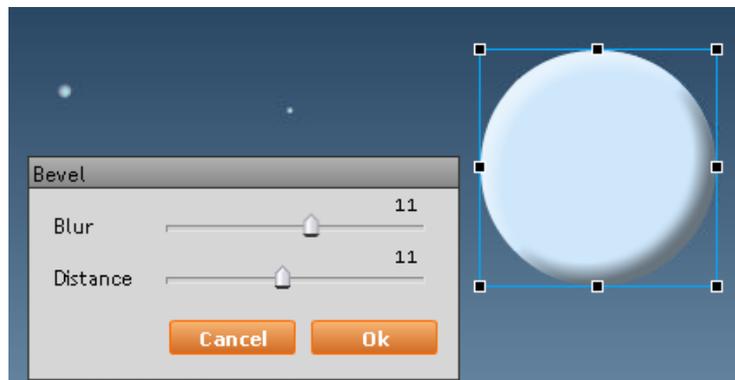
- **Sharpen**

The sharpen filter creates more defined edges in fuzzy and dim image layers by increasing the contrast between light and dark pixels. Apply the "Sharpen" filter to your selected image layer by selecting "Filters"/"Sharpen." The "Sharpen" filter may be repeatedly applied to achieve the desired effect.

- **Bevel**

A quick way to create a three dimensional effect, the "Bevel" filter gives each selected layer a shadow on its right and bottom inner edges and a highlight on its top and left inner edges. To apply, select "Filters"/"Bevel" to display the "Bevel" window. Use the "Blur" and "Distance" sliders to customize the bevel effect and then click "OK" to finalize or "Cancel" to abort.

Illustration 205, "Bevel" Effect Window



- **Glow**

The "Glow" filter applies a blurred shadow of a custom size and color to the outer edges of the selected layer. To apply, select "Filters"/"Glow" to display

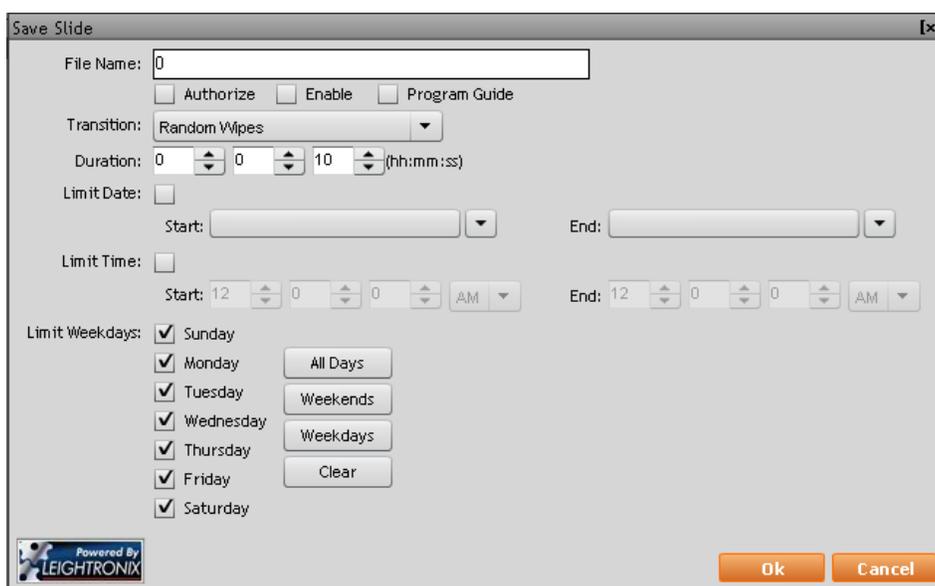
the “Glow” window. Use the color swatch and “Distance” slider to respectively adjust the color and size of the glow. Click “OK” to finalize or “Cancel” to abort.

➤ **Shadow**

Use the “Shadow” filter to add dark shadow to the right and bottom outer edges of the selected layer. To apply, select “Filters”/”Shadow” to display the “Shadow” window and use the “Blur” and “Distance” sliders to customize the effect. Click “OK” to finalize or “Cancel” to abort.

When you have finished making changes, save your slide by clicking the  save icon or selecting the “File”/”Save” menu option. The “Save Slide” window shown in Illustration 206 will appear, allowing you to add metadata to your slide that will control display of the slide in slide shows. Perform the following:

Illustration 206, “Save Slide” Window



- a. In the “File Name” field, type in a filename with up to 27 characters (no spaces). If the filename already exists, a pop-up box will prompt you to either click “Ok” to overwrite the existing file or “Cancel” to enter a new filename on the “Save Slide” window.
- b. If you logged into WebNEXUS under an “admin” account or are using an account with the “slide administrator” or “automatic slide authorization” right, the “Authorize” box will be available for selection. Authorize the slide for display in slide shows by checking the “Authorize” box (see “Approving Slides for Display in Slide Shows” on page 309 for more information on authorizing slides).
- c. Complete the remaining slide show metadata fields according to the instructions in “Adding Slide Show Settings to Slide Metadata,” on page 307, with the following exceptions:
 - “Program Guide”: checking the box will cause the slide to show the scheduled, upcoming programs for the channel its slide show is displayed on,

- while leaving the box unchecked disables the program guide setting for the slide during slide shows
- “Duration”: type in or use the up/down arrows to select the number of hours, minutes, and/or seconds (hours:minutes:seconds) that you would like the slide to display within a slide show
- d. Click “Ok” to save or “Cancel” to abort. The slide editor automatically saves a .jpeg and .fie file for each slide, where the .jpeg file is the actual slide and the .fie file contains the editable layers data for the slide. The .fie files are only visible in the WinLGX Storage Manager window and are useful if you wish to transfer slides to a local storage device and then back to your UltraNEXUS-HD server for editing in your slide editor (see “Managing Storage of Video, SLIDE, and OVERLAY Files,” starting on page 253).

Creating a Default Slide

Create a default slide that will automatically display if a slide show is scheduled without slides or without approved slides.

Select the “admin” user folder in the “File” list. Your UltraNEXUS-HD system will only look for a default slide in the “admin” user folder.

NOTE: If you do not see an “admin” folder, the user account you logged into does not have “admin” or “Slide Administrator” rights.

Upload the slide you would like to serve as the default (see “Uploading Slides to a UltraNEXUS-HD Server/Controller,” on page 289).

Rename the slide to “Default.jpg” (see “Renaming Slides on a UltraNEXUS-HD Server/Controller,” on page 311).

Approve the slide for display (see “Approving Slides for Display in Slide Shows,” on page 309).

Finding Slides/User Folders

WebNEXUS provides the following tools for managing and searching your slide list for user folders and files:

- “Expand All/Collapse All” links: by default, the WebNEXUS slide management page opens with all slide user folders fully expanded. If you have a lot of slides, this can make for a really long file listing. To quickly locate a particular folder of slides, click the “Collapse All” link at the bottom of the window. This action is easily reversed by clicking the “Expand All” link.
- “Filter” box: if you know the name or even the first few letters of the filename or folder you are looking for, display the “Filter” box by clicking the drop down arrow next to “Filter.” Then type the name of a file or folder to find an exact match or just enter the first few letters to get a list of possible files and folders.

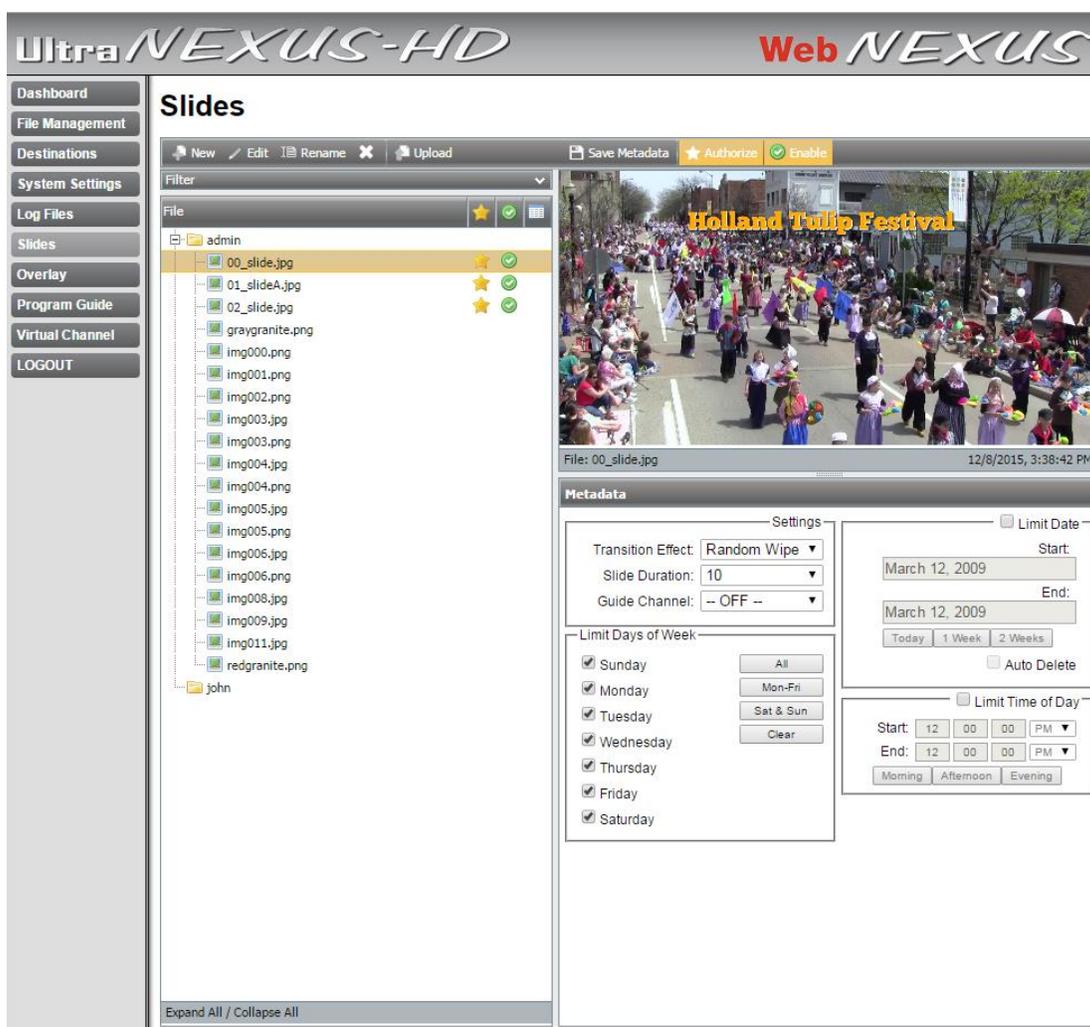
Adding Slide Show Settings to Slide Metadata

Each UltraNEXUS-HD server/controller processes slide metadata to determine when your slides will appear in scheduled slide shows. Perform the following steps to modify the slide show availability settings for your slides (refer to “Scheduling/Editing Library Resources,” on page 210, for information on scheduling a slide show).

NOTE: Slide metadata settings do not put your slides on-air. The settings limit when the slides will appear when scheduled in slide shows. **All slide shows must be scheduled for display through WinLGX.**

Select the desired file in the “File” list to enable the metadata fields on the right side of the slide management screen (see Illustration 207, Slide Metadata Fields). The following settings may be modified:

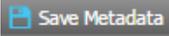
Illustration 207, Slide Metadata Fields



- **“Transition Effect” drop down list:** select from the following to determine how the slide will be displayed on screen:
 1. “Cut”: displays entire slide image at once

2. “Random Wipes”: reveals slide image with 14 possible transitions
- **“Slide Duration” drop down list:** select between 5–99 seconds to determine how long the slide will be displayed on screen.
- **“Guide Channel” drop down list:** use this setting to display a list of up to ten upcoming programs on the selected slide during a slide show. Each program is listed on the program guide according to its schedule event time and “Comment” text in the default font size, color, and style (see **Illustration 91, Example of Onscreen Program Guide**, on page 150). The “File” list will show a  icon next to each slide that has the program guide option activated. Select one of the following options:
 - **“OFF”:** disables the program guide setting for the slide
 - **“AUTO”:** slide will display its scheduled channel’s upcoming programs
 - **Channel Output:** slide will display the selected channel’s upcoming programs, regardless of which channel the slide show is scheduled on
- **“Limit Date” button:** if you would like the slides to appear only between specified dates, click to check the corresponding box and perform any of the following steps:
 - Enter the slide display start date into the top month/day/year fields and the display end date into the bottom month/day/year fields by using the corresponding drop down calendar. Just click in either field to display the calendar and perform the following:
 - a. First select the appropriate month and year as follows:
 - Click on the calendar month to show a list of months. Click to select the desired month.
 - Click on the calendar year to show a list of years. Click to select the desired year.
 - b. Next, select the date on the calendar by clicking.
 - Click the “Today” button to automatically enter today’s date into the top and bottom month/day/year fields.
 - Click the “1 Week” button to automatically enter today’s date into the top month/day/year fields and the date seven days from today into the bottom month/day/year fields.
 - Click the “2 Weeks” button to automatically enter today’s date into the top month/day/year fields and the date fourteen days from today into the bottom month/day/year fields.
 - Click to check the “Automatic Delete” box if you would like the slide deleted from the UltraNEXUS-HD at the conclusion of the display period.
- **“Limit Days of Week” fields:** check the desired day boxes to specify which days you would like the slide displayed and/or use the following buttons:
 - **“All Days”:** click this button to automatically select every day of the week.
 - **“Mon-Fri”:** click this button to automatically select Monday through Friday.
 - **“Sat & Sun”:** click this button to automatically select Saturday and Sunday.
 - **“Clear”:** click this button to clear the day fields.

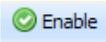
- **“Limit Time of Day” fields:** click to check the “Limit Time of Day” box to enable the time fields and perform any of the following steps:
 - Type in the start and end times for slide display and select AM or PM for each from the drop down boxes.
 - Click the “Morning” button to automatically enter 12 am into the “Start” field and 12 pm into the “End” field
 - Click the “Afternoon” button to automatically enter 12 pm into the “Start” field and 5 pm into the “End” field
 - Click the “Evening” button to automatically enter 5 pm into the “Start” field and 12 pm into the “End” field

Click the  button to save your slide metadata. If you don’t click the “Save Metadata” button, your changes will be lost when you select a different slide or folder or close the slide management screen.

If desired, enable and authorize the slide for display in slide shows according to “Approving Slides for Display in Slide Shows” on page 309.

