

PRODUCT MANUAL

Installation, Configuration, and Operation Instructions



END-TO-END Solutions for
Broadcast & Streaming

LEIGHTRONIX

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TABLE OF CONTENTS

INTRODUCTION.....	25
IMPORTANT SAFETY INSTRUCTIONS	28
NEXUS SERIES TECHNICAL SPECIFICATIONS.....	29
DIMENSIONS AND WEIGHT	29
FRONT PANEL.....	29
BACK PANEL.....	29
VIDEO STANDARD	30
VIDEO ENCODING	30
AUDIO ENCODING	31
VIDEO FILE STORAGE.....	31
INTERNAL REAL TIME CLOCK	31
INTERNAL STORAGE	31
FIRMWARE	32
WINLGX MANAGEMENT AND CONTROL SOFTWARE	32
WEBNEXUS WEB CONTROL INTERFACE.....	32
LIMITS ON CONTROL OF DVD PLAYERS.....	33
AUTOMATIC POWER SAVING FEATURES	33
PLAYBACK OF COMMERCIAL MOVIES.....	33
PLAYBACK OF YOUR OWN DVDS	34
DVD PLAYER/RECORDER CONTROL METHODS	34
SUPPORTED DVD PLAYERS AND RECORDERS.....	34
SLIDE, OVERLAY, AND BACKGROUND FILE SPECIFICATIONS	36
SLIDES	36
OVERLAYS.....	36
SLIDE BACKGROUNDS	36
MPEG FILE SPECIFICATIONS	38
MPEG RECORDER SPECIFICATIONS	38
ENCODING A BACKGROUND AUDIO FILE	40
CREATING BROADCAST MPEG FILES WITH NON-LEIGHTRONIX SOURCES	41
FILES OPTIMIZED FOR STREAMING VIDEO-ON-DEMAND.....	42
NEXUS SERIES FRONT PANELS	43
KEYPAD	43
DISPLAY	43
LEDs.....	47
ULTRANEXUS/NEXUS REAR PANEL.....	48
ULTRANEXUS-SDI REAR PANEL.....	49

SERVER/CONTROLLER INSTALLATION & CONFIGURATION.....	51
ABOUT THIS SECTION	51
PACKING LIST	51
INSTALLATION OVERVIEW.....	52
USING THE ULTRANEXUS/NEXUS INTERNAL SWITCHER.....	52
USING THE ULTRANEXUS-SDI NO SWITCH CONFIGURATION	54
USING AN EXTERNAL SWITCHER WITH AN ULTRANEXUS OR NEXUS.....	55
USING AN EXTERNAL SWITCHER WITH THE ULTRANEXUS-SDI.....	57
CONNECTING NEXUS/ULTRANEXUS SIGNAL WIRING	59
CONNECTING ULTRANEXUS-SDI SIGNAL WIRING	64
CONFIGURING ETHERNET NETWORK HOST MANAGEMENT	71
CONNECTING NEXUS SYSTEM TO AN EXISTING ETHERNET NETWORK.....	72
CONNECTING A NEXUS SYSTEM DIRECTLY TO A PC VIA ETHERNET	72
CONFIRMING ETHERNET NETWORK CONFIGURATION.....	73
TURNING A NEXUS SERIES SYSTEM ON/OFF	74
CONFIGURING FRONT PANEL SETTINGS	75
ENTERING PASSWORD.....	75
EDITING TCP/IP NETWORK ADDRESSES.....	75
<i>IP Address</i>	75
<i>Subnet Mask</i>	76
<i>Gateway Address</i>	77
EDITING SHARED SWITCHER IP ADDRESS.....	78
SELECTING SERIAL PORT SETTINGS.....	78
SHARING EXTERNAL TIME CLOCK WITH MULTIPLE NEXUS SERIES SERVERS	79
EDITING WEB SCHEDULE PORT.....	80
EDITING FTP TCP BUFFER SIZE	81
SOFTWARE INSTALLATION & CONFIGURATION.....	83
ABOUT THIS SECTION	83
WINLGX MINIMUM SYSTEM REQUIREMENTS	84
INSTALLING WINLGX SOFTWARE.....	84
CHANGING WINLGX APPEARANCE (THEMES).....	86
ADDING / DELETING NEXUS LOCATIONS IN THE SITE MANAGER	88
CONNECTING TO YOUR NEXUS SERIES SERVER/CONTROLLER.....	92
CREATING NEW NEXUS IMAGE FILES	94
CONFIGURING WINLGX.....	96
ABOUT THE MAIN WINDOW COMPONENTS	96

CONFIGURING THE MAIN WINDOW COMPONENTS.....	102
CONFIGURING WINLGX INTERFACE COLORS.....	106
<i>Schedule Colors Tab</i>	106
<i>Control Panel Colors Tab</i>	107
<i>Other Colors Tab</i>	108
SETTING USER ACCOUNT RIGHTS (INCLUDING WINLGX PASSWORD CHANGES)	109
CHANGING FRONT PANEL PASSWORD.....	113
CONFIGURING SITE INFORMATION, CLOCK, UPDATING FIRMWARE, AND REBOOTING	113
CREATING TEMPLATES FOR EXPORTING/PRINTING SCHEDULES.....	115
CONFIGURING PAGE LAYOUTS FOR SCHEDULES PRINTED FROM WINLGX	117
CONFIGURING PRINTER AND PAPER SETTINGS FOR SCHEDULES PRINTED FROM WINLGX.....	118
CREATING CUSTOM SCHEDULE COLUMNS	120
SETTING WINLGX VIEWING AND COMMUNICATION PREFERENCES.....	123
<i>Application Tab</i>	123
<i>Event Editor Tab</i>	126
<i>Preview Monitor Tab</i>	129
<i>Resource Library Tab</i>	131
<i>Resource View Tab</i>	132
<i>Schedule Tab</i>	134
CONFIGURING THE SWITCH TYPE OF A NEXUS SERIES SYSTEM	135
<i>UltraNEXUS and NEXUS Internal Switcher Configuration</i>	136
<i>UltraNEXUS-SDI No Switch Configuration</i>	140
<i>External Switcher Configuration</i>	142
<i>Shared Switcher Configuration</i>	146
CONFIGURING NEXUS SERIES IR PORT PROPERTIES	150
CONFIGURING BROADCAST MPEG RECORDING PRESETS.....	152
EDITING INTERNAL MPEG PLAYER AND RECORDER DEVICE RESOURCE PROPERTIES	154
<i>MPEG Players</i>	154
<i>VOD Recorder—UltraNEXUS-SDI / UltraNEXUS only</i>	156
<i>Broadcast MPEG Recorder</i>	157
CREATING EXTERNAL DEVICE RESOURCES	159
<i>DVD Device Resources</i>	160
<i>Tape Device Resources</i>	162
<i>Switch Resources</i>	164
<i>GPI Output Device Resources</i>	166
ULTRANEXUS/ULTRANEXUS-SDI ONLY: CREATING EPRO-BUS-CONTROLLED DEVICE RESOURCES	167
CREATING OVERLAYS	171
<i>Step 1: Create Individual Overlays</i>	171
<i>Step 2: Create Overlay Template</i>	173
<i>Step 3: Add an Overlay Template to a Digital Program</i>	175
CREATING LIBRARY RESOURCES	176
<i>Tape and DVD Library Resources</i>	178

<i>Switch Library Resources</i>	181
<i>MPEG Library Resources</i>	183
<i>MPEG Loop Library Resources</i>	190
<i>Slide Library Resources</i>	194
<i>Slide Show Library Resources</i>	198
<i>Onscreen Program Guide Library Resources</i>	203
<i>MPEG File/Slide Playlist Library Resources</i>	207
<i>Virtual Channel (VC) List Library Resources</i>	209
EXPORTING MPEG LIBRARY RESOURCES	211
SOFTWARE OPERATION	213
ABOUT THIS SECTION	213
PERFORMING GENERAL WINLGX OPERATIONS	214
OPENING WINLGX AND CONNECTING TO NEXUS SERIES SERVER/CONTROLLER.....	214
DISPLAYING WINLGX VERSION NUMBER	216
DISCONNECTING FROM A NEXUS SERIES SERVER/CONTROLLER	217
EXITING WINLGX.....	217
OPENING NEXUS SERIES IMAGE FILES	219
OPENING A SAVED IMAGE FILE.....	219
OPENING AN IMAGE FILE AS NEW	221
RECEIVING IMAGE FILES FROM THE CONNECTED NEXUS SERIES SERVER/CONTROLLER(S)	222
ASSOCIATING NEXUS SERIES IMAGE FILES WITH WINLGX	223
SAVING NEXUS SERIES IMAGE FILES.....	224
IMPORTING MPEG LIBRARY RESOURCES.....	226
USING INSTANT VIDEO PREVIEW MONITOR TO DISPLAY MPEG FILES WITHIN WINLGX	229
SCHEDULING EVENTS	231
ABOUT SCHEDULE WINDOW COMPONENTS.....	232
<i>Product Tabs</i>	232
<i>Schedule View</i>	232
<i>Overlay Templates View</i>	232
<i>Channel Output Tabs</i>	232
<i>Day Tabs</i>	233
<i>WinLGX-LT Tab</i>	234
<i>Channel and Day/WinLGX-LT Tab Configurations</i>	235
<i>Schedule Columns</i>	235
SCHEDULING/EDITING/DELETING ALL EVENTS	238
<i>Scheduling an Event on a Day/Channel Output Event Window</i>	238
<i>Scheduling an Event on the WinLGX-LT Event Window</i>	240
<i>Copying/Cutting/Pasting an Event</i>	241
<i>Editing an Event</i>	241
<i>Deleting an Event</i>	242

<i>Replacing Library Resource Events</i>	244
<i>Inserting Library Resource Events</i>	246
SCHEDULING/EDITING DEVICE RESOURCES.....	248
<i>DVD Device Resources</i>	248
<i>Tape Device Resources</i>	251
<i>Switch Device Resources</i>	253
<i>GPI Output Device Resources</i>	255
<i>Internal MPEG Player Device Resources</i>	257
<i>Internal MPEG Recorder Device Resource</i>	264
ULTRANEXUS/ULTRANEXUS-SDI ONLY: SCHEDULING/EDITING EPRO-BUS-CONTROLLED DEVICE RESOURCES	268
<i>Remote ePRO-BUS-Controlled Devices</i>	268
<i>Local ePRO-BUS-Controlled Devices</i>	270
SCHEDULING/EDITING LIBRARY RESOURCES	274
<i>Tape and DVD Library Resources</i>	274
<i>Switch Library Resources</i>	276
<i>Slide Library Resources</i>	278
<i>Slide Show Library Resources</i>	280
<i>Program Guide Library Resources</i>	283
<i>MPEG Library Resources</i>	285
<i>MPEG Loop Library Resources</i>	290
<i>MPEG File/Slide Playlist Resources</i>	293
<i>VC List Library Resources</i>	294
CHANGING CHANNEL SWITCHBACKS	296
<i>Adding Digital Video Library Resources to Channel Switchbacks</i>	296
<i>Changing Channel Switchback Inputs</i>	298
CHECKING SCHEDULE AND LIBRARY RESOURCES FOR MISSING MPEG FILES	298
SENDING NEXUS SERIES IMAGE FILES	300
PRINTING SCHEDULES FROM WINLGX.....	301
EXPORTING SCHEDULES INTO COMMA SEPARATED VALUES (CSV) FILES.....	303
USING CONTROL PANEL TO PERFORM IMMEDIATE DEVICE AND SWITCH ACTIONS.....	305
STOP/START A SCHEDULE	306
PERFORMING FORCED SWITCHES AND VIEWING SWITCHER STATUS	307
<i>"Buttons" View</i>	307
<i>"List" View</i>	307
CONTROLLING INTERNAL MPEG PLAYERS 1 AND 2	308
<i>Queuing a File</i>	309
<i>Looping an MPEG File</i>	312
<i>Playing a File</i>	312
<i>Queuing the Next File</i>	312
<i>Displaying a Slide with Audio from an MPEG File</i>	312
<i>Stopping a File</i>	313

<i>Pausing an MPEG File</i>	313
<i>Creating a Library Clip Resource</i>	313
<i>Activating the Default Virtual Channel Playlists</i>	315
<i>Selecting and Displaying Virtual Channel Playlist Files</i>	316
CONTROLLING INTERNAL MPEG RECORDER(S)	317
MONITORING AN MPEG FILE RECORDING	320
CONTROLLING EXTERNAL DEVICES	322
<i>IR or PRO-BUS-Controlled Devices (Supported Digital Video Recorders, VCRs, DVD, ¾", 8mm, Beta SP, and HI-8mm Players)</i>	322
<i>DVply-Controlled Devices</i>	323
<i>GPI Output Devices</i>	324
<i>UltraNEXUS/UltraNEXUS-SDI Only: ePRO-BUS Record Devices</i>	325
MANAGING STORAGE OF VIDEO, SLIDE, AND OVERLAY FILES	327
CHOOSING FILE STORAGE DEVICES	328
MANAGING ALL DIGITAL FILES	329
PREVIEWING VIDEO FILES.....	331
ENABLING AND AUTHORIZING SLIDES FOR DISPLAY IN SLIDE SHOWS.....	332
CREATING A DEFAULT SLIDE	332
CREATING & MANAGING BACKGROUND SUBFOLDERS	332
TRANSFERRING GRAPHIC/TEXT LAYERS WITH SLIDES CREATED IN A WEBNEXUS SLIDE EDITOR.....	334
RETRIEVING LOG FILES.....	336
<i>Event Log Files</i>	336
<i>System Log Files</i>	338
<i>Firmware Update Log Files</i>	342
UPDATING FIRMWARE/SOFTWARE	344
UPDATING NEXUS SERIES SERVER/CONTROLLER AND/OR DVPLY FIRMWARE	344
UPDATING WINLGX SOFTWARE	347
WEB CONTROL	349
ABOUT THIS SECTION	349
OPENING AND LOGGING INTO WEBNEXUS	351
"SITE INFORMATION"	352
"STORAGE"	352
MPEG PLAYER/RECORDER STATUSES.....	352
"NETWORK SETTINGS"	352
"SWITCHER STATUS"	352
ULTRANEXUS-SDI / ULTRANEXUS ONLY: MANAGING MPEG AND VOD FILES	353
ENABLING/DISABLING VOD RECORDER	353
SETTING UP TRANSFER DESTINATIONS	354
ULTRANEXUS ONLY: SETTING UP MPEG FILE RECORD SETTINGS	359

ULTRANEXUS ONLY: RECORDING.....	360
MANUALLY TRANSFERRING MPEG FILES	362
MANAGING LOG FILES	365
SAVE/OPEN A LOG FILE.....	366
SEARCH A LOG FILE	366
DELETE A LOG FILE.....	367
MANAGING SLIDES	368
UPLOADING SLIDES TO A NEXUS SERIES SERVER/CONTROLLER	369
CREATING NEW SLIDES.....	372
CREATING A DEFAULT SLIDE.....	386
FINDING SLIDES/USER FOLDERS.....	386
ADDING SLIDE SHOW SETTINGS TO SLIDE METADATA	387
APPROVING SLIDES FOR DISPLAY IN SLIDE SHOWS.....	389
EDITING SLIDES CREATED IN WEBNEXUS	390
RENAMING SLIDES ON A NEXUS SERIES SERVER/CONTROLLER	391
DELETING SLIDES FROM A NEXUS SERIES SERVER/CONTROLLER	391
CREATING EMERGENCY MESSAGES.....	392
CREATING A NEW EMERGENCY MESSAGE	393
ACTIVATING AN EMERGENCY MESSAGE.....	397
DEACTIVATING AN EMERGENCY MESSAGE.....	400
VIEWING WEB PROGRAM GUIDE.....	401
VIEWING PROGRAM GUIDE WITHIN WEBNEXUS	401
VIEWING PROGRAM GUIDE FROM A WEB BROWSER OR YOUR OWN WEBSITE	403
<i>Web Browser.....</i>	403
<i>Your Own Website</i>	404
USING VIRTUAL CHANNELS	406
OVERVIEW.....	406
TOTAL INFO CONFIGURATION.....	409
<i>Customizing TOTAL INFO Logo.....</i>	414
<i>Customizing TOTAL INFO Audio.....</i>	416
<i>Customizing TOTAL INFO MPEG Video Background Files</i>	416
<i>Changing Storage Location of TOTAL INFO MPEG Video Background Files</i>	417
<i>Updating the LEIGHTRONIX TOTAL INFO MPEG Video Background Files.....</i>	418
<i>Displaying TOTAL INFO Horoscopes or Entertainment News</i>	418
<i>Activating/Deactivating Zoned TOTAL INFO Multi-Zone Display Feature</i>	419
<i>Customizing Zoned TOTAL INFO Image Backgrounds</i>	421
CREATING/MODIFYING VIRTUAL CHANNEL PLAYLISTS	423
SAVING VIRTUAL CHANNEL PLAYLISTS	429
DISPLAYING VIRTUAL CHANNEL PLAYLISTS.....	433
DELETING VIRTUAL CHANNEL PLAYLIST FILES	437

EDITING NEXUS SERIES SITE NAME AND LOCATION.....	438
CHANGING NEXUS SERIES SYSTEM TIME	438
CHANGING THE FRONT PANEL AND “ADMIN” PASSWORDS	439
MAINTAINING USB DRIVES AND COMPACT FLASH	440
UPDATING SYSTEM FIRMWARE	440
ULTRANEXUS/ULTRANEXUS-SDI ONLY: CONFIGURING EPRO-BUS SETTINGS.....	441
CONFIGURING TOTAL SHARE SETTINGS	443
LOGGING OUT OF WEBNEXUS.....	444
TOTAL BACKUP.....	445
OPENING AND LOGGING INTO TOTAL BACKUP	446
SELECTING STORAGE LOCATIONS FOR NEXUS SERIES INFORMATION	448
PERFORMING AN IMMEDIATE BACKUP	450
PERFORMING SCHEDULED BACKUPS.....	450
RESTORING NEXUS SERIES SYSTEM INFORMATION.....	451
TOTAL IMPORT	453
TROUBLESHOOTING.....	457
PARTS REPLACEMENT	457
CHECKING EXTERNAL USB DRIVES AND INTERNAL COMPACT FLASH DRIVE.....	457
CONTACTING LEIGHTRONIX TECHNICAL SUPPORT	458
WARRANTY	459
DECLARATION OF STANDARDS CONFORMITY.....	460
FCC NOTICE	460
PRODUCT SAFETY CERTIFICATIONS	461
APPENDIX A: PRO-BUS INTERFACE CONNECTIONS.....	462
SET SWITCHES.....	463
ASSIGN INTERFACE AN ADDRESS	463
CONFIGURE INTERFACE TO SEND CONTROL COMMANDS	463
ATTACH PRO-BUS TO CORRESPONDING DEVICE.....	464
CONNECT PRO-BUS TO CONTROLLER AND OTHER PRO-BUS INTERFACES	464
APPENDIX B: CABLE PINOUTS FOR LEIGHTRONIX-SUPPORTED EXTERNAL SWITCHERS.....	465
APPENDIX C: CABLE PINOUTS FOR LEIGHTRONIX-SUPPORTED EXTERNAL CLOCKS	471
APPENDIX D: COPYRIGHT STATEMENTS.....	473

WHITSOFT SLIMFTPd	473
THE PHP LICENSE, VERSION 3.0	474
GD STATEMENT	475
IJPEG STATEMENT	476
FREETYPE STATEMENT	476
GLOSSARY	477
INDEX	482

LIST OF TABLES AND ILLUSTRATIONS

ILLUSTRATION 1, BROADCAST MPEG RECORDER DEFAULT RECORDING PRESETS.....	38
TABLE 1, HARD DRIVE STORAGE CAPACITIES AT SELECTED CBRS	40
ILLUSTRATION 2, NEXUS FRONT PANEL.....	43
ILLUSTRATION 3, ULTRANEXUS FRONT PANEL.....	43
ILLUSTRATION 4, ULTRANEXUS-SDI FRONT PANEL	43
ILLUSTRATION 5, BIOS DATE STATUS SCREEN.....	44
ILLUSTRATION 6, DVPLY STATUS SCREEN	44
ILLUSTRATION 7, SERIAL NUMBER AND FIRMWARE VERSION STATUS SCREEN.....	44
ILLUSTRATION 8, FIRMWARE DATE STATUS SCREEN.....	44
ILLUSTRATION 9, IP ADDRESS STATUS SCREEN	45
ILLUSTRATION 10, SITE ID STATUS SCREEN	45
ILLUSTRATION 11, SCHEDULE STATUS SCREEN	45
ILLUSTRATION 12, INTERNAL SWITCHER STATUS SCREEN.....	45
ILLUSTRATION 13, EXTERNAL SWITCHER STATUS SCREEN.....	46
ILLUSTRATION 14, MPEG PLAYBACK STATUS SCREEN	46
ILLUSTRATION 15, BROADCAST MPEG RECORDER STATUS SCREEN	46
ILLUSTRATION 16, VOD RECORDER STATUS SCREEN	46
ILLUSTRATION 17, VOD RECORDER STATUS SCREEN	47
TABLE 2, NEXUS SERIES FRONT PANEL LEDS	47
ILLUSTRATION 18, ULTRANEXUS/NEXUS REAR PANEL.....	48
ILLUSTRATION 19, ULTRANEXUS-SDI REAR PANEL.....	49
FIGURE 1, EXAMPLE OF NEXUS SYSTEM USING INTERNAL SWITCHER	53
FIGURE 2, EXAMPLE OF NEXUS SYSTEM WITH EXTERNAL SWITCHER	56
FIGURE 3, EXAMPLE OF ULTRANEXUS-SDI SYSTEM WITH EXTERNAL SWITCHER	58
TABLE 3, SUPPORTED EXTERNAL SWITCHERS AND PARAMETERS.....	59
ILLUSTRATION 20, BOOT PROGRESS SCREENS	62
TABLE 4, USB DRIVE LED DESCRIPTIONS	63
TABLE 5, SUPPORTED EXTERNAL SWITCHERS AND PARAMETERS.....	64
ILLUSTRATION 21, AUDIO TERMINAL BLOCKS ON REAR PANEL OF ULTRANEXUS-SDI.....	66
ILLUSTRATION 22, EXAMPLE OF WIRE PREPARED FOR AN ULTRANEXUS-SDI TERMINAL BLOCK	67
TABLE 6, NON-EMBEDDED AUDIO TERMINAL BLOCK CONFIGURATIONS	67
ILLUSTRATION 23, EXAMPLE OF AES TERMINAL BLOCK WIRING	68
ILLUSTRATION 24, EXAMPLE OF TWO-CHANNEL ANALOG TERMINAL BLOCK WIRING	68
ILLUSTRATION 25, TENSION CLAMP RELEASE SLOT ON AN ULTRANEXUS-SDI TERMINAL BLOCK	68

ILLUSTRATION 26, SCREWDRIVER INSERTED INTO TENSION CLAMP RELEASE SLOT	68
ILLUSTRATION 27, EXAMPLE OF AUDIO TERMINAL BLOCK WIRED FOR ANALOG AND CONNECTED TO REAR PANEL	69
ILLUSTRATION 28, BOOT PROGRESS SCREENS	70
TABLE 7, ETHERNET LED INDICATORS AND DESCRIPTIONS	73
ILLUSTRATION 29, PASSWORD ENTRY SCREEN	75
ILLUSTRATION 30, CONFIGURATION MENU SCREEN	75
TABLE 8, EDITING IP ADDRESS FROM FRONT PANEL	76
TABLE 9, EDITING SUBNET MASK FROM FRONT PANEL	76
TABLE 10, EDITING GATEWAY ADDRESS FROM FRONT PANEL	77
TABLE 11, EDITING SHARED SWITCHER CONFIGURATION FROM FRONT PANEL	78
TABLE 12, SELECTING SERIAL PORT SETTINGS FROM FRONT PANEL	78
TABLE 13, SERIAL PORT OPTIONS	79
TABLE 14, EDITING "TIME SETTINGS" OPTIONS FROM FRONT PANEL	80
TABLE 15, EDITING WEB SCHEDULE PORT FROM FRONT PANEL	80
TABLE 16, EDITING FTP BUFFER SIZE FROM FRONT PANEL	81
ILLUSTRATION 31, "SKINS AND THEMES" TAB WINDOW	86
ILLUSTRATION 32, EXAMPLE OF CUSTOM WINLGX INTERFACE THEME	87
ILLUSTRATION 33, "CONTROLLER SITE MANAGER" WINDOW	88
ILLUSTRATION 34, "ADD NEW" WINDOW	89
ILLUSTRATION 35, "ADD NEW" WINDOW	90
ILLUSTRATION 36, "SITE MANAGER" WINDOW	92
ILLUSTRATION 37, "SAVE AS" WINDOW	94
ILLUSTRATION 38, WINLGX MAIN WINDOW	96
ILLUSTRATION 39, MENU BAR	97
TABLE 17, MENU BAR ITEMS	97
ILLUSTRATION 40, MAIN TOOLBAR	100
TABLE 18, TOOLBAR ITEMS	100
ILLUSTRATION 41, VIEW WINDOW CLOSE OPTION	102
ILLUSTRATION 42, "VIEW" MENU	102
ILLUSTRATION 43, SCHEDULE COLUMNS SELECTION MENU	103
ILLUSTRATION 44, RESIZING SCHEDULE COLUMN	104
ILLUSTRATION 45, "SELECT DESTINATION FOLDER" WINDOW	105
ILLUSTRATION 46, "SCHEDULE COLORS" TAB	106
ILLUSTRATION 47, "CONTROL PANEL COLORS" TAB WINDOW	107
ILLUSTRATION 48, "OTHER COLORS" TAB WINDOW	108
ILLUSTRATION 49, "OVERLAY GRAPHIC EDITOR" WINDOW COLORS	108

ILLUSTRATION 50, "USER ACCOUNTS" WINDOW.....	109
TABLE 19, USER CONTROL AND CONFIGURATION RIGHTS	111
TABLE 20, USER FILE ACCESS RIGHTS.....	112
ILLUSTRATION 51, "SET FRONT PANEL PASSWORD" WINDOW.....	113
ILLUSTRATION 52, "CONTROLLER" WINDOW	114
ILLUSTRATION 53, "EXPORT/PRINT TEMPLATES" WINDOW.....	116
ILLUSTRATION 54, "PAGE SETUP" WINDOW	118
ILLUSTRATION 55, EXAMPLE OF A SCHEDULE HEADER	118
ILLUSTRATION 56, "PRINT SETUP" WINDOW	119
ILLUSTRATION 57, EXAMPLE OF SCHEDULE WITH CUSTOM SCHEDULE COLUMNS.....	120
ILLUSTRATION 58, "USER DEFINED RESOURCE DATA" WINDOW	120
ILLUSTRATION 59, "EDIT FIELD OPTIONS" WINDOW	121
ILLUSTRATION 60, "ADD MENU ITEM" WINDOW	121
ILLUSTRATION 61, "EDIT MENU ITEM" WINDOW.....	122
ILLUSTRATION 62, MENU ITEM DELETE CONFIRMATION BOX	122
ILLUSTRATION 63, "APPLICATION" TAB	123
ILLUSTRATION 64, EXAMPLE OF EVENT PROPERTIES WINDOW	126
ILLUSTRATION 65, "EVENT EDITOR" TAB WINDOW	127
ILLUSTRATION 66, "PREVIEW MONITOR" TAB	129
ILLUSTRATION 67, "RESOURCE LIBRARY" TAB.....	131
ILLUSTRATION 68, "RESOURCE VIEW" TAB WINDOW	132
ILLUSTRATION 69, LIBRARY RESOURCE LENGTH SORTING OPTIONS.....	133
ILLUSTRATION 70, "SCHEDULE" TAB WINDOW	134
ILLUSTRATION 71, ULTRANEXUS/NEXUS INTERNAL SWITCH TYPE WINDOWS.....	136
ILLUSTRATION 72, VIRTUAL CHANNEL WINLGX TAB ASSIGNMENTS	138
ILLUSTRATION 73, ULTRANEXUS-SDI SWITCH TYPE WINDOW	140
ILLUSTRATION 74, EXTERNAL SWITCHER WINDOWS.....	142
ILLUSTRATION 75, SHARED SWITCHER PROPERTIES.....	146
ILLUSTRATION 76, "SYSTEM CONFIGURATION VIEW" IR PORT WINDOWS	150
TABLE 21, IR PORT CONFIGURATION OPTIONS.....	151
ILLUSTRATION 77, "SYSTEM CONFIGURATION VIEW" INTERNAL BROADCAST MPEG RECORDER WINDOWS	152
ILLUSTRATION 78, "DEVICES" WINDOW	154
ILLUSTRATION 79, BROADCAST MPEG RECORDER CHANNEL OUTPUT TAB CONFIGURATION	157
ILLUSTRATION 80, NEW DEVICE PROPERTIES	159
ILLUSTRATION 81, DVD DEVICE EVENT PROPERTIES WINDOW	160
TABLE 22, DVD DEVICE PROPERTIES	160

ILLUSTRATION 82, TAPE DEVICE EVENT PROPERTIES WINDOW.....	162
TABLE 23, TAPE DEVICE PROPERTIES	162
ILLUSTRATION 83, SWITCH EVENT PROPERTIES WINDOW	164
TABLE 24, SWITCH EVENT PROPERTIES.....	165
ILLUSTRATION 84, GPI EVENT PROPERTIES WINDOW	166
TABLE 25, GPI EVENT PROPERTIES.....	166
ILLUSTRATION 85, NEW DEVICE PROPERTIES	168
ILLUSTRATION 86, EPRO-BUS RESOURCE PROPERTIES WINDOW	169
TABLE 26, EPRO-BUS RESOURCE PROPERTIES	169
ILLUSTRATION 87, OVERLAY LIBRARY RESOURCE PROPERTIES	172
TABLE 27, OVERLAY LIBRARY RESOURCE PROPERTIES.....	172
ILLUSTRATION 88, "OVERLAY GRAPHIC EDITOR" WINDOW	173
ILLUSTRATION 89, ADD OVERLAY TEMPLATE	174
ILLUSTRATION 90, ADDING OVERLAYS TO TEMPLATE	175
ILLUSTRATION 91, "LIBRARY VIEW" WINDOWS	176
ILLUSTRATION 92, NEW LIBRARY RESOURCE WINDOWS	177
ILLUSTRATION 93, EXAMPLE OF DVD LIBRARY RESOURCE PROPERTIES.....	178
TABLE 28, TAPE AND DVD LIBRARY RESOURCE PROPERTIES	178
ILLUSTRATION 94, EXAMPLE OF SWITCH LIBRARY RESOURCE PROPERTIES.....	181
TABLE 29, SWITCH LIBRARY RESOURCE PROPERTIES.....	181
ILLUSTRATION 95, MPEG LIBRARY RESOURCE PROPERTIES.....	183
TABLE 30, MPEG LIBRARY RESOURCE PROPERTIES	184
ILLUSTRATION 96, INSTANT VIDEO PREVIEW MONITOR	185
ILLUSTRATION 97, WINLGX VIDEO CLIP EDITOR WITH PREVIEW MONITOR	186
ILLUSTRATION 98, MPEG LOOP LIBRARY RESOURCE PROPERTIES.....	190
TABLE 31, MPEG LOOP LIBRARY RESOURCE PROPERTIES	191
ILLUSTRATION 99, INSTANT VIDEO PREVIEW MONITOR	192
ILLUSTRATION 100, MPEG LOOP CALCULATOR.....	193
ILLUSTRATION 101, SLIDE LIBRARY RESOURCE PROPERTIES	195
TABLE 32, SLIDE LIBRARY RESOURCE PROPERTIES	195
ILLUSTRATION 102, "SELECT SLIDE" WINDOW.....	196
ILLUSTRATION 103, SLIDE SHOW LIBRARY RESOURCE PROPERTIES.....	199
TABLE 33, SLIDE SHOW LIBRARY RESOURCE PROPERTIES	199
ILLUSTRATION 104, "USER LIST" WINDOW	201
ILLUSTRATION 105, EXAMPLE OF ONSCREEN PROGRAM GUIDE	203
ILLUSTRATION 106, PROGRAM GUIDE LIBRARY RESOURCE PROPERTIES	204
TABLE 34, PROGRAM GUIDE LIBRARY RESOURCE PROPERTIES.....	204

ILLUSTRATION 107, "SELECT SLIDE" WINDOW.....	205
ILLUSTRATION 108, PLAYLIST LIBRARY RESOURCE PROPERTIES	207
ILLUSTRATION 109, "PLAYLIST EDITOR" WINDOW	207
TABLE 35, PLAYLIST LIBRARY RESOURCE PROPERTIES.....	208
ILLUSTRATION 110, VC LIST LIBRARY RESOURCE PROPERTIES	209
TABLE 36, PLAYLIST LIBRARY RESOURCE PROPERTIES.....	209
ILLUSTRATION 111, LIBRARY "EXPORT" OPTION.....	211
ILLUSTRATION 112, "EXPORT MPEG RESOURCE" WINDOW	211
ILLUSTRATION 113, "EXPORT RESOURCE" LIBRARY RESOURCE FILENAME	212
ILLUSTRATION 114, "SITE MANAGER" WINDOW.....	214
ILLUSTRATION 115, ABOUT WINLGX WINDOW.....	216
ILLUSTRATION 116, WINLGX EXIT DIALOG BOX.....	217
ILLUSTRATION 117, OPEN IMAGE FILE WINDOW.....	220
ILLUSTRATION 118, OPEN IMAGE FILE AS NEW WINDOW.....	221
ILLUSTRATION 119, IMAGE STATUS WINDOW.....	222
ILLUSTRATION 120, "SAVE AS" WINDOW.....	224
ILLUSTRATION 121, LIBRARY "IMPORT" OPTION	226
ILLUSTRATION 122, "IMPORT MPEG RESOURCE" WINDOW.....	226
ILLUSTRATION 123, SELECTING FILE ON "IMPORT MPEG RESOURCE" WINDOW	227
ILLUSTRATION 124, IMPORTED LIBRARY RESOURCES.....	227
ILLUSTRATION 125, PREVIEW MONITOR CONTROLS	230
ILLUSTRATION 126, SCHEDULE WINDOW.....	231
ILLUSTRATION 127, "OVERLAY TEMPLATES" VIEW IN WINLGX.....	232
ILLUSTRATION 128, WINLGX-LT TAB EVENT WINDOW.....	234
TABLE 37, CONTROLLER TAB CONFIGURATIONS	235
TABLE 38, SCHEDULE COLUMNS.....	235
ILLUSTRATION 129, DAY/CHANNEL OUTPUT EVENT PROPERTIES BOX.....	238
ILLUSTRATION 130, WINLGX-LT EVENT PROPERTIES BOX.....	240
ILLUSTRATION 131, DELETE DIALOG BOX.....	242
ILLUSTRATION 132, PLAYLIST DELETE DIALOG BOX.....	243
ILLUSTRATION 133, "REPLACE" BUTTON ON EVENT PROPERTIES WINDOW	244
ILLUSTRATION 134, "FIND AND REPLACE" WINDOW	245
ILLUSTRATION 135, "INSERT" BUTTON ON EVENT PROPERTIES WINDOW	246
ILLUSTRATION 136, DVD DEVICE EVENT PROPERTIES WINDOW	248
TABLE 39, EDITABLE DVD DEVICE EVENT PROPERTIES.....	248
ILLUSTRATION 137, TAPE DEVICE EVENT PROPERTIES WINDOW	251
TABLE 40, EDITABLE TAPE DEVICE PROPERTIES	251

ILLUSTRATION 138, SWITCH DEVICE EVENT PROPERTIES WINDOW.....	253
TABLE 41, EDITABLE SWITCH DEVICE EVENT PROPERTIES.....	253
ILLUSTRATION 139, GPI OUTPUT DEVICE EVENT PROPERTIES WINDOW	255
TABLE 42, EDITABLE GPI OUTPUT DEVICE EVENT PROPERTIES.....	255
ILLUSTRATION 140, MPEG PLAYER EVENT PROPERTIES WINDOW	257
TABLE 43, EDITABLE MPEG PLAYER EVENT PROPERTIES	257
ILLUSTRATION 141, WINLGX VIDEO CLIP EDITOR WITH PREVIEW MONITOR	260
ILLUSTRATION 142, MPEG RECORDER EVENT PROPERTIES WINDOW	264
TABLE 44, EDITABLE MPEG RECORDER EVENT PROPERTIES.....	265
ILLUSTRATION 143, "ADD TO LIBRARY FOLDER" WINDOW.....	265
ILLUSTRATION 144, REMOTE EPRO-BUS RECORD EVENT PROPERTIES WINDOW	268
TABLE 45, EDITABLE REMOTE EPRO-BUS RECORD EVENT PROPERTIES	269
ILLUSTRATION 145, LOCAL EPRO-BUS RECORD EVENT PROPERTIES WINDOW	271
TABLE 46, EDITABLE LOCAL EPRO-BUS RECORD EVENT PROPERTIES.....	271
ILLUSTRATION 146, EXAMPLE OF DVD MEDIA EVENT PROPERTIES WINDOW	274
TABLE 47, EDITABLE TAPE AND DVD DEVICE MEDIA EVENT PROPERTIES.....	274
ILLUSTRATION 147, SWITCH EVENT PROPERTIES WINDOW	276
TABLE 48, EDITABLE SWITCH EVENT PROPERTIES	276
ILLUSTRATION 148, JPEG SLIDE EVENT PROPERTIES WINDOW	278
TABLE 49, EDITABLE JPEG SLIDE LIBRARY EVENT PROPERTIES.....	278
ILLUSTRATION 149, JPEG SLIDE SHOW EVENT PROPERTIES WINDOW	280
TABLE 50, EDITABLE JPEG SLIDE SHOW LIBRARY EVENT PROPERTIES.....	280
ILLUSTRATION 150, PROGRAM GUIDE EVENT PROPERTIES WINDOW	283
TABLE 51, EDITABLE PROGRAM GUIDE LIBRARY EVENT PROPERTIES.....	283
ILLUSTRATION 151, MPEG LIBRARY EVENT PROPERTIES WINDOW	285
TABLE 52, EDITABLE MPEG LIBRARY EVENT PROPERTIES	285
ILLUSTRATION 152, WINLGX VIDEO CLIP EDITOR WITH PREVIEW MONITOR	286
ILLUSTRATION 153, MPEG LOOP EVENT PROPERTIES WINDOW.....	290
TABLE 53, EDITABLE MPEG LOOP LIBRARY EVENT PROPERTIES	290
ILLUSTRATION 154, PLAYLIST EVENT PROPERTIES WINDOW.....	293
ILLUSTRATION 155, VC LIST EVENT PROPERTIES WINDOW.....	294
TABLE 54, EDITABLE VC LIST LIBRARY EVENT PROPERTIES	294
ILLUSTRATION 156, DIGITAL LIBRARY RESOURCE DRAGGED ONTO CHANNEL SWITCHBACK.....	296
ILLUSTRATION 157, DIGITAL LIBRARY RESOURCE APPLY TO ALL SWITCHBACKS OPTION	297
ILLUSTRATION 158, "CHANNEL SWITCHBACK EDITOR"	298
ILLUSTRATION 159, SYNCED SCHEDULE	299
ILLUSTRATION 160, "SEND IMAGE" STATUS BOX.....	300

ILLUSTRATION 161, "SELECT EXPORT/PRINT TEMPLATE" WINDOW	301
ILLUSTRATION 162, "SAVE AS" WINDOW	303
ILLUSTRATION 163, "SELECT EXPORT/PRINT TEMPLATE" WINDOW	304
ILLUSTRATION 164, CONTROL PANEL WINDOW	305
ILLUSTRATION 165, CONTROL PANEL DEVICE SORTING MENU	306
ILLUSTRATION 166, CONTROL PANEL "SWITCH" "BUTTONS" VIEW	307
ILLUSTRATION 167, CONTROL PANEL "SWITCH" "LIST" VIEW	308
ILLUSTRATION 168, MPEG PLAYER CONTROL PANEL	308
ILLUSTRATION 169, "SELECT FILE" VIDEO WINDOW	309
ILLUSTRATION 170, QUEUED MPEG VIDEO FILE PROPERTIES	310
ILLUSTRATION 171, "SELECT FILE" SLIDE WINDOW	311
ILLUSTRATION 172, QUEUED JPEG SLIDE	311
ILLUSTRATION 173, MPEG FILE COUNTER	312
ILLUSTRATION 174, QUEUED AND CURRENTLY PLAYING FILES	312
ILLUSTRATION 175, MPEG FILE COUNTER WITH FRAME NUMBER DISPLAYED	313
ILLUSTRATION 176, MPEG PLAYER CLIP CREATION PANEL	313
ILLUSTRATION 177, "SELECT FILE" WINDOW	314
ILLUSTRATION 178, "ADD TO LIBRARY FOLDER" WINDOW	315
ILLUSTRATION 179, "SELECT VIRTUAL CHANNEL LIST" WINDOW	316
ILLUSTRATION 180, MPEG RECORDER CONTROL PANEL	317
ILLUSTRATION 181, "ADD TO LIBRARY FOLDER" WINDOW	318
ILLUSTRATION 182, "MPEG INGEST" WINDOW	319
ILLUSTRATION 183, MPEG RECORDER CONFIDENCE "MONITOR" TAB WINDOW	321
ILLUSTRATION 184, EXAMPLE OF A PRO-BUS-CONTROLLED DEVICE CONTROL PANEL	322
ILLUSTRATION 185, CONTROL PANEL DVPLY DEVICE	323
ILLUSTRATION 186, CONTROL PANEL: GPI DEVICE CONTROL	324
ILLUSTRATION 187, CONTROL PANEL: EPRO-BUS RECORD DEVICE CONTROL	325
ILLUSTRATION 188, STORAGE MANAGER WINDOW	327
ILLUSTRATION 189, STORAGE MANAGER COPY DIALOG BOX	330
ILLUSTRATION 190, STORAGE MANAGER DIGITAL FILE DELETE OPTION	331
ILLUSTRATION 191, SLIDE SHOW AUTHORIZE AND ENABLE OPTIONS	332
ILLUSTRATION 192, "CREATE DIRECTORY" BACKGROUNDS OPTION	333
ILLUSTRATION 193, "SHOW EDIT FILES" OPTION	334
ILLUSTRATION 194, TRANSFER SLIDE AND LAYER FILES	335
ILLUSTRATION 195, "SELECT CONTROLLER LOG FILE" WINDOW	336
ILLUSTRATION 196, EXAMPLE OF EVENT LOG FILE	337
ILLUSTRATION 197, "SYSTEM" TAB ON THE "SELECT CONTROLLER LOG FILE" WINDOW	338

ILLUSTRATION 198, EXAMPLE OF LOG FILE	340
ILLUSTRATION 199, "ALL" TAB ON THE "SELECT CONTROLLER LOG FILE" WINDOW	342
ILLUSTRATION 200, CONTROLLER WINDOW	344
ILLUSTRATION 201, "CHOOSE CONTROLLER FIRMWARE FILE" WINDOW.....	345
ILLUSTRATION 202, "SELECT FIRMWARE OPTIONS" WINDOW	346
TABLE 55, USER RIGHTS WITH ACCESS TO ADDITIONAL WEBNEXUS FEATURES.....	349
ILLUSTRATION 203, ACCESSING NEXUS SERIES SYSTEM FROM INTERNET EXPLORER	351
ILLUSTRATION 204, LOGIN PROMPT	351
ILLUSTRATION 205, "SYSTEM DASHBOARD" SCREEN	352
ILLUSTRATION 206, VIDEO-ON-DEMAND STREAMING ENABLED.....	353
ILLUSTRATION 207, "NEXUS/ULTRANEXUS" FILE DESTINATIONS TAB.....	355
ILLUSTRATION 208, "PEG CENTRAL" FILE DESTINATIONS TAB	356
ILLUSTRATION 209, "LGX-SVOD" FILE DESTINATIONS TAB	357
ILLUSTRATION 210, "FTP SERVER" FILE DESTINATIONS TAB.....	358
ILLUSTRATION 211, "RECORD SETTINGS"	359
ILLUSTRATION 212, MPEG RECORDER CLOSEUP	360
ILLUSTRATION 213, POP-UP MENU FOR "VIDEO FILES" LISTING ON THE "FILE MANAGEMENT" SCREEN.....	362
ILLUSTRATION 214, POP-UP MENU FOR "VIDEO FILES" LISTING ON THE "FILE MANAGEMENT" SCREEN.....	363
ILLUSTRATION 215, POP-UP MENU FOR "VIDEO TRANSFERS" LISTING ON THE "FILE MANAGEMENT" SCREEN	364
ILLUSTRATION 216, "LOG FILES" SCREEN	365
TABLE 56, LOG FILE TYPES	365
ILLUSTRATION 217, "JPEG SLIDE MANAGEMENT" SCREEN	368
ILLUSTRATION 218, NEW SLIDE UPLOAD WINDOW	369
ILLUSTRATION 219, "CHOOSE FILE TO UPLOAD" WINDOW	370
ILLUSTRATION 220, "UPLOAD FILE" WINDOW	371
ILLUSTRATION 221, ADVANCED SLIDE EDITOR WINDOW.....	372
ILLUSTRATION 222, ADVANCED SLIDE EDITOR TOOLBOX	373
ILLUSTRATION 223, GRAPHIC TOOLBAR	374
ILLUSTRATION 224, WEBCAM "PRIVACY" SETTING	375
ILLUSTRATION 225, GRADIENT TOOLBAR.....	375
ILLUSTRATION 226, SHAPE TOOLBAR	377
ILLUSTRATION 227, "GRADIENT FILL" WINDOW	377
ILLUSTRATION 228, TEXT TOOLBAR	379
ILLUSTRATION 229, "SWATCHES" TAB PANEL.....	380
TABLE 57, TEXT FILTER EFFECTS	380

TABLE 58, LAYER BLEND MODES.....	381
ILLUSTRATION 230, "BEVEL" EFFECT WINDOW	384
ILLUSTRATION 231, "SAVE SLIDE" WINDOW	385
ILLUSTRATION 232, SLIDE METADATA FIELDS.....	387
ILLUSTRATION 233, WEBNEXUS AUTHORIZE AND ENABLE BUTTONS	390
ILLUSTRATION 234, WEBNEXUS SLIDE EDITING FEATURE.....	390
ILLUSTRATION 235, "RENAME FILE" WINDOW	391
ILLUSTRATION 236, EMERGENCY MESSAGING SCREEN	393
ILLUSTRATION 237, NEW GRAPHIC OVERLAY UPLOAD WINDOW.....	394
ILLUSTRATION 238, "SELECT FILE(S)" WINDOW	395
ILLUSTRATION 239, "UPLOAD GRAPHICS" WINDOW	395
ILLUSTRATION 240, TEXT ENTRY ON EMERGENCY MESSAGING SCREEN	396
ILLUSTRATION 241, "OPTIONS" PANEL.....	397
ILLUSTRATION 242, LEVEL 1 "ACTIVATION OPTIONS"	398
ILLUSTRATION 243, LEVEL 2 "ACTIVATION OPTIONS"	398
ILLUSTRATION 244, LEVEL 3 "ACTIVATION OPTIONS"	399
ILLUSTRATION 245, LEVEL 3 WARNING DIALOG BOX FOR ACTIVATION OF ALL CHANNELS....	399
ILLUSTRATION 246, LEVEL 3 WARNING DIALOG BOX FOR CHANNEL 1 OR 2 ACTIVATION	400
ILLUSTRATION 247, WEBNEXUS PROGRAM GUIDE SCREEN	401
ILLUSTRATION 248, PROGRAM GUIDE SCREEN IN WEEK MODE WITH DAY HEADERS "ON"....	402
ILLUSTRATION 249, PROGRAM GUIDE URL LINK.....	403
ILLUSTRATION 250, WEBNEXUS PROGRAM GUIDE "EMBED SCRIPT".....	405
ILLUSTRATION 251, VIRTUAL CHANNEL EDITOR	407
TABLE 59, VIRTUAL CHANNEL PLAYLIST RESOURCES	407
ILLUSTRATION 252, "TOTAL INFO" CONFIGURATION MESSAGE ON VIRTUAL CHANNEL EDITOR	410
ILLUSTRATION 253, "TOTAL INFO SUBSCRIPTION CONFIGURATION" BOX	410
ILLUSTRATION 254, TOTAL INFO SUBSCRIPTION LOCATION INFORMATION	411
ILLUSTRATION 255, TOTAL INFO SUBSCRIPTION CONFIGURATION INFORMATION	412
ILLUSTRATION 256, ADDING TOTAL INFO CONTENT TO CURRENT PLAYLIST	413
ILLUSTRATION 257, "ADVANCED VIRTUAL CHANNEL OPTIONS".....	414
ILLUSTRATION 258, "TOTAL INFO BUG UPLOAD" WINDOW	415
ILLUSTRATION 259, "CHOOSE FILE" WINDOW	415
ILLUSTRATION 260, "TOTAL INFO" VIDEO BACKGROUND FILES SETTINGS	417
ILLUSTRATION 261, "TOTAL INFO" DATA ENABLE/DISABLE SETTINGS	418
ILLUSTRATION 262, ZONED TOTAL INFO ONSCREEN DISPLAY EXAMPLE	419
ILLUSTRATION 263, "GENERAL" TAB ON THE "ADVANCED VIRTUAL CHANNEL OPTIONS" WINDOW	420

ILLUSTRATION 264, VIRTUAL CHANNEL EDITOR WITH ZONED TOTAL INFO SETTINGS	421
ILLUSTRATION 265, LOADING A PLAYLIST PRESET INTO THE VIRTUAL CHANNEL PLAYLIST WINDOW	423
ILLUSTRATION 266, "LIST CONFIG" TAB ON "ADVANCED VIRTUAL CHANNEL OPTIONS" WINDOW	424
ILLUSTRATION 267, VIRTUAL CHANNEL PLAYLIST	426
TABLE 60, CREATING PLAYLISTS IN THE VIRTUAL CHANNEL PLAYLIST WINDOW	426
ILLUSTRATION 268, SLIDE SHOW AUDIO SETTINGS	428
ILLUSTRATION 269, "SAVE PRESET" WINDOW	430
ILLUSTRATION 270, "LIST CONFIG" TAB WINDOW	431
ILLUSTRATION 271, VIRTUAL CHANNEL WINLGX TAB ASSIGNMENTS	433
ILLUSTRATION 272, DEFAULT EXTERNAL SWITCHER SETTINGS.....	434
ILLUSTRATION 273, "SITE INFORMATION" SCREEN	438
ILLUSTRATION 274, "SECURITY" TAB SCREEN	439
ILLUSTRATION 275, "MAINTENANCE" TAB SCREEN.....	440
ILLUSTRATION 276, "EPRO-BUS" TAB SCREEN	441
ILLUSTRATION 277, "TOTAL SHARE" TAB SCREEN	443
ILLUSTRATION 278, FILE PATH FIELD FOR NEXUS SERIES TOTAL BACKUP	446
ILLUSTRATION 279, TOTAL BACKUP MAIN WINDOW	447
ILLUSTRATION 280, BACKUP PATH WINDOW	448
ILLUSTRATION 281, "BACKUP SCHEDULER" WINDOW	450
ILLUSTRATION 282, "RESTORE" WINDOW	451
ILLUSTRATION 283, TOTAL IMPORT MAIN WINDOW	453
ILLUSTRATION 284, TOTAL IMPORT DVD "SOURCE" PANEL.....	454
ILLUSTRATION 285, TOTAL IMPORT "SETTINGS" PANEL	454
ILLUSTRATION 286, TOTAL IMPORT "SETTINGS" PANEL WITH SELECTABLE VIDEO BIT RATE	455
ILLUSTRATION 287, TOTAL IMPORT "DESTINATION" PANEL	455
ILLUSTRATION 288, "SYSTEM" SCREEN WITH "DISK DIAGNOSTICS" BUTTON	457
ILLUSTRATION 289, PRO-BUS INTERFACE	462
TABLE 61, PRO-BUS ADDRESS CONFIGURATION	463
ILLUSTRATION 290, PRO-BUS DAISY CHAIN	464
TABLE 62, CABLE INFORMATION FOR LEIGHTRONIX-SUPPORTED EXTERNAL SWITCHERS ..	465
ILLUSTRATION 291, DB9F-DB9M STRAIGHT-THROUGH CABLE, PART #10-4869	466
FIGURE 4, PINOUT OF DB9F-DB9M STRAIGHT-THROUGH CABLE, PART #10-4869	466
ILLUSTRATION 292, DB9F-DB9F NULL CABLE, PART #10-4421	467
FIGURE 5, PINOUT OF DB9F-DB9F NULL CABLE, PART #10-4421	467
ILLUSTRATION 293, DB9F-DB25F 6' STRAIGHT-THROUGH CABLE, PART #10-4617	468
FIGURE 6, PINOUT OF DB9F-DB25F 6' STRAIGHT-THROUGH CABLE, PART #10-4617	468

ILLUSTRATION 294, DB9F-DB9M 6' NULL CABLE, PART #10-2372	469
FIGURE 7, PINOUT OF DB9F-DB9M 6' NULL CABLE, PART #10-2372	469
ILLUSTRATION 295, DB9F-DB9M 6' SERIAL CABLE, PART #10-4588	470
FIGURE 8, PINOUT OF DB9F-DB9M 6' SERIAL CABLE, PART #10-4588.....	470
ILLUSTRATION 296, DB9F-DB25M STRAIGHT-THROUGH CABLE, PART #10-4381	471
FIGURE 9, PINOUT OF DB9F-DB25M 6' STRAIGHT-THROUGH CABLE FOR LEITCH CLOCK, PART #10-4381	471
ILLUSTRATION 297, DB9F-DB9M SERIAL CABLE	472
FIGURE 10, PINOUT OF DB9F-DB9M 6' SERIAL CABLE FOR ESE CLOCK	472

ABOUT THIS MANUAL

New users are recommended to follow this manual in order, as each section builds on the information introduced in previous sections. Check the glossary in the back of this manual for quick explanations of unfamiliar terms. An index has also been included for your convenience. If you would like an overview of the essential NEXUS series (NEXUS, UltraNEXUS, UltraNEXUS-SDI) information, refer to the booklet of quick guides included with your NEXUS series server/controller.

First Time Install Checklist

Not sure where to start? The following checklist provides the bare bones steps necessary to get your NEXUS series system up and running.

✓	TASK
Install NEXUS series system (for an overview, refer to the <i>UltraNEXUS/NEXUS Installation Quick Guide</i> or, depending on your product model, <i>UltraNEXUS-SDI Installation Quick Guide</i>):	
	<ol style="list-style-type: none">1. Connect NEXUS series signal wiring (see “Connecting NEXUS/UltraNEXUS Signal Wiring,” on page 59 or “Connecting UltraNEXUS-SDI Signal Wiring,” on page 64).<ul style="list-style-type: none">• Route video/audio sources to switcher input connectors.• Route destinations (such as modulators or televisions) to switcher output connectors.• Set up video/audio sources to receive NEXUS series control commands via PRO-BUS, integrated IR, or DVply, as appropriate.• Attach storage devices to NEXUS series system. NOTE: LEIGHTRONIX requires the use of two USB hard drives with an UltraNEXUS/UltraNEXUS-SDI combined with the LEIGHTRONIX PEG Central streaming video-on-demand service.
	<ol style="list-style-type: none">2. Connect UltraNEXUS-SDI/UltraNEXUS/NEXUS to an Ethernet TCP/IP network (see “Configuring Ethernet Network Host Management,” on page 71).
	<ol style="list-style-type: none">3. Enter TCP/IP addresses into the NEXUS series system’s front panel (see “Configuring Front Panel Settings,” on page 75).

✓	TASK
Install & Configure the NEXUS series control software, WinLGX (for an overview, refer to the <i>WinLGX Installation & Configuration Quick Guide</i>):	
	4. Load WinLGX software on a PC (see “Installing WinLGX Software,” on page 84).
	5. Add your NEXUS series server’s IP address to the “Locations” database (see “Adding / Deleting NEXUS Locations in the Site Manager,” on page 88).
	6. Log into WinLGX (see “Connecting to Your NEXUS Series Server/Controller,” on page 92).
	7. Create user accounts and assign rights (see “Setting User Account Rights (Including WinLGX Password Changes)” on page 109).
	8. Set time zone and clock (see “Configuring Site Information, Clock, Updating Firmware, and Rebooting,” on page 113).
	9. Configure the NEXUS series server/controller’s system properties (see “Configuring the Switch Type of a NEXUS Series System,” on page 135) and IR ports (see “Configuring NEXUS Series IR Port Properties,” on page 150).
	10. Configure the following device properties: <ul style="list-style-type: none"> • Internal (see “Configuring Broadcast MPEG Recording Presets,” on page 151 and “Editing Internal MPEG Player and Recorder Device Resource,” on page 154) • External (see “Creating External Device Resources,” on page 159)
	11. Check PRO-BUS interface, IR port, DVply, and switcher wiring by sending a command to each device from the control panel as follows: <ol style="list-style-type: none"> a. Select a device controlled by a PRO-BUS interface, IR port, or DVply in the left-hand “Device” column on the control panel window. b. Send a command to the selected device from the “Device control” section of the control panel and ensure the device itself responds accordingly (see “Using Control Panel to Perform Immediate Device and Switch Actions,” on page 305). <p>NOTE: To check video quality, switch your device to an output connected to a monitor.</p>

✓	TASK
	<p>12. Upload slides to the NEXUS series user folders through the WinLGX Storage Manager window (see “Managing all Digital Files,” on page 329) or WebNEXUS (see “Uploading Slides to a NEXUS Series Server/Controller,” on page 369).</p> <p>NOTE: Slides are activated for display through the WinLGX schedule or control panel.</p>
	<p>13. Create device media and switch library resources under the “Library” tab (see “Creating Library Resources,” on page 176).</p>
	<p>14. Save your system configuration settings and resources in a NEXUS image file (see “Saving NEXUS Series Image Files,” on page 224).</p>
<p>Use WinLGX to control the NEXUS series system (for an overview, refer to the <i>WinLGX Scheduling Quick Guide</i>):</p>	
	<p>15. If not already open, load a NEXUS series image file with your system configuration settings and resources (see “Opening NEXUS Series Image Files,” on page 219).</p>
	<p>16. Control NEXUS series system through either of the following:</p> <ul style="list-style-type: none"> • Create & execute a schedule. • Immediately control devices through control panel.

INTRODUCTION

Each of the LEIGHTRONIX NEXUS series server/controllers combines digital video server technology, DVD and VCR control, and digital video messaging in one rack-mountable chassis. Each NEXUS series system provides fully integrated digital video recording and dual channel playback, while still supporting legacy equipment.

Both the UltraNEXUS-SDI and UltraNEXUS include a second encoder that records digital video programming for use in LEIGHTRONIX Internet video-on-demand streaming. The dual encoders streamline your workflow, eliminating the need to convert broadcast resolution programming into Internet-ready videos. **NEXUS owners have the option of upgrading to an UltraNEXUS. Contact LEIGHTRONIX for more information.**



The UltraNEXUS-SDI offers high-quality, SD-SDI video and AES or analog audio recording and playback.

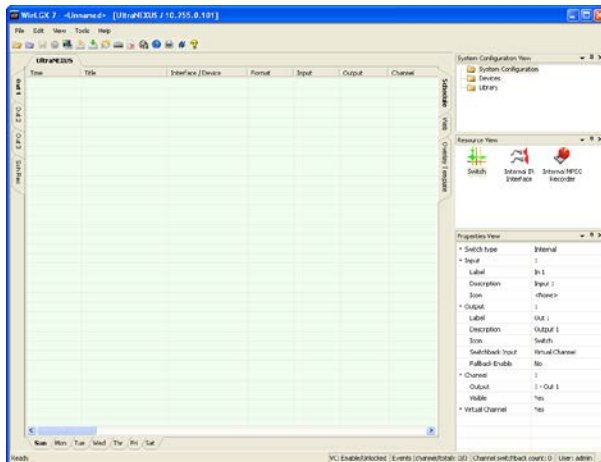


The UltraNEXUS includes all of the standard NEXUS server/controller features plus a second encoder just for Internet programming.



The popular NEXUS video server/controller is the all-in-one solution for television broadcasting.

Provided with each NEXUS series system is WinLGX, a software application with a programmable database of events for unattended, automated control. When a NEXUS series server/controller “sees” a match between the current day and time and a programmed event, the event is executed.



WinLGX User Interface

NEXUS Series Introduction

Your LEIGHTRONIX NEXUS series server/controller is designed to be used in a host of different applications, including the following:

- **AUTOMATED PROGRAM BROADCASTING**

NEXUS series server/controllers are intended for automated program broadcasting throughout the cable television and broadcast industry on locally originated cable television channels such as public access, educational access, government access, and leased access. The NEXUS series server/controllers are also ideal for private in-house networks in hospitals, hotels/resorts, corporations/industries, and colleges.

- **VIDEO-ON-DEMAND STREAMING— ULTRANEXUS-SDI & ULTRANEXUS ONLY**

When their second encoders are enabled, the UltraNEXUS-SDI and UltraNEXUS automatically create secondary digital media files optimized for video-on-demand streaming during every recording session. The optimized media files are automatically transferred to PEG Central, the web media hosting and streaming video-on-demand subscription service from LEIGHTRONIX.



- **UNATTENDED PROGRAM RECORDING**

NEXUS series server/controllers are well suited for use in satellite and network recording. With a NEXUS series server/controller, you are able to switch to the proper satellite at the desired time in order to capture the programming you need for your operations.

NEXUS series server/controllers may also be used for playback verification and program archiving.

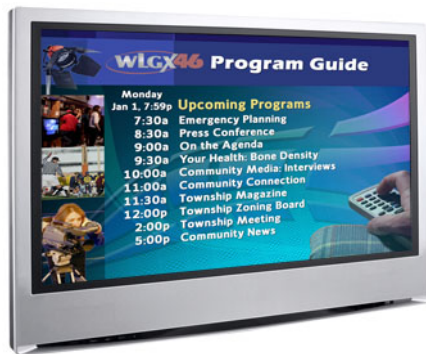
- **DIGITAL VIDEO MESSAGING**



Slide



Graphic/Text Overlay



Program Guide

The NEXUS series server/controllers have integrated digital video messaging systems, allowing you to complement program playback with your own slide shows, graphic/text program overlays, program guides, and emergency messages. Take advantage of the optional LEIGHTRONIX TOTAL INFO dynamic video content service to display current weather, news, traffic, sports, and entertainment information on your channels, as part of your playback schedule or in place of regular programming.



The TOTAL INFO dynamic video content service from LEIGHTRONIX allows you to display current news, sports, weather, entertainment, and traffic information on your television channels.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.
10. 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.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. 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.
14. 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.



WARNING

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



WARNING

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

NEXUS SERIES TECHNICAL 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 a NEXUS series server/controller and the WinLGX software.

DIMENSIONS AND WEIGHT

- **Dimensions:** 3.50"H X 19.00"W X 15.00"D
- **Weight, without carton or cables:**
 - NEXUS/UltraNEXUS: 17 lbs.
 - UltraNEXUS-SDI: 15 lbs.

FRONT PANEL

- **Display:** 2 X 24 character vacuum fluorescent display
- **Status LEDs:** four light-emitting diodes (LEDs) provide status on valid video signal, schedule activity, network management, and logging.
- **Keypad:** four push buttons which allow password protected front panel status and configuration

BACK PANEL

- **Power Input/Supply:** three-position IEC power input with removable power cord; uses internal "ATX" style, 200W power supply which accepts 90–264VAC @ 47–63Hz; power rating of 100 Watts
- **Infrared (IR) Control Ports:** four IR mini-jack device control ports are built into each NEXUS series server and may be configured to operate with a variety of DVD and videotape equipment.
- **DVply Ports:** 2 DB9M RS-232 device control ports provide random disc access with title:chapter selection for two commercial grade DVD players.
- **COM Ports:** 2 communication ports with 9-pin male RS-232 DTE connectors, with COM 1 for use with supported external routing switchers and COM 2 for use with supported master clocks
- **PRO-BUS Port:** six-position/six-conductor modular port connects to LEIGHTRONIX proprietary interface control buses for versatile device control solution. PRO-BUS device control interfaces are available for popular VCRs, DVD players and recorders, and GPI devices.
- **Ethernet Port 1:** eight-position/eight-conductor RJ-45 modular Ethernet Port 1 provides a high speed 10/100/1000BASE-T Ethernet connection to a TCP/IP network with user-configurable IP address, subnet, and gateway.

- **Ethernet Port 2:** eight-position/eight-conductor RJ-45 modular Ethernet Port 2 provides a high speed 10/100/1000BASE-T Ethernet connection to a private, local media storage network using the TOTAL SHARE option.
- **USB Ports:** local digital media storage via four USB 2.0 ports allows configuration of up to one terabyte for a NEXUS and four terabytes for an UltraNEXUS/UltraNEXUS-SDI of local media storage on approved external hard drives.
- **Video Inputs/Outputs (I/O):**
 - UltraNEXUS-SDI:
 - 1 digital video input (record)
 - 2 digital video outputs (playback)
 - SD-SDI digital video
 - SMPTE 259M-C
 - UltraNEXUS/NEXUS:
 - 6 BNC video inputs
 - Video inputs 7 and 8 internally tied to MPEG Players 1 and 2, respectively
 - 3 BNC video outputs
 - NTSC composite video 1V P-P
 - Active switching
 - Unity gain
- **Audio Inputs/Outputs (I/O):**
 - UltraNEXUS-SDI:
 - AES3 Digital Audio (IEC 60958 Type 1 Balanced): 2 AES input tension clamp pairs on two terminal block audio inputs and 2 AES output tension clamp pairs on two terminal block audio outputs
 - Balanced Two Channel Analog: 4 analog tension clamp pairs on two terminal block audio inputs and 4 analog tension clamp pairs on two terminal block audio outputs
 - UltraNEXUS/NEXUS:
 - 6 dual RCA audio inputs
 - 3 dual RCA audio outputs
 - -10dBV unbalanced line level
 - Unity gain

VIDEO STANDARD

NTSC, standard definition, 4x3 aspect ratio

VIDEO ENCODING

- **UltraNEXUS-SDI:**
 - MPEG-2, full D1 resolution
 - 3-10Mb/s variable bit rate encoding
 - 3-8Mb/s constant bit rate encoding
- **UltraNEXUS/NEXUS:**
 - MPEG-2, full D1 resolution

- MPEG-2, half D1 resolution
- 1.5-10Mb/s variable bit rate encoding
- 3-8Mb/s constant bit rate encoding

AUDIO ENCODING

- MPEG-1 layer II
- 44.1 khz and 48 khz sampling rates
- 192kb/s, 224kb/s, and 256kb/s audio bit rates
- Maximum individual MPEG program length of 23 hours, 59 minute

VIDEO FILE STORAGE

Configure file storage capacity with up to four external USB hard drives purchased from LEIGHTRONIX. LEIGHTRONIX formats each drive with a FAT32 file system and an MPEG file directory.

Each USB drive used with a NEXUS series system must be:

- Only used to store MPEG files
- Powered on until the NEXUS series system is shut down from its front panel
- Only removed or installed after the NEXUS series system is shut down from its front panel. **Do not connect the drives to a PC for file management operations.**

The server/controllers support the following **total** USB drive storage capacities:

- UltraNEXUS-SDI / UltraNEXUS: 4 TB

NOTE: LEIGHTRONIX requires the use of two USB hard drives with an UltraNEXUS-SDI / UltraNEXUS combined with PEG Central or other LEIGHTRONIX streaming service.

- NEXUS: 1 TB

For more information on using USB drives with a NEXUS series system, refer to www.leightronix.com or contact LEIGHTRONIX at (800) 243-5589.

See "MPEG Recorder Specifications," on page 38, for information on MPEG recording rates.

INTERNAL REAL TIME CLOCK

- **Type:** microprocessor interfaced
- **Reference:** crystal controlled
- **Accuracy:** +/- 5 seconds per month

INTERNAL STORAGE

- Internal battery-backed memory
- Data integrity verified
- Elements:
 - IP address
 - Subnet mask

NEXUS Series

Introduction

- Gateway
- Time clock parameters
- User information
- Log files
- Slides/Overlays

FIRMWARE

- Updateable via Ethernet
- Cycle redundancy check (CRC) verified at time of reprogram

WINLGX MANAGEMENT AND CONTROL SOFTWARE

- Compatible with Windows® 2000/XP/Vista/7 operating systems
- Event Capacity: 3,000
- Control modes:
 - Drag and drop event scheduling with error/conflict reporting
 - System control panel for immediate control
- Library stores up to 2,000 resources, including:
 - MPEG video files
 - JPEG slides
 - Slide show: initiates automatic sequence of selected slides
 - PNG overlays

WEBNEXUS WEB CONTROL INTERFACE

- Connect to your NEXUS series system's web interface through popular web browsers, including Chrome and Internet Explorer
- Password protected with user rights maintained from WinLGX
- Obtain system status and USB storage drive information, upload slides to the NEXUS series system's internal flash drive, configure slides for display in slide shows, activate emergency messaging, create and save Virtual Channel playlists, view log files, record and manage MPEG files
- UltraNEXUS-SDI/UltraNEXUS only: enable/disable VOD encoder and control automatic file transfer destinations

LIMITS ON CONTROL OF DVD PLAYERS

The LEIGHTRONIX NEXUS series provides three different types of DVD automation control:

- Integrated DVply: RS-232 with full random-access DVD control, including title and chapter cuing for select commercial DVD models
- Integrated IR: built-in infrared control ports with basic play-stop DVD player control and play-stop-record control for select player/recorders
- PRO-BUS: optional device control interfaces for infrared and wired remotes provide basic play-stop DVD player control and play-stop-record DVD player/recorder control for select DVD players/recorders

Despite our best efforts, some operational functions are beyond our control. Even with the power of DVply control interfaces, some DVDs possess formatting that prevents cuing to specific disc titles and chapters. The control method and protocol utilized by the DVD player can also impact control of DVD playback.

The following sections discuss some of the limits on the control of DVD players.

AUTOMATIC POWER SAVING FEATURES

Newer consumer model DVD players may automatically power off after a period of inactivity as part of an energy saving effort sponsored by the U.S. Government. This makes control difficult and, in some cases impossible. Not all consumer models have this energy saving feature. The effected models can sometimes be identified by an ENERGYSTAR® label on the shipping container and often on the product itself (refer to www.leightronix.com for more details). The use of commercial/professional DVD equipment is recommended to avoid this problem.

PLAYBACK OF COMMERCIAL MOVIES

Commercial movies licensed for broadcast on a cable network are often no different from movies rented at a local video outlet. DVD movies usually contain formatting that forces the viewing of copyright warnings, movie previews, and main menus. In some cases, once the DVD is placed in the DVD player, the DVD forces the player into a PLAY mode and cannot accept external control until certain information has been displayed in its entirety, hindering the ability to control the DVD.

While the LEIGHTRONIX DVply control scheme supports random access of DVD media, the DVD itself may inhibit the operation of the control system. Not all movie DVDs may be suitable for use within an automated playback system.

The Integrated IR and PRO-BUS DVD control schemes support DVD PLAY and STOP functions and have the ability to initiate playback of a movie from the beginning of the DVD. The results of the PLAY command are dependent on the DVD structure. Use of Integrated IR and PRO-BUS (infrared and wired control) is not recommended with commercial movie playback from DVD.

PLAYBACK OF YOUR OWN DVDS

- **DVDs Created with a DVD Authoring Station**

DVD authoring software in conjunction with DVD recordable drives allows the user to specify how a DVD will be formatted. If you are burning DVDs using a personal computer, use the minimum in menuing and interactivity. If possible, burn only one title on the DVD. If you intend to invest in an advanced DVD control system capable of addressing individual programs, you can burn multiple titles:chapters to make better use of the DVD.

- **DVDs Created with a Stand-Alone DVD Recorder**

DVDs created on a stand-alone DVD recorder often have one main menu and one or more titles. It has been observed that in most DVD players, these types of DVDs will start with the first title when a PLAY command is received. Whether or not the DVD will continue through the disc, playing multiple titles in sequence is determined by the DVD recorder used to create the DVD. The DVD recorder burns preset DVD settings and configuration information on the DVD during the finalization of the disc. The settings can vary, depending on the make and model of the DVD recorder. This formatting may impact playback operation.

DVD PLAYER/RECORDER CONTROL METHODS

- **Infrared Control**

LEIGHTRONIX has made every attempt to offer support for low-cost DVD players, including working within the limitations of the DVD players themselves. Most low-cost models offer only wireless infrared control. Infrared communication limits the control functionality to basic PLAY-STOP-RECORD commands. This is due to the fact that the DVD and the DVD player rely on interactive on-screen menus for selection of specific programs on the disc. An automation system simply cannot receive the visual prompts necessary to negotiate through various levels of menus (imagine operating a DVD player with a wireless remote while blindfolded!).

- **RS-232 Control**

RS-232 control is most often associated with commercial grade DVD players. An RS-232 control port on a DVD player usually allows random access of DVD titles:chapter and in the case of multi-disc players, it allows a specific disc to be loaded. RS-232 communication through LEIGHTRONIX PLUS-BUS control interfaces also provides device status. This allows the automation system to communicate with supported DVD players and properly achieve disc and title:chapter selection.

SUPPORTED DVD PLAYERS AND RECORDERS

LEIGHTRONIX maintains an extensive database of supported playback and recording devices, including consumer, commercial, and broadcast equipment. Although many consumer models are supported, LEIGHTRONIX does not test operation with every model and operation is not guaranteed.

It is important that you fully understand the capabilities of the various technologies involved in your playback system before making a buying decision. LEIGHTRONIX is ready to answer your automation system questions. Please feel free to contact LEIGHTRONIX via email at sales@leightronix.com or call us at (800) 243-5589, Monday through Friday, 8:00 to 5:00 PM ET.

SLIDE, OVERLAY, AND BACKGROUND FILE SPECIFICATIONS

Slides, overlays, and backgrounds may be created with any third-party graphic software, including Adobe Photoshop® and Corel Paint Shop®, as long as each is saved with the supported file format. When creating slides, overlays, or backgrounds, keep in mind that PC monitors utilize a different pixel shape than television monitors. To prevent files from appearing stretched when translated from a PC to a TV, refer to the resolution information below.

NOTE: Slides/overlays with resolutions larger than 1024 x 768 cannot be uploaded to a NEXUS series product.

SLIDES

- Recommended slide resolutions (pixels)
Depending on your display requirements, slides for a NEXUS series system may be created in four different sizes. Slides containing pictures and graphics should be created in a resolution of 720 x 540, 800 x 600, or 640 x 480 pixels. For slides containing only text or that are not susceptible to aspect distortion (such as a solid background), use a resolution of 720 x 480 pixels.
- Save slides as JPEG (.jpg) files. Slide filenames may contain up to 27 characters (no spaces) in addition to the required “.jpg” extension.
- If Photoshop is used to create a slide, ensure the color “ICC Profile” option is not selected when the slide is saved or a black screen will be displayed on air instead of your slide's graphics/text.

OVERLAYS

- Recommended overlay resolutions (pixels)
LEIGHTRONIX recommends creating overlays in a resolution of 720 x 540 pixels. Resolutions of 800 x 600 or 640 x 480 pixels are optional.
- 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 monitor screen. Overlay filenames may contain up to 27 characters (no spaces) 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,” on page 327, 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 720x540.

- Backgrounds may be saved as either as 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.

MPEG FILE SPECIFICATIONS

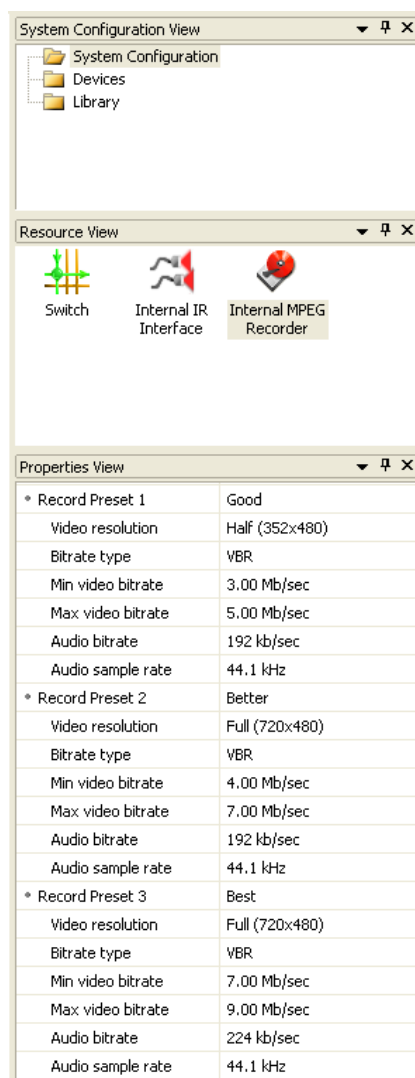
MPEG RECORDER SPECIFICATIONS

NOTE: Video being fed to the broadcast MPEG recorder must have stable sync. Input signals with copy protection are not recordable.

The maximum recorded file length allowed by the NEXUS series is 23 hours, 59 minutes, and 50 seconds.

Digital video recording results are based on a combination of the user-defined recording presets and the quality of the input source. In each new NEXUS series image file, the internal broadcast MPEG recorder is automatically configured for the recording presets named “Good,” “Better,” and “Best” shown in Illustration 1.

Illustration 1, Broadcast MPEG Recorder Default Recording Presets



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, 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 NEXUS series system to test the quality of your presets.

- **Video Resolution**

The picture quality of your recorded video also depends on the selected video resolution. The following lists the available options:

- Half (352x480): choose the half screen picture size for the UltraNEXUS/NEXUS when recording files at a CBR or minimum VBR less than 4 Mb/s. Files recorded at these rates contain fewer pixels, so the picture clarity increases when the pixels are packed into a smaller picture size.

NOTE: The UltraNEXUS-SDI broadcast MPEG encoder does not record at half D1 resolution.

- Full (720x480): choose the full screen picture size when recording files at a CBR or minimum VBR of 4 Mb/s and above. Files recorded at higher bit rates contain enough pixels to still look sharp when the pixels are spread out over a larger picture size.

- **Video Bit Rate**

The size and overall quality of your file is directly related to the selected video bit rates. Select either a constant bit rate (CBR) or variable bit rate (VBR) for your file recordings based on the following information. 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 hard drives.

NOTE: MPEG 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)

When a VBR is used for recording, the MPEG recorder records most of the source at the selected minimum bit rate. WinLGX allows you to select a minimum bit rate between 3.00-8.00Mb/s for the UltraNEXUS-SDI and 1.50-8.00 Mb/s for the UltraNEXUS/NEXUS, at intervals of .10. The poorest recording quality results at a minimum bit rate of 1.50 Mb/s and the best at 8.00 Mb/s.

The video maximum bit rate does not impact file size. The MPEG recorder 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.