Approving Slides for Display in Slide Shows

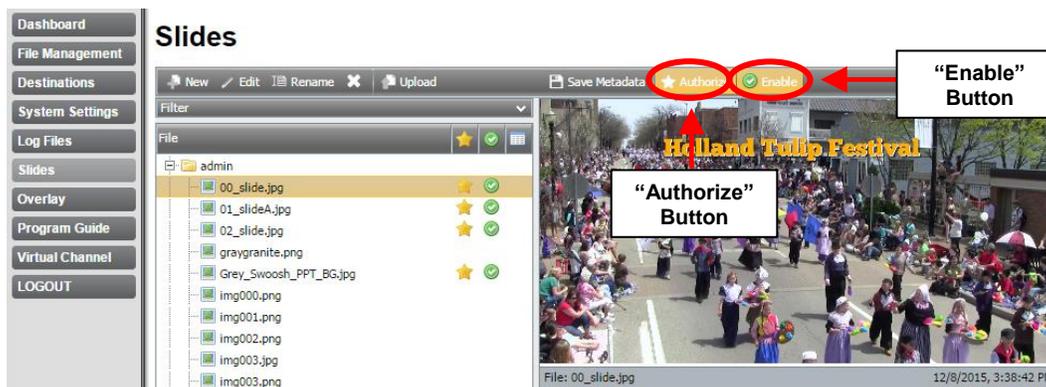
There is a two part approval process for allowing each slide to be part of a slide show. Each slide must be enabled as well as authorized for slide show display as described below. This approval process does not apply to the display of single slides.

- “Enable” Slides: when set, the “Enable” setting tells your UltraNEXUS-HD that the slide is allowed to be included in slide shows. Each user has the ability to enable slides in his own user folder, while the “admin” user and users with the “Slide Administrator” right can change the “Enable” setting for all slides. To enable a slide, just select the slide in the “File” list and click the  button. Each enabled slide will have a  icon next to it in the “File” list.
- “Authorize” Slides: the “Authorize” setting lets your UltraNEXUS-HD know whether or not each slide has been approved for display in slide shows by the system “admin” user or a user with advanced slide management rights.

Automatic approval: all slides uploaded by user accounts granted the “automatic slide authorization” user right will be automatically approved for display in slide shows. The “admin” account and user accounts with the “slide administrator” right automatically have this right. Refer to “Setting User Account Rights,” on page 75 for more information on assigning users the “automatic slide authorization right.”

- **Selective approval:** the “admin” account and accounts with the “slide administrator” right can also approve slides that have been uploaded through accounts without the automatic slide authorization right as follows (refer to Illustration 208, WebNEXUS Authorize and Enable Buttons, throughout the following steps):

Illustration 208, WebNEXUS Authorize and Enable Buttons



1. Scroll to the desired user folder in the “File” list to display the selected user’s slides.
2. Highlight the desired filename in the “File” list.
3. Click the  **Authorize** button. The  authorization icon appears in the “File” list next to each slide authorized for display in slide shows.

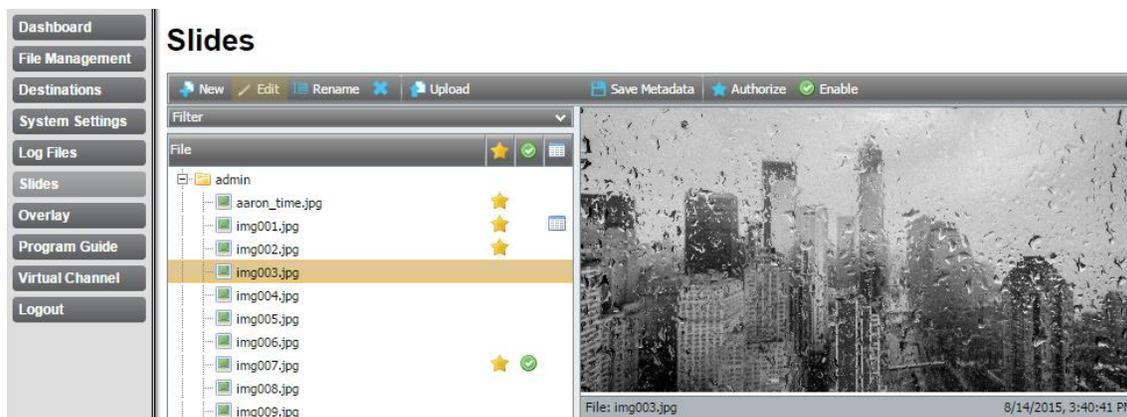
Editing Slides Created in WebNEXUS

WebNEXUS gives you the ability to edit any slides created in your UltraNEXUS-HD server/controller’s slide editor. Perform the following steps:

NOTE: Uploaded slides cannot be edited by WebNEXUS.

1. From the “JPEG Slide Management” screen, single click on the slide you wish to edit in the “File” list (see Illustration 209). When selected, the slide will be highlighted in orange.

Illustration 209, WebNEXUS Slide Editing Feature



If the selected slide can be modified in your slide editor, the “Edit” button will be enabled. Click on the “Edit” button (see Illustration 209) to display your selected slide in the slide editor window for your system.

Edit your slide with any of the formatting options described in the “Creating New Slides” section on page 292

Save over your existing slide or save out your changes as a new slide with a different filename with up to 27 characters (no spaces) according to step 0 of the “Creating New Slides” section on page 305.

Renaming Slides on a UltraNEXUS-HD Server/Controller

Single click to select the desired file in the “File” list.

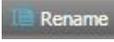
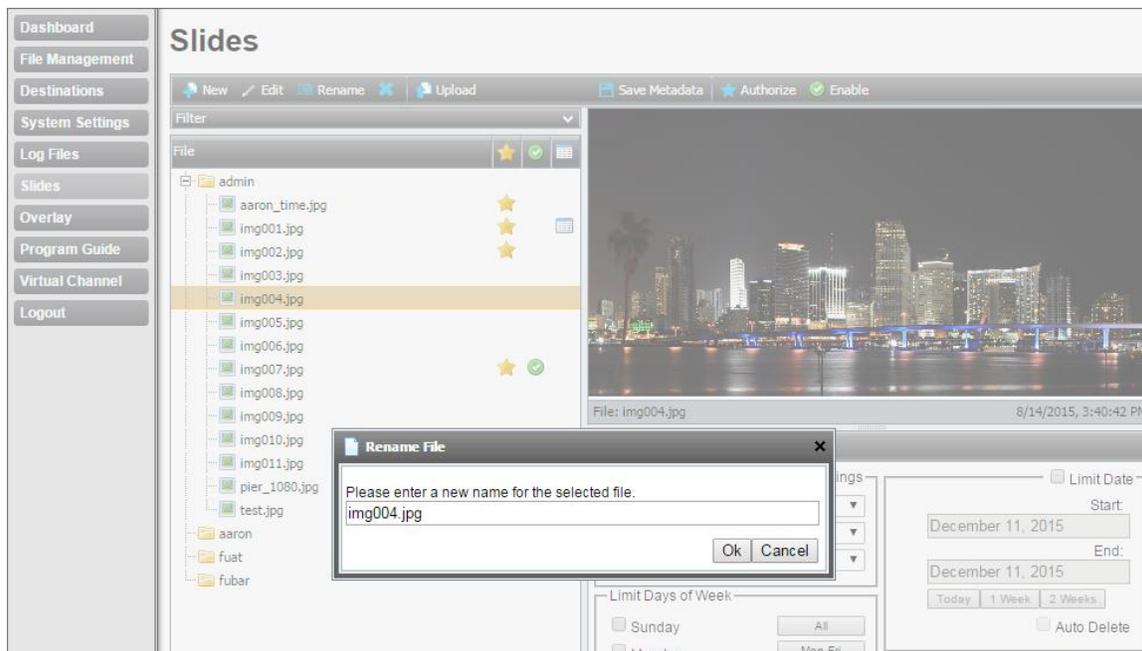
Click  icon to open the rename window shown in Illustration 210.

Illustration 210, “Rename File” Window



Enter up to 27 characters in the rename field.

Click the “Ok” button to make the change or “Cancel” to abort.

Deleting Slides from a UltraNEXUS-HD Server/Controller

Select the desired file in the “File” list.

Click the  icon. A dialog box will appear asking whether or not you would like to delete the selected slide from the UltraNEXUS-HD server/controller. Click “Yes” to make the change or “No” to abort.

Creating Emergency and Overlay Messages

NOTE: Only the “admin” user and users with the “slide administrator” right are able to access the emergency messaging screen.

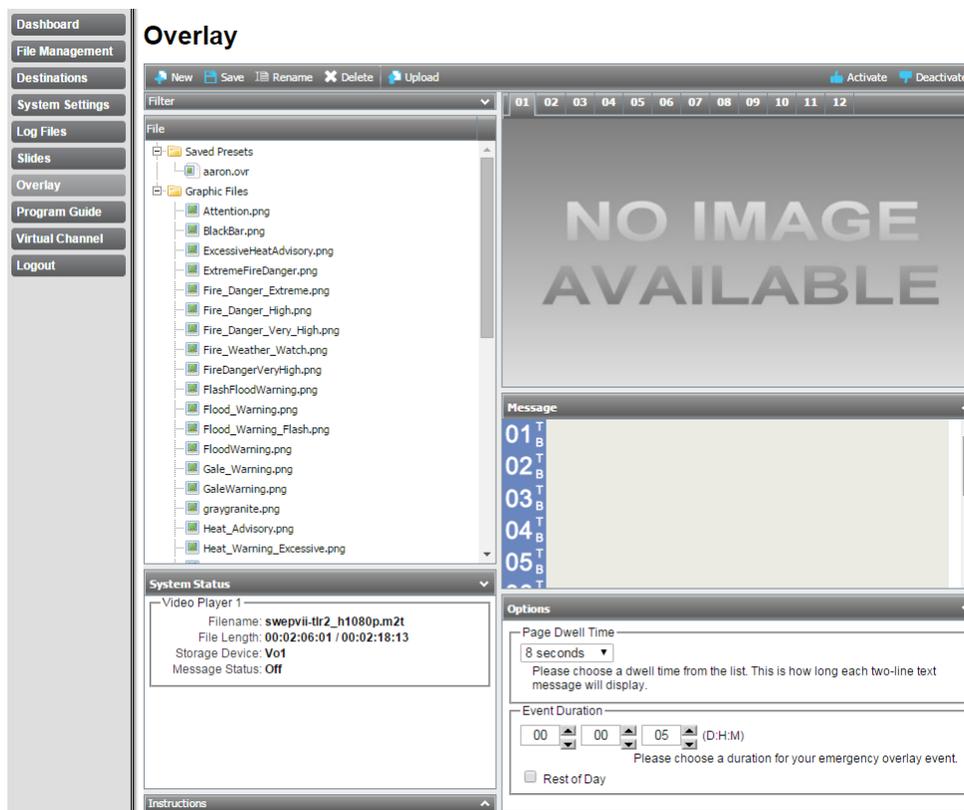
Use the emergency messaging feature to immediately alert viewers to weather conditions, school closings, road construction, and any other urgent events. You have the option of displaying a partial or full screen graphic with or without a text message over scheduled and unscheduled (activated from the Control Panel) digital programming.

The emergency message will be displayed by the MPEG player for the specified duration or until the message is manually deactivated.

To create an emergency message, click the “Overlay” menu button to open the Overlay screen (see Illustration 211, Overlay Screen) and perform the following steps:

NOTE: To display the emergency messaging steps on the “Overlay” screen, click the expand/collapse arrow button on the “Instructions” panel.

Illustration 211, Overlay Screen



Creating a New Emergency Message

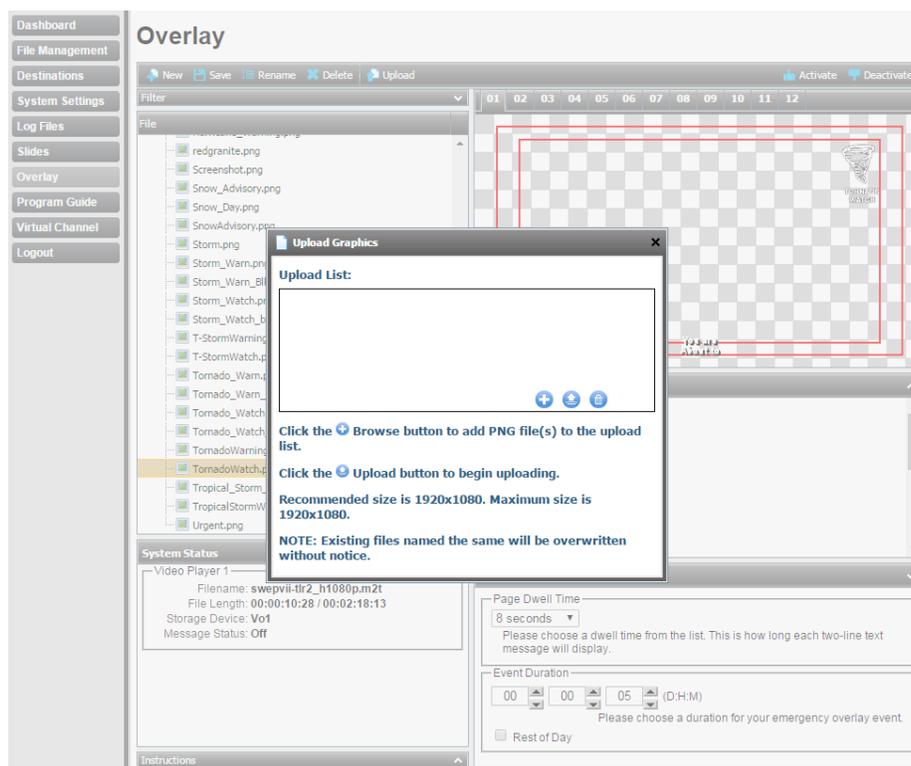
If you need to clear a previously entered emergency message, click the “New” button.

Select a graphic overlay through one of the following methods:

- In the “File” list window, open the “Graphic Files” or “Saved Presets” folder and single click on a file to select it.
- Search for a graphic overlay file in the “Filter” field. Click the expand/collapse arrow next to “Filter” to reveal the corresponding field and then type any part of the filename you are looking for. WebNEXUS will display all folders/files in the “File” window that contain the text in their names. Single click on the desired file to select it.
- Click the  button and add your own overlay through the “Upload Graphics” window (see Illustration 212).

NOTE: The emergency messaging feature utilizes “.png” files. These images can be created in most popular graphics programs. PNG files can contain transparent areas, allowing your MPEG player programming to be seen behind your overlays.

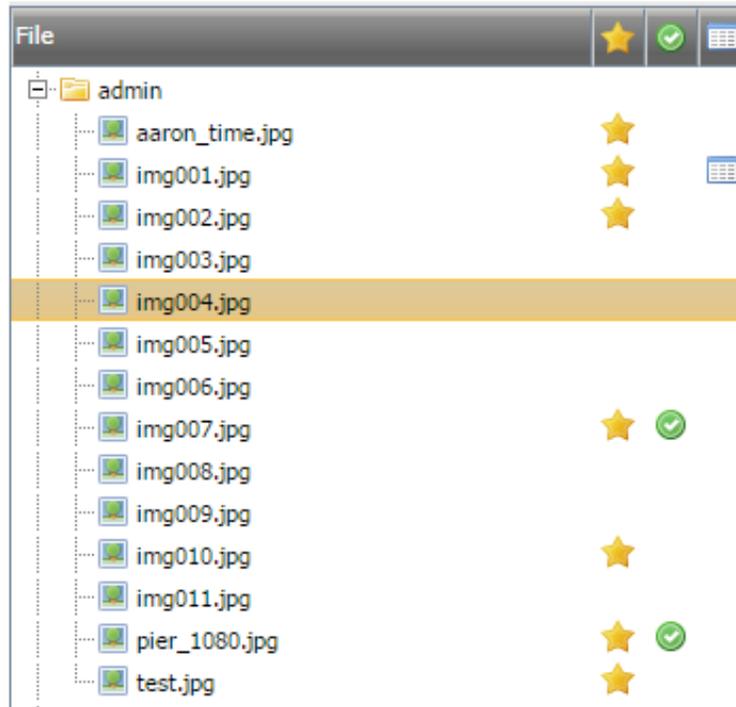
Illustration 212, New Graphic Overlay Upload Window



- Click the  browse button to open the “Select file(s)” window shown in Illustration 213. Navigate to the desired file and click “Open.”

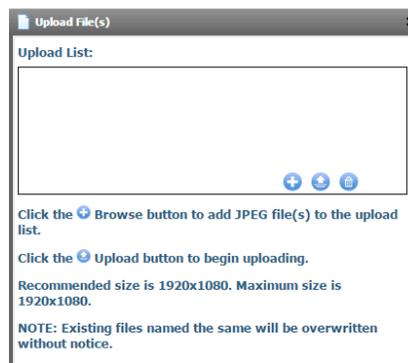
NOTE: The UltraNEXUS-HD only supports overlay names containing up to 27 characters (no spaces or symbols) in addition to the “.png” extension.

Illustration 213, "Select file(s)" Window



- b. WebNEXUS allows you to add and remove overlays from the "Upload Graphics" window as follows:
- Add overlays: to upload a batch of overlays, click the plus  button and repeat step 3 for each additional overlay.
 - Remove one overlay: click the red "x"  button next to the overlay you wish to remove.
 - Remove all overlays: click the blue trash  button to clear the upload graphics listing.
- c. Click the  upload button to load the overlay(s) onto the UltraNEXUS-HD system or "Cancel" to abort the change. When each overlay has finished loading, the "Upload Graphics" window will indicate the overlay file is "100%."

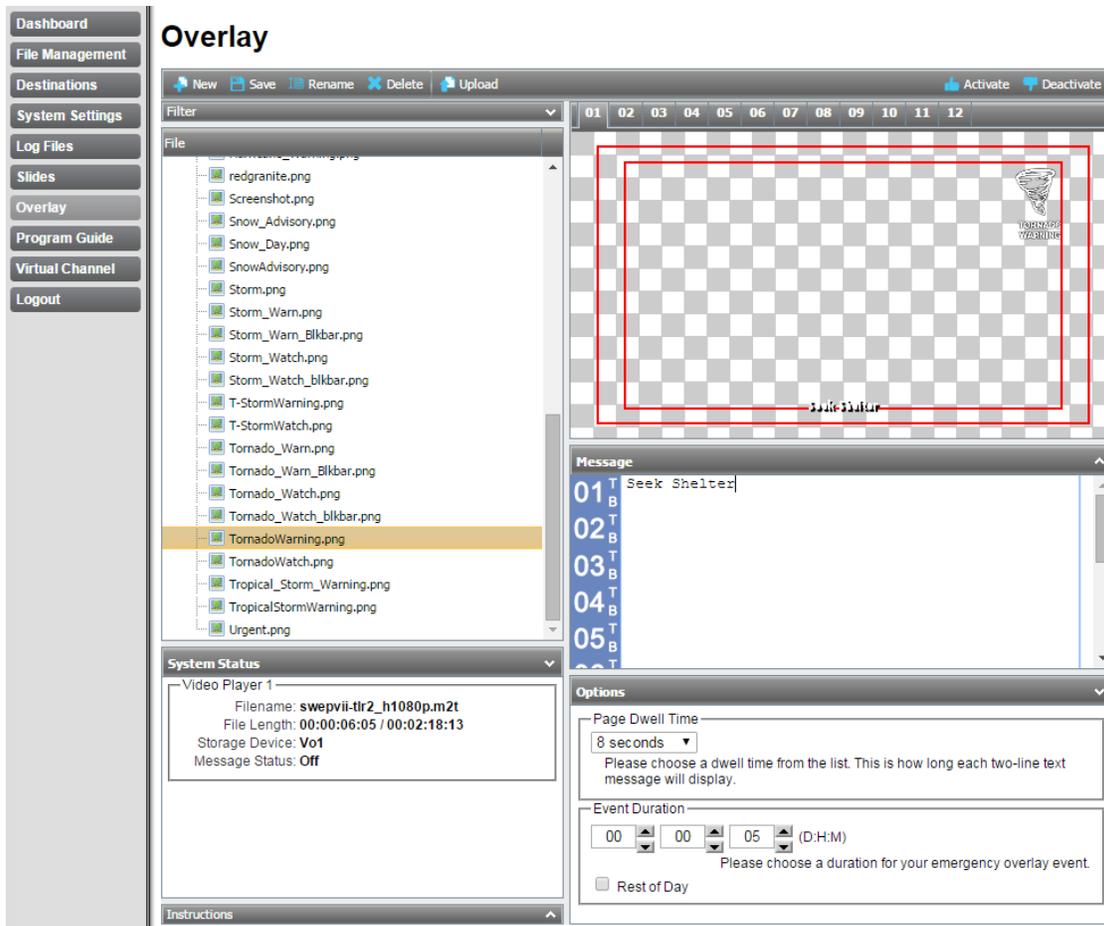
Illustration 214, "Upload Graphics" Window



- d. When you have finished uploading files, click the close “x” button in the upper right corner of the window.

In the message box on the right, type a sequence of up to 12 pages of two-line messages, as shown in Illustration 215. Move to each new line of text by pressing “Enter” on your keyboard. These messages will appear in the lower third position of the overlay screen as 22 pt, bold Ligurino text. The bottom line of text on each page is positioned just above the safe title guideline.

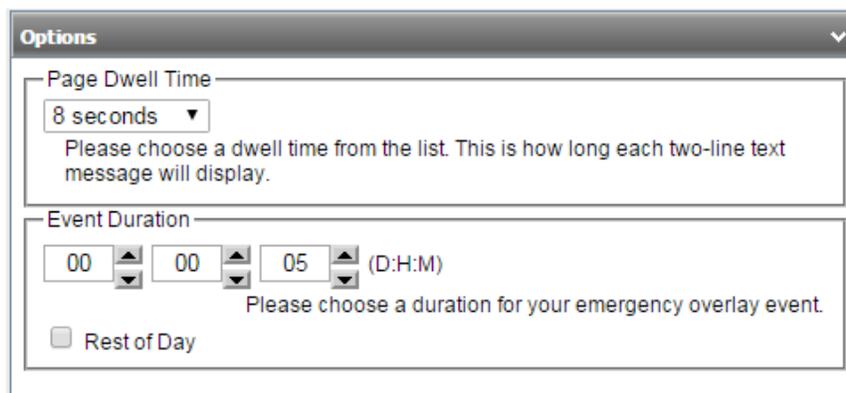
Illustration 215, Text Entry on Emergency Messaging Screen



A preview window at the top of the “Overlay” screen shows your image with safe action and title lines. Above it, the buttons numbered 1–12 correspond to the separate two-line text message pages on the overlay. You can view how each page of text will appear on your overlay image by clicking on the page number buttons.

On the “Options” panel shown in Illustration 216, complete the following steps:

Illustration 216, "Options" Panel



- a. From the "Page Dwell Time" drop down list, select how many seconds you would like each page of messages to display on the overlay, starting with 8 seconds, skipping to 10, and then increasing in increments of 5 seconds, up to a total of 30 seconds. Once activated, your message pages will change from one to another on the selected overlay.
- b. From the "Event Duration" field, choose to display your emergency message for up to 7 days, 99 hours, and 59 minutes or select the "Rest of day" field to display the overlay until midnight. The message pages will continue cycling until the duration time completes.

If you wish to save the message for reuse, click the "Save" button.

If desired, activate the emergency message for display according to "Activating an Emergency Message," on page 316.

Activating an Emergency Message

If you wish to display a saved emergency message, click on the "Saved Presets" tab and single click the desired message in the presets listing. Otherwise, create a new message according to the steps in the "Creating Emergency and Overlay Messages" section on page 312.

Click the "Activate" button to display the message. The "System Status" panel on the "Emergency Messaging" screen indicates the message activation status for the MPEG player.

Deactivating an Emergency Message

To end an emergency message before the event duration completes, click the "Deactivate" button.

Viewing Web Program Guide

View upcoming programs on the current UltraNEXUS-HD schedule from its web interface, a web browser, or your own website.

Viewing Program Guide within the Web Interface

Click the “Program Guide” menu button to display a program guide screen like the example shown in Illustration 217.

Illustration 217, Web Interface Program Guide Screen

The screenshot displays the UltraNEXUS-HD Web NEXUS interface. On the left is a vertical sidebar with buttons for Dashboard, File Management, Destinations, System Settings, Log Files, Slides, Overlay, Program Guide, Virtual Channel, and Logout. The main area is titled "Program Guide" and contains an "Options" section with a "Channel" dropdown set to "All Channels" and a "Mode" dropdown set to "Day". There are also "Show Seconds" and "Day Headers" checkboxes, both currently set to "on". Below this is a "Day to View" section with buttons for Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. An "HTTP Port" section has a text input field containing "50001" and a "Save" button. A "Preview" section shows the text "All Channels: Program Guide for Friday" and "No Programs Currently Scheduled". Below the preview is a disclaimer: "This schedule is valid as of 1:40 PM on Friday, December 11, 2015 and is subject to change. Refresh this screen often for the most up-to-date scheduling information." followed by the "LEIGHTRONIX POWERED" logo. At the bottom, there is an "Embed Script" section with a code editor showing JavaScript code for scheduling.

From the “Channel” drop down menu, click one of the channel outputs to only display the programming lineup for the selected channel or click “All Channels” to display the programming schedule for all WinLGX channel tabs.

From the “Mode” drop down menu, select “Day” if you would like to view programming for just one day in your schedule (see Illustration 217) or choose “Week” to view programming for all seven days of your schedule (see Illustration 218). If you choose “Week,” the “Day Headers” buttons are enabled on the toolbar. Selecting “on” will cause each day’s programming to be displayed under separate day, date, and program time headings, as shown in Illustration 218. If the “Day Headers” option is set to “off,” each day’s programming will be displayed under one set of date, day, and program time headers.

Illustration 218, Program Guide Screen in Week Mode with Day Headers "ON"

The screenshot displays the UltraNEXUS-HD Web NEXUS interface. On the left is a sidebar menu with options: Dashboard, File Management, Destinations, System Settings, Log Files, Slides, Overlay, Program Guide, Virtual Channel, and LOGOUT. The main area is titled "Program Guide" and contains an "Options" section. In this section, "Channel" is set to "Out 1", "Mode" is set to "Week", "Show Seconds" is set to "on", and "Day Headers" is set to "on". A red box highlights the "Day Headers" toggle, with a red arrow pointing to it from a box labeled "Day Headers ON". Below the options is a "Day to View" section with buttons for Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. An "HTTP Port" section shows the port set to 50001. The "Preview" section displays a weekly program guide for Out 1 from Dec 14, 2015 to Dec 20, 2015, listing programs like "NASA Report" and "City Council Meeting" for Monday and Tuesday. At the bottom, there is an "Embed Script" section with JavaScript code.

For the “Day” mode view, click on a day of the week to view programming for the corresponding weekday. If you selected “Week” mode, clicking a day button will sort your programming schedule by the selected day.

If you wish to display the program start time down to the second, click the “Show Seconds” “on” button. The default option is “off.”

Viewing Program Guide from a Web Browser or Your Own Website

The UltraNEXUS-HD program guide frame has been validated by the W3C to be a valid XHTML 1.0 transitional document. It has been successfully tested in the following browsers:

- Microsoft Internet Explorer
- Google Chrome
- Mozilla Firefox
- Opera
- Apple Safari

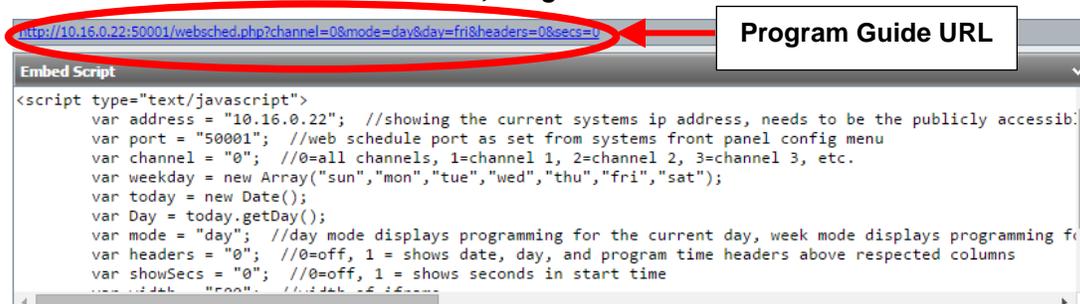
Web Browser

Users without access to the UltraNEXUS-HD web interface schedule display can use a web address to view the current UltraNEXUS-HD schedule online. To obtain the web address and display the program guide in a web browser, perform the following steps:

Click the “Program Guide” menu button to display your UltraNEXUS-HD’s program guide.

Click the URL link on the “Program Guide” screen as shown in Illustration 219 to open your UltraNEXUS-HD program guide in a separate browser tab window.

Illustration 219, Program Guide URL Link



If necessary, edit the following variables (shown in red) in the web address to change the programming display:

- [“http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0”](http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0): change to the IP address of the UltraNEXUS-HD server/controller containing the schedule you wish to display
- [“http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0”](http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0):
 - “channel=0”: displays the programming on all channels
 - “channel=1”: displays the programming on channel one
- [“http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0”](http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0)

[ders=0](#)”: to show programming for one day, leave mode as “day” or to display up to seven days of your schedule’s programming, enter “week”

- “[http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0](#)”: to show the day of the week without the date on top of your programming display, change “date” to “day” and then enter the first three letters of the day whose programming you wish to view from the current schedule
- “[http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0](#)”: if you are using the “week” mode, you may change the “headers” value to “1” to display each day’s programming under separate day, date, and program time headings (see Illustration 218)
- “[http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0&secs=0](#)”: to display each program’s start time down to the second, change the “secs” value to “1”
- “[http://10.255.11.142:50001/websched.php?channel=1&date=09/17/2007](#)”: to show programming for a specific date, change “day” to “date” followed by the month, day, and year.

Distribute the web address as a link or with instructions to paste the address into the address bar of one of the supported web browsers.

Your Own Website

NOTE: The UltraNEXUS-HD web interface program guide is linked to Port 50001, preventing unauthorized users from accessing the other interface features. If you need to select a different port number for the program guide, refer to “Editing Web Schedule Port,” on page 50.