➤ **Constant Bit Rate (CBR)**

Use constant bit rate (CBR) to record sources with little movement. Table 1 shows how many hours of video can be recorded by a NEXUS series server onto external hard drives at the selected constant video bit rates (CBR). The examples given in the table below are based on MPEG-2 encoding with full D1 resolution (720x480) video and 224Kb/sec audio bit rate.

Table 1, Hard Drive Storage Capacities at Selected CBRs

Total Hard Drive Capacity	Hours @ 4 Mb/s	Hours @ 6 Mb/s	Hours @ 8 Mb/s
250 GB	122	83	62
500 GB	244	166	125
1 TB	489	332	251

• **UltraNEXUS-SDI Only: 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 SDI’s back panel terminal blocks (see Table 6, Non-Embedded Audio Terminal Block Configurations, for analog audio wiring diagram)
- “AES”: corresponds to the AES audio inputs on the SDI’s back panel terminal blocks (see Table 6, Non-Embedded Audio Terminal Block Configurations, for AES audio wiring diagram)
- “Embedded 1-2”, “Embedded 3-4,” “Embedded 5-6,” and “Embedded 7-8”: if your audio is embedded within the SDI video signal, select the embedded audio channel pair that you want to record

• **Audio Quality Settings**

- Audio bit rate: select 192, 224, or 256 kb/s for sources with audio tracks or 192 kb/s for sources with little or no audio.
- Audio sample rate: if you intend to burn your MPEG recording to a DVD, select the 48k sample rate to ensure compatibility with DVD players. Otherwise, select the 44.1k audio sample rate.

ENCODING A BACKGROUND AUDIO FILE

If you are encoding an audio MPEG file to play with a slide or slide show, use the lowest possible video bit rate and resolution to reduce the file’s size. LEIGHTRONIX also recommends encoding the file with a solid-colored video display to further reduce the file’s size.

CREATING BROADCAST MPEG FILES WITH NON-LEIGHTRONIX SOURCES

The NEXUS series supports MPEG-1 and MPEG-2 video encoding standards. LEIGHTRONIX recommends the following guidelines for broadcast MPEG video files created with any third party hardware or software to ensure optimal playback on either of the internal NEXUS series MPEG players:

- Acceptable stream types:
 - MPEG-1 System Stream or MPEG-2 Program Stream (consisting of a single elementary video stream with an optional single elementary audio stream)
NOTE: Transport stream is not possible.
 - Elementary video stream
- Three video resolutions (pixels) are allowed. Other resolutions are not supported.
 - 352 x 240 (Horizontal x Vertical)
 - 352 x 480
 - 720 x 480
- Picture rate must be 29.97 pictures per second.
- A maximum bit rate of 10 Mb/s is allowed. Higher rates are not supported.
- National TV Standards Committee (NTSC) with 4:3 aspect ratio required.
- 4:2:0 sampling format required. (Main profile at Main or Low level, ≤ 10 Mb/s)
- IBBP group of pictures (GOP) structure recommended for best quality (30 frame maximum GOP size).
- Encode header information in stream every few seconds to aid in error recovery.
- Audio, if present, must be encoded into the MPEG file using Audio layer II.
- Audio may be encoded at a 32, 44.1, or 48KHz sampling frequency.
LEIGHTRONIX recommends an audio sampling rate of 44.1 KHz for optimal performance.
- MPEG filenames may contain up to 27 characters (no spaces) in addition to the required “.mpg” extension.

FILES OPTIMIZED FOR STREAMING VIDEO-ON-DEMAND

The UltraNEXUS-SDI and UltraNEXUS VOD recorders create Internet-ready programming for viewing on PEG Central, the web media hosting and streaming video-on-demand service from LEIGHTRONIX. Once you have enabled the VOD recorder in WebNEXUS (see “Enabling/Disabling VOD Recorder” on page 353), any video signal switched to the recorder will be turned into a digital file compatible with Internet streaming. The VOD recording process varies slightly between the UltraNEXUS and UltraNEXUS-SDI as follows:

- **UltraNEXUS:** The UltraNEXUS VOD recorder is hardwired to the broadcast MPEG recorder, so, once enabled from WebNEXUS, it will automatically receive any immediate or scheduled switch and control commands sent to the broadcast MPEG recorder. The UltraNEXUS VOD recorder mirrors the broadcast MPEG recorder’s actions, automatically recording whatever the broadcast recorder does.
- **UltraNEXUS-SDI:** The UltraNEXUS-SDI VOD MPEG recorder is wired separately from the broadcast MPEG recorder. To automatically mirror the broadcast recorder’s actions, UltraNEXUS-SDI users must connect a 1 input x 2 output distribution amp between the back panel’s MPEG recorder inputs and an external switcher or video source output. If the UltraNEXUS-SDI VOD recorder is connected to a different switcher or video source output than the broadcast recorder, the same video source input will have to be switched to the VOD recorder through a control panel or scheduled switch event before the recording event starts.

Files recorded by the VOD recorder are automatically placed into a streaming directory on one of your system’s attached USB drives not currently receiving a broadcast file recording. Once recorded, the UltraNEXUS-SDI / UltraNEXUS then automatically transfers the VOD files by FTP to your streaming VOD website and deletes the files from their temporary storage location on your USB drive (contact LEIGHTRONIX for details on setting up a streaming VOD account). Your streaming site waits for approval from an authorized user before making the files available for public viewing.

NEXUS SERIES FRONT PANELS

Illustration 2, NEXUS Front Panel



Illustration 3, UltraNEXUS Front Panel



Illustration 4, UltraNEXUS-SDI Front Panel



KEYPAD

All of the NEXUS series products have four-button keypads, which are used to display status information and enter password-protected TCP/IP addresses.

If you hold down a key for more than one second, it begins to scroll through all of the available options. If you hold down the key for more than three seconds, it scrolls in turbo mode. Release the key when the desired option is displayed.

DISPLAY

The NEXUS series server/controllers have high brightness, 24-character by 2 line vacuum fluorescent displays (VFD), which display status and password-protected TCP/IP address entry screens.

NEXUS Series

Introduction

After the NEXUS series system has been booted up, press the up or down arrows on the server/controller's keypad to display the following status screens:

- **Bios Date**

The bottom line of this screen displays the date of bios on the NEXUS series motherboard (see Illustration 5, Bios Date Status Screen).

Illustration 5, Bios Date Status Screen



```
Fri Apr 15 12:00:00PM
Bios Date: 10/26/04
```

- **DVply Firmware Version**

The bottom line of this screen shows the DVply firmware version (see Illustration 6, DVply Status Screen).

Illustration 6, DVply Status Screen



```
Fri Apr 15 12:00:00PM
DVPLY Ver: V1.1.0.0
```

- **Serial Number and Firmware Version**

The bottom line of this screen displays the serial and firmware version of your NEXUS series system (see Illustration 7, Serial Number and Firmware Version Status Screen).

Illustration 7, Serial Number and Firmware Version Status Screen



```
Fri Apr 15 12:00:00PM
SN: 030038 V20.3.0 F
```

- **Firmware Date**

The bottom line of this screen displays the build date of the firmware currently loaded on your NEXUS series system (see Illustration 8, Firmware Date Status Screen).

Illustration 8, Firmware Date Status Screen



```
Fri Apr 15 12:00:00PM
FW Built: 08/17/04
```

- **IP Address**

The bottom line of this screen displays your NEXUS system's IP address (see Illustration 9, IP Address Status Screen).

Illustration 9, IP Address Status Screen

```
Fri Apr 15 12:00:00PM
IP: 10:1:1:110
```

- **Site ID**

The bottom line of this screen displays your site ID (see Illustration 10, Site ID Status Screen).

Illustration 10, Site ID Status Screen

```
Fri Apr 15 12:00:00PM
ID:Leightronix UltraNEXUS
```

- **Schedule Status**

The bottom line of this screen displays the NEXUS series system's schedule status (see Illustration 11, Schedule Status Screen). If the schedule status screen shows "Active," the last schedule sent to the NEXUS series system is actively running. If the status screen shows "Halted," the schedule on the NEXUS system is currently not active.

Illustration 11, Schedule Status Screen

```
Fri Apr 15 12:00:00PM
Schedule Active
```

- **Internal Switcher Status**

The bottom line of this screen shows the internal switcher status (see Illustration 12, Internal Switcher Status Screen). The first number in each pair is the input number and the second is the output number. The triangle indicates the valid video status on the output (solid =valid video, hollow=lack of valid video).

Illustration 12, Internal Switcher Status Screen

```
Fri Apr 15 12:00:00PM
7▶1  8▶2  7▶3  1▷4
```

- **External Switcher Type/Status**

The bottom line of this screen displays the type and status of the external switcher connected to your NEXUS series system (see Illustration 13, External Switcher Status Screen).

Illustration 13, External Switcher Status Screen



Fri Nov 26 12:00:00PM
SW=PRO-16 (Con=Good)

- **MPEG Playback Status**

The bottom line of this screen shows the MPEG playback status for each MPEG player (see Illustration 14, MPEG Playback Status Screen). The playback time is indicated on the bottom line of the screen along with up to thirteen characters of the filename.

Illustration 14, MPEG Playback Status Screen



Fri Apr 15 12:00:00PM
M1:0:00:00 filename.mpg

- **Broadcast MPEG Recording Status**

The bottom line of this screen shows the recording status of the internal broadcast MPEG recorder (see Illustration 15, Broadcast MPEG Recorder Status Screen). The record time is indicated on the bottom line of the screen along with up to thirteen characters of the filename.

Illustration 15, Broadcast MPEG Recorder Status Screen



Fri Apr 15 12:00:00PM
R:0:00:00 filename.mpg

- **UltraNEXUS-SDI / UltraNEXUS VOD Recorder Enabled/Disabled**

The bottom line of this screen shows whether the internal VOD recorder for the UltraNEXUS-SDI / UltraNEXUS is currently enabled or disabled (see Illustration 17, VOD Recorder Status Screen).

Illustration 16, VOD Recorder Status Screen



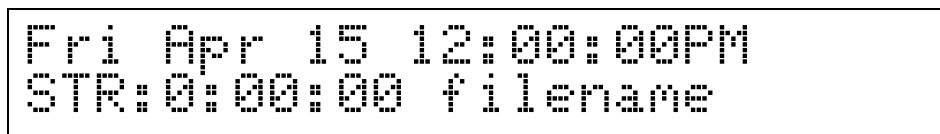
Fri Apr 15 12:00:00PM
Streaming Enabled

- **UltraNEXUS-SDI / UltraNEXUS VOD Recording Status**

The bottom line of this screen shows the recording status of the internal VOD recorder for the UltraNEXUS-SDI / UltraNEXUS (see Illustration 17, VOD Recorder

Status Screen). The record time is indicated on the bottom line of the screen along with up to thirteen characters of the filename.





Illustration 17, VOD Recorder Status Screen



LEDS

The NEXUS series front panels have four status, light-emitting diodes (LEDs), which give at-a-glance feedback on the most important server/controller conditions. See Table 2, NEXUS Series Front Panel LEDs, on page 47 for a list of the status LEDs and their descriptions.

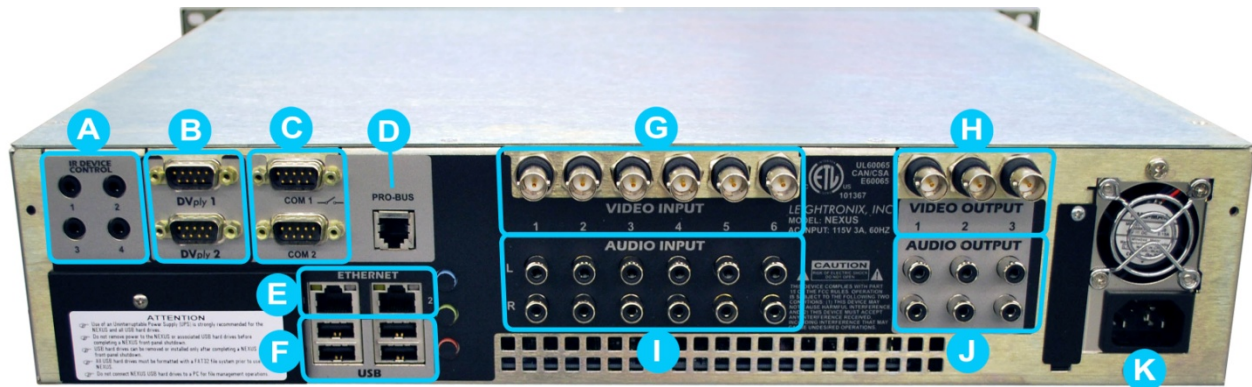
Table 2, NEXUS Series Front Panel LEDs

LED	DESCRIPTION
	Video Lost: the top LED flashes red when the valid video sensor detects video is lost and nothing is “on air.” Check video connections and the condition of your sources or switch to another input. If a fallback has been set, the NEXUS series will switch to the programmed fallback input for each output. It blinks once with a switch.
	Schedule Active: the second LED glows green when a schedule is active and being scanned for events to execute. If this LED is off, your schedule is suspended and no events will happen.
	Management: the third LED blinks yellow when a PC connection is made. This lets an operator know that someone is connected to the NEXUS series system over the network, and that configuration, control, and/or schedule updates are being performed.
	Check Log: the bottom LED glows red if Severity 1 or 2 events have been added to the log since it was last downloaded.

ULTRANEXUS/NEXUS REAR PANEL

The UltraNEXUS and NEXUS have the same rear panel, which includes the following (see Illustration 18, UltraNEXUS/NEXUS Rear Panel):

Illustration 18, UltraNEXUS/NEXUS Rear Panel

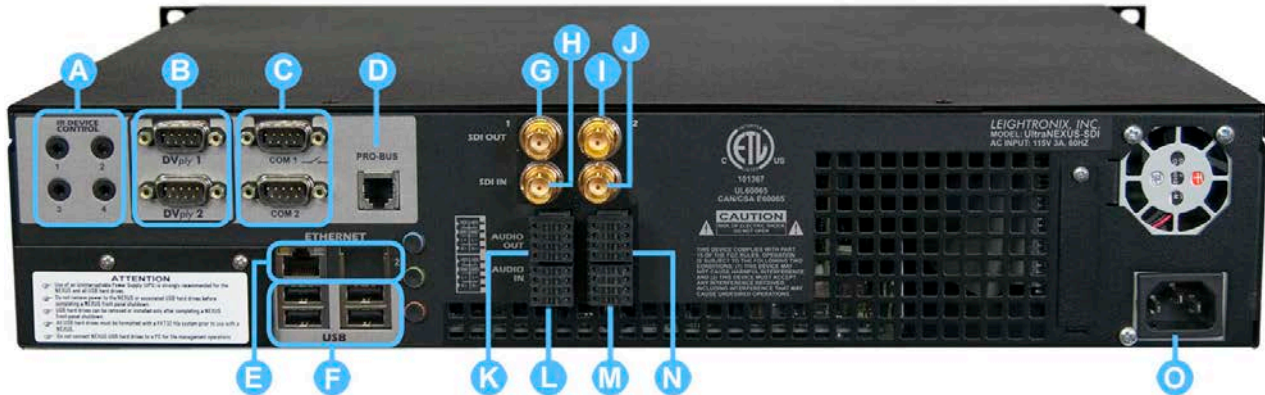


- A: 4 IR ports for control of LEIGHTRONIX-supported DVD and tape equipment
- B: 2 DVply ports provide random disc access with title:chapter selection for two TASCAM (DV-D01U or DV-D6500) commercial grade DVD players
- C: 2 Communication Ports
 - “COM 1”: connect a LEIGHTRONIX-supported external switcher with an input/output capacity of 4x4 (minimum) to 32x32 (max. for the NEXUS) or 250x250 (max. for the UltraNEXUS)
 - “COM 2”: use with LEITCH CSD-5300, ESE “Format A” or “Format D” Master Clock, or Host mode
- D: PRO-BUS port for control of supported videotape, DVD, and GPI devices through LEIGHTRONIX PRO-BUS device control interfaces
- E: 2 Ethernet ports with corresponding LED indicators
 - Ethernet Port 1: provides a high speed connection (10/100/1000 BASE-T) to a TCP/IP network. Remotely control system and manage digital media using the provided WinLGX software.
 - Ethernet Port 2: reserved for the LEIGHTRONIX TOTAL SHARE network option for additional system channels and expanded local media storage.
- F: 4 USB 2.0 ports for local digital video media storage
- Internal Routing Switcher: fully integrated, video/audio routing switcher provides:
 - G: 6 BNC video input connectors
 - H: 3 BNC video output connectors
 - I: 6 dual RCA audio input connectors
 - J: 3 dual RCA audio output connectors
- K: Power cord connector

ULTRANEXUS-SDI REAR PANEL

The UltraNEXUS-SDI's rear panel includes the following (see Illustration 19, UltraNEXUS-SDI Rear Panel):

Illustration 19, UltraNEXUS-SDI Rear Panel



- A: 4 IR ports for control of LEIGHTRONIX-supported DVD and videotape equipment
- B: 2 DVply ports provide random disc access with title:chapter selection for two TASCAM (DV-D01U or DV-D6500) commercial grade DVD players
- C: 2 Communication Ports
 - “COM 1”: connect a LEIGHTRONIX-supported external switcher with an input/output capacity of 4x4 (minimum) to 250x250 (maximum)
 - “COM 2”: use with LEITCH CSD-5300, ESE “Format A” or “Format D” Master Clock, or Host mode
- D: PRO-BUS port for control of supported videotape, DVD, and GPI devices through LEIGHTRONIX PRO-BUS device control interfaces
- E: 2 Ethernet ports with corresponding LED indicators
 - Ethernet Port 1: provides a high speed connection (10/100/1000 BASE-T) to a TCP/IP network. Remotely control system and manage digital media using the provided WinLGX software.
 - Ethernet Port 2: reserved for the LEIGHTRONIX TOTAL SHARE network option for additional system channels and expanded local media storage.
- F: 4 USB 2.0 ports for local digital video media storage
- All-Digital Interface: features the following SD-SDI video inputs/outputs with support for embedded, digital AES, and analog audio connections:
 - G: BNC video output connector for MPEG Player 1
 - H: BNC video input connector for the broadcast recorder
 - I: BNC video output connector for MPEG Player 2
 - J: BNC video input connector for the VOD recorder

NEXUS Series

Introduction

- K: Audio output tension clamp terminal block for MPEG Player 1
- L: Audio input tension clamp terminal blocks for the broadcast recorder
- M: Audio output tension clamp terminal block for MPEG Player 2
- N: Audio input tension clamp terminal blocks for the VOD recorder
- O: Power cord connector

SERVER/CONTROLLER INSTALLATION & CONFIGURATION

ABOUT THIS SECTION

Use this section for step-by-step instructions on connecting your NEXUS series system wiring, including devices and Ethernet. This section also includes information on entering your TCP/IP and serial settings through the front panel. For an overview of the NEXUS series system installation process, refer to the installation quick guide included with your system.

PACKING LIST

Ensure your NEXUS series shipment box contains the following:

- (1) UltraNEXUS-SDI, UltraNEXUS, or NEXUS Network Managed Video System Controller / Digital Video Server, as applicable
- (1) LEIGHTRONIX Product Resource Disc
- (1) Booklet of Quick Start Guides
- (1) WinLGX Network Management Software
- (1) Part #10-0311, AC Power Cord, 6 ft.
- (1) Part #10-4856, CAT 5e Ethernet Cable, 7 ft.
- (1) Part #10-5135, Infrared Transmitter Cable, 6 ft.
- (1) Part #10-4421, DB9F to DB9F Routing Switcher Interface Cable, 10 ft.
- (1) Part #10-2372, DB9F to DB9M Routing Switcher Interface Cable, 6 ft.
- (1) Part #10-1688, DB9F to DB9M Routing Switcher Interface Cable, 6 ft.

INSTALLATION OVERVIEW

USING THE ULTRANEXUS/NEXUS INTERNAL SWITCHER

Figure 1 shows a sample connection scenario for the NEXUS using the server/controller's internal switcher. The setup also applies to the UltraNEXUS.

The integrated video server in each UltraNEXUS and NEXUS provides two MPEG players and a broadcast MPEG recorder for encoding programs at adjustable, constant and variable bit rates. The UltraNEXUS also includes a VOD recorder for creating files optimized for VOD streaming (see *the note below*). The broadcast MPEG recorder is accessed through internal switcher Output 4 while MPEG Players 1 and 2 are available through Inputs 7 and 8, respectively. Once you have enabled the UltraNEXUS VOD recorder according to the "Enabling/Disabling VOD Recorder" WebNEXUS section on page 353, it will receive the same switch commands as the broadcast MPEG recorder. The enabled VOD recorder mirrors the broadcast MPEG recorder's operations, automatically recording when the MPEG recorder is activated to encode a program.

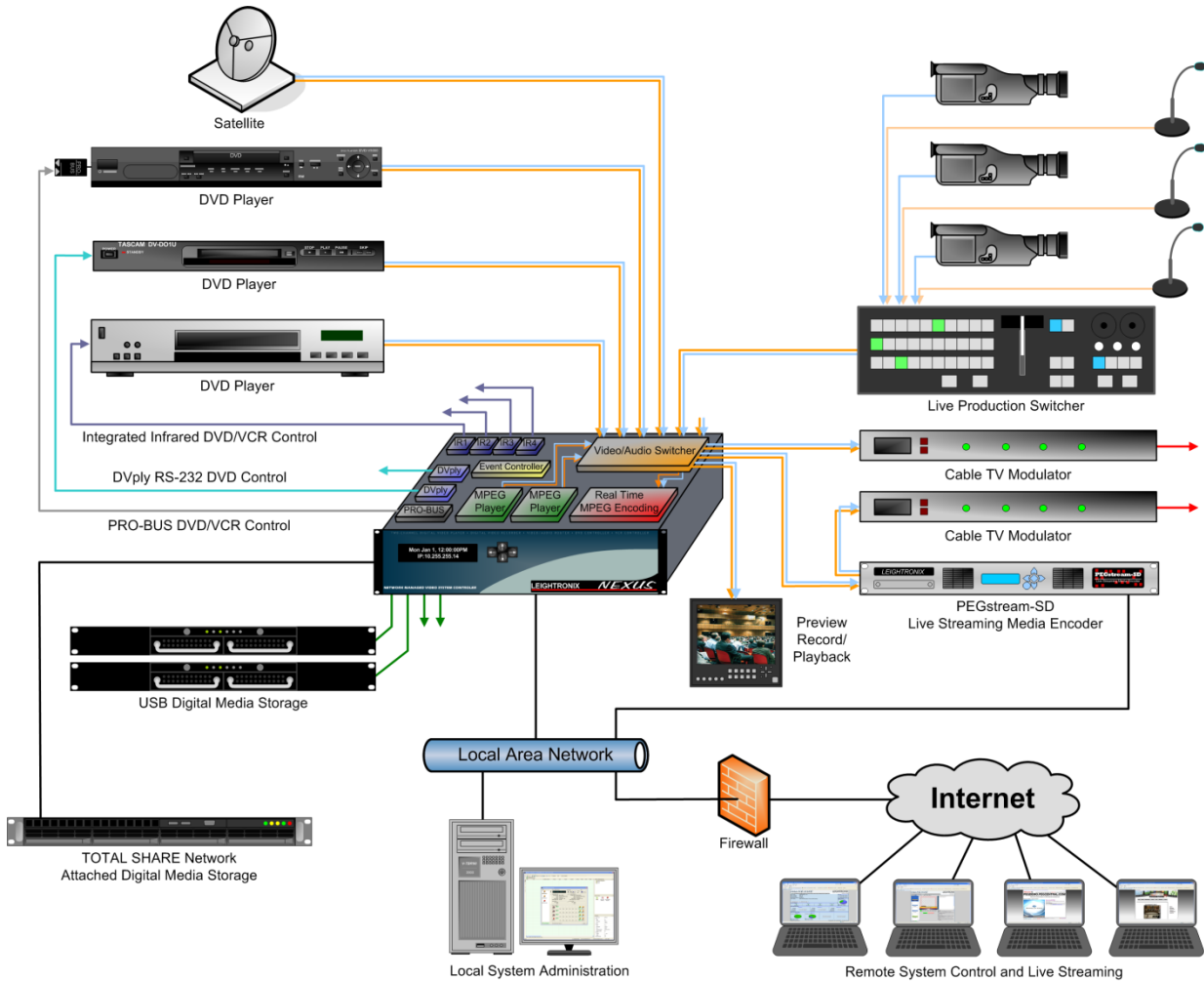
NOTE: The UltraNEXUS's VOD recorder is connected to Output 3. Once you have enabled the VOD recorder in WebNEXUS, internal switcher Output 3 only receives switch commands sent to Output 4. If you want to control Output 3 independently of Output 4, disable the VOD recorder in WebNEXUS. The VOD recorder may be re-enabled at any time.

The UltraNEXUS/NEXUS internal switcher also provides inputs and outputs for external devices. Three outputs are available for destination equipment and six inputs can be connected to source devices. In Figure 1, the television monitor and two modulator destinations are connected to the outputs and a variety of video and audio sources (VCRs, DVD players, satellite or studio feeds, character generator, etc.) are connected to the inputs.

External source devices receive control commands from the UltraNEXUS/NEXUS through the ePRO-BUS feature, external PRO-BUS interfaces, and the IR and DVply ports on the rear panel. The UltraNEXUS ePRO-BUS feature uses the Ethernet network to send wireless PRO-BUS control commands to the LEIGHTRONIX PEGvault-SD digital recorder or LABvault-SD player/recorder. External LEIGHTRONIX PRO-BUS interfaces connect supported input devices on a common wire to the UltraNEXUS/NEXUS's rear panel PRO-BUS port and are available with infrared, mini-jack, and multi-pin connectors. The integrated IR ports provide infrared control for LEIGHTRONIX-supported VCRs and DVD players, while the DVply ports provide chapter:title access control for select, commercial DVD players.

Configuration and control of the UltraNEXUS/NEXUS and its connected devices are conducted through a 10/100/1000 BASE-T Ethernet connection.

Figure 1, Example of NEXUS System Using Internal Switcher



USING THE ULTRANEXUS-SDI NO SWITCH CONFIGURATION

The UltraNEXUS-SDI video server provides two channels of MPEG playback and two channels of MPEG recording. MPEG Players 1 and 2 are available through Outputs 1 and 2, respectively. The first channel of MPEG recording on Input 1 encodes programming for broadcast at adjustable, constant and variable bit rates, while the recorder on Input 2 optimizes programming for VOD streaming. Enable the VOD recorder from WebNEXUS according to “Enabling/Disabling VOD Recorder” on page 353.

NOTE: To automatically send the same video signal to the broadcast MPEG and VOD recorders through one scheduled or control panel record event, a 1 input x 2 output distribution amp must be connected between the UltraNEXUS-SDI’s video/audio encoder inputs and an external video source.

While supporting digital audio embedded within an SD-SDI signal, the UltraNEXUS-SDI also accommodates non-embedded, balanced AES3 digital audio or balanced, two-channel analog audio. Non-embedded audio sources/destinations are connected to the two audio playback terminal block outputs and two audio record terminal block inputs on the SDI system’s rear panel.

Configuration and control of the UltraNEXUS-SDI and its connected devices are conducted through a 10/100/1000 BASE-T Ethernet connection.

USING AN EXTERNAL SWITCHER WITH AN ULTRANEXUS OR NEXUS

The UltraNEXUS and NEXUS will accommodate supported external switchers, as shown in Figure 2, Example of NEXUS System with External Switcher. The diagram also applies to the UltraNEXUS. The NEXUS accommodates routing switchers with a maximum of 32x32, while the UltraNEXUS can support up to 250x250.

The integrated video server in each UltraNEXUS and NEXUS provides two MPEG players and a broadcast MPEG recorder for encoding programs at adjustable, constant and variable bit rates. The UltraNEXUS also includes a VOD recorder for creating files optimized for VOD streaming (*see the note below*). When using an external switcher, the broadcast MPEG recorder is accessed through internal switcher Input 1 while MPEG Players 1 and 2 are available through internal switcher Outputs 1 and 2, respectively. Once you have enabled the UltraNEXUS VOD recorder according to the “Enabling/Disabling VOD Recorder” WebNEXUS section on page 353, it will receive the same video as the broadcast MPEG recorder. The enabled VOD recorder mirrors the broadcast MPEG recorder’s operations, automatically recording when the MPEG recorder is activated to encode a program.

NOTE: The UltraNEXUS’s VOD recorder is enabled/disabled from WebNEXUS.

In Figure 2, the broadcast MPEG recorder is being utilized in pass-through mode, so any video recorded by the UltraNEXUS/NEXUS will also appear on a television monitor. The video input of the television monitor is connected to one of the external switcher’s outputs while the monitor’s video output is connected to the UltraNEXUS/NEXUS internal switcher Input 1.

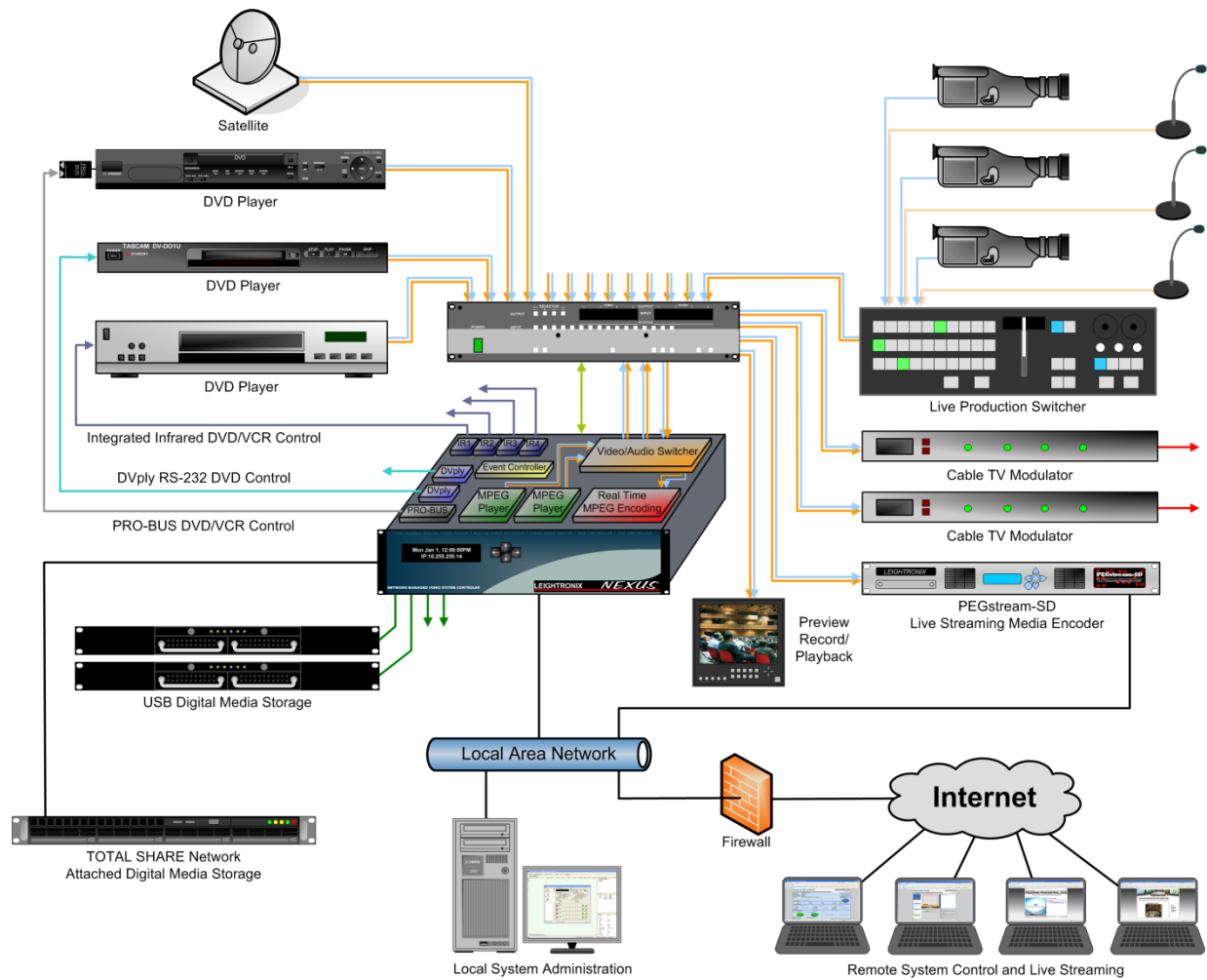
External source devices receive control commands from the UltraNEXUS/NEXUS through external PRO-BUS interfaces, the IR and DVply ports on the rear panel, and, for the UltraNEXUS, the ePRO-BUS feature. The UltraNEXUS ePRO-BUS feature uses the Ethernet network to send wireless PRO-BUS control commands to the LEIGHTRONIX PEGvault-SD digital recorder and other compatible devices. External LEIGHTRONIX PRO-BUS interfaces connect supported input devices on a common wire to the UltraNEXUS/NEXUS’s rear panel PRO-BUS port and are available with infrared, mini-jack, and multi-pin connectors. The UltraNEXUS/NEXUS integrated IR ports provide infrared control for LEIGHTRONIX-supported VCRs and DVD players, while the DVply ports provide chapter:title access control for select commercial DVD players.

Configuration and control of the UltraNEXUS/NEXUS and its connected devices are conducted through a 10/100/1000 BASE-T Ethernet connection.

NEXUS Series

Server/Controller Installation & Configuration

Figure 2, Example of NEXUS System with External Switcher



USING AN EXTERNAL SWITCHER WITH THE ULTRANEXUS-SDI

The UltraNEXUS-SDI will accommodate supported external switchers, as shown in Figure 3, Example of UltraNEXUS-SDI System with External Switcher. The UltraNEXUS-SDI can support routing switchers with up to 250 inputs x 250 outputs.

The integrated video server in the UltraNEXUS-SDI provides two MPEG players and a broadcast MPEG recorder for encoding programs at adjustable, constant and variable bit rates. The UltraNEXUS-SDI also includes a VOD recorder for creating files optimized for VOD streaming. Enable the VOD recorder according to the “Enabling/Disabling VOD Recorder” WebNEXUS section on page 353.

NOTE: To automatically send the same video signal to the broadcast MPEG and VOD recorders through one scheduled or control panel record event, a 1 input x 2 output distribution amp must be connected between the UltraNEXUS-SDI’s video/audio encoder inputs and an external switcher output. If the UltraNEXUS-SDI VOD recorder is connected to a different switcher or video source output than the broadcast recorder, the same video source input will have to be switched to the VOD recorder through a control panel or scheduled switch event before the recording event starts.

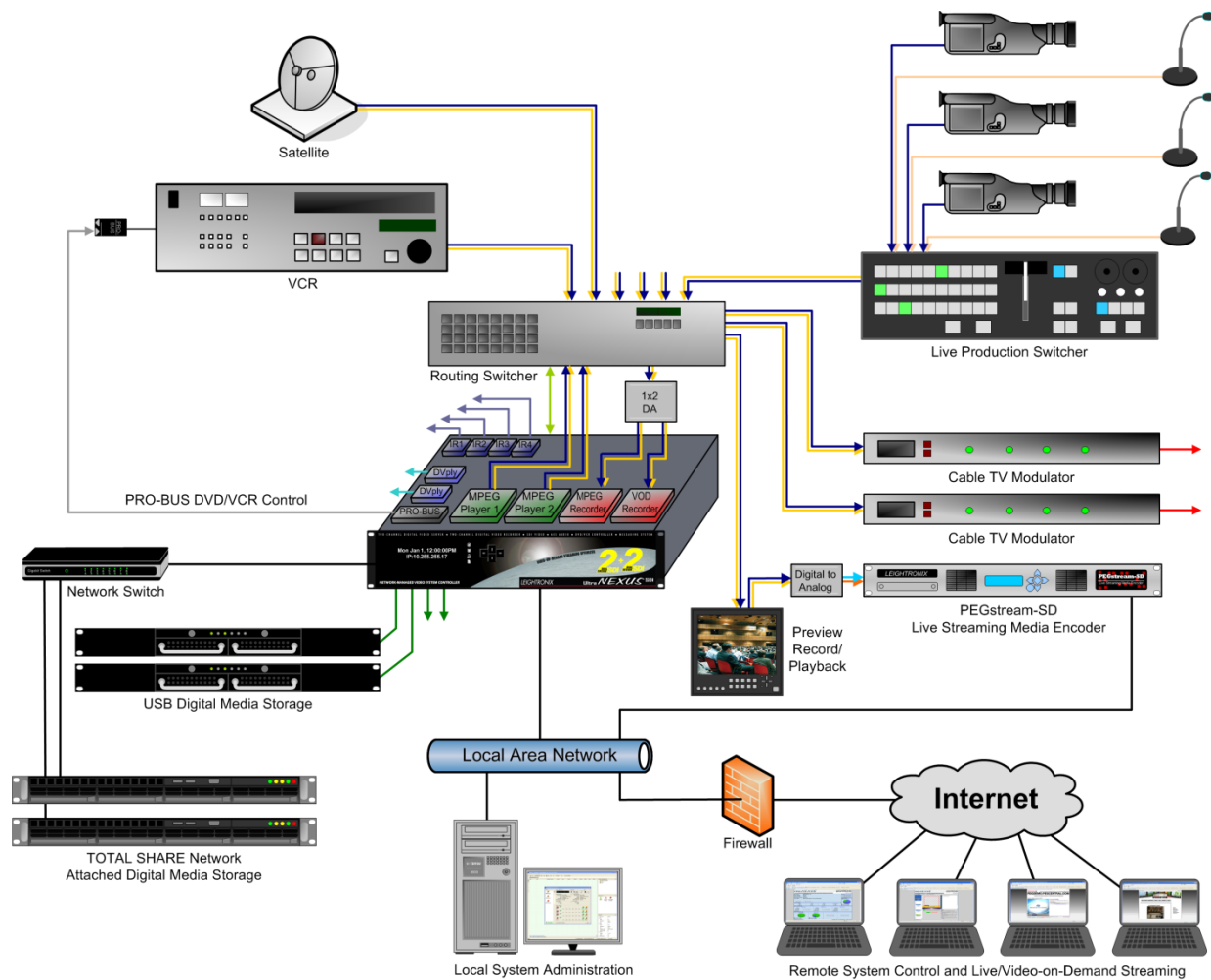
External source devices receive control commands from the UltraNEXUS-SDI through the ePRO-BUS feature, external PRO-BUS interfaces, and the IR and DVply ports on the rear panel. The ePRO-BUS feature uses the Ethernet network to send wireless PRO-BUS control commands to the LEIGHTRONIX PEGvault-SD digital recorder and other compatible devices. External LEIGHTRONIX PRO-BUS interfaces connect supported input devices on a common wire to the UltraNEXUS-SDI’s rear panel PRO-BUS port and are available with infrared, mini-jack, and multi-pin connectors. The UltraNEXUS-SDI’s integrated IR ports provide infrared control for LEIGHTRONIX-supported VCRs and DVD players, while the DVply ports provide chapter:title access control for select commercial DVD players.

Configuration and control of the UltraNEXUS-SDI and its connected devices are conducted through a 10/100/1000 BASE-T Ethernet connection.

NEXUS Series

Server/Controller Installation & Configuration

Figure 3, Example of UltraNEXUS-SDI System with External Switcher



CONNECTING NEXUS/ULTRANEXUS SIGNAL WIRING

Throughout the following instructions, refer to Illustration 18, UltraNEXUS/NEXUS Rear Panel.

1. Rack mount your UltraNEXUS or NEXUS as follows, ensuring the ventilation holes on the side of the unit are not covered and adequate space is available behind the back panel for the USB drives.

- NOTES:**
- An optional bracket kit is available for supporting the back of a rack-mounted NEXUS series system. Contact LEIGHTRONIX for more information.
 - LEIGHTRONIX recommends leaving empty rack mounts above and below the UltraNEXUS/NEXUS. The UltraNEXUS/NEXUS is not intended to have anything stacked on top of it.

- a. Insert the UltraNEXUS/NEXUS into the rack, aligning the holes of the Controller's mounting bracket with those of the rack.
- b. Secure the UltraNEXUS/NEXUS to the rack with user-supplied rack screws.

2. **External Switchers Only:** if using, connect a LEIGHTRONIX-supported external switcher with an input/output capacity of 4x4 (minimum) to 32x32 (maximum for the NEXUS) or 250x250 (maximum for the UltraNEXUS) to the "COM 1" port.

NOTE: When an external switcher is connected to the UltraNEXUS/NEXUS, the internal switcher is disabled for use with external video devices.

- a. Configure your switcher according to the corresponding parameters listed in Table 3, Supported External Switchers and Parameters. This is necessary to ensure your switcher works with the UltraNEXUS/NEXUS.

Table 3, Supported External Switchers and Parameters

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
AUTOPATCH	9600 baud, 8N1 (Level 1: Video, Level 0: All)
Creator	9600 baud, 8N1
EXTRON A (most common)	9600 baud, 8N1
EXTRON B (ISS series)	9600 baud, 8N1
KNOX	9600 baud, 8N1
KRAMER	9600 baud, 8N1
LEIGHTRONIX PRO-16 or NET-164	9600 baud (PRO-16 min. ver. 1.09, 2.03; NET-164 min. ver. 1.00.42)
LEITCH	9600 baud, 8N1

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
Pesa P1N Network	N/A
PESA Serial	9600 baud, 8N2
SIERRA	9600 baud, 8N1
SIGMA A	9600 baud, 8N1
SIGMA B	9600 baud, 8N1
UTAH A	38400 baud, 8N1
UTAH B	1200 baud, 7E2
UTAH Sandar	9600 baud, 7O1

b. Perform the following steps to connect the external switcher to the internal UltraNEXUS/NEXUS MPEG players and recorder(s):

- MPEG Player 1: connect the desired external video/audio switcher inputs to UltraNEXUS/NEXUS Video Output 1 and Audio Output 1.
- MPEG Player 2: connect the desired external video/audio switcher inputs to UltraNEXUS/NEXUS Video Output 2 and Audio Output 2.
- MPEG Broadcast Recorder: connect to the recorder through one of the following options:
 - Connect the desired external switcher video/audio outputs to UltraNEXUS/NEXUS Video Input 1 and Audio Input 1. If desired, connect a monitor to UltraNEXUS/NEXUS Video Output 3 and Audio Output 3 to view any video being recorded.
 - Connect the video input of a monitor to one of your external switcher's outputs and the monitor's video output to UltraNEXUS/NEXUS Input 1. Any video recorded by the UltraNEXUS/NEXUS MPEG recorder will also appear on the television monitor.
- UltraNEXUS VOD Recorder: Once you have enabled the UltraNEXUS's VOD recorder from WebNEXUS, it will automatically receive the same video sent to the broadcast MPEG recorder.

c. Route any audio sources that you wish to play with your JPEG slides to any of the open audio inputs on the UltraNEXUS/NEXUS internal switcher.

- 3.** Route the video/audio from your VCRs, DVD players, studio/satellite feeds, character generator, etc. to the switcher input connectors.

4. Connect switcher output connectors to the desired destinations (such as modulators or television monitors).

NOTE: *Internal Switcher Only*—once you have enabled the VOD recorder from WebNEXUS, internal switcher Output 3 only receives switch commands sent to Output 4. If you want to control Output 3 independently of Output 4, disable the VOD recorder from WebNEXUS (see “Enabling/Disabling VOD Recorder” on page 353). The VOD recorder may be re-enabled at any time.

5. If using, connect your external devices to the following interfaces:

- For uni-directional device control, the following options are available:
 - Attach up to four, LEIGHTRONIX-approved VCRs and/or DVD players to the integrated IR ports. For information on supported VCRs and DVD players, contact LEIGHTRONIX.
 - Attach up to 16 PRO-BUS device interfaces in a daisy chain to the PRO-BUS port and connect each interface to the corresponding VCRs and/or DVD players. See “Appendix A: PRO-BUS Interface Connections,” on page 462 for further installation instructions.

- NOTES:**
- For organizational purposes, LEIGHTRONIX recommends performing the following:
 - a. Set each interface’s dip switches to assign each PRO-BUS interface a device number from 01–16. Number the PRO-BUS interfaces consecutively, starting with “01” at the interface connected to the PRO-BUS port on the UltraNEXUS/NEXUS.
 - b. If possible, ensure each device’s switcher input numbers correspond to the device number of its PRO-BUS.
 - c. Document your entire PRO-BUS interface/device setup.

- For bi-directional control of select DVD players with title:chapter access, you may use the included DVply cables to connect up to two TASCAM DV-D01U or DV-D6500 DVD players to the DVply ports or, if you have purchased the DVD changer option, one supported DVD changer to “DVply 1” port. Contact LEIGHTRONIX for more information on DVply control options.

NOTE: The DVply ports can only be used to control 2 Tascam DVD players or 1 supported DVD changer.

6. If using, attach a LEITCH CDS-5300, ESE Master Clock, or C&A GPS-200 external time source to “COM 2.”
7. Attach up to four, LEIGHTRONIX-approved USB hard drives to the USB ports. The NEXUS supports a total USB storage capacity of 1 TB, while each UltraNEXUS system can support up to 4 TB. For more information on USB drives compatible with the UltraNEXUS/NEXUS, refer to www.leightronix.com or contact LEIGHTRONIX.

- NOTES:**
- USB drives can be removed or installed **only** after the UltraNEXUS/NEXUS is shut down from its front panel. **Do not connect the drives to a PC for file management operations.**
 - LEIGHTRONIX requires the use of two USB hard drives with an UltraNEXUS combined with PEG Central or other LEIGHTRONIX streaming service. While one drive will work with the system, the drive will become increasingly fragmented as it receives broadcast and VOD streaming files from the UltraNEXUS dual encoders.

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



CAUTION

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

9. Turn on the UltraNEXUS/NEXUS by simultaneously pressing the right and left arrows on the front panel for one second.

NOTE: Do not remove power to the UltraNEXUS/NEXUS or associated USB drives before turning the UltraNEXUS/NEXUS off in the same manner.

The UltraNEXUS/NEXUS will automatically boot up and display the boot up progress screens shown in Illustration 20, Boot Progress Screens. During startup, any saved UltraNEXUS/NEXUS settings and active schedule are implemented.

Illustration 20, Boot Progress Screens

```
Main Power ON
Now Booting . . .
```

```
Starting Up . . .
```

10. Ensure that the corresponding USB drive LED on the rear panel is lit for each attached USB drive (see Table 4, USB Drive LED Descriptions).

NOTE: Only NEXUS systems with serial numbers beginning with “070” or “030” have LEDs next to the USB ports.

Table 4, USB Drive LED Descriptions

LED LABEL	LED STATE	CORRESPONDING USB DRIVE
A	ON	USB Drive “D” is connected to the UltraNEXUS/NEXUS.
	OFF	USB Drive “D” is not connected to the UltraNEXUS/NEXUS.
B	ON	USB Drive “E” is connected to the UltraNEXUS/NEXUS.
	OFF	USB Drive “E” is not connected to the UltraNEXUS/NEXUS.
C	ON	USB Drive “F” is connected to the UltraNEXUS/NEXUS.
	OFF	USB Drive “F” is not connected to the UltraNEXUS/NEXUS.
D	ON	USB Drive “G” is connected to the UltraNEXUS/NEXUS.
	OFF	USB Drive “G” is not connected to the UltraNEXUS/NEXUS.

11. Proceed to “Configuring Ethernet Network Host Management,” on page 71, to configure UltraNEXUS/NEXUS for remote control through Ethernet network host management.

CONNECTING ULTRANEXUS-SDI SIGNAL WIRING

Throughout the following instructions, refer to Illustration 19, UltraNEXUS-SDI Rear Panel.

1. Rack mount your UltraNEXUS-SDI as follows, ensuring the ventilation holes on the side of the unit are not covered and adequate space is available behind the back panel for the USB drives.

- NOTES:**
- An optional bracket kit is available for supporting the back of a rack-mounted NEXUS series system. Contact LEIGHTRONIX for more information.
 - LEIGHTRONIX recommends leaving empty rack mounts above and below the UltraNEXUS-SDI. The UltraNEXUS-SDI is not intended to have anything stacked on top of it.

- a. Insert the UltraNEXUS-SDI into the rack, aligning the holes of the server/controller's mounting bracket with those of the rack.
- b. Secure the UltraNEXUS-SDI to the rack with user-supplied rack screws.

2. If using, connect a LEIGHTRONIX-supported external switcher with an input/output capacity of 4x4 (minimum) to 250x250 (maximum) to the "COM 1" port. Finish installing your switcher according to the following steps:

NOTE: To use any of the external device control schemes (PRO-BUS, IR, DVply) and WinLGX external device scheduling/control panel features with an UltraNEXUS-SDI, both the UltraNEXUS-SDI and the video sources must be connected to an external switcher.

- a. Configure your switcher according to the corresponding parameters listed in Table 3, Supported External Switchers and Parameters. This is necessary to ensure your switcher works with the UltraNEXUS-SDI.

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

Table 5, Supported External Switchers and Parameters

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
AUTOPATCH	9600 baud, 8N1 (Level 1: Video, Level 0: All)
Creator	9600 baud, 8N1
EXTRON A (most common)	9600 baud, 8N1
EXTRON B (ISS series)	9600 baud, 8N1
KNOX	9600 baud, 8N1
KRAMER	9600 baud, 8N1
LEIGHTRONIX PRO-16 or NET-164	9600 baud (PRO-16 min. ver. 1.09, 2.03; NET-164 min. ver. 1.00.42)

SUPPORTED SWITCHER OPTIONS	SWITCHER SERIAL PARAMETERS
LEITCH	9600 baud, 8N1
PESA P1N Network	N/A
PESA Serial	9600 baud, 8N2
SIERRA	9600 baud, 8N1
SIGMA A	9600 baud, 8N1
SIGMA B	9600 baud, 8N1
UTAH A	38400 baud, 8N1
UTAH B	1200 baud, 7E2
UTAH Sandar	9600 baud, 7O1

- b.** Route the video/audio from any VCRs, DVD players, studio/satellite feeds, character generator, etc. to the switcher input connectors. If desired, connect your external devices to the following interfaces:

- For uni-directional device control, the following options are available:
 - Attach up to four, LEIGHTRONIX-approved VCRs and/or DVD players to the integrated IR ports. For information on supported VCRs and DVD players, contact LEIGHTRONIX.
 - Attach up to 16 PRO-BUS device interfaces in a daisy chain to the PRO-BUS port and connect each interface to the corresponding VCRs and/or DVD players. See “Appendix A: PRO-BUS Interface Connections,” on page 462 for further installation instructions.

NOTES:

For the best organization, LEIGHTRONIX recommends performing the following:

- a. Set each interface’s dip switches to assign each PRO-BUS interface a device number from 01–16. Number the PRO-BUS interfaces consecutively, starting with “01” at the interface connected to the PRO-BUS port on the UltraNEXUS-SDI.
 - b. If possible, ensure each device’s switcher input numbers correspond to the device number of its PRO-BUS.
 - c. Document your entire PRO-BUS interface/device setup.
- For bi-directional control of select DVD players with title:chapter access, you may use the included DVply cables to connect up to two TASCAM DV-D01U or DV-D6500 DVD players to the DVply ports or, if you have purchased the DVD changer option, one supported DVD changer to “DVply 1” port. Contact LEIGHTRONIX for more information on DVply control options.

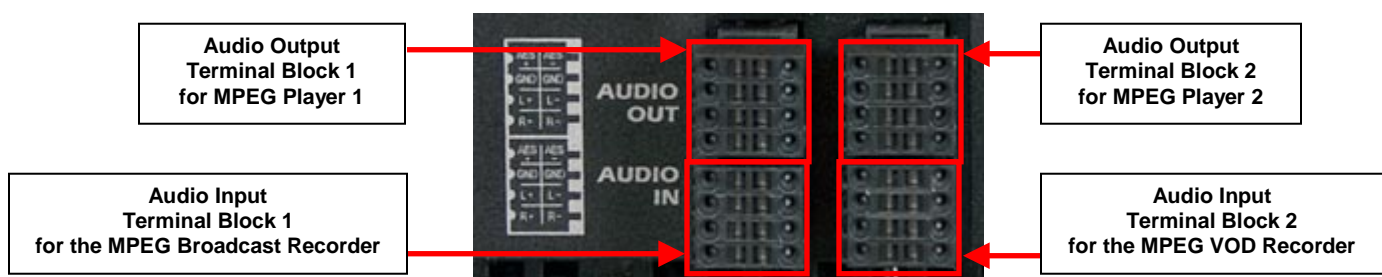
NOTE: The DVply ports can only be used to control 2 Tascam DVD players or 1 supported DVD changer.

NEXUS Series

Server/Controller Installation & Configuration

- c. Connect switcher output connectors to the desired destinations (such as modulators or television monitors).
3. Connect video cables to the UltraNEXUS-SDI's MPEG players as follows:
 - MPEG Player 1: connect UltraNEXUS-SDI Video Output 1 to the desired destination or switcher input.
 - MPEG Player 2: connect UltraNEXUS-SDI Video Output 2 to the desired destination or switcher input.
4. Connect video to the UltraNEXUS-SDI's broadcast and VOD MPEG recorders through one of the following options:
 - 1 external switcher or source video output for **both** recorders: to simultaneously record the same content with the broadcast and VOD recorders through one WinLGX schedule event or control panel command, connect a 1 x 2 distribution amp between one of your switcher or source's video outputs and UltraNEXUS-SDI Inputs 1 and 2.
 - 1 external switcher or source video output for **each** recorder: connect broadcast recorder Input 1 and VOD recorder Input 2 to separate switcher or source video outputs. Note that when connected to a different output than the broadcast recorder, a separate WinLGX switch event or control panel command must be used to switch the same video source input to the VOD recorder before the record event is started.
5. Your UltraNEXUS-SDI audio connections are determined by the type of audio signals you wish to record and play out, as described below:
 - **Embedded** Digital Audio (SMPTE 272M): part of your SD-SDI digital video signal, no additional audio connections are needed to play or record this type of audio signal.
 - **Non-Embedded** Audio Signals: the UltraNEXUS-SDI supports both AES3 digital audio (IEC 60958 Type 1 Balanced) and two-channel analog balanced audio signals. The UltraNEXUS-SDI comes equipped with four audio terminal blocks for playing/recording your non-embedded audio signals (see Illustration 21).

Illustration 21, Audio Terminal Blocks on Rear Panel of UltraNEXUS-SDI

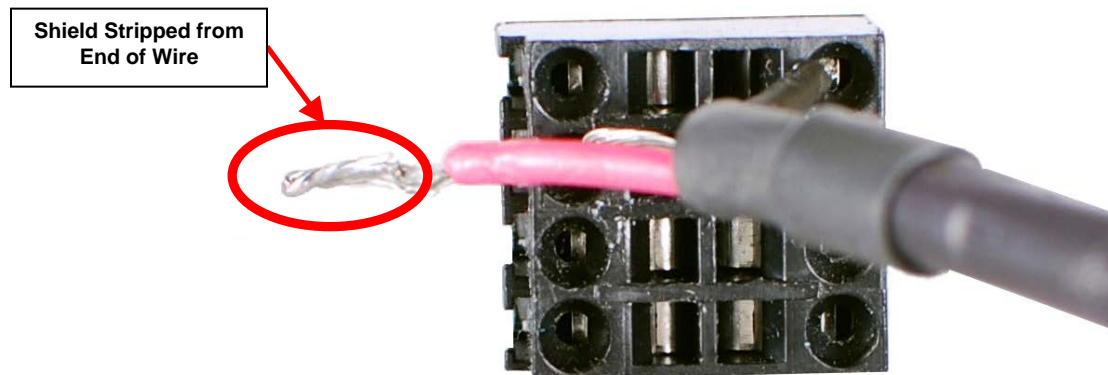


To play/record any of the UltraNEXUS-SDI's supported, non-embedded audio signals, connect your non-embedded audio signal wiring according to the following steps:

NOTE: The UltraNEXUS-SDI 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.

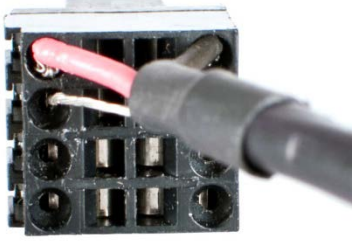
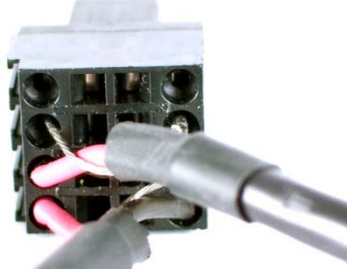
Illustration 22, Example of Wire Prepared for an UltraNEXUS-SDI Terminal Block



- b. Perform the following steps for each MPEG player and/or recorder that you want to use with non-embedded audio (refer to Illustration 21, Audio Terminal Blocks on Rear Panel of UltraNEXUS-SDI).
 - i. With your fingers, gently grasp the desired terminal block on the UltraNEXUS-SDI's rear panel and pull to separate the block from the server/controller.
 - ii. Secure each of your prepared audio wires in their appropriate terminals as follows, referring to Table 6 for each wire's placement on the terminal block:

Table 6, Non-Embedded Audio Terminal Block Configurations

AES3 Terminal Block Configuration	Two-Channel Analog Terminal Block Configuration
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> NOTE: The AES3 audio configuration uses only one of either common grounds. </div> <div> </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Terminals </div> <div> </div>

AES3 Terminal Block Configuration	Two-Channel Analog Terminal Block Configuration
<p><i>Illustration 23, Example of AES Terminal Block Wiring</i></p>  A close-up photograph of an AES3 terminal block. A red wire is inserted into the top-left terminal, and a grey cable with a braided shield is inserted into the adjacent terminal. The block has a 2x6 grid of terminals.	<p><i>Illustration 24, Example of Two-Channel Analog Terminal Block Wiring</i></p>  A close-up photograph of a two-channel analog terminal block. Two red wires are inserted into the top-left and top-right terminals, and two grey cables with braided shields are inserted into the bottom-left and bottom-right terminals. The block has a 2x4 grid of terminals.

- (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 25 for an example of slot and clamp locations). Firmly push the screwdriver into the slot until the clamp inside the terminal slides open (see Illustration 26).

Illustration 25, Tension Clamp Release Slot on an UltraNEXUS-SDI Terminal Block

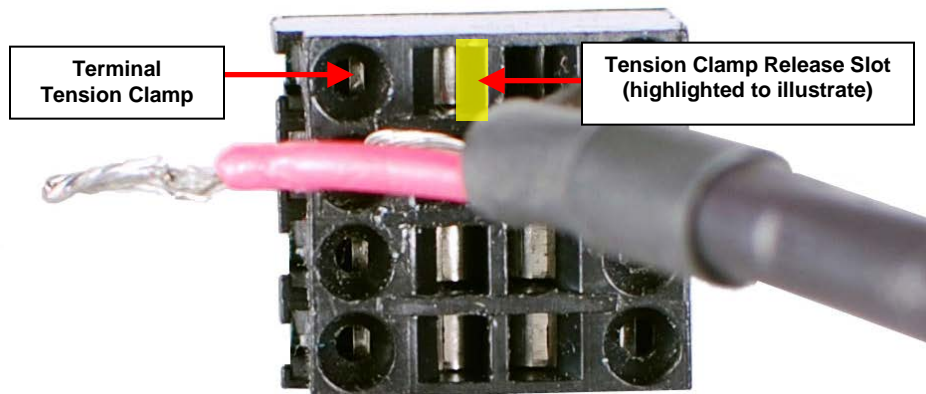
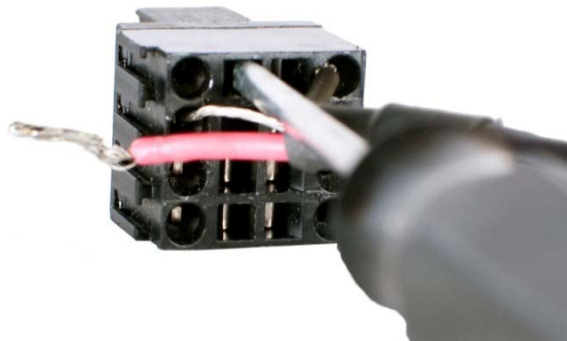


Illustration 26, Screwdriver Inserted into Tension Clamp Release Slot



- (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 5.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-SDI (see Illustration 27 for an example). The block only fits one way into its holder on the rear panel.

Illustration 27, Example of Audio Terminal Block Wired for Analog and Connected to Rear Panel



6. If using, attach a LEITCH CDS-5300 or ESE Master Clock external time source to “COM 2.”
7. Attach up to four, LEIGHTRONIX-approved USB hard drives to the USB ports. The UltraNEXUS-SDI system can support up to 4 TB. For more information on USB drives compatible with the UltraNEXUS-SDI, refer to www.leightronix.com or contact LEIGHTRONIX.

- NOTES:**
- USB drives can be removed or installed **only** after the UltraNEXUS-SDI is shut down from its front panel. **Do not connect the drives to a PC for file management operations.**
 - LEIGHTRONIX requires the use of two USB hard drives with an UltraNEXUS-SDI combined with the LEIGHTRONIX PEG Central video-on-demand streaming service. While one drive will work with the system, the drive will become increasingly fragmented as it

receives broadcast and VOD streaming files from the UltraNEXUS-SDI dual encoders.

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



CAUTION

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

9. Turn on the UltraNEXUS-SDI by simultaneously pressing the right and left arrows on the front panel for one second.

NOTE: Do not remove power to the UltraNEXUS-SDI or associated USB drives before turning the UltraNEXUS-SDI off in the same manner.

The UltraNEXUS-SDI will automatically boot up and display the boot up progress screens shown in Illustration 20, Boot Progress Screens. During startup, any saved UltraNEXUS-SDI settings and active schedule are implemented.

Illustration 28, Boot Progress Screens

```
Main Power OK
Now Booting ...
```

```
Starting Up ...
```

10. Proceed to “Configuring Ethernet Network Host Management,” on page 71, to configure UltraNEXUS-SDI for remote control through Ethernet network host management.

CONFIGURING ETHERNET NETWORK HOST MANAGEMENT

- NOTES:**
- Your PC must have a Windows 2000/XP/Vista/7 operating system in order to run WinLGX software (see “WinLGX Minimum System Requirements,” on page 84 for further details).
 - Each NEXUS series system requires the following ports:
 - 23 (Telnet)
 - 21 (FTP Control Connection)
 - 20 (FTP Data)
 - 80 (HTTP - WebNexus)
 - 2000 (UDP): needed for UltraNEXUS/UltraNEXUS-SDI ePRO-BUS control
 - 50001 (Web Program Guide): this port can be changed from the NEXUS front panel. See “Editing Web Schedule Port,” on page 80, for instructions.
 - If you will be connecting to your NEXUS series system remotely, the following ways can be used to set up your router to access your NEXUS system. Keep in mind that more than one method can be used, such as VPN for WinLGX access and port forwarding for program guide access. Consult your network administrator and 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. You would then run WinLGX and connect to the NEXUS 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 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 NEXUS program guide on your own website (see “on page 401). Port 80 should be made publically available when you want to access WebNEXUS from public IP addresses on the Internet.

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

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

NEXUS Series

Server/Controller Installation & Configuration

Each NEXUS series server/controller is designed to interact with a host PC through a 10/100/1000 BASE-T Ethernet TCP/IP Network. Two of the most common connection scenarios are outlined below.

NOTE: In order to share one external routing switcher between multiple NEXUS series server/controllers, **your NEXUS system and PC must be networked together.**

CONNECTING NEXUS SYSTEM TO AN EXISTING ETHERNET NETWORK

1. Obtain the following from your technical support personnel or network administrator and enter into the front panel of your NEXUS series system (see “Configuring Front Panel Settings,” on page 75):
 - IP address
 - Subnet mask
 - Gateway address
2. Using a straight-through RJ-45 Ethernet cable, connect the NEXUS system’s left Ethernet port (labeled “1”) to a 10/100/1000 BASE-T hub or switch on the TCP/IP network.
3. Ensure the PC from which you wish to control your NEXUS series system has been configured and attached to the TCP/IP network.
4. Ensure your NEXUS system and PC have been properly configured for Ethernet network access (see “Confirming Ethernet Network Configuration,” on page 73).

CONNECTING A NEXUS SYSTEM DIRECTLY TO A PC VIA ETHERNET

1. If necessary, install and configure a 10/100/1000 BASE-T Ethernet Network Interface Card (NIC) on the PC. Refer to the NIC documentation and technical support for help in getting the NIC operational.
2. Obtain your PC’s TCP/IP networking IP address and subnet mask as follows:
 - a. Click on the Windows “Start” menu.
 - b. Open the “Run” dialog box and type “command.” Click “OK” or press “Enter” on your keyboard to open the command.com window.
 - c. Type in “IPconfig” at the C:\ prompt of the command.com window to reveal your PC’s IP and subnet mask address.
3. Enter the following IP and subnet mask addresses into the front panel of your NEXUS series system (see “Configuring Front Panel Settings,” on page 75):
 - IP address: one number above your PC’s IP address (for example, if your PC’s IP address is 10.255.9.15, set your server/controller’s IP address to 10.255.9.16)
 - Subnet mask: your PC’s subnet mask address
4. Using a cross-over RJ-45 Ethernet cable (not a standard cable), connect the NEXUS system to the PC’s network interface card (NIC).

5. Ensure your NEXUS system and PC have been properly configured for Ethernet network access (see “Confirming Ethernet Network Configuration,” on page 73).

CONFIRMING ETHERNET NETWORK CONFIGURATION

Once your NEXUS system and PC have been configured for Ethernet access, ensure the Ethernet LEDs on the rear panel of your Controller are lit (see Table 7, Ethernet LED Indicators and Descriptions).

Table 7, Ethernet LED Indicators and Descriptions

LED POSITION	STATE	DESCRIPTION
Right	Off	Ethernet connection speed is 10Mb/s.
	Yellow	Ethernet connection speed is 100Mb/s.
	Amber	Ethernet connection speed is 1000Mb/s.
Left	Off	Ethernet link not established.
	Steady on yellow	Ethernet link established. The NEXUS series system is not transmitting on the network.
	Blinking yellow	Ethernet link established. The NEXUS series system is transmitting on the network.

TURNING A NEXUS SERIES SYSTEM ON/OFF

Turn a NEXUS series system on/off by simultaneously pressing the right and left arrows on the front panel for one second.

NOTE: Do not remove power to the NEXUS system or associated USB drives before completing a front panel shutdown.

CONFIGURING FRONT PANEL SETTINGS

NOTE: All crucial configuration information, such as user information, schedule information, time, and network information are stored in battery backed or flash memory. Thus the NEXUS series system configuration is protected in the instance of an extended power failure.

ENTERING PASSWORD

1. From the front panel of your NEXUS series server/controller, press the right arrow key from any one of the status screens to display the password entry screen (see Illustration 29, Password Entry Screen).

Illustration 29, Password Entry Screen

Using arrow keys
Enter Password: *****

2. 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 113.

3. If the password entered is correct, the NEXUS system’s configuration menu will be displayed (see Illustration 30, Configuration Menu Screen).

Illustration 30, Configuration Menu Screen

CONFIG MENU (Use ↑/↓)
Edit 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 NEXUS series system settings:

- TCP/IP addresses: see “Editing TCP/IP Network Addresses,” on page 75
- Shared Switch: see “Editing Shared Switcher IP Address,” on page 78
- Serial port: see “Selecting Serial Port Settings,” on page 78
- Web schedule port: “Editing Web Schedule Port,” on page 79
- FTP TCP buffer size: see “Editing FTP TCP Buffer Size,” on page 81

EDITING TCP/IP NETWORK ADDRESSES

IP Address

Obtain IP address from your technical support personnel or network administrator. See Table 8, Editing IP Address from Front Panel, for editing instructions.

NEXUS Series

Server/Controller Installation & Configuration

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

Table 8, Editing IP Address from Front Panel

IP ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Edit unit IP Address." 2. Press "→" to select "Edit unit IP Address."	<div>CONFIG MENU (USE ↑/↓) Edit unit IP Address →</div>
3. Press "→" or "←" to position the underscore 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>Enter new IP Address 0. 0. 0. 0 →</div>
5. Either press "→" again to save your changes or "←" to abort changes.	<div>Press right arrow to confirm IP Address_</div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system address changes (simultaneously press "←" and "→" for one second to turn off and repeat to turn back on).	

Subnet Mask

Obtain subnet mask address from your support personnel or network administrator. See Table 9, Editing Subnet Mask from Front Panel, for editing instructions.

NOTE: If you are sharing one external routing switcher between multiple NEXUS series server/controllers, enter the same subnet mask into the front panel of each NEXUS system.

Table 9, Editing Subnet Mask from Front Panel

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
1. From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "." 2. Press "→" to select "Edit unit Subnet Mask."	<div>CONFIG MENU (USE ↑/↓) Edit unit Subnet Mask →</div>
3. Press "→" or "←" to position the underscore under the editable fields and press "↑" or "↓" to edit the values. 4. Press "→" to enter next screen.	<div>Enter new Subnet Mask 0. 0. 0. 0.</div>

SUBNET MASK CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
5. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Press right arrow to confirm Subnet Mask_ </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system address changes (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

Gateway Address

Obtain gateway address from your technical support personnel or network administrator. See Table 10, Editing Gateway Address from Front Panel, for editing instructions.

NOTE: If you are sharing one external routing switcher between multiple NEXUS series server/controllers, enter the same gateway address into the front panel of each NEXUS system.

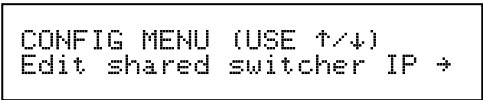
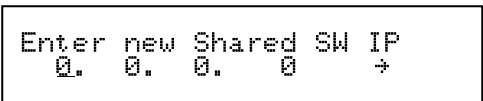
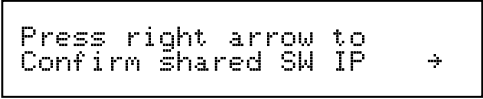
Table 10, Editing Gateway Address from Front Panel

GATEWAY ADDRESS CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
1. From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Edit unit Gateway Addr.” 2. Press “→” to select “Edit unit Gateway Addr.”	<div style="border: 1px solid black; padding: 5px; text-align: center;"> CONFIG MENU (USE ↑/↓) Edit unit Gateway Addr → </div>
3. Press “→” or “←” to position the underscore under the editable fields and press “↑” or “↓” to edit the values. 4. Press “→” to enter next screen.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Enter new Gateway 0. 0. 0. 0 → </div>
5. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Press right arrow to confirm Gateway_ </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system address changes (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

EDITING SHARED SWITCHER IP ADDRESS

If you are sharing an external routing switcher between multiple NEXUS series systems, enter the IP address of the NEXUS system connected directly to the switcher into the front panel of each additional NEXUS system. See Table 11, Editing Shared Switcher Configuration from Front Panel, for editing instructions.


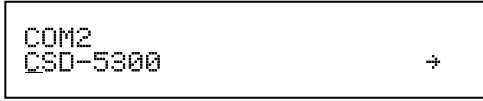
Table 11, Editing Shared Switcher Configuration from Front Panel

SHARED SWITCH CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Edit shared switcher IP." Press "→" to select "Edit shared switcher IP." 	
<ol style="list-style-type: none"> Press "→" or "←" to position the underscore under the editable fields and press "↑" or "↓" to edit the values. Press "→" past all of the editable fields to enter the next screen. 	
<ol style="list-style-type: none"> Either press "→" again to save your changes or "←" to abort changes. If you press "→" to accept the change, the UltraNEXUS/NEXUS automatically performs a partial reboot and completes the change. 	

SELECTING SERIAL PORT SETTINGS

See Table 12, Selecting Serial Port Settings from Front Panel, for editing instructions and Table 13, Serial Port Options, for a descriptive list of the different serial port options available for your NEXUS system.

Table 12, Selecting Serial Port Settings from Front Panel

SERIAL PORT CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the "CONFIG MENU" screen, press "↑" or "↓" to proceed to "Edit Serial Port Use." Press "→" to select "Edit Serial Port Use." 	
<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. 	 <p>NOTE: Refer to Table 13 for serial port selection options.</p>

SERIAL PORT CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
5. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Press right arrow to confirm port config._ </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system serial port change (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

Table 13, Serial Port Options

SERIAL PORT OPTION	DESCRIPTION
Host	Enables serial host management
ESE Clock	Enables NEXUS series server/controller to receive clock information from an ESE “Format A” or “Format D” master clock every second
CSD-5300	Enables NEXUS series server/controller to receive clock information from a LEITCH CSD-5300 master clock once an hour and whenever the NEXUS system is powered up
GPS-200	Enables NEXUS series server/controller to receive clock information from a C&A GPS-200 master clock
Tri-Messenger	Custom option—contact LEIGHTRONIX for further details.

SHARING EXTERNAL TIME CLOCK WITH MULTIPLE NEXUS SERIES SERVERS

Up to ten NEXUS series servers can be synchronized to the clock time on one external master clock. The NEXUS series 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 75). If you have more than ten NEXUS series servers, you can create up to nine additional groups consisting of ten NEXUS series servers to one master clock per group, for a total of one hundred NEXUS series servers and ten master clocks.

Connect your external master clock to the serial port on one of your NEXUS series servers and then configure the serial port for master clock usage (see “Selecting Serial Port Settings” on page 78). The NEXUS series server connected to the master clock will broadcast the master clock’s time to all NEXUS series servers in its group.

To configure each NEXUS series server for time synchronization, you will need to specify whether the server is sending or receiving the master clock time and enter the same group number into the front panel of each NEXUS series server in the group according to Table 14, Editing “Time Settings” Options from Front Panel, for editing instructions.

Table 14, Editing “Time Settings” Options from Front Panel

TIME SETTING CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Edit Time Settings.” Press “→” to select “Edit Time Settings.” 	<div> CONFIG MENU (USE ↑/↓) Edit Time Settings → </div>
<ol style="list-style-type: none"> Press “↑” or “↓” to change the “Time Mode” setting. Select the “Server” option if the NEXUS series server is connected to your external master clock or “Client” if the NEXUS series server is receiving master clock time from the connected NEXUS series server. Press “→” to edit the “Group” field. 	<div> TIME MODE GROUP # Off 1 </div>
<ol style="list-style-type: none"> Press “↑” or “↓” to change the “Group #,” being certain to use the same group number for the NEXUS series servers sharing the same master clock (maximum of ten NEXUS series servers per master clock). Either press “→” again to save your changes or “←” to abort changes. 	<div> TIME MODE GROUP # Server 1 </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system time setting change (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

EDITING WEB SCHEDULE PORT

Each NEXUS series system uses Port 50001 as the default for the online program guide. If you have already assigned this port number, select a different, unassigned port number for the online program guide. See Table 15, Editing Web Schedule Port from Front Panel, for editing instructions.

Table 15, Editing Web Schedule Port from Front Panel

WEB SCHED PORT CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
<ol style="list-style-type: none"> From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Edit Web Schedule Port.” Press “→” to select “Edit Web Schedule Port.” 	<div> CONFIG MENU (USE ↑/↓) Edit Web Schedule Port → </div>
<ol style="list-style-type: none"> Press “→” or “←” to position the underscore under the editable fields and press “↑” or “↓” to edit the values. 	<div> Enter new Web Sched Port 50001 → </div>

WEB SCHED PORT CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
4. Press “→” to enter next screen.	
5. Either press “→” again to save your changes or “←” to abort changes.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Press right arrow to confirm Web Sched Port_ </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system web schedule port change (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

EDITING FTP TCP BUFFER SIZE

The NEXUS FTP buffer size setting helps to control the rate at which data is transferred to and from the NEXUS series system via WinLGX or third-party FTP software. The buffer size setting defaults to 16 kilobytes, but may be adjusted down to 4 KB or up to 64 KB. If your network equipment can handle a higher rate, edit the setting to 32 or 64 KB for faster transfer times. See Table 16, Editing FTP Buffer Size from Front Panel, for editing instructions.

Table 16, Editing FTP Buffer Size from Front Panel

FTP BUFFER SIZE CONFIGURATION STEPS	CORRESPONDING SCREEN DISPLAYS
1. From the “CONFIG MENU” screen, press “↑” or “↓” to proceed to “Edit FTP TCP Buff Size.” 2. Press “→” to select “Edit FTP TCP Buff Size.”	<div style="border: 1px solid black; padding: 5px; text-align: center;"> CONFIG MENU (USE ↑/↓) Edit FTP TCP Buff Size → </div>
3. Press “→” or “←” to position the underscore under the editable field and 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;"> FTP TCP Buffer Size: 16 kbytes → </div>
NOTE: Unit must be powered down and then powered back up to apply any NEXUS series system FTP buffer size change (simultaneously press “←” and “→” for one second to turn off and repeat to turn back on).	

SOFTWARE INSTALLATION & CONFIGURATION

ABOUT THIS SECTION

This section introduces the NEXUS series system management software, WinLGX, and provides instructions on how to enter the configuration settings necessary to control your NEXUS system through the software. For an overview of how to install WinLGX and enter your configuration settings, refer to the *WinLGX Installation & Configuration Quick Guide* included with your NEXUS series system. Your NEXUS series system configuration properties define your switch type, any IR port settings, and MPEG recording presets along with your system's internal/external video devices and the media resources you wish to play on the devices. 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," starting on page 213, to learn how to create a schedule). **Each NEXUS system 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 an 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 16-Bit color display adapter at 1024x768 plus the following, based on your operating system:

NOTE: WinLGX does not have to be continuously running on your PC for standard NEXUS series system operation.

Microsoft Windows 2000 (SP4) or XP	Microsoft Windows Vista/7
1.0 GHz or faster processor	1.6 GHz or faster processor
512 MB of RAM (1 GB recommended)	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 versions.

1. Place the LEIGHTRONIX Product Resource Disc in your DVD drive. A web page should automatically load in your default web browser.
If the web page does not load, perform the following steps:
 - a. Open the Windows "Computer" folder.
 - b. Right click on your DVD drive and select "Click to display main menu."
2. From the LEIGHTRONIX web page, click the button for your NEXUS series server product. This will load a new page with content specifically for your system.
3. From your NEXUS series server's web page, click on the "WinLGX Software" link. If the file does not automatically download, choose the save file option when prompted.
4. Navigate to where the WinLGX installer ("WinLGX v* Installer.EXE") was saved on your computer or network.
5. Right click the WinLGX installer and choose the run as administrator option to start the installation. Follow the prompts to complete setup.
6. 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.

- VLC media player set up 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 MPEG Files within WinLGX” on page 229 and “Monitoring an MPEG File Recording” on page 320). 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.