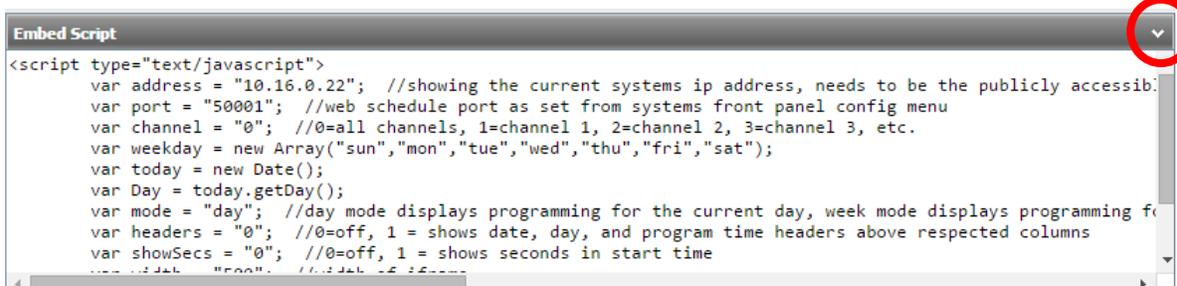
First make the program guide publically accessible by forwarding Port 50001 through your firewall to your UltraNEXUS-HD server/controller. Port forwarding requires an external, public IP address which is configured in the router to have certain ports forwarded to the UltraNEXUS-HD’s internal IP Address. Forward Port 50001 of the external IP address to your UltraNEXUS-HD server/controller, then point your website to the external address.

Once your “Program Guide” has been made publically accessible, add the web interface’s program guide embed code to one of your own web pages according to the following steps:

1. Click the UltraNEXUS-HD web interface’s “Program Guide” button to display the corresponding screen.

To display the embed code, click on the “Embed Script” arrow (see Illustration 220).

Illustration 220, Program Guide "Embed Script"



```
<script type="text/javascript">
  var address = "10.16.0.22"; //showing the current systems ip address, needs to be the publicly accessib
  var port = "50001"; //web schedule port as set from systems front panel config menu
  var channel = "0"; //0=all channels, 1=channel 1, 2=channel 2, 3=channel 3, etc.
  var weekday = new Array("sun","mon","tue","wed","thu","fri","sat");
  var today = new Date();
  var Day = today.getDay();
  var mode = "day"; //day mode displays programming for the current day, week mode displays programming fo
  var headers = "0"; //0=off, 1 = shows date, day, and program time headers above respected columns
  var showSecs = "0"; //0=off, 1 = shows seconds in start time
  var width = "500"; //width of iframe
```

Drag your mouse cursor across the code to highlight and select it, then simultaneously press the "Ctrl" and "C" keys on your keyboard to copy the code.

Paste the code onto one of your web pages by simultaneously pressing the "Ctrl" and "V" keys on your keyboard.

If desired, customize the code for your website by editing the embed code variables as described below:

- var channel = "1";
 - "channel=0": displays the programming on all channels
 - "channel=1": displays the programming on channel one
- var mode = "day";
 - var mode= "day": displays programming for the current day
 - var mode= "week": displays seven days of programming
- var headers = "0";
 - var headers= "0": displays the day's programming under one set of date, day, and program time headers
 - var headers= "1": displays each day's programming under separate day, date, and program time headings
- var showSecs = "0";
 - var headers= "0": hides the second of each program's start time
 - var headers= "1": displays the second of each program's start time

Upload the web page with the embed code to your web server. The embedded program guide will dynamically update to display your current program schedule.

Using The Virtual Channel

Overview

NOTE: Only users with the “administrator” right are able to access the Virtual Channel feature.

The Virtual Channel provides looping playlists consisting of your video clips, slides, switcher input devices, and LEIGHTRONIX TOTAL INFO-HD, a subscription-based dynamic video content service. Virtual Channel playlists are convenient for filling time when a schedule is not running or between scheduled programs and also can be easily scheduled as program events.

Click on the “Virtual Channel” menu button to access the WebNEXUS Virtual Channel editor (see Illustration 221). The four content boxes on the right side of the Virtual Channel editor contain the resources that may be added to your playlists, as described in Table 47, Virtual Channel Playlist Resources.

Illustration 221, Virtual Channel Editor

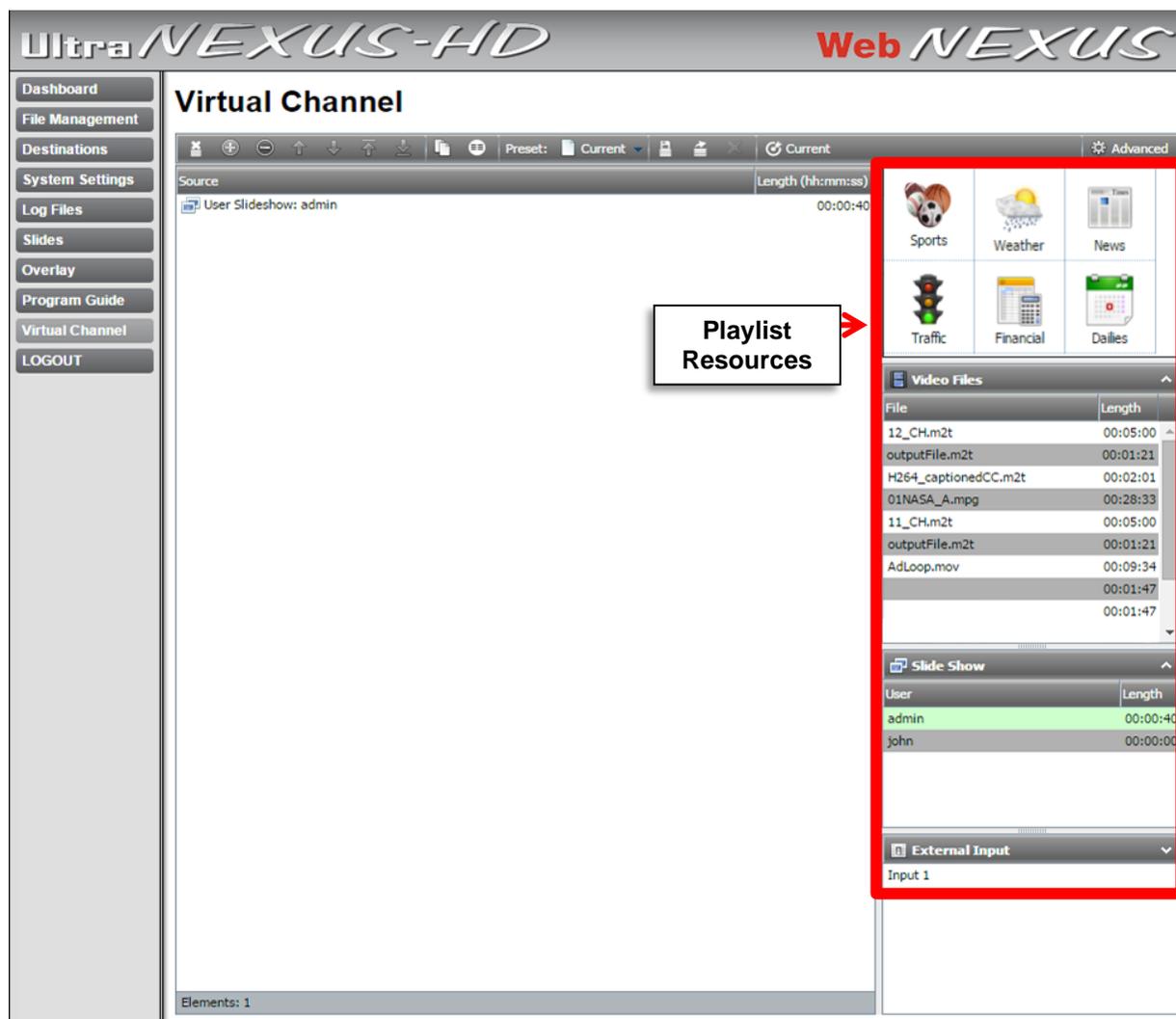


Table 47, Virtual Channel Playlist Resources

CONTENT BOX	DESCRIPTION
TOTAL INFO-HD	Displays the available TOTAL INFO-HD data categories. The “News” selection offers worldwide headlines, while “Traffic” and “Weather” information is specific to the registered location.
Video Files	Displays a list of the video files on your attached digital media storage devices.
Slide Show	Displays a list of all user accounts on your UltraNEXUS-HD server. When you add a user account to a Virtual Channel playlist, enabled and authorized slides within that account will display as a slide show. Individual slide durations, transitions, and time/date display restrictions can be specified in each slide’s metadata from the WebNEXUS “JPEG Slide Management” screen (see “Adding Slide Show Settings to Slide Metadata” on

CONTENT BOX	DESCRIPTION
	page 307). NOTE: Adding a user account without enabled/authorized slides to a Virtual Channel playlist will cause the Virtual Channel to freeze and display black.
External Input	Displays a list of your routing switcher's inputs. When the UltraNEXUS-HD is controlling an external switcher, the number of available inputs in this field will correlate to the number of inputs on the external switcher. NOTE: This option is disabled for the no switch type (configuration without an external switcher) and the Zoned TOTAL INFO-HD feature.

Set up and use your Virtual Channel according to the following steps:

1. If you have a new TOTAL INFO-HD subscription or just wish to take advantage of the free trial, you will need to submit the necessary location and contact information before you can display TOTAL INFO-HD content in your Virtual Channel playlists. TOTAL INFO-HD enhances your digital video playback with automatically updated video content, including news, sports, and entertainment. Refer to "TOTAL INFO-HD Configuration," on page 325, for setup and configuration information.
2. Refer to the following sections for playlist management instructions:
 - "Creating/Modifying Virtual Channel Playlists," on page 330
 - "Saving Virtual Channel Playlists," on page 335
 - "Deleting Virtual Channel Playlist," on page 341
3. Activate Virtual Channel playlists for display according to "Displaying Virtual Channel Playlists," on page 338.

TOTAL INFO-HD Configuration

SETTING UP TOTAL INFO-HD

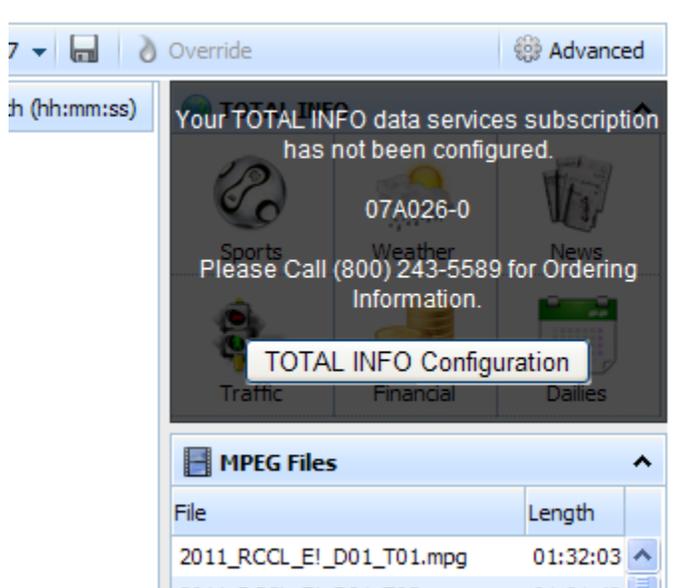
Before you can display *TOTAL INFO-HD* content on your Virtual Channel, you must submit the necessary configuration information to LEIGHTRONIX. For your convenience, WebNEXUS gives you the option to submit this information online. LEIGHTRONIX will use the information submitted through WebNEXUS to register your Virtual Channel and activate *TOTAL INFO-HD* on your UltraNEXUS-HD server.

NOTES:

- The free trial starts counting down from the date you submit the WebNEXUS configuration information.

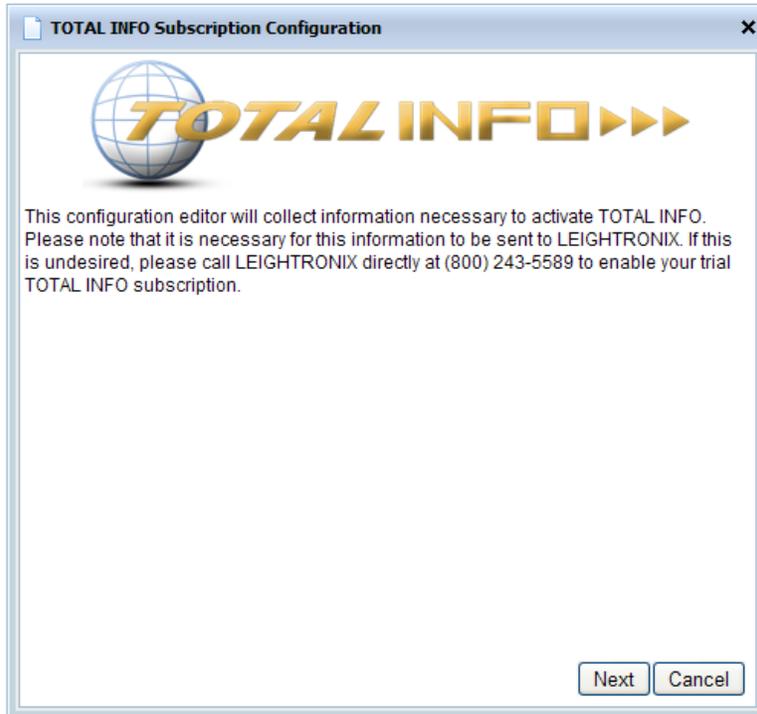
1. If you are not already on the Virtual Channel editor screen (see Illustration 221, Virtual Channel Editor), click on the “Virtual Channel” menu button.
2. On the Virtual Channel editor screen follow the steps below to configure your TOTAL INFO-HD account.
 - a. Click the “TOTAL INFO-HD Configuration” button (see Illustration 222).

Illustration 222, "TOTAL INFO-HD" Configuration Message on Virtual Channel Editor



A dialog box will appear, explaining the TOTAL INFO-HD activation process (see Illustration 223). Click “Next” to continue.

Illustration 223, "TOTAL INFO Subscription Configuration" Box



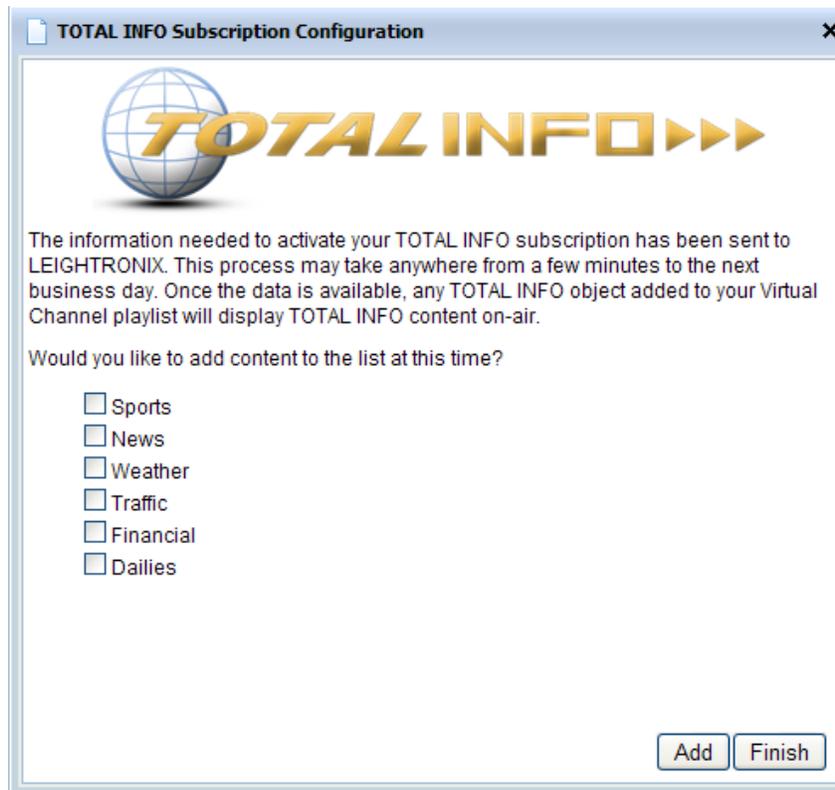
- b. In the subscription configuration box (see Illustration 224), enter the following information:

Illustration 224, TOTAL INFO Subscription Configuration Information

- **“Name,” “Company,” “Email,” and “Telephone”:** LEIGHTRONIX uses this information to contact users about TOTAL INFO-HD.
- **“Contact Preference”:** method LEIGHTRONIX will use to contact user about TOTAL INFO-HD.
- **Location Configuration:** information entered into the “Location Type,” “ZIP/Location Code,” “Metro Area,” and “Time Zone” fields will be used by the NEXUS series system to download and display traffic and weather information for your area.
 - “Location Type” and “ZIP/Location Code” fields: select your location type and then enter the corresponding information into the “ZIP/Location Code” field. Entering a U.S. zip code will cause TOTAL INFO-HD to display weather information for the corresponding area, while the 4-character International Civil Aviation Organization (ICAO) and 5-digit World Meteorological Organization (WMO) codes cause TOTAL INFO-HD to pull meteorological information from the weather observing station associated

- with the code. The ICAO or WMO codes provide weather information for locations both in and outside the U.S.
- “Metro Area”: traffic data is displayed for the selected area.
 - “Time Zone”: information containing sporting event times, such as game start times, will be adjusted to local times.
 - **“MPEG Volume”**: select the UltraNEXUS-HD storage device that you would like to hold your TOTAL INFO-HD files.
- c. Click “Next” once you are satisfied with your settings or “Cancel” to abort. Clicking “Next” will cause WebNEXUS to ask whether or not you would like to transmit your TOTAL INFO-HD activation information to LEIGHTRONIX. Please read the TOTAL INFO-HD user agreement. Click “Accept” to transmit your TOTAL INFO-HD subscription information to LEIGHTRONIX or “Decline” to abort.
- d. If you clicked “Accept,” a subscription information box will appear. At this time, you have the option to select one or more data categories listed on the box and then click the “Add” button to immediately add the selected TOTAL INFO-HD content to your Virtual Channel playlist before your subscription is officially activated (see Illustration 225). Alternatively, just click the “Finish” button and wait for your subscription to be activated before adding TOTAL INFO-HD content to your Virtual Channel playlists.

Illustration 225, Adding TOTAL INFO-HD Content to Current Playlist



- e. Click “Done” to close the last window in the TOTAL INFO-HD subscription configuration process.

Creating/Modifying Virtual Channel Playlists

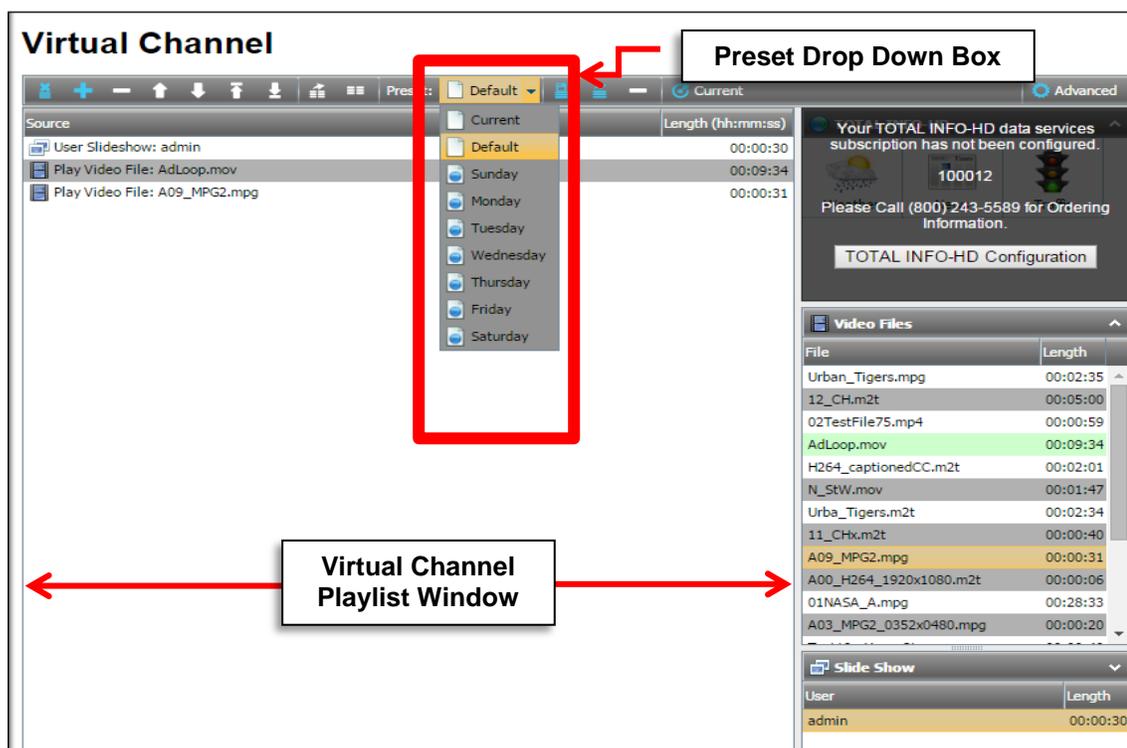
A Virtual Channel playlist is a collection of playback resources from the four content boxes on the right hand side of the Virtual Channel editor. There are three types of Virtual Channel playlists—Day playlists, the Default playlist, and Virtual Channel or VC playlist files (.vc). There is also the “Current” playlist. The Current playlist is the list that is currently playing. The Day presets allow you to create and save a separate playlist for automatic display in the empty time slots between scheduled programming on each day of the week, while the “Default” preset acts as a backup playlist for any empty day presets. Individual playlists can also be saved as Virtual Channel playlist files (.vc) for scheduling as program events or immediate display through the WinLGX control panel. The “Current” playlist contains the playlist resources that were last submitted to your UltraNEXUS-HD server either by clicking the “Current” button or automatically through a day/default preset or a scheduled Virtual Channel playlist file (.vc). Any playlist may be displayed in place of a schedule.

Create or edit playlists with up to 500 resources per list according to the following steps:

1. If you are modifying an existing playlist, load it according to the corresponding set of steps below. Otherwise, skip to step 2 on page 331.

Load Resources from a Virtual Channel Playlist File (.vc) or a Day/Default Preset: from the “Preset” drop down box at the top of the Virtual Channel editor, select a playlist file or day/default preset to load the corresponding playback resources into the playlist window (see Illustration 226).

Illustration 226, Loading a Playlist Preset into the Virtual Channel Playlist Window



2. Add, remove, and re-order resources in the Virtual Channel playlist window according to **Error! Reference source not found.** and Table 48. Virtual Channel playlist resources will play in the order listed. Display durations for each resource type are as follows:

- NOTES:**
- Resources highlighted green in the “Video Files”, “Slide Show”, and “External Input” content boxes are in the current Virtual Channel playlist.
 - Red highlights on Virtual Channel playlist items indicate resources that are no longer available on the UltraNEXUS-HD server’s storage areas and will be skipped during playlist playback.
- **TOTAL INFO-HD:** data displays at a rate of 180 words/minute, with a total minimum duration of three minutes
 - **Video File:** each video clip displays for its file duration
 - **Slide Show:** slide show display durations are a total of each slide’s display length as specified in its metadata (default is 10 seconds per slide)
 - **External Input:** when an external switcher input resource is added to the playlist window, each resource is automatically assigned a default duration. To modify, refer to step 3 in this section on page 334.

Illustration 227, Virtual Channel Playlist

The screenshot displays the UltraNEXUS-HD Web NEXUS interface. On the left is a navigation sidebar with buttons for Dashboard, File Management, Destinations, System Settings, Log Files, Slides, Overlay, Program Guide, Virtual Channel, and LOGOUT. The main interface is titled 'Virtual Channel' and features a 'Preset Drop Down Box' at the top center. To the right of this box are '4 Content Boxes of Playback Resources', which include icons for Sports, Weather, News, Traffic, Financial, and Dailies. The central 'Virtual Channel Playlist Window' is highlighted with a red border and contains a table of video files and a slide show section.

File	Length
12_CH.m2t	00:05:00
outputFile.mpg	00:01:21
H264_captionedCC.m2t	00:02:01
01NASA_A.mpg	00:28:33
11_CH.m2t	00:05:00
outputFile.m2t	00:01:21
AdLoop.mov	00:09:34
	00:01:47
	00:01:47

User	Length
admin	00:00:40
john	00:00:00

External Input
Input 1

Elements: 1

Table 48, Creating Playlists in the Virtual Channel Playlist Window

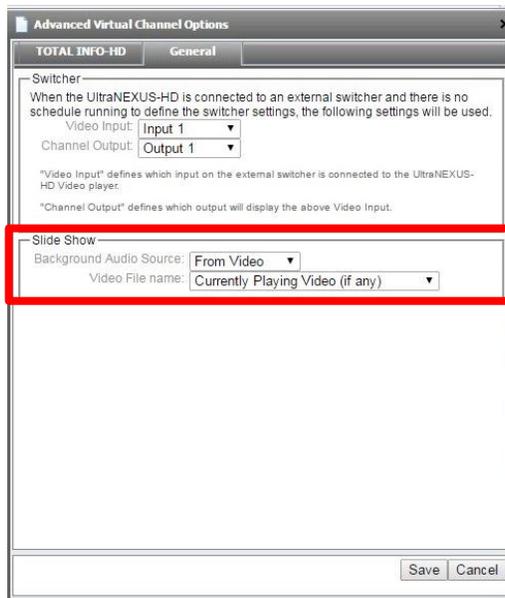
Action	Steps
Select a single resource	Single click the resource. A successfully selected resource will be highlighted in orange.
Select multiple resources	<p>Perform one of the following:</p> <ul style="list-style-type: none"> • <u>Select a group of consecutive resources:</u> single click the first resource in the group you wish to select and then hold down your keyboard's "Shift" key and single click the last resource. All resources between the first and last clicked resources will also be selected. • <u>Select a non-consecutive group of resources:</u> hold down your keyboard's "Ctrl" key and then single click on each of the desired resources. <p>Successfully selected resources will be highlighted in orange.</p>
Add a single resource to a Virtual Channel playlist	<p>Individual playback resources may be added to the Virtual Channel playlist window in one of the following ways:</p> <ul style="list-style-type: none"> • Select a single playback resource and then click the . • Double click the resource.
Add multiple resources from one content box to a Virtual Channel playlist	Select multiple resources in the same content box and then add to a Virtual Channel playlist window by clicking the  .
Remove resources from a playlist	Select one or more playback resources in the playlist window and then click the  remove button. Alternatively, double clicking a resource in the playlist will also remove the resource.
Remove all resources from a playlist	Click the  clear list button to remove all resources from the playlist window. When prompted, click "Yes" to delete the resources from the playlist or "No" to cancel.
Change the order of a playlist	<ul style="list-style-type: none"> • <u>One row at a time:</u> select one or more playback resources in the playlist window and click the  move up or  move down buttons to move the resource(s) up or down in the list by one row. • <u>First and last playlist positions:</u> select one or more playback resources in the playlist window and click the  move to top or  move to bottom buttons to move the resource(s) all the way to the first or last rows in the playlist.

Action	Steps
	Depending on the operation performed, the remaining playlist resources will be pushed above or below the moved resources.
Copy and paste resources within and between playlists	<p>Select one or more playback resources in the playlist window and click the  copy button. Click the  paste button to add the resources to the bottom of the currently loaded playlist preset.</p> <p>NOTE: Copy and paste are not available in the Chrome and Firefox browsers.</p>

3. If any switcher input resources were added to the playlist, access each resource’s display duration setting by double clicking its length on the playlist window. The resource’s length field will become active, allowing you to type a new length into the hours, minutes, and seconds fields. When you are finished, click off the playlist window to complete the change.

4. If any slide shows were added to your playlist, you may add or remove audio by clicking the “Advanced” button and then the “General” tab (see Illustration 228). Any audio preferences you specify will apply to all slide shows. From the “Background Audio Source” drop down list, add or remove audio as follows:

Illustration 228, Slide Show Audio Settings



- **No audio:** select an input on your NEXUS series system that does not have an audio source connected to it.
- **Audio:**
 - “From Video”: pick a file from the “Video File Name” drop down list. This listing displays the video files on your attached digital media storage devices.

- The selected file's audio will be played behind the slide show. Any video in the file will not be displayed.
- Select an "Analog," "AES," "Embedded 1-2," "Embedded 3-4," "Embedded 5-6," or "Embedded 7-8" audio source connected directly to the corresponding audio input on the rear panel.

5. Once you have finished creating or modifying your playlist, either continue to "Saving Virtual Channel Playlists" on page 335 to learn about the Virtual Channel Editor's options for saving a playlist or click the "Current" button to add the resources into the "Current" playlist and submit the resources to your UltraNEXUS-HD server. The "Current" playlist overrides any previously submitted playlist resources and will immediately display if a scheduled program or control panel event is not currently being displayed and if the Virtual Channel has already been previously activated through a WinLGX schedule or control panel command (see "Displaying Virtual Channel Playlists," on page 338, for more details).

NOTE: If the Virtual Channel is inactive when the "Current" playlist is submitted, the playlist will not be displayed. The "Current" playlist is overwritten with the resources currently in the Virtual Channel playlist window each time the "Current" button is clicked or when a day/default playlist preset or Virtual Channel playlist file (.vc) is submitted.