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

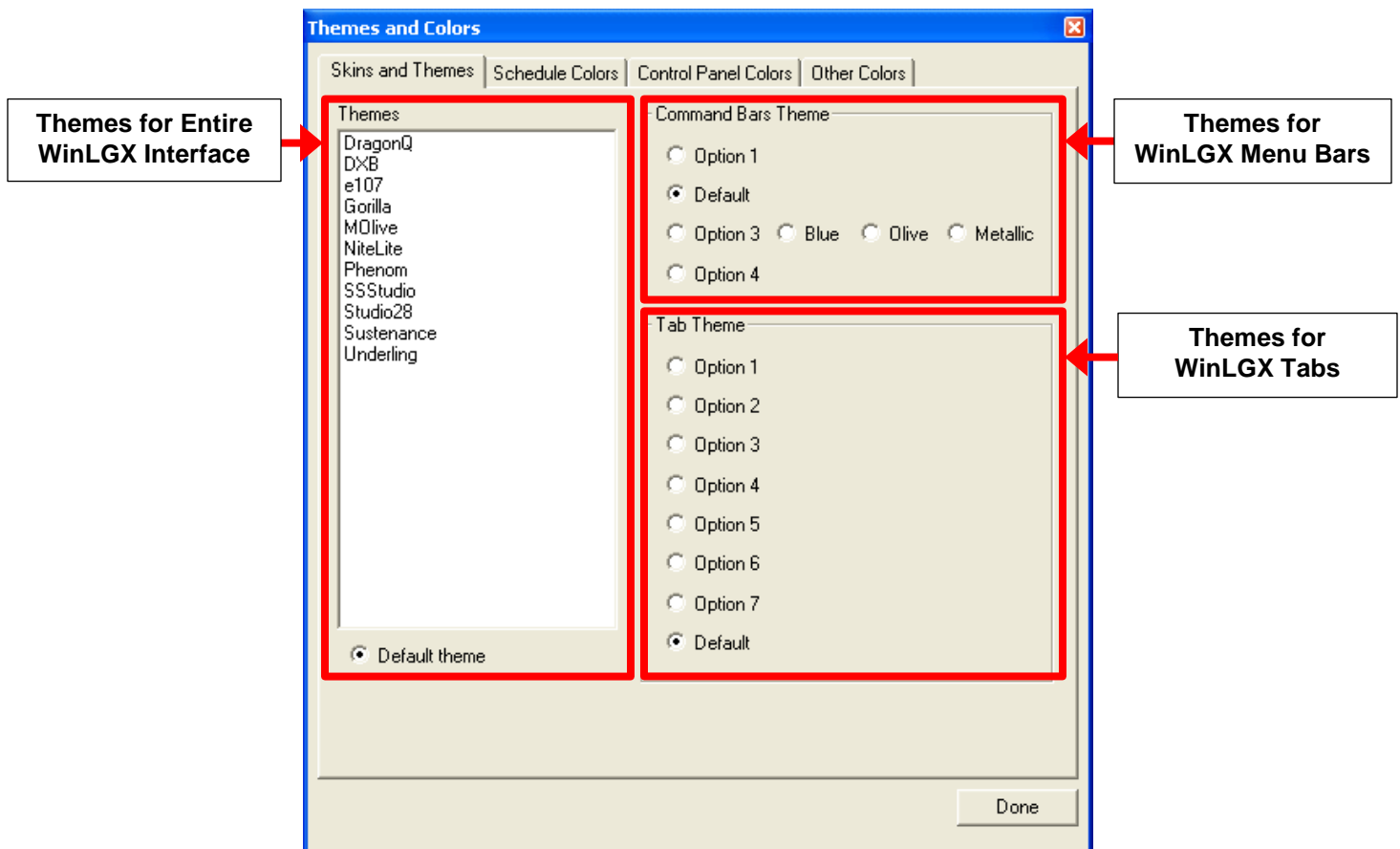
CHANGING WINLGX APPEARANCE (THEMES)

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 NEXUS series server/controller.

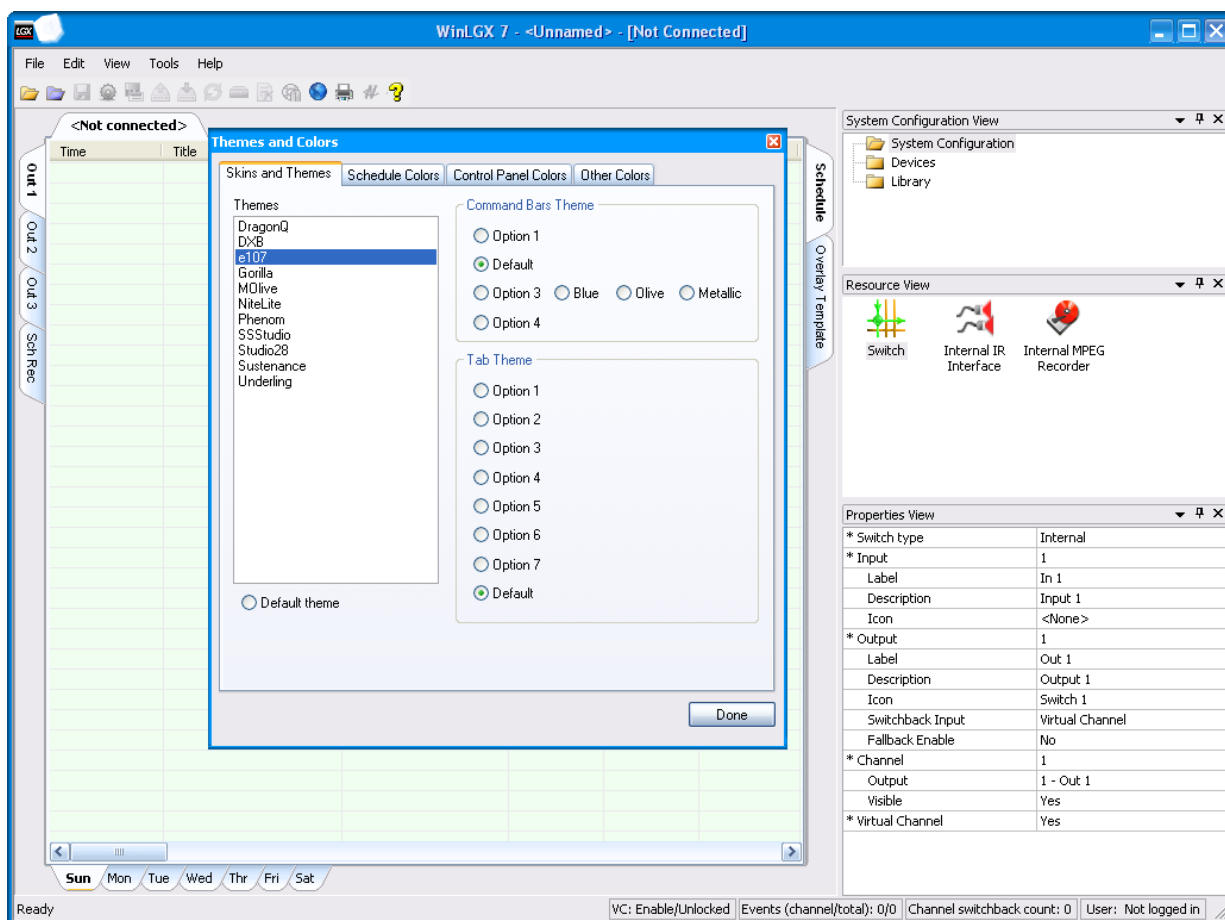
1. Go to the “View” drop down menu and select “Themes and Colors.”
2. On the "Themes and Colors" window, click the "Skins and Themes" tab if it is not already selected (see Illustration 31).

Illustration 31, "Skins and Themes" Tab Window



3. Click to choose a different interface, menu bar, and/or tab theme (see Illustration 32). To return to the WinLGX default appearance, just select the "Default" button for each theme that was changed.

Illustration 32, Example of Custom WinLGX Interface Theme



4. 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.

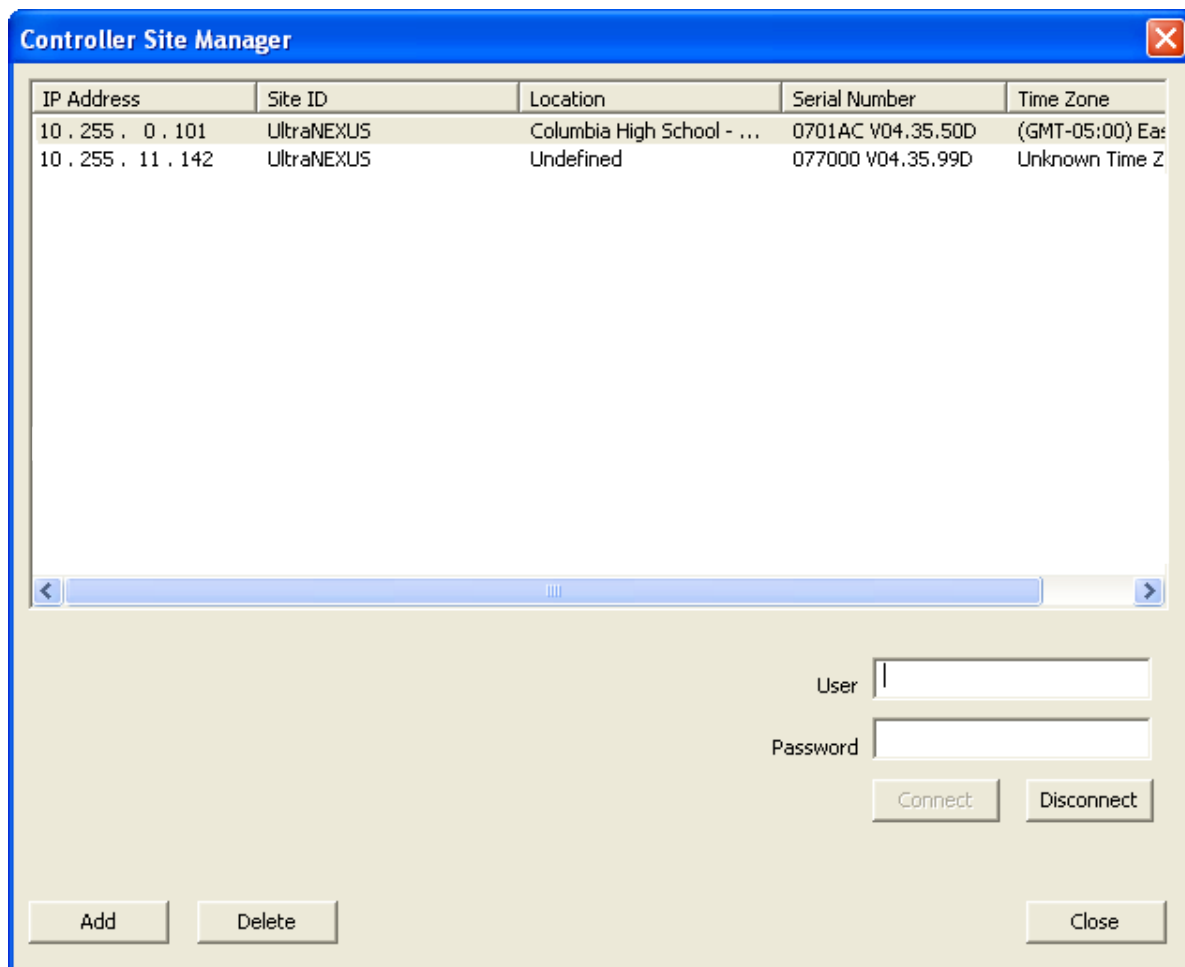
ADDING / DELETING NEXUS LOCATIONS IN THE SITE MANAGER

Use the WinLGX “Site Manager” window to manage your NEXUS series server/controller’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 NEXUS series server/controllers as follows:

ADDING NEXUS SERIES IP ADDRESSES

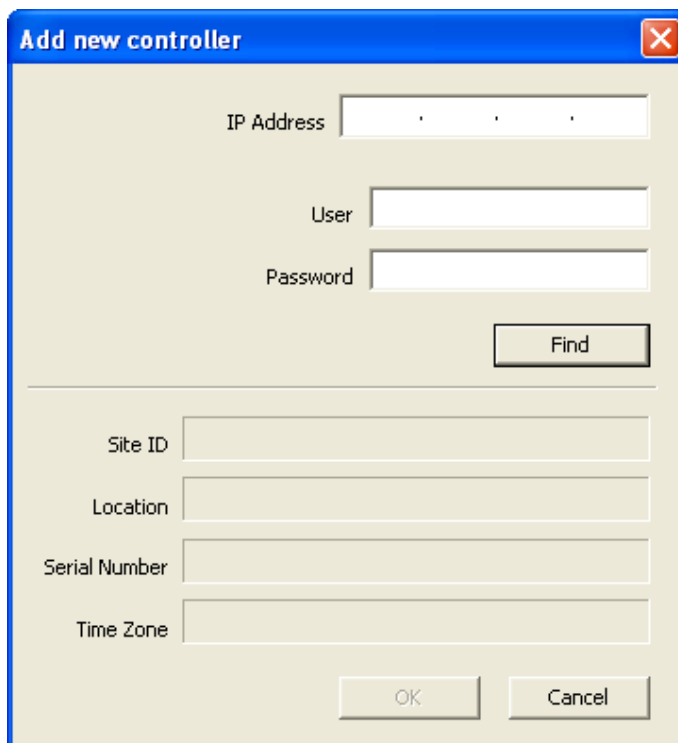
1. If not already open, click “Site manager” in the “Tools” menu or the  icon on the main toolbar to open the “Controller Site Manager” window shown in Illustration 33.

Illustration 33, “Controller Site Manager” Window



2. Click “Add” on the “Controller Site Manager” window (see Illustration 33) to open the “Add new controller” window shown in Illustration 34. Complete the following fields:

Illustration 34, “Add New” Window



- “IP Address”: enter the IP address displayed on the NEXUS series 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 NEXUS SERIES
➤ “USER” FIELD: “ADMIN” IN LOWER-CASE LETTERS
➤ “PASSWORD” FIELD: THE LAST SIX DIGITS OF YOUR NEXUS SERIES SERVER’S SERIAL #
NOTE: ENTER ANY LETTERS IN UPPER CASE.

NEXUS Series

Software Installation & Configuration

- 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 NEXUS series 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 NEXUS series server’s serial number
- “Time Zone”: your time zone

Illustration 35, “Add New” Window



- Click “OK” to enter your NEXUS series server in the site manager database or “Cancel” to abort entry.
- If applicable, repeat steps 2–4 for each additional NEXUS series server in your system.

DELETING NEXUS SERIES 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 33. Perform the following steps:

- Highlight the NEXUS series IP address you wish to delete.
- Click “Delete” to display the delete confirmation box. Click “OK” to delete the NEXUS series IP address from the site manager location.

3. 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 NEXUS SERIES SERVER/CONTROLLER

Before you can start controlling your NEXUS series system(s), you must first connect to each of your NEXUS series server/controllers. This allows WinLGX to locate the server/controller(s) you wish to operate and enables the software to send your settings and commands to each connected NEXUS series system.

1. Open the WinLGX “Site Manager” window (see Illustration 42) by performing one of the following:


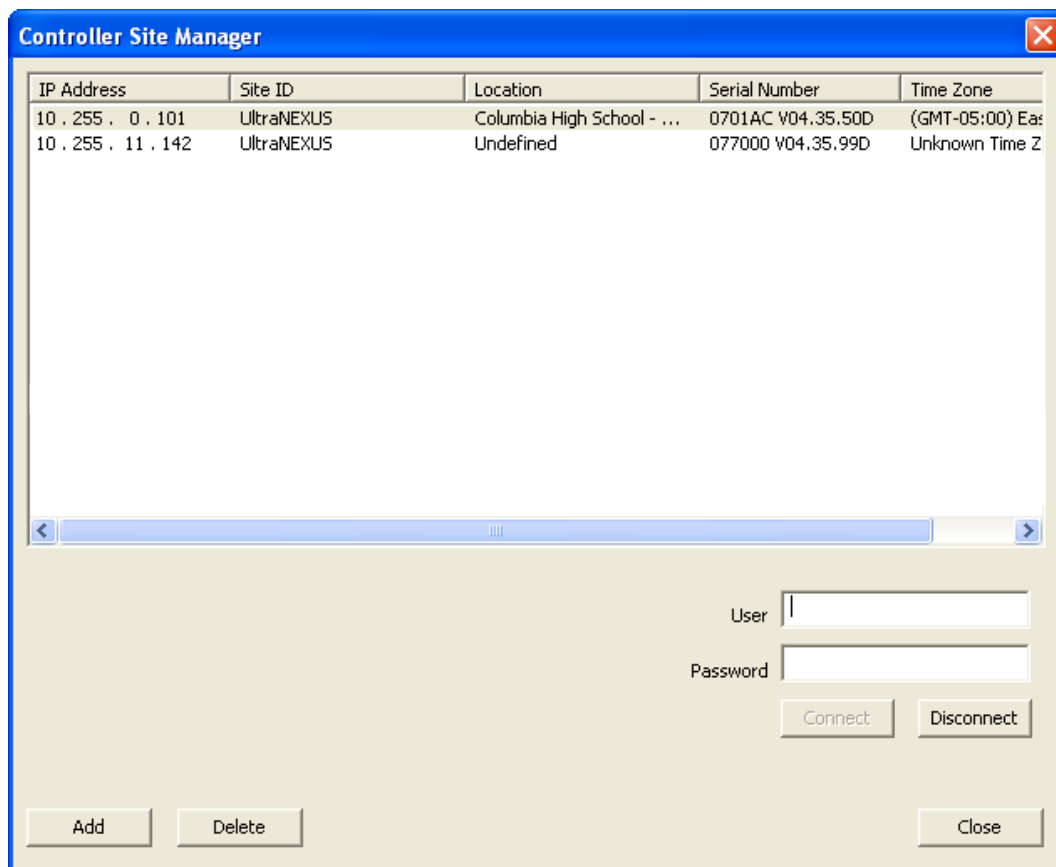
- Select “Site manager” in the “Tools” menu
- Click the  icon on the toolbar

Illustration 36, “Site Manager” Window



2. Once the WinLGX “Controller Site Manager” is open, you should see a list of your NEXUS series systems. If not, refer back to “Adding / Deleting NEXUS Locations in the Site Manager,” on page 88.
3. If desired, reorder your NEXUS series 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.
4. Connect as follows (see Illustration 42):

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 NEXUS 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 NEXUS series 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:

NEXUS SERIES FACTORY-DEFAULT USERNAME AND PASSWORD	
➤	“USER” FIELD: “ADMIN” IN LOWER-CASE LETTERS
➤	“PASSWORD” FIELD: THE LAST SIX DIGITS OF YOUR NEXUS 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 NEXUS series server’s serial number are viewable from the front panel (see “Configuring Front Panel Settings,” on page 75) and a sticker on the back of your NEXUS series server.

- c. Click “Connect” or press “Enter” to connect to the chosen NEXUS series server/controller(s) and close the login dialog box. Once you are connected, a tab appears for each NEXUS series server/controller on the main window beneath the toolbar. If you logged into more than one NEXUS series system, switch between the server/controllers by clicking on the NEXUS product tabs on the main window.

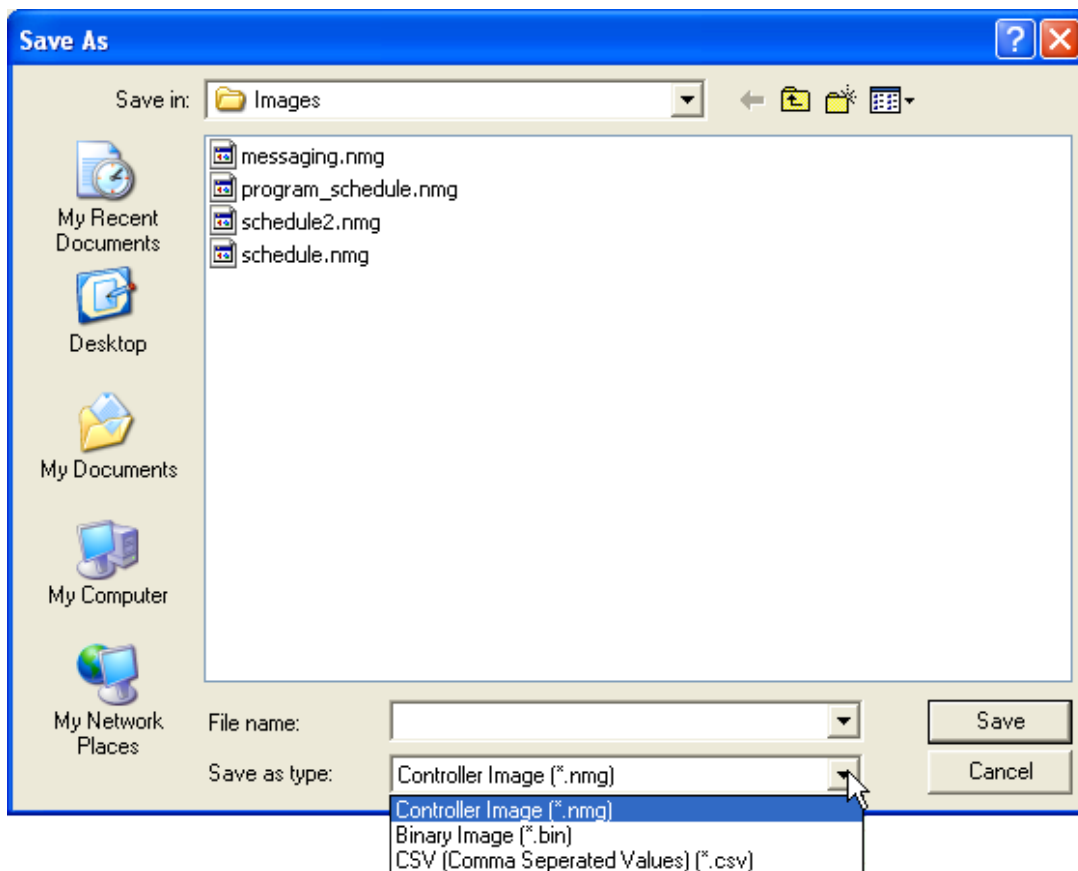
CREATING NEW NEXUS IMAGE FILES

Before you get started entering your system settings into WinLGX, create and save a NEXUS system image file. NEXUS system image files hold your system, device, and library resource properties as well as your schedule events. NEXUS image files have a .nmg file extension (for ex., *schedule.nmg*).


NOTE: To open a saved NEXUS image file, go to “Opening a Saved Image File,” on page 219.

1. WinLGX automatically opens with an empty image file loaded. If you need to clear any settings, select “New” under the “File” menu.
2. Select “Save as/Export” in the “File” menu to open the window shown in Illustration 120, “Save As” Window.”

Illustration 37, “Save As” Window



3. From the “Save in” drop down box at the top of the window, navigate to the folder where you want to save the NEXUS series image file.
4. Type a name for the image in the “File name” field.
5. Ensure the “Controller Image (*.nmg)” option has been selected in the “Save as type” field.

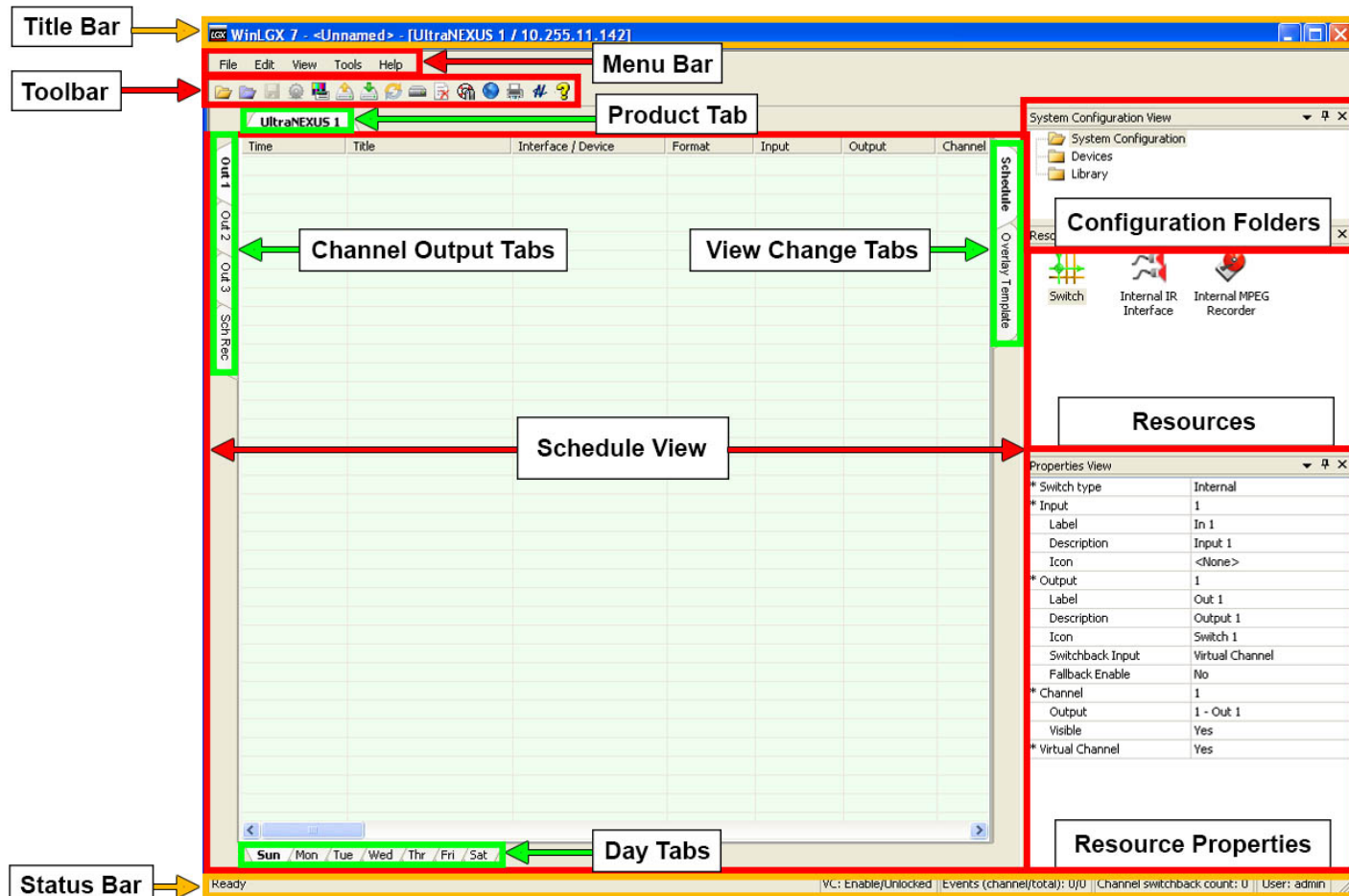
6. Click “Save” to save the image under the entered name or “Cancel” to abort the “Save as.”
7. As you enter your configuration settings according to the “Configuring WinLGX” section starting on page 96, periodically save your settings in your image file by selecting “Save” from the “File” menu or clicking 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 38.

Illustration 38, WinLGX Main Window



The components of the main window are as follows:

- **Product Tab(s):** a tab appears for each WinLGX connection so that users with more than one NEXUS series server/controller can switch between product views in WinLGX. Each product view is self-contained, allowing users to enter separate configuration and scheduling information for each NEXUS series server/controller.
- **Schedule View:** window for program event scheduling

- **Channel Output Tabs:** each tab corresponds to an output on your switcher or NEXUS series server/controller and is selected in combination with a day tab to create a scheduling window
- **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
- **View Change Tabs:** change the main window on the WinLGX interface. The “Schedule” tab displays the scheduling window (show in Illustration 38) and the “Overlay Templates” tab displays the grid and toolbar options for creating graphic/text overlay templates.
- **Configuration folders window:** contains the “System Configuration,” “Devices,” and “Library” folders
- **Resources window:** displays the resource icons for the folder selected in the configuration folders window
- **Resource properties window:** displays the properties of the resource selected in the resources 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 39, Menu Bar and Table 17, Menu Bar Items).

Illustration 39, Menu Bar

File Edit View Tools Help

Table 17, 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”: returns window to default settings and removes any user scheduling settings (see page 94) • “Open”: opens file selection window for selecting image files (see page 219) • “Open as New”: opens file selection window to open an image file with a blank schedule (see page 221) • “Close”: disconnects WinLGX from NEXUS series server/controller on currently selected product tab • “Close all”: disconnects WinLGX from all connected NEXUS series servers/controllers • “Save”: saves a NEXUS series image that was previously saved as a file or opens file window for saving a NEXUS series image under a user-specified name and folder (see page 224) • “Save as/Export”: opens file window for saving a NEXUS series image under a user-specified name and folder (see page 224) • “Send”: select to send a NEXUS series image with a schedule to the

MENU ITEM	FUNCTION
	<p>NEXUS series server/controller (see page 300)</p> <ul style="list-style-type: none"> • “Send all”: sends currently open image files to their corresponding NEXUS series servers/controllers with one click (see page 300) • “Receive”: select to receive image from the connected NEXUS series server/controller (see page 222) • “Receive all”: downloads image files from each of the currently connected NEXUS series servers/controllers with one click (see page 222) • “Get log”: select to obtain log file from the connected NEXUS series server/controller (see page 336) • “Page setup”: opens window to configure schedule printout (see page 117) • “Print setup”: opens window to configure the printer and paper settings (see page 118) • “Print”: click to select template and then print schedule (see page 301) • “Exit”: closes WinLGX program (see page 217)
“Edit”	<p>Click on this menu item to display the following options (see “Scheduling/Editing/Deleting All Events,” starting on page 238):</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, this option displays the “Channel Switchback Editor” window. The switchback editor allows users to quickly change the inputs assigned to the channel switchbacks (see page 298) • “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 102): <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 hide/show the “System Configuration View” window ➤ “Resource”: allows you to hide/show the “Resource View” window

MENU ITEM	FUNCTION
	<ul style="list-style-type: none"> ➤ “Properties”: allows you to hide/show the “Properties” window • “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 86 and “Configuring WinLGX Interface Colors,” on page 106)
“Tools”	<p>Click on this menu item to display the following options:</p> <ul style="list-style-type: none"> • “Control Panel”: opens control panel window (see “Using Control Panel to Perform Immediate Device and Switch Actions,” beginning on page 305) • “Controller”: opens window for configuring site information, setting clock, performing firmware updates, and rebooting (see page 113) • “Set front panel password”: opens window for setting front panel password (see page 113) • “Export/Print Templates”: opens window for creating templates that determine which schedule information is exported or printed (see page 115) • “User defined data”: opens window for configuring user-defined schedule event columns (see page 120) • “Storage Manager”: opens window for managing MPEG videos, JPEG slides, and overlays (see page 327) • “Site Manager”: opens window for adding or deleting NEXUS series locations (see page 92) • “User accounts”: opens window for configuring user account settings (see page 109) • “Web Interface”: opens the WebNEXUS login prompt for the connected NEXUS series server/controller IP address (see page 351) in your default web browser • “Total Backup”: opens window for saving and restoring MPEG videos, slides, and NEXUS series system information (see page 445) • “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 channel switchbacks (see page 298) ➤ “Sync Library Resources”: checks NEXUS series image files for library resources and schedule events referencing MPEG files no longer on the NEXUS series system’s storage device(s) (see page 298) • “Preferences”: opens window for configuring WinLGX main window components, including time format, sorting filter for library resource








MENU ITEM	FUNCTION
	items, and display of schedule columns (see page 123)
"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, training videos, and software and firmware updates for your NEXUS series 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 214).









- **Main Toolbar:** contains icons for some of the most frequently used operations (see Illustration 40 and Table 18, Toolbar Items).

Illustration 40, Main Toolbar



Table 18, Toolbar Items

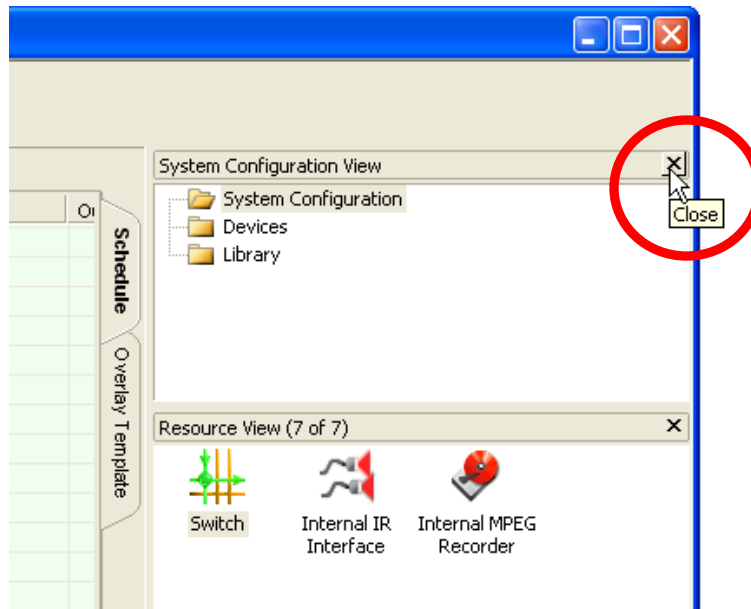
TOOLBAR BUTTON	FUNCTION
	Opens file selection window for selecting image files (see "Opening a Saved Image File" on page 219)
	Opens file selection window for opening an image file with a blank schedule (see "Opening an Image File as New," on page 221)
	Saves a NEXUS series image that was previously saved as a file or opens file window for saving a NEXUS series image under a user-specified name and folder (see "Saving NEXUS Series Image Files," on page 224)
	Opens window for selecting preferences on WinLGX's appearance and select operations (see "Setting WinLGX Viewing and Communication Preferences," beginning on 123)
	Displays control panel window (see "Using Control Panel to Perform Immediate Device and Switch Actions," beginning on page 305)
	Sends an image file to the connected NEXUS series server/controller (see "Sending NEXUS Series Image Files," on page 300)
	Receives image from the connected NEXUS series server/controller (see "Receiving Image Files from the Connected NEXUS Series Server/Controller(s)" beginning on page 222)

TOOLBAR BUTTON	FUNCTION
	Checks NEXUS series image files for library resources and schedule events referencing MPEG files no longer on the NEXUS series system's storage device(s) (see "Checking Schedule and Library Resources for Missing MPEG Files" on page 298)
	Displays window for managing JPEG slides, MPEG videos, and overlays (see "Managing Storage of Video, Slide, and Overlay Files," on page 327)
	Obtains log file from the connected NEXUS series server/controller (see "Retrieving Log Files," on page 336)
	Opens application for saving and restoring MPEG videos, slides, and NEXUS series system information (see "Total Backup ," on page 445)
	Displays window for adding or deleting NEXUS series servers/controllers network locations (IP addresses) to WinLGX (see "Adding / Deleting NEXUS Locations in the Site Manager," on page 88)
	Displays window for selecting an export/print template (see "Printing Schedules from WinLGX," on page 301)
	Opens the WebNEXUS login screen in your default web browser
	Displays a window with the WinLGX version number (see page 214)

CONFIGURING THE MAIN WINDOW COMPONENTS

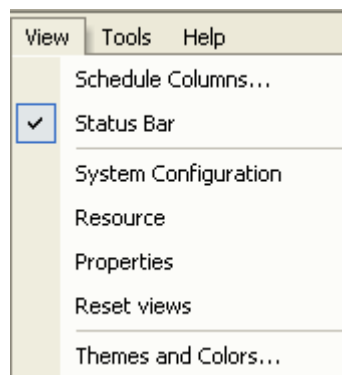
- **Product Tabs:** you can click to close each of your product tabs. Simply click on a tab with the right mouse button and select “Close.” In the pop-up window that opens, select “Yes” to indicate you want to disconnect from the selected product.
- **Close Icon:** to remove a view window from the WinLGX interface, click the close icon on the window’s toolbar (see Illustration 41). To display the window again, go to the “View” menu and select “Reset views.”

Illustration 41, View Window Close Option



- **Hiding/Displaying Windows and Schedule Columns through the “View” Menu**
The “View” menu, shown in Illustration 42, 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.

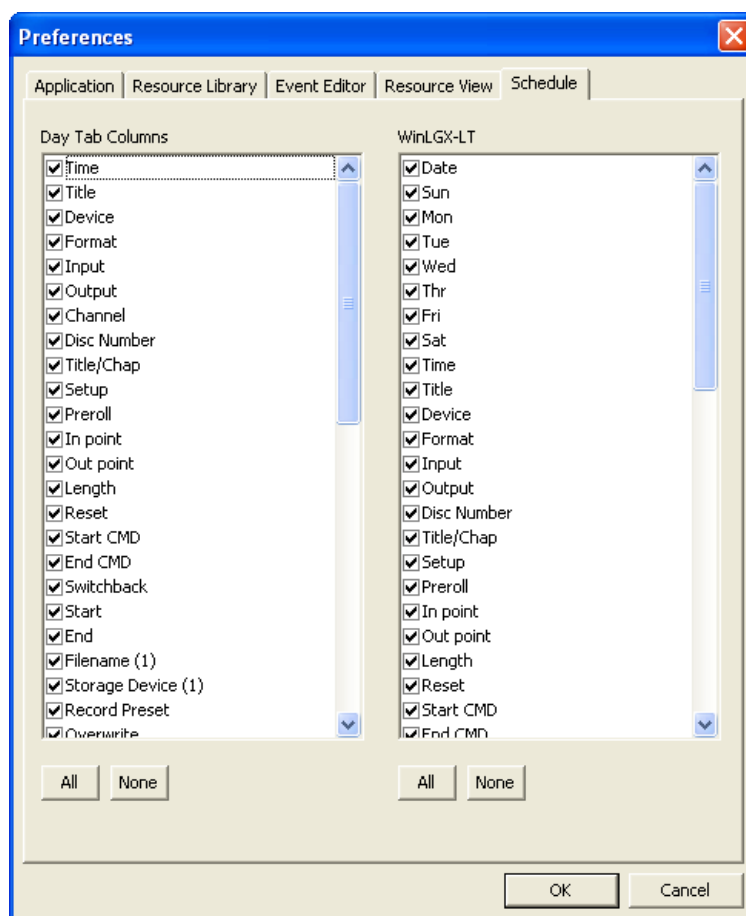
Illustration 42, “View” Menu



- 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 123). 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 43, Schedule Columns Selection Menu).
- Perform the following steps:

Illustration 43, 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

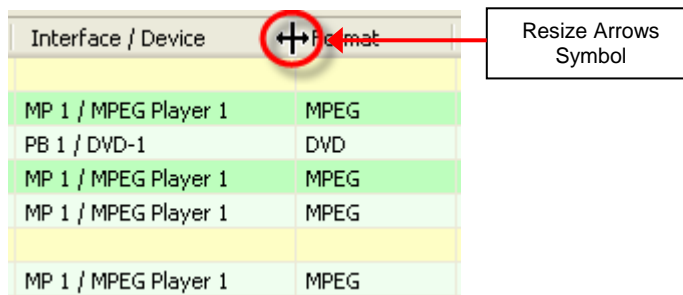
- Click the “None” button to remove all columns on the corresponding schedule windows
- 2. When all selections have been made, click “OK” to display changes on schedule or “Cancel” to abort changes.
- Moving Windows

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 redock 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 to the beginning of the heading you would like it to displace. The displaced heading will shift to the right 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 44, Resizing Schedule Column), you may perform one of the following:

Illustration 44, Resizing Schedule Column

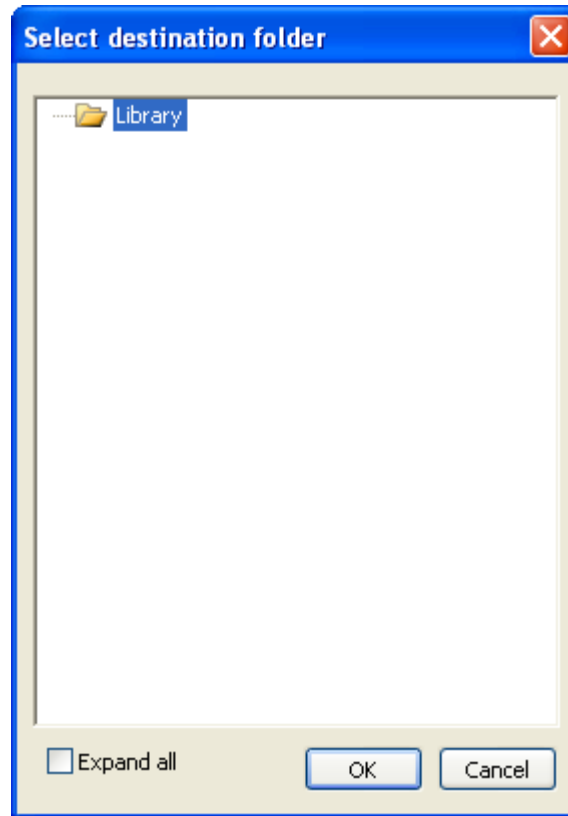


- Drag the column border to the desired width.
- Double click to resize the column so it is only wide enough to accommodate the column’s largest field item.
- Using Subfolders to Organize “Library” Folder Resources
 - Creating library subfolders
 1. Right click in the configuration folders window and select “New” in the right-click menu that appears.
 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 45. Display the “Library” folder’s subfolders by either clicking on the “+” next to the folder icon or checking the “Expand all” box.

Illustration 45, "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.

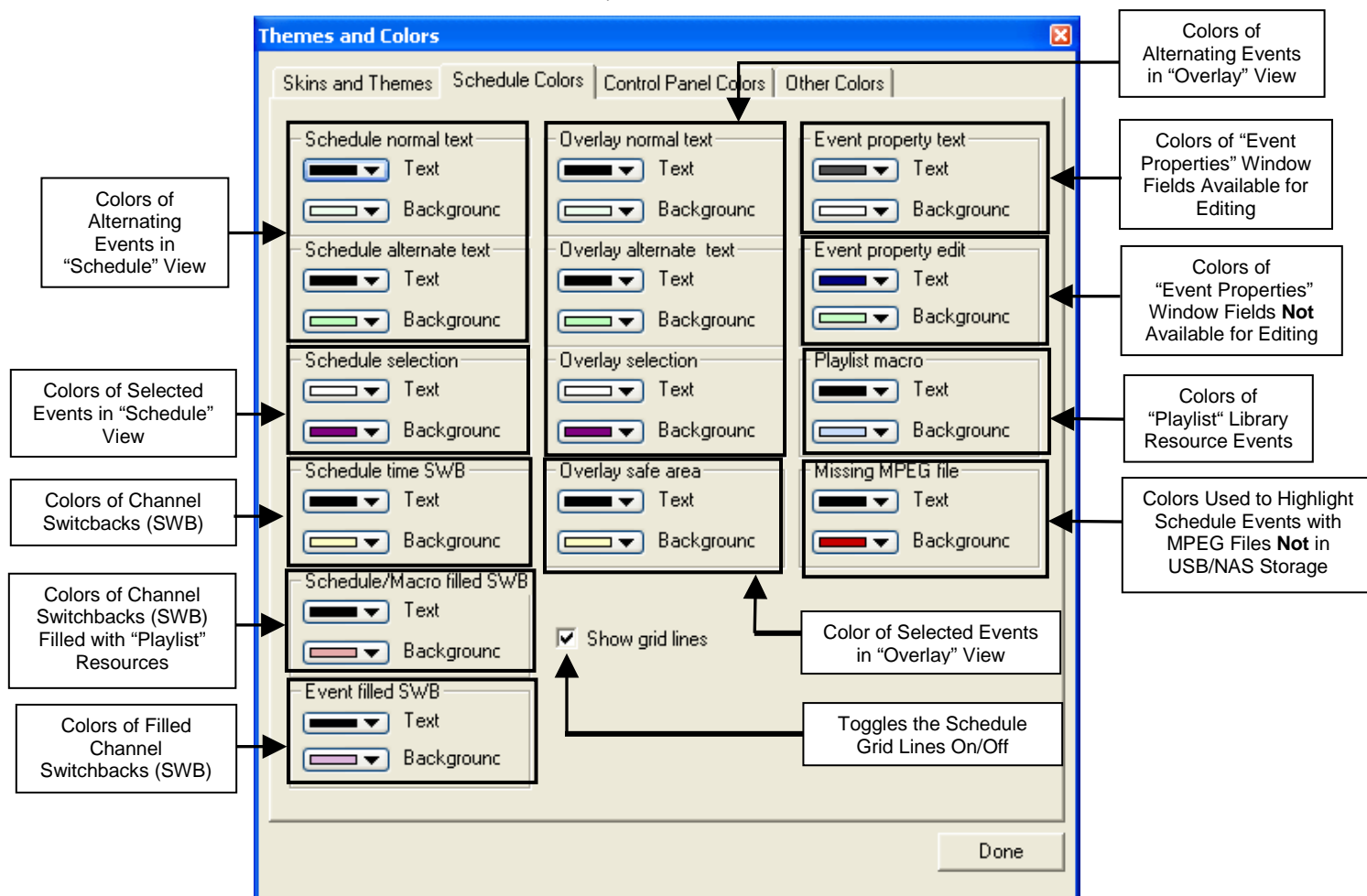
CONFIGURING WINLGX INTERFACE COLORS

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 46 for the following elements on the “Schedule” and “Overlay Template” windows:

Illustration 46, “Schedule Colors” Tab

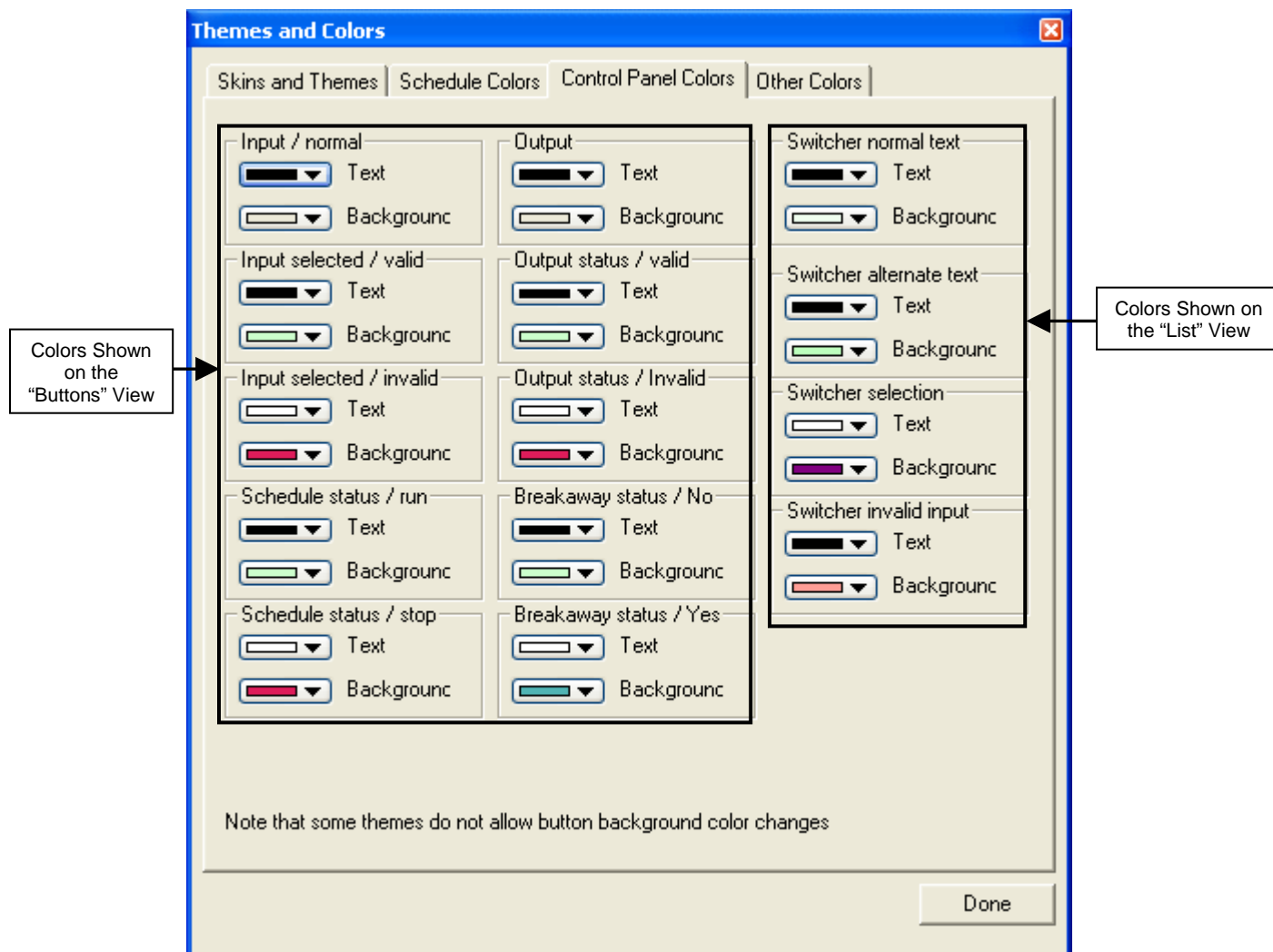


- Event rows in the “Schedule” and “Overlay Templates” views
- Selected events in the “Schedule” and “Overlay Templates” views
- Channel switchbacks (SWB)
- Filled channel switchbacks (SWB)
- “Event Properties” window fields available for editing
- “Event Properties” window fields not available for editing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

Control Panel Colors Tab

Click the “Control Panel Colors” tab (see Illustration 47, “Control Panel Colors” Tab Window) and choose the text and background colors for the NEXUS series control panel.

Illustration 47, “Control Panel Colors” Tab Window



Other Colors Tab

Click the “Other Colors” tab (see Illustration 48, “Other Colors” Tab Window) and choose the text and background colors for the “Overlay Graphic Editor” window (see Illustration 49) used when creating overlay library resources.

Illustration 48, “Other Colors” Tab Window

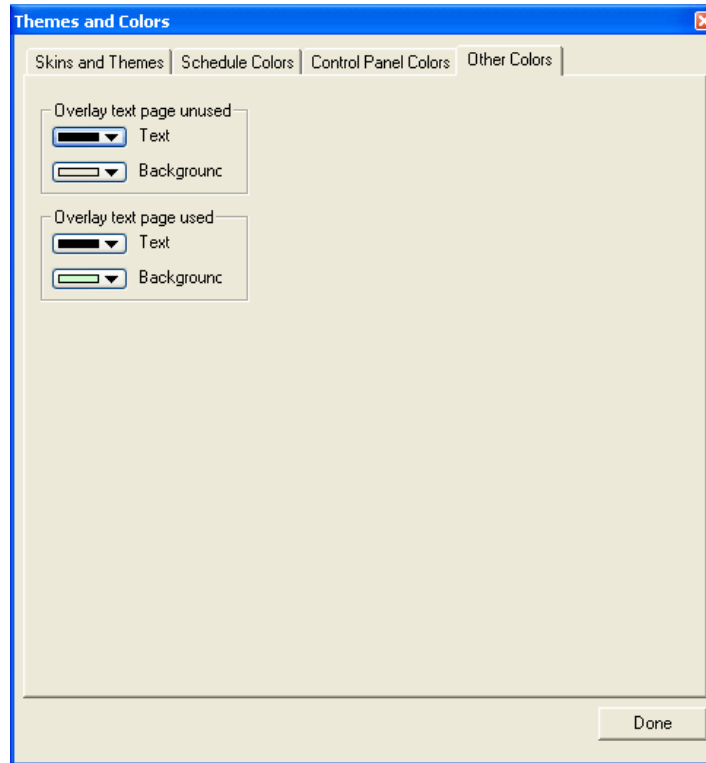
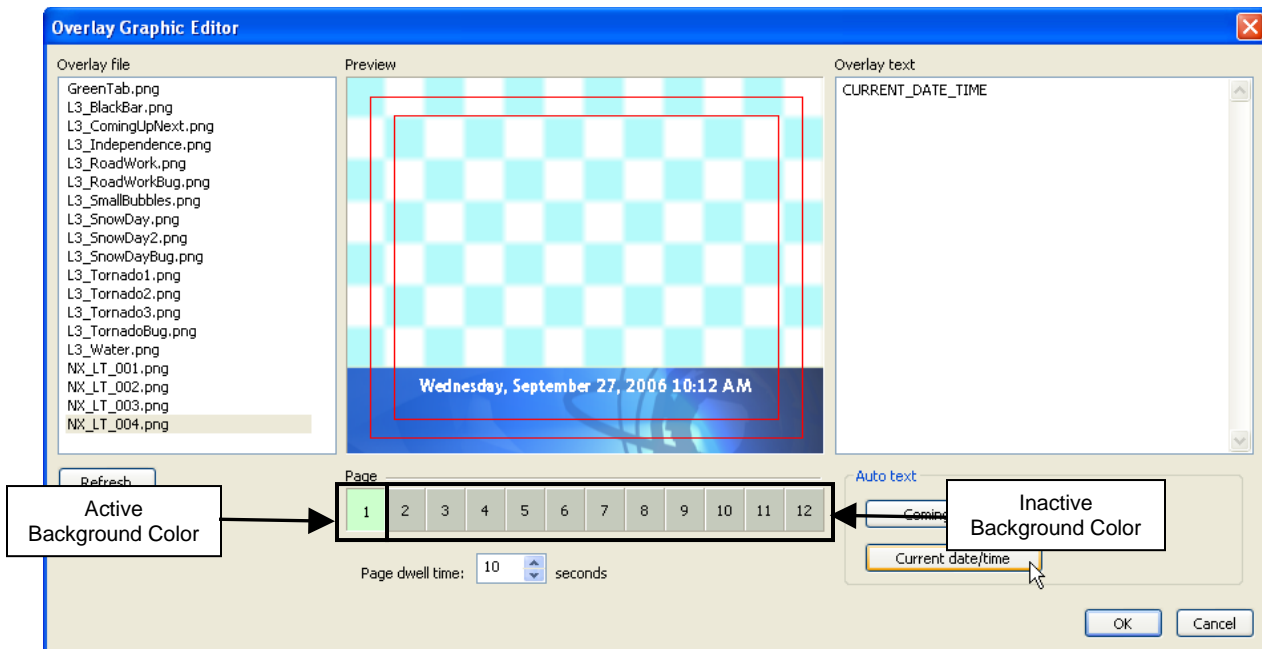


Illustration 49, “Overlay Graphic Editor” Window Colors

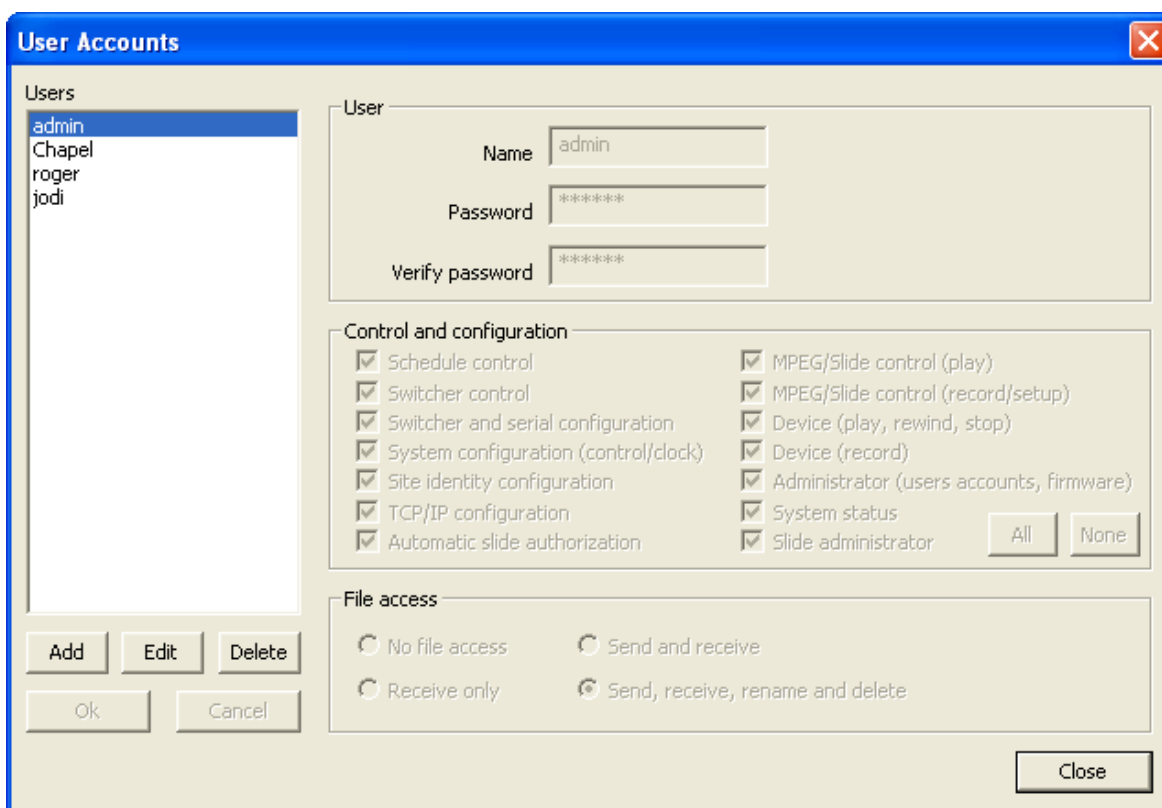


SETTING USER ACCOUNT RIGHTS (INCLUDING WINLGX PASSWORD CHANGES)

1. Select “User accounts” in the “Tools” menu to open the “User Accounts” window (see Illustration 50).

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

Illustration 50, “User Accounts” Window



2. WinLGX and WebNEXUS user rights are described in Table 19, User Control and Configuration Rights (see page 111) and Table 20, User File Access Rights (see page 112). 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 NEXUS series server/controller’s front panel are only restricted by the front panel password.

3. 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.
 - 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 NEXUS series server/controller 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 NEXUS series server/controller or “Cancel” to abort the edit.

- **Delete a user account**

NOTE: All slides uploaded under the user account will be deleted from the NEXUS series server/controller along with the 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 19, 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 WebNEXUS: allows user to perform emergency messaging, Virtual Channel, and program guide functions; set up file transfer destinations and record settings as well as record MPEG files; transfer MPEG files; view log files; manage system settings
“Automatic slide authorization”	Causes any slides uploaded or created by the user 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 an MPEG file or display a slide from the 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 and record settings as well as record MPEG files
“Schedule control”	Allows user to stop or run a schedule
“Site identity configuration”	Allows user to edit the NEXUS series site name and location and reboot the server/controller
“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 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

USER RIGHTS	DESCRIPTIONS
"System status"	This is a default right that allows all users to view the NEXUS series server/controller status from the Control Panel
"TCP/IP configuration"	Allows user to set up the TCP/IP addresses

Table 20, User File Access Rights

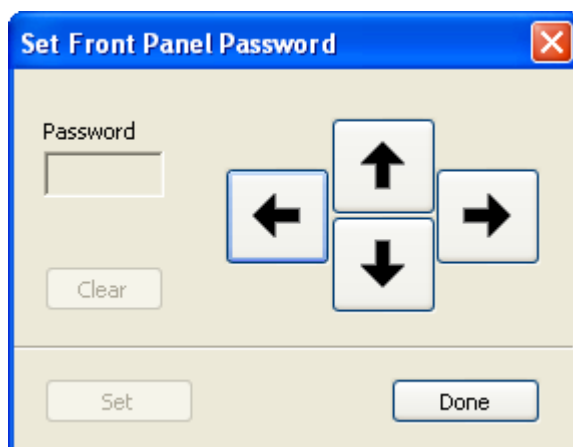
USER RIGHTS	DESCRIPTIONS
"No file access"	<ul style="list-style-type: none"> • WebNEXUS: user allowed to perform JPEG slide management functions (add, edit, rename, delete) within his remote user folder • WinLGX: user prevented from performing the following: <ul style="list-style-type: none"> ➤ Sending and receiving NEXUS series image files ➤ Opening the "Storage manager" window (see "Managing Storage of Video," on page 327, for more information on the "Storage manager" window). ➤ Accessing current log files
"Receive only"	<ul style="list-style-type: none"> • WebNEXUS: user allowed to perform JPEG slide management functions (add, edit, rename, delete) within his remote user folder; user may transfer files from NEXUS series system storage areas to configured file destinations • WinLGX: user prevented from sending NEXUS series image files and moving/copying JPEG slides and MPEG files from one storage device to another
"Send and receive"	<ul style="list-style-type: none"> • WebNEXUS: user allowed to perform all JPEG slide management functions (add, edit, rename, delete) within his remote user folder; user may transfer files from NEXUS series system storage areas to configured file destinations • WinLGX: user allowed to send slides, PNG overlays, and MPEG videos to NEXUS series server/controllers, but not image (schedule) files; user prevented from renaming and deleting files on the remote storage devices

USER RIGHTS	DESCRIPTIONS
"Send, receive, rename and delete"	<ul style="list-style-type: none"> • WebNEXUS: user allowed to perform all JPEG slide management functions (add, edit, rename, delete) within his remote user folder ; user may transfer files from NEXUS series system storage areas to configured file destinations • WinLGX: user allowed to perform all software functions, including sending and receiving NEXUS series images (schedules) and renaming and deleting slides, PNG overlays, and MPEG files on the remote storage devices

CHANGING FRONT PANEL PASSWORD

1. Select "Set front panel password" in the "Tools" menu to open the window shown in Illustration 51.

Illustration 51, "Set Front Panel Password" Window



2. Click on a combination of five arrows for the new front panel password.
3. Click "Set" to accept new password or "Clear" to cancel.
4. Click "Done" to close the "Set Front Panel Password" window.

CONFIGURING SITE INFORMATION, CLOCK, UPDATING FIRMWARE, AND REBOOTING

1. In the "Tools" menu, choose "Controller" to open the window shown in Illustration 52, "Controller" Window.

Illustration 52, “Controller” Window

The screenshot shows a window titled "Controller" with a blue header bar and a red close button. The window is divided into several sections:

- Site information**: Contains fields for "Controller type" (UltraNEXUS), "Serial number" (0701AC V04.32.41D), "Site name" (UltraNEXUS), "Site location" (Columbia High School - Server Room), and "Time Zone" ((GMT-05:00) Eastern Time (US and Canada)). There is a "Set" button next to the "Site name" field.
- Clock**: Contains a "Controller time" field (Mon Feb 20 16:54:09 2012), a "PC Current time" field (Mon Feb 20 16:54:08 2012) with a "Set" button, and a "User time" section with a date dropdown (2/20/2012), a time spinner (16:53:39), and a "Set" button.
- Firmware update**: Contains a "File" field (<Unknown>) with a "Browse..." button, and "Version" and "Size" fields with "Options..." and "Update" buttons.
- Reboot**: Contains a "Reboot the controller" label and a "Reboot" button.

A "Close" button is located at the bottom right of the window.

2. 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 NEXUS series server/controller. 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.

- 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 Controller’s tab on the main window.

- Site location

Click on the “Site location” field and enter the Controller’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/controller’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 Controller 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 NEXUS Series Server/Controller and/or DVply Firmware,” on page 344.

- Reboot

To reboot the connected NEXUS series server/controller, click the “Reboot” button.

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

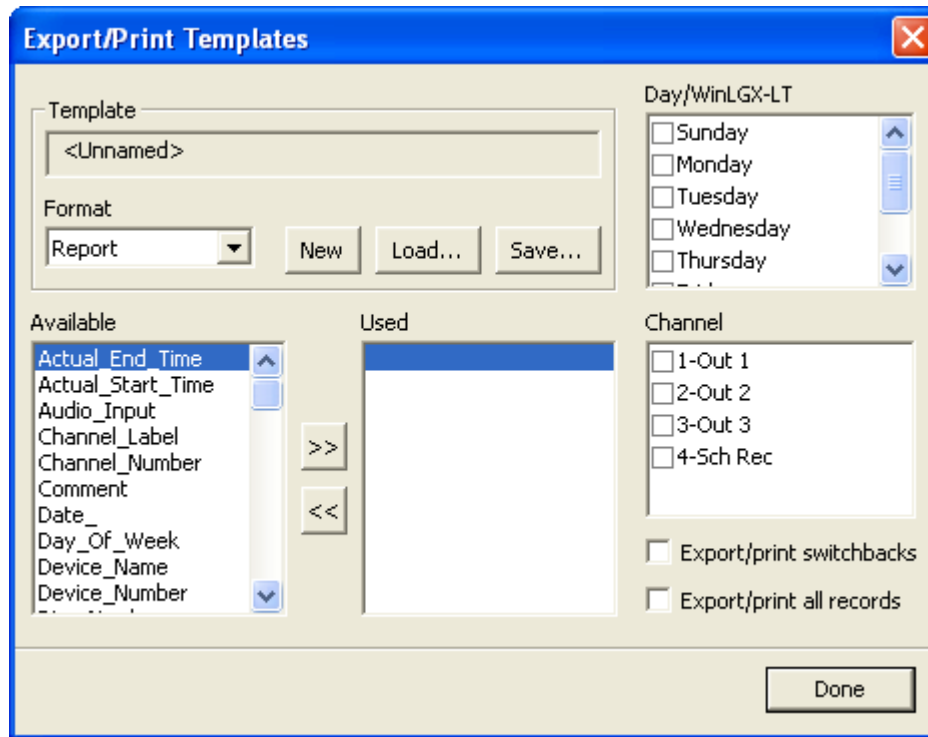
CREATING TEMPLATES FOR EXPORTING/PRINTING SCHEDULES

Schedule templates allow you to determine which schedule information will be exported or printed. Schedules can be exported into a comma delimited file format (.csv) (see “Exporting Schedules,” on page 303) or printed directly from WinLGX (see “Printing Schedules,” on page 301).

1. Create a schedule template per the following steps:

- a. Click “Export/Print templates” in the “Tools” menu to open the window shown in Illustration 53.

Illustration 53, “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/WinLGX-LT” section to select the desired days or “WinLGX-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.

- 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.

- Specify the schedule column information you want the template to add to your printouts and exported files as follows:

NOTE: No schedule event information will be added to your printouts or files unless columns are added to the “Used” box.

- 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.

2. To revise a template:

- a. Click “Export/Print templates” in the “Tools” menu to open the window shown in Illustration 53, “Export/Print Templates” Window.
- b. 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.
- c. Click “Save” to open the “Save Export/Print Template” window. Click the “Save” button and then “yes” to overwrite the template file.

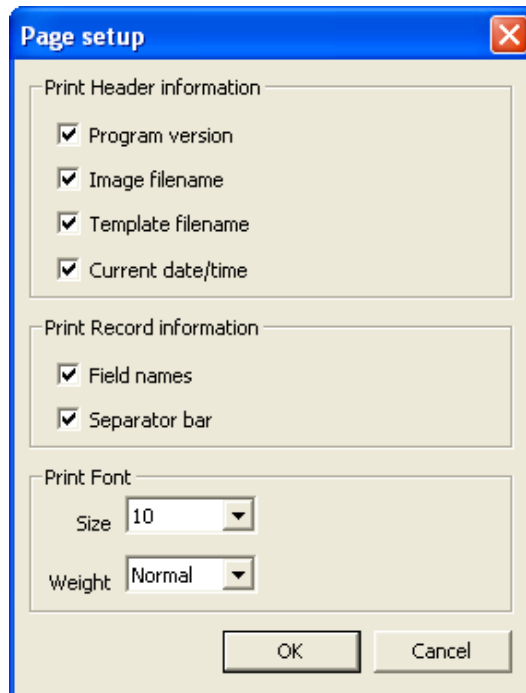
3. Click “Done” when finished to close the “Export/Print Templates” window.

CONFIGURING PAGE LAYOUTS FOR SCHEDULES PRINTED FROM WINLGX

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

1. Select “Page Setup” in the “File” menu to open the box shown in Illustration 54, “Page Setup” Window, and configure the schedule printout according to the following options:

Illustration 54, “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 55, Example of a Schedule Header.

Illustration 55, Example of a Schedule Header

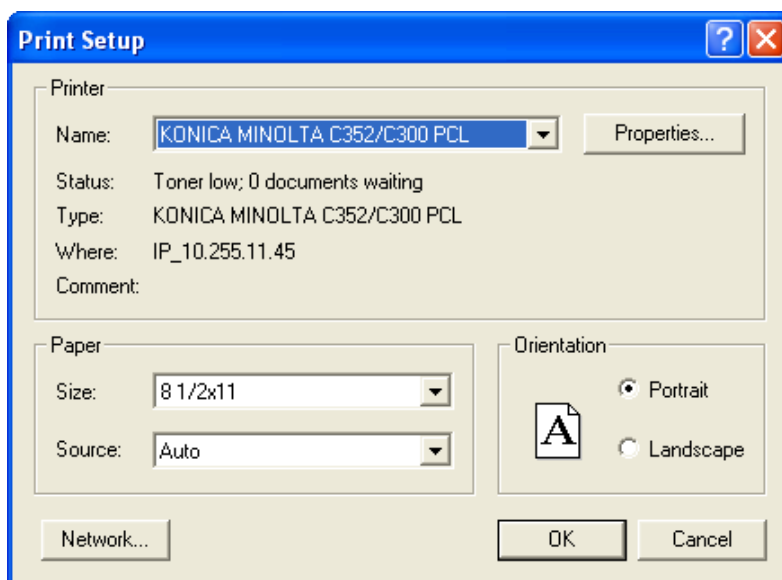
WinLGX Version 1.01.20	Page 1
Copyright © 2005, LEIGHTRONIX, INC.	
Image Filename: UltraNEXUS/NEXUS.nmg	
Template Filename: nxs.xpt	
Today is: Mon Apr 18 13:02:33 2005	

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

CONFIGURING PRINTER AND PAPER SETTINGS FOR SCHEDULES PRINTED FROM WINLGX

1. Selecting “Print Setup” in the “File” menu opens the box shown in Illustration 56, “Print Setup” Window, which allows you to configure the printer and paper settings as follows:

Illustration 56, “Print Setup” Window

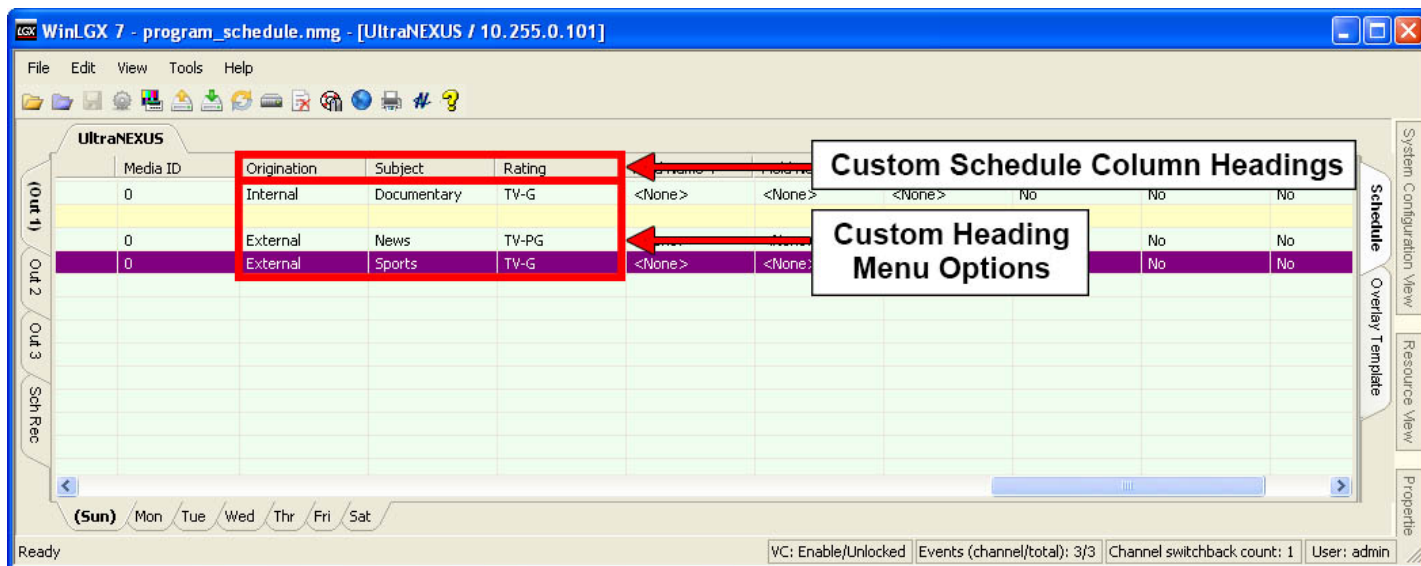


- “Printer” section: choose the desired printer from a list of your PC’s available printers. When a printer is chosen, its status appears below the “Name” field.
 - “Properties” button: click to open a window specific to the printer, so that detailed printer settings can be made.
 - “Paper” section: 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.
2. Click “OK” to save your settings or “Cancel” to close the window without saving.

CREATING CUSTOM SCHEDULE COLUMNS

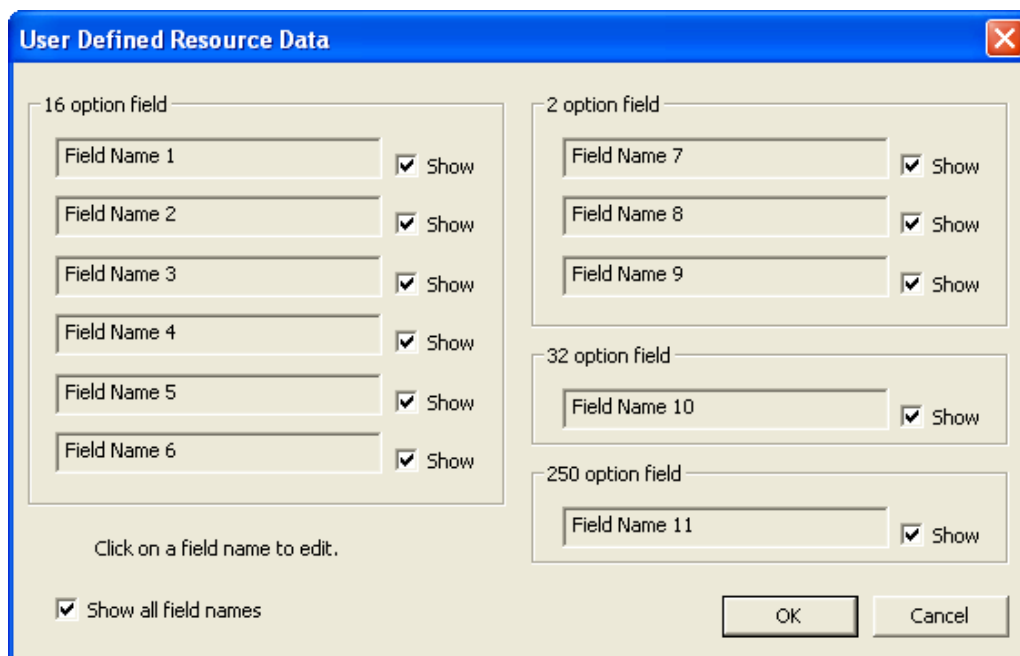
The 11 generic “Field Name” schedule columns allow you to categorize program events in your schedule. Users may assign each of these columns a new heading along with a list of menu options for classifying each event under your custom headings on the schedule. Using the “User Defined Resource Data” window, shown in Illustration 58, rename and add menu items to the desired field columns as follows:

Illustration 57, Example of Schedule with Custom Schedule Columns



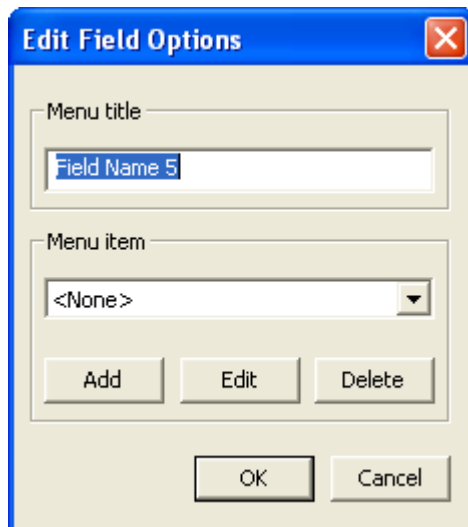
1. Click “User defined data” under the “Tools” menu to open the window shown in Illustration 58.

Illustration 58, “User Defined Resource Data” Window



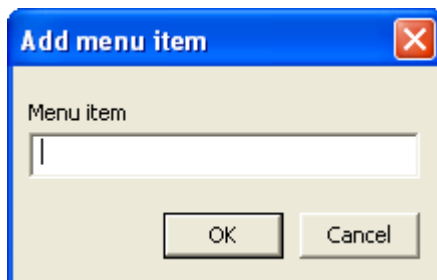
2. Select the fields displayed on your schedule as follows:
 - To show all fields, ensure the “Show all field names” box is checked.
 - To hide all fields, ensure the “Show all field names” box is unchecked.
 - To hide one or more fields, uncheck the “Show” box next to the each field you would like to hide.
3. Click on the field which you would like to rename. In the “Edit Field Options” window that appears (see Illustration 59), perform the following:

Illustration 59, “Edit Field Options” Window



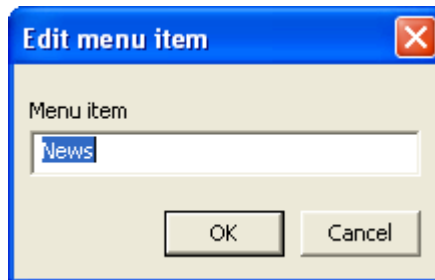
- a. Enter a new schedule heading into the “Menu title” field.
- b. Add a list of menu options that will be used to define schedule events for the custom column. The number of menu items that may be added corresponds to the number of options shown over each section of field names on the window.
 - Add new menu items: click the “Add” button to display the “Add menu item” window (see Illustration 60). Enter the desired menu item and click “OK” to add to the “Menu item” drop down list or “Cancel” to abort the change.

Illustration 60, “Add Menu Item” Window



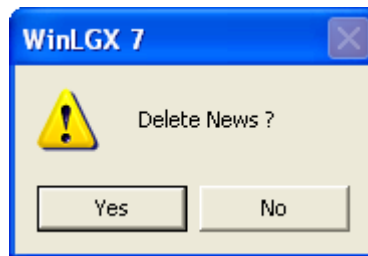
- Edit menu items: select the desired menu item from the drop down list and click the “Edit” button to display the “Edit menu item” window (see Illustration 61). Enter a new menu item and click “OK” to change the “Menu item” drop down list or “Cancel” to abort the change.

Illustration 61, “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 62). Click “Yes” to change the “Menu item” drop down list or “No” to abort the change.

Illustration 62, Menu Item Delete Confirmation Box



4. 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.
5. Click “OK” to accept or “Cancel” to abort all field changes and close the “User Defined Data” window.