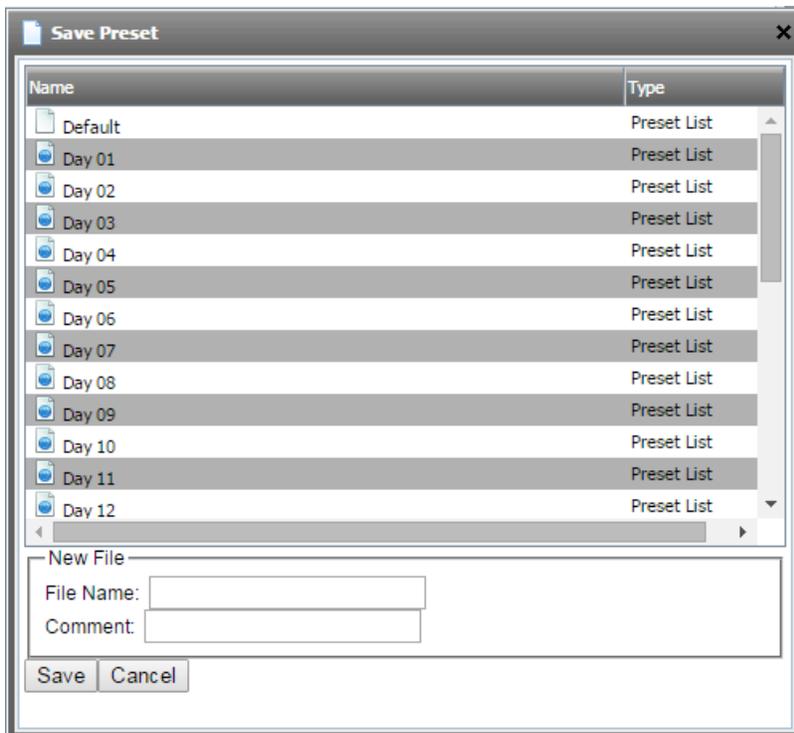
Saving Virtual Channel Playlists

A separate Virtual Channel playlist can be saved for one or more weekdays (seven days total plus a default playlist to cover empty days) as well as in files not tied to specific days.

1. Create the playlist according to "Creating/Modifying Virtual Channel Playlists," on page 330.
2. Save the playlist according to one of the following save options:

- **Save as a Virtual Channel Playlist File (.vc):** save one playlist in a file for display in place of scheduling programming or as a scheduled program as follows:
 - If you edited an existing .vc file, click the  Save List button.
 - For new .vc files or to overwrite an existing .vc file, click the  Save List As button on top of the Virtual Channel playlist window to display the "Save Preset" Window shown in Illustration 229 and perform the following steps:

Illustration 229, "Save Preset" Window



- Perform one of the following save options:
 - Create a new file: type up to 27 alphanumeric characters without spaces into the "File Name" field.
 - Save over an existing file: single click to select an existing file to replace.
- Click the "Save" button to save your Virtual Channel playlist file or "Cancel" to abort.

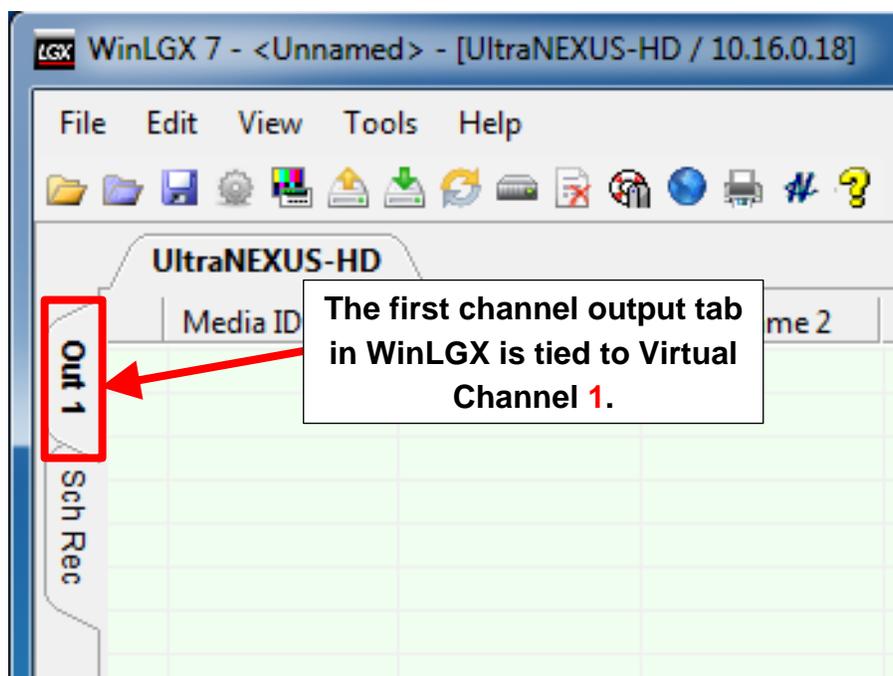
- **Save as a Day or Default Preset:** save one playlist in a preset for display in place of scheduled programming or to fill time between scheduled programs on a specific day as follows:
 - If you edited an existing preset, click the  Save List button.
 - To overwrite a preset, click the  Save List As button on top of the Virtual Channel playlist window to display the "Save Preset" Window shown in Illustration 229 and perform the following steps:
 - a. In the preset file listing, single click on either a day preset to save the playlist for display on the specified day or the "Default" preset to save the playlist for display when the UltraNEXUS-HD encounters an empty day preset.
 - b. Click the "Save" button to save your playlist in a Virtual Channel preset or "Cancel" to abort.
 - c. If desired, save one or more of your day/default presets in a Virtual Channel configuration file (.vcf) as described in the following subsection.
- 3. If desired, immediately activate your Virtual Channel and display your playlist according to "Displaying Virtual Channel Playlists," on page 338.

Displaying Virtual Channel Playlists

Virtual Channel playlists may be displayed in place of a schedule, as programs within a schedule, or in the unfilled time between scheduled programs. The Video player and output that display your Virtual Channel playlists are determined by your switch type as follows:

- **“No Switch” Type:**
Virtual Channel playlists as well as playlist files added to the first channel output tab will be displayed by the Video Player on the output assigned to WinLGX Channel/Output Tab 1, (see Illustration 230, Virtual Channel WinLGX Tab Assignments).

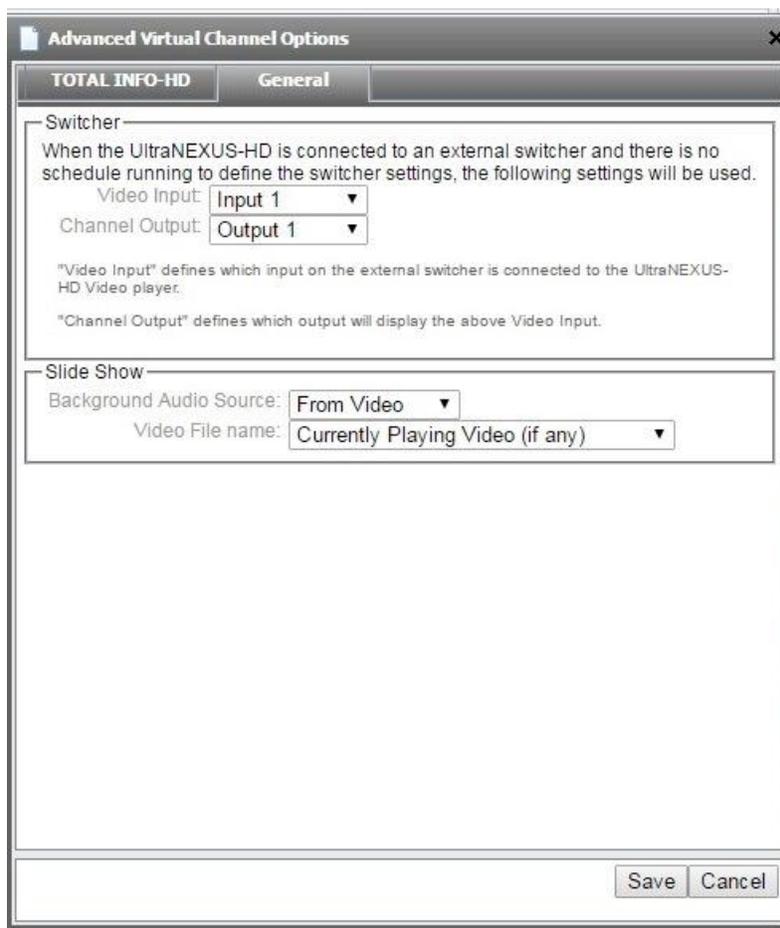
Illustration 230, Virtual Channel WinLGX Tab Assignments



- **External Switcher:**
In your WinLGX UltraNEXUS-HD image file, assign the external switcher output that you wish to display Virtual Channel content to the UltraNEXUS-HD Video player input and first WinLGX channel/output tab. For more information, see “Editing Internal Digital Video Playback and Recording Device Resources,” on page 111 and “Configuring the Switch Type of an UltraNEXUS-HD,” on page 99. If an UltraNEXUS-HD image file with switcher settings has **not** been sent to your UltraNEXUS-HD and a Virtual Channel playlist is then activated, the Virtual Channel will use the Video player and channel output defined in its web interface default switcher settings. To set up default switcher settings for your Virtual Channel, perform the following steps:

1. Click the “Advanced” button on the Virtual Channel editor to display the “Advanced Virtual Channel Options” window.
2. Click the “General” tab to display the window shown in Illustration 231. Select a Video input and channel output from the drop down menus for the Virtual Channel.
 - **“Video Input”**: choose the input on your external switcher that is connected to the UltraNEXUS-HD Videoplayer for the Virtual Channel.
 - **“Channel Output”**: choose the output you wish to air the Virtual Channel’s active playlists.

Illustration 231, Default External Switcher Settings



3. Click “Save” to make your selections or “Cancel” to abort. Both buttons also close the window.

The following sections describe each method for displaying your Virtual Channel playlists:

- “**Displaying a Playlist between Scheduled Program Events**” on page 340
- “**Displaying a Playlist as a Scheduled Program Event**” on page 340
- “**Displaying a Playlist in Place of a Schedule**” on page 338

DISPLAYING A PLAYLIST BETWEEN SCHEDULED PROGRAM EVENTS

Saved day/”Default” Virtual Channel playlists will automatically fill the channel switchbacks on the WinLGX schedule editor’s first channel output tab. Virtual Channel playlists are tied to the UltraNEXUS-HD MPEG Player and the first WinLGX channel output tab (see Illustration 230, Virtual Channel WinLGX Tab Assignments).

To display a Virtual Channel playlist between scheduled programs, perform the following steps:

1. In your WinLGX schedule file (.nmg), be sure to do the following:
 - a. Enable your Virtual Channel for use as WinLGX switchback resources by selecting “Yes” from the “Virtual Channel” drop down menu in the “System Configuration” properties (see “Configuring the Switch Type of an UltraNEXUS-HD,” on page 99).
 - b. Perform any of the following to fill channel switchbacks on the first WinLGX channel output tab:
 - **During configuration of WinLGX:** when selecting your switchback input for the first WinLGX schedule tab (see “Configuring the Switch Type of an UltraNEXUS-HD” on page 99 for further instructions), choose “Virtual Channel” as the video source in the “Switchback Input” field.
 - **During scheduling:** when scheduling a resource on the first channel output tab, the switchback input may be changed to “Virtual Channel” in the resource’s event properties window.

Your UltraNEXUS-HD server will automatically display the current day playlist preset, or the “Default” playlist preset if the day playlist is empty, during a channel switchback at the beginning of the schedule or following the end of a scheduled event.

DISPLAYING A PLAYLIST AS A SCHEDULED PROGRAM EVENT

Add a Virtual Channel playlist file (.vc) to your programming lineup with the “VC List” library resource. Refer to page 156 for information on creating a Virtual Channel playlist file library resource and page 225 for instructions on scheduling the library resource.

DISPLAYING A PLAYLIST IN PLACE OF A SCHEDULE

Any type of Virtual Channel playlist may be displayed 24/7 in place of a schedule as described in the following steps.

NOTE: An active Virtual Channel playlist will continue to loop on air until another playlist is activated, the MPEG player is stopped from the WinLGX control

panel, or a scheduled digital program event is sent to the UltraNEXUS-HD server.

- **“Current” Virtual Channel Playlist**
 1. Add/remove resources to the Virtual Channel playlist window (see “Creating/Modifying Virtual Channel Playlists,” on page 330).
 2. Click the “Current” button to submit the resources as your “Current” playlist.
 3. If the “Current” playlist does not display, go to the WinLGX Control Panel, select the MPEG player, and click the “Force Start Virtual Channel” button.
- **Virtual Channel Day/Default Playlist Presets**
 1. Select the current day’s playlist or “Default” from the “Preset” drop down menu.
 2. Click the “Current” button on the Virtual Channel toolbar.
 3. If the current day or default preset does not display, go to the WinLGX Control Panel, select the MPEG player, and click the “Force Start Virtual Channel” button.
- **Saved Virtual Channel Playlist File**
 1. Go to the WinLGX Control Panel and select the MPEG player.
 2. Click the ellipsis button to open the “Select Virtual Channel List” window.
 3. Select a Virtual Channel playlist as follows:
 - Double-click the desired file to accept selection and close “Select Virtual Channel List” window.
 - Select the desired file and click “OK” to accept or “Cancel” to abort selection.

Once a playlist file selection is made, the playlist will immediately display.

Deleting Virtual Channel Playlist Files

To remove a saved Virtual Channel playlist file (.vc) from your UltraNEXUS-HD server, perform the following steps:

1. From the “Preset” drop down menu, select the playlist file you wish to delete.
1. Click the  icon on the Virtual Channel toolbar.
2. On the “Delete Preset” popup window, click “Yes” to delete the file or “No” to cancel the action and close the popup.

Editing ULTRANEXUS-HD Site Name and Location

NOTE: Only the “admin” account is able to see the “System Settings” screen.

Customize the “Site Name” and “Site Location” on the UltraNEXUS-HD web interface “System Dashboard” screen and WinLGX “Controller Site Manager” window. Click the “System Settings” button to display the “System Settings” screen and then click the “Site Information” tab. Enter a new identification name for your site into the “Site Name” field and a location description in the “Site Location” field. Click “Apply Changes” to change the information on your “Dashboard” screen.

Illustration 232, “Site Information” Screen

The screenshot displays the "System Settings" interface for UltraNEXUS-HD. On the left is a navigation menu with options: Dashboard, File Management, Destinations, System Settings (highlighted), Log Files, Slides, Overlay, Program Guide, Virtual Channel, and LOGOUT. The main content area is titled "System Settings" and has tabs for "Site Information", "Maintenance", "ePRO-BUS", and "Total Share". The "Site Information" tab is active, showing the following fields and controls:

- Site Name: UltraNEXUS-HD
- Site Location: Leightronix INC
- Time Zone: (GMT-05:00) Eastern Time (US & Canada)
- Automatically adjust clock for daylight savings changes
- Apply Changes button
- UltraNEXUS-HD Time: December 13, 2015 1:06:06 PM
- Computer Time: December 13, 2015 3:06:01 PM (with a Set button)
- Manual: December 13, 2015 03:06:00 PM (with spinners for 03, 06, 00 and a PM dropdown, and a Set button)

Changing UltraNEXUS-HD System Time

Click the “System Settings” button to display the “System Settings” screen and then click the “Site Information” tab. “UltraNEXUS-HD Time” shows the date and time currently on your server. To change the UltraNEXUS-HD server’s date/time, perform one of the following:

- Sync your UltraNEXUS-HD server’s date and time to your computer’s current date and time by clicking the “Set” button next to the “Computer Time” field.
- Manually change the UltraNEXUS-HD server’s date and time by editing the “Manual” fields as follows:
 1. Use the up/down arrows to adjust the time fields.
 2. Click on the date field and select a new date in the calendar that appears.
 3. Click the “Set” button to make the changes.

Configuring ePRO-BUS Settings

The ePRO-BUS control feature allows you to send ePRO-BUS start/stop RECORD control commands over your Ethernet network to up to 16 LABvault-HD digital video player/recorders. To get started, the ePRO-BUS feature must be configured for your UltraNEXUS-HD server and each LABvault-HD according to the following steps:

- LABvault-HD: refer to the device’s manual for instructions.
- UltraNEXUS-HD Server:
 1. Click the “System Settings” menu button and then the “ePRO-BUS” tab to display the window shown in Illustration 233.

Illustration 233, "ePRO-BUS" Tab Screen

The screenshot shows the UltraNEXUS-HD Web NEXUS interface. On the left is a navigation menu with buttons for Dashboard, File Management, Destinations, System Settings (selected), Log Files, Slides, Overlay, Program Guide, Virtual Channel, and Logout. The main content area is titled "System Settings" and contains a tabbed interface with "Site Information", "Maintenance", "ePRO-BUS" (selected), and "Total Share". Below the tabs is a table with the following columns: PRO-BUS Address, IP Address, Mode, and Enabled. The table contains 16 rows, each representing a LABvault-HD device. The first row is highlighted in grey and has "0" in the PRO-BUS Address column, "0.0.0.0" in the IP Address column, "Deck Control" in the Mode column, and an unchecked checkbox in the Enabled column. The remaining 15 rows have the same structure but with the Mode column set to "Deck Control" and the Enabled column set to an unchecked checkbox.

PRO-BUS Address	IP Address	Mode	Enabled
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>
0	0.0.0.0	Deck Control	<input type="checkbox"/>

2. For each of your LABvault-HD player/recorders, select a PRO-BUS address and enter the LABvault’s static IP address. When you schedule or immediately send ePRO-BUS commands in WinLGX, your LEIGHTRONIX server uses the PRO-BUS address assignments to determine which recording devices should receive the commands. The “PRO-BUS Address” and “IP Address” fields can be edited once they are double clicked and any changes you make are saved when you click off the row. Make your changes based on the following control options:
 - Assign each LABvault-HD IP address to a separate PRO-BUS address: control each of your LABvault-HDs individually by entering the IP address for each of your LABvaults on a separate “PRO-BUS Address” line.
 - Assign the same PRO-BUS address to multiple LABvault-HDs: to control multiple LABvault-HDs from one PRO-BUS address, enter each LABvault’s IP address on a separate line and then make the PRO-BUS address numbers the same for the desired LABvault-HD IP addresses.

- Give the same PEGvault-SD or LABvault-SD IP address to different PRO-BUS addresses: allows you to control one PEGvault-SD/LABvault-SD independently and as part of a group of PEGvaults/LABvaults.
- 3. Click the “Enable” checkbox for each LABvault-HD you want to receive ePRO-BUS commands from your UltraNEXUS-HD server.
- 4. Create a “DVD” or “Tape” device resource in WinLGX for each of your ePRO-BUS-controlled devices. Use the device resources to schedule (see “Scheduling/Editing ePRO-BUS-Controlled Device Resources,” on page 204) or immediately (see the control panel subsection on “Controlling ePRO-BUS Record Devices,” on page 252) start/stop recording on your LABvault-HDs.

Configuring Total Share Settings

If you are using the included LEIGHTRONIX TOTAL SHARE option for expanded storage, the “Total Share” feature can be used to enter the network address settings for your LEIGHTRONIX-supported network attached storage (NAS) devices. The NAS configuration settings enable your UltraNEXUS-HD to recognize your NAS devices.

NOTE: If LEIGHTRONIX preconfigured all of the UltraNEXUS-HD servers and NAS devices for your TOTAL SHARE network at the factory, *then you can skip this step.*

NOTE: You can use the same network as Ethernet port 1 to access a NAS device. You are not required to use Ethernet port 2.

Click the “System Settings” menu button and then select the “Total Share” tab to display the window shown in Illustration 234.

Illustration 234, “Total Share” Tab Screen

The screenshot shows the UltraNEXUS-HD Web NEXUS interface. The top header includes the product name 'UltraNEXUS-HD' and 'Web NEXUS'. A left sidebar contains navigation buttons: Dashboard, File Management, Destinations, System Settings (highlighted), Log Files, Slides, Overlay, Program Guide, Virtual Channel, Logout, and Video Recorder. The main content area is titled 'System Settings' and has tabs for Site Information, Maintenance, ePRO-BUS, and Total Share (selected). Under the 'Total Share' tab, there are four sections for NAS Device #1, #2, #3, and #4. Each section contains fields for IP Address (with a dotted separator), Server Name, and Export Path. The first device is pre-filled with IP 10.127.0.55 and Server Name NAS1. A 'Save Changes' button is located at the bottom center of the form area.

Enter the requested information for each of your NAS devices and click “Save Changes.”

- NOTES:**
- If you have more than one UltraNEXUS-HD server connected to your TOTAL SHARE network, you will need to repeat these steps on the web interface for each UltraNEXUS-HD.
 - For further instructions on setting up your TOTAL SHARE network, refer to the “TOTAL SHARE” tutorial.

Logging Out of Web Interface

Click the “LOGOUT” button in the menu bar to log out of the UltraNEXUS-HD web interface and return to the login screen.

Support

Always ensure that the UltraNEXUS-HD system's physical connections (power cable, video/audio cables, and Ethernet cables) are secure.

Parts Replacement

Due to the placement and sensitivity of components inside the UltraNEXUS-HD, the unit does not contain any user-serviceable parts.

The UltraNEXUS-HD must be sent back to the factory if battery replacement is necessary. Whenever the UltraNEXUS-HD is unplugged, its backup battery automatically provides standby power to the unit. Leaving the UltraNEXUS-HD unplugged for extended periods of time will drain its backup battery.

Contacting LEIGHTRONIX Technical Support

If you are experiencing a problem that you are unable to resolve, you may:

Visit our website: www.leightronix.com

E-mail us at: support@leightronix.com

Call us at:

(800) 243-5589

(517) 694-1600 Fax

Our technical support phone lines are open Monday through Friday, excluding holidays, from 8:30AM – 5:30PM, Eastern Time (ET).

When you report a problem, please provide the following information:

- Your name, your company name, address, and phone number
- Model number
- Serial number
- Software version
- Firmware version
- Description of the problem
- Status of the unit when the problem occurred (please try to include information on user and network activity at the time of the problem)

Please contact the LEIGHTRONIX Technical Support Department at the number below for an RMA (Return Material Authorization) number before sending an item in for repair.

LEIGHTRONIX, INC.
1125 N Cedar Rd
Mason, MI 48854
Phone: (800) 243-5589
Fax: (517) 694-1600

Warranty

LEIGHTRONIX, INC. warrants this UltraNEXUS-HD high-definition video server/system controller against defective workmanship or materials for a period of five (5) years from the original date of purchase.

During this warranty period, any parts found to be defective will be replaced at no charge. Labor to repair or replace defective parts will also be performed at no charge during the warranty period.

This warranty does not cover abuse, shipping damage, neglect, tampering by unauthorized personnel, acts of God, damage inadvertently caused by the user, preventive maintenance, or any product whose serial number or "Warranty Void if Removed" sticker is removed or defaced.

The sole responsibility of LEIGHTRONIX shall be to repair or replace in accordance with this warranty. The seller's and manufacturer's only obligation shall be to repair or replace such quantity of the product proved to be defective.

The customer shall bear the cost of shipping products returned to LEIGHTRONIX for warranty repair. The cost for return shipment to the customer will be assumed by LEIGHTRONIX and shipped via an equal priority service shipper prepaid and insured.

Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of, or the inability to use the product. Before using, the user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith.

The warranty and the obligations and liabilities thereunder shall replace all other warranties or guarantees, express or implied.

Declaration of Standards Conformity

FCC Notice

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Changes or modifications to this device not expressly approved by LEIGHTRONIX, INC. **could void the user's authority to operate this device.**

CAUTION

This equipment is intended to be installed in a controlled environment with restricted access.

Appendix A: Copyright Statements

The UltraNEXUS-HD firmware contains portions of the following software.

The PHP License, version 5.3.4

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This software consists of voluntary contributions made by many individuals on behalf of the PHP Group.

The PHP Group can be contacted via Email at group@php.net.

For more information on the PHP Group and the PHP project, please see [<http://www.php.net>](http://www.php.net).

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Appendix B: Cable Pinouts for LEIGHTRONIX-Supported External Switchers

Each UltraNEXUS-HD is equipped with three DB9M RS-232 ports for an external switcher. Table 49 lists the external switcher cables compatible with the UltraNEXUS-HD systems.

See the LEIGHTRONIX website for specific models and up-to-date switcher compatibility and cable requirements here:

http://www.leightronix.com/products/router_support.php or contact LEIGHTRONIX support. Not every manufacturer's models are supported.

NOTE: LEIGHTRONIX provides these three external switcher cables upon request with each UltraNEXUS-HD: part #s 10-1688, 10-4421, and 10-2372.

Table 49, Cable Information for LEIGHTRONIX-Supported External Switchers

<p>Check the LEIGHTRONIX website to verify switcher compatibility and cable requirements here:</p> <p>http://www.leightronix.com/products/router_support.php</p> <p>or contact LEIGHTRONIX support.</p> <p>Not every manufacturer's models are supported.</p>			
LEIGHTRONIX PART #	COMPATIBLE SWITCHER(S)	CABLE ILLUSTRATION	PINOUT DIAGRAM
10-1688	<ul style="list-style-type: none"> • Extron • Knox • Creator • Sierra • Ensemble (order serial port install) 	Illustration 235	Figure 1
10-4421	<ul style="list-style-type: none"> • AMX/Autopatch • Imagine/Harris/Leitch • Pesa (Routing Switchers Supporting CPU Link Serial Protocol) 	Illustration 236	Figure 2
10-2372	<ul style="list-style-type: none"> • Kramer • Sigma 	Illustration 237	Figure 3
Obtain a PC Com port compatible serial cable from Utah for your switcher model.	<ul style="list-style-type: none"> • Utah 	N/A	N/A

Order cable RS-2/3J from Addenda.com or use Ethernet. OR Order cable RS-2/3R from Addenda.com or use Ethernet.	<ul style="list-style-type: none"> Blackmagic 	N/A	N/A
Control cable not needed, uses Ethernet for control.	<ul style="list-style-type: none"> Pesa (Routing Switchers supporting P1N Network Protocol) 	N/A	N/A

Reliable operation with cables other than those provided by LEIGHTRONIX cannot be guaranteed. **Custom cables may be fabricated according to the following pinouts.** The color and molding of cables may differ from the cables shown in the following illustrations.

NOTE: Handshaking lines are driven, but not utilized.