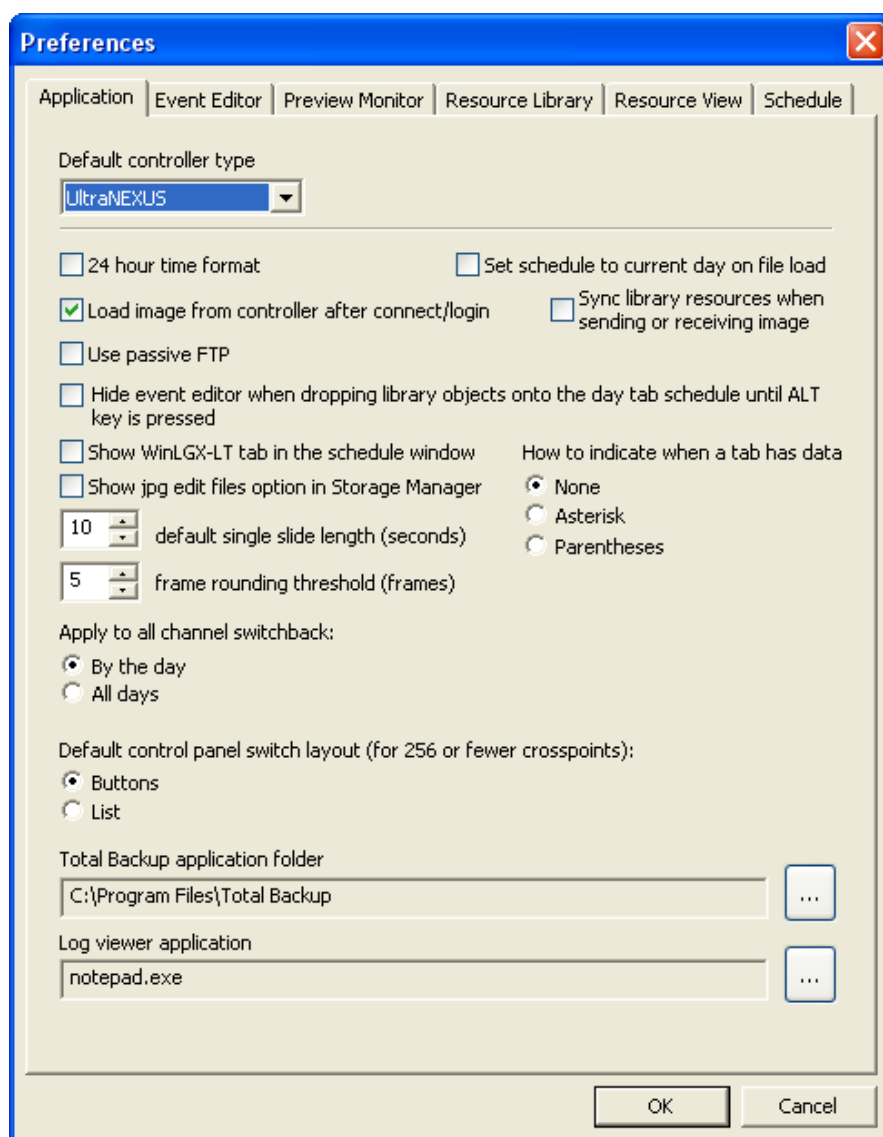
SETTING WINLGX VIEWING AND COMMUNICATION PREFERENCES

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.

Application Tab

Click the “Application” tab (see Illustration 63, “Application” Tab) and perform any of the following:

Illustration 63, “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 controller.

- **“Set schedule to current day on file load”**: this preference causes WinLGX to select the current day tab when a NEXUS series image file is loaded
- **“Sync library resources when sending or receiving image”**: when this option is selected, WinLGX automatically checks NEXUS series image files for library resources and schedule events referencing MPEG files no longer on the NEXUS series system’s storage device(s) (see “Checking Schedule and Library Resources for Missing MPEG Files” on page 298 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 NEXUS series server/controller.

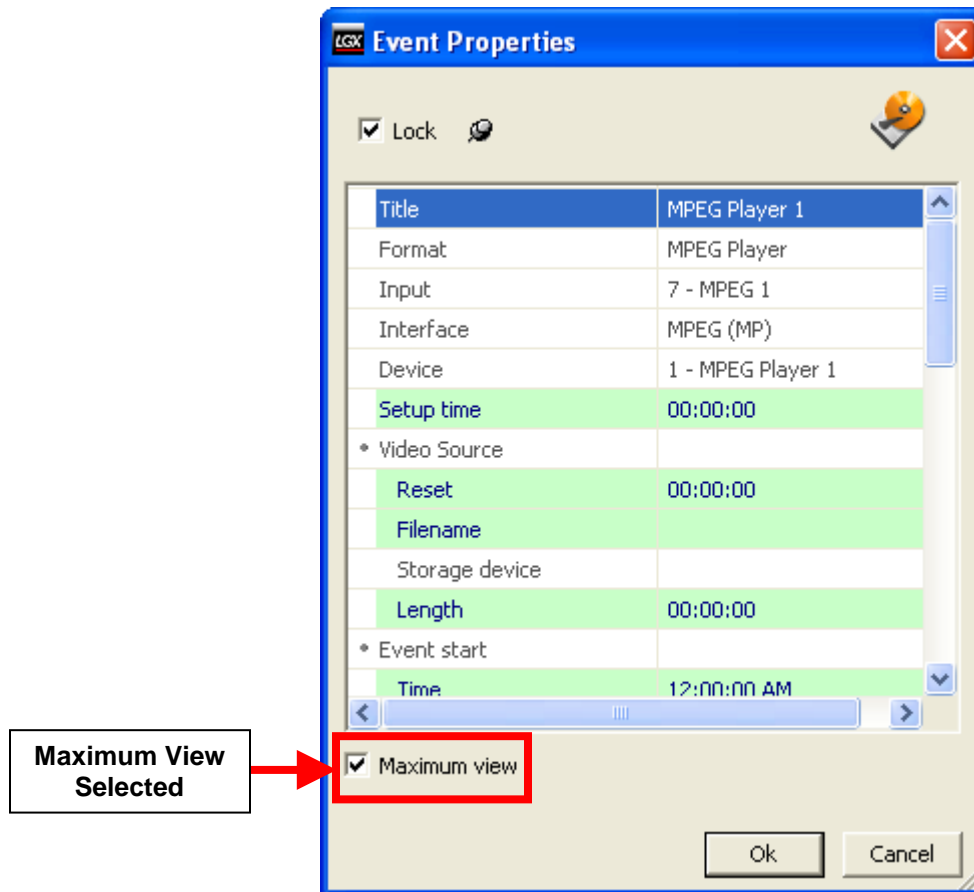
- **“Load image from controller after connect/login”**: selecting this option causes the image file last sent to the NEXUS series server/controller to be loaded after the user connects to the system through WinLGX.
- **“Use passive FTP”**: if your firewall is blocking your schedule and MPEG files, check this option and then resend the files to your NEXUS series server/controller.
- **“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” on page 234 for more information on this tab.
- **“Show jpg edit files option in Storage Manager”**: checking this option causes the “Show Edit Files” option to appear on the Storage Manager window when the “Slides” file type is selected. When selected, the “Show Edit Files” option causes the Storage Manager to list the .fie files for any slides originally created in a WebNEXUS slide editor. When slide .jpg files are transferred with their .fie files off of your NEXUS series server, you have the option later of re-uploading the slide files back onto a NEXUS series server for editing in WebNEXUS. Refer to “Transferring Graphic/Text Layers with Slides Created in a WebNEXUS Slide Editor,” on page 334, for more information on slide .fie files.
- **“Default single slide length”**: type or use the up/down arrows to specify the number of seconds WinLGX will automatically place in the “length” field for a slide library resource or schedule event after a slide filename is selected. The default display length may be changed to a value of 5–90 seconds. *You may edit the “length” values for each of your single slide library resources or schedule events.*

- **“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 MPEG files based on the last milliseconds of video/audio frames (1 second of an MPEG file = 30 frames). Once the threshold value is set, the MPEG 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 296 for more information on filling 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
- **“Default control panel switch layout (for 256 or fewer crosspoints)”**: if you are using an external routing switcher that has a total of 256 or less input/output crosspoints (to obtain your total crosspoints, multiply your switcher’s inputs by its outputs), then you may choose to display your inputs/outputs on the WinLGX Control Panel as either “Buttons” or in a “List.” Those with an external switcher having more than 256 crosspoints will automatically see their inputs/outputs in the “List” view on the Control Panel. Refer to “Performing Forced Switches and Viewing Switcher Status” on page 307 for more details on both options.
- Under **“Total Backup application folder,”** define where the NEXUS series Total Backup software application is installed by entering a file path or browsing to it with the yellow folder icon. Setting this preference enables you to open the program from within WinLGX with the Total Backup icon or menu item.
- Under **“Log viewer,”** click the button to the right of the log viewer field to select a software program for viewing your NEXUS series log files.

Event Editor Tab

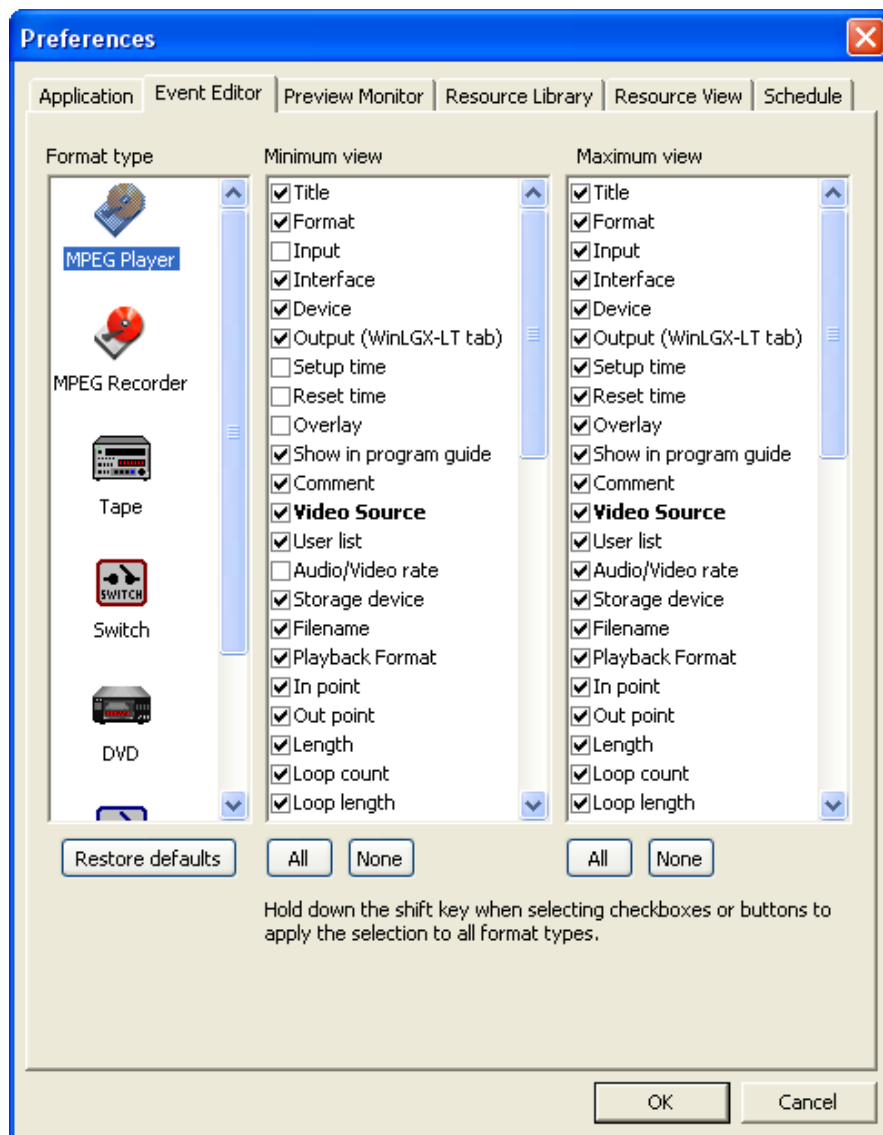
Each event properties window for a device or library resource item may be configured to show different fields under a “minimum” and “maximum” view. During scheduling, you may toggle between these views by selecting and deselecting the “Maximum view” checkbox on the event properties dialog (refer to Illustration 64).

Illustration 64, Example of Event Properties Window



To configure the field views for your device and library event properties windows, click the “Event Editor” tab (see Illustration 65, “Event Editor” Tab Window) and perform the following:

Illustration 65, “Event Editor” Tab Window



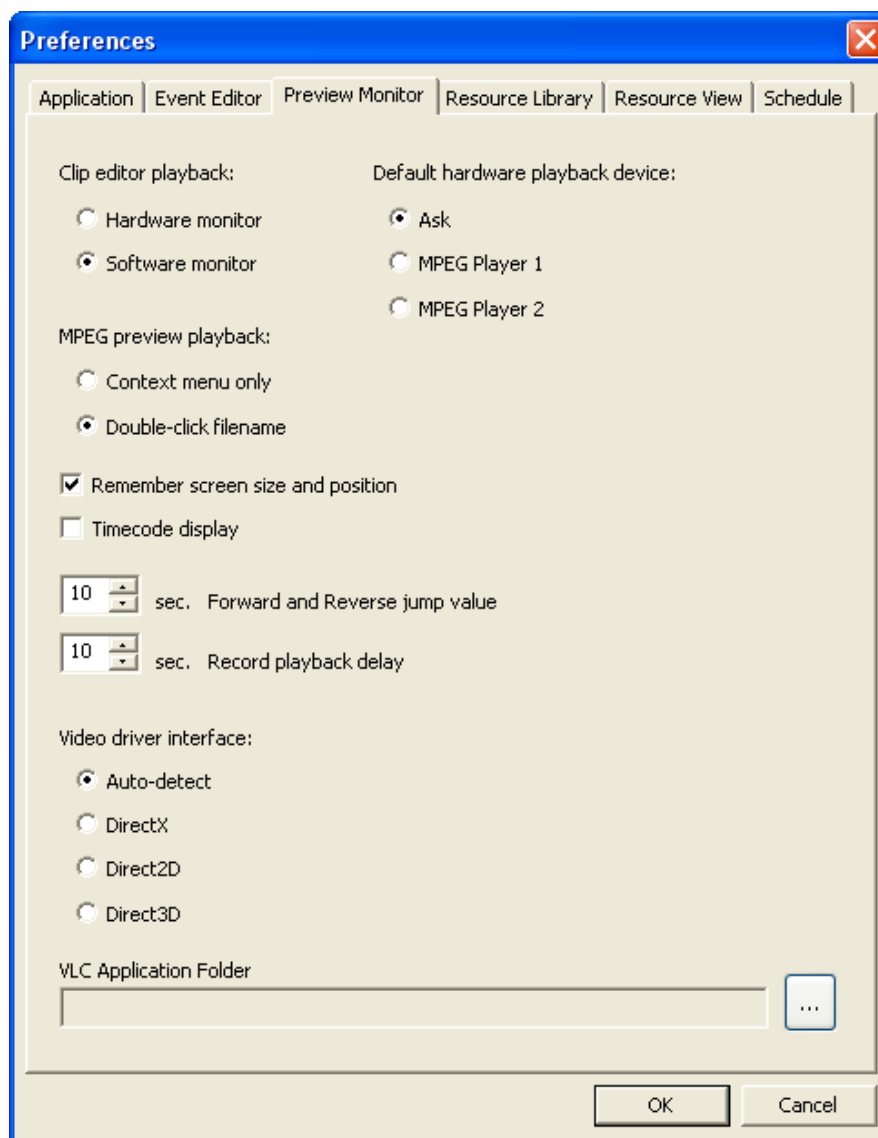
1. Under “Format type,” select the format of the device/library event properties window you would like to configure.
2. Perform any of the following options:
 - “Restore defaults” button: click to return the selected format’s minimum and maximum views to the factory default settings.
 - “Minimum view” 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.

Preview Monitor Tab

WinLGX includes preview monitor windows for displaying MPEG video files prior to scheduled or immediate playback, during clip editing, and as files are recorded. Set up and control the operation of these software monitors by clicking the “Preview Monitor” tab (see Illustration 66, “Preview Monitor” Tab) and performing any of the following:

Illustration 66, “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 your NEXUS series system.
- **“Default hardware playback device”**: if using an external hardware monitor to view clips during editing, use this option to either select a default MPEG player to display clips (choose “MPEG Player 1” or “MPEG Player 2”)

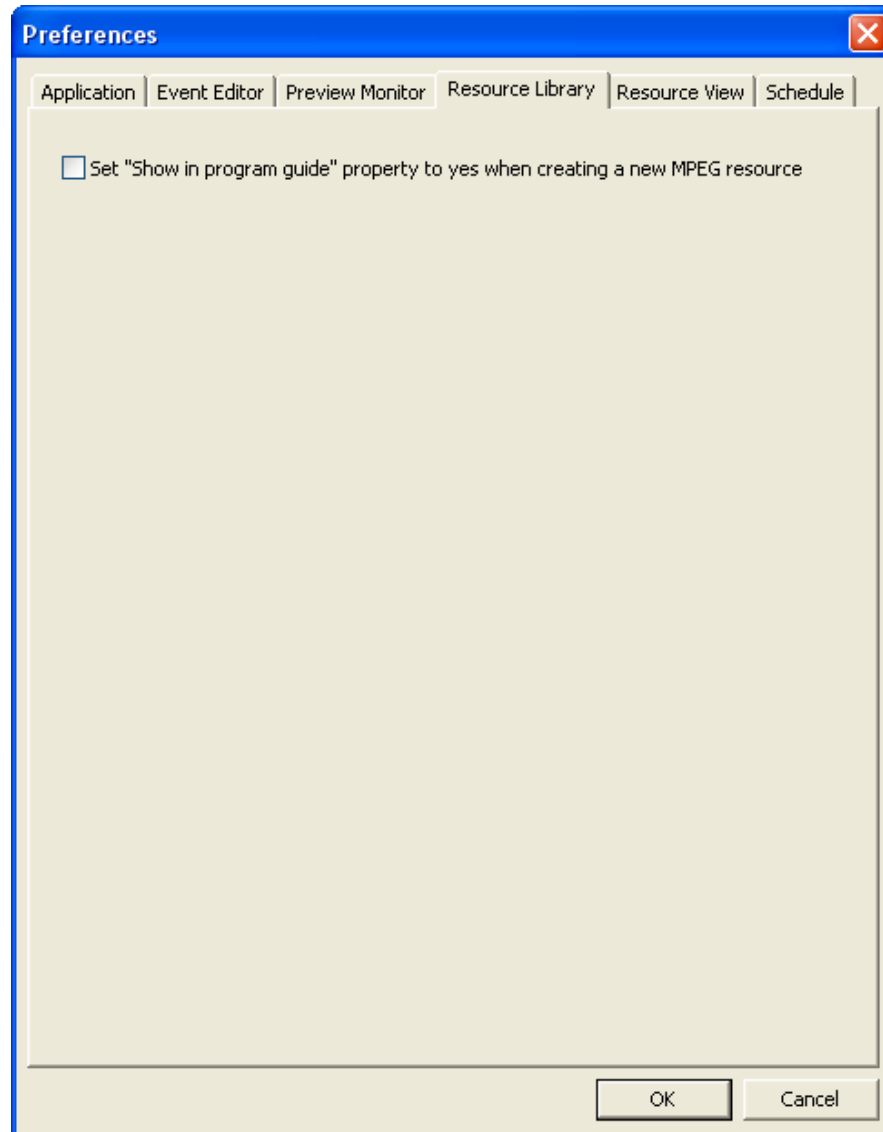
or to display a window allowing you to select an MPEG player at the start of each clip editing process (choose “Ask”).

- **“MPEG preview playback”**: choose one of the following options for previewing your MPEG 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 video clip editor and 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”**: allows you to set the WinLGX video clip editor and instant video preview monitors’ forward and reverse buttons so they move the current playback indicator in increments of anywhere from one to ninety seconds.
- **“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 MPEG 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 MPEG 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).

Resource Library Tab

Click the “Resource Library” tab (see Illustration 67, “Resource Library” Tab) and check the “Show in program guide” property to automatically populate the corresponding fields when creating MPEG playback library resources (go to page 183 for more information on creating MPEG library resources).

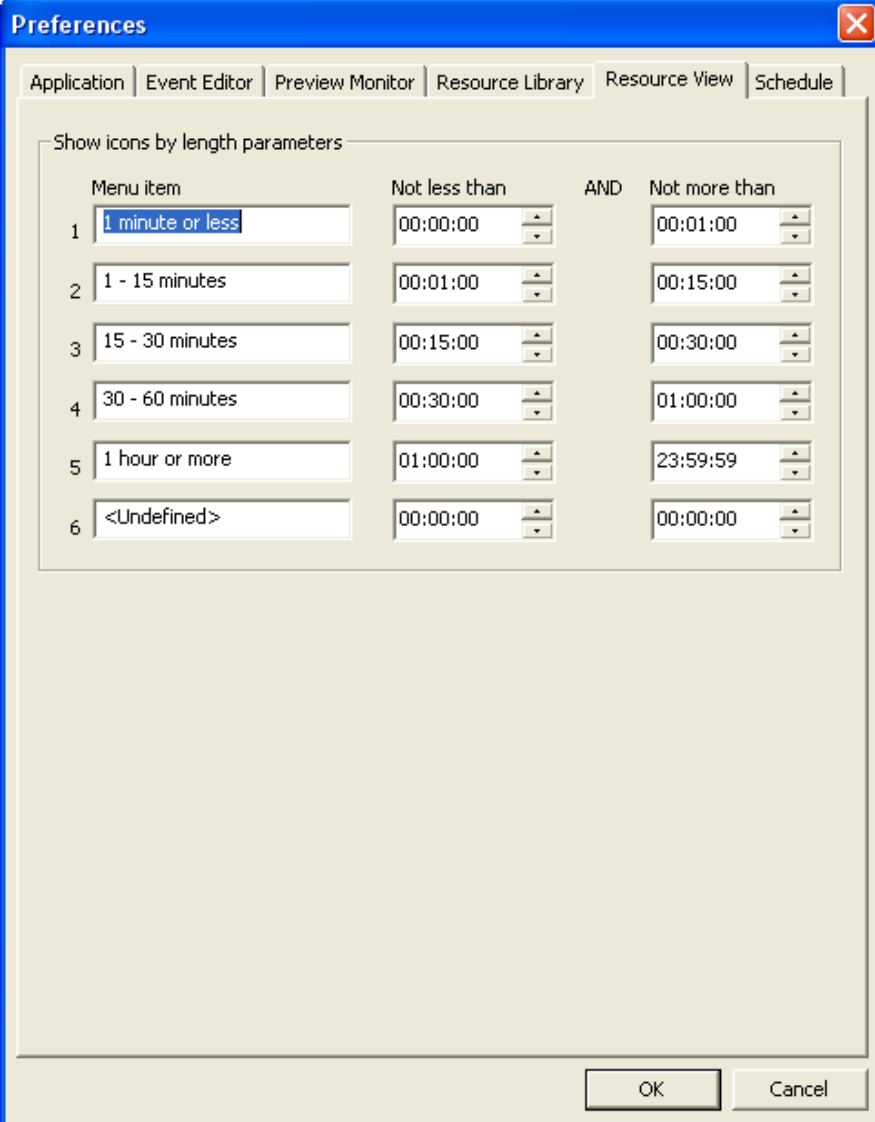
Illustration 67, “Resource Library” Tab



Resource View Tab

Click the “Resource View” tab (see Illustration 68, “Resource View” Tab Window) and configure the length library resource sorting filter for your library resource items. Your custom length sorting options appear when you right click in the library resource window and choose “Show icons by”/”Length”/your *length presets* (see for example).

Illustration 68, “Resource View” Tab Window

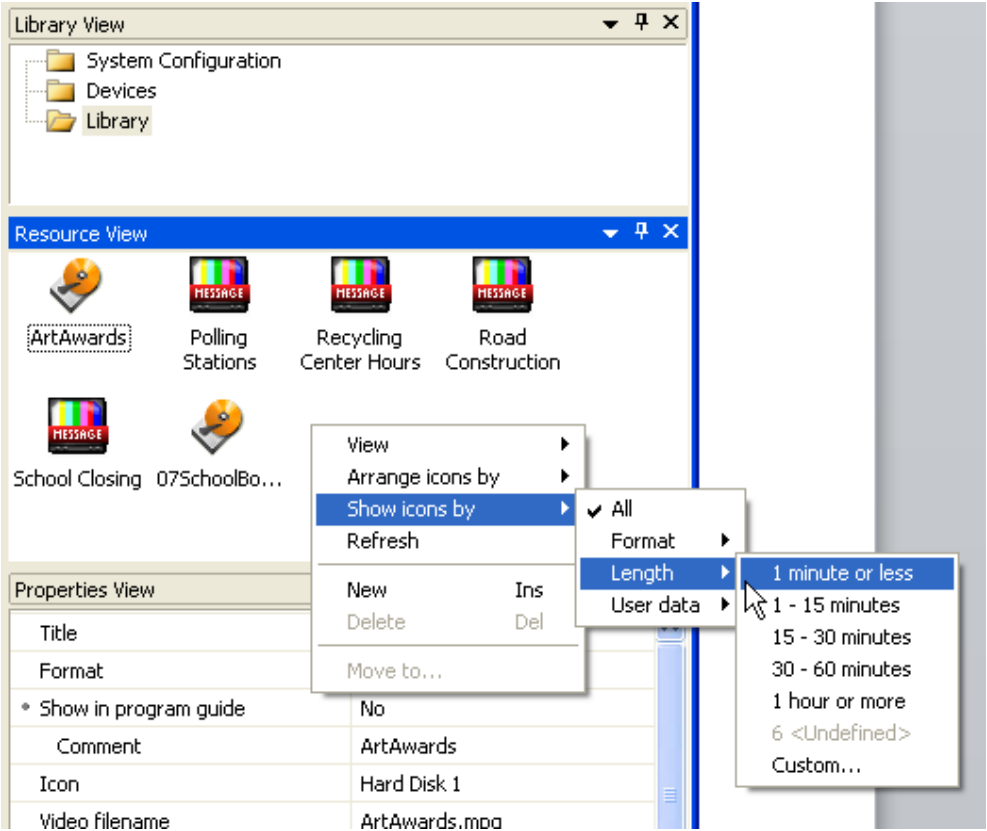


The screenshot shows the 'Preferences' dialog box with the 'Resource View' tab selected. The 'Show icons by length parameters' section is active, displaying a table with 6 rows of menu items and their corresponding time ranges. The table has three columns: 'Menu item', 'Not less than', and 'AND Not more than'. The first row is highlighted with a blue selection bar.

	Menu item	Not less than	AND	Not more than
1	1 minute or less	00:00:00		00:01:00
2	1 - 15 minutes	00:01:00		00:15:00
3	15 - 30 minutes	00:15:00		00:30:00
4	30 - 60 minutes	00:30:00		01:00:00
5	1 hour or more	01:00:00		23:59:59
6	<Undefined>	00:00:00		00:00:00

At the bottom of the dialog box, there are 'OK' and 'Cancel' buttons.

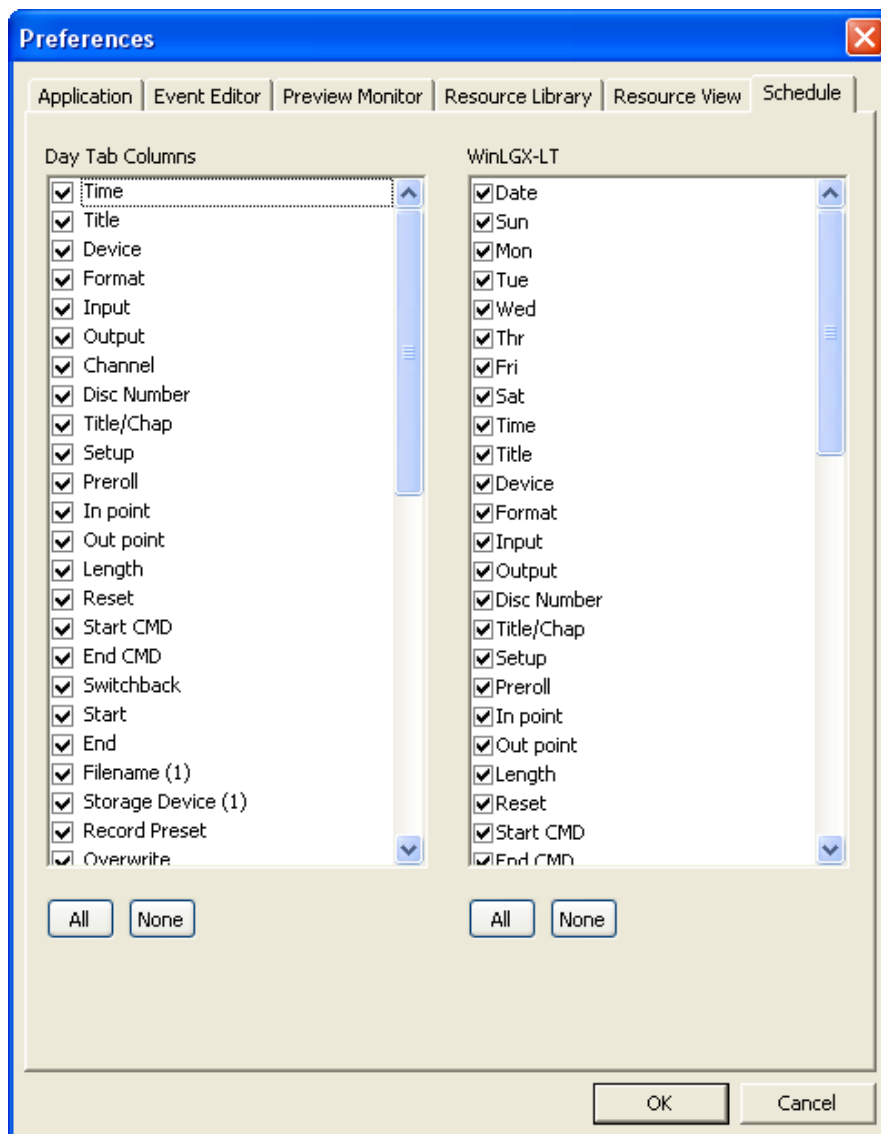
Illustration 69, Library Resource Length Sorting Options



Schedule Tab

Click the “Schedule” tab (see Illustration 70, “Schedule” Tab Window) and show/hide columns in the “Schedule” view. Note that the “Day Tab Columns” listing corresponds to the columns on the schedule’s day tabs and the “WinLGX-LT” listing corresponds to the columns on the schedule’s WinLGX-LT tab. Perform the following steps:

Illustration 70, “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 A NEXUS SERIES SYSTEM

In order to control your system's inputs and outputs from WinLGX, you will need to specify the switch type setup of your NEXUS series system. Your switch type setup indicates whether your destinations and sources are directly wired to your NEXUS series server/controller or connected through one of a wide range of supported, third party external switchers.

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

- "UltraNEXUS and NEXUS Internal Switcher Configuration" on page 136
- "UltraNEXUS-SDI No Switch Configuration" on page 140
- "External Switcher Configuration" on page 142
- "Shared Switcher Configuration" on page 146

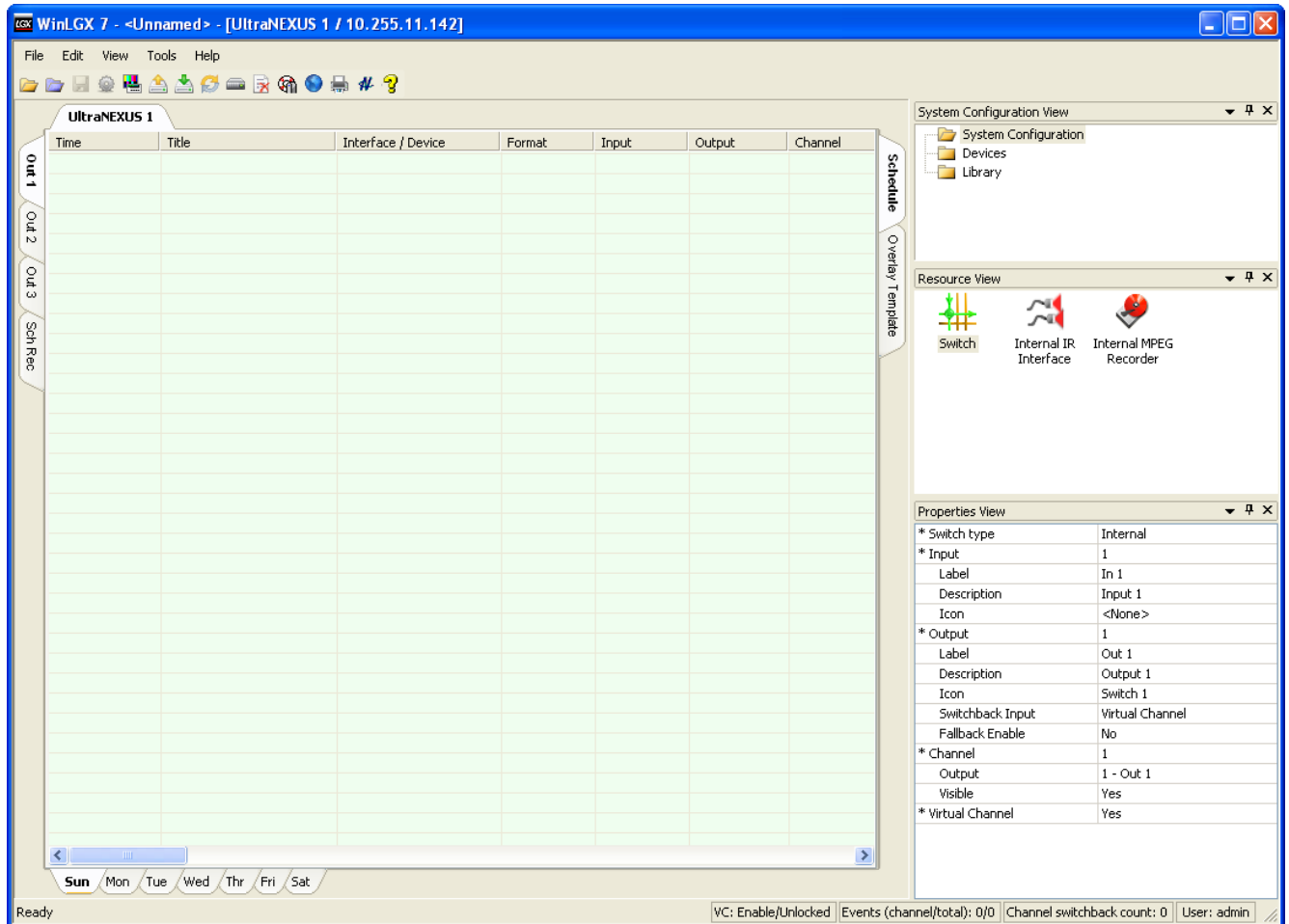
NOTE: Input and output label, description, and icon assignments are optional.

UltraNEXUS and NEXUS Internal Switcher Configuration

The WinLGX “Internal” switch type is for setups using the UltraNEXUS or NEXUS system’s built-in switcher. Refer to Illustration 71, UltraNEXUS/NEXUS Internal Switch Type Windows throughout the “Internal Switcher Configuration” section.

NOTE: The UltraNEXUS-SDI does not have an internal switcher.

Illustration 71, UltraNEXUS/NEXUS Internal Switch Type Windows



- “Switch type”: select “Internal.”
- Input Settings

In the “Input” field, select an input and complete the following settings:

NOTE: Any combination of the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9																											
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}																			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z											
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z											

- “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.

In the “Output” field, select an output and complete the following settings:

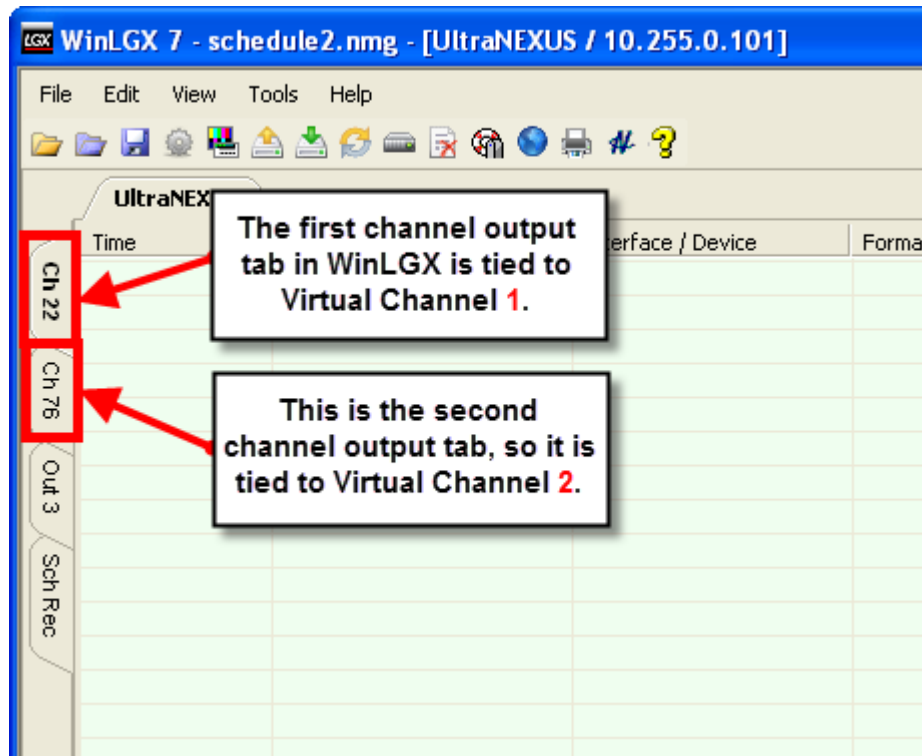
NOTE: Any combination of the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9																		
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}										
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z		

- “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.
- “Switchback Input”: select one of your inputs or “Virtual Channel” 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.

- NOTE:**
- If you would like to be able to switch to the “Virtual Channel” default playlists between programs, ensure “Yes” has been selected in the “Virtual Channel” field.
 - The Virtual Channel default playlists are tied to the first two WinLGX channel output tabs, with Virtual Channel 1 corresponding to the first WinLGX channel output tab and Virtual Channel 2 on the second channel output tab (see Illustration 72).

Illustration 72, Virtual Channel WinLGX Tab Assignments



- “Fallback Enable”: you may configure loss-of-video fallback settings from the “Fallback Enable” field for Outputs 1–3 as follows:

1. Select “No” to **disable** the loss-of-video fallback for the selected output.
2. Select “Yes” to **enable** loss-of-video fallback and display the “Delay” field. If video is lost on the selected output, the configured switchback input will display on the output. Delay can be set from 1–99 seconds. This means that if valid video is lost from that output and not restored within its “Delay” time, the switchback video source will be switched to the selected output.

- Channel Output Tab Assignments

The UltraNEXUS/NEXUS internal switcher’s four outputs are 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.

You have the option of changing the default channel output tab assignments for Outputs 1–3 as follows:

- NOTES:**
- Output 4 is tied to the UltraNEXUS/NEXUS broadcast MPEG recorder and is represented by the “Sch Rec” tab.
 - UltraNEXUS only: the VOD recorder is internally connected to Output 3. Once the VOD recorder is enabled from WebNEXUS, Output 3 only receives switch commands sent to Output 4. The VOD recorder may also be disabled from WebNEXUS in order to control Output 3 independently of Output 4. See

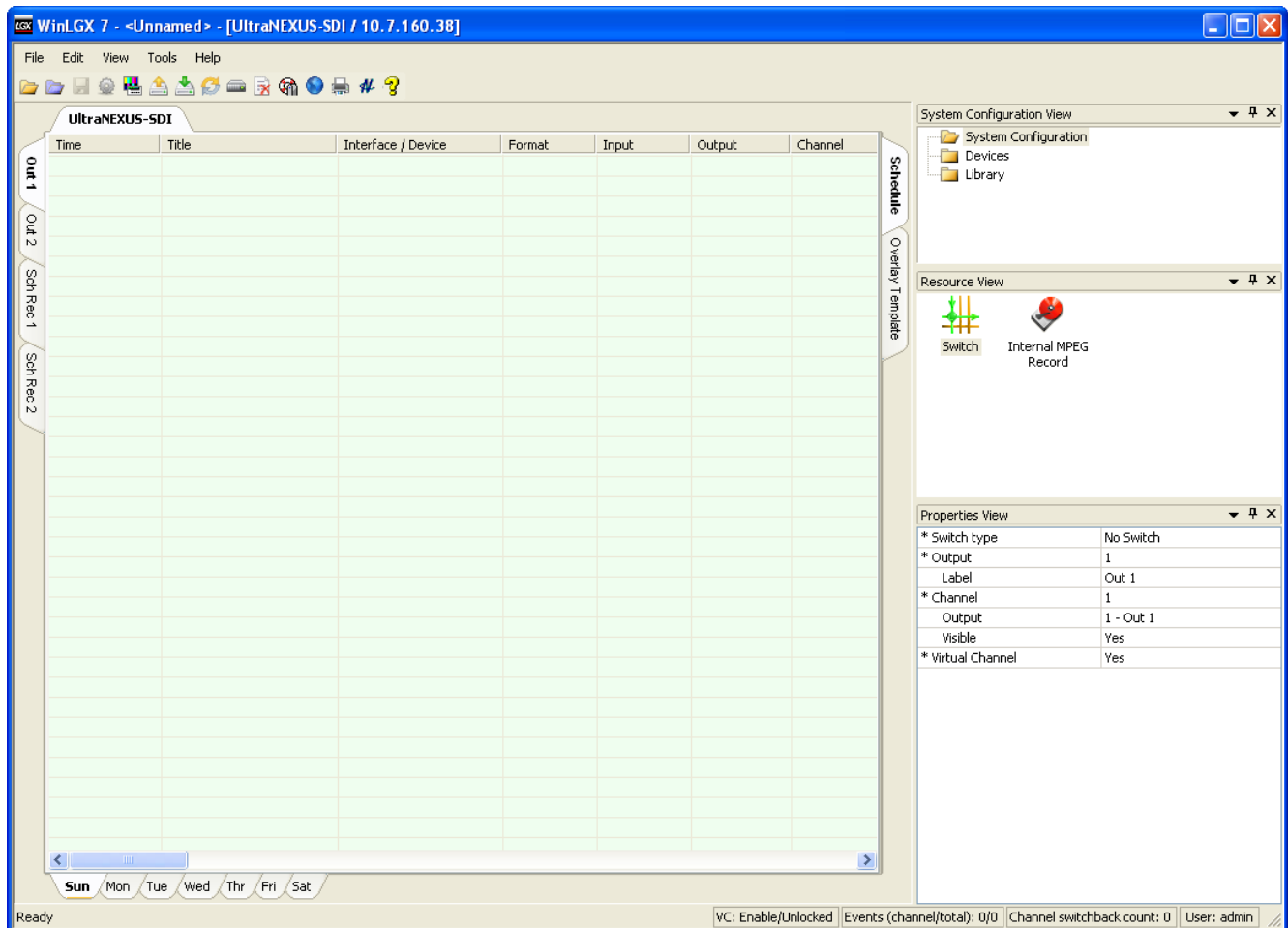
“Enabling/Disabling VOD Recorder” on page 353, for the corresponding how-to steps.

1. In the “Channel” field, select the channel number for the output you want to reassign.
 2. From the “Output” drop down menu, select “None.”
 3. Select a new channel from the “Channel” field drop down menu.
 4. 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 both Virtual Channel default playlists for use as switchback/fallback inputs in a schedule, while “No” disables Virtual Channels for this purpose.
NOTE: If enabled, you will only be able to schedule UltraNEXUS/NEXUS MPEG Player 1 on the first WinLGX channel output tab and MPEG Player 2 on the second channel output tab (see Illustration 72).

UltraNEXUS-SDI No Switch Configuration

UltraNEXUS-SDI systems not connected to an external switcher are represented by the WinLGX “No Switch” switch type. Refer to Illustration 73, UltraNEXUS-SDI Switch Type Window throughout the “UltraNEXUS-SDI No Switch Configuration” section.

Illustration 73, UltraNEXUS-SDI Switch Type Window



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

The UltraNEXUS-SDI’s two MPEG players and broadcast MPEG recorder are represented by channel tabs on the left side of the schedule window. WinLGX automatically assigns Output 1 to Channel 1, Output 2 to Channel 2, and broadcast MPEG recorder Input 1 to Channel 3.

You have the option of changing the default channel tab assignments for Channels 1–3 as follows:

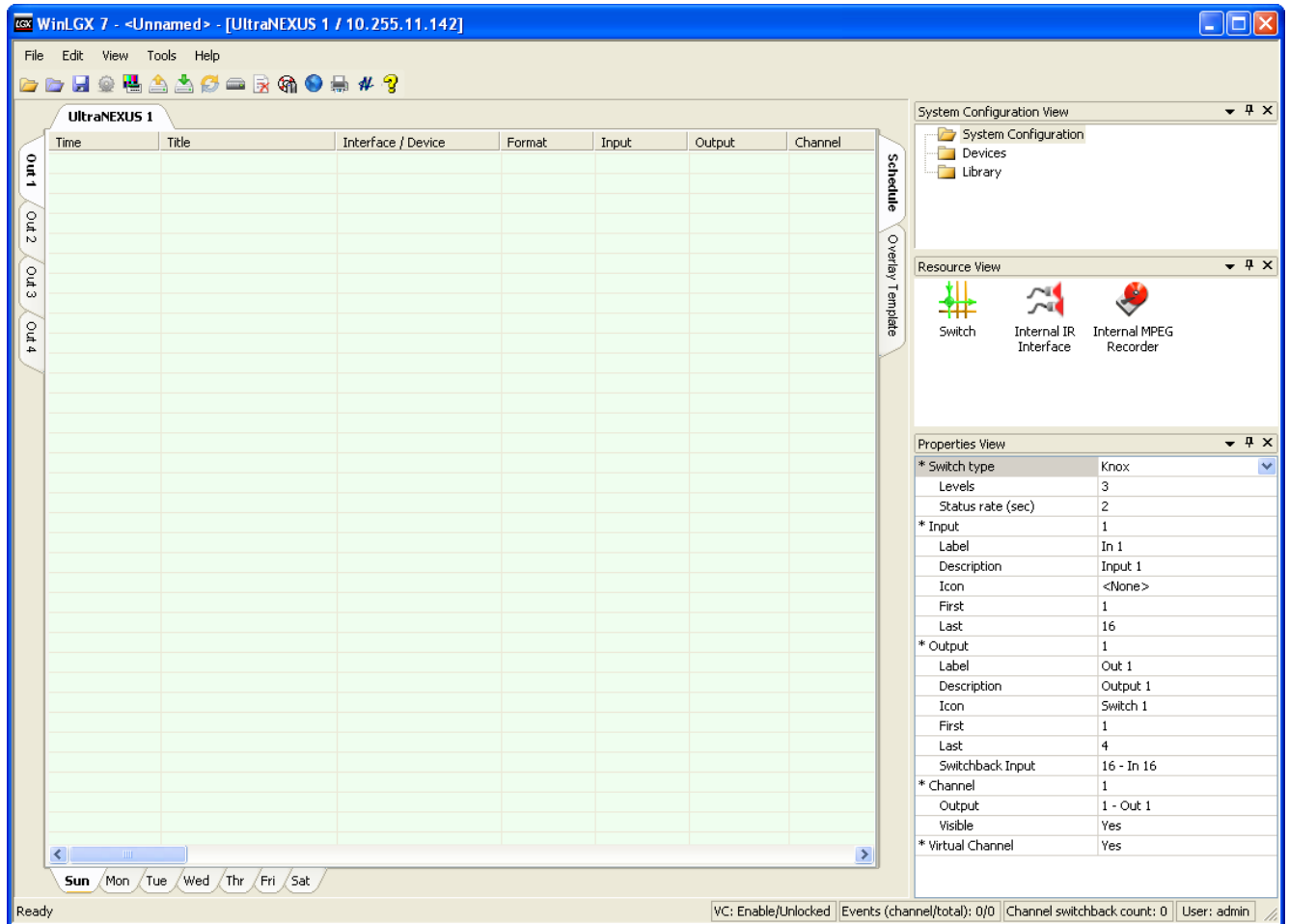
- NOTES:**
- Channel 3 is tied to the UltraNEXUS-SDI broadcast MPEG recorder and is represented by the “Sch Rec” tab.
 - The VOD recorder is internally connected to Input 2. To schedule the VOD recorder under a “No Switch” switch type, a 1 x 2 distribution amp must be connected between a video source and your UltraNEXUS-SDI recorder inputs. Once the VOD recorder is enabled for recording from WebNEXUS (see “Enabling/Disabling VOD Recorder” on page 353), it will automatically record the same content as the broadcast recorder and then transfer the resulting streaming VOD quality file to your LEIGHTRONIX streaming services account. Contact LEIGHTRONIX for more information on setting up a streaming VOD account.

1. In the “Channel” field, select the channel number for the output you want to reassign.
 2. From the “Output” drop down menu, select “None.”
 3. Select a new channel from the “Channel” field drop down menu.
 4. 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 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 both Virtual Channel default playlists for use as switchback inputs in a schedule, while “No” disables Virtual Channels for this purpose.
- NOTE:** If enabled, you will only be able to schedule UltraNEXUS-SDI MPEG Player 1 on the first WinLGX channel output tab and MPEG Player 2 on the second channel output tab (see Illustration 72).

External Switcher Configuration

Refer to Illustration 74, External Switcher Windows, throughout the “External Switcher Configuration” section.

Illustration 74, External Switcher Windows



- “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 the NEXUS series server/controller.
 - “Status rate (sec)” field: use to configure the interval at which the NEXUS series server/controller 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 NEXUS series server/controller, set your switcher's serial parameters according to Table 3, Supported External Switchers and Parameters on page 59 (refer to your switcher's manual for further instructions).

- **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 the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9										
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
																		u	v
																		w	x
																		y	z

- "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.

- **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 the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9										
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
																		u	v
																		w	x
																		y	z

- "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.
- “Switchback Input”: select one of your inputs or “Virtual Channel” 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.

- NOTE:**
- If you would like to be able to switch to the “Virtual Channel” default playlists between programs, ensure “Yes” has been selected in the “Virtual Channel” field.
 - The Virtual Channel default playlists are tied to the first two WinLGX channel output tabs, with Virtual Channel 1 corresponding to the first WinLGX channel output tab and Virtual Channel 2 on the second channel output tab (see Illustration 72).

- **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.

- NOTES:**
- The highest numbered channel output tab is automatically assigned to the NEXUS series broadcast MPEG recorder. You may reassign the NEXUS series broadcast MPEG recorder to any of your switcher’s available outputs.
 - The **UltraNEXUS-SDI and UltraNEXUS** VOD recorders must be enabled for recording from WebNEXUS. See “Enabling/Disabling VOD Recorder” on page 353, for the corresponding how-to steps. The resulting streaming VOD quality files will then be automatically transferred to your LEIGHTRONIX streaming services account. Contact LEIGHTRONIX for more information on setting up a streaming VOD account.
 - UltraNEXUS only: the UltraNEXUS VOD recorder automatically captures the same content recorded by the broadcast MPEG recorder.

- **UltraNEXUS-SDI only:** the UltraNEXUS-SDI VOD recorder is internally connected to Input 2. To automatically record the same content as the broadcast MPEG encoder, a 1 x 2 distribution amp must be connected between a video source and your UltraNEXUS-SDI recorder inputs. If the UltraNEXUS-SDI VOD recorder is connected to a different switcher or video source output than the broadcast recorder, the same video source input will have to be switched to the VOD recorder through a control panel or scheduled switch event before the recording event starts.
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 both Virtual Channel default playlists for use as switchback inputs in a schedule, while “No” disables Virtual Channels for this purpose.

NOTE: To use the Virtual Channel switchback feature during scheduling, you will need to configure and schedule your NEXUS series system’s MPEG Players 1 and 2 on the first two WinLGX channel output tabs (see Illustration 72).

Shared Switcher Configuration

The “Shared Switch” type allows users to share one external routing switcher between multiple UltraNEXUS/NEXUS server/controllers. Use the following steps to configure each UltraNEXUS/NEXUS not directly connected to the external switcher it is sharing (refer to Illustration 75, Shared Switcher Properties, throughout this section). Follow the “External Switcher Configuration” section on page 142 to configure the UltraNEXUS/NEXUS directly connected to the external switcher.

Illustration 75, 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
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
 - “Status rate (sec)”: set to specify how often the UltraNEXUS/NEXUS polls the UltraNEXUS/NEXUS 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 the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9										
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
																		u	v
																		w	x
																		y	z

- “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 shared UltraNEXUS/NEXUS to only control a dedicated range of inputs on the routing switcher, enter the first and last input values for the dedicated range. Dedicating a range of inputs would help to prevent users from showing the wrong programming on the shared UltraNEXUS/NEXUS.
- 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 the following characters may be used for labels and descriptions:

0	1	2	3	4	5	6	7	8	9										
/	#	\$	'	()	*	-	.	:	<	>	[]	_	{		}		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
																		u	v
																		w	x
																		y	z

- “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 shared UltraNEXUS/NEXUS to only control a dedicated range of outputs on the routing switcher, enter the first and last output values for the dedicated range.
- “Switchback Input”: select one of your inputs or “Virtual Channel” 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.

- NOTE:**
- If you would like to be able to switch to the “Virtual Channel” default playlists between programs, ensure “Yes” has been selected in the “Virtual Channel” field.
 - The Virtual Channel default playlists are tied to the first two WinLGX channel output tabs, with Virtual Channel 1 corresponding to the first WinLGX channel output tab and Virtual Channel 2 on the second channel output tab (see Illustration 72).

- **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.

- NOTES:**
- The highest numbered channel output tab is automatically assigned to the UltraNEXUS/NEXUS broadcast MPEG recorder. You may reassign the UltraNEXUS/NEXUS broadcast MPEG recorder to any of your switcher’s available outputs.
 - Once enabled from WebNEXUS, the UltraNEXUS VOD recorder also receives switch commands sent to the broadcast MPEG recorder.

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 both Virtual Channel default playlists for use as switchback inputs in a schedule, while “No” disables Virtual Channels for this purpose.

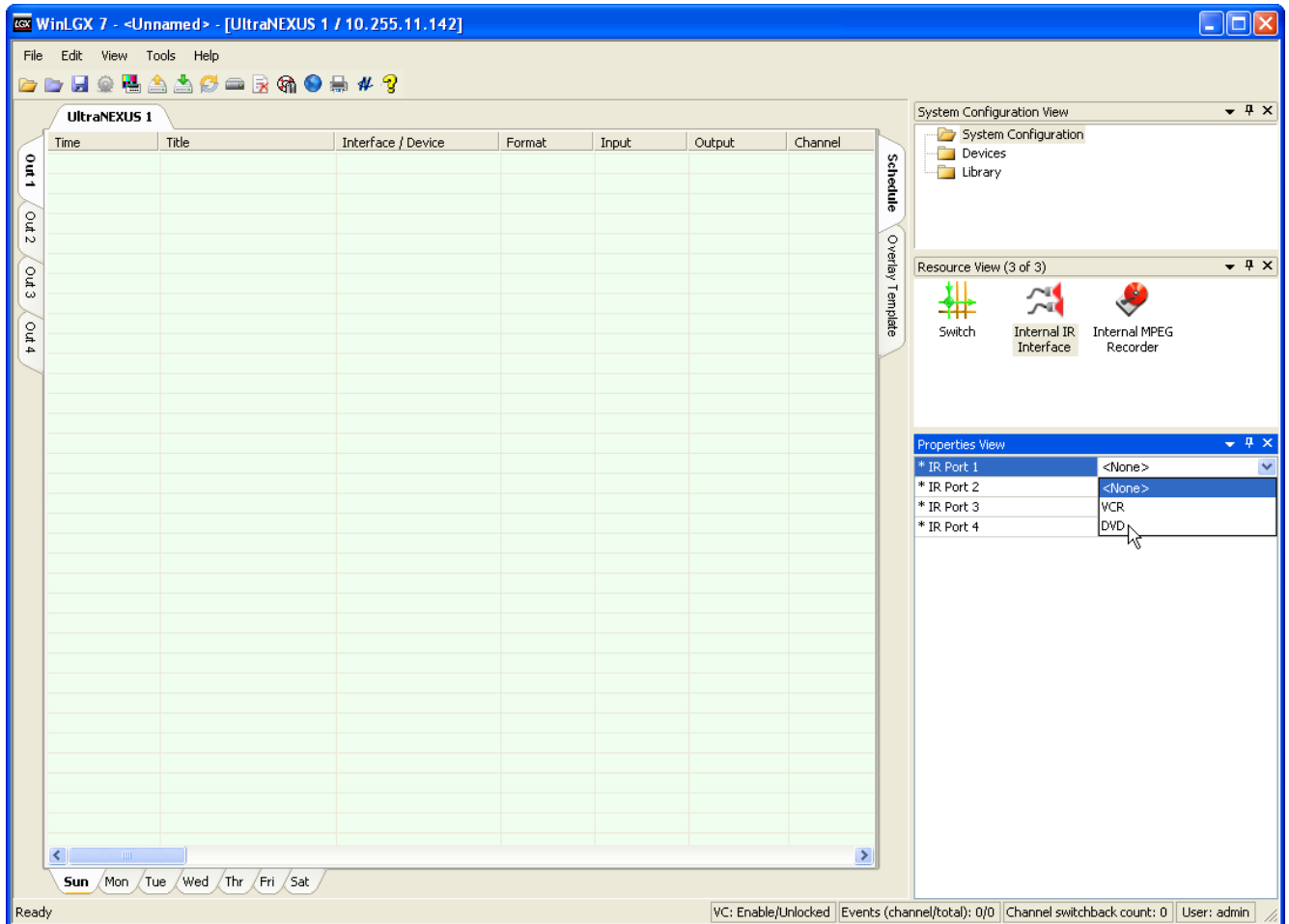
NOTE: To use the Virtual Channel switchback feature during scheduling, you will need to schedule UltraNEXUS/NEXUS MPEG Players 1 and 2 on the first two WinLGX channel output tabs (see Illustration 72).

CONFIGURING NEXUS SERIES IR PORT PROPERTIES

NOTE: The “UltraNEXUS-SDI” switch type **does not** make use of IR control or other device control schemes such as PRO-BUS and DVply.

Click on the “System Configuration” folder on the right side of the schedule editor window to display the NEXUS series “System Configuration View” windows. Click on the “Internal IR Interface” icon and complete the “Properties View” fields for each IR port as follows (see Illustration 76, “System Configuration View” IR Port Windows):

Illustration 76, “System Configuration View” IR Port Windows



1. IR Port: configure each IR port for a VCR or DVD input device by selecting the corresponding format from each IR port field's drop down list.
2. “Manufacturer”: choose the corresponding, LEIGHTRONIX-supported manufacturer for each input device format (see Table 21, IR Port Configuration Options, for a list of the LEIGHTRONIX-supported VCR/DVD manufacturers).

Table 21, IR Port Configuration Options

DEVICE	MANUFACTURER	MODES
VCR	JVC	<ul style="list-style-type: none"> • 10 Bit • 16 Bit A (typical for most JVC VCRs)
VCR	Panasonic	Default—no selection
VCR	Sony	<ul style="list-style-type: none"> • VCR1 • VCR2 • VCR3 • Institutional
DVD	Panasonic	NOTE: Both modes support Panasonic DVD record functionality. <ul style="list-style-type: none"> • 1 PLAY • 2 PLAY: a play command from the NEXUS series server/controller is transmitted as two playback commands to the DVD player. Some DVD players need 2 plays to wake up and play from standby, while others increase playback speed if a second play is received.
DVD	Pioneer	<ul style="list-style-type: none"> • Player: issues commands for Pioneer DVD players • Player/Recorder: issues commands for Pioneer DVD player/recorders
DVD	Sony	<ul style="list-style-type: none"> • 2 STOP/2 PLAY: issues two stops and two play commands to ensure DVDs always start from the beginning • 2 PLAY: issues two play commands to ensure DVDs resume from where they were last stopped
DVD	Tascam	Default—no selection

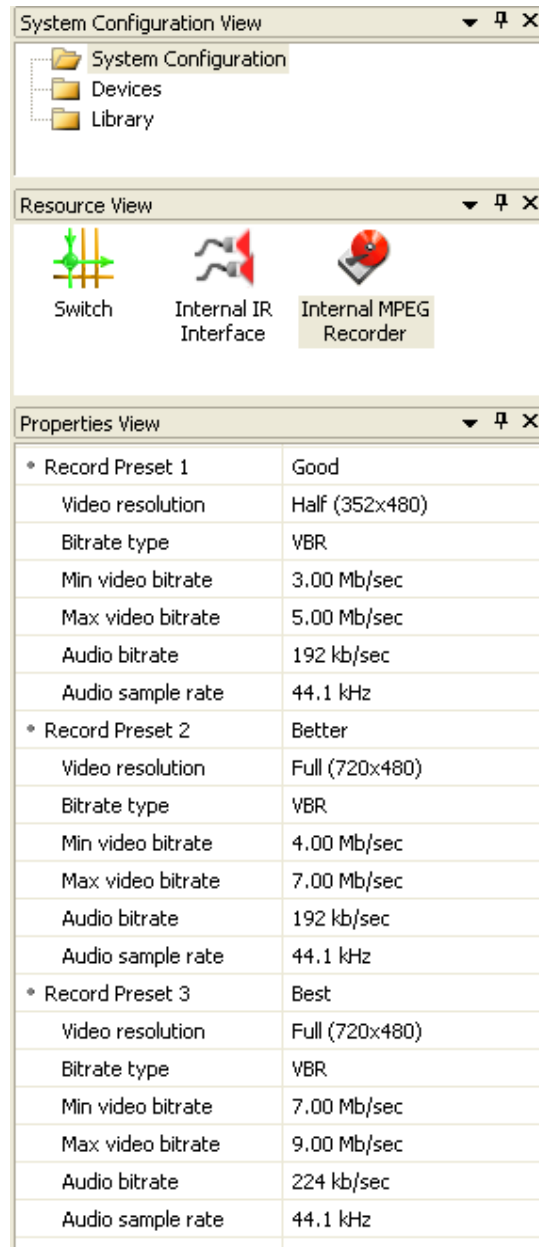
3. “Type”: configure each IR port to match the connected device’s communication mode. Refer to Table 21, IR Port Configuration Options, for a list of the LEIGHTRONIX-supported VCR/DVD manufacturers and their corresponding communication modes.

NOTE: Some of the LEIGHTRONIX-supported VCRs and DVDs are capable of communicating in different modes to allow multiple devices to be controlled by a single remote control. The device mode is often indicated by a mode switch on the device’s front panel. If your device’s mode is unknown, try each setting in the “Type” drop down list until control is achieved.

CONFIGURING BROADCAST MPEG RECORDING PRESETS

Click on the “System Configuration” folder on the right side of the schedule editor window to display the NEXUS series “System Configuration View” windows. Click on the “Internal MPEG Recorder” icon and complete the “Properties View” fields for each record preset according to the following steps (see Illustration 77, “System Configuration View” Internal Broadcast MPEG Recorder Windows). For more information on recording a broadcast-quality MPEG file, refer to “MPEG File Specifications,” on page 38.

Illustration 77, “System Configuration View” Internal Broadcast MPEG Recorder Windows



- “Record Preset x”: if desired, click in the field and enter a new name for the preset.

- “Video resolution”:
 - UltraNEXUS/NEXUS: select “Half (352x480)” or “Full (720x480)” resolution from the drop down list
 - UltraNEXUS-SDI: “Full (720x480)” resolution

NOTE: The UltraNEXUS-SDI does not record at “Half (352x480)” resolution.
- “Bitrate type”: select “CBR” for constant bit rate or “VBR” for variable bit rate.
 - If you selected “VBR,” 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 as follows. WinLGX requires that an increment of two be left between the bit rates.
 - UltraNEXUS/NEXUS: select a minimum of at least 1.50 Mb/sec and a maximum of up to 10.00 Mb/sec
 - UltraNEXUS-SDI: select a minimum of at least 3.00 Mb/sec and a maximum of up to 10.00 Mb/sec
 - If you selected “CBR,” the “Video bitrate” field will be displayed. Click on the field and use the up/down arrows to set the video bit rates as follows:
 - UltraNEXUS/NEXUS: select a minimum of at least 1.50 Mb/sec and a maximum of up to 8.00 Mb/sec
 - UltraNEXUS-SDI: select a minimum of at least 3.00 Mb/sec and a maximum of up to 8.00 Mb/sec
- “Record audio source” (UltraNEXUS-SDI Only):

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.

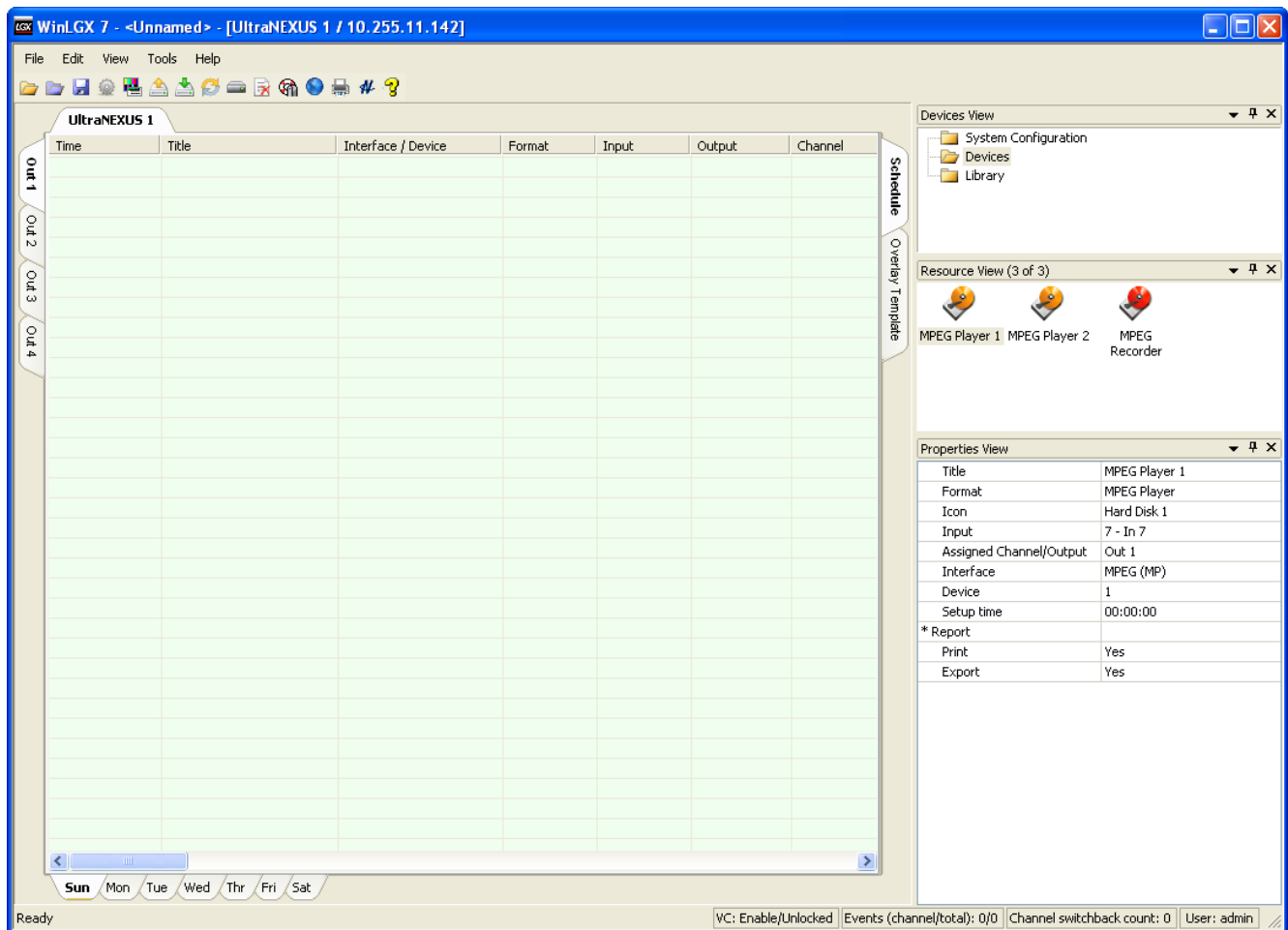
 - “Analog”: corresponds to the analog audio inputs on the SDI’s back panel terminal blocks (see Table 6, Non-Embedded Audio Terminal Block Configurations, for analog audio wiring diagram)
 - “AES”: corresponds to the AES audio inputs on the SDI’s back panel terminal blocks (see Table 6, Non-Embedded Audio Terminal Block Configurations, for AES audio wiring diagram)
 - “Embedded 1-2,” “Embedded 3-4,” “Embedded 5-6,” and “Embedded 7-8”: if your audio is embedded within the SDI video signal, select the embedded audio channel pair that you want to record
- “Audio bitrate”:
 - UltraNEXUS/NEXUS: select 192 or 224 kb/sec from the drop down list
 - UltraNEXUS-SDI: select 192, 224, or 256 kb/sec from the drop down list
- “Audio sample rate”: select 44.1 or 48 kHz from the drop down list.

EDITING INTERNAL MPEG PLAYER AND RECORDER DEVICE RESOURCE PROPERTIES

Each NEXUS series WinLGX configuration automatically displays icons for its two internal MPEG players and broadcast MPEG recorder in the “Resources View” window for the “Devices” folder (see Illustration 78, “Devices” Window). The following steps describe how to change the optional settings for the NEXUS series systems’ built-in devices:

1. Click on the “Devices” folder on the right side of the schedule editor window to display the “Devices” window (refer to Illustration 78, “Devices” Window).

Illustration 78, “Devices” Window



2. In the “Resource View,” click on the desired UltraNEXUS/NEXUS internal device icon to reveal the corresponding properties fields.

MPEG Players

- “Title”: if desired, click on “Title” field and enter new alias.
- “Format”: displays currently selected device type.

- “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 MPEG player’s output on the rear panel of your NEXUS series system. Output 1 on the rear panel of each NEXUS series server/controller is tied to MPEG Player 1, while Output 2 is assigned to MPEG Player 2. 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” switchback feature has been enabled in the “Switcher Configuration” properties (see “Configuring the Switch Type of a NEXUS Series System,” on page 135 for more details). The following outlines both scenarios:
 - Virtual Channel Switchback Feature **Enabled**: you can only schedule each MPEG player on its assigned channel/output. If you are using the UltraNEXUS/NEXUS **internal switcher**, MPEG Player 1 is automatically assigned to Output 1 and MPEG Player 2 is tied to Output 2. For those using **external switcher configurations or the “UltraNEXUS-SDI” switch type**, select the output you would like to display playback from each NEXUS series MPEG player from the “Assigned Channel/Output” drop down menu.
 - Virtual Channel Switchback Feature **Disabled**: you may assign a channel output to each NEXUS series MPEG player to automate device selection for MPEG library resources during scheduling. Whenever an MPEG library resource is dragged onto the selected MPEG player’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 delimited or Microsoft Excel® formats. 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.

VOD Recorder—UltraNEXUS-SDI / UltraNEXUS only

The **UltraNEXUS-SDI** and **UltraNEXUS** VOD recorders must be enabled for recording from WebNEXUS. See “Enabling/Disabling VOD Recorder” on page 353, for the corresponding how-to steps. The resulting streaming VOD quality files will then be automatically transferred to your LEIGHTRONIX streaming services account (contact LEIGHTRONIX for more information on setting up a streaming VOD account). Once enabled, your system setup will determine the operation of the VOD recorder as follows:

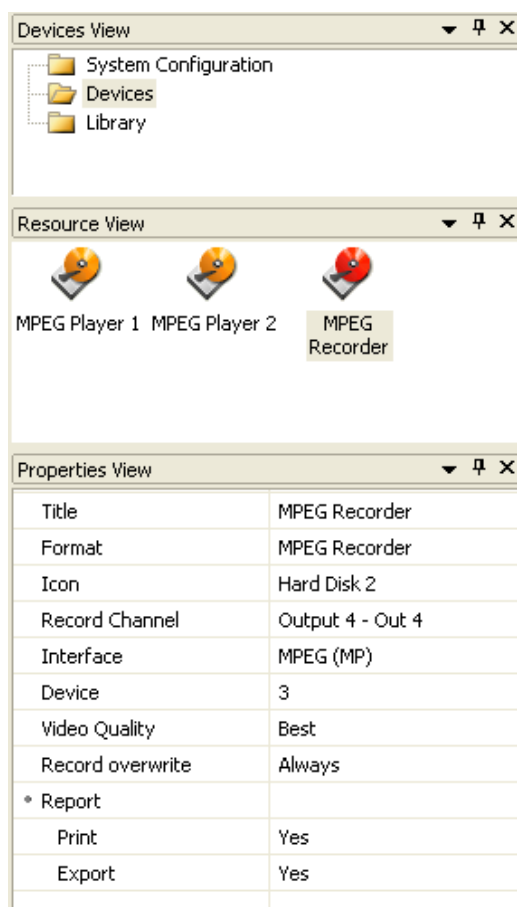
- **UltraNEXUS:** The UltraNEXUS VOD recorder is hardwired to the broadcast MPEG recorder, so it will automatically receive any immediate or scheduled switch and control commands sent to the broadcast MPEG recorder. The UltraNEXUS VOD recorder mirrors the broadcast MPEG recorder’s actions, automatically recording whatever the broadcast recorder does.
- **UltraNEXUS-SDI:** VOD MPEG recorder Input 2 is wired separately from the broadcast MPEG recorder Input 1 on the UltraNEXUS-SDI’s rear panel. To automatically record the same content as the broadcast MPEG recorder, a 1 x 2 distribution amp must be connected between an external switcher or video source output and your UltraNEXUS-SDI recorder inputs. If the UltraNEXUS-SDI VOD recorder is connected to a different switcher or video source output than the broadcast recorder, the same video source input will have to be switched to the VOD recorder through a control panel or scheduled switch event before the recording event starts.

Broadcast MPEG Recorder

- “Title”: if desired, click on “Title” field and enter new alias.
- “Format”: displays currently selected device type.
- “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 NEXUS series switcher Input 1 (see Illustration 79, Broadcast MPEG Recorder Channel Output Tab Configuration).

NOTE: WinLGX automatically completes this field with the output assigned to the highest numbered channel under “System Configuration.”

Illustration 79, Broadcast MPEG Recorder Channel Output Tab Configuration



- “Video Quality”: if desired, select an MPEG recording quality mode for your recording events. This mode may be changed for each recording event action—see “Internal Broadcast MPEG Recorder Device Resource,” starting on page 264, 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 “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 Broadcast MPEG Recorder Device Resource,” starting on page 264, 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 comma delimited or Microsoft Excel® formats. 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.

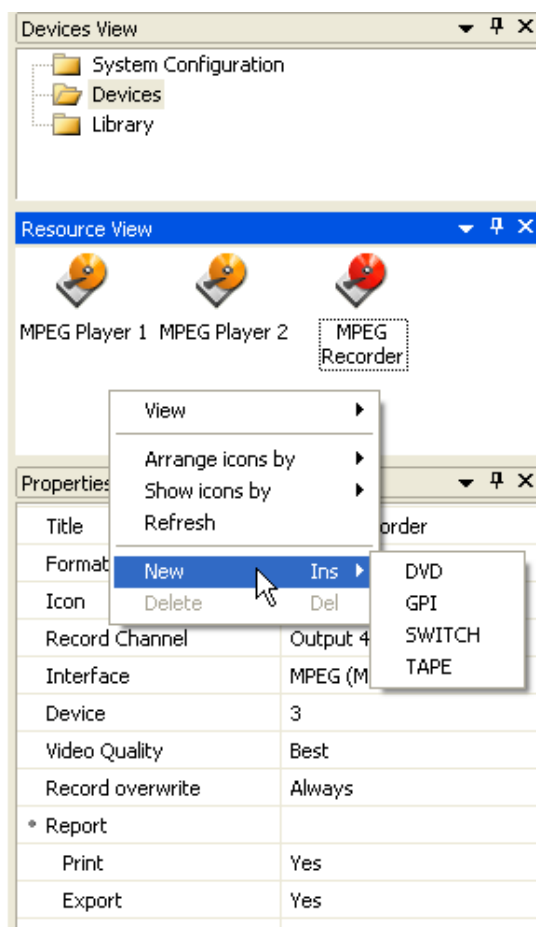
CREATING EXTERNAL DEVICE RESOURCES

A device resource must be created for each VCR, DVD player, and any other external device attached to your NEXUS series server/controller. Creating a device causes a new set of user-configurable information fields to be displayed in the “Properties” window. The NEXUS series system uses this information to identify your external device. Create external device resources as follows:

- NOTES:**
- An external device is any source (input) controlled by a PRO-BUS, IR, DVply, or switch interface.
 - **UltraNEXUS-SDI only:** to use any of the external device control schemes and WinLGX external device scheduling/Control Panel features with an UltraNEXUS-SDI, both the UltraNEXUS-SDI and the video sources must be connected to an external switcher.

1. Click on the “Devices” folder on the right side of the schedule editor window to display the “Devices View” window (refer to Illustration 80, New Device Properties).

Illustration 80, New Device Properties



2. Right click in the “Resource View” window and select “New” to display the device type menu. Select a device type to add a new device to the window (see Illustration 80, New Device Properties).

3. Complete the “Properties” fields for the selected device format:

- “DVD Device Resources,” on page 160
- “Tape Device Resources,” on page 162
- “Switch Resources,” on page 164
- “GPI Output Device Resources,” on page 166

DVD Device Resources

Right click in “Resource View” and select “DVD” to display the DVD properties fields shown in Illustration 81, DVD Device Event Properties Window. Refer to Table 22, DVD Device Properties, for a description of the editable DVD device resource properties.

Illustration 81, DVD Device Event Properties Window



Table 22, DVD Device Properties

FIELD	DESCRIPTION
Title	Allows a name of up to 31 characters to be entered.

FIELD	DESCRIPTION
Format	Select one of the following device formats from the drop down list: <ul style="list-style-type: none"> • DVD • DVply
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.
Preferred 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	Select either “PRO-BUS (PB),” “Internal IR (IR),” or “DVply (DV)” as the method being used to control the device.
Device	Select the number of the device control interface your device is connected to. When a device number is chosen, it is removed from the “Device” list. Choices are: <ul style="list-style-type: none"> • 1–16 for PRO-BUS • 1–4 for IR • 1–2 for DVply <p>NOTE: Ensure assigned device number reflects actual PRO-BUS interface connected to input device. A PRO-BUS interface only responds to those PRO-BUS commands which contain its address.</p>
Setup time	If desired, indicate how long after the device 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: <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

FIELD	DESCRIPTION
	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.

Tape Device Resources

Right click in “Resource View” and select “TAPE” to display the tape properties fields shown in Illustration 82, Tape Device Event Properties Window. Refer to Table 23, Tape Device Properties, for a description of the editable tape device resource properties.

Illustration 82, Tape Device Event Properties Window

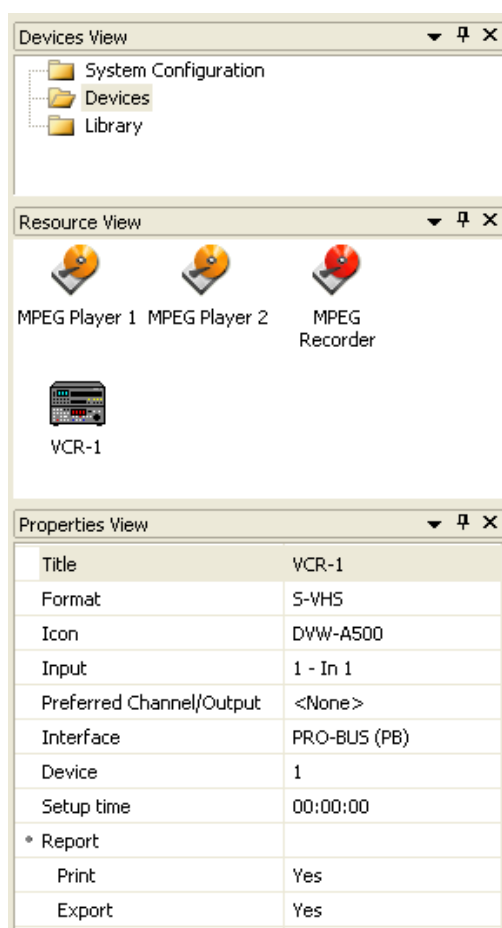


Table 23, Tape Device Properties

FIELD	DESCRIPTION
Title	Allows a name of up to 31 characters to be entered.
Format	Select one of the following device formats from the drop down list: <ul style="list-style-type: none"> • 3/4" • 8mm

FIELD	DESCRIPTION
	<ul style="list-style-type: none"> • Beta SP • DV (digital video device) • DVCPRO (Panasonic digital video device) • DVCAM (Sony digital video device) • HI-8mm • S-VHS • VHS
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.
Input	<p>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.</p>
Preferred Channel/ Output	<p>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.</p>
Interface	<p>Select either “PRO-BUS (PB)” or “Internal IR (IR)” as the method being used to control the device.</p>
Device	<p>Select the number of the device control interface your device is connected to. When a device number is chosen, it is removed from the “Device” list. Choices are:</p> <ul style="list-style-type: none"> • 1–4 for IR • 1–16 for PRO-BUS <p>NOTE: Ensure assigned device number reflects actual PRO-BUS interface connected to input device. A PRO-BUS interface only responds to those PRO-BUS commands which contain its address.</p>
Setup time	<p>If desired, indicate how long after the device receives a PLAY command that picture and/or sound is produced.</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

FIELD	DESCRIPTION
	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.

Switch Resources

Right click in “Resource View” and select “SWITCH” to display the switch properties fields shown in Illustration 83, Switch Event Properties Window. Refer to Table 24, Switch Event Properties, for a description of the editable switch resource properties.

Illustration 83, Switch Event Properties Window

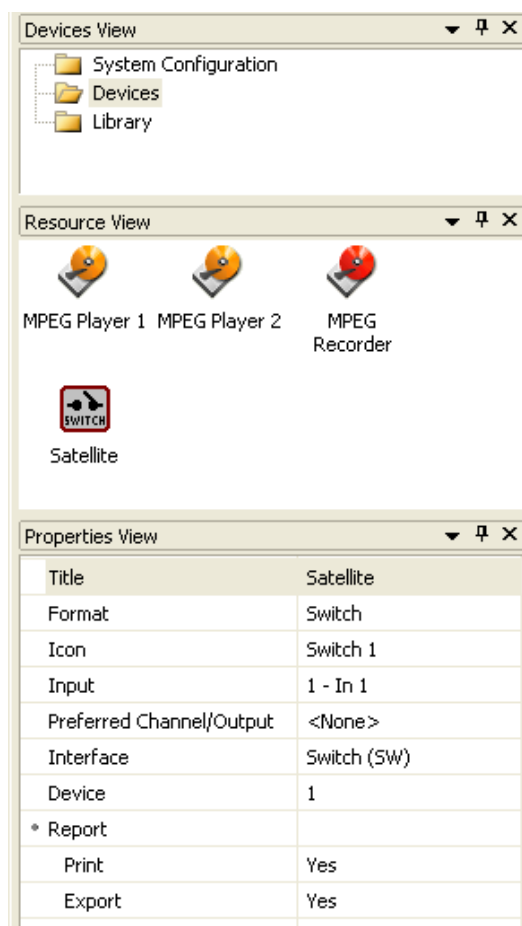


Table 24, Switch Event Properties

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.
Preferred 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 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.

GPI Output Device Resources

Right click in “Resource View” and select “GPI” to display the GPI properties fields shown in Illustration 84, GPI Event Properties Window. Refer to Table 25, GPI Event Properties, for a description of the editable GPI resource properties.

Illustration 84, GPI Event Properties Window



Table 25, GPI Event Properties

FIELD	DESCRIPTION
Title	Allows a name of up to 31 characters to be entered.
Format	Select “GPI” 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.

FIELD	DESCRIPTION
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.
Interface	"PRO-BUS (PB)" is automatically assigned.
Device	Assign a PRO-BUS interface number, 1-16, to the GPI from the drop down list.
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.

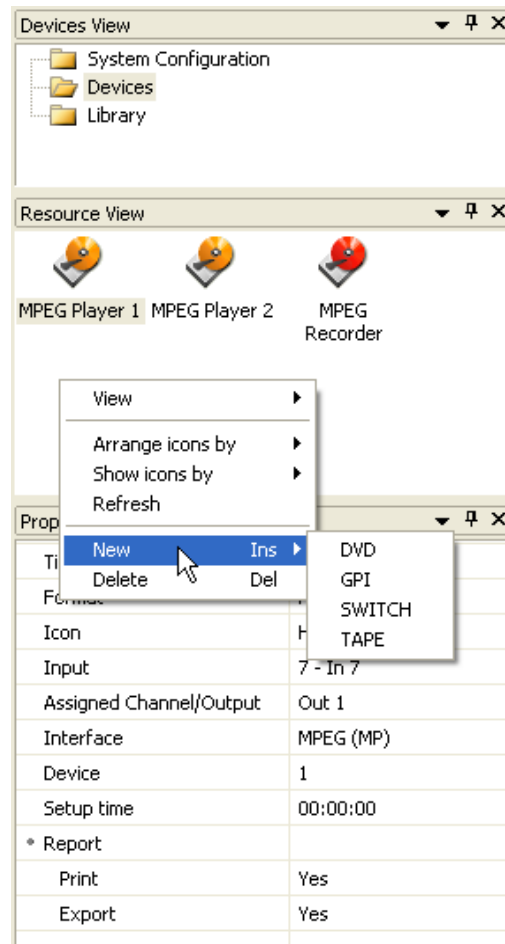
ULTRANEXUS/ULTRANEXUS-SDI ONLY: CREATING EPRO-BUS-CONTROLLED DEVICE RESOURCES

The UltraNEXUS/UltraNEXUS-SDI 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 PEGvault-SD or LABvault-SD digital video recorders. To use, create an ePRO-BUS resource for each PEGvault-SD or LABvault-SD digital video recorder that will be receiving PRO-BUS control commands from your UltraNEXUS system. Create and configure ePRO-BUS-controlled resources as follows:

NOTE: Ensure that you have assigned each PEGvault-SD/LABvault-SD recorder's IP address to a PRO-BUS address number in WebNEXUS (see the "UltraNEXUS/UltraNEXUS-SDI Only: Configuring ePRO-BUS Settings" section on page 441 for more details).

1. Click on the "Devices" folder on the right side of the schedule editor window to display the "Devices View" window (refer to Illustration 80, New Device Properties).

Illustration 85, New Device Properties



2. Right click in the “Resource View” window and select “New” to display the device type menu. Select either the “DVD” or “Tape” device type to add a new device resource to the window (see Illustration 85, New Device Properties).
3. Complete the properties fields shown in Illustration 86, ePRO-BUS Resource Properties Window according to Table 26, ePRO-BUS Resource Properties.

Illustration 86, ePRO-BUS Resource Properties Window

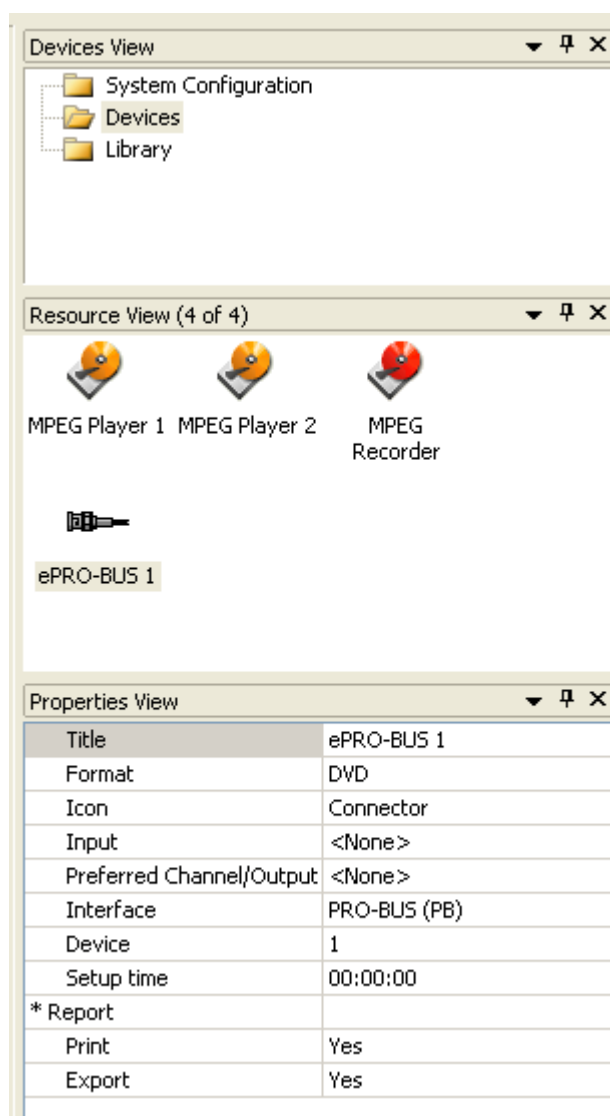


Table 26, ePRO-BUS Resource Properties

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	Select "<None>," as the device is not connected to a switcher input.

NEXUS Series

Software Installation & Configuration

FIELD	DESCRIPTION
Preferred Channel/ Output	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 PEGvault-SD/LABvault-SD device in the WebNEXUS ePRO-BUS configuration window (see the "UltraNEXUS/UltraNEXUS-SDI Only: Configuring ePRO-BUS Settings" section on page 441 for more details). When a number is chosen, it is removed from the "Device" list.</p> <p>NOTE: Each PEGvault-SD or LABvault-SD will only respond to those PRO-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,” on page 327.

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 27, referring to Illustration 87 throughout.

Illustration 87, Overlay Library Resource Properties

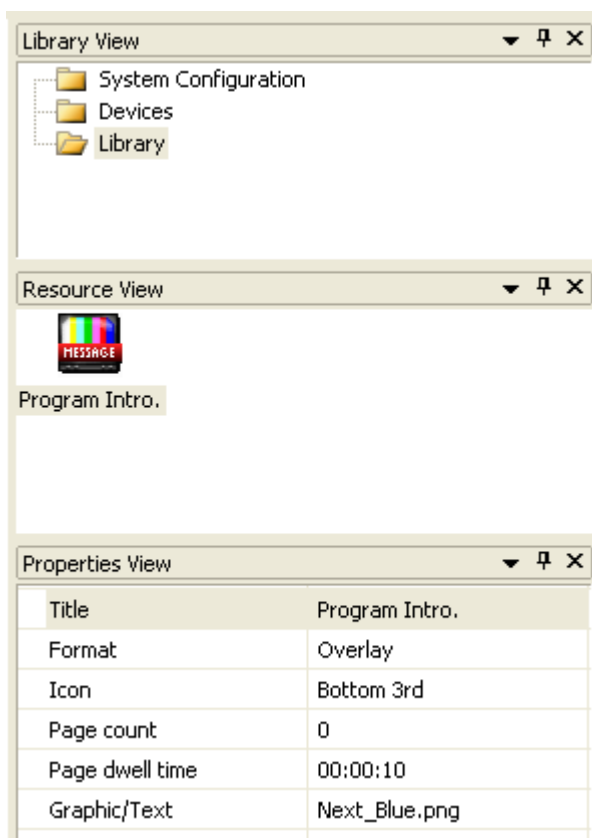
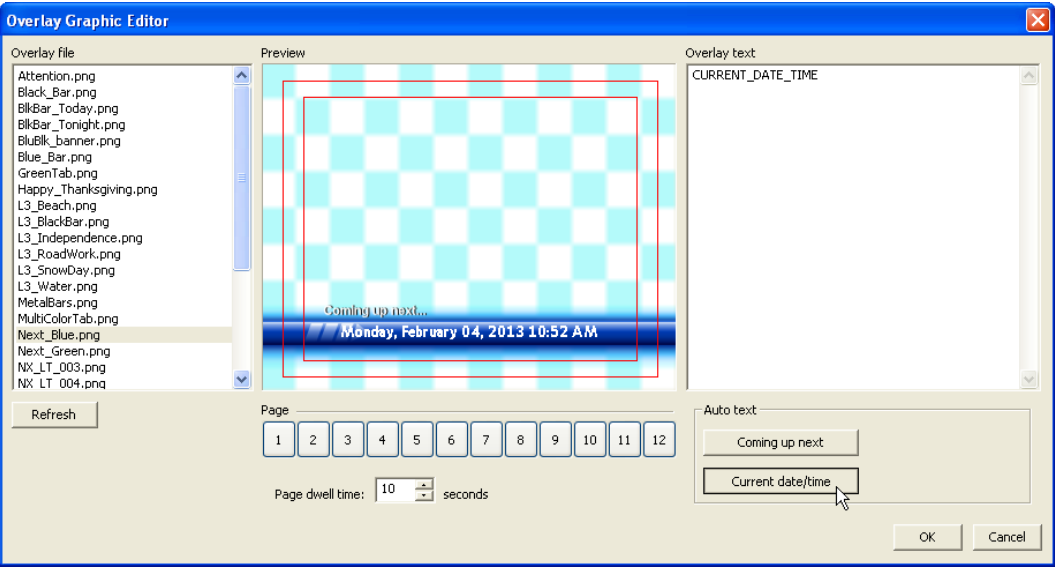


Table 27, Overlay Library Resource Properties

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 88. <p style="text-align: center;"><i>Illustration 88, “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.

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.

NEXUS Series

Software Installation & Configuration



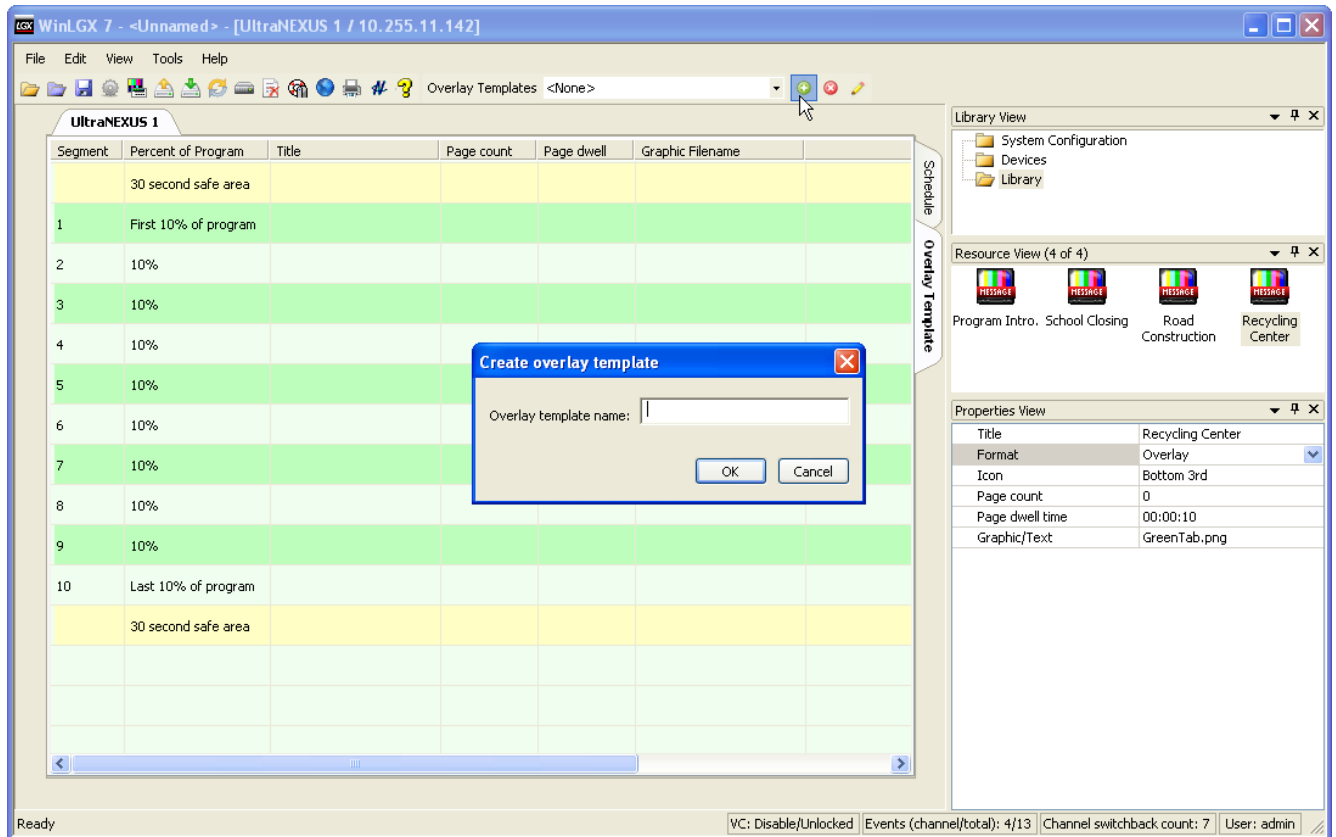
2. Add an overlay template to the template listing by clicking the  icon and assigning a title in the “Create overlay template” box that appears (see Illustration 89, Add Overlay Template). Click “OK” to create template or cancel to abort. Click the  icon to rename the overlay template.

Illustration 89, Add Overlay Template

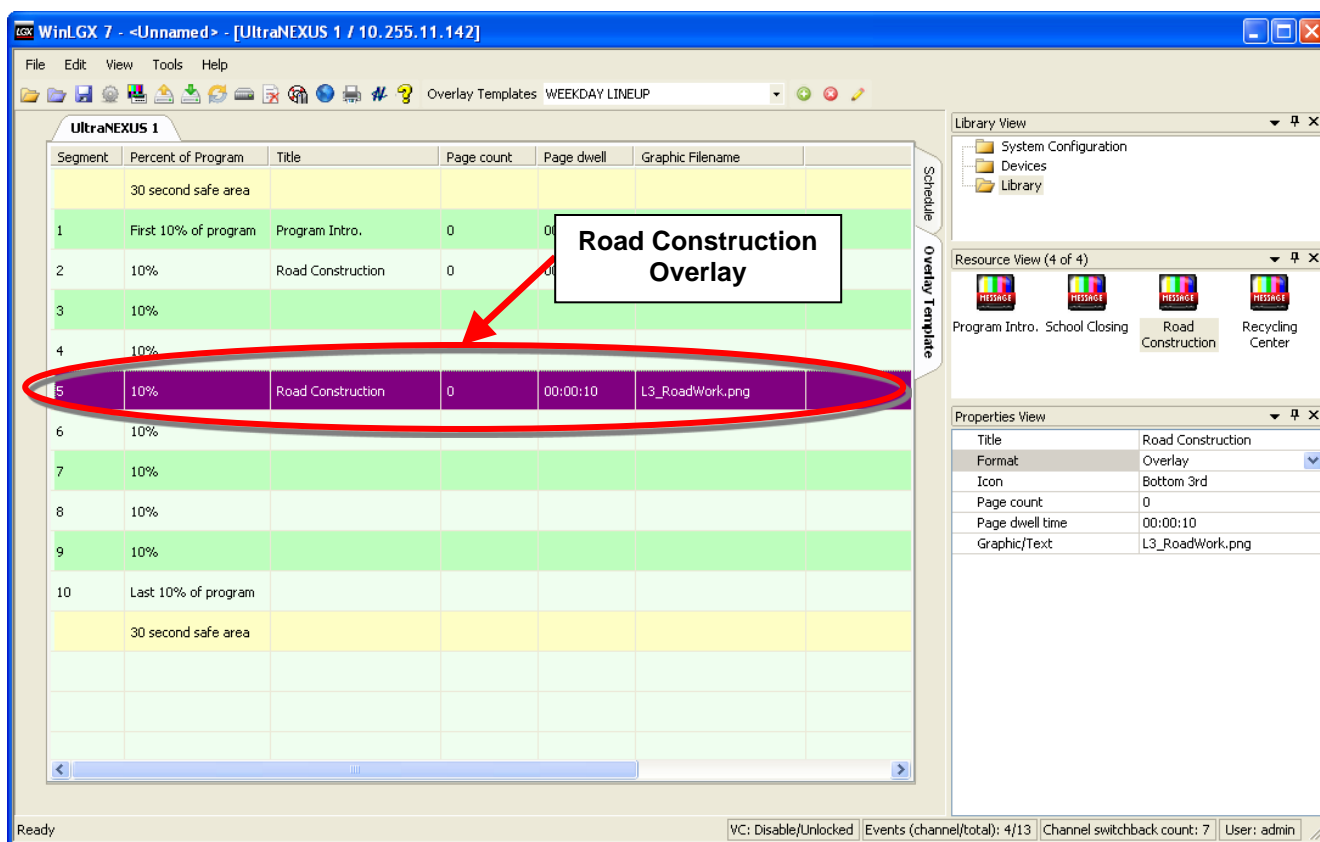


3. Drag up to ten overlay library resources into the desired segments on the overlay template and click “OK” in each overlay properties box that appears.

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 90 is selected to display with an hour-long MPEG video, the “Road Construction” overlay would display for 5 minutes and 54 seconds.

Illustration 90, 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.

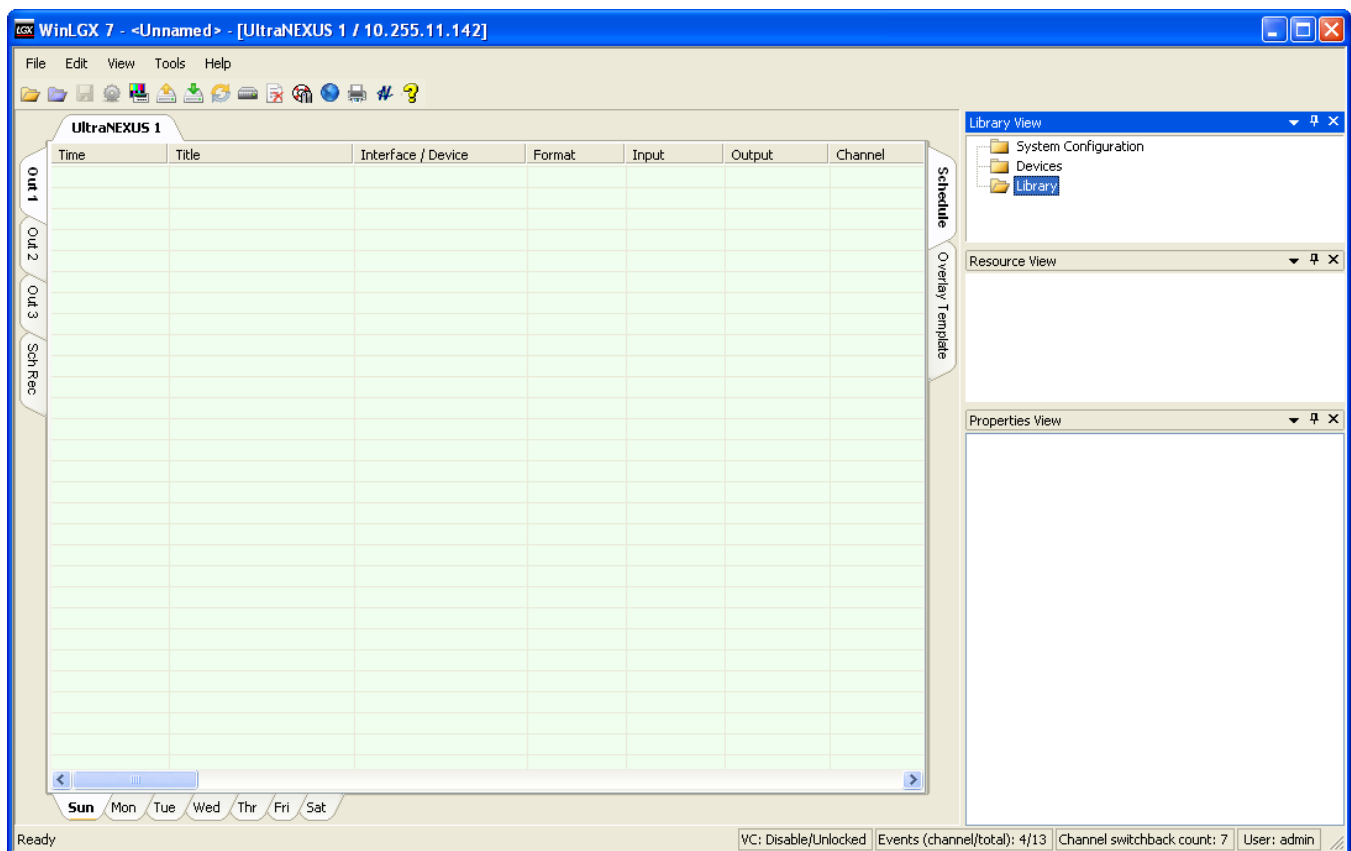
CREATING LIBRARY RESOURCES

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 MPEG video, slide, tape, disc, 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 Device Resources,” starting on page 159).

Create library resources as follows:

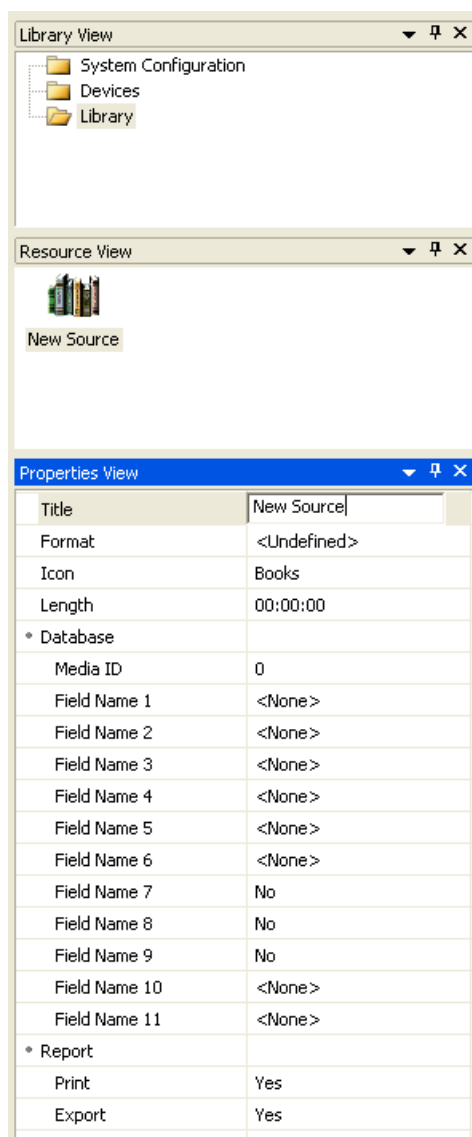
1. Click on the “Library” folder on the right side of the schedule editor window to display the library view (see Illustration 91, “Library View” Windows).

Illustration 91, “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 92, New Library Resource Windows).

Illustration 92, New Library Resource Windows



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

- “Tape and DVD Library Resources,” on page 178
- “Switch Library Resources,” on page 181
- “MPEG Library Resources,” on page 183
- “MPEG Loop Library Resources,” on page 190
- “Graphic/Text Overlay Library Resources,” on page 171
- “Slide Library Resources,” on page 195
- “Slide Show Library Resources,” on page 199
- “Onscreen Program Guide Library Resources,” on page 203
- “MPEG File/Slide Playlist Library Resources,” on page 207
- “Virtual Channel (VC) List Library Resources,” on page 209

Tape and DVD Library Resources

Create library resources containing properties for device media such as videotapes and DVDs. Click the “Library” folder and then right click in the “Resource View” window and select “New.” Select a tape or DVD “Format” in the “Properties” window and then edit the remaining properties described in Table 28, referring to Illustration 93 throughout.

Illustration 93, Example of DVD Library Resource Properties

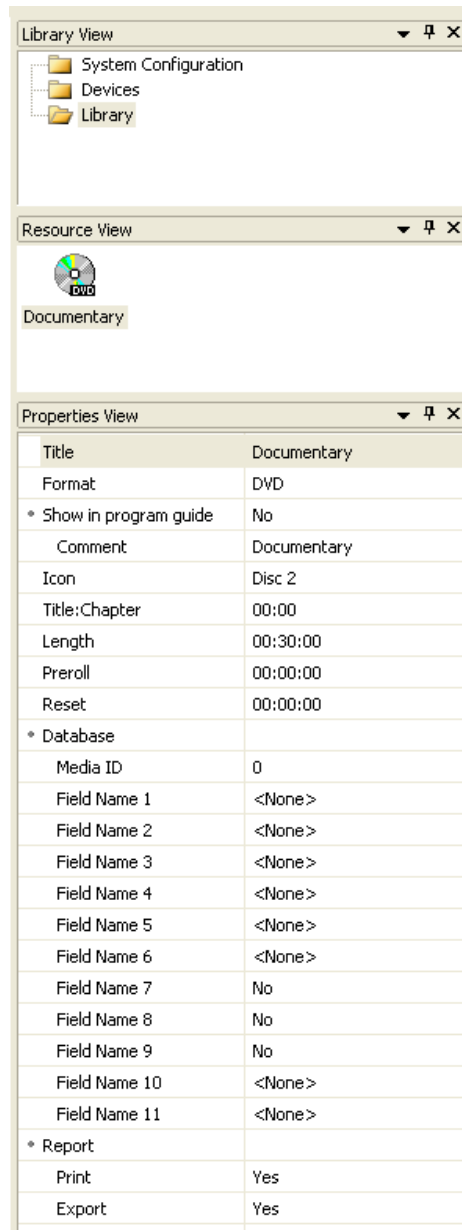


Table 28, Tape and DVD Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters

FIELD	DESCRIPTION
Format	Choose one of the following DVD or tape media formats: <ul style="list-style-type: none"> • ¾" • 8mm • Beta SP • DV (digital video device) • DVCPRO (Panasonic digital video device) • DVCAM (Sony digital video device) • DVD • HI-8mm • S-VHS • VHS
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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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 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.
Disc number	<u>Supported DVD Changer only:</u> indicate the disc's number position within the DVD device.
Title:Chapter	<u>DVply-controlled DVD devices only:</u> enter the title and/or chapter location on the DVD from which you would like events scheduled with the resource to start.
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.
Preroll	If desired, enter a length of time to indicate the amount of unwanted video (black, etc.) at the start of the program that you do not want playing on air.
Reset	If desired, enter time the playback device will be busy and unavailable for scheduling after the end of the program. It is typically the rewind time.

NEXUS Series
Software Installation & Configuration

FIELD	DESCRIPTION
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.

Switch Library Resources

Create switch library resources containing properties for switch inputs, such as studio feeds or external character generators (CG). 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 29, referring to Illustration 94 throughout.

Illustration 94, Example of Switch Library Resource Properties

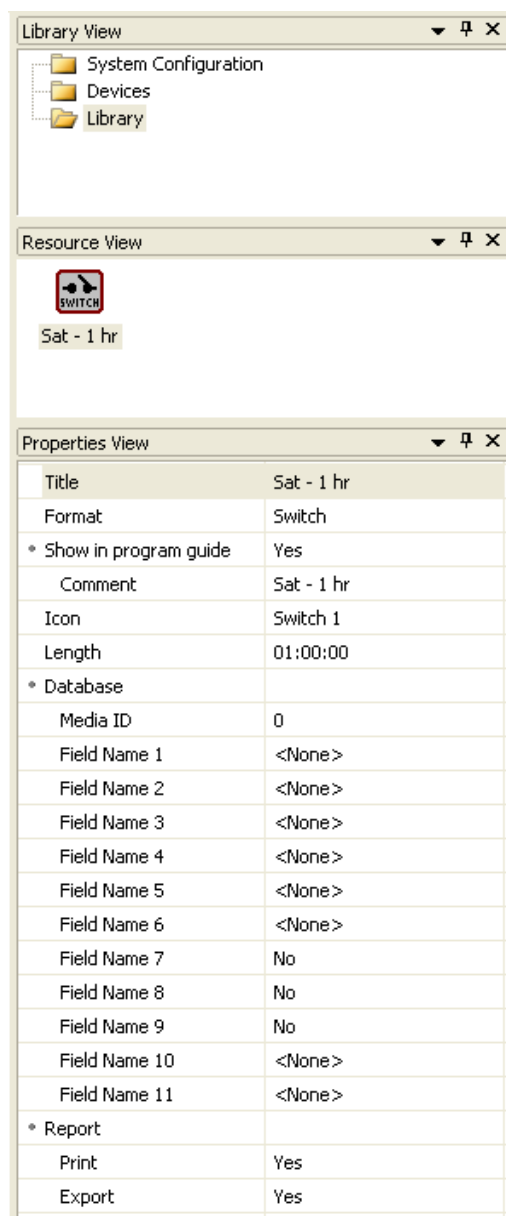


Table 29, Switch Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters

NEXUS Series

Software Installation & Configuration

FIELD	DESCRIPTION
Format	Choose one of the following switch types: <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 onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 203) and the web program guide see “Viewing Web Program Guide” on page 401). 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 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.
Length	Enter the on-air length of the program medium.
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

FIELD	DESCRIPTION
	<p>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.

MPEG Library Resources

Create MPEG file library resources containing properties for MPEG video files that will be displayed on the NEXUS series system's internal MPEG players. Click the "Library" folder and then right click in the "Resource View" window and select "New." Select "MPEG" under "Format" in the "Properties" window and then edit the remaining properties described in Table 30, referring to Illustration 95 throughout.

Illustration 95, MPEG Library Resource Properties

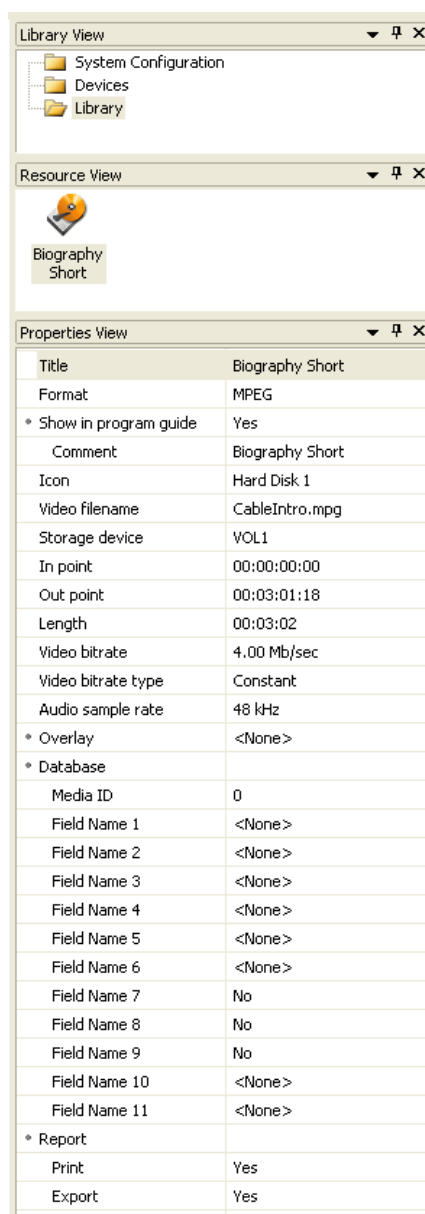

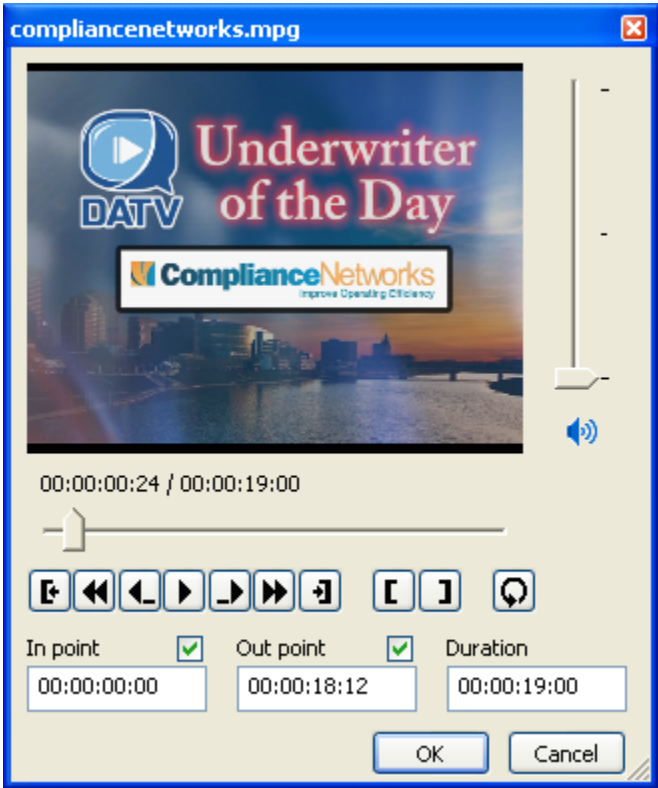



























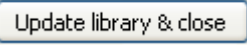
Table 30, MPEG Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "MPEG" from the drop down 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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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 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	<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.
Video filename	<p>Use the "Video filename" field to select the appropriate filename for the source as follows:</p> <ol style="list-style-type: none"> 1. Select the "Video 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 MPEG 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 96, Instant Video Preview Monitor). For more information on the preview monitor, go to the "Using Instant Video Preview Monitor to Display MPEG Files within WinLGX" section on page 229.

FIELD	DESCRIPTION
Video filename (continued)	<p><i>Illustration 96, Instant Video Preview Monitor</i></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: <p>NOTE: The MPEG recording library resource is scheduled for recording through the MPEG device resource. Refer to “Internal Broadcast MPEG Recorder Device Resources” on page 264 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: <ul style="list-style-type: none"> ➤ Double-click the desired file to automatically accept selection and close “Select file” window. ➤ Click to select the desired file. From the “Select file” dialog, click “OK” to accept selection or “Cancel” to abort.

FIELD	DESCRIPTION
Storage device	The USB drive containing the MPEG file is automatically displayed once the MPEG filename is selected.
In point / 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. The clip editor that is displayed depends on whether the “hardware” or “software” monitor option is chosen for clip editor playback (see page 129 for preview monitor settings). Follow the set of steps below that corresponds to your monitor choice.</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 NEXUS series server’s MPEG players. To use this option, ensure the “Software Monitor” option is selected on the “Preview Monitor” tab in the “Preferences” window.</p> <p><i>Illustration 97, WinLGX Video Clip Editor with Preview Monitor</i></p>  <p>1. If desired, adjust the volume control. Audio is set to the lowest level by default.</p>

FIELD	DESCRIPTION
<p>In point / Out point (in HH:MM:SS:FF, where FF=frames)</p>	<ol style="list-style-type: none"> 2. Ensure each point you wish to set has a green checkmark next to its time field. 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. 4. Specify the clip's playback in and out points using one of the following methods: <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 "Preview Tab" of the "Preferences" window. When you reach the desired point in the file, 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 monitor.</p> <p><u>Hardware Monitor</u></p> <p>WinLGX displays the control panel clip editor if you are choosing to play back your clips during editing on a monitor attached to your NEXUS series server, and "Hardware Monitor" is selected on the "Preview Monitor" tab in the "Preferences" window.</p>

FIELD	DESCRIPTION
	<p>1. Specify the clip's playback in and out points using one of the following methods:</p> <p>NOTE: If you did not specify a default MPEG player for clip editing under "Tools"/"Preferences/Preview Monitor" (see page 129 for further instructions), WinLGX asks you to select the MPEG 1 or 2 clip editor. If the selected or default MPEG player is currently playing a file, WinLGX allows you to stop playback and continue with the clip editing process or select the other MPEG player.</p> <ul style="list-style-type: none"> Click the  button to start playing the file and click the  or  button at the desired spot. Drag the playback bar to the desired spot and click the  or  button. Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  or  button. <p>2. Close the clip creation control panel and add changes to library resource by clicking the  button.</p>
Length	Automatically displayed once the MPEG filename is selected. This length may be changed to a value between 10 seconds and 4 hours.
Video bit rate	Automatically displayed once the MPEG filename is selected.
Video bit rate type	Automatically displayed once the MPEG filename is selected.
Audio sample rate	Automatically displayed once the MPEG filename is selected.
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.

FIELD	DESCRIPTION
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.

MPEG Loop Library Resources

Create MPEG loop library resources containing properties for MPEG video files that will be repeatedly displayed on the UltraNEXUS/NEXUS internal MPEG players. Each MPEG loop library resource displays the selected MPEG 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 “MPEG Loop” under “Format” in the “Properties” window and then edit the remaining properties described in Table 31, referring to Illustration 98 throughout.

Illustration 98, MPEG Loop Library Resource Properties

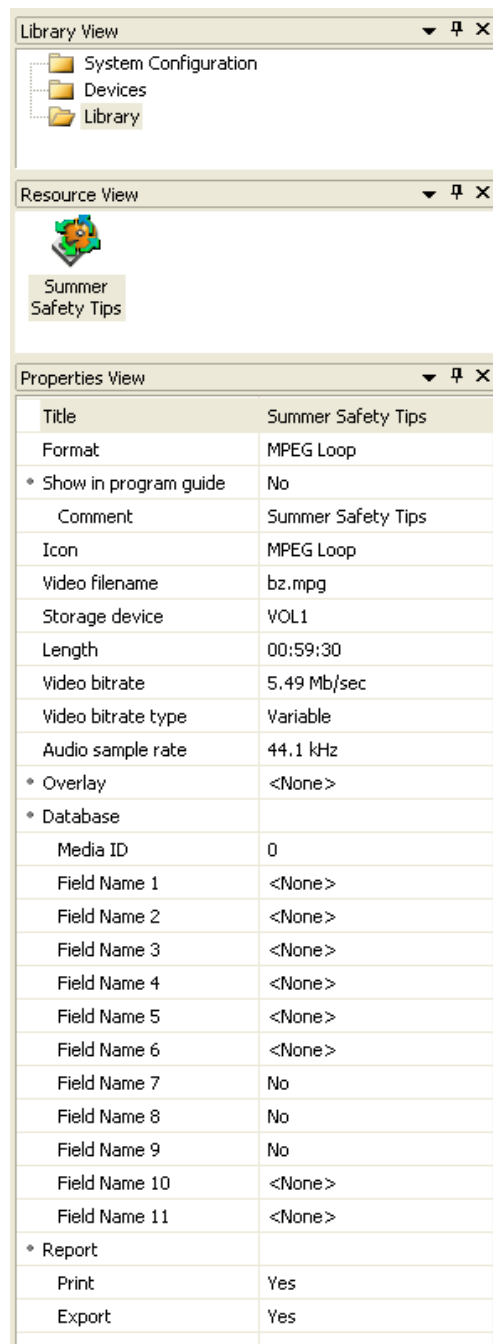

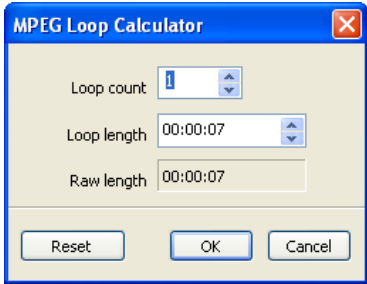


Table 31, MPEG Loop Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "MPEG" from the drop down 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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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 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 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 "Video filename" field to select the appropriate filename for the source as follows: <ol style="list-style-type: none"> 1. Select the "Video 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 MPEG 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 99). For more information on the preview monitor, go to the "Using Instant Video Preview Monitor to Display MPEG Files within WinLGX" section on page 229.

FIELD	DESCRIPTION
Video filename	<p><i>Illustration 99, Instant Video Preview Monitor</i></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: NOTE: The MPEG recording library resource is scheduled for recording through the MPEG device resource. Refer to “Internal Broadcast MPEG Recorder Device Resources” on page 264 for further instructions. <ul style="list-style-type: none"> Type a filename in the “Name” field. In the “Length” field, enter the record time for the file. 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: <ul style="list-style-type: none"> ➤ Double-click the desired file to automatically accept selection and close “Select file” window. ➤ Click to select the desired file. From the “Select file” dialog, click “OK” to accept selection or “Cancel” to abort.

FIELD	DESCRIPTION
Length	<p>The file length is automatically displayed once the MPEG 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 “MPEG Loop Calculator” (see Illustration 100). <p style="text-align: center;"><i>Illustration 100, MPEG Loop Calculator</i></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.
Storage device	The USB drive containing the MPEG file is automatically displayed once the MPEG filename is selected.
Video bit rate	Automatically displayed once the MPEG filename is selected.
Video bit rate type	Automatically displayed once the MPEG filename is selected.
Audio sample rate	Automatically displayed once the MPEG filename is selected.
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.

FIELD	DESCRIPTION
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.

Slide Library Resources

Slide library resources contain properties for JPEG slides that will be displayed on the NEXUS series system’s internal MPEG players. **Before** creating a slide library resource, upload the desired slide into a NEXUS series user folder(s) through the WinLGX Storage Manager window or WebNEXUS:

- WinLGX Storage Manager: refer to “Managing all Digital Files,” on page 329.
- WebNEXUS interface: see the “Uploading Slides to a NEXUS Series Server/Controller” section on page 369 to learn how to upload slides through WebNEXUS.

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 32, referring to Illustration 101 throughout.

NOTE: The NEXUS series systems ship 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 101, Slide Library Resource Properties

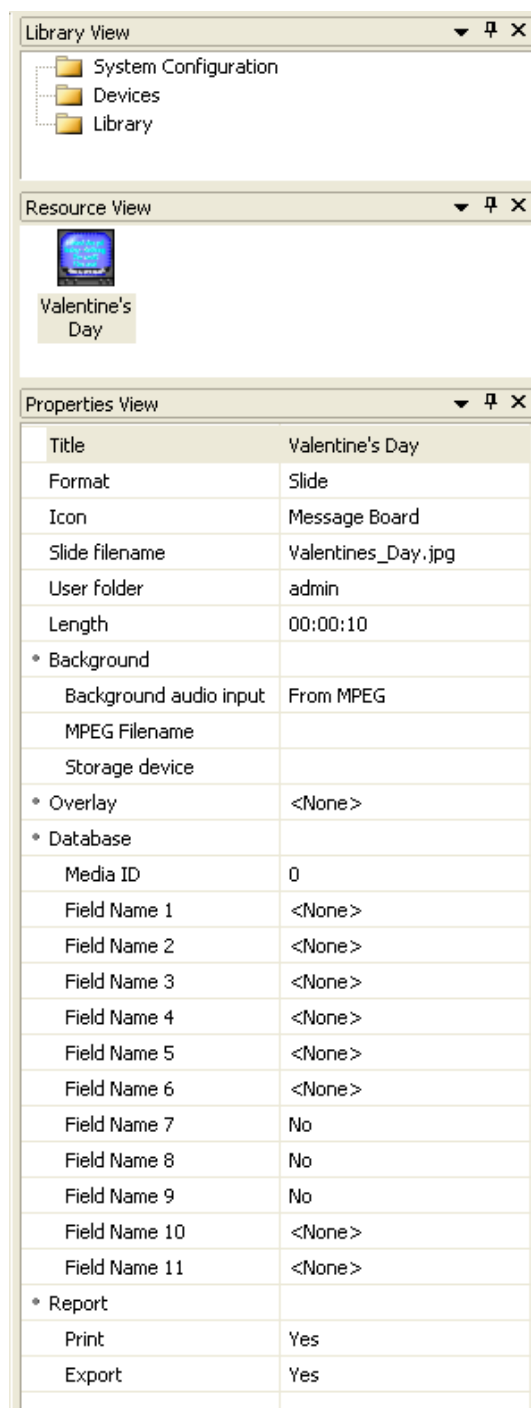
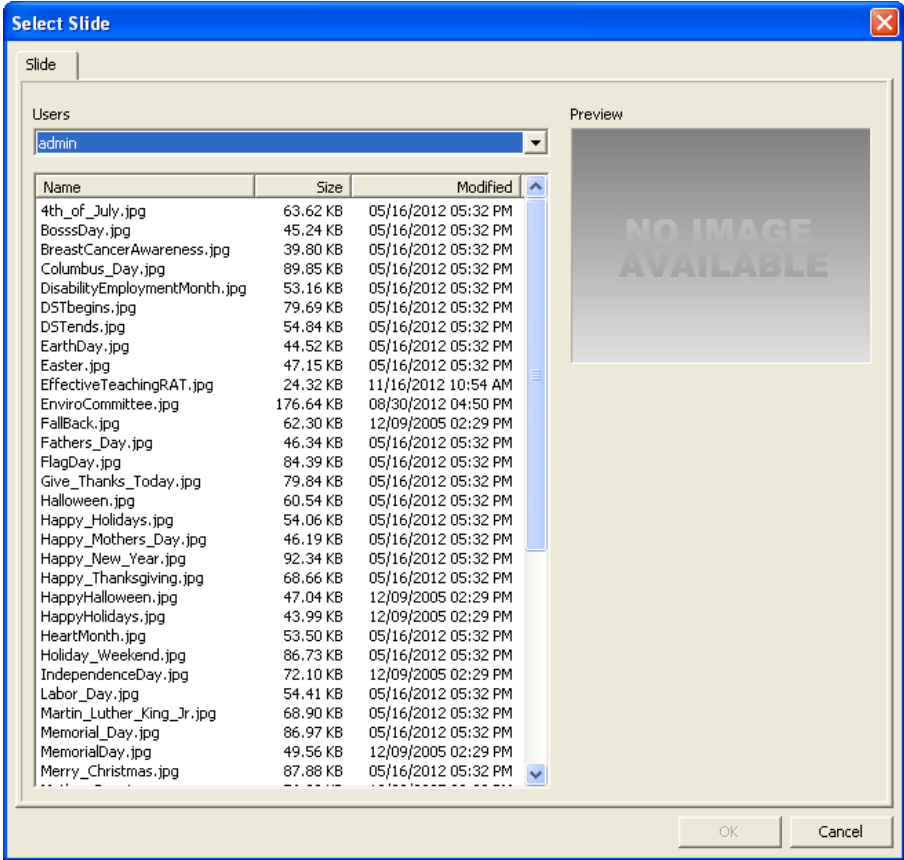


Table 32, Slide Library Resource Properties

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

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.
Slide filename	<p>Use the “Slide filename” field to select the appropriate slide filename for the source as follows:</p> <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 102, “Select Slide” Window). <p style="text-align: center;"><i>Illustration 102, “Select Slide” Window</i></p>  <ol style="list-style-type: none"> 2. Select a username from the “Users” drop down list to display the JPEG slides in the corresponding remote user folder. 3. Select a slide as follows: <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

FIELD	DESCRIPTION
	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 123 for more information), 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 “from MPEG” to play the audio from an MPEG file. Load an MPEG file using the “MPEG filename” field that appears. • NEXUS/UltraNEXUS only: select an audio input on the internal switcher. • UltraNEXUS-SDI only: select the type of audio signal your SDI system has been wired to record: <ul style="list-style-type: none"> ➤ “<u>Analog</u>”: corresponds to the analog audio inputs on the SDI’s back panel terminal blocks (see Table 6, 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 6, 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.

FIELD	DESCRIPTION
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.

Slide Show Library Resources

Slide show library resources contain properties for sequences of JPEG slides that will be displayed on the NEXUS series system’s internal MPEG players. 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 a NEXUS series 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 329.
- WebNEXUS interface: see the “Uploading Slides to a NEXUS Series Server/Controller” on page 369 to learn how to upload slides through WebNEXUS and “Approving Slides for Display in Slide Shows” on page 389 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 331 or “Approving Slides for Display in Slide Shows,” on page 389).

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 33, referring to Illustration 103 throughout.

NOTE: Each NEXUS series 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 103, Slide Show Library Resource Properties

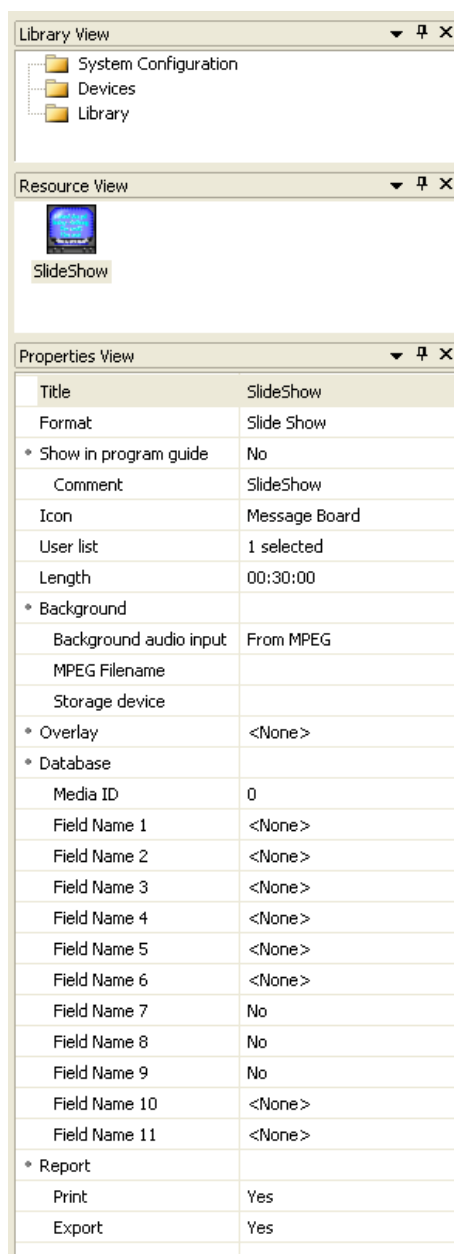
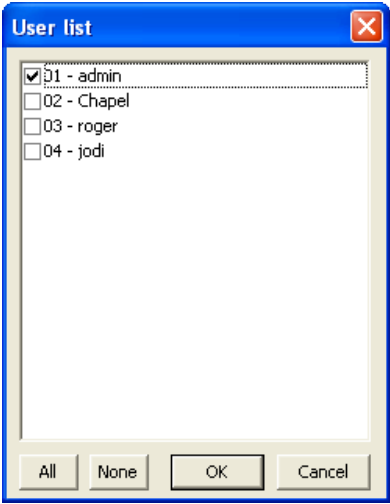


Table 33, Slide Show Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select "Slide Show."

NEXUS Series
Software Installation & Configuration

FIELD	DESCRIPTION
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 203) and the web program guide (see “Viewing Web Program Guide” on page 401).
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.

FIELD	DESCRIPTION
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 386).</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 104, “User list” Window. <p>NOTE: The NEXUS series 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 104, “User list” Window</i></p>  <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.
Length	<p>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 Metadata387,” on page 386).</p>

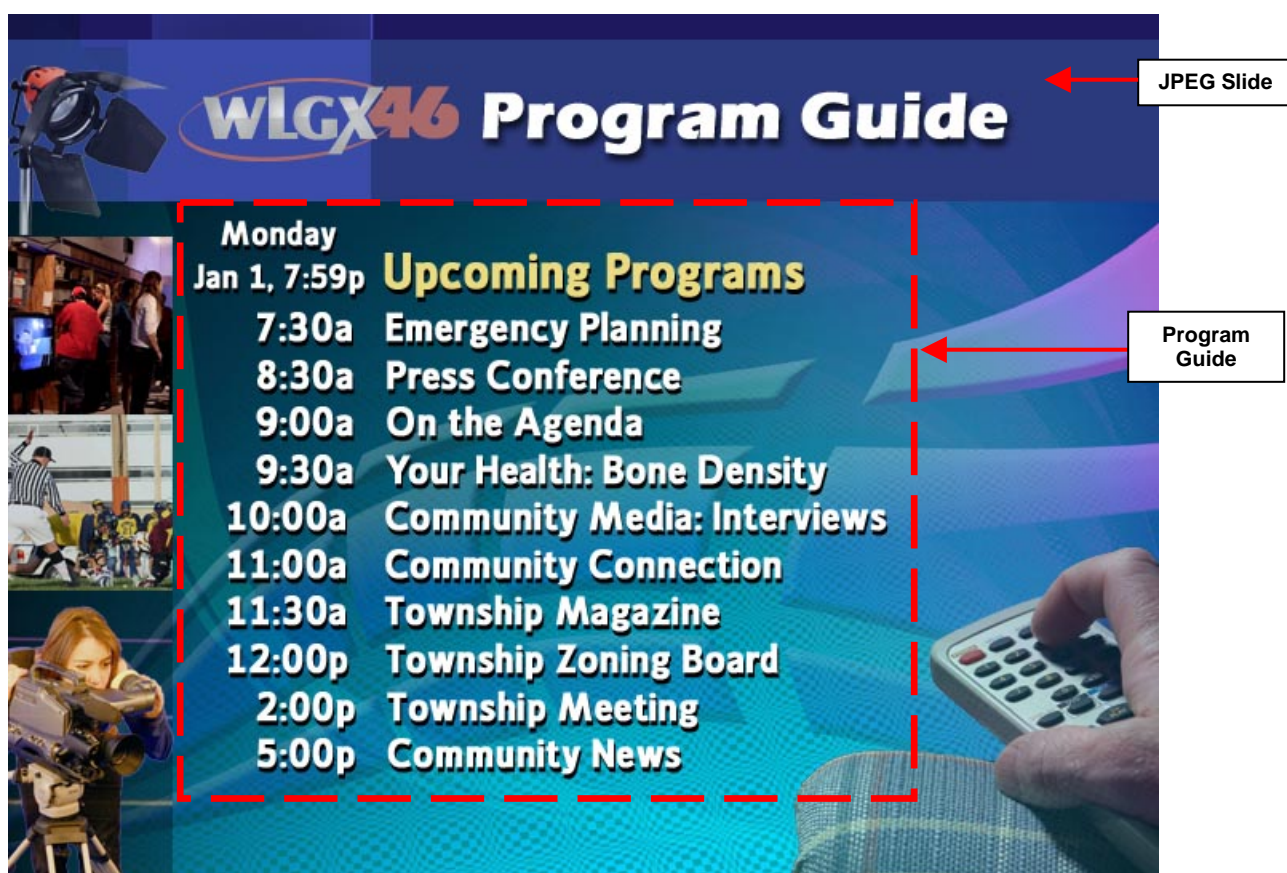
FIELD	DESCRIPTION
Background	<p>If desired, select an audio source to play with your slide file display. Under the “Background audio input” field, perform one of the following:</p> <ul style="list-style-type: none"> • Select “from MPEG” to play the audio from an MPEG file. Load an MPEG file using the “MPEG filename” field that appears. • NEXUS/UltraNEXUS only: select an audio input on the internal switcher. • UltraNEXUS-SDI only: select the type of audio signal your SDI system has been wired to record: <ul style="list-style-type: none"> ➤ “<u>Analog</u>”: corresponds to the analog audio inputs on the SDI’s back panel terminal blocks (see Table 6, 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 6, 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	<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

FIELD	DESCRIPTION
	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 105 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 105.

Illustration 105, 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 34, referring to Illustration 106 throughout.

Illustration 106, Program Guide Library Resource Properties

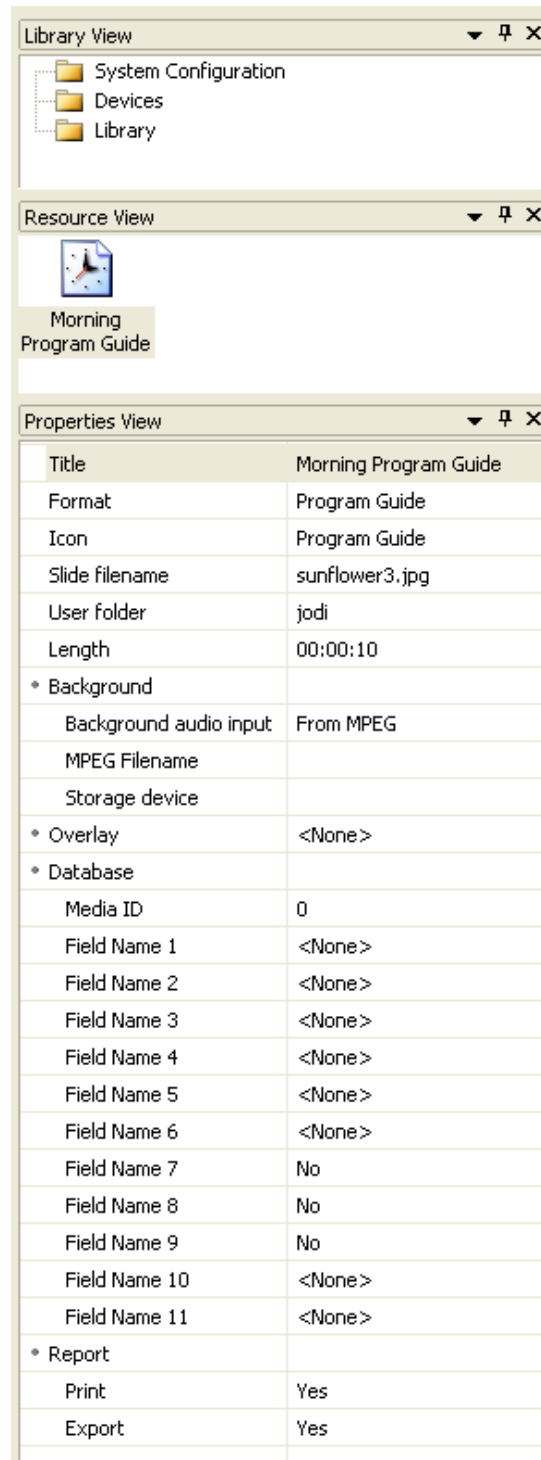
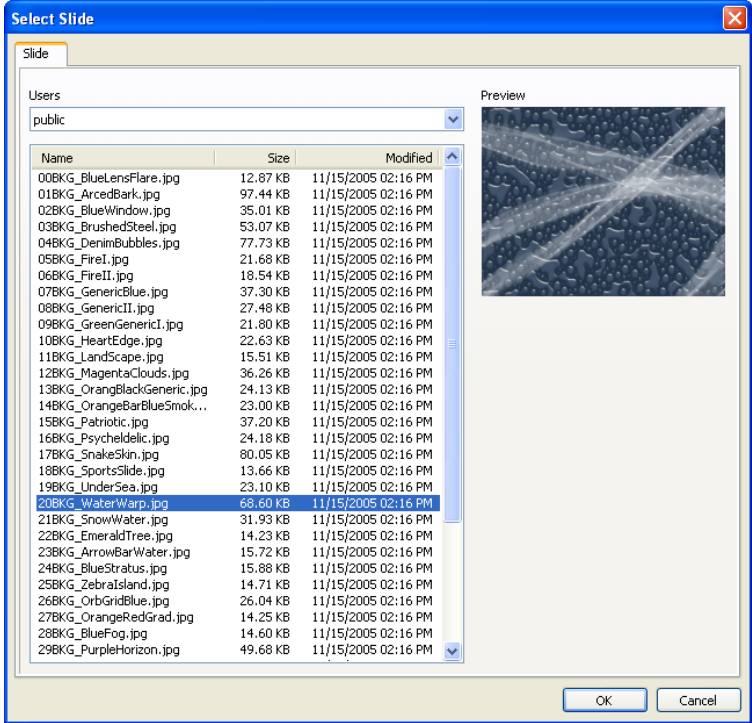


Table 34, Program Guide Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.

FIELD	DESCRIPTION
Format	Select “Program Guide” from the drop down list.
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.
Slide filename	<p>Use the “Slide filename” field to select the appropriate slide filename for the source as follows:</p> <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 107, “Select Slide” Window). <p style="text-align: center;"><i>Illustration 107, “Select Slide” Window</i></p>  <ol style="list-style-type: none"> 2. Select a username from the “Users” drop down list to display the JPEG slides in the corresponding remote user folder. 3. Select a slide as follows: <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.

NEXUS Series
Software Installation & Configuration

FIELD	DESCRIPTION
Length	Automatically displayed once the slide file is selected, but may be edited to any value greater than 5 seconds.
Background	If desired, select an audio source to play with your slide file display. Under the “Background audio input” field, perform one of the following: <ul style="list-style-type: none">• Select an audio input.• Select “from MPEG” to play the audio from an MPEG file. Load an MPEG file using the “MPEG filename” field that appears.
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.

MPEG File/Slide Playlist Library Resources

Create MPEG file/slide playlist library resources containing properties for multiple digital media files that will be displayed on the NEXUS series system's internal MPEG players. Playlist resources allow users to simultaneously schedule one or more MPEG files and/or JPEG 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 35, referring to Illustration 108 and Illustration 109 throughout.

Illustration 108, Playlist Library Resource Properties

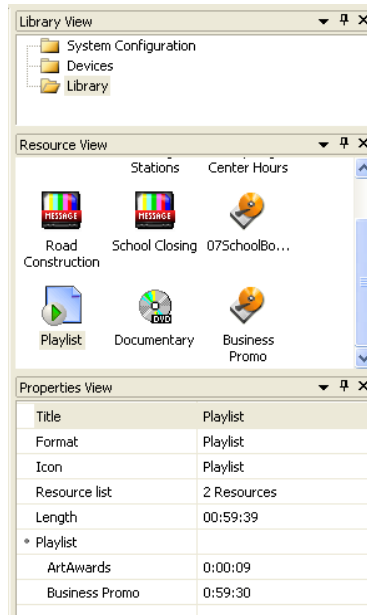


Illustration 109, "Playlist Editor" Window

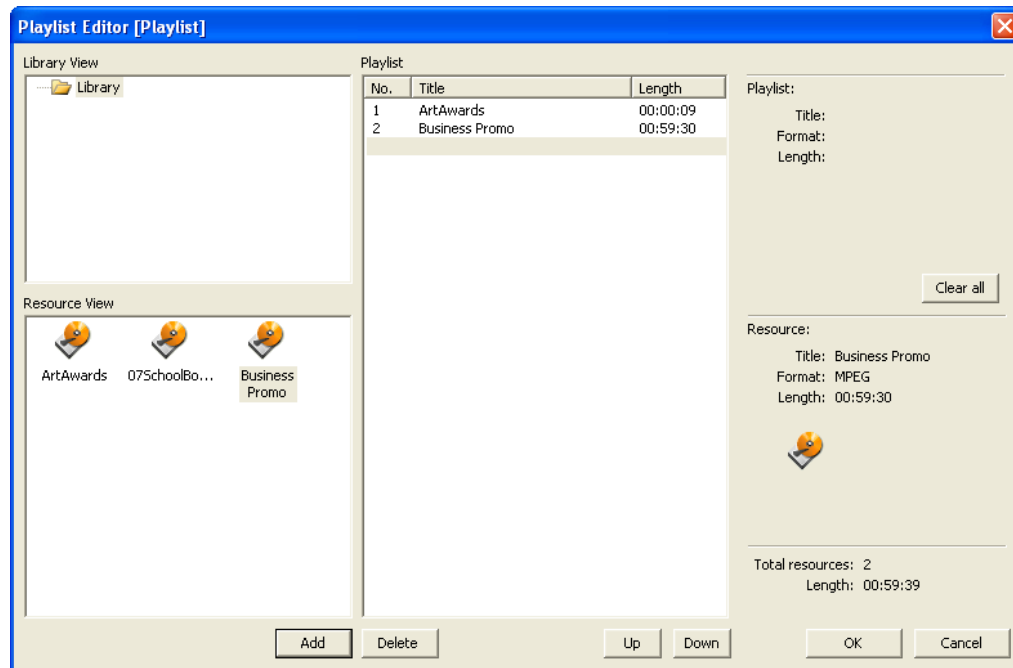


Table 35, Playlist Library Resource Properties

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 109 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 WebNEXUS (see “Creating/Modifying Virtual Channel Playlists,” on page 423). 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 35, referring to Illustration 108 and Illustration 109 throughout.

Illustration 110, VC List Library Resource Properties

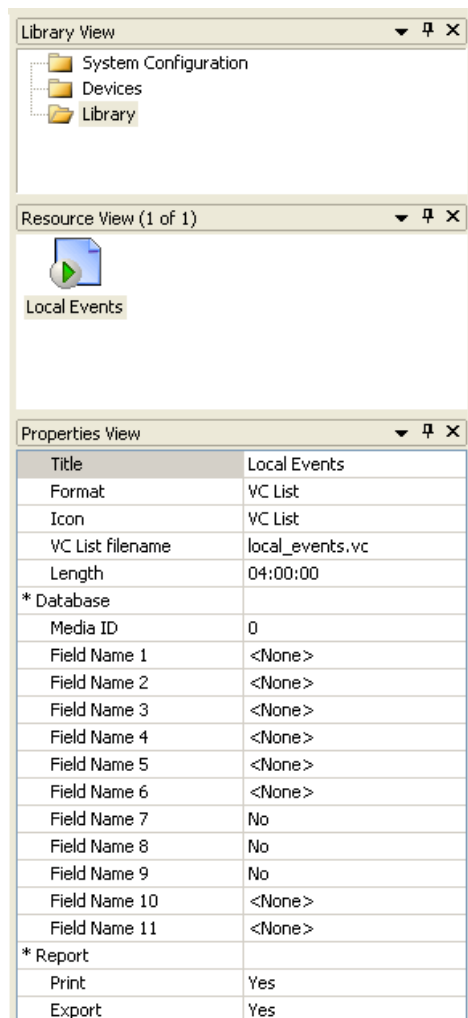


Table 36, Playlist Library Resource Properties

FIELD	DESCRIPTION
Title	Enter a unique and descriptive name, up to 31 characters.
Format	Select “VC List.”

NEXUS Series
Software Installation & Configuration

FIELD	DESCRIPTION
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 MPEG 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 NEXUS series 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 MPEG library resource properties can be exported into a resource file.
 - Only the library resource properties are exported into a resource file. The MPEG 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 111) to display the "Export MPEG Resource" window (see Illustration 112). Resource files may only be exported on a folder by folder basis.

Illustration 111, Library "Export" Option

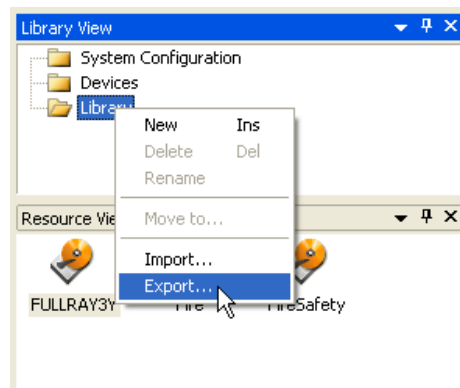
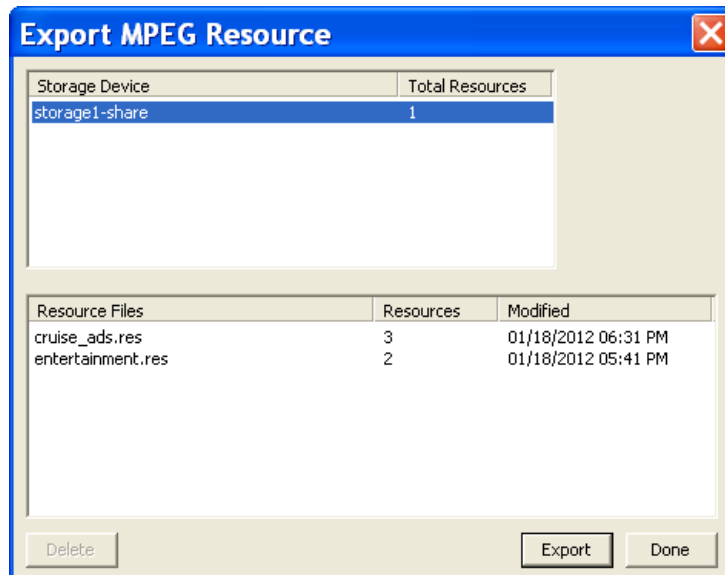
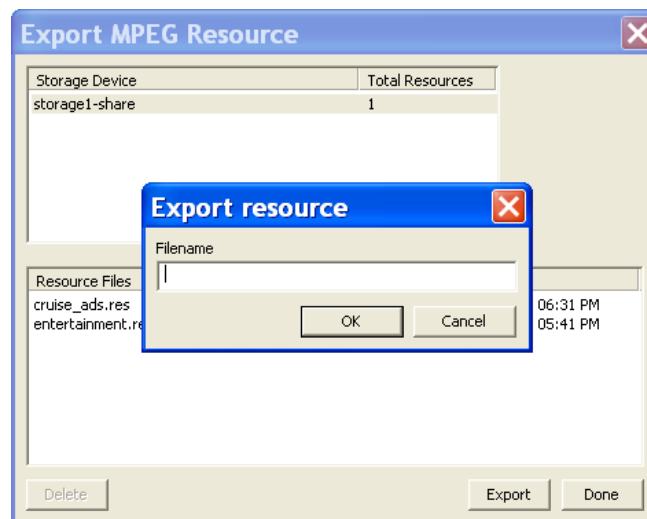


Illustration 112, "Export MPEG Resource" Window



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 112). 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 113). Click “Ok” to upload the file to the selected storage device or “Cancel” to abort.

Illustration 113, "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 NEXUS series 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 83, 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. For an outline of the scheduling process, refer to the *WinLGX Scheduling Quick Guide* included with your NEXUS series system. 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 NEXUS series system’s external storage devices and digital slides uploaded to the NEXUS system’s internal memory. With the WinLGX “Storage Manager” window, you can delete, move, and copy MPEG videos, slides, and overlays between your local (PC) and remote storage areas. To protect these same files against loss, you will also learn how to backup your NEXUS system’s internal memory and external USB drives with the Total Backup program.

PERFORMING GENERAL WINLGX OPERATIONS

OPENING WINLGX AND CONNECTING TO NEXUS SERIES SERVER/CONTROLLER


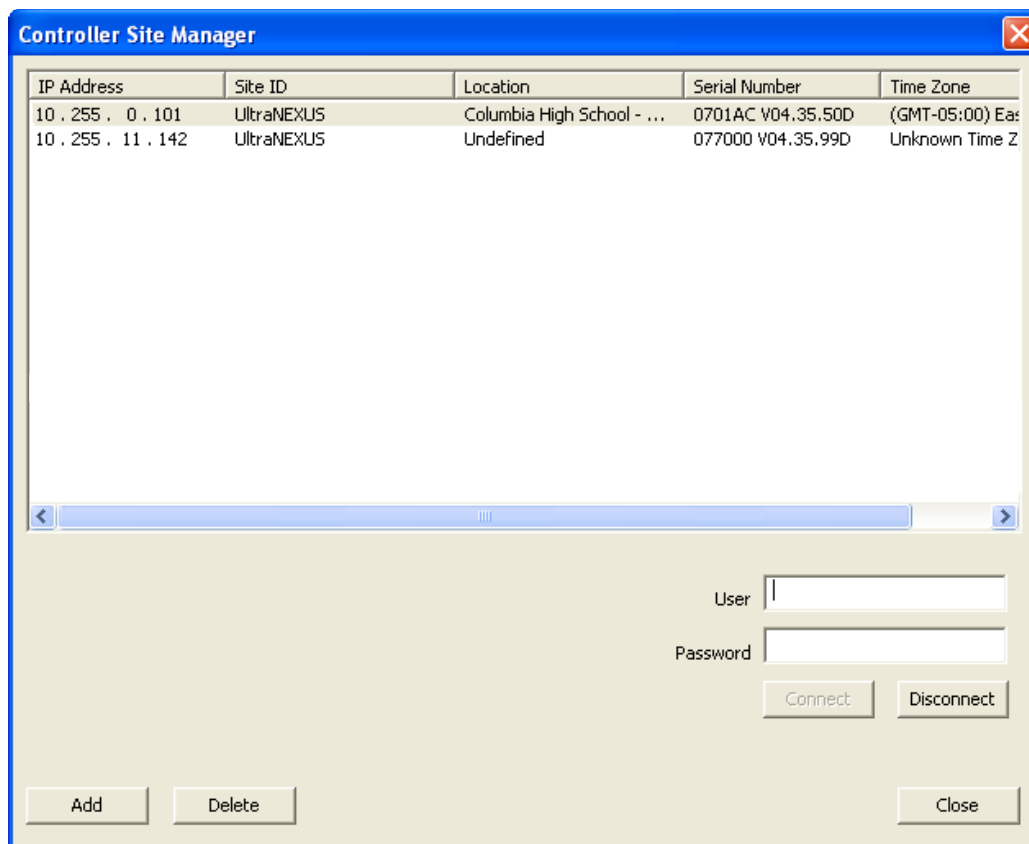
1. Double click the WinLGX desktop icon. The login window shown in Illustration 114 automatically appears when WinLGX is opened or when you click one of the following:
 - Select “Site manager” in the “Tools” menu
 - Click the  icon on the toolbar

Illustration 114, “Site Manager” Window



2. 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.
3. Connect as follows (see Illustration 114, “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 NEXUS series 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 NEXUS series server/controllers 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:

NEXUS SERIES FACTORY-DEFAULT USERNAME AND PASSWORD	
➤	“USER” FIELD: “ADMIN” IN LOWER-CASE LETTERS
➤	“PASSWORD” FIELD: THE LAST SIX DIGITS OF YOUR NEXUS 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 NEXUS series server/controller’s serial number are viewable from the front panel (see “Configuring Front Panel Settings,” on page 75) and a sticker on the back of your NEXUS series server/controller.

- c. Click “Connect” or press “Enter” to connect to the chosen NEXUS series server/controller(s) and close the login dialog box. Once you are connected, a tab appears for each NEXUS series server/controller on the main window beneath the toolbar.
- d. If you logged into more than one NEXUS series 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 115, About WinLGX Window



DISCONNECTING FROM A NEXUS SERIES SERVER/CONTROLLER

To disconnect WinLGX from your NEXUS series system, perform the following steps:

NOTE: The NEXUS system will continue to operate while disconnected from WinLGX.

1. Select "Site manager" in the "Tools" menu or click the  icon on the toolbar to open the "Site Manager" window shown in Illustration 114.
2. Select the NEXUS series 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.
3. Click the "Disconnect" button. A box will appear asking whether or not you would like to disconnect from the current NEXUS series location(s). Click "Yes" to disconnect or "No" to remain connected.

EXITING WINLGX

To disconnect from your NEXUS series server/controller(s) and close the WinLGX software, perform the following steps:

NOTE: The NEXUS system will continue to operate while disconnected from WinLGX.