Illustration 235, DB9F-DB9M Straight-Through Cable, Part #10-4869



Figure 1, Pinout of DB9F-DB9M Straight-Through Cable, Part #10-4869

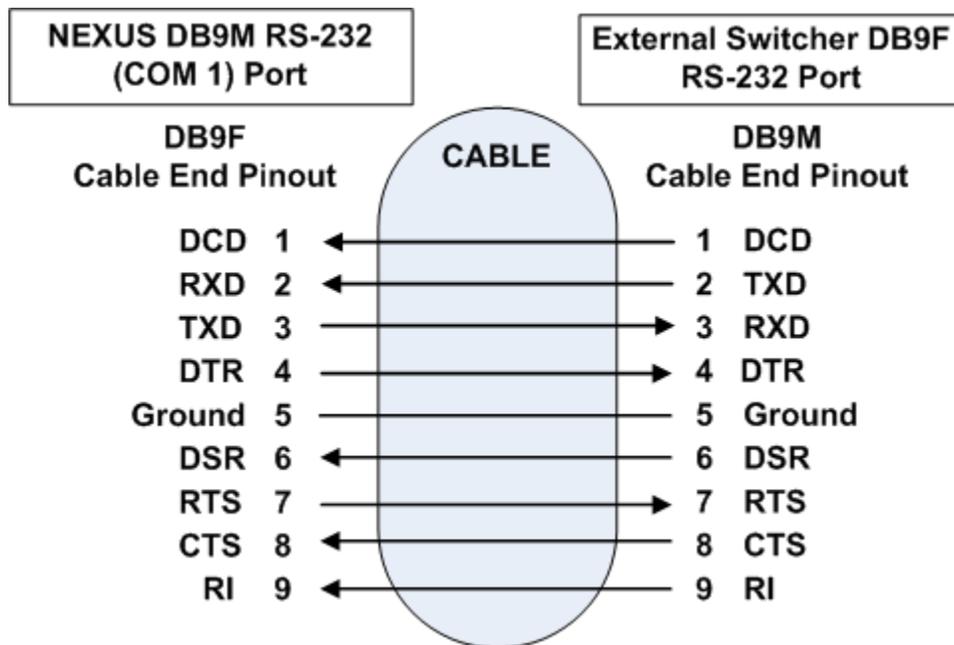


Illustration 236, DB9F-DB9F Null Cable, Part #10-4421



Figure 2, Pinout of DB9F-DB9F Null Cable, Part #10-4421

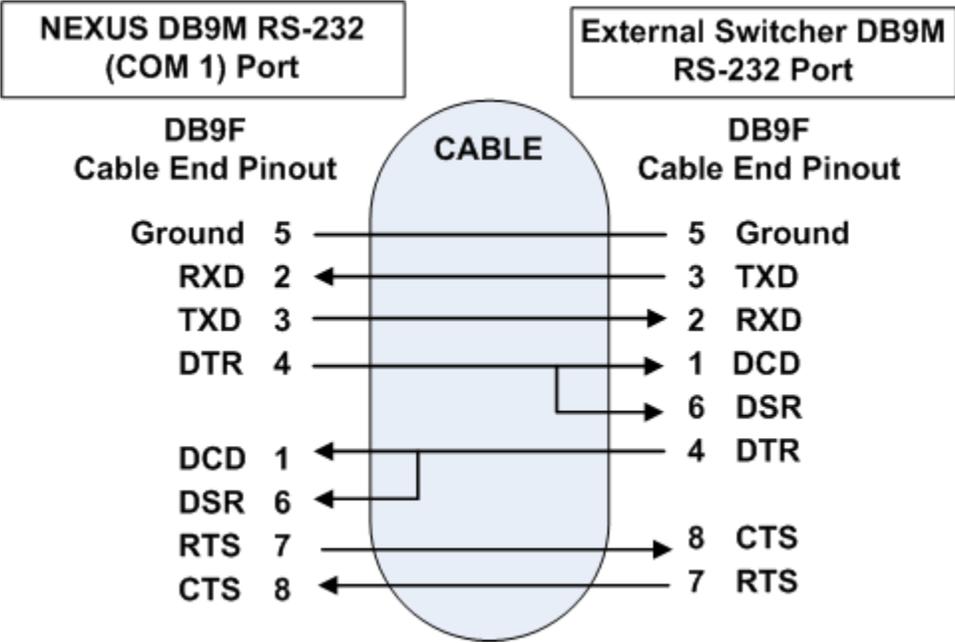


Illustration 237, DB9F-DB9M 6' Null Cable, Part #10-2372

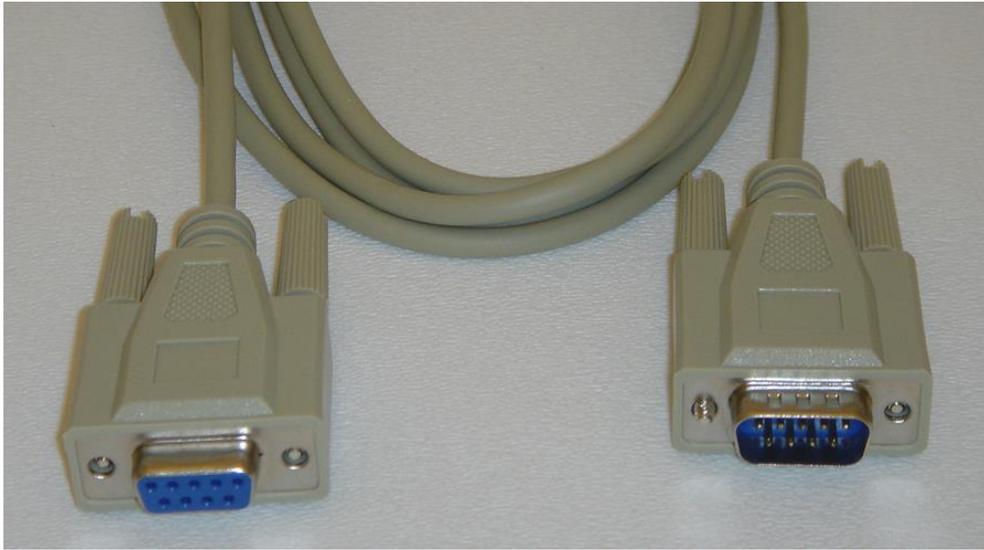
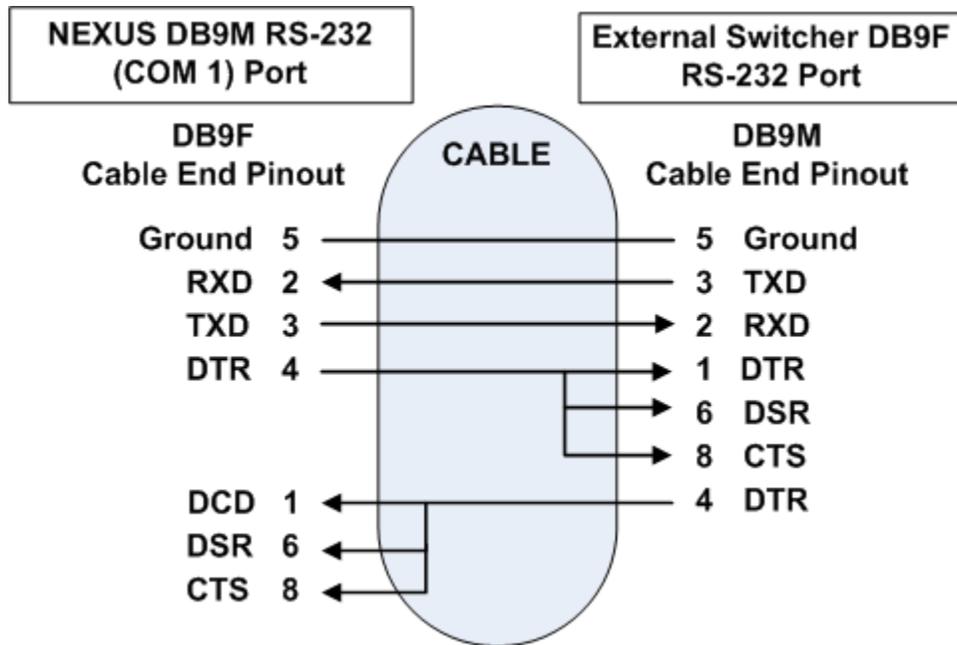


Figure 3, Pinout of DB9F-DB9M 6' Null Cable, Part #10-2372



Glossary

The following terms are used throughout this manual.

TERM	DEFINITION
Baud Rate	Controller's data transmission rate in bits per second
Bit Rate	Bit rate is the speed at which pieces of information are transmitted. A bit is the single smallest piece of information that is transmitted, and the speed is expressed as the number of bits that are transmitted per second.
BNC	Type of connector used with coaxial cables
CBR	Constant Bitrate; the UltraNEXUS-HD only records in VBR, but it will play a file that has CBR.
Character Generator	Electronic device which produces graphics and characters for creating video titles
Client (WinLGX)	Software program that is used to contact and obtain data from a server software program on another computer
Controller	Provides unattended, automatic control over a wide variety of video devices including digital video servers, digital disc recorders, DVD players, video/audio routing switchers, VCRs, and the like
Cross-Over Cable	A twisted pair of patch cables wired to route transmitted signals from one piece of equipment and receive signals from another, and vice versa
Decoder	A software program and/or hardware device that converts a signal back into its original format
Destination	Output
DHCP	Dynamic Host Configuration Protocol: protocol that automatically assigns IP addresses to devices as they are attached to a network.
DTE	Data Terminating Equipment: a communications device that is the source or destination of network signals
Encoder	A software program and/or hardware device that converts a signal back into a coded format
Ethernet	Method of networking computers in a local area network (LAN)
Event	Control element that holds information about "what" is supposed to happen and "when"

UltraNEXUS-HD Glossary

TERM	DEFINITION
Event Action	Any switch or device function
FAT	File Allocation Table: part of a hard disk where data is stored.
Firmware	Software contained in a hardware device
Gateway Address	IP address of a computer or router that transfers communications from a local network to a broader network
H.264	Video compression standard for HD video developed by the ITU-T Video Coding Experts Group and ISO/ICE Moving Picture Experts Group (MPEG); also known as MPEG-4 Part 10 and AVC
HD	High-definition video
Host	IP-capable machine connected to an IP network
Image File	See <i>UltraNEXUS-HD Image File</i>
Immediate (control)	Control of UltraNEXUS-HD through WinLGX control panel instead of a schedule
IP Address	Internet Protocol; 4-byte address used to identify devices on a network
LAN	Local Area Network: a computer network that covers a relatively small area (single building).
LED	Light-emitting diode
Library Resource	Library resources contain the event actions of a frequently scheduled device medium. Each library resource contains event actions for a specific digital video or switch action.
Locked Event	An event with an editable, fixed time entered by the user
Log File	List of UltraNEXUS-HD system actions and alarms
Mb/s	Megabits per second
MPEG	Moving Pictures Expert Group; standards for compressing digital video and audio data
Network	Networks are groups of connected computers that can communicate with one another. Networks enable computers to share files and resources and exchange messages.
NIC	Network Interface Card: Ethernet card used to connect to a network.

TERM	DEFINITION
OS	Operating System
PC	Personal Computer
Preroll	Amount of time the UltraNEXUS-HD system waits before switching a device on-air (prevents the transmittal of black video or static found at the beginning of a program)
RCA	Plug and jack connector for a two-wire coaxial cable
Reset Time	Time the device is unavailable for scheduling after the end of the event, usually due to "rewind" time.
Setup Time	Amount of time a device needs to prepare for playback; begins when a device receives a playback command and ends at the first sign of video
SD	Standard definition video
SMTP	Simple Mail Transfer Protocol: protocol used to transfer email between or among servers.
Source	Input (video and/or audio)
Subnet Mask	Separates an IP address into a network address and host address as assigned within the network
Switchback Input	Once the scheduled event time ends, the selected switchback input will be switched to the scheduled event's channel output
TCP/IP	Transmission Control Protocol/Internet Protocol
UltraNEXUS-HD Image File	Contains system, device, and library properties and may contain a schedule of events
Unlocked Event	An event whose start time is assigned by WinLGX to coincide with the ending time of the event above it is "unlocked." This time is not fixed and will be adjusted by WinLGX if events above it are inserted, deleted, moved, or modified.
USB 2.0	Hi-Speed Universal Serial Bus: capable of transmitting data between computer and external devices at 480 Mbits/second.

TERM	DEFINITION
VBR	Variable Bit Rate: the UltraNEXUS-HD VBR recording preset option allows the internal digital video recorders to automatically adjust the record rate of a program between the user-defined minimum and maximum video bit rates. This option ensures that the digital video recorders capture the more detailed portions of the program (particularly important for motion-intensive video).
VFD	Vacuum Fluorescent Display
Video	.mp4, .mov, .m2t or .mpg file
Virtual Channel	The UltraNEXUS-HD web interface's Virtual Channel feature provides two looping video sources that may be configured to automatically appear between scheduled programs or in place of a schedule.

Index

AUTOMATIC MPEG FILE TRANSFERS . 270	DIGITAL VIDEO FILE SYNC 223
BACKGROUNDS	DVPLY
<i>Filenames..... 21</i>	<i>Scheduling devices..... 198, 200</i>
<i>Recommended resolutions..... 21</i>	EDITING EVENTS 182
CAUTION..... 36, 337	EPRO-BUS
COMPLIANCE CERTIFICATIONS 16	<i>Configuring in Web Interface 331</i>
CONFIDENCE MONITOR 244	<i>Creating device resources..... 114</i>
CONTROL PANEL 229	ETHERNET
<i>Digital video player 231</i>	<i>Connecting directly to a PC via</i>
<i>Digital video recorder..... 241</i>	<i>Ethernet..... 39</i>
<i>Forcing a switch..... 230</i>	EXTERNAL SWITCHER
<i>Ingest function for external switcher</i>	<i>Cable pinouts..... 341</i>
<i>configurations 243</i>	<i>Channel output tab assignments . 100</i>
<i>Ingest function for no switch</i>	<i>Non-LEIGHTRONIX switcher</i>
<i>configurations 242</i>	<i>configuration steps 97</i>
CONTROLLER SETTINGS WINDOW..... 75	<i>Supported external switchers and</i>
COPYING/CUTTING/PASTING EVENTS .. 181	<i>parameters 32, 98</i>
DAY TABS	FRONT PANEL
<i>Adding an event..... 178</i>	<i>Display..... 25</i>
<i>Functions..... 174</i>	<i>Keypad 24</i>
DELETING EVENTS 182	<i>Password, changing 74</i>
DEVICE EVENT PROPERTIES..... 187, 198	<i>Password, entering..... 40</i>
	IMAGE FILES

<i>Creating</i>	58	SERIAL PORT	46
<i>Opening</i>	161	SHARED SWITCHER	
<i>Saving</i>	166	<i>Channel output tab assignments</i> .	103
<i>Sending</i>	225	<i>Front panel IP address configuration</i>	
INSERTING LIBRARY RESOURCE EVENTS	186	45
LIBRARY EVENT PROPERTIES	204	<i>WinLGX configuration</i>	100
LIBRARY RESOURCES		SLIDES	
<i>Exporting MPEG library resources</i>	154	<i>Approving for display</i>	301
LOG FILES		<i>Approving for slide show displays</i>	252
<i>Downloading from an UltraNEXUS-</i>		<i>Default slide</i>	252, 298
<i>HD system</i>	257	<i>Filenames</i>	21
<i>Viewer</i>	86	<i>Recommended resolutions</i>	21
MASTER CLOCK SYNCHRONIZATION	47	<i>Uploading to a NEXUS series</i>	
MPEG RECORDER (BROADCAST)		<i>server/controller</i>	281
<i>Confidence monitor</i>	244	STORAGE MANAGER	
NO SWITCH		<i>Copying videos and slides</i>	249
<i>Channel output tab assignments</i> ...	96	<i>Deleting videos and slides</i>	250
OVERLAYS		<i>Moving videos and slides</i>	250
<i>Emergency overlays</i>	304	<i>Renaming videos and slides</i>	251
<i>Filenames</i>	21	SWITCHBACK INPUT	177
<i>Recommended resolution</i>	21	SWITCHER CONFIGURATION	95
<i>Templates for scheduling</i>	116	TCP/IP ADDRESSES	
POWERING ULTRANEXUS-HD ON/OFF		<i>Gateway address</i>	42
.....	40	<i>IP address</i>	41, 43
PREFERENCES WINDOW	83	<i>Subnet mask</i>	42, 44
PRINTING SCHEDULES		THEMES, CUSTOMIZING WINLGX	
<i>Page layouts</i>	79	APPEARANCE	51
<i>Print templates</i>	77	TOTAL INFO-HD	
<i>Printer and paper settings</i>	79	<i>Activating</i>	316
<i>Printing</i>	226	ULTRANEXUS-HD STATUS REPORT ..	269
PROGRAM GUIDE		ULTRANEXUS-HD WEB INTERFACE ..	266
<i>Creating library resources</i>	146	UPDATING ULTRANEXUS-HD FIRMWARE	
<i>Scheduling library resources</i>	216	263
REAR PANEL	29	UPDATING WINLGX	265
REBOOTING ULTRANEXUS-HD FROM		USB DRIVES	
WINLGX	76	<i>Storage</i>	20
REPLACING LIBRARY RESOURCE EVENTS		USER ACCOUNT RIGHTS	71
.....	184	USER-DEFINED DATA DIALOG BOX	81
SCHEDULE COLUMN HEADINGS	81	VIRTUAL CHANNELS	314

<i>Activating from Control Panel</i>	239
<i>Creating Playlists</i>	317
<i>Creating Virtual Channel Playlist File (.vc) Library Resource</i>	151
<i>Deleting Playlists</i>	328
<i>Displaying Playlists</i>	325
<i>Immediately Display Virtual Channel Playlist File (.vc)</i>	240
<i>Overview</i>	314
<i>Saving Playlists</i>	322
<i>Scheduling Virtual Channel Playlist File (.vc) Library Resource</i>	219
WARNING	15
WEB SCHEDULE PORT	46
WINLGX	
<i>Changing Themes</i>	51
<i>FACTORY-DEFAULT USERNAME AND PASSWORD</i>	54, 57, 158
<i>Hiding/Displaying toolbars, windows, and schedule columns</i>	65
<i>Installation</i>	49
<i>Main window components</i>	59
<i>Moving windows</i>	67
<i>Opening and logging in</i>	56, 157
<i>Rearranging schedule column headings</i>	67
<i>Resizing schedule column widths</i> ..	67
<i>Updating software</i>	265
<i>Version number</i>	159
WINLGX-LT TAB	
<i>Adding an event</i>	180
<i>Functions</i>	175