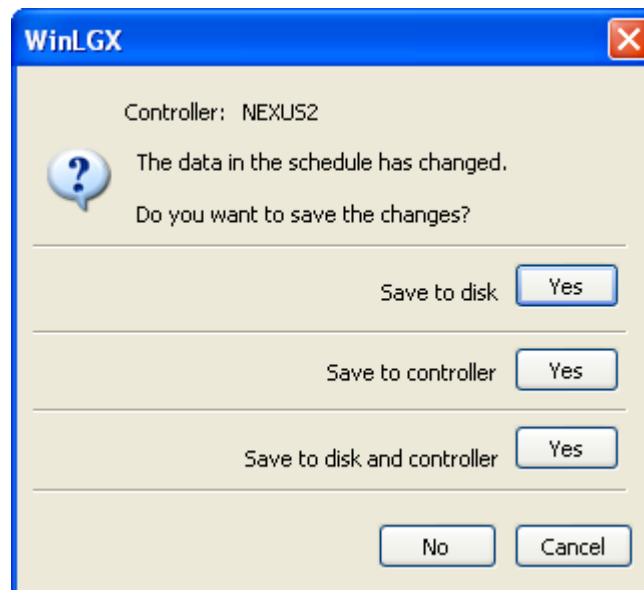
1. Select "Exit" in the "File" menu or click the  in the upper right corner of the main window.
2. If an image file has not been saved for one of the connected NEXUS series server/controllers, the dialog box shown in Illustration 116 appears and asks if you want to save the changes. Select one of the following options:

Illustration 116, WinLGX Exit Dialog Box



- 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 NEXUS Series Image Files,” on page 224), WinLGX will automatically close.
- Save to controller: click “Yes” to send the image file to the NEXUS series server/controller. Once the send is complete, the server/controller 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 NEXUS Series Image Files,” on page 300), WinLGX will send the image file to the NEXUS series server/controller. Once the send is complete, the NEXUS system 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 NEXUS SERIES IMAGE FILES

Each NEXUS series image file (.nmg) holds your schedule events along with your system, device, and library resource properties. The “Software Installation & Configuration” section, starting on page 83, 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 a NEXUS series image file, go to “Creating New NEXUS Image Files,” on page 94.

If an unsaved image is open in WinLGX when you attempt to open another image, a dialog box (see Illustration 116) 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 NEXUS Series Image Files,” on page 224).
- Save to controller: click “Yes” to send the image file to your NEXUS series system. Once the send is complete, the NEXUS series 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 NEXUS Series Image Files,” on page 224), WinLGX will send the image file to the NEXUS series system. Once the send is complete, the NEXUS 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 a NEXUS series image file according to one of the following subsections:

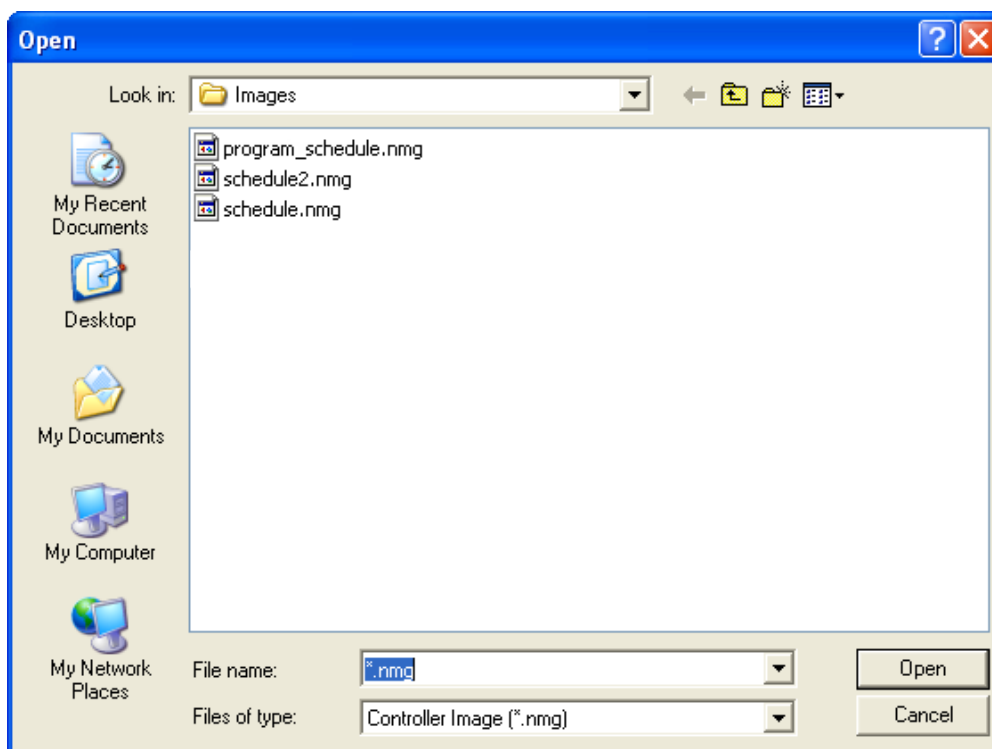
- “Opening a Saved Image File,” on page 219
- “Opening an Image File as New,” on page 221
- “Receiving Image Files from the Connected NEXUS Series Server/Controller(s),” on page 222
- “Associating NEXUS Series Image Files with WinLGX,” on page 223

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:

1. Select “Open” in the “File” menu or click the  icon on the main toolbar to open the file selection window shown in Illustration 117.

Illustration 117, 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 two channel output tabs, 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 MPEG players to the first two channel output tabs. Be aware that all MPEG events on the first channel output tab will then be changed to display on MPEG Player 1 and all events on the second channel output tab will display on MPEG Player 2.
 - 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 two channel output tabs to display on the assigned MPEG players, and then enable the Virtual Channel feature.
2. Ensure the “Controller Image (*.nmg)” option has been selected in the “Files of type” field.
 3. Select an image file folder from the “Look in” drop down box at the top of the window.
 4. 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.

5. As you enter/edit your schedule events according to the “Scheduling Events” section starting on page 231, periodically save your settings in an image file as described in “Saving NEXUS Series Image Files,” on page 224.

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.


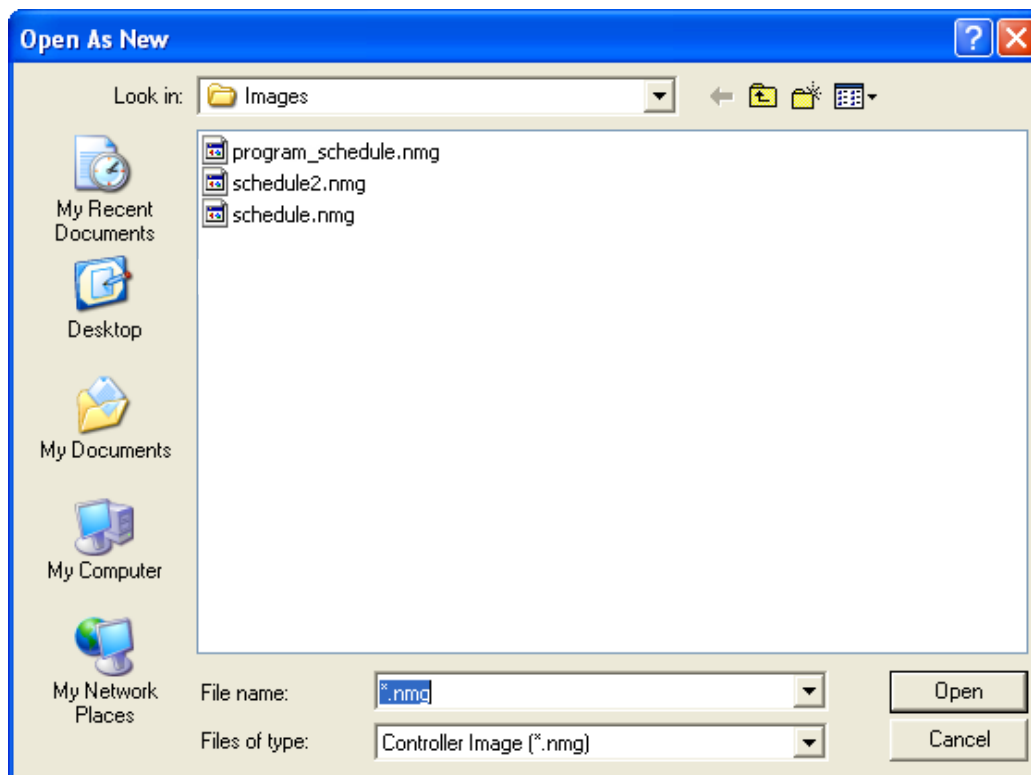
1. Select “Open as new” in the “File” menu or click the  icon on the main toolbar to open the file selection window shown in Illustration 118, Open Image File as New Window.

Illustration 118, Open Image File as New Window



2. Ensure the “Controller Image (*.nmg)” option has been selected in the “Files of type” field.
3. Select an image file folder from the “Look in” drop down box at the top of the window.
4. 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.
5. As you enter/edit your schedule events according to the “Scheduling Events” section starting on page 231, periodically save your settings in an image file as described in “Saving NEXUS Series Image Files,” on page 224.

**RECEIVING IMAGE FILES FROM THE CONNECTED NEXUS SERIES
SERVER/CONTROLLER(S)**

An image received from a connected NEXUS series server/controller contains any schedule events and system, device, and library properties last sent to the server.


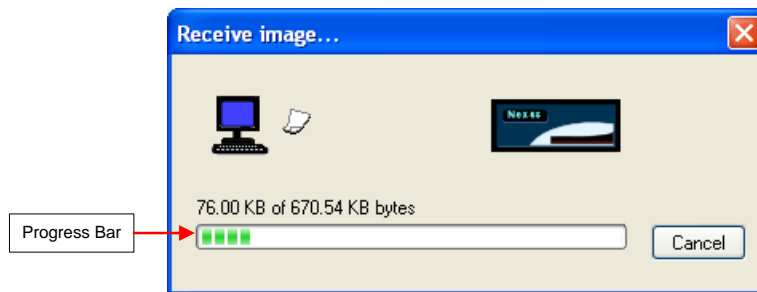
1. Download the last image file sent to one or more of your NEXUS series server/controllers as follows:
 - One server: ensure the server's product tab is selected and choose "Receive" in the "File" menu or click its  icon on the main toolbar. A dialog box will ask whether you want to receive the image currently loaded on the connected NEXUS series server. Click "Yes" to complete the receive and display the status box shown in Illustration 119.

Illustration 119, 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/controller's image file into WinLGX. You will see a status box like the one shown in Illustration 119 for each image that is downloaded.

NOTE: If your image file was saved without the Virtual Channel feature enabled and the image file contains MPEG events scheduled on the first two channel output tabs, 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 MPEG players to the first two channel output tabs. Be aware that all MPEG events on the first channel output tab will then be changed to display on MPEG Player 1 and all events on the second channel output tab will display on MPEG Player 2.
 - 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 two channel output tabs to display on the assigned MPEG players, and then enable the Virtual Channel feature.
2. As you enter/edit your schedule events according to the "Scheduling Events" section starting on page 231, periodically save your settings in an image file as described in "Saving NEXUS Series Image Files," on page 224.

ASSOCIATING NEXUS SERIES IMAGE FILES WITH WINLGX

Associating an NEXUS series 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 a NEXUS series image (.nmg) file on your file storage area.
2. Right click on the NEXUS series 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 NEXUS SERIES IMAGE FILES

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


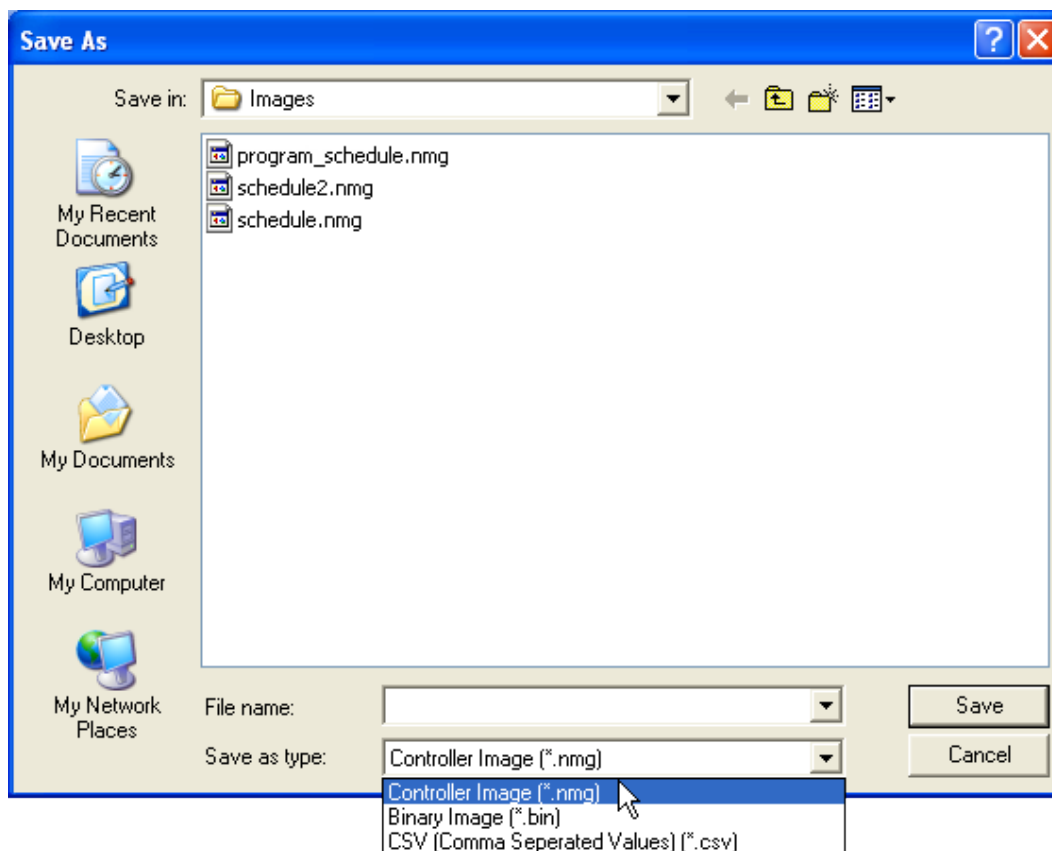
- “Save” Option
If a NEXUS series image has not been saved to your PC or network or has been modified, the “Save” option becomes enabled. Select “Save” from the “File” menu or click the  toolbar button.
 - If the NEXUS series image already has a local filename, visible in the title bar (WinLGX – *filename.nmg*), 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 120, allowing a name and file path to be specified.
- “Save as” Option
The “Save as” option allows you to save a NEXUS series image under a new filename. Select “Save as” in the “File” menu to open the window shown in Illustration 120, “Save As” Window, and perform the following steps:

Illustration 120, “Save As” Window



1. From the “Save in” drop down box at the top of the window, navigate to the folder where you want to save the NEXUS series image file.
2. Type a name for the image in the “File name” field.
3. 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.
4. 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 MPEG LIBRARY RESOURCES

If your MPEG library resource properties have been exported into one or more resource files (see “Exporting MPEG Library Resources” on page 211 for information on exporting MPEG library resource properties), simply upload the resources into your current NEXUS series image file as follows:

1. Right click on the “Library” configuration folder you wish to import MPEG library resource properties into and select “Import” from the pop-up menu (see Illustration 121) to display the “Import MPEG Resource” window (see Illustration 122). Resource files may only be imported on a folder by folder basis.

Illustration 121, Library "Import" Option

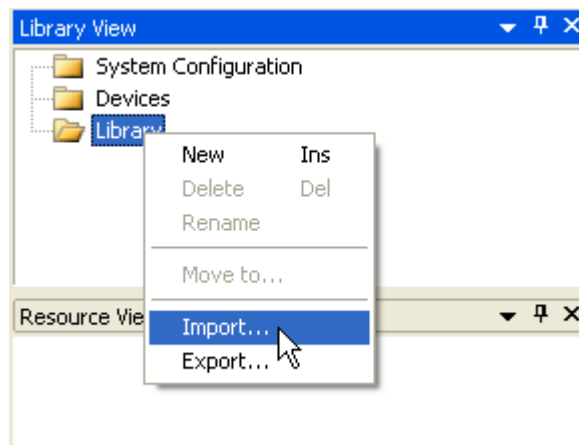
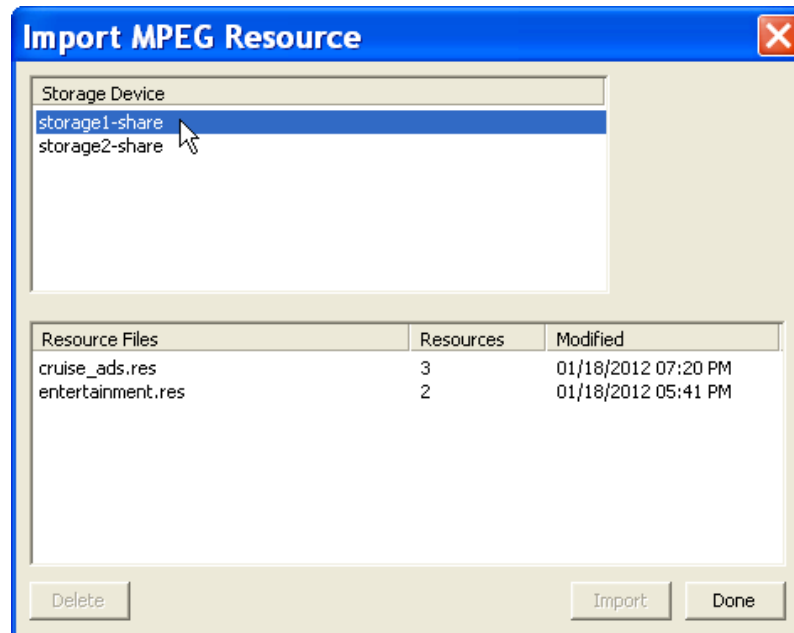


Illustration 122, "Import MPEG Resource" Window

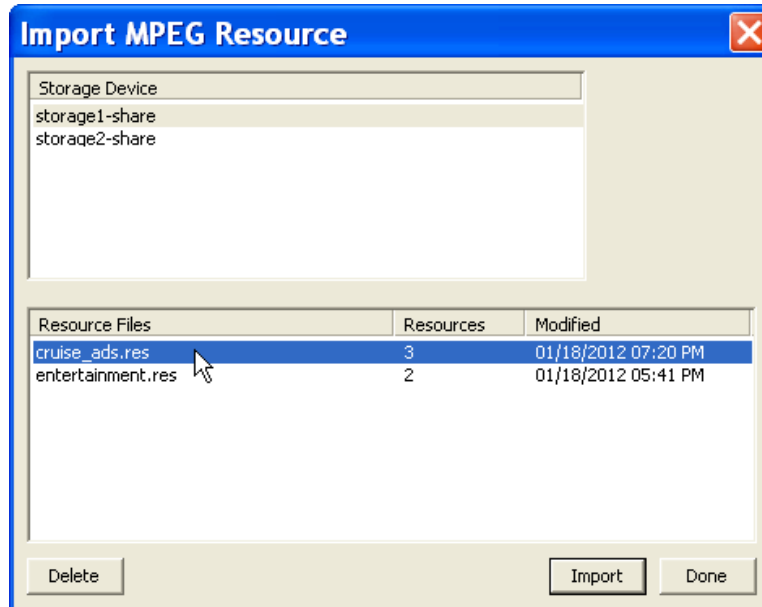


2. If more than one device is shown in the “Storage Device” listing on the “Import MPEG Resource” window (see Illustration 122, "Import MPEG Resource" Window),

single click to select the storage device containing the resource files with the library resource properties you wish to import.

3. If more than one resource file exists, single click to select the file with the library resources you wish to import (see Illustration 123).

Illustration 123, Selecting File on "Import MPEG Resource" Window



4. Click the "Import" button to start importing the resources or "Done" to cancel the operation and close the "Import MPEG Resource" window.
5. After clicking the "Import" button, click "Yes" when prompted to import the file's MPEG library resource properties or "No" to abort.
6. When the MPEG 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 124 for an example).

Illustration 124, Imported Library Resources



7. If you wish to import MPEG library resource properties from additional resource files, repeat steps 1–6.

USING INSTANT VIDEO PREVIEW MONITOR TO DISPLAY MPEG FILES WITHIN WINLGX

WinLGX gives you the option to preview the MPEG 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 an MPEG device or library resource, choosing an MPEG file for immediate display through the control panel, or using the Storage Manager window to manage your MPEG videos.

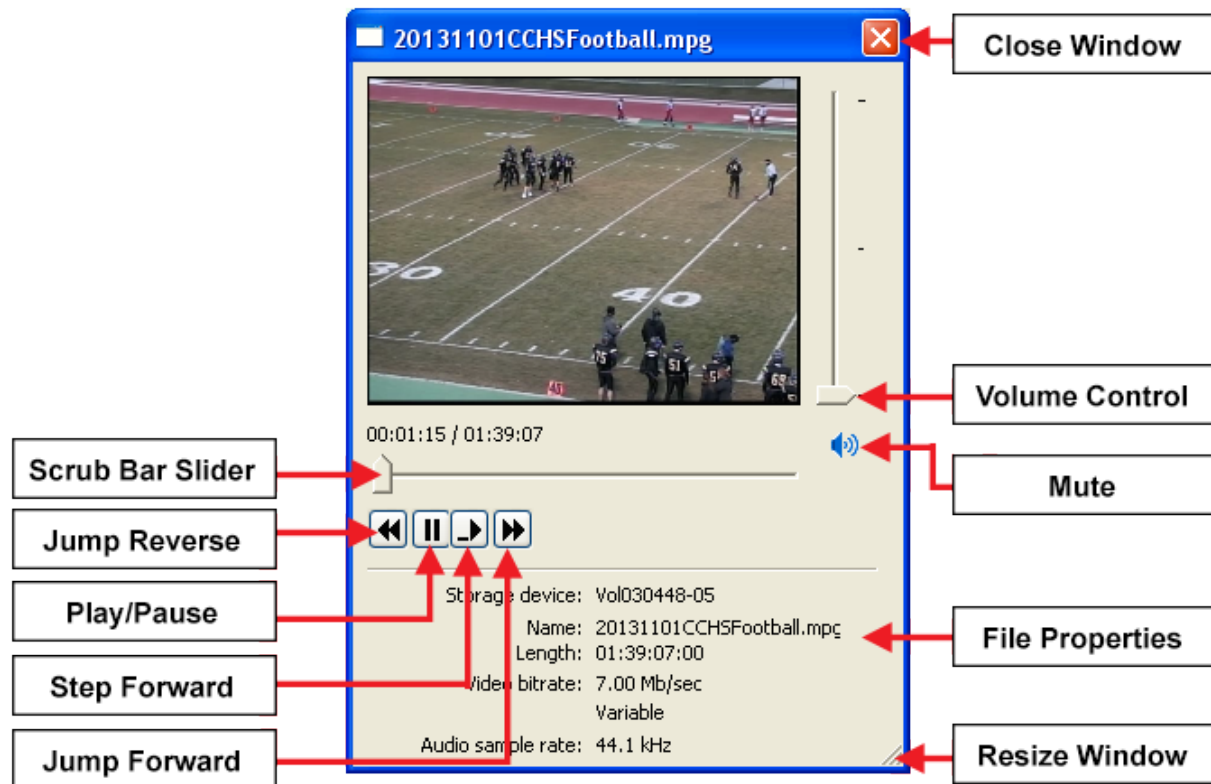
Access the instant video preview monitor (see Illustration 125) from any of the following:

- Storage Manager window
 - Double click an MPEG file
 - Right click an MPEG file and select “View” from the right-click menu
- “Select File” window (available when initiating playback from control panel, scheduling MPEG device resources, and creating library resources):
 - Right click on MPEG file
 - Single click an MPEG 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 MPEG 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 MPEG file. Refer to the following for more information on each of the controls labeled in Illustration 125, Preview Monitor Controls:

Illustration 125, Preview Monitor Controls

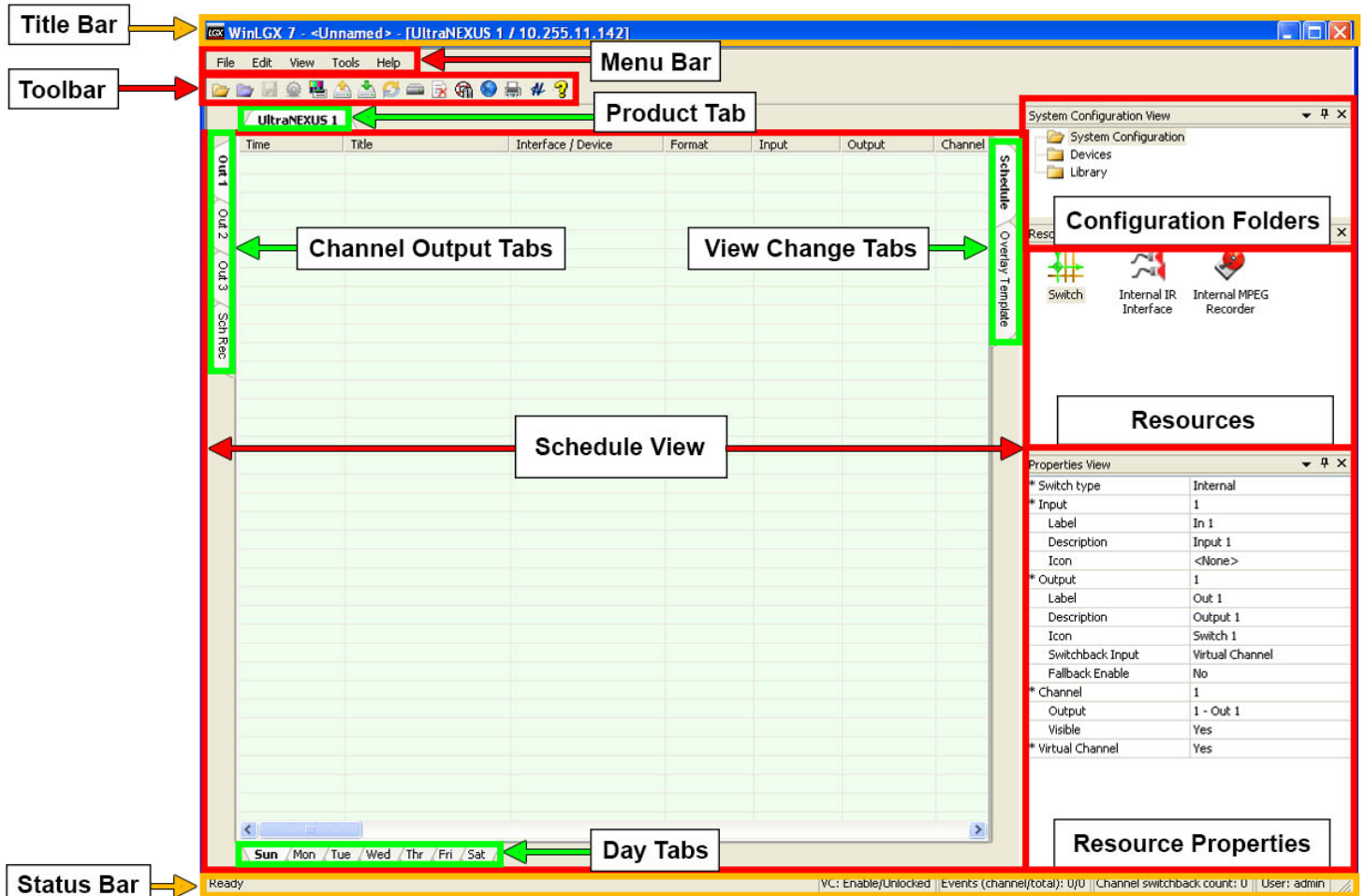


- **Scrub Bar Slider:** click and drag with your mouse pointer to go forward or backward in the video
- **Jump Reverse Button:** single click to move back in the video by the number of seconds specified on the “Preview Monitor” tab of the “Preferences” window (see page 129 for more details). The default number is 10 seconds.
- **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
- **Jump Forward Button:** single click to move back in the video by the number of seconds specified on the “Preview Monitor” tab of the “Preferences” window (see page 129 for more details). The default number is 10 seconds.
- **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 MPEG file
NOTE: The MPEG 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 126, with a sample schedule loaded, is where an event schedule is created.

Illustration 126, Schedule Window



ABOUT SCHEDULE WINDOW COMPONENTS

Product Tabs

For each server/controller 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 server/controller.

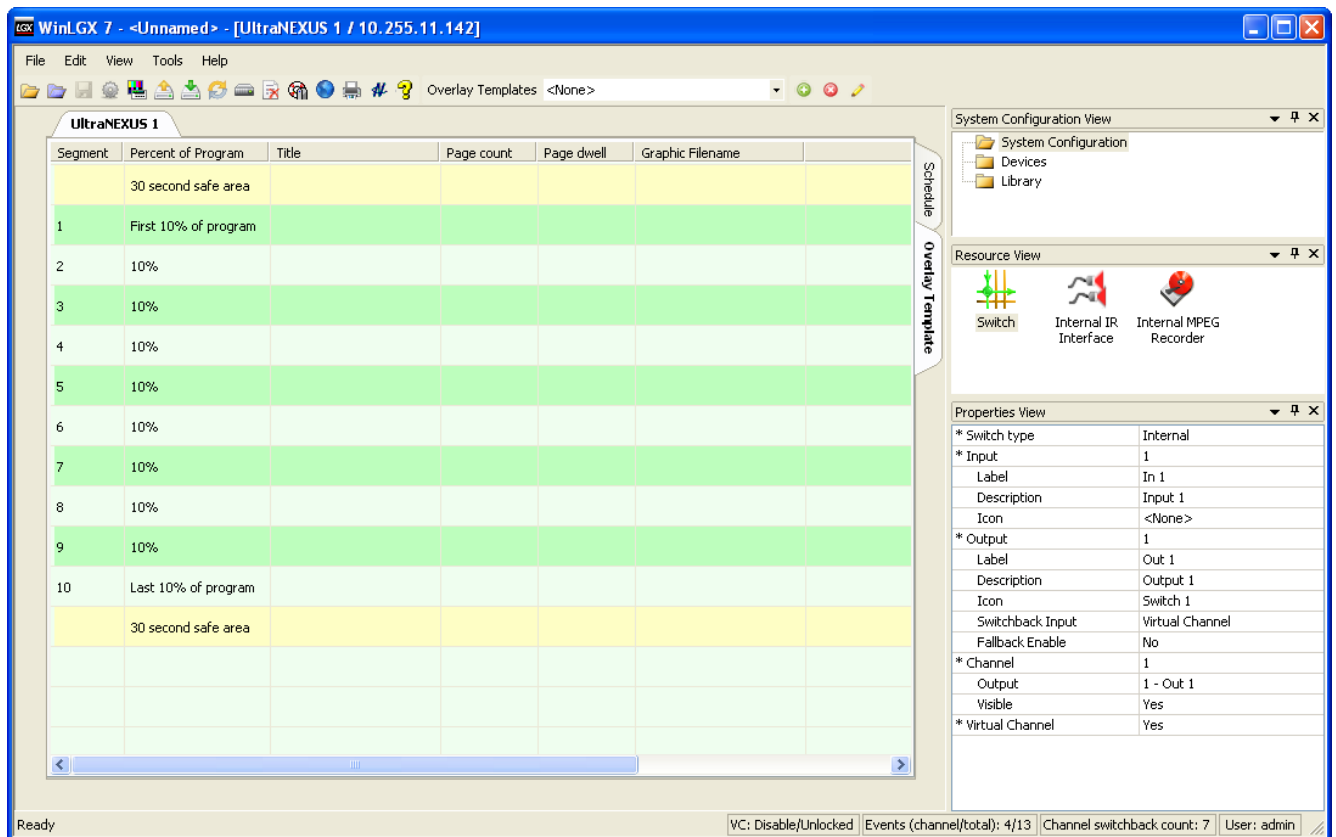
Schedule View

The “Schedule” view displays the channel output tabs, day tabs, WinLGX-LT tab, and schedule columns. Add 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 127, "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 a NEXUS Series System,” on page 135). On external switchers, WinLGX only allows scheduling on up to 16 channel output tabs.

- Internal UltraNEXUS/NEXUS Switcher and “UltraNEXUS-SDI” switch type Only: use “Sch Rec” tab to schedule MPEG recorder events.

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.

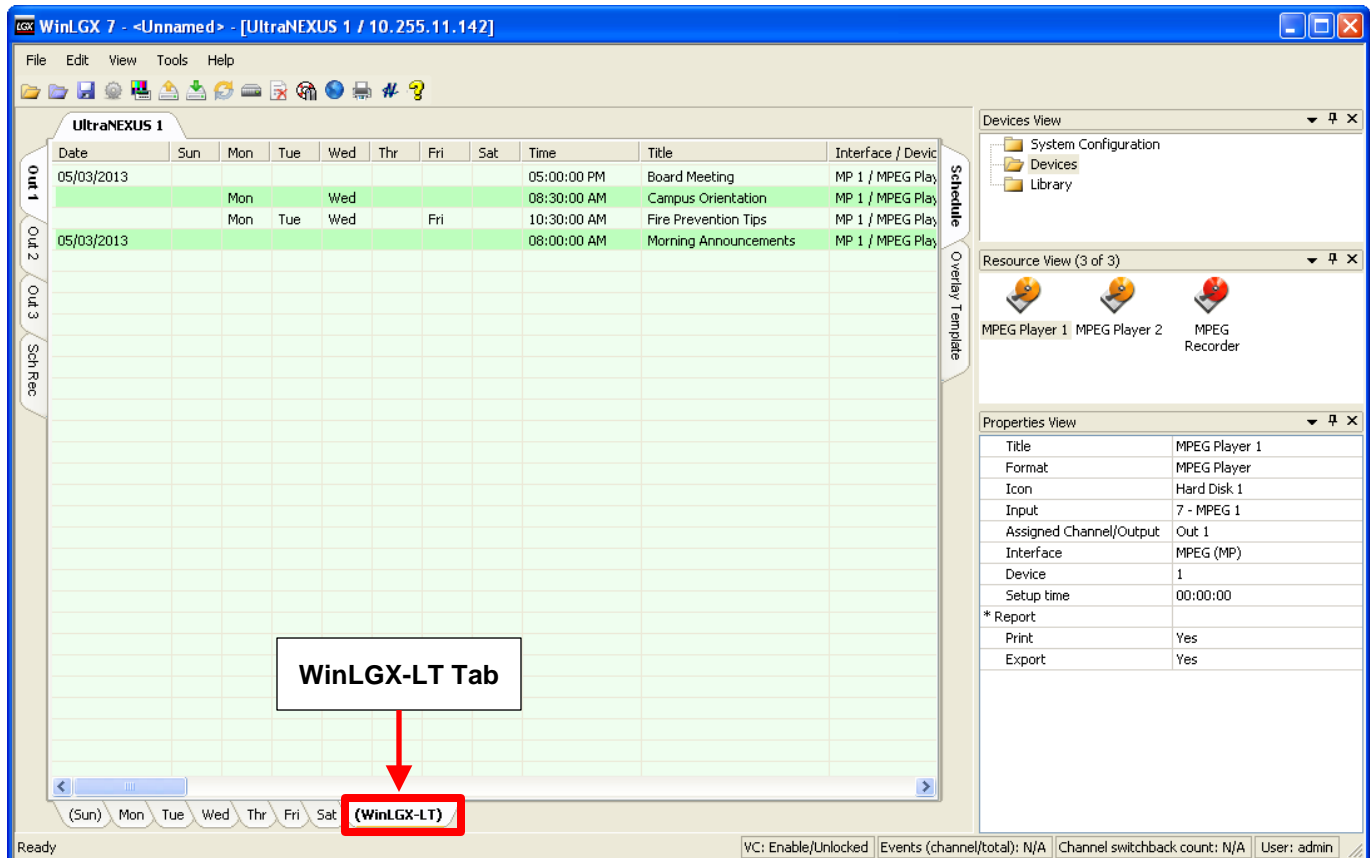
NOTE: If adding, editing, or deleting an event causes two events to conflict, an error message appears. If the added/edited event is one of the conflicting events, the event it conflicts with is listed, the error is described, and the outcome is given. If the added/edited/deleted event is not one of 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 has its own date/day and time entry and does not assign blocks of time in a linear fashion like the day tabs (see Illustration 128).

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

Illustration 128, WinLGX-LT Tab Event Window



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

- **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 37, Controller Tab Configurations).

NOTE: On the UltraNEXUS/NEXUS internal switcher, Output 4, labeled as “Sch Rec,” is automatically assigned to the internal broadcast MPEG recorder. For external switchers and the “UltraNEXUS-SDI” switch type, the highest numbered channel output tab is automatically assigned to the internal broadcast MPEG recorder.


Table 37, Controller Tab Configurations

SWITCHER	CHANNEL OUTPUT TABS	# OF EVENT WINDOWS
Internal and External, LEIGHTRONIX PRO-16/NET-164	Output 1–Output 4	29 event windows (4 channels x 7 days + 1 WinLGX-LT tab)
External, Non-LEIGHTRONIX 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 38, Schedule Columns.

Table 38, 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.

FIELD	DESCRIPTION
Interface/ Device	Number and name of the event's interface and corresponding device, if any.
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.
Disc Number	Disc number of a DVply program event.
Title/Chap	Disc title and chapter of a DVply program event.
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 MPEG video's playback starting point
Out point	If assigned, indicates an MPEG 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" (usually "Play" or "Cue/Play" for DVply controlled devices).
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 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 NEXUS series 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. <ul style="list-style-type: none"> For a typical DVply event, the time progression is as follows: <ol style="list-style-type: none"> At the time shown in the schedule "Start" field, a CUE command is

FIELD	DESCRIPTION
	<p>issued.</p> <ol style="list-style-type: none"> The event waits for "Setup" to complete and then issues a PLAY command. The event then waits for "Preroll" to complete before performing initial switch. <ul style="list-style-type: none"> For all other events, the time progression is as follows: <ol style="list-style-type: none"> At the time shown in the "Start" field, a PLAY command is issued. 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.
Filename (1)	Displays the filename of the chosen MPEG or slide file.
Storage Device (1)	Indicates the storage device of the chosen MPEG file or user list for a slide file.
Record Preset	Displays the title of the selected record preset for an MPEG recording event.
Overwrite	Displays the selected file overwrite option for an MPEG recording event.
Record CC data	Indicates whether or not an MPEG recording event will capture any closed caption data from the source.
Filename (2)	Displays the filename of the MPEG file chosen as the audio background for a slide or slide show event.
Storage Device (2)	Indicates the storage device of the MPEG file chosen as the audio background for a slide or slide show event.
Audio Input	Indicates the audio input selected for a slide or slide show event.
Print	Determines if the event will be included in a print operation.
Export	Determines if the event will be included in an export operation.
No VOD File	Indicates whether or not a video-on-demand streaming file will be recorded for an UltraNEXUS/UltraNEXUS-SDI MPEG record event
Overlay	Indicates whether or not a template of slide overlays has been selected to accompany playback of an MPEG video, slide, or slide show
Streaming export	Reserved for future use.
Show in program guide	Indicates whether or not an event will be shown on a program guide and the Internet schedule display screen
Comment	Used to enter an event comment up to 31 characters.

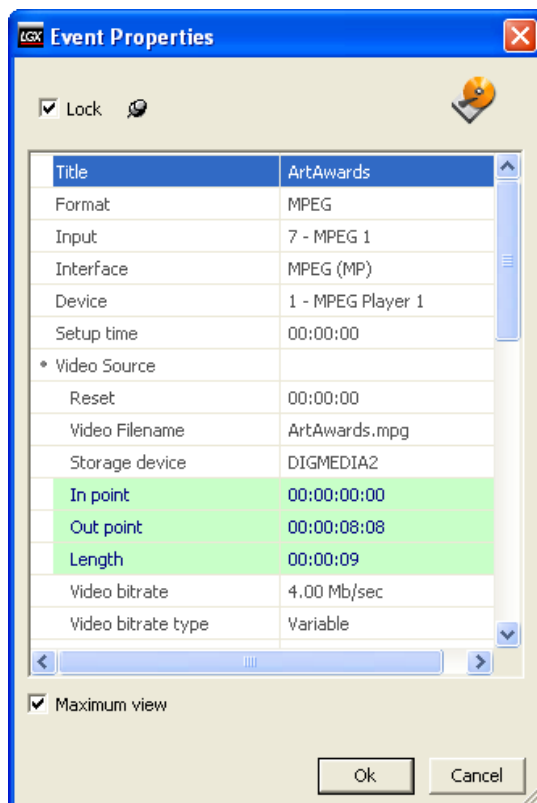
FIELD	DESCRIPTION
Media ID	Assigned by user as a library tracking number.
Field Name (1–11)	Schedule column headings that may be assigned by user.

SCHEDULING/EDITING/DELETING ALL EVENTS

Scheduling an Event on a Day/Channel Output Event Window

1. 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:
 - **MPEG recording events only:** select the “Sch Rec” tab for an internal or “UltraNEXUS-SDI” switcher configuration or the channel output tab assigned to the broadcast MPEG recorder in an external switcher configuration (see “Editing Internal MPEG Player and Recorder Device Resource,” on page 154 for more information on configuring channel output tabs).
 - Channel output tab
2. 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 129, Day/Channel Output Event Properties Box.

Illustration 129, Day/Channel Output Event Properties Box



3. To add or change the event information, click on each of the desired editable fields (described on pages 248–297) 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 130, WinLGX-LT Event Properties Box.

Illustration 130, WinLGX-LT Event Properties Box

Title	Morning Announcements
Format	Slide Show
Input	7 - MPEG 1
Interface	MPEG (MP)
Device	1 - MPEG Player 1
Setup time	00:00:00
Output	1 - Out 1
• Video Source	
Reset	00:00:00
User list	1 selected
Length	00:00:05
• Background	
Background Audio Input	From MPEG
MPEG Filename	
Storage device	
• Event start	
Absolute date	No

☒ Maximum view

Ok Cancel

3. To add or change the event information, click on each of the desired editable fields (described on pages 248–285) 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.

- a. To select a date, change “Absolute date” to “Yes.” A date field appears below to allow date entry.
 - b. 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 onto a 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 248–285) and enter the new information.

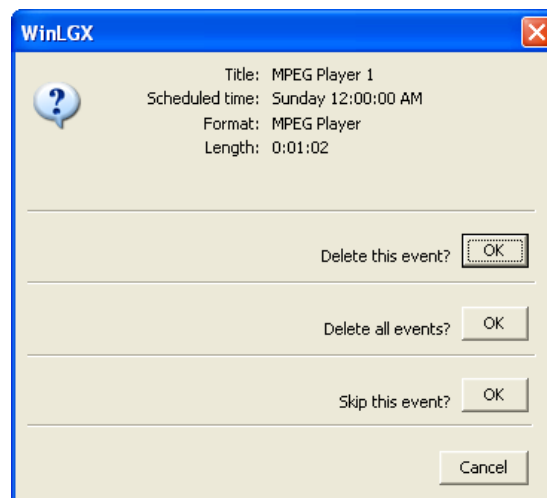
Deleting an Event

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 131 appears. Perform one of the following options:

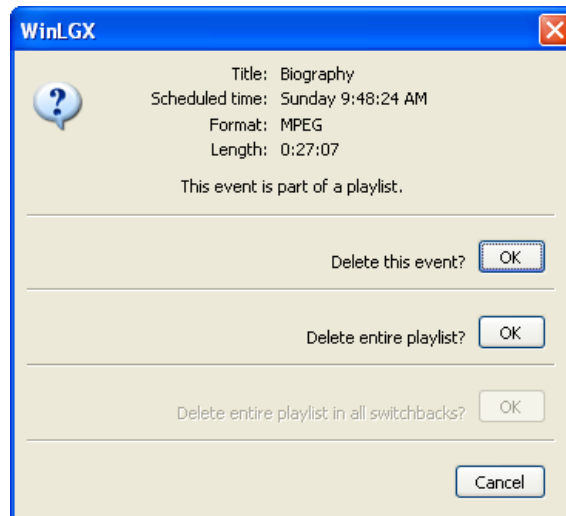
Illustration 131, Delete Dialog Box



- "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 132 appears. Perform one of the following options:

Illustration 132, 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. Click “OK” to simultaneously delete all instances of the playlist from the selected channel output’s channel switchbacks.

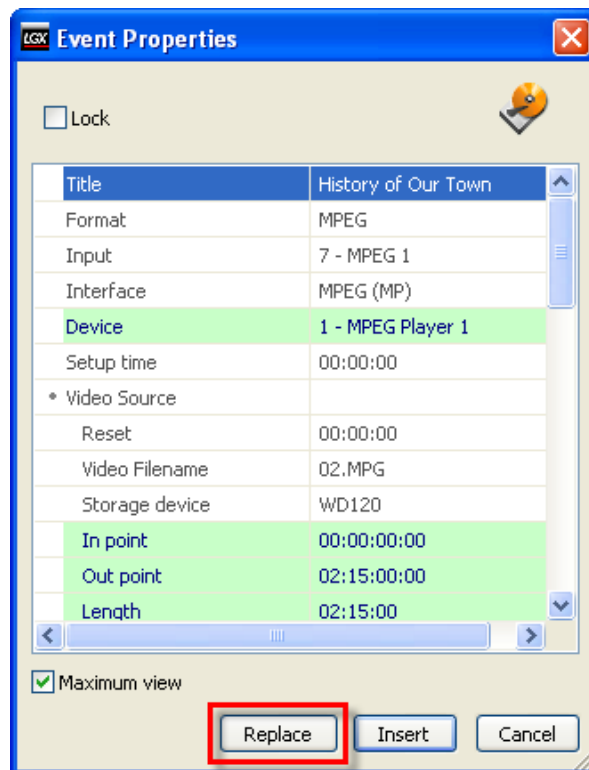
Replacing Library Resource Events

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*.

NOTE: WinLGX considers MPEG videos, JPEG slides, and JPEG slide shows to be 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 133).

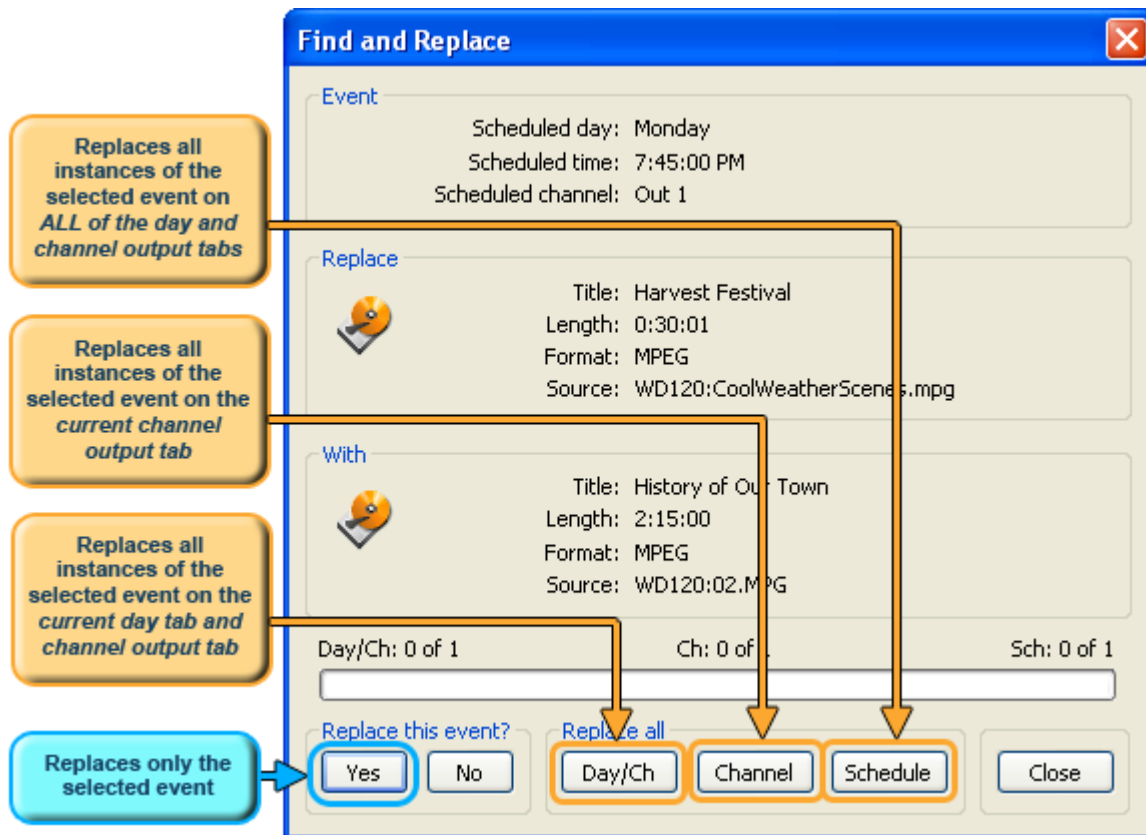
Illustration 133, “Replace” Button on Event Properties Window



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 134. 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 134.

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 134, "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:

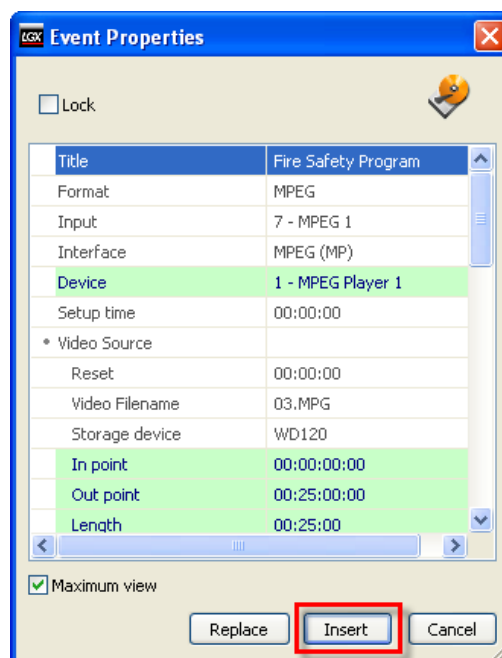
- "Day/Ch: x of **x**:" the second "**x**" indicates how many instances of the selected library resource event exist on the current day tab and channel output tab window, while the first "x" shows how many of the events have been replaced on the same window
- "Ch: x of **x**:" the second "**x**" indicates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

- NOTES:**
- WinLGX considers MPEG videos, JPEG slides, and JPEG slide shows to be the same format.
 - 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 135).

Illustration 135, "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.

DVD Device Resources

Dragging a DVD device resource onto the schedule reveals a box like the one in Illustration 136, DVD Device Event Properties Window. Refer to Table 39, Editable DVD Device Event Properties, for a description of the editable event properties.

Illustration 136, DVD Device Event Properties Window

Title	Tascam DVD Player
Format	DVply
Input	1 - In 1
Interface	DVply (DV)
Device	1 - Tascam DVD Player
Setup time	00:00:00
• Video Source	
Title:Chapter	00:00
Length	00:00:00
Preroll	00:00:00
Reset	00:00:00
• Event start	
Time	12:00:00 AM
Command	PLAY

Table 39, Editable DVD 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.

FIELD	DESCRIPTION
Device	Ensure you have selected the device you wish to schedule.
Setup time	If desired, indicate how long after the device receives a PLAY command that picture and/or sound is produced.
Disc number	<u>Supported DVD Changer only:</u> select a disc for playback.
Title:Chapter	<u>DVply only:</u> enter the DVD title and chapter from which you would like the event to begin. Title:Chapter is the program location on the disc.
Length	Enter duration of the event.
Preroll	Enter as needed. Indicates amount of video at start of a program that you do not want playing on air.
Reset time	Enter time the playback device will be busy and unavailable for scheduling after the end of the program.
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)	Choose from the following commands: "PLAY," "CUE/PLAY CHAPTER," or "RECORD." It will almost always be "PLAY" or "CUE/PLAY" for DVply format.
Command (Event end)	Choose from the following commands: "STOP," "REWIND," "PAUSE," or "<None>." NOTE: If you are controlling your DVD device with a PRO-BUS interface, check your interface manual and switches to determine the actions performed by the "REWIND" and "STOP" commands. By default, "REWIND" does a DVD full stop (back to beginning), and "STOP" stops the DVD at the current location.
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 onscreen program guides (see "Onscreen Program Guide Library Resources," on page 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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	DESCRIPTION
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 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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

Tape Device Resources

Dragging a tape device resource onto the schedule reveals a box like the one in Illustration 137, Tape Device Event Properties Window. Refer to Table 40, Editable Tape Device Properties, for a description of the editable event properties.

Illustration 137, Tape Device Event Properties Window

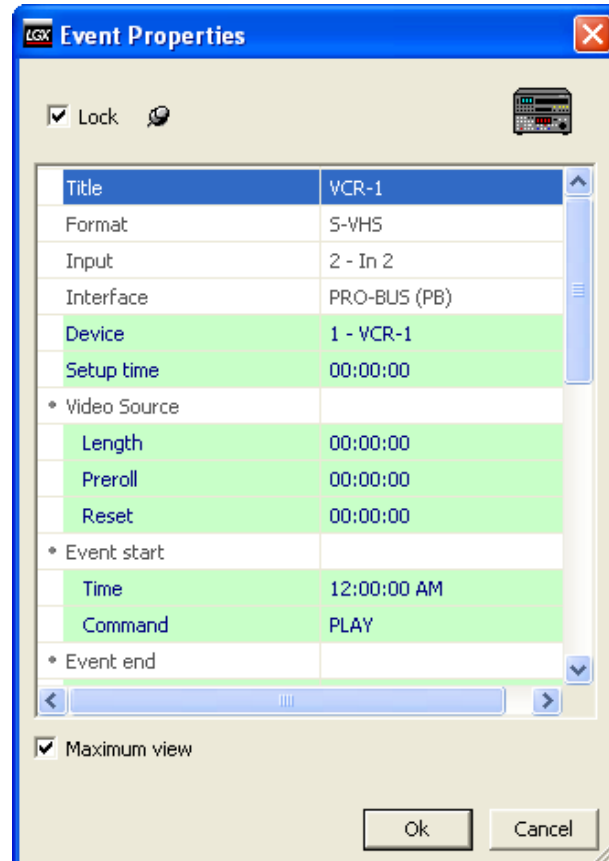


Table 40, Editable Tape Device Properties

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 of up to 31 characters to be entered.
Device	Ensure you have selected the device you wish to schedule.
Setup time	If desired, indicate how long after the device receives a PLAY command that picture and/or sound is produced.
Length	This must be entered to indicate the duration of the event.

FIELD	DESCRIPTION
Preroll	Enter as needed. Indicates amount of video at start of a program that you do not want playing on air.
Reset time	Enter time the playback device will be busy and unavailable for scheduling after the end of the program. It is typically the rewind time.
Time	If the event is locked, the event "Time" can be modified. This is the scheduled "On-Air" time of the event.
Event Start—Command	Choose either the "PLAY" or "RECORD" command. It will almost always be "PLAY."
Event End—Command	Choose from the following commands: "STOP," "REWIND," or "<None>." It will usually be "REWIND" or "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 onscreen program guides (see "Onscreen Program Guide Library Resources," on page 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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 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 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 127). To toggle between these views, select and deselect the "Maximum view" checkbox.

Switch Device Resources

Dragging a switch device resource onto the schedule reveals a box in Illustration 138, Switch Device Event Properties Window. Refer to Table 41, Editable Switch Device Event Properties, for a description of the editable event properties.

Illustration 138, Switch Device Event Properties Window

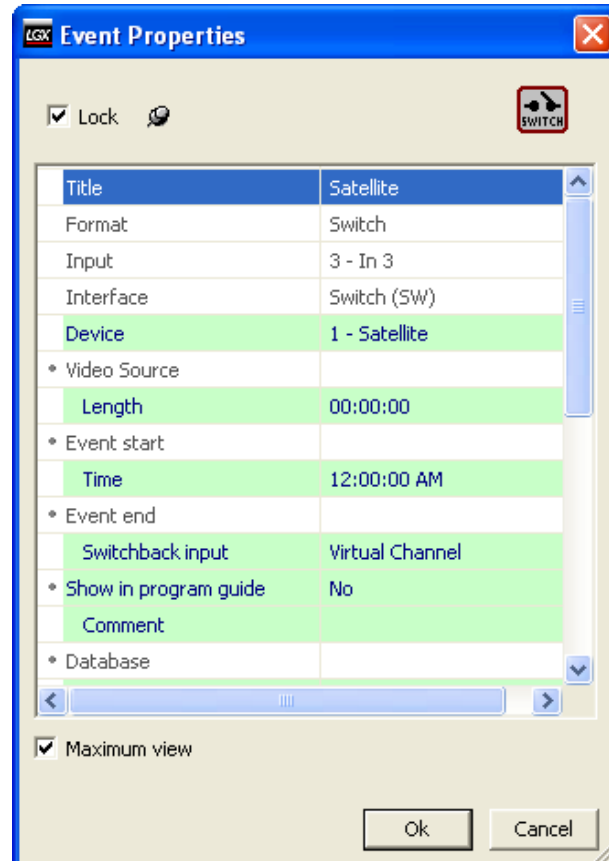


Table 41, Editable Switch Device Event Properties

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.

FIELD	DESCRIPTION
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 onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 203) and the web program guide (see “Viewing Web Program Guide” on page 401). 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 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 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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

GPI Output Device Resources

Dragging a GPI device resource onto the schedule reveals a box in Illustration 139, GPI Output Device Event Properties Window. Refer to Table 42, Editable GPI Output Device Event Properties, for a description of the editable event properties.

Illustration 139, GPI Output Device Event Properties Window

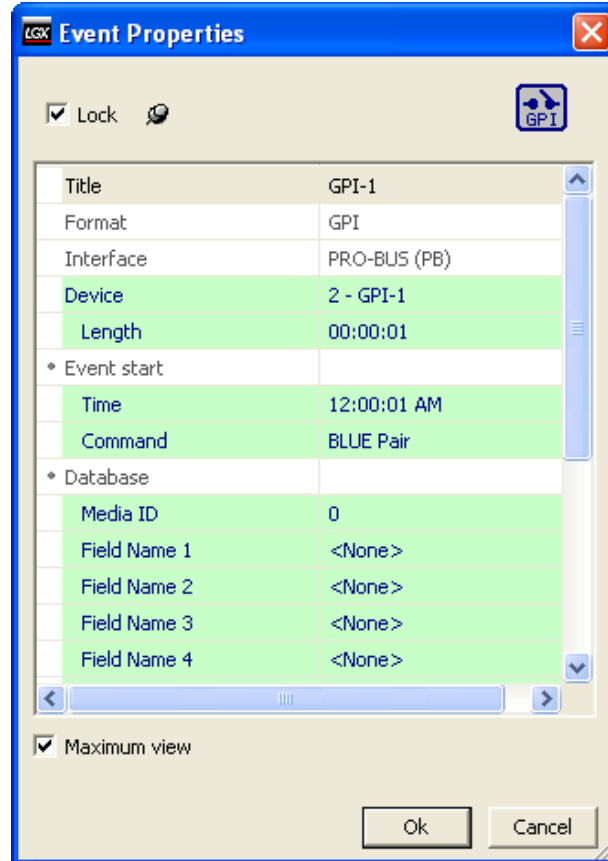


Table 42, Editable GPI Output Device Event Properties

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 the event duration.
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	<p>Select a wire pair. Depending on how you configured your GPI PRO-BUS interface's dip switches (refer to your PRGPI PRO-BUS Interface Manual for more details), the wire pair selections in the drop down list:</p> <ul style="list-style-type: none">• Close the corresponding GPI output until a command is sent to close a different GPI output. <p style="text-align: center;"><u>Or</u></p> <ul style="list-style-type: none">• Pulse the corresponding GPI output closed for 750 mS.
Media ID	Assign as a library tracking number.
Field Name 1–x	Assign desired schedule column headings.
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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

Internal MPEG Player Device Resources

Dragging a NEXUS series MPEG player device resource onto the schedule reveals the window shown in Illustration 140, MPEG Player Event Properties Window. Refer to Table 43, Editable MPEG Player Event Properties, for a description of the editable event properties.

NOTE: Each MPEG player may only be scheduled on its assigned playback channels (see “Editing Internal MPEG Player and Recorder Device Resource,” on page 154, for more information on MPEG playback channel assignments).

Illustration 140, MPEG Player Event Properties Window

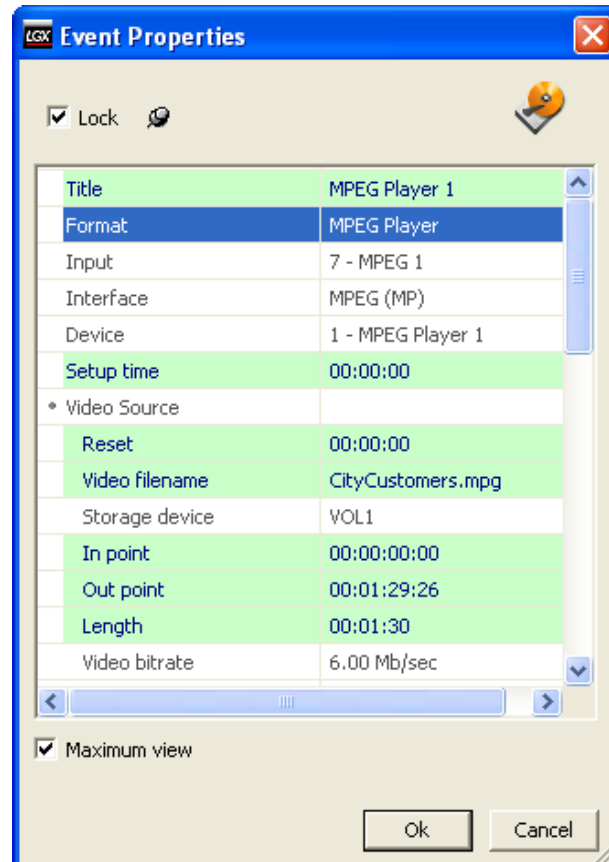
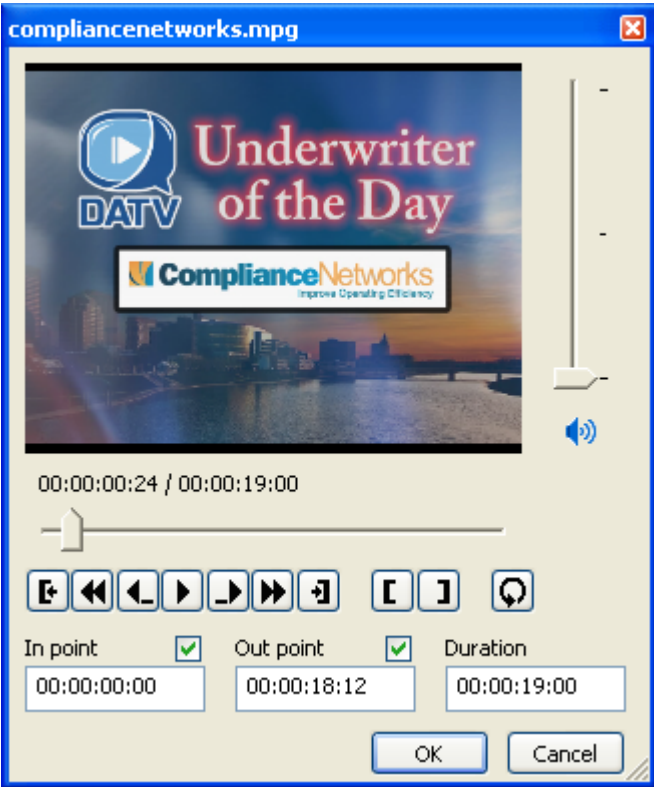




















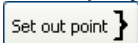
Table 43, Editable MPEG Player Event Properties

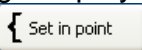
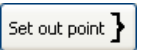


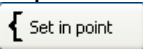
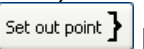
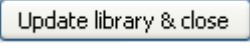
FIELD	DESCRIPTION
Lock Box	At the top of the event properties window, check the “Lock” box to lock the event or uncheck it to unlock the event. Locking an event causes the “Time” field to become enabled, allowing the user to enter a fixed execution time for the event. Unlocking an event disables the “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	If Virtual Channel has not been enabled in the switcher configuration properties, you may change the MPEG Player (1 or 2).
Setup time	If desired, indicate how long after the selected MPEG player is activated that picture and/or sound is produced.
Reset	If desired, enter time the MPEG 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. Depending on the type of resource you wish to schedule, click the "Slide" or "Video" tab. 3. Perform the set of steps below that corresponds to your resource selection: <ul style="list-style-type: none"> • Slide: select a user folder from the drop down list. If desired, select an audio source to play with your slide. Under the "Background Audio Input" field, perform one of the following: <ul style="list-style-type: none"> ➤ Select "From MPEG" to play audio from an MPEG file. Choose an MPEG file using the "MPEG filename" field. ➤ NEXUS/UltraNEXUS only: select an audio input attached to the internal switcher. ➤ UltraNEXUS-SDI only: select the type of audio signal your SDI system has been wired to record: <ul style="list-style-type: none"> ○ "<u>Analog</u>": corresponds to the analog audio inputs on the SDI's back panel terminal blocks (see Table 6, 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 6, 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 • Video: complete the following steps: <ol style="list-style-type: none"> 1. Select a USB drive from the "Storage device" drop down list to display the drive's stored MPEG files. 2. Perform one of the following:

FIELD	DESCRIPTION
	<ul style="list-style-type: none"> • Enter a filename for a file that will be recorded and played within the same schedule: NOTE: The MPEG recording library resource is scheduled for recording through the MPEG device resource. Refer to “Internal Broadcast MPEG Recorder Device Resources” on page 264 for further instructions. <ul 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 MPEG Files within WinLGX” section on page 229. <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. <p>3. If desired, specify where you would like playback to begin and end with 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. The clip editor that is displayed depends on whether the “hardware” or “software” monitor option is chosen for clip editor playback (see page 129 for preview monitor settings). Follow the set of steps below that corresponds to your monitor choice.</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 NEXUS series server’s MPEG players. To use this option, ensure the “Software Monitor” option is selected on the “Preview Monitor” tab in the “Preferences” window.</p>

FIELD	DESCRIPTION
	<p><i>Illustration 141, WinLGX Video Clip Editor with Preview Monitor</i></p>  <p>a. If desired, adjust the volume control. Audio is set to the lowest level by default.</p> <p>b. Ensure each point you wish to set has a green checkmark next to its time field.</p> <p>c. 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>d. 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.

FIELD	DESCRIPTION
	<ul style="list-style-type: none"> 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 "Preview Monitor" tab of the "Preferences" window. Once you have reached the desired point in the file, 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> <p><u>Hardware Monitor</u></p> <p>WinLGX displays the control panel clip editor if you are choosing to play back your clips during editing on a monitor attached to your NEXUS series server, and "Hardware Monitor" is selected on the "Preview Monitor" tab in the "Preferences" window.</p> <p>a. Specify the clip's playback in and out points using one of the following methods:</p> <p>NOTE: If you did not specify a default MPEG player for clip editing under "Tools"/"Preferences/Preview Monitor" (see page 129 for further instructions), WinLGX asks you to select the MPEG 1 or 2 clip editor. If the selected or default MPEG player is currently playing a file, WinLGX allows you to stop playback and continue with the clip editing process or select the other MPEG player.</p> <ul style="list-style-type: none"> Click the  button to start playing the file and click the  Set in point or  Set out point button at the

FIELD	DESCRIPTION
	<p>desired spot.</p> <ul style="list-style-type: none"> • Drag the playback bar to the desired spot and click the  or  button. • Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  or  button. <p>b. Close the clip creation control panel and add changes to library resource by clicking the  button.</p>
Length	<p>The length of the file is automatically entered into this field, but it may be changed as follows:</p> <ul style="list-style-type: none"> • MPEG files: enter a value between 6 seconds and 23 hours:59 minutes:59 seconds • Slide files: enter a value greater than 5 seconds
Time	<p>If the event is locked, the event start “Time” can be modified. This is the scheduled “On-Air” time of the event.</p>
Command (Event start)	<p>The “PLAY” command is automatically displayed.</p>
Command (Event end)	<p>Choose between “STOP” and “<None>.” It will almost always be “STOP.”</p>
Switchback input	<p>If desired, select a video source to be taken to the output at the end of the event.</p>
Overlay	<p>If desired, select one of the overlay templates created in the “Overlay Templates” view (see “Creating Overlays” on page 171). 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.</p>
Show in program guide	<p>Select “Yes” from the drop down list to include the scheduled resource on onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 203) and the web program guide (see “Viewing Web Program Guide” on page 401). The scheduled resource will be listed according to its event start time and the text entered into the “Comment” field.</p>

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 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 127). To toggle between these views, select and deselect the "Maximum view" checkbox.

Internal MPEG Recorder Device Resource

Dragging the NEXUS series MPEG recorder device resource onto the schedule reveals the box in Illustration 142, MPEG Recorder Event Properties Window. Refer to Table 44, Editable MPEG Recorder Event Properties, for a description of the editable event properties.

UltraNEXUS-SDI / UltraNEXUS Only: Once you have enabled the VOD recorder from WebNEXUS, the VOD recorder for the UltraNEXUS or an UltraNEXUS-SDI installed with a distribution amp will automatically receive the same switch and control commands sent to the broadcast MPEG recorder. The VOD recorder files will be encoded at bit rates optimized for streaming.

NOTE: When creating MPEG files, first create a short test file for playback on your NEXUS series 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 NEXUS series sources. Once you have determined the proper MPEG recorder settings, make note of them for use during future recording sessions.

If you would like to play an MPEG file within the same schedule it was recorded, create and schedule an MPEG library resource with the same filename and length given to the MPEG recording event. See “MPEG Library Resources” on page 183 for further instructions on creating an MPEG library resource. The library resource will be available for playback once the MPEG recording event ends.

Illustration 142, MPEG Recorder Event Properties Window

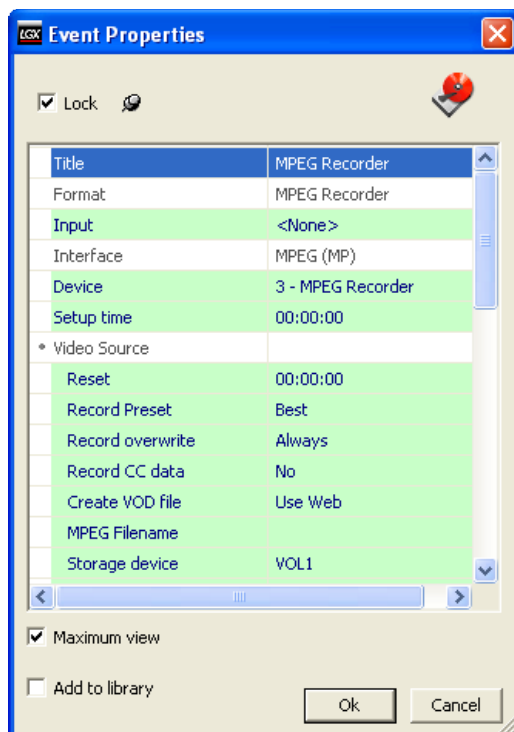
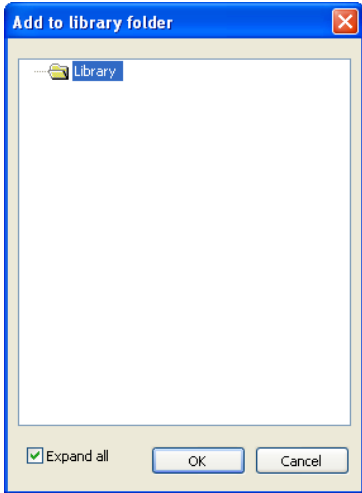


Table 44, Editable MPEG Recorder Event Properties

FIELD	DESCRIPTION
Lock	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.
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 MPEG 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 143 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 143, “Add to library folder” Window</i></p> 
Title	Allows a name up to 31 characters to be typed.
Input	Select the input signal you want the MPEG recorder to record.

FIELD	DESCRIPTION
Device	Ensure MPEG recorder is selected.
Setup time	If desired, indicate how long after the selected MPEG recorder is activated that recording starts.
Reset	If desired, enter time the MPEG 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.
Create VOD file	UltraNEXUS/UltraNEXUS-SDI only: this option allows you to override the VOD recorder enable/disable feature in WebNEXUS (see “Enabling/Disabling VOD Recorder,” on page 353, for more details). If the VOD recorder has been enabled in WebNEXUS, selecting “No VOD” stops the VOD recorder from creating a VOD file. Changing this option to “Use Web” will cause the VOD recorder 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 MPEG 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 an MPEG library resource for the MPEG 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 onscreen program guides (see “Onscreen Program Guide Library Resources,” on page 203) and the web program guide (see “Viewing Web Program Guide” on page 401). 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 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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

ULTRANEXUS/ULTRANEXUS-SDI ONLY: SCHEDULING/EDITING EPRO-BUS-CONTROLLED DEVICE RESOURCES

Adding or editing an ePRO-BUS record schedule event for your remote or locally connected LEIGHTRONIX PEGvault-SD or LABvault-SD 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.

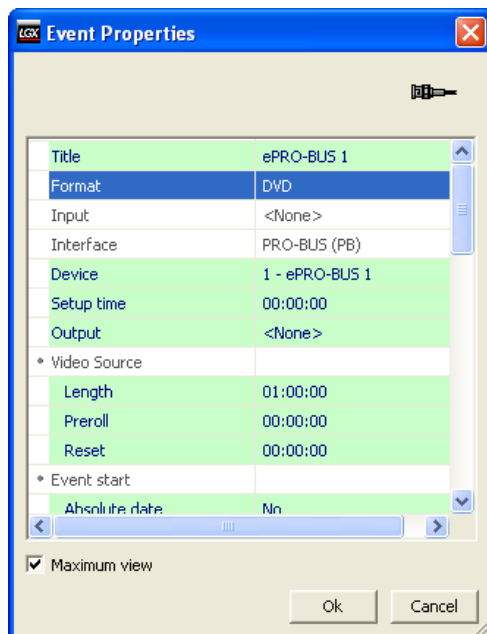
NOTE: **ePRO-BUS record events can only be scheduled on the WinLGX-LT tab.** If the WinLGX-LT tab is not displayed at the bottom of your schedule window, go to the “Tools”/“Preferences” menu option and select “Show WinLGX-LT tab” option on the “Application” tab.

Remote ePRO-BUS-Controlled Devices

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

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”/“Applications” tab and select the “Show WinLGX-LT tab” option.
2. Open the ePRO-BUS record “Event Properties” window (see Illustration 144, Remote ePRO-BUS Record Event Properties Window) by either adding or editing the ePRO-BUS record event. To add a new ePRO-BUS-controlled remote record 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 144, Remote ePRO-BUS Record Event Properties Window



3. Complete or edit the event properties fields according to Table 45, Editable Remote ePRO-BUS Record Event Properties. Some of the fields will vary, depending on whether you used a “DVD” or “Tape” format to create your ePRO-BUS resource.

Table 45, 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 that was chosen for the PEGvault-SD/LABvault-SD device in the WebNEXUS ePRO-BUS configuration window (see the “UltraNEXUS/UltraNEXUS-SDI Only: Configuring ePRO-BUS Settings” section on page 441 for more details).
Setup time	Not used
Output	Select “<None>.”
Disc number	Not used
Title:Chapter	Not used
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	Not used

FIELD	DESCRIPTION
program guide	
Comment	Not used
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 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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

Local ePRO-BUS-Controlled Devices

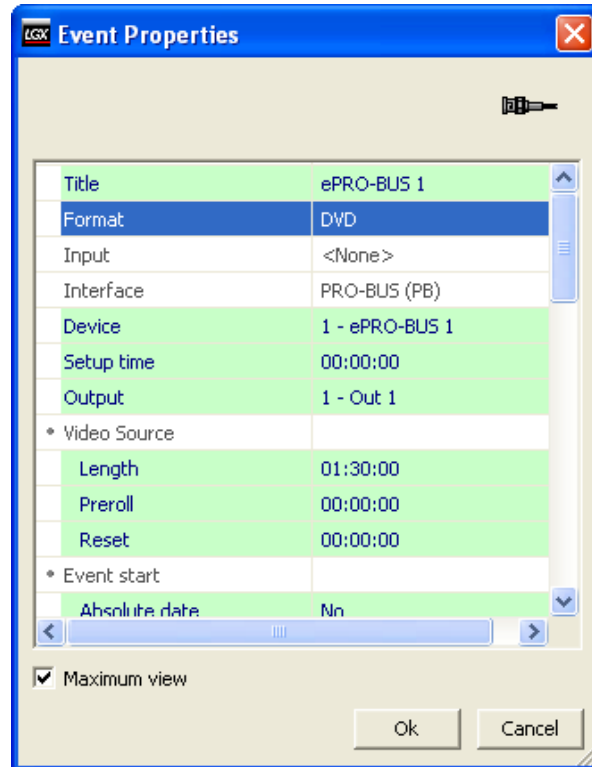
A local ePRO-BUS-controlled device is a PEGvault-SD or LABvault-SD that has been directly wired to an output on your UltraNEXUS system’s internal or external switcher. Connecting a PEGvault-SD or LABvault-SD to your switcher provides you with another way to record your UltraNEXUS system’s external device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

NOTE: The UltraNEXUS-SDI 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”/“Applications” tab and select the “Show WinLGX-LT tab” option.
2. In order to capture playback from an UltraNEXUS external device resource, the video source must be scheduled on the external switcher output connected to your PEGvault-SD or LABvault-SD. For information on scheduling a video switch resource, refer to “Scheduling/Editing Device Resources,” starting on page 248 and “Scheduling/Editing Library Resources,” starting on page 274. 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 145, 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 145, Local ePRO-BUS Record Event Properties Window



4. Complete or edit the properties fields according to Table 46, Editable Local ePRO-BUS Record Event Properties. Some of the fields will vary, depending on whether you used a “DVD” or “Tape” format to create your ePRO-BUS resource.

Table 46, 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.

FIELD	DESCRIPTION
Device	Ensure this field displays the ePRO-BUS address number assigned to the device you wish to control.
Setup time	Not used
Output	Select "<None>."
Disc number	Not used
Title:Chapter	Not used
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.
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

FIELD	DESCRIPTION
	"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 127). 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.

Tape and DVD Library Resources

Dragging a tape or DVD library resource onto the schedule reveals a box like Illustration 146, Example of DVD Media Event Properties Window. Refer to Table 47, Editable Tape and DVD Device Media Event Properties, for a description of the editable event properties.

Illustration 146, Example of DVD Media Event Properties Window

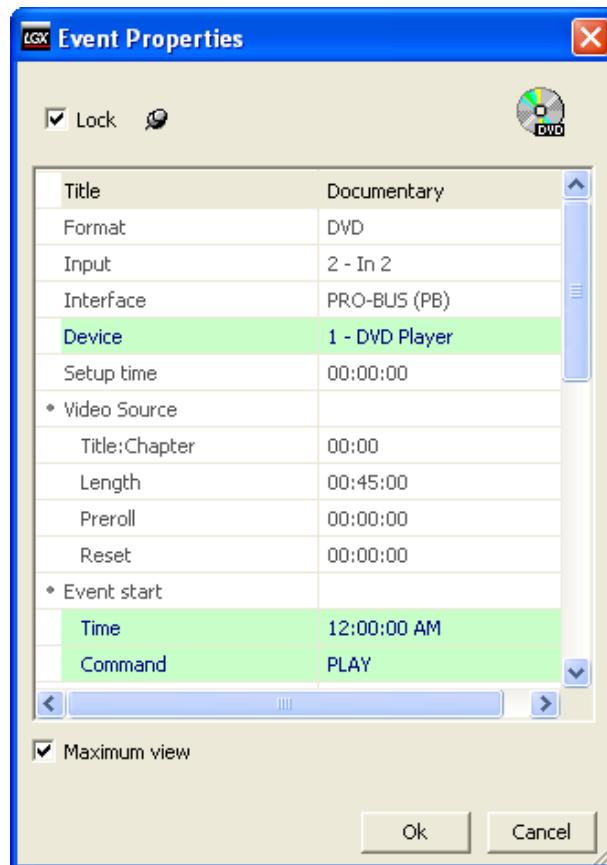


Table 47, Editable Tape and DVD Device Media Event Properties

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 a same format device to be chosen. Its associated input and

FIELD	DESCRIPTION
	device control interface (PRO-BUS or DVply) will each appear in the "Input" and "Device" fields.
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)	Choose either the "PLAY" or "RECORD" command. It will nearly always be "PLAY."
Command (Event end)	Choose from the following commands: "STOP," "REWIND," or "<None>." It will usually be "REWIND" or "STOP." NOTE: If you are controlling your DVD device with a PRO-BUS interface, check your interface manual and switches to determine the actions performed by the "REWIND" and "STOP" commands. By default, "REWIND" does a DVD full stop (back to beginning), and "STOP" stops the DVD at the current location.
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 onscreen program guides (see "Onscreen Program Guide Library Resources," on page 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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.
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 127). To toggle between these views, select and deselect the "Maximum view" checkbox.

Switch Library Resources

Dragging a switch library resource onto the schedule reveals a box like Illustration 147, Switch Event Properties Window. Refer to Table 48, Editable Switch Event Properties, for a description of the editable event properties.

Illustration 147, Switch Event Properties Window

Field	Value
Title	Sat - 1 hr
Format	Switch
Input	3 - In 3
Interface	Switch (SW)
Device	1 - Satellite
Video Source	Expanded
Length	01:00:00
Event start	Expanded
Time	12:00:00 AM
Event end	Expanded
Switchback input	Virtual Channel
Show in program guide	No
Comment	Sat - 1 hr
Database	Expanded

Table 48, 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.
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.

FIELD	DESCRIPTION
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 203) and the web program guide (see “Viewing Web Program Guide” on page 401). 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.
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 127). 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 148, JPEG Slide Event Properties Window. Refer to Table 49, Editable JPEG Slide Library Event Properties, for a description of the editable event properties.

Illustration 148, JPEG Slide Event Properties Window

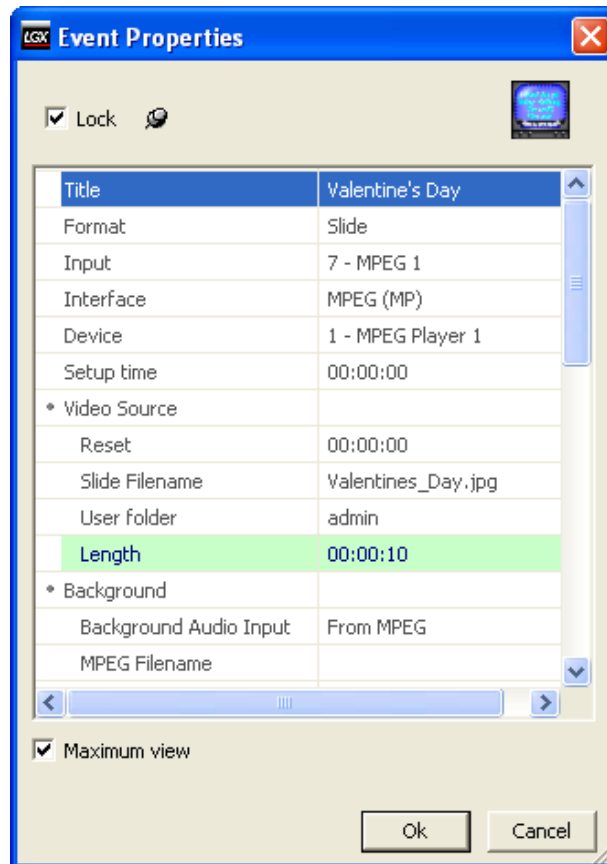


Table 49, Editable JPEG Slide Library Event Properties

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	If Virtual Channel has not been enabled in the switcher configuration properties, you may change the MPEG Player (1 or 2). Its associated input will appear in the “Input” field.

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 123 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 171). 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 127). 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 149, JPEG Slide Show Event Properties Window. Refer to Table 50, 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 332, and “Approving Slides for Display in Slide Shows,” on page 389).

Illustration 149, JPEG Slide Show Event Properties Window

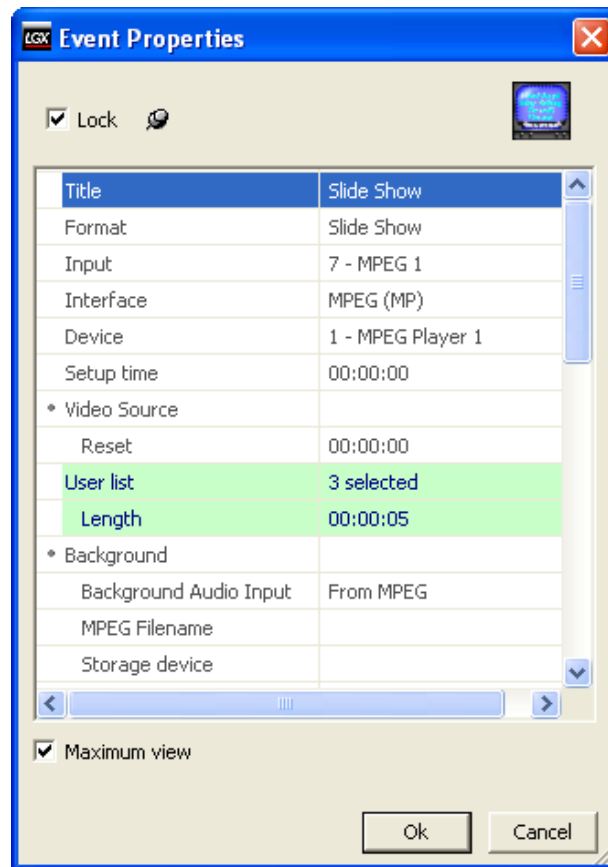


Table 50, Editable JPEG Slide Show Library Event Properties

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.

FIELD	DESCRIPTION
Device	If Virtual Channel has not been enabled in the switcher configuration properties, you may change the MPEG Player (1 or 2). Its associated input will appear in the "Input" field.
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 387).
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 171). 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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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.

FIELD	DESCRIPTION
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 127). 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 150, 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 51, Editable Program Guide Library Event Properties, for a description of the editable event properties.

Illustration 150, Program Guide Event Properties Window

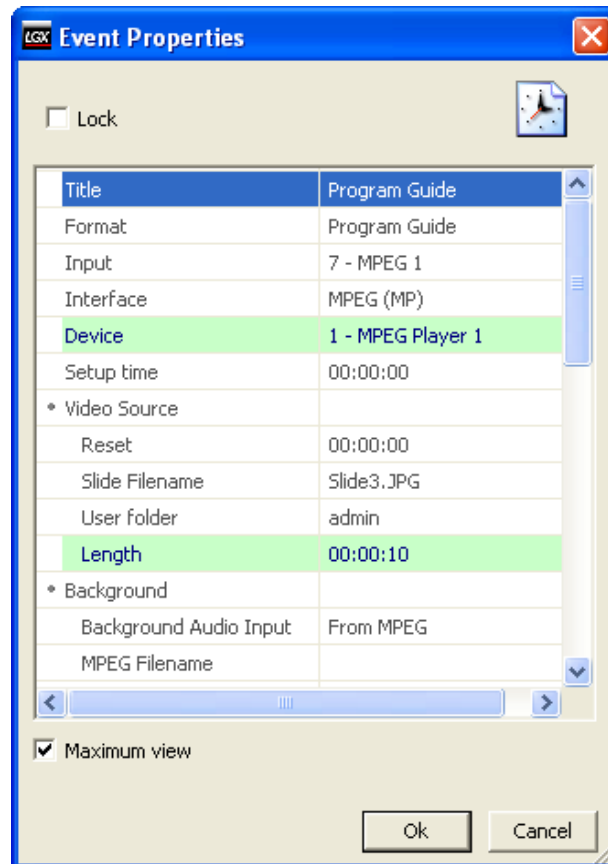


Table 51, Editable Program Guide Library Event Properties

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 NEXUS series MPEG player 1 or 2. 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 171). 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 127). To toggle between these views, select and deselect the "Maximum view" checkbox.

MPEG Library Resources

To preview an MPEG 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 MPEG Files within WinLGX" section on page 229.

Dragging an MPEG library resource onto the schedule reveals a box like Illustration 151, MPEG Library Event Properties Window. Refer to Table 52, Editable MPEG Library Event Properties, for a description of the editable event properties.

Illustration 151, MPEG Library Event Properties Window

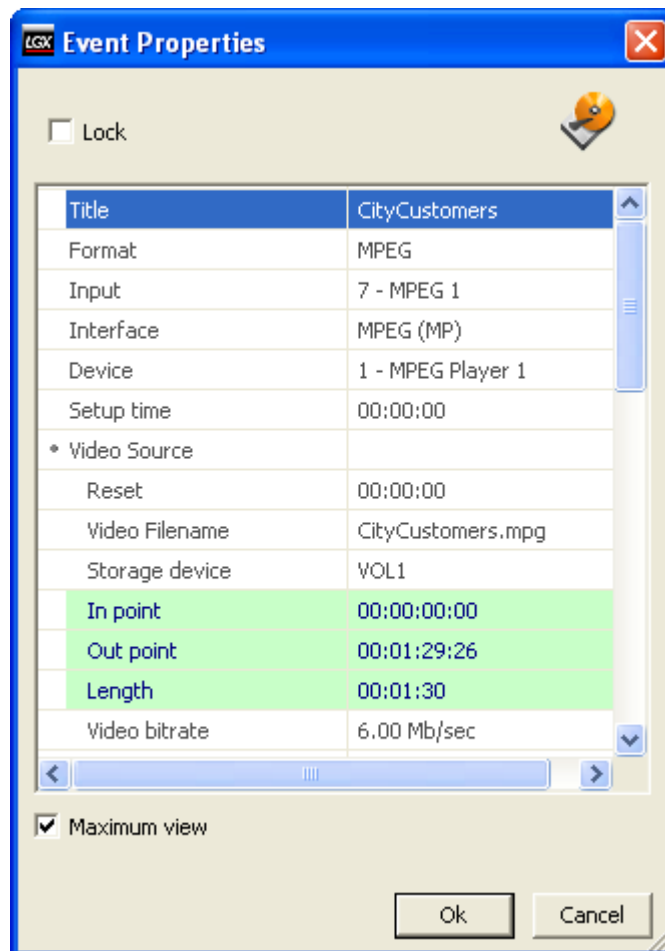
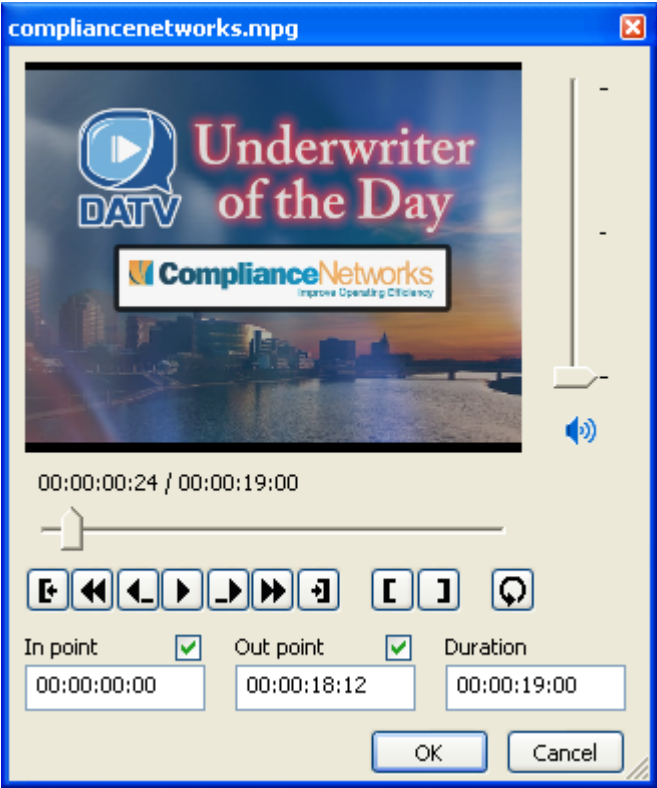




















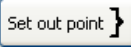



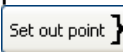



Table 52, Editable MPEG Library Event Properties

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

FIELD	DESCRIPTION
	at the end of the event above it in the schedule.
Device	If Virtual Channel has not been enabled in the switcher configuration properties, you may change the MPEG Player (1 or 2). Its associated input will appear in the “Input” field.
In point / 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. The clip editor that is displayed depends on whether the “hardware” or “software” monitor option is chosen for clip editor playback (see page 129 for preview monitor settings). Follow the set of steps below that corresponds to your monitor choice.</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 NEXUS series server’s MPEG players. To use this option, ensure the “Software Monitor” option is selected on the “Preview Monitor” tab in the “Preferences” window.</p> <p><i>Illustration 152, WinLGX Video Clip Editor with Preview Monitor</i></p> 

FIELD	DESCRIPTION
	<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. 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. 4. Specify the clip's playback in and out points using one of the following methods: <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> <p><u>Hardware Monitor</u></p> <p>WinLGX displays the control panel clip editor if you are choosing to play back your clips during editing on a monitor attached to your NEXUS series server, and "Hardware Monitor" is selected on the</p>

FIELD	DESCRIPTION
	<p>“Preview Monitor” tab in the “Preferences” window.</p> <ol style="list-style-type: none"> Specify the clip’s playback in and out points using one of the following methods: <ul style="list-style-type: none"> NOTE: If you did not specify a default MPEG player for clip editing under “Tools”/“Preferences/Preview Monitor” (see page 129 for further instructions), WinLGX asks you to select the MPEG 1 or 2 clip editor. If the selected or default MPEG player is currently playing a file, WinLGX allows you to stop playback and continue with the clip editing process or select the other MPEG player. Click the  button to start playing the file and click the  or  button at the desired spot. Drag the playback bar to the desired spot and click the  or  button. Click the  or  button to move between groups of pictures (GOPs) in the MPEG file and click the  or  button. Close the clip creation control panel and add changes to library resource by clicking the  button.
Length	The MPEG 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.
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 171). 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.

FIELD	DESCRIPTION
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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). 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.
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 127). To toggle between these views, select and deselect the "Maximum view" checkbox.

MPEG Loop Library Resources

Dragging an MPEG loop library resource onto the schedule reveals a box like Illustration 153. Refer to Table 53, Editable MPEG Loop Library Event Properties, for a description of the editable event properties.

Illustration 153, MPEG Loop Event Properties Window

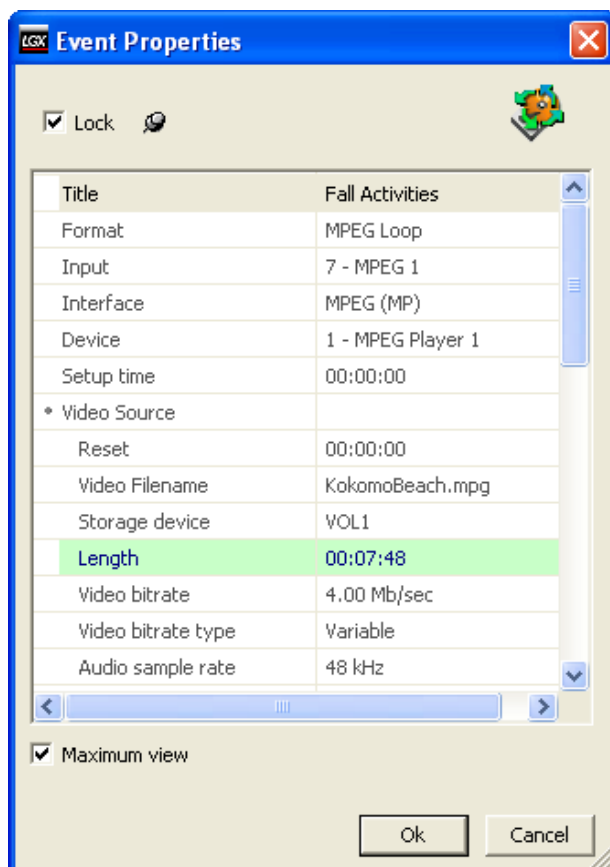


Table 53, Editable MPEG Loop Library Event Properties

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.
Device	If Virtual Channel has not been enabled in the switcher configuration properties, you may change the MPEG Player (1 or 2). Its associated input will appear in the “Input” field.

FIELD	DESCRIPTION
Length	<p>To change 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 "MPEG Loop Calculator" (see Illustration 100, MPEG 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.
Overlay	If desired, select one of the overlay templates created in the "Overlay Templates" view (see "Creating Overlays" on page 171). 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 203) and the web program guide (see "Viewing Web Program Guide" on page 401). The scheduled resource will be listed 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.

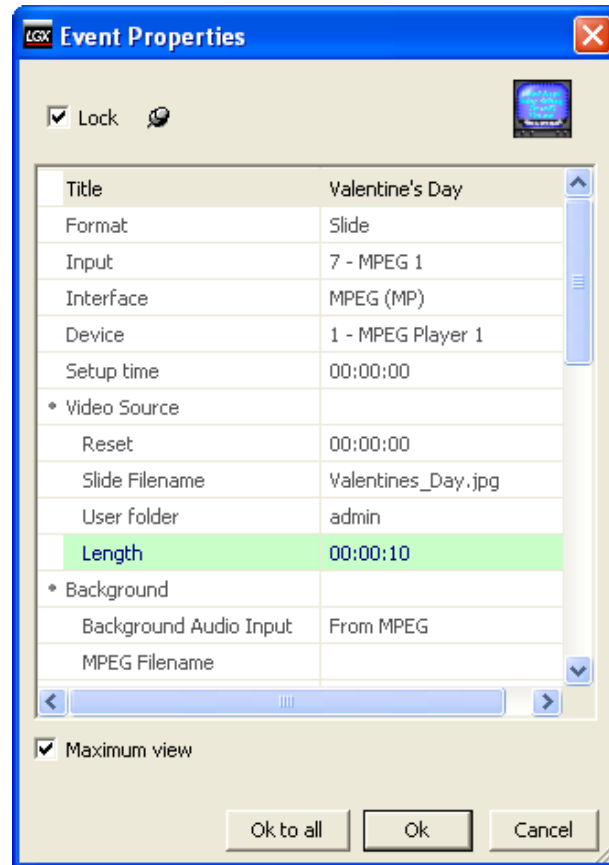
FIELD	DESCRIPTION
Export	Select “Yes” to allow the resource’s event record to be exported into comma delimited or Microsoft Excel® formats. If “No” is selected, then you can enable the export function for all of the resource’s event records by checking the “Export/print all records” option under the “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 127). To toggle between these views, select and deselect the “Maximum view” checkbox.

MPEG File/Slide Playlist Resources

Dragging a playlist of MPEG files and/or JPEG slides onto the schedule reveals an event properties window for each item in the playlist (see Illustration 154 for an example). Perform either of the options below:

NOTE: If the playlist resource is dragged into a program interval 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 154, 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 49 on page 278
 - Slide Show: see Table 50 on page 280
 - MPEG File: see Table 52 on page 285
 - Looped MPEG File: see Table 53 on page 290
- 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 155, VC List Event Properties Window. Refer to Table 54, Editable VC List Library Event Properties, for a description of the editable event properties.

Illustration 155, VC List Event Properties Window

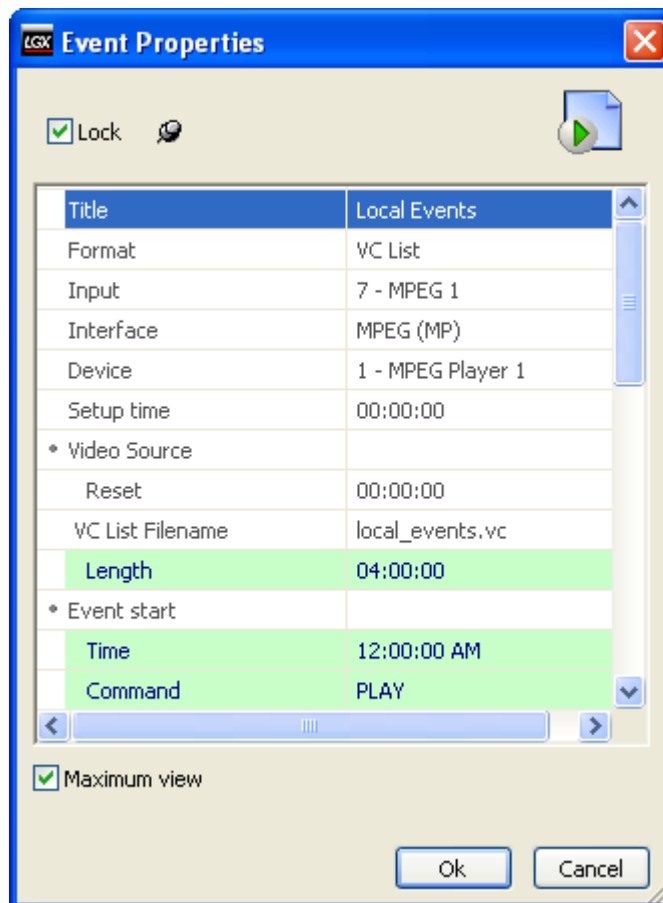


Table 54, Editable VC List Library Event Properties

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.

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 127). 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 (MPEG videos, JPEG slides and slide shows, and slide/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 see Illustration 156).

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 156 and Illustration 157). 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 123).

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 156, Digital Library Resource Dragged onto Channel Switchback

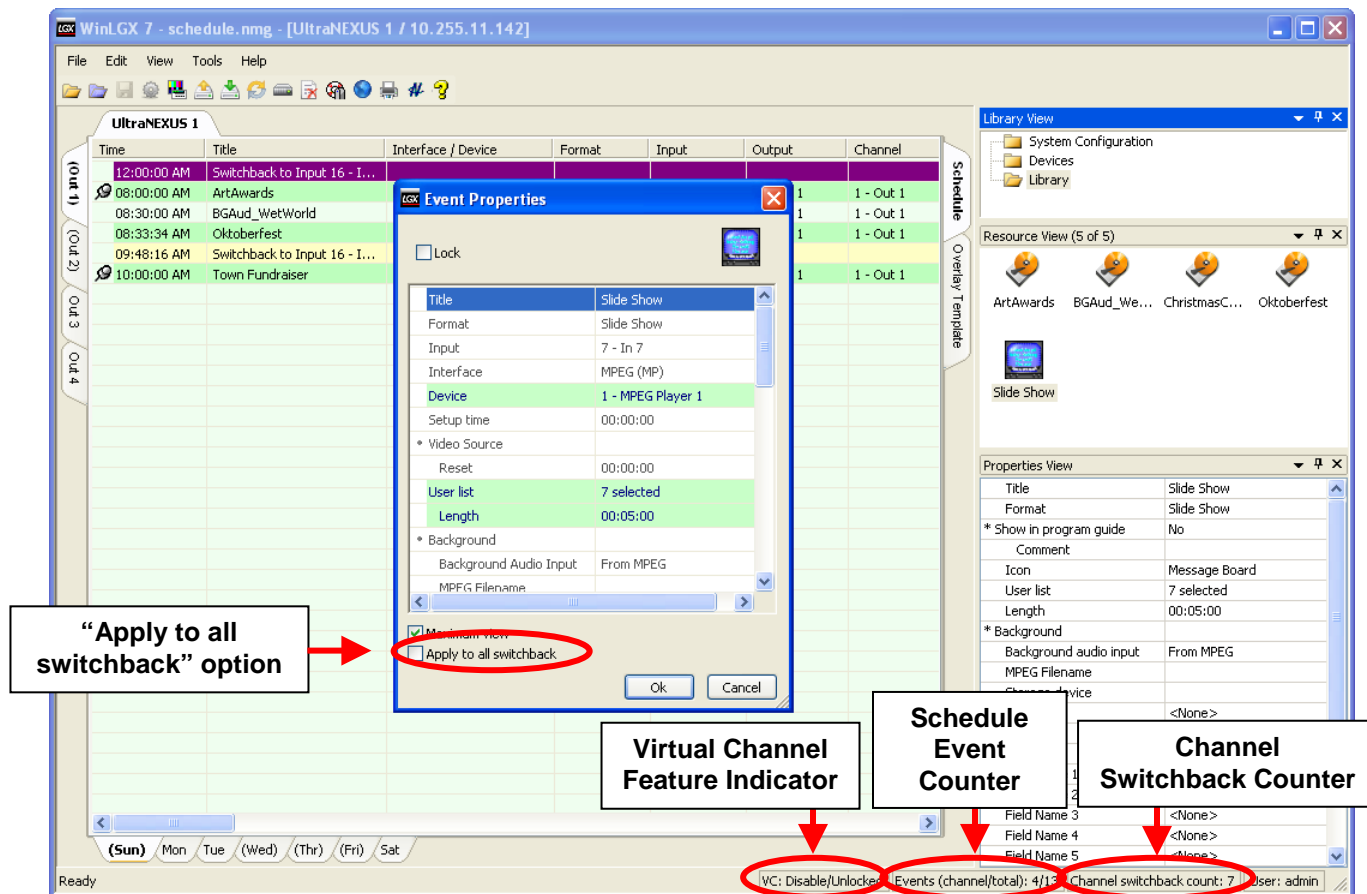
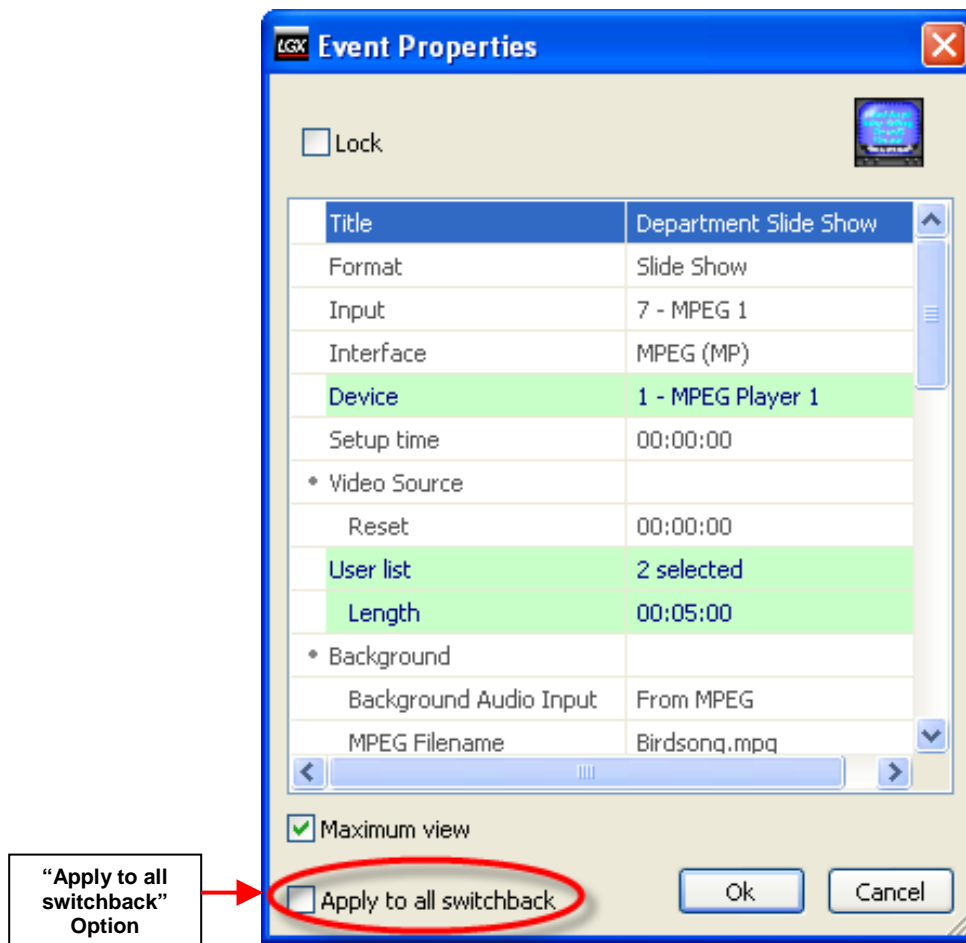


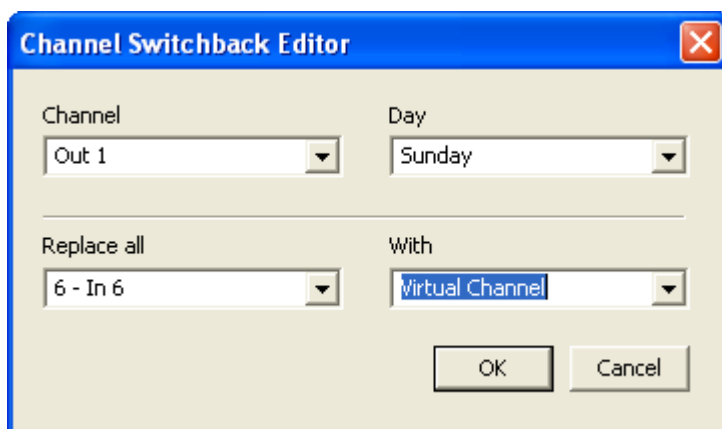
Illustration 157, Digital Library Resource Apply to all Switchbacks Option



Changing Channel Switchback Inputs

The “Channel Switchback Editor” (see Illustration 158), under the WinLGX “Tools”/“System Tools” menu, provides a quick way to change the inputs selected to 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 158, “Channel Switchback Editor”



1. Select “Switchback editor” under “Tools”/“System Tools” to open the “Channel Switchback Editor” (see Illustration 158).
2. 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.
3. Under “Replace all,” select the switchback input you would like to change.
4. Use the “With” drop down menu to select a new switchback input.
5. Click “OK” to make the changes or “Cancel” to abort.

CHECKING SCHEDULE AND LIBRARY RESOURCES FOR MISSING MPEG FILES

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


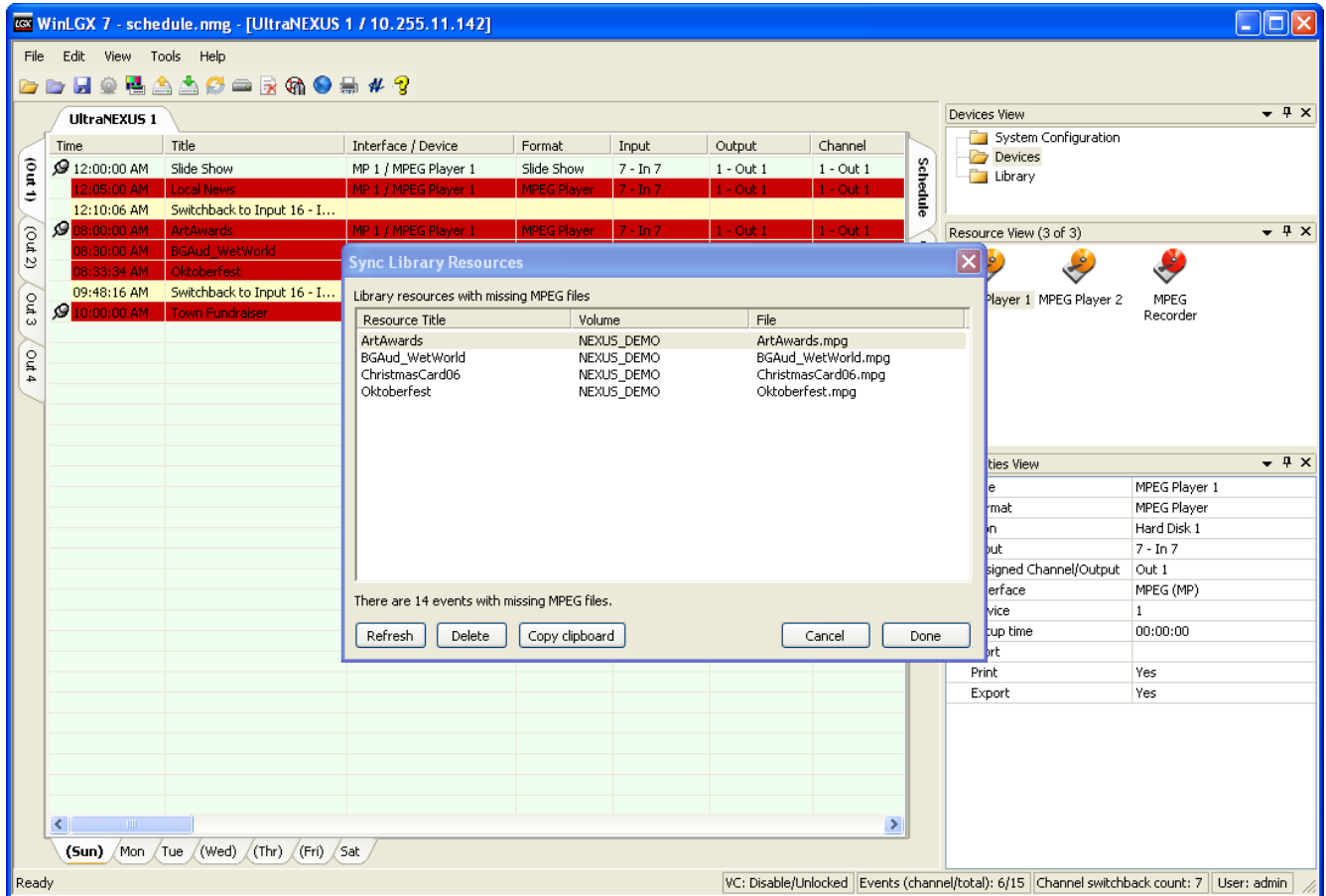
1. If you have not already done so, open a NEXUS series image file in WinLGX.
2. Click the  sync icon on the main toolbar or choose the “Tools”/“System tools”/“Sync Library Resources” menu item. Those events containing missing MPEG files are highlighted in the schedule and a “Sync Library Resources” box pops up to report the total number of schedule events and each library resource containing MPEG files no longer available on the NEXUS series 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 NEXUS series

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 159, Synced Schedule



SENDING NEXUS SERIES IMAGE FILES

To activate a schedule of event actions, send an image file to each connected NEXUS series server/controller as follows:

NOTE: Users **must** have “Send, receive, rename and delete” rights in order to send an image file to a NEXUS series system (refer to “Setting User Account Rights (Including WinLGX Password Changes),” on page 109, for more information on user rights).


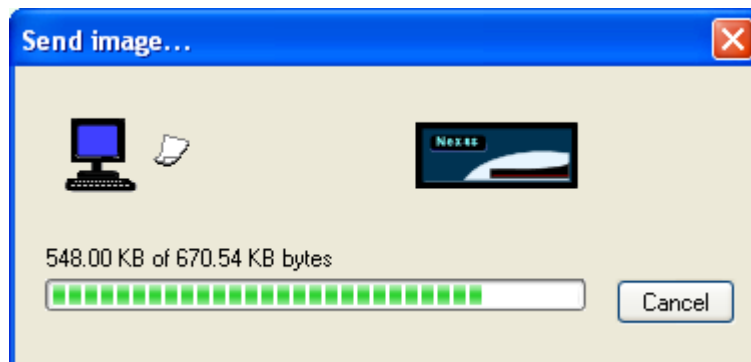
1. Send an image file to one or more of the currently connected server/controllers according to the following steps:
 - One server/controller: ensure the server/controller’s product tab is selected and choose “Send” in the “File” menu or click its  icon on the main toolbar. A dialog box will ask whether you want to send the tab’s currently open image to the connected NEXUS series server/controller. Click “Yes” to complete the send and open the status box shown in Illustration 160.
 - Multiple server/controllers: 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 160 for each image file.

Illustration 160, “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.

2. Once each transfer is completed, the NEXUS series system(s) will contain and execute the scheduled events.

PRINTING SCHEDULES FROM WINLGX

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


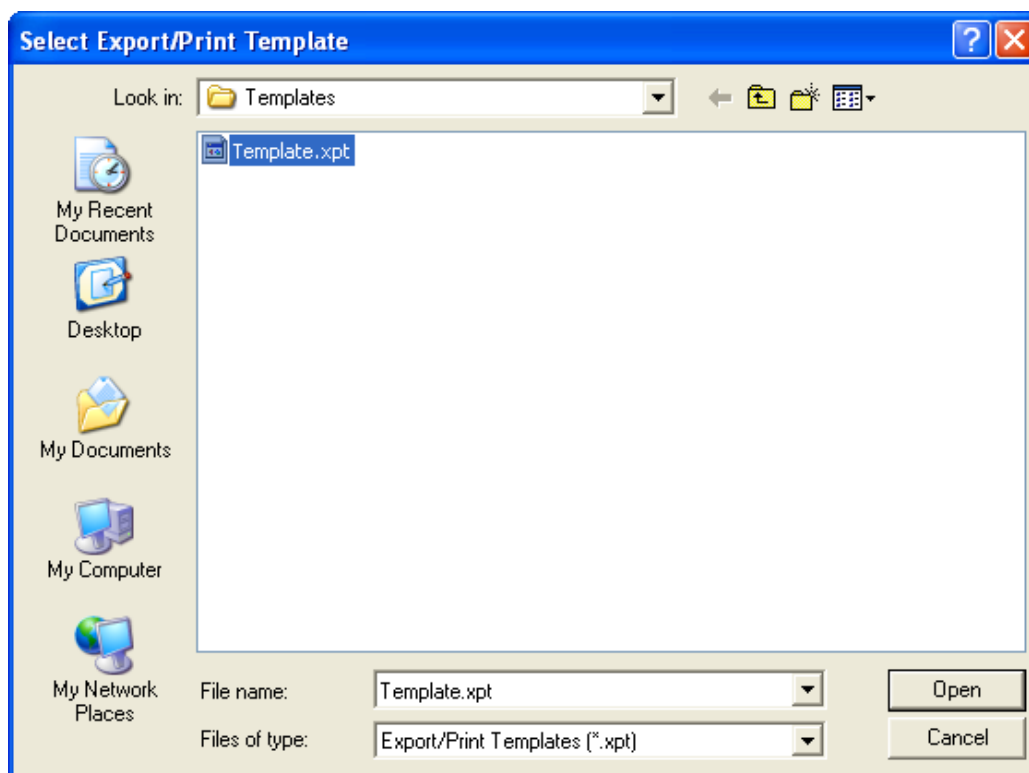
1. Create a print template to select the desired schedule information for printing (see “Creating Templates for Exporting/Printing Schedules,” on page 115).
2. Determine the page layout of your schedule printout (see “Configuring Page Layouts For Schedules Printed from WinLGX,” on page 117).
3. Select “Print” in the “File” menu or click the  icon on the main toolbar to open the template selection window shown in Illustration 161.

Illustration 161, “Select Export/Print Template” Window



4. Choose the desired template from the “File name” list in the “Select Export/Print Template” Window (see Illustration 161) and click “Open,” or double click the template file to open the “Print” window. Click “Cancel” to abort the print.
5. 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 118.

- “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.

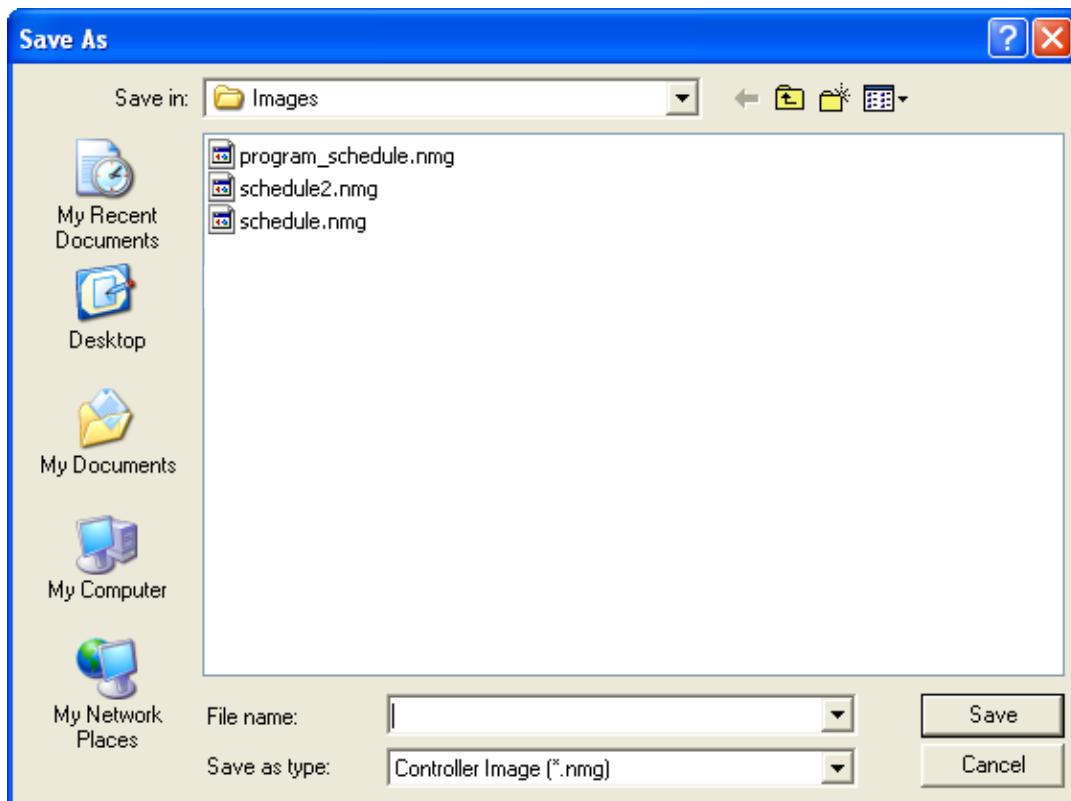
- “Properties” button: click to open a window specific to the printer, so that detailed printer settings can be made.
- “Print range” is fixed at “All.”
- “Copies” section: choose the number of schedule copies you wish to print. If you choose more than one, checking “Collate” causes the printer to print 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 (CSV) 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 NEXUS Series Image Files,” on page 219).
2. If you have not already done so, create a template (see “Creating Templates for Exporting/Printing Schedules,” on page 115).
3. Select “Save as” in the “File” menu to open the window shown in Illustration 162, which allows you to export the loaded schedule as a comma separated values file (.csv) as follows:

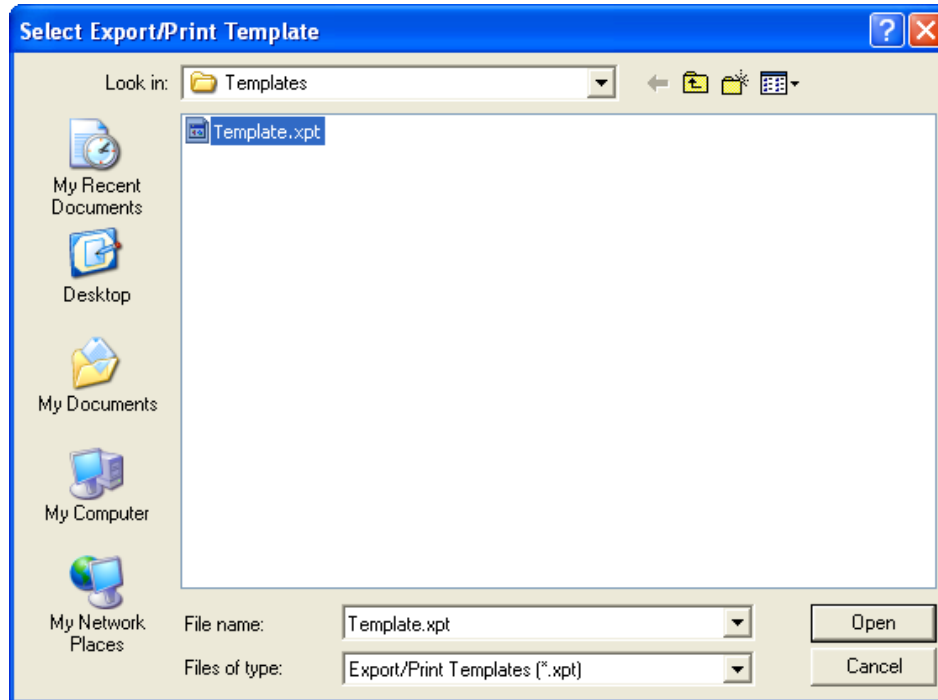
Illustration 162, “Save As” Window



- 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 163, “Select Export/Print Template” Window. 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 163, “Select Export/Print Template” Window



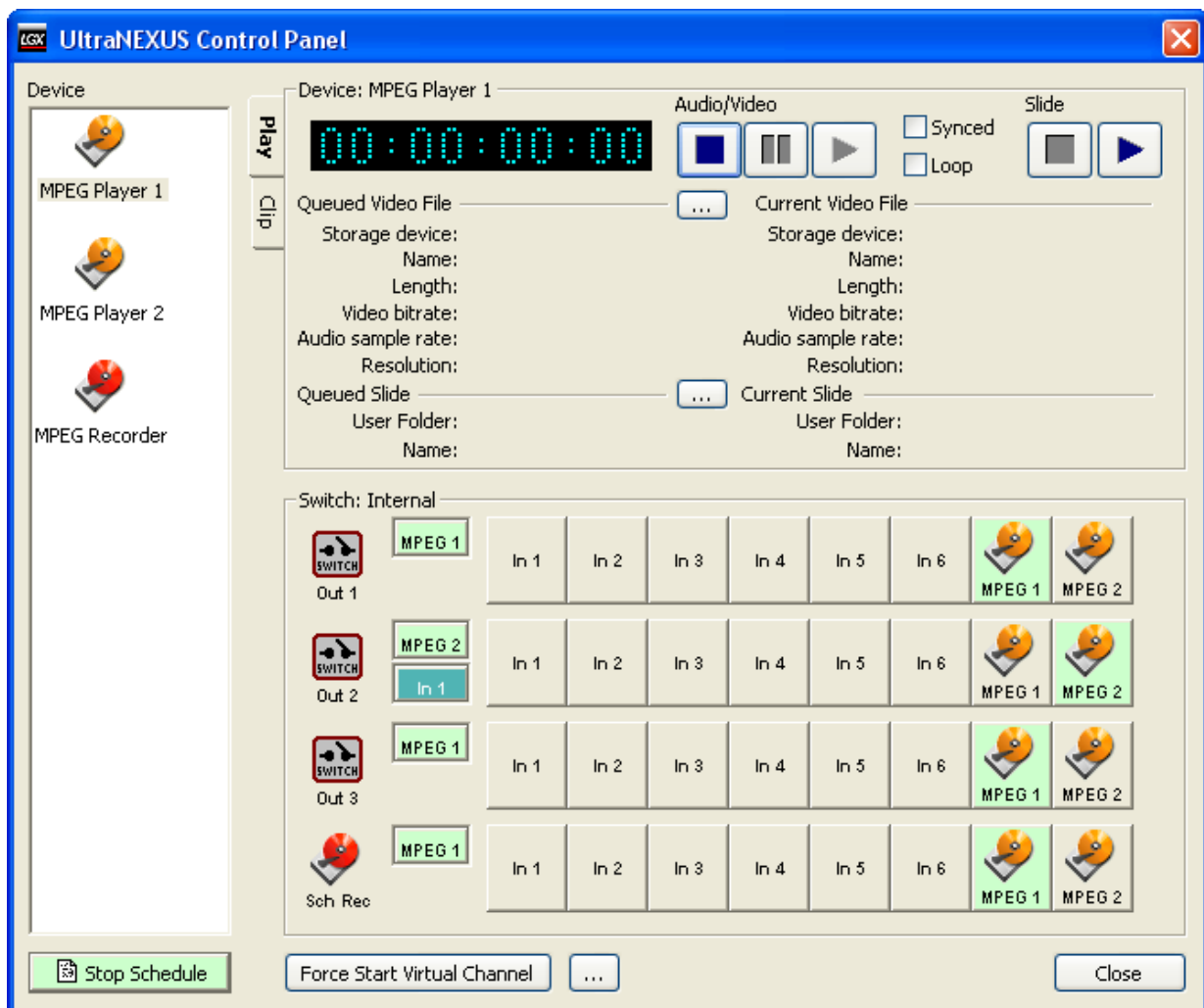
USING CONTROL PANEL TO PERFORM IMMEDIATE DEVICE AND SWITCH ACTIONS

Use the Control Panel to perform unscheduled control actions, such as starting and stopping a schedule loaded on the NEXUS series system, switching an input to a different output, and controlling your playback, recording, and contact closure interface devices.

1. Open the Control Panel window (see Illustration 164) by clicking “Control Panel” under the “Tools” menu or  icon on the main toolbar.

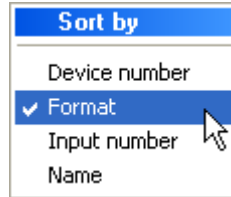
NOTE: The switcher and external device information displayed in the control panel depends on the switcher configuration (see “Configuring the Switch Type of a NEXUS Series System,” on page 135) and the external device configurations (see “Creating External Device Resources,” on page 159).

Illustration 164, Control Panel Window



2. 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 165, Control Panel Device Sorting Menu).

Illustration 165, Control Panel Device Sorting Menu



3. Perform any of the following steps:
 - Start/stop a schedule (see page 306).
 - Force a switch and view switcher status (see page 307).
 - Select a device in the “Devices” column and refer to one of the following sets of control steps:
 - “Controlling Internal MPEG Players 1 and 2,” on page 308
 - “Controlling Internal MPEG Recorder(s),” on page 317
 - “Controlling External Devices,” on page 322
4. When finished, click “Close” to exit the Control Panel.

STOP/START A SCHEDULE

Once an image file with a schedule of events has been sent to the NEXUS series server/controller (see “Sending NEXUS Series Image” on page 300), you may use the stop/start schedule button on the bottom of the Control Panel window (see Illustration 164, 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.

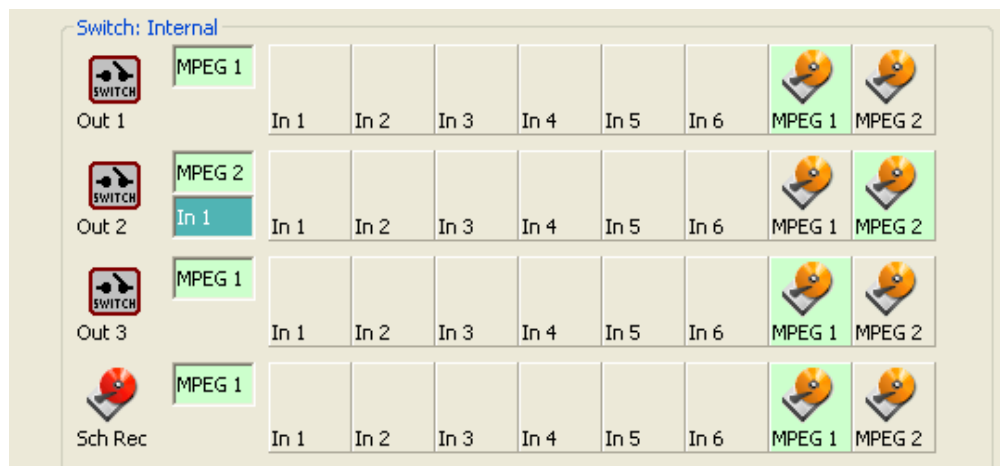
PERFORMING FORCED SWITCHES AND VIEWING SWITCHER STATUS

Immediately switch one of your inputs to an output by using the “Switch” portion of the Control Panel. If you are using an external switcher with more than 256 input/output crosspoints, your inputs/outputs will automatically be displayed in the list view. For those with 256 or fewer input/output crosspoints, the “Switch” will be configured according to the option selected on the “Application” tab of the “Preferences” window (see page 123 for more details).

“Buttons” View

On the “Switch” section of the Control Panel window (see Illustration 166, Control Panel “Switch” “Buttons” View, for an example), locate the output you want to switch your input to and then click the input button in the corresponding row.

Illustration 166, Control Panel “Switch” “Buttons” View



The input button will turn green when clicked if the switch is valid or red if the switch is invalid. To the right of each output icon is a box showing the currently selected input. If the input selection box is split, this indicates that a breakaway audio input source has been selected to accompany the video. Green means valid video present, gray indicates no valid video, while red indicates an invalid switch.

“List” View

To switch an input to an output from the “List” view (see Illustration 167, 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.

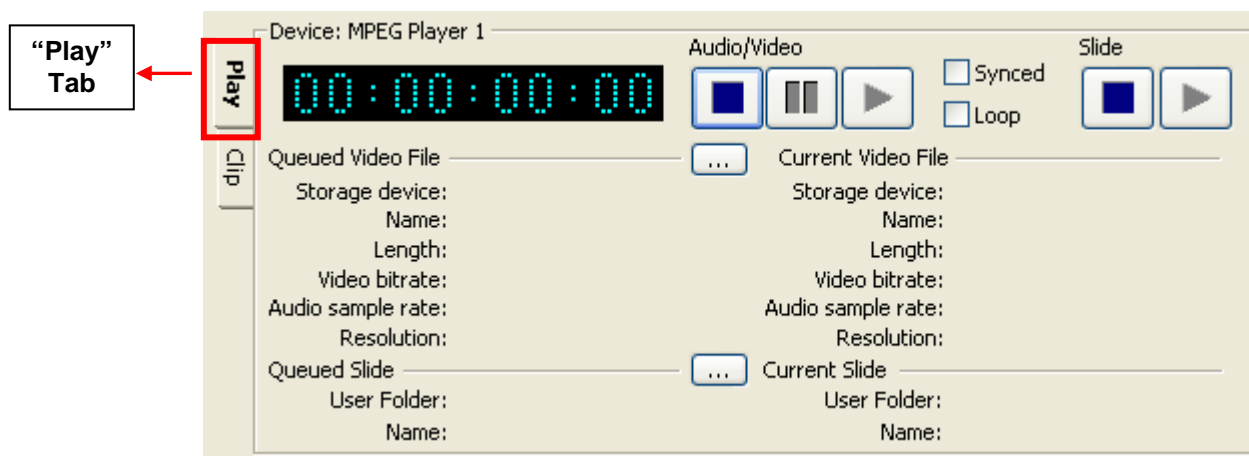
Illustration 167, Control Panel “Switch” “List” View

Switch: Internal							Take	
Num	Output	Num	Current Input	Num	Break Away	Valid	Num	Input
1	Out 1	7	MPEG 1			Yes	1	In 1
2	Out 2	8	MPEG 2			Yes	2	In 2
3	Out 3	7	MPEG 1			Yes	3	In 3
4	Sch Rec	6	In 6			Yes	4	In 4
							5	In 5
							6	In 6
							7	MPEG 1
							8	MPEG 2

CONTROLLING INTERNAL MPEG PLAYERS 1 AND 2

Select either the MPEG player 1 or 2 icon in the Control Panel window’s “Device” list and click the “Play” tab to display the corresponding device control panel (see Illustration 168, MPEG Player Control Panel).

Illustration 168, MPEG Player Control Panel



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

- **“Queuing a File”** on page 309
- **“Looping an MPEG File”** on page 312
- **“Playing a File”** on page 312
- **“Queuing the Next File”** on page 312
- **“Displaying a Slide with Audio from an MPEG File”** on page 312
- **“Stopping a File”** on page 313
- **“Pausing a File”** on page 313

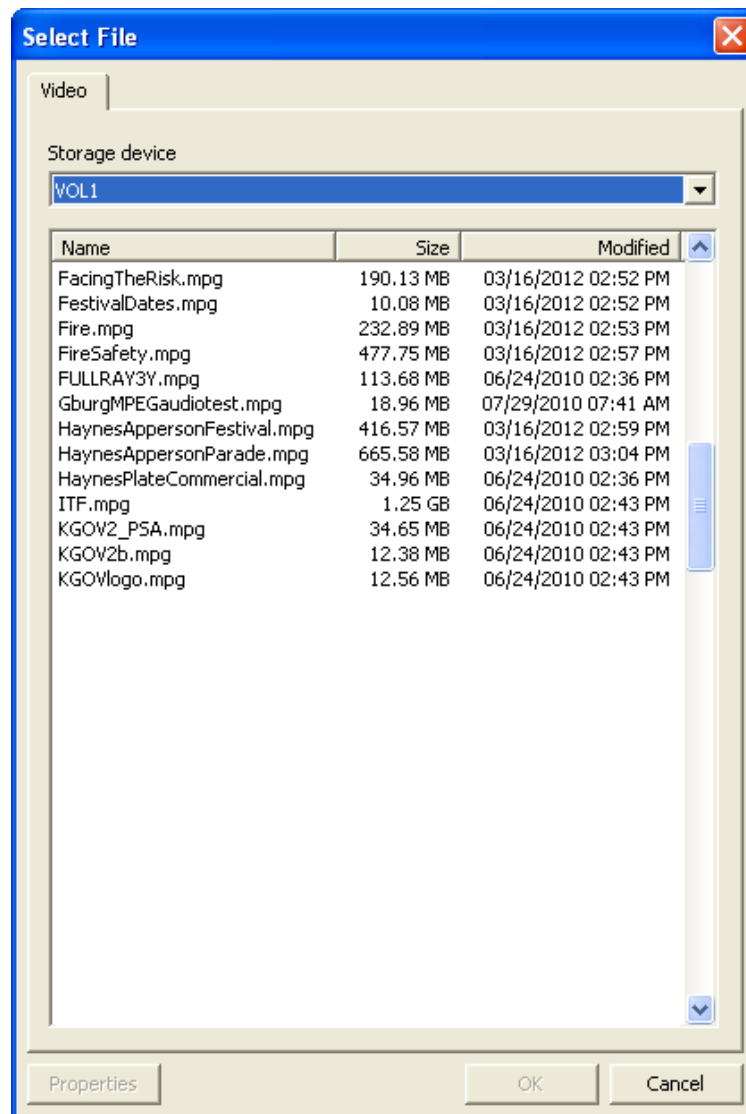
- “Creating a Library Clip Resource” on page 313
- “Activating the Virtual Channels” on page 315
- “Selecting and Displaying Virtual Channel Playlist Files” on page 315

Queuing a File

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

- MPEG video files:
 1. Click the ellipsis button next to “Queued Video File” to open the “Select File” video window (see Illustration 169, “Select File” Video Window).

Illustration 169, “Select File” Video Window

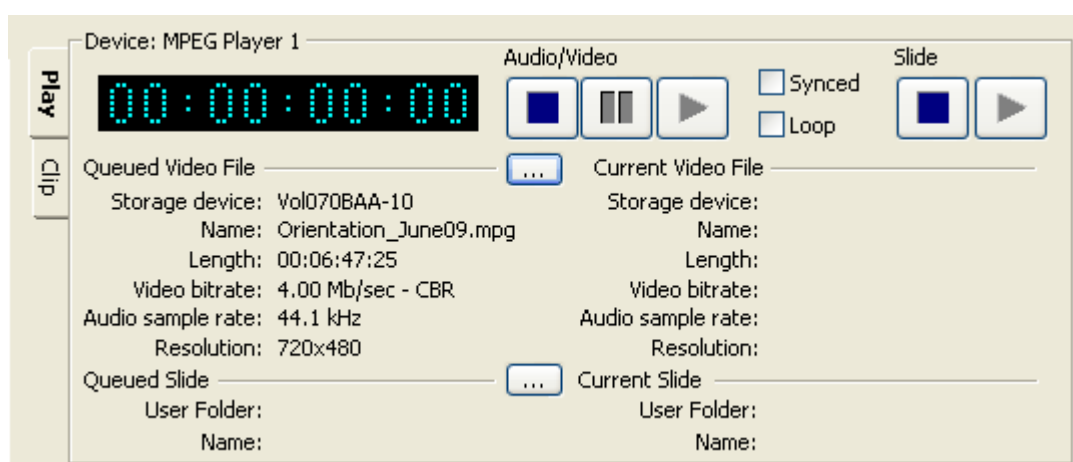


2. Select the storage device containing the desired MPEG video file from the “Storage device” drop down list.

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 MPEG Files within WinLGX" section on page 229.
4. Select the desired file by double-clicking or highlighting the file and clicking "OK." The MPEG player control panel will then display the properties of the selected file under "Queued Video File" (see Illustration 170, Queued MPEG Video File Properties).

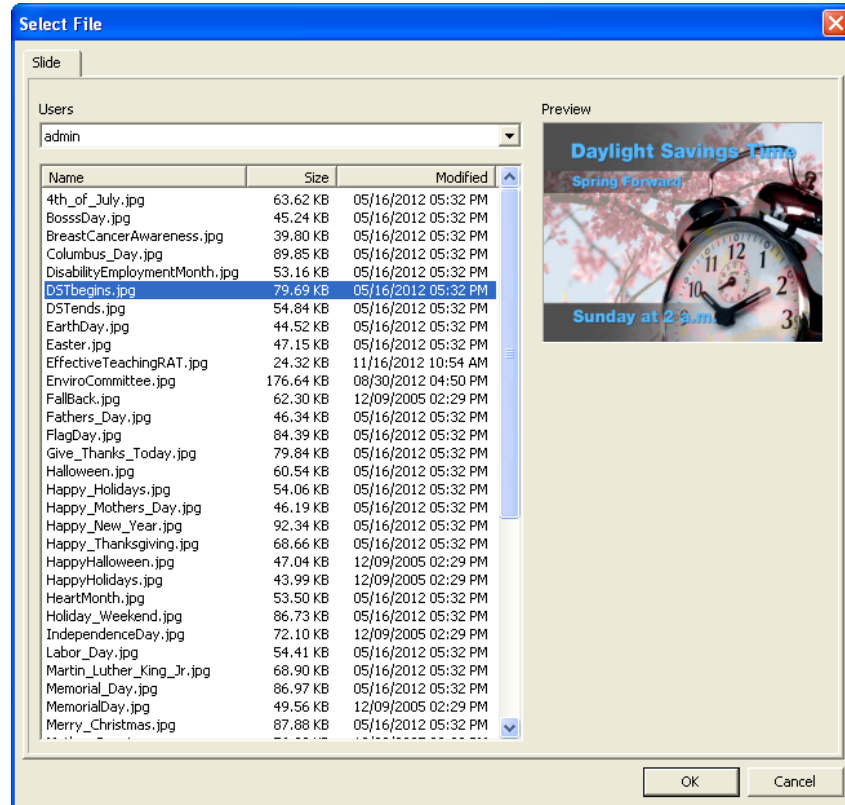
NOTE: Click "Cancel" to abort any selections and close the "Select File" video window.

Illustration 170, Queued MPEG Video File Properties



- JPEG slides:
 1. Click the ellipsis button next to “Queued Slide” to open the “Select File” slide window (see Illustration 171, “Select File” Slide Window).

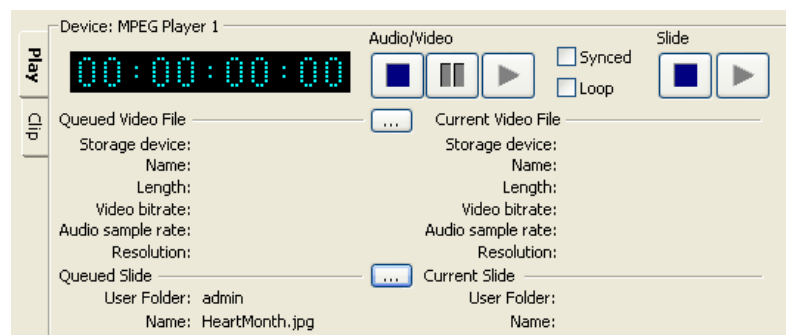
Illustration 171, “Select File” Slide Window



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 MPEG player control panel will then display the properties of the selected file under “Queued Slide” (see Illustration 172, Queued JPEG Slide).

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

Illustration 172, Queued JPEG Slide



Looping an MPEG File

Click the “Loop” checkbox to set up an MPEG 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


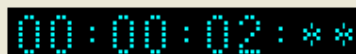
Click the  button under “Audio/Video” for an MPEG file or “Slide” for a JPEG slide to play the most recently queued file. The activated file moves into the current position on the control panel. While an MPEG file is playing, the counter displays the file playback time in HH:MM:SS:FF (FF=frames). The counter displays “***” in the FF or frames place holder during playback (furthest to the right) (see Illustration 173), showing the current frame number when the file is paused.

Illustration 173, MPEG File 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 309 and Illustration 174, Queued and Currently Playing Files).


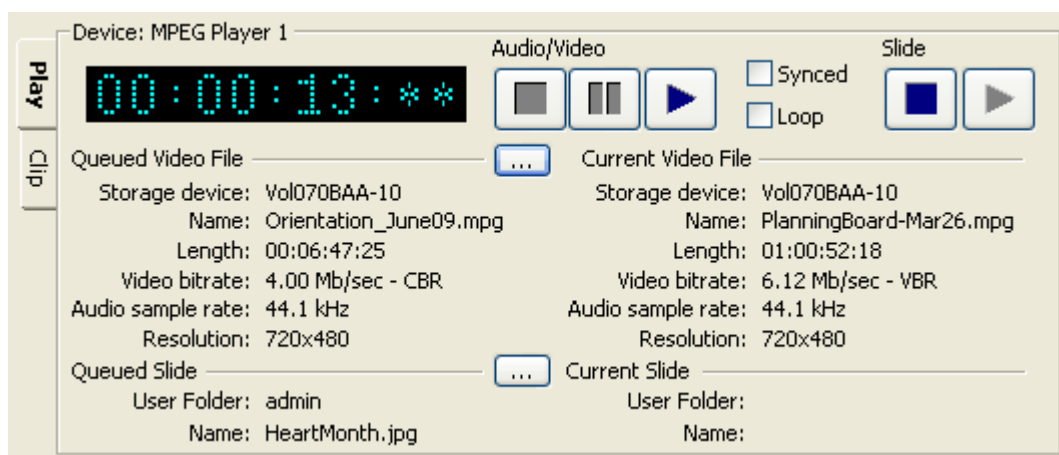



NOTE: Clicking the  button while another file is playing will cause the queued file to override the current file and begin playing.

Illustration 174, Queued and Currently Playing Files




Displaying a Slide with Audio from an MPEG File


1. Ensure the “Synced” box is checked.
2. Ensure that the desired MPEG file and JPEG slide have been queued (see “Queuing a File” on page 309 for more information).
3. Control the synced files as follows from either the “Audio/Video” or “Slide” controls:

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

Stopping a File

Click the  button under “Audio/Video” for an MPEG file or “Slide” for a JPEG slide to stop a file. Stopping a file unloads it from the “Current Video File” position.

Pausing an MPEG File

Click the  button under “Audio/Video” to pause an MPEG file in the “Current Video File” position. When an MPEG file is paused, the counter displays the current frame number in the FF or frames place holder (furthest to the right) (see Illustration 175).

To reactivate the file, click the  button again.

Illustration 175, MPEG File Counter with Frame Number Displayed

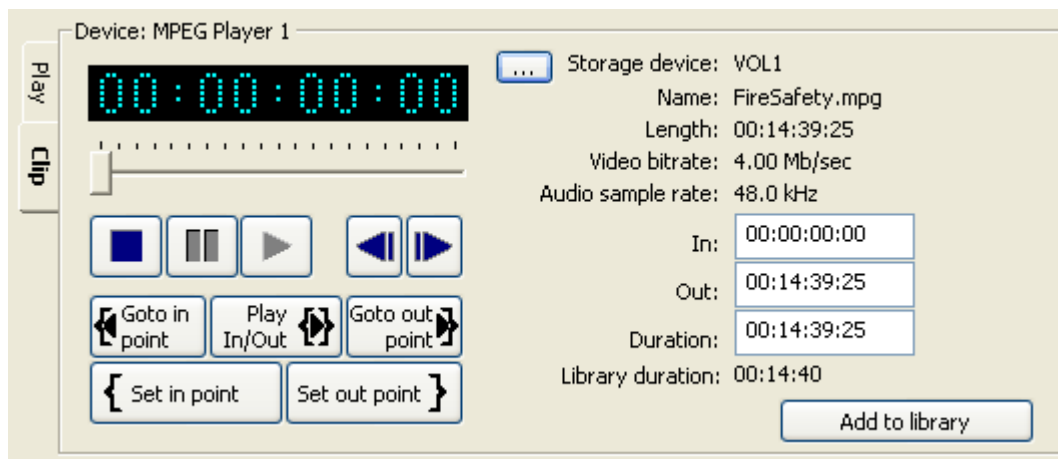


Creating a Library Clip Resource

Use the MPEG Player 1 or 2 clip creation panel to create a library resource for a clip of an MPEG file.

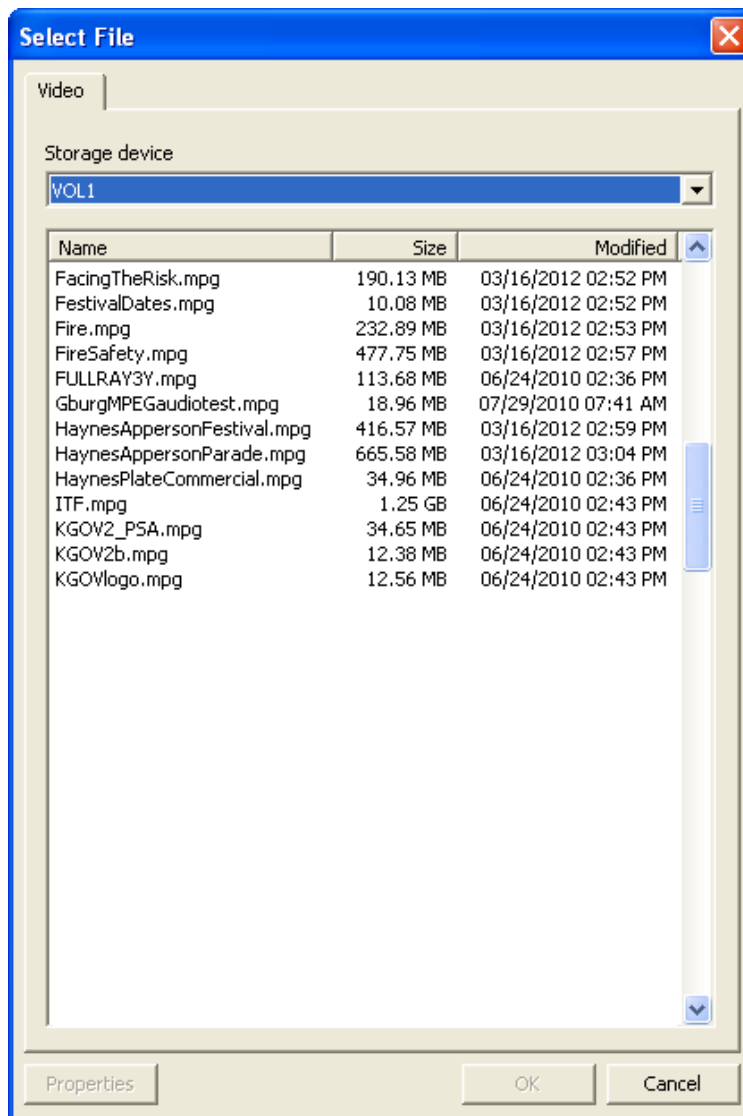
1. Click the “Clip” tab to display the clip creation panel (see Illustration 176).

Illustration 176, MPEG Player 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 177).

Illustration 177, “Select File” Window



- b. Select the storage device containing the desired MPEG 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 MPEG Files within WinLGX” section on page 229.
- 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.











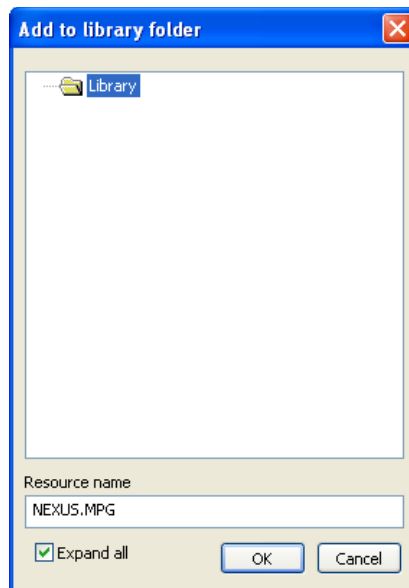
3. Specify the clip's playback start point using one of the following methods:
 - Click the  button to start playing the file and click the  button at the desired spot.
 - Drag the playback bar to the desired spot and click the  button.
 - Click the  or  button to move between groups of pictures (GOPs) in the MPEG 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 178) and performing the following steps:

Illustration 178, "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 MPEG player in the

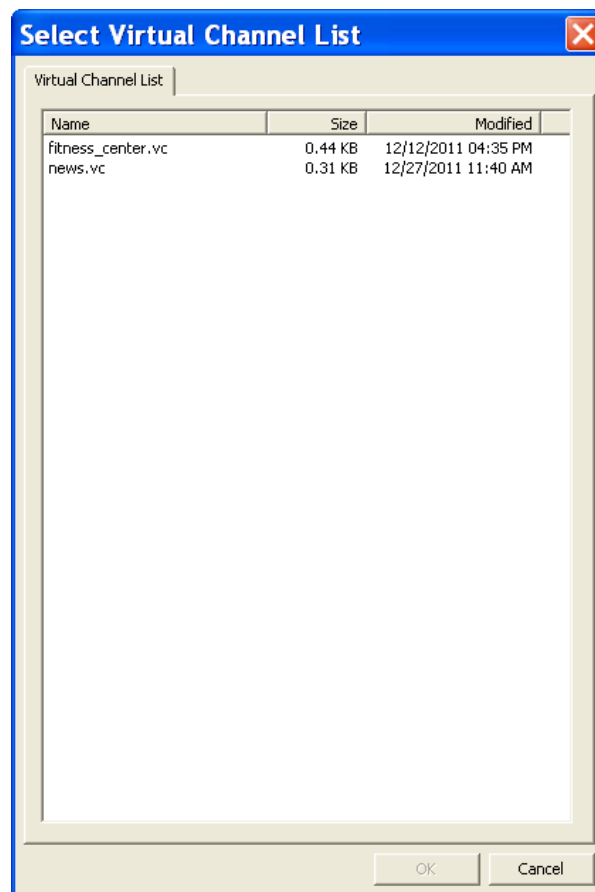
“Devices” column and then just click the Force Start Virtual Channel button to display the playlist currently saved in the Virtual Channel's default “Current” playlist preset.

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 MPEG 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 179.

Illustration 179, "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 INTERNAL MPEG RECORDER(S)

NOTE: Scheduled MPEG record events will interrupt any MPEG record and ingest operations started from the Control Panel. The scheduled record will occur, but the Control Panel recording will be stopped.

Select the MPEG recorder icon in the control panel window's "Device" list to display the corresponding recorder control panel (see Illustration 180, MPEG Recorder Control Panel). Refer to the following steps:

Illustration 180, MPEG Recorder Control Panel

1. Select the MPEG 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. **UltraNEXUS/UltraNEXUS-SDI only:** the "No VOD file" option allows you to override the VOD recorder enable/disable feature in WebNEXUS (see "Enabling/Disabling VOD Recorder," on page 353, for more details). If the VOD recorder has been enabled in WebNEXUS, checking this box stops the VOD recorder from creating a VOD file. Unchecking this option will cause the VOD recorder to operate according to its WebNEXUS enable/disable setting.

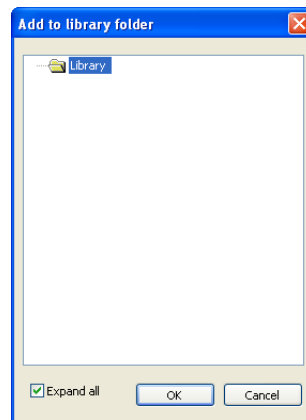
NOTE: An enabled VOD recorder on the UltraNEXUS or an UltraNEXUS-SDI installed with a distribution amp will automatically receive the same switch and control commands sent to the broadcast MPEG recorder. The VOD recorder files will be encoded at bit rates optimized for streaming.
 - c. Select one of 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)
- d. Select the volume of the drive on which you would like to store the recorded file from the “Storage Device” drop down list.
- e. Under “File,” enter up to 27 characters (no spaces) for the filename.
- f. Select one of the user-defined record presets for the desired recording quality. See “Configuring Broadcast MPEG Recording Presets,” on page 151 for more information on defining the recording quality settings.
- g. If you would like a library resource for the MPEG file added to the “Library” tab window, select the “Add to library” option. Once the broadcast MPEG recorder stops, WinLGX displays the “Add to library” window (see Illustration 181). Select the library folder in which the corresponding MPEG 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 181, “Add to library folder” Window



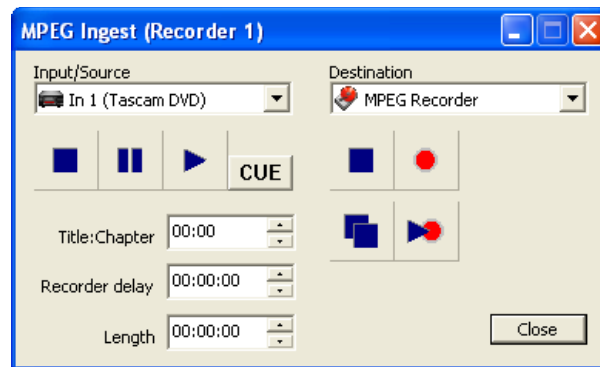
2. Select and record an input through one of the following options:

- Use the **switcher panel** as follows:
 - a. From the switcher panel on the bottom of the Control Panel window (see Illustration 166, Control Panel “Switch” “Buttons” View, for an example), go to the MPEG recorder output row and click on the external input device or switcher 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.
- Use the **“MPEG Ingest” option** as follows:


Use the MPEG ingest option to record playback from your switch resources or any of the external devices connected to your switcher inputs. This option also allows you to activate a selected external input device, enter a broadcast MPEG recorder activation delay, and set a record time length.

 - a. Click on the “MPEG Ingest” button on the MPEG recorder control panel to display the window shown in Illustration 182, “MPEG Ingest” Window.



Illustration 182, “MPEG Ingest” Window




- b. From the “Input/Source” drop down list, select the external device or switch resource that you would like to record.
- c. DVply-controlled DVD devices only: to cue a specific DVD title:chapter for playback, enter the desired title and chapter in the “Title:Chapter” field and then click the “CUE” button.
- d. If desired, set a delay time for the broadcast MPEG recorder from the “Recorder delay” field. This is the time it will take before the recorder begins ingesting playback after both devices have been activated. Once the recorder has been activated, 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 broadcast MPEG recorder automatically stop at the end of the record time.
- f. Activate the source and broadcast MPEG recorder according to one of the following steps:
 - If you selected an external input device, either:

- Click  to simultaneously activate both devices.


OR

- Click the  button to start playback of the source device and then the  button to activate the MPEG recorder.



- If you selected a switch resource, just click the  button to activate the MPEG recorder.


g. If you did not enter a record time in the “Length” field, stop the input device or switch resource and broadcast MPEG recorder by performing one of the following steps:

- If you selected an external input device, either:

- Click  to simultaneously stop both the device and MPEG recorder.

OR

- Click the  button under “Input/Source” to stop playback of the source device and then the  button under “Destination” to stop the MPEG recorder.

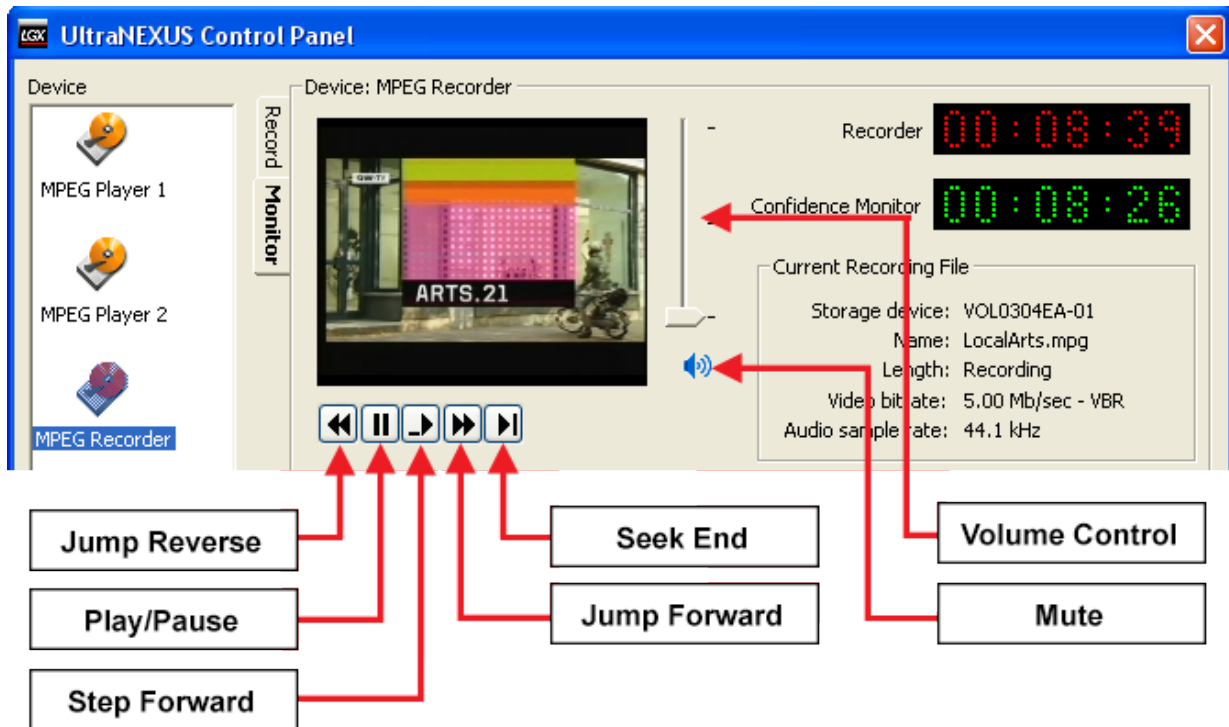
- If you selected a switch resource, just click the  button under “Destination” to stop the MPEG recorder.

h. Click the “Close” button to exit the window.

MONITORING AN MPEG FILE RECORDING

Once an MPEG 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 MPEG recorder icon in the control panel window’s “Device” list to display the corresponding recorder control panel and then click the “Monitor” tab (see Illustration 183). 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 129 for more details). To control playback of the recorded video, refer to the information below on the confidence monitor controls:

Illustration 183, MPEG Recorder Confidence "Monitor" Tab Window



- **"Recorder" Time Display:** shows the total length of the recording file in hours:minutes:seconds
- **"Confidence Monitor" Time Display:** shows the current playback time of the video in the preview window in hours:minutes:seconds.
- **Jump Reverse Button:** single click to move back in the video by the number of seconds specified on the "Preview Monitor" tab of the "Preferences" window (see page 129 for more details). The default number is 10 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.
- **Jump Forward Button:** single click to move back in the video by the number of seconds specified on the "Preview Monitor" tab of the "Preferences" window (see page 129 for more details). The default number is 10 seconds.
- **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 MPEG file.

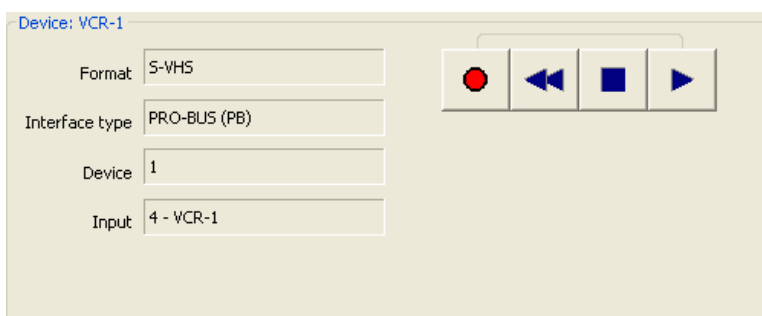
CONTROLLING EXTERNAL DEVICES

IR or PRO-BUS-Controlled Devices (Supported Digital Video Recorders, VCRs, DVD, ¾", 8mm, Beta SP, and HI-8mm Players)

When one of the above devices is selected in the Control Panel window's "Device" list, the corresponding device control panel is displayed (see Illustration 184, Example of a PRO-BUS-Controlled Device Control Panel).

NOTE: Some interface commands trigger a control sequence unique to the device's brand and/or model. To determine the device-specific actions triggered by the control commands, consult the PRO-BUS interface manual for a PRO-BUS-controlled device or Table 21, IR Port Configuration Options, for an IR-controlled device.

Illustration 184, Example of a PRO-BUS-Controlled Device Control Panel



- **Device properties:** the left side of the panel displays the following:
 1. "Format": type of device
 2. "Interface type": device interface to which the device is connected
 3. "Device": the device interface number
 4. "Input": if applicable, the switcher input number to which the device is connected
- Playing a File

To play a file, click the  button.

- Recording a File

NOTE: Scheduled record events will interrupt any record and ingest operations started from the Control Panel. The scheduled record will occur, but the Control Panel recording will be stopped.

To record a file, click the  button and then the  button.

- Stopping a File

To stop a file, click the  button.

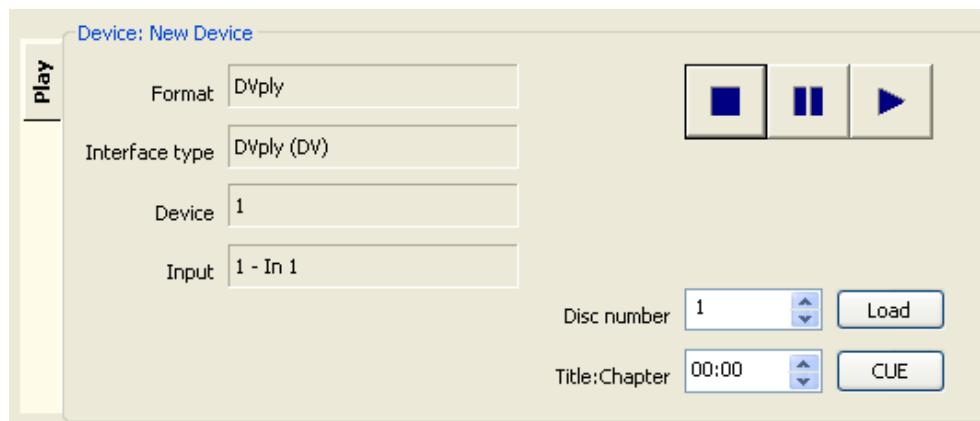
- Rewinding a File

To rewind a file, click the  button.

DVply-Controlled Devices

Select the DVply device icon in the Control Panel window's "Device" list to display the corresponding control panel (see Illustration 185, Control Panel DVply Device) and perform the following steps:


Illustration 185, Control Panel DVply Device



- Device properties: the left side of the panel displays the following:
 1. "Format": type of device
 2. "Interface type": device interface to which the device is connected
 3. "Device": indicates the number of the DVply port on the back of the Controller
 4. "Input": if applicable, the switcher input number to which the device is connected
- Loading a Disc: Sony DVP-CX777ES or Pioneer DV-F07 only
Enter the disc's number position within the DVD device and then click the "Load" button.
- Cuing a File for Playback
To cue a specific DVD title:chapter for playback, enter the desired title and chapter in the "Title:Chapter" field and then click the "CUE" button.
- Playing a File

To play a file, click the  button.

- Pausing a File

To pause a file, click the  button.

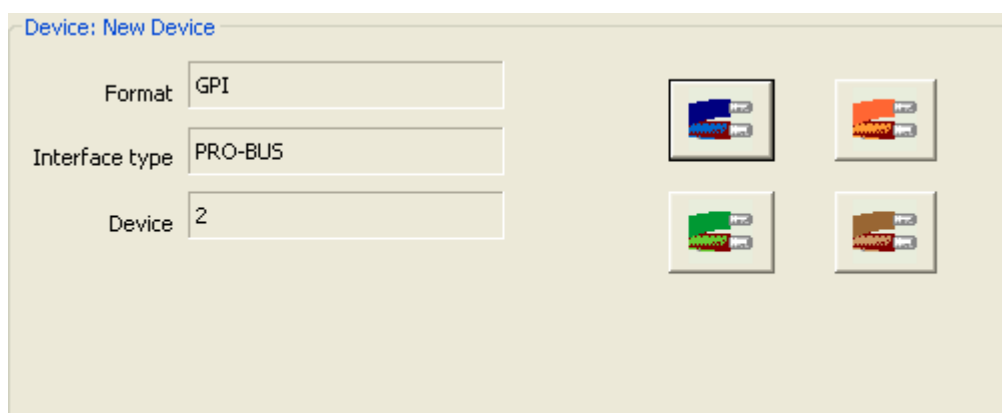
- Stopping a File

To stop a file, click the  button.

GPI Output Devices

Select the GPI device icon in the “Device” list to display the corresponding control panel (see Illustration 186, Control Panel: GPI Device Control) and perform the following steps:

Illustration 186, Control Panel: GPI Device Control



- **Device properties:** the left side of the panel displays the following:
 1. “Format”: type of device
 2. “Interface type”: always a “PRO-BUS” device interface for GPI devices
 3. “Device”: device number given to the PRO-BUS address via switches on the PRO-BUS interface.
- **Control options:** depending on how you configured your GPI PRO-BUS interface’s dip switches (refer to your PRGPI PRO-BUS Interface Manual for more details), the buttons on the right side of the panel will either:
 1. Close the corresponding GPI output until a command is sent to close a different GPI output.

Or

2. Pulse the corresponding GPI output closed for 750 mS.

UltraNEXUS/UltraNEXUS-SDI Only: ePRO-BUS Record Devices

Select the ePRO-BUS record device icon in the “Device” list to display the corresponding control panel (see Illustration 187, Control Panel: ePRO-BUS Record Device Control) with the following information:

Illustration 187, Control Panel: ePRO-BUS Record Device Control

- “Format”: type of device. This should be a tape or DVD device.
- “Interface type”: always a “PRO-BUS” device interface for ePRO-BUS record devices
- “Device”: PRO-BUS address number assigned to the PEGvault-SD or LABvault-SD recorder you wish to control. The PRO-BUS address numbers are configured via the “ePRO-BUS” Tab Screen in WebNEXUS (see the “UltraNEXUS/UltraNEXUS-SDI Only: Configuring ePRO-BUS Settings” section on page 441 for more details).
- “Input”: should be set to “<None>,” as ePRO-BUS record devices are outputs

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

- Remote ePRO-BUS Record: click the record icon to initiate a record on your PEGvault-SD or LABvault-SD. When you have captured the desired footage, click the stop record icon.
- Local ePRO-BUS Record: for ePRO-BUS record devices directly connected to your UltraNEXUS system’s internal or external system switcher, you will first need to switch a video source over to your PEGvault-SD or LABvault-SD 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 recorder.
 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.

3. Return to the recorder controls by clicking the ePRO-BUS device resource in the control panel's left-hand column. Click the record icon to initiate a record on your recorder. 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 MPEG 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 (NEXUS series compact Flash, USB hard drives, and NAS) storage devices.

UltraNEXUS-SDI / VOD streaming files are automatically transferred to
UltraNEXUS Only: LEIGHTRONIX streaming services sites (ex., PEG Central) and then deleted from your USB drives.


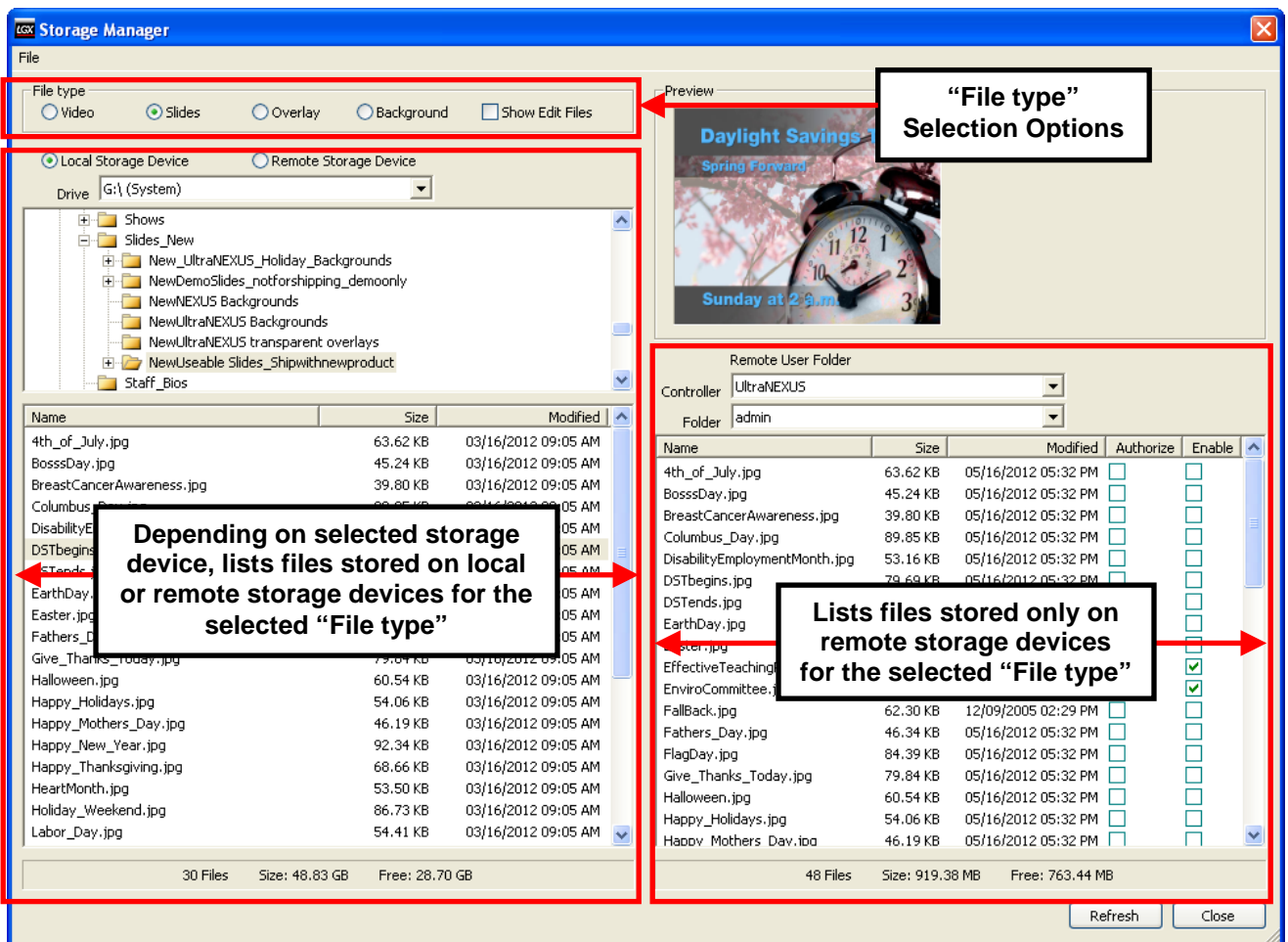
Open the Storage Manager window by selecting “Storage Manager” from the “File” menu or click the  icon on the main toolbar (see Illustration 188, Storage Manager Window).

Illustration 188, Storage Manager Window



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

- “Choosing File Storage Devices” on page 328

- “Managing all Digital Files” on page 329
- “Previewing Video Files” on page 331
- “Creating a Default Slide” on page 332
- “Creating & Managing Background SubFolders” on page 332
- “Transferring Graphic/Text Layers with Slides Created in a WebNEXUS Slide Editor,” on page 334

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

CHOOSING FILE STORAGE DEVICES

1. Select one of the following to enable the display of the corresponding file type:
 - **“Video”**: displays MPEG 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
2. 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 NEXUS series system. Specify the NEXUS series storage device you wish to access as follows:
 - a. Select a NEXUS series system from the “Controller” drop down box. All WinLGX connected NEXUS series server/controllers will appear in the drop down box, allowing you to access the remote storage devices for the NEXUS series system that you choose.
 - b. From the “Device” drop down box, select a remote storage device based on the file type chosen in step 1:
 - **“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 NEXUS series server’s background subfolders and contents on the right side of the “Storage Manager” window.

3. The right side of the Storage Manager window only allows you to access your NEXUS series remote storage devices. Refer to the remote storage device selection instructions in step 2, while noting the following for the “Background” folder:

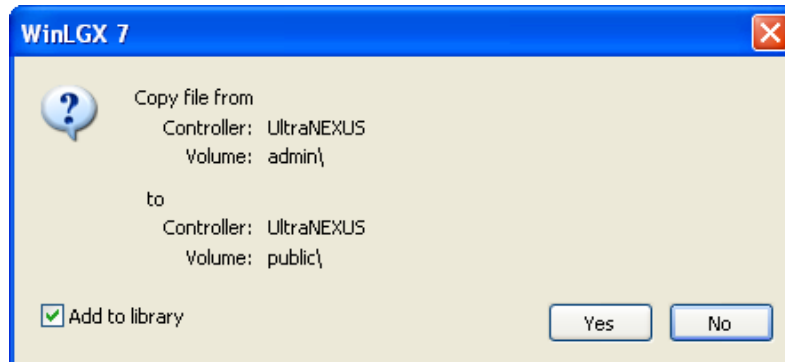
“Background”: when “Background” is selected, the right side of the Storage Manager shows the file folders containing graphics for your WebNEXUS slide editor’s “Images” selection window. By default, your NEXUS series server includes several folders of background images and icons available for use during 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 189, 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 (see Illustration 189).

- 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 189, 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.*

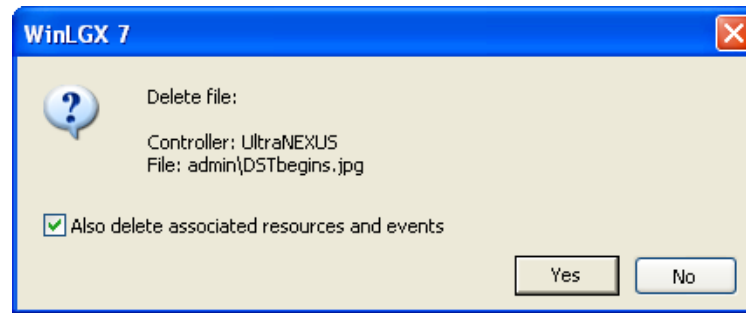
NOTE: Clicking the “Cancel” button on the FTP window stops the transfer, leaving a file fragment which should be deleted. Cancel only when necessary. When multiple files are finished, a summary dialog appears giving the final results.

- **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 NEXUS series 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 190, 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 MPEG 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 181. 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.

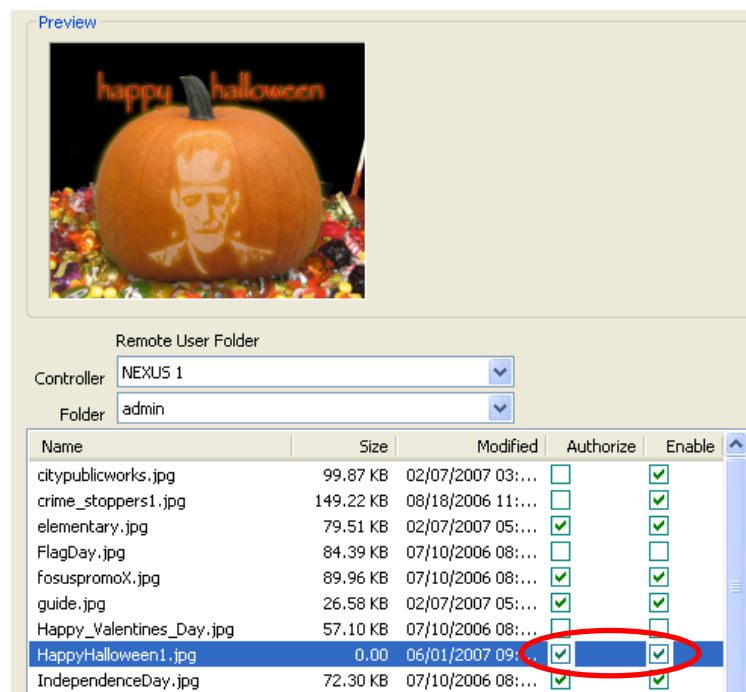
PREVIEWING VIDEO FILES

WinLGX gives you the option to display the MPEG 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 MPEG Files within WinLGX” section on page 229.

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 191). 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 109.

Illustration 191, 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 329).
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 332).

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 372 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 109 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 192. 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 192, “Create directory” Backgrounds Option



3. Copy or move files into the new subfolder according to “Managing all Digital Files” on page 329.

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 720 pixels wide x 540 pixels high.

- **Delete a background subfolder**

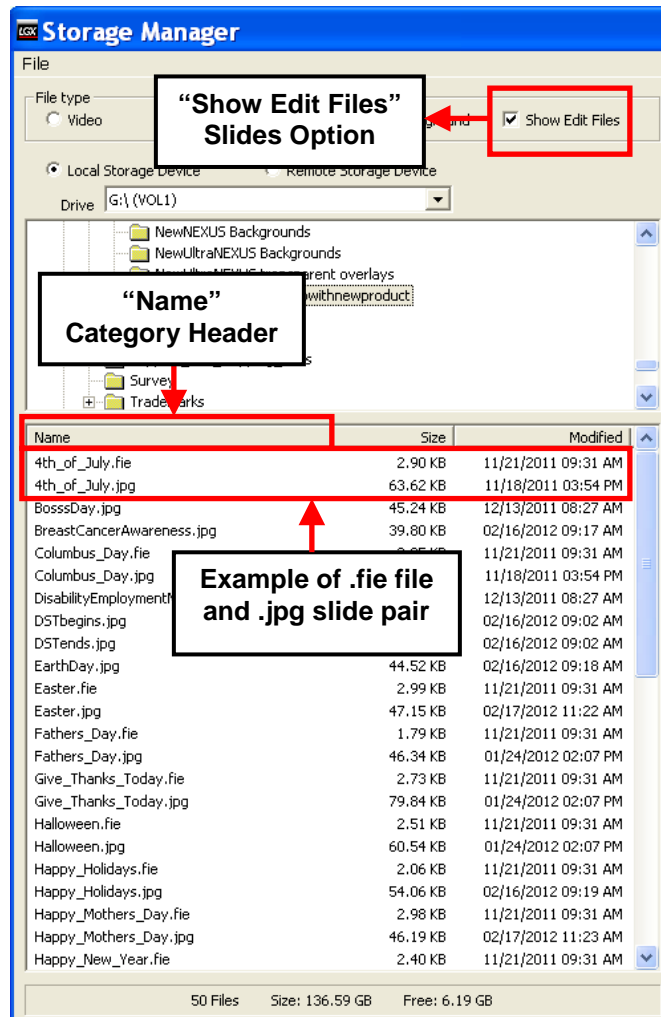
1. Ensure you have selected “Local Storage Device” on the left side of the “Storage Manager” window.
2. On the right side of the “Storage Manager” window, right click on a subfolder in “/Internal/DATA/backgrounds” and select “Delete directory” in the pop-up menu that appears. Click “Yes” to delete the 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:

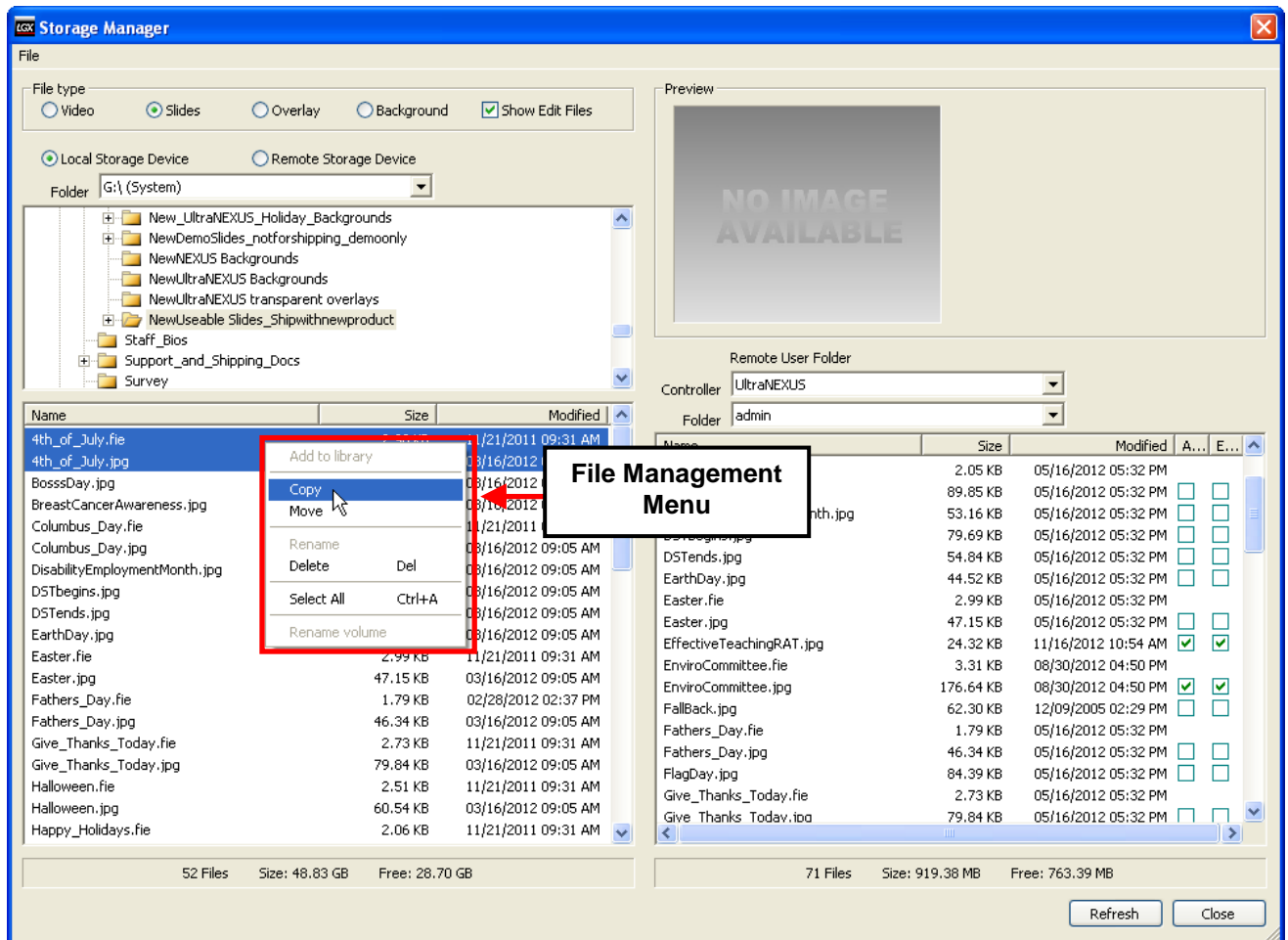
1. Select the "Slides" file type.
2. Select your storage devices on the right and left sides of the Storage Manager window (see "Choosing File Storage Devices," on page 328 for instructions).
3. Select the "Show Edit Files" option to list the .fie files for any slides originally created in a WebNEXUS 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 193, "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 194).

Illustration 194, Transfer Slide and Layer Files



- From the file management menu (see Illustration 194), 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 372, as applicable).

RETRIEVING LOG FILES

Each NEXUS series server/controller keeps track of everything done to or by it in internal log files. The NEXUS series 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.


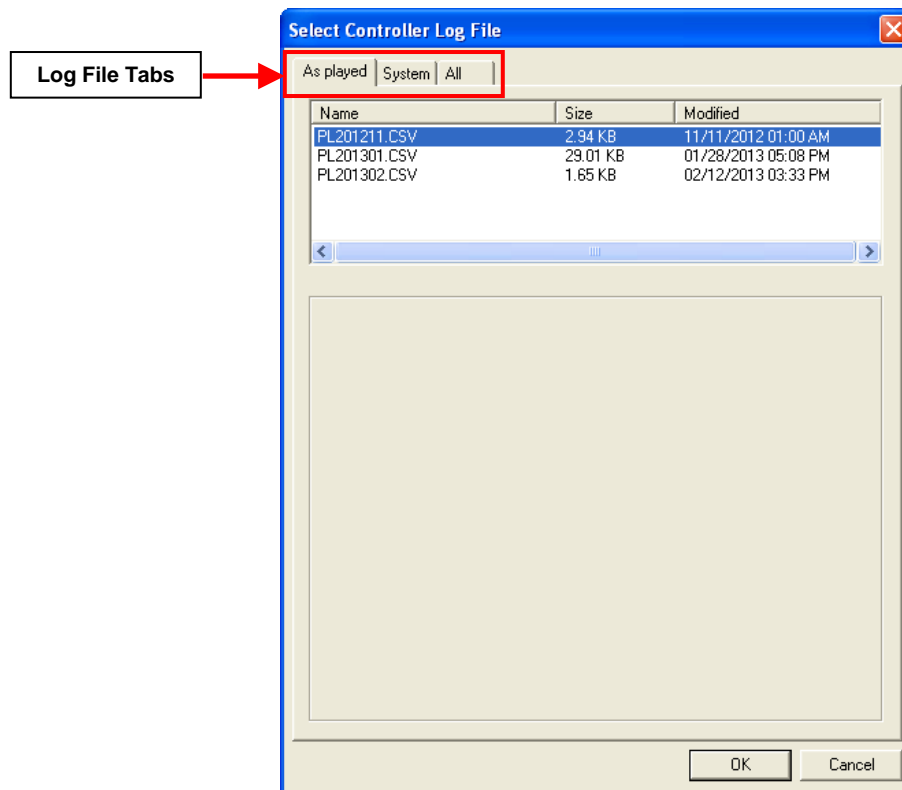
WinLGX allows you to access the NEXUS series log files with the “Get log” menu item under the “File” menu or  icon on the main toolbar. Selecting one of these options will display the "Select Controller Log File" Window shown in Illustration 195.

Illustration 195, "Select Controller Log File" Window



At the top of the “Select Controller Log File” window, you will see three different tabs for accessing the NEXUS series log files. Access the NEXUS series event, system, and firmware log files as follows:

Event Log Files

Especially useful for tracking playback events, each NEXUS series server/controller logs its event execution status into a .CSV file spreadsheet on a monthly basis (see Illustration 196). 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, 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 196, 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	Emergency	1:00:00	0:0
5	11/19/2007	8:30:00	Days	Exception	Out 1	1	1	In 5	5	Student G	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	0:0
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 A	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_R	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_R	0:01:30	0:0

To access event log files, perform the following steps:

1. Click on the "As played" tab on the "Select Controller Log File" window.
2. Single click on the desired .CSV file to select it and then click "OK."
3. 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").
4. 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.
5. Navigate to the file path for the saved .CSV file and open it in Excel.

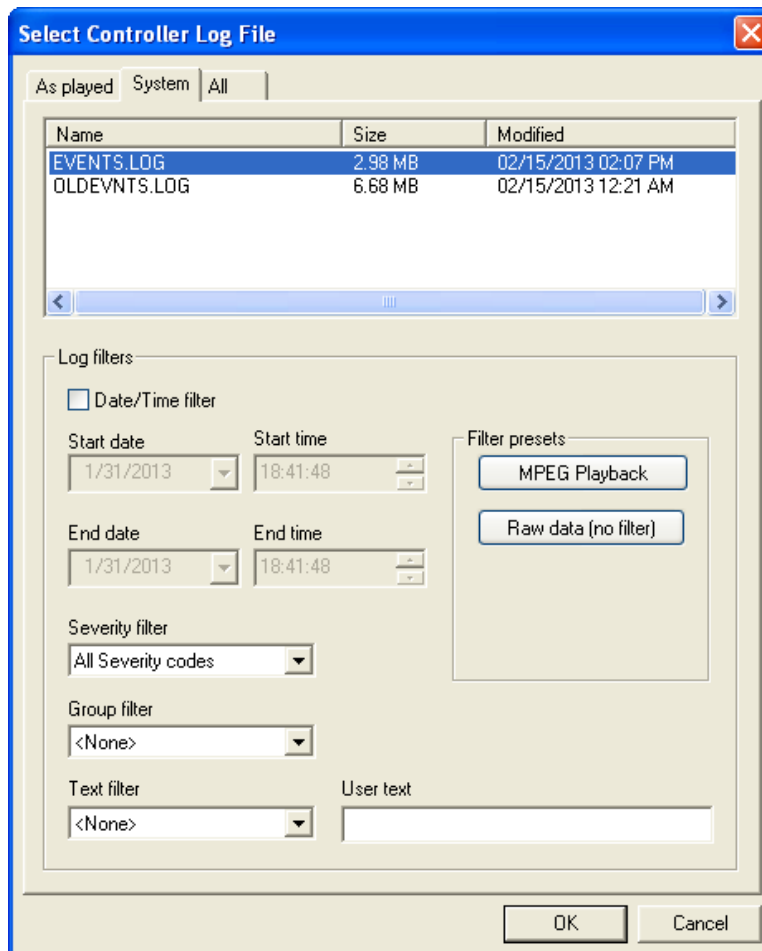
System Log Files

The NEXUS series system activity log files are called “EVENTS.LOG” and “OLDEVNTS.LOG.” When a new NEXUS series server/controller is powered on for the first time, it creates a file called “EVENTS.LOG.” The NEXUS series system will continually write to this file until it reaches 7 MB. Once “EVENTS.LOG” reaches 7 MB, the NEXUS 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 NEXUS series 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 197, “System” Tab on the “Select Controller Log File” Window).

Illustration 197, “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
 - **MPEG playback events of low severity:** click the “MPEG Playback” filter preset button to download all noncritical log records containing the text “MPEG Playback” 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 198, Example of Log File). This will also turn off the log LED  that appears on the NEXUS 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 123).

Illustration 198, Example of Log File

Date & Time	Severity Level	Action Type	Action
07/17/2006 9:38:51 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:38:56 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:39:01 AM	Sev:0	Remote	User Connect, IP Address:10.255.9.1
07/17/2006 9:39:01 AM	Sev:0	Remote	User Login, User: admin; IP Address:10.255.9.1
07/17/2006 9:39:02 AM	Sev:0	File	User Login request; IP Address:10.255.9.1; Request: USER admin
07/17/2006 9:39:03 AM	Sev:0	File	User Login successful; IP Address:10.255.9.1; Reply: 230 SuperUser
logged in, proceed.			
07/17/2006 9:39:03 AM	Sev:0	File	Retreive file request; IP Address:10.255.9.1; Request: RETR
C:\SCHEDULE\schedule.bin			
07/17/2006 9:41:45 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:42:18 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:42:55 AM	Sev:0	Remote	User Connect, IP Address:10.255.11.1
07/17/2006 9:42:55 AM	Sev:0	Remote	User Login, User: admin; IP Address:10.255.11.1
07/17/2006 9:43:04 AM	Sev:0	Remote	Edit user: aaron, By User: admin
07/17/2006 9:43:29 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:43:53 AM	Sev:0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
07/17/2006 9:43:53 AM	Sev:0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 SuperUser
logged in, proceed.			
07/17/2006 9:44:52 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:45:27 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:45:50 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR overlay.php
07/17/2006 9:47:15 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:47:44 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:48:49 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:49:18 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:49:38 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR
upload_overlay.php			
07/17/2006 9:50:03 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR overlay.php
07/17/2006 9:50:14 AM	Sev:0	Remote	Edit user: aaron, By User: admin
07/17/2006 9:50:54 AM	Sev:0	File	Send file request; IP Address:10.255.11.1; Request: STOR overlay.php
07/17/2006 9:50:55 AM	Sev:0	Schedule	PreEv Mon 9:50:55 AM, MPEG Player 1 Preload WD120:transformers_E2.mpg,
In:00:00:00:00:00, Title:transformers_E2,			
07/17/2006 9:50:59 AM	Sev:0	Schedule	EndEv Mon 9:50:59 AM, MPEG Player 1 Stop, Switch:out 1 In 6,
Title:transformers_E1,			
Comment:transformers_E1			

Each action performed through or by the NEXUS series server/controller 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:
 - Deck: actions based on PRO-BUS, DVply, and IR interface functions
 - Diagnostic: NEXUS series system health and status
 - File: actions involving files, typically file transfers (also NEXUS series image send/retrieve)

- Front Panel: actions performed based on commands given by user through the front panel of the NEXUS series system
- MPEG: MPEG 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 WebNEXUS interface
- Descriptive message of actions performed

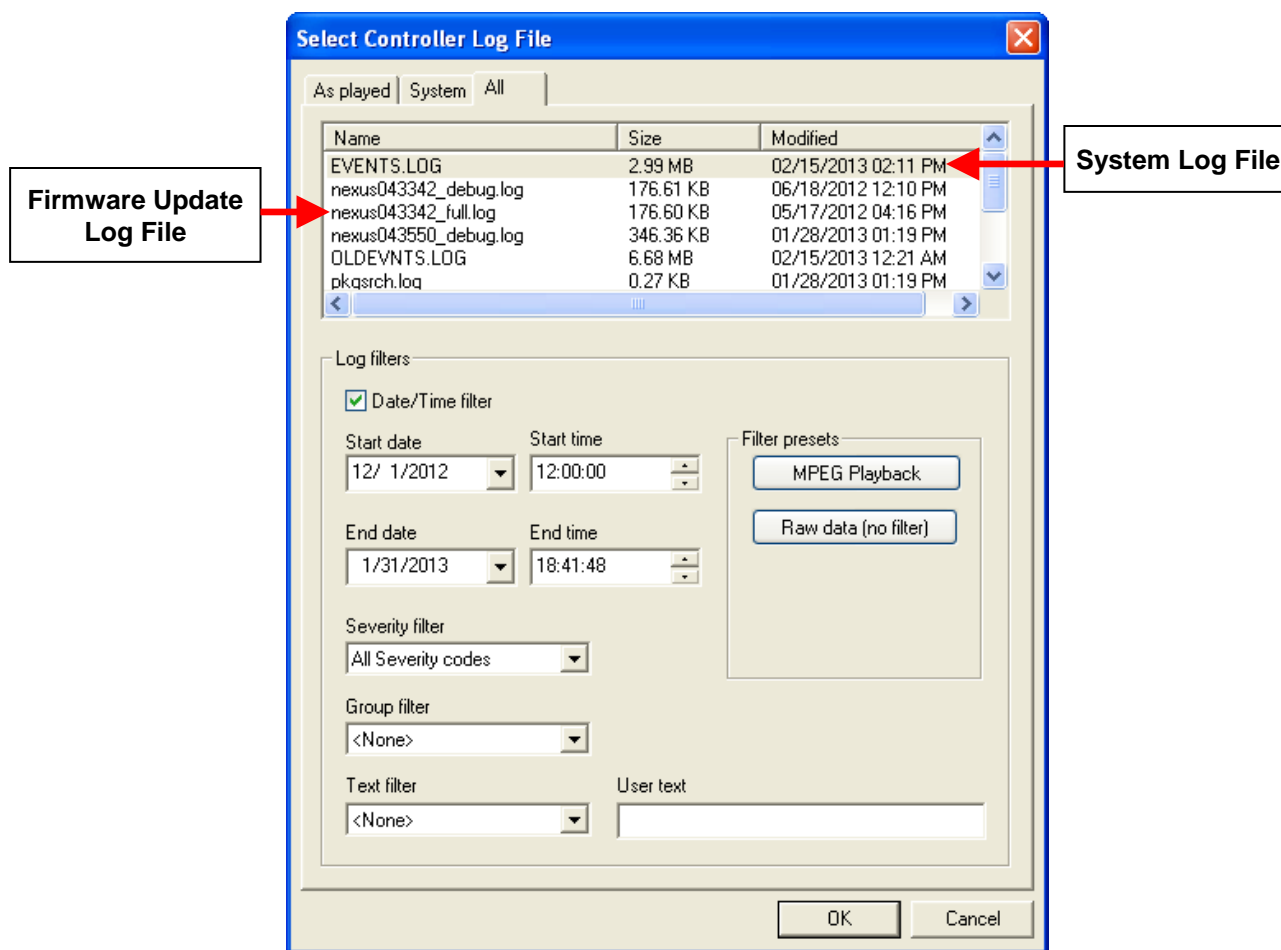
Firmware Update Log Files

Each NEXUS series server/controller creates log files that specifically track firmware updates. LEIGHTRONIX uses firmware update logs to troubleshoot unsuccessful firmware updates. A separate firmware update log is created each time you firmware update your NEXUS series system and is named after the corresponding firmware update file. To open a firmware update log file, perform steps 1–3 under “System Log Files.”

1. Click on the “All” tab on the “Select Controller Log File” window (see Illustration 199).

NOTE: System and event log files can also be accessed from the “All” tab.

Illustration 199, “All” 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 filter options as described in step 2 under “System Log Files.”
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 198, Example of Log File).

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 123).

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 NEXUS SERIES SERVER/CONTROLLER AND/OR DVPLY FIRMWARE

NOTE: Firmware updates can only be performed by the WinLGX "admin" user or users with "Administrator" rights.

1. Open the WinLGX software and log in to your NEXUS series system (see "Opening WinLGX and Connecting to NEXUS Series Server/Controller" on page 214).
2. Choose "Controller" under the "Tools" menu to open the "Controller" window shown in Illustration 200.

Illustration 200, Controller Window

Controller

Site information

Controller type: UltraNEXUS

Serial number: 0701AC V04.35.50D

Site name: UltraNEXUS [Set]

Site location: Columbia High School - Server Room

Time Zone: (GMT-05:00) Eastern Time (US and Canada) [v]

☒ Automatically adjust clock for daylight savings changes

Clock

Controller time: Fri Feb 15 14:27:35 2013

PC Current time: Fri Feb 15 14:27:33 2013 [Set]

User time: 2/15/2013 14:27:02 [Set]

Firmware update

File: <Unknown> [Browse...]

Version: [] Size: [] [Options... Update]

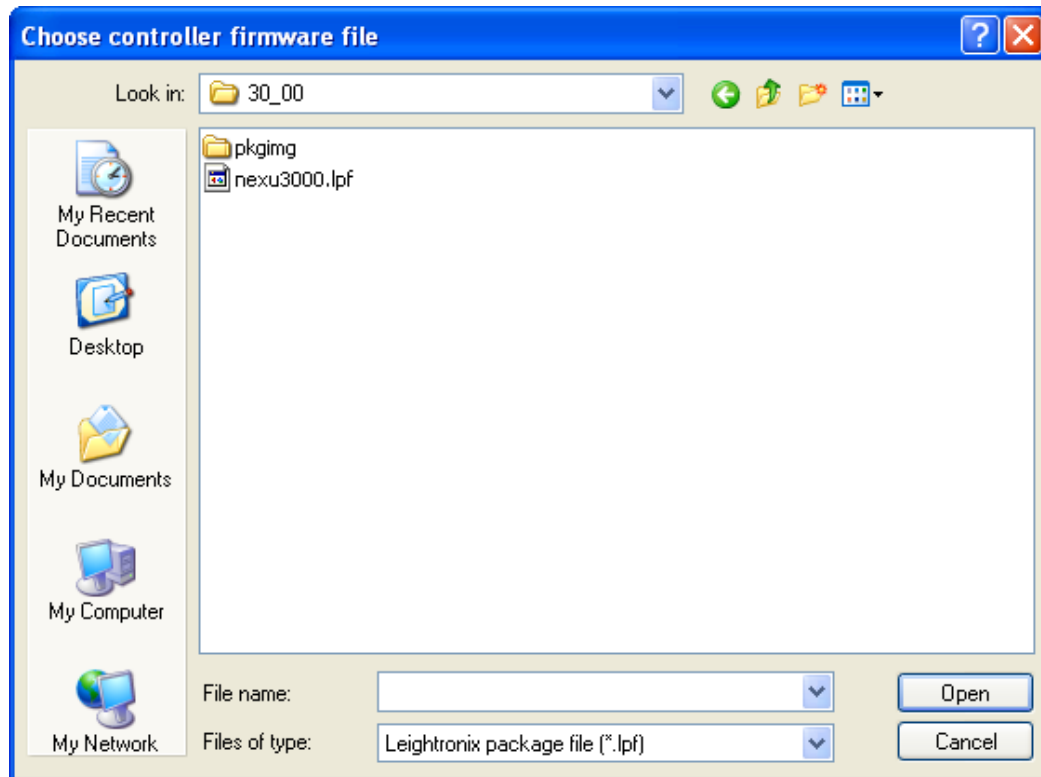
Reboot

Reboot the controller [Reboot]

[Close]

3. Under "Firmware update," click "Browse" to open the "Choose controller firmware file" window shown in Illustration 201.

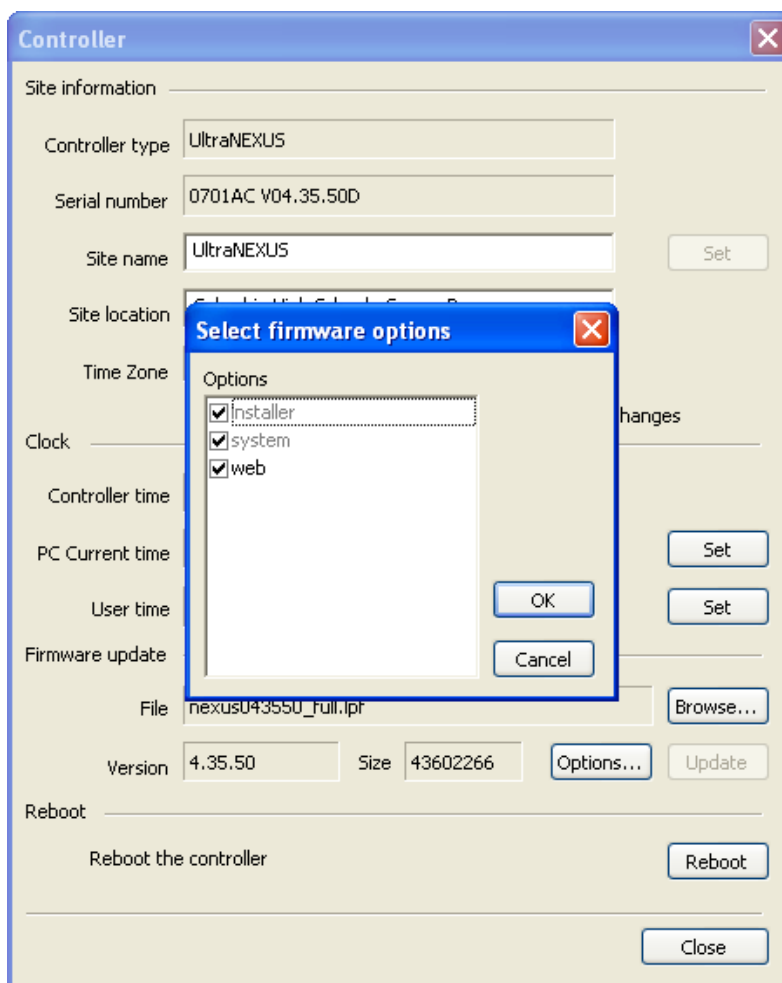
Illustration 201, “Choose Controller Firmware File” Window



4. Navigate to and open one of the following file types:

- **_____lpf**: updates your NEXUS series server/controller's firmware and, if needed, your WebNEXUS interface. Once you have selected and opened the file, the "Select firmware options" window is displayed (see Illustration 202). 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 202, “Select Firmware Options” Window



- **TascamDVply*.fmw**: updates your Tascam DVply firmware. DVply firmware may only be updated in this method for UltraNEXUS/NEXUS server/controllers with DVply firmware version 1.4 and above already installed. Use the NEXUS system's front panel display to check your DVply firmware version (see "Display" under the "NEXUS Series Front Panels" section on page 42 of this document for more information on viewing the NEXUS system's front panel screens).
NOTE: If your NEXUS series server/controller has an earlier version of DVply firmware installed, contact LEIGHTRONIX technical support at 800-243-5589 for further instructions.
 - **DVply*.fmw for Supported DVD Changer**: separate option for controlling a supported DVD Changer. Contact LEIGHTRONIX technical support at 800-243-5589 for more information on purchasing this option. The DVply ports can only control two Tascam DVD players or one supported DVD changer.
5. Click "Update" to continue the firmware update. Click "Yes" when prompted to start the update.

6. Once the update has completed, click “OK” to apply the changes and reboot the NEXUS series server/controller. 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 NEXUS series system finishes rebooting. The update may take several minutes.

7. After the NEXUS series system finishes rebooting, log back in and confirm the NEXUS system has been upgraded to the latest firmware version in the “Site Manager” database.

UPDATING WINLGX SOFTWARE

1. Close WinLGX.
2. Navigate to and open the WinLGX_vx.x.x.x_Installer.exe. Follow the prompts to install the latest version of the client software.
3. Click “OK” to continue WinLGX update.
4. Follow the prompts to complete the installation.

WEB CONTROL

ABOUT THIS SECTION

NOTE: The screen captures shown in this section were taken when logged into an UltraNEXUS. Screens for the NEXUS and UltraNEXUS-SDI will vary slightly, as noted.

Access your NEXUS series 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 MPEG files to specified destinations, record MPEG files, and view the NEXUS series 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 JPEG slides into their own user folders on the NEXUS series system's internal flash drive
- Specify slide availability settings for slide shows
- Add text and program guides to slides
- View NEXUS series system status

Some user accounts have access to additional WebNEXUS features, as outlined in Table 55. The "admin" user account has access to all WebNEXUS features. See "Setting User Account Rights (Including WinLGX Password Changes)" on page 109, for instructions on assigning rights to user accounts.

Table 55, 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	✓	✓			

NEXUS Series Web Control

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		✓			
UltraNEXUS-SDI and UltraNEXUS Only: configure file transfer destinations as well as enable recording of VOD files for PEG Central	✓		✓		
UltraNEXUS-SDI and UltraNEXUS Only: transfer MPEG files to another NEXUS series system, LGX-SVOD, FTP destination, and/or PEG Central	✓				✓
UltraNEXUS Only: record MPEG files and add PEG Central index points	✓		✓		
Display program guide	✓	✓			
View log files	✓				
Manage "System" settings	✓				
Create looping Virtual Channel playlists	✓				

OPENING AND LOGGING INTO WEBNEXUS


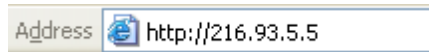
1. Open WebNEXUS through one of the following steps:
 - If you already have WinLGX open and are logged into the desired NEXUS series system's IP address, select "Web interface" from the "Tools" menu or click on the  toolbar icon to open WebNEXUS in your default web browser.
 - Enter your NEXUS series system's IP address into the address bar of a web browser (see Illustration 203 for an example).

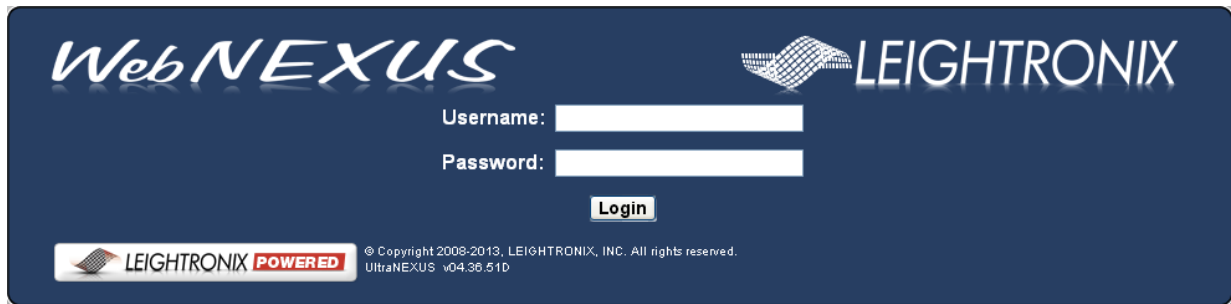
Illustration 203, Accessing NEXUS Series System from Internet Explorer



2. A login prompt will appear (see Illustration 204, Login Prompt). Enter your username and password.

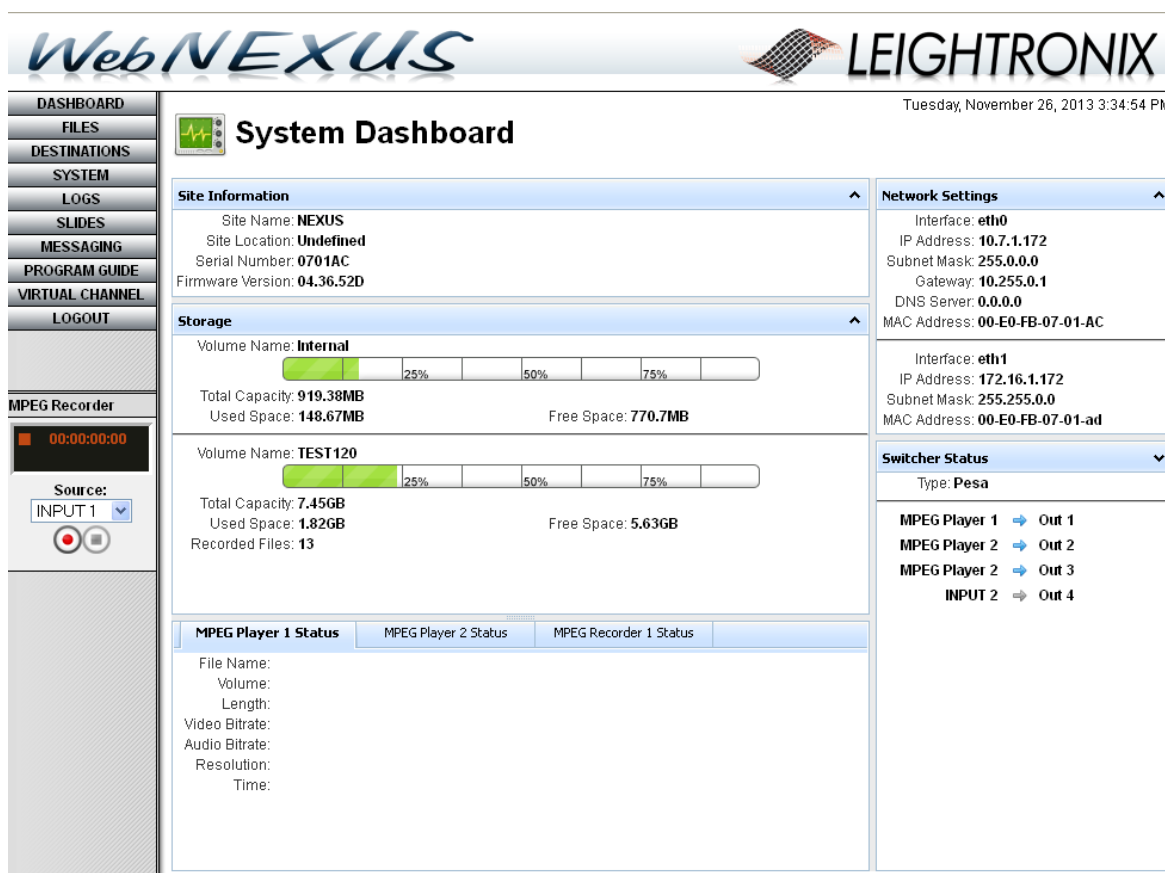
NOTE: Your username and password are assigned through WinLGX. Refer to "Setting User Account Rights (Including WinLGX Password Changes)," on page 109 for information on adding/editing usernames and passwords.

Illustration 204, Login Prompt



If login is successful, the window shown in Illustration 205, “System Dashboard” Screen, opens. All web-based control functions are accessible from the menu sidebar.

Illustration 205, “System Dashboard” Screen



“SITE INFORMATION”

Displays your NEXUS series system’s site information, including serial number and firmware version.

“STORAGE”

Displays the storage availability on your NEXUS series system’s compact flash drive and for any connected USB drive and NAS storage device.

MPEG PLAYER/RECORDER STATUSES

Displays the properties of the files currently playing on MPEG Players 1 and 2 and the file currently being recorded by the broadcast MPEG Recorder. Click the tab of the desired MPEG player or recorder to display the corresponding information.

“NETWORK SETTINGS”

Displays your NEXUS series system’s network addresses.

“SWITCHER STATUS”

Quick overview of which of your inputs are currently switched to the switcher outputs.

ULTRANEXUS-SDI / ULTRANEXUS ONLY: MANAGING MPEG AND VOD FILES

The WebNEXUS “File Management” and “File Destinations” screens give **UltraNEXUS-SDI** and **UltraNEXUS** owners the ability to enable video-on-demand (VOD) file recording and control MPEG and VOD file transfers from the Internet.

ENABLING/DISABLING VOD RECORDER

The UltraNEXUS-SDI / UltraNEXUS VOD recorder will not capture programming for the LEIGHTRONIX PEG Central streaming video-on-demand service until you enable the VOD recorder through WebNEXUS. To enable the VOD recorder, click the “Destinations” menu button, select the “PEG Central” tab, and then click to select the “Automatic Upload” checkbox. Send the setting change to your UltraNEXUS system by clicking the “Apply Changes” button.

Illustration 206, Video-on-Demand Streaming Enabled

“Automatic Upload” Checkbox

NEXUS/UltraNEXUS **PEG Central** LGX-5VOD FTP Server Record Settings

Automatic Upload: ☒ Automatically uploads newly recorded files when finished recording to this destination

Note: Enabling automatic upload for this destination causes the UltraNEXUS to record files optimized for Video-on-demand streaming. These are the files that will be uploaded.

Transfer Holdoff Schedule

	12AM	12PM	12AM
Sunday	Allow Transfer	Allow Transfer	Allow Transfer
Monday	Allow Transfer	Allow Transfer	Allow Transfer
Tuesday	Allow Transfer	Allow Transfer	Allow Transfer
Wednesday	Allow Transfer	Allow Transfer	Allow Transfer
Thursday	Allow Transfer	Allow Transfer	Allow Transfer
Friday	Allow Transfer	Allow Transfer	Allow Transfer
Saturday	Allow Transfer	Allow Transfer	Allow Transfer

☒ Allow Transfer
☐ Restrict Transfer

Apply Changes

Once enabled, the UltraNEXUS or an UltraNEXUS-SDI installed with a distribution amp will record both an MPEG and a VOD file each time a scheduled or manual record is initiated. The VOD files are automatically transferred to a LEIGHTRONIX streaming services site (contact LEIGHTRONIX for details on setting up a streaming VOD account). This process will continue until you disable the VOD recorder by unchecking the “Automatic Upload” box or use the WinLGX “No VOD file” override feature in scheduled or control panel recording events.

NOTE: If the UltraNEXUS-SDI VOD recorder is connected to a different switcher or video source output than the broadcast recorder, the same video source

input will have to be switched to the VOD recorder through a control panel or scheduled switch event before the recording event starts.

SETTING UP TRANSFER DESTINATIONS

Easily control where your recorded files are transferred by clicking the “DESTINATIONS” button and using the “File Destinations” screen tabs. Recorded files may be automatically or manually transferred to a NEXUS series server/controller, LEIGHTRONIX PEG Central streaming VOD website, LGX-SVOD, and/or third party server with FTP capabilities, as outlined below. The settings apply to each recording session until you change them.

NEXUS Series Video Server Destination

If you own another LEIGHTRONIX NEXUS series video server, you can send your MPEG files to any of the other server's storage volumes. Enter the destination NEXUS 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 207).

1. **“Verify Connectivity”**: after entering your NEXUS series unit's IP address, username, and password, click the “Verify Connectivity” button to ensure your UltraNEXUS/UltraNEXUS-SDI can connect to the destination server.
2. **“Automatic Upload”**: when selected, files will be automatically transferred to the specified NEXUS series system after each recording session.
3. **“Transfer Holdoff Schedule”**: 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS/UltraNEXUS-SDI will transfer files to your destination NEXUS series system. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).
4. **“Enable Auto-Play CH” (UltraNEXUS Only)**: once the “PEGcasting” option is enabled on the UltraNEXUS “Record Settings” tab (see “UltraNEXUS ONLY: Setting up MPEG File Record,” on page 359), you may choose to have a transferring file stream automatically begin playing on your second NEXUS series system's MPEG Player 1 and/or 2 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 on the selected channel(s).

Illustration 207, "NEXUS/UltraNEXUS" File Destinations Tab

File Destinations

NEXUS/UltraNEXUS PEG Central LGX-SVOD FTP Server Record Settings

IP Address: 10.7.19.38

Username: admin

Password: *****

Confirm Password: *****

Destination Volume: Vol1

Verify Connectivity

☒ Automatically uploads newly recorded files when finished recording to this destination

PEGcasting N2L (Next to Live) Broadcast

Enable Auto-Play CH1: ☐ Playback Delay: 02 Minutes

Enable Auto-Play CH2: ☐ Playback Delay: 02 Minutes

Automatic Upload:

Transfer Holdoff Schedule

	12AM	12PM	12AM
Sunday	Allow	Restrict	Allow
Monday	Allow	Allow	Restrict
Tuesday	Allow	Allow	Restrict
Wednesday	Allow	Allow	Restrict
Thursday	Allow	Allow	Restrict
Friday	Allow	Allow	Restrict
Saturday	Allow	Restrict	Allow

☒ Allow Transfer
☐ Restrict Transfer

Apply Changes

LEIGHTRONIX PEG Central Streaming Video-on-Demand Website

This option causes the UltraNEXUS-SDI / UltraNEXUS to record and transfer VOD files to the LEIGHTRONIX PEG Central Web hosting and streaming video-on-demand service. *The UltraNEXUS-SDI / UltraNEXUS encodes files for this destination at a default setting optimized for streaming.* Files that are successfully transferred are automatically deleted from the USB drives. Complete the settings according to the steps below and click the "Apply Changes" button when you have finished (refer to Illustration 208).

NOTE: The UltraNEXUS-SDI / UltraNEXUS will only record VOD files if the "Automatic Upload" option is checked for the "Internet VOD Streaming" destination.

1. **"Automatic Upload":** when checked, files will be automatically transferred to LEIGHTRONIX streaming video-on-demand site after each recording session.
2. **"Transfer Holdoff Schedule":** 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS/UltraNEXUS-SDI will transfer files to your destination NEXUS series system. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).

Illustration 208, "PEG Central" File Destinations Tab

File Destinations

NEXUS/UltraNEXUS **PEG Central** LGX-SVOD FTP Server Record Settings

Automatic Upload: ☒ Automatically uploads newly recorded files when finished recording to this destination

Note: Enabling automatic upload for this destination causes the UltraNEXUS to record files optimized for Video-on-demand streaming. These are the files that will be uploaded.

Transfer Holdoff Schedule

	12AM	12PM	12AM
Sunday	Allow	Restrict	Allow
Monday	Allow	Restrict	Allow
Tuesday	Allow	Restrict	Allow
Wednesday	Allow	Restrict	Allow
Thursday	Allow	Restrict	Allow
Friday	Allow	Restrict	Allow
Saturday	Allow	Restrict	Allow

☒ Allow Transfer
☐ Restrict Transfer

Apply Changes

LGX-SVOD Server

Enter your LGX-SVOD server's IP address, username, and password and then complete the remaining settings according to the steps below and click the "Apply Changes" button when you have finished (see Illustration 209).

1. **"Verify Connectivity"**: after entering your LGX-SVOD's IP address, username, and password, click the "Verify Connectivity" button to ensure your UltraNEXUS/UltraNEXUS-SDI can connect to the destination server.
2. **"Automatic Upload"**: when checked, files will be automatically transferred to the specified LGX-SVOD after each recording session.
3. **"Transfer Holdoff Schedule"**: 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS/UltraNEXUS-SDI will transfer files to your LGX-SVOD server. Single click each hour segment on the timeline to toggle transfer capabilities on or off (green = on, red = off).

Illustration 209, "LGX-SVOD" File Destinations Tab

DASHBOARD

FILES

DESTINATIONS

SYSTEM

LOGS

SLIDES

MESSAGING

PROGRAM GUIDE

VIRTUAL CHANNEL

LOGOUT

MPEG Recorder

00:00:00:00

Source:

INPUT 1

NEXUS/UltraNEXUS

PEG Central

LGX-SVOD

FTP Server

Record Settings

IP Address:

102551184

Username:

lgxmpegin

Password:

Confirm Password:

Verify Connectivity

Automatic Upload:

☒ Automatically uploads newly recorded files when finished recording to this destination

Transfer Holdoff Schedule

	12AM	12PM	12AM	
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Allow Transfer

Restrict Transfer

Apply Changes

LEIGHTRONIX, INC.
2014-09-10

Page 357
WinLGX ver. 7.0.2.49

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 210).

1. **"Verify Connectivity"**: after entering your server's IP address, username, and password, click the "Verify Connectivity" button to ensure your UltraNEXUS/UltraNEXUS-SDI can connect to the destination server.
2. **"Automatic Upload"**: when checked, MPEG broadcast files will be automatically transferred to the specified server after each recording session.
3. **"Transfer Holdoff Schedule"**: 7 day/24-hour timeline allows you to decide which hours of the week your UltraNEXUS/UltraNEXUS-SDI 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 210, "FTP Server" File Destinations Tab

File Destinations

NEXUS/UltraNEXUS PEG Central LGX-SVOD **FTP Server** Record Settings

IP Address: 10 255 5 11
Username: admin
Password:
Confirm Password:
Destination Path: Vol1

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

☒ Allow Transfer
☐ Restrict Transfer

ULTRANEXUS ONLY: SETTING UP MPEG FILE RECORD SETTINGS

From WebNEXUS, UltraNEXUS users can change their record quality and automation settings for MPEG 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 or “Cancel” to abort. The settings will be applied to every recording session until they are changed.

Illustration 211, "Record Settings"

The screenshot shows the 'File Destinations' web interface. On the left is a sidebar menu with options: DASHBOARD, FILES, DESTINATIONS, SYSTEM, LOGS, SLIDES, MESSAGING, PROGRAM GUIDE, VIRTUAL CHANNEL, and LOGOUT. Below this is the 'MPEG Recorder' section with a timer at 00:00:00:00, a 'Source' dropdown set to 'INPUT 1', and record/pause buttons. The main content area has a title 'File Destinations' and a sub-header with tabs: NEXUS/UltraNEXUS, PEG Central, LGX-SVOD, FTP Server, and Record Settings (which is active). The settings are organized into sections: 'Volume' with a dropdown set to 'Vol070BAA-10' and a description; 'File Name' with a text field containing 'session', a character limit note, and a 'Create Unique Files' checkbox with a description; 'File Quality' with four radio buttons (Best, Better, Good, Streaming) and their respective VBR and resolution specifications; 'PEGcasting' with an 'Enable' checkbox and a description; and 'Closed Captions' with an 'Enable Closed Captions' checkbox and a description. An 'Apply Changes' button is at the bottom.

- “Volume”: select the USB hard drive or NAS storage device that WebNEXUS broadcast file recordings will be added to
NOTE: VOD files are automatically deleted from your UltraNEXUS system’s storage once they are transferred to PEG Central
- “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).

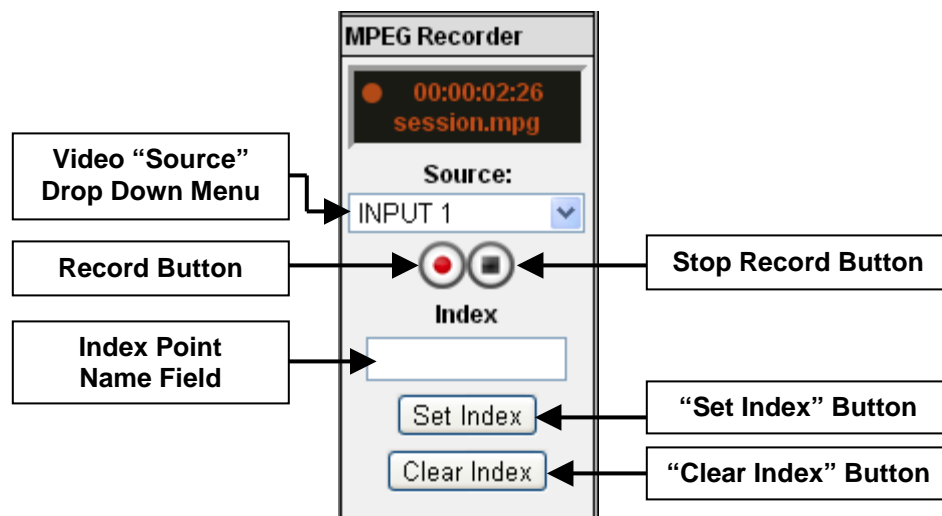
- “File Quality”: select a “File Quality” recording preset for your VOD files. Each recording quality preset represents the range of bit rates within which your broadcast files will be recorded.
NOTE: PEG Central and LGX-SVOD VOD files will always be recorded at the streaming quality bit rate.
- “PEGcasting”: if you want your recorded files transferred to a second NEXUS series server 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 “NEXUS/UltraNEXUS” tab (see “Setting Up Transfer Destinations,” on page 354).
- “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.

ULTRANEXUS ONLY: RECORDING

WebNEXUS allows UltraNEXUS users to immediately start/stop file recordings and add index point to any PEG Central VOD file that is being recorded. Start/Stop recording and add index points to your files through the “MPEG 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 “UltraNEXUS ONLY: Setting up MPEG File Record Settings,” on page 359 for instructions).

Illustration 212, MPEG Recorder Closeup



1. Choose the video source you want to record from the “Source” drop down menu. You may select one of your UltraNEXUS’s MPEG players or a video source connected to your switcher.
2. Click the record button to start recording your file.

3. LEIGHTRONIX LGX-SVOD and PEG Central VOD Streaming Service Users Only:
add video index points for use in PEG Central or other LEIGHTRONIX 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 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.
4. 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 MPEG FILES

Click the “Files” menu button to display the screen shown in Illustration 213. The “File Management” screen displays a “Video Files” listing of the MPEG video files on your UltraNEXUS system’s storage volumes and an MPEG/VOD file transfer queue.

NOTE: Ensure that any destinations you want to receive files have been configured on the “File Destinations” screen.

Illustration 213, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen

The screenshot shows the 'File Management' interface. On the left is a sidebar with navigation buttons: DASHBOARD, FILES, DESTINATIONS, SYSTEM, LOGS, SLIDES, MESSAGING, PROGRAM GUIDE, VIRTUAL CHANNEL, and LOGOUT. Below these is an 'MPEG Recorder' section with a 'Source:' dropdown set to 'INPUT 1' and a play/pause button. The main area is titled 'File Management' and contains a 'Video Files' table. A context menu is open over the first row of the table, showing options: Rename File, Delete File, Add for NEXUS/UltraNEXUS, Add for LGX-SVOD, Add for PEG Central (highlighted), Add for FTP Server, and Add for All Destinations. A red box highlights the table and the context menu. A red arrow points from a label '“Video Files” Listing' to the table. The table has columns: Files, Size, Added Date/Time, File, NEXUS, SVOD, PEG, FTP, and DELETE. The first row shows 'Gymnastics2010highlights.mpg' with a size of 3.44 and a date of 07/26/2013 10:56:24 AM. The second row is partially visible with 'Gymnastics2010...' and a size of 7.04. Below the table is a legend: a blue dot for 'Pending Transfer', a green dot for 'Currently Transferring', and a green checkmark for 'Completed Transfer'.

Files	Size	Added Date/Time	File	NEXUS	SVOD	PEG	FTP	DELETE
Gymnastics2010highlights.mpg	3.44	07/26/2013 10:56:24 AM	Gymnastics2010highlights.mpg					
Gymnastics2010...	7.04							

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

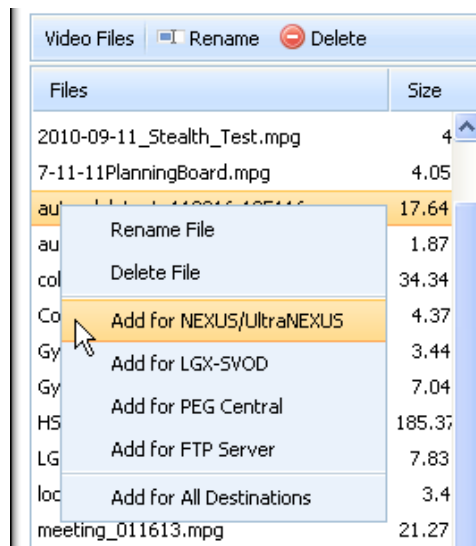
Under the “Video Files” listing, use one of the following methods to add an MPEG file to your transfer queue:

- Drag the desired file to the right side of the screen
- Double click the desired file
- Single click on the MPEG 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 213).

RENAME MPEG FILES

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 214). 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 214, Pop-Up Menu for "Video Files" Listing on the "File Management" Screen



DELETE FILES FROM STORAGE DEVICE/TRANSFER QUEUE

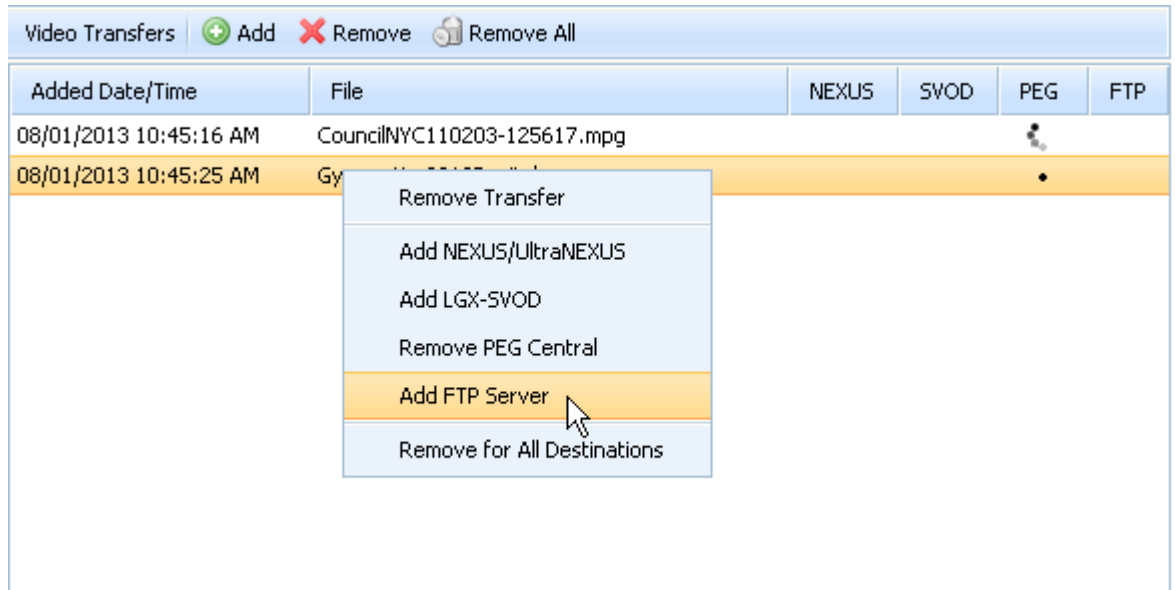
- **Storage Device:** under the “Video Files” listing, either single click on the file you would like to delete and then click the “Delete” button or just right click on the file and select “Delete File” from the pop-up menu. Click “Yes” when prompted to delete the file or “No” to abort.
- **Transfer 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

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 215). The remove options de-select current file transfer destinations, while the add options transfer the file to the corresponding destinations.

Illustration 215, 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 NEXUS series server keeps track of everything done to or by it in internal log files which are accessible from WebNEXUS. Click the “LOGS” menu button to display the list of current logs for your NEXUS series server on the “Log Files” screen (see Illustration 216 and Table 56).

Illustration 216, "Log Files" Screen

Name	Size	Date Created	Date Modified
EVENTS.LOG	3.98 MB	05/08/2013 06:45:02 AM	07/26/2013 07:00:00 AM
nexus043550_debug.log	345.33 KB	01/14/2013 08:29:34 AM	01/14/2013 09:53:48 AM
OLDEVNTS.LOG	6.68 MB	05/08/2013 06:45:02 AM	05/08/2013 06:45:02 AM
pkgsrch.log	277 B	01/14/2013 08:29:32 AM	01/14/2013 09:53:46 AM
PL201304.CSV	18.2 KB	04/01/2013 03:55:06 AM	04/30/2013 11:30:08 AM
PL201305.CSV	5.39 KB	05/01/2013 03:55:06 AM	05/16/2013 06:37:06 AM

Date/Time	Severity	Source	Message
05/08/2013 10:45:01 AM	1	Diagnostic	Deleted old Event Log file c:\log\OLDEVNTS.LOG, Modified: 05/02/2013 12:16:46
05/08/2013 10:45:02 AM	1	Diagnostic	Renamed Event Log file c:\log\EVENTS.LOG to old Event Log file c:\log\OLDEVNTS.LOG
05/08/2013 10:45:02 AM	0	Diagnostic	Created Event Log file c:\log\EVENTS.LOG, SN:077000, Ver:04.35.51D, IP:10.255.11.142, SM:2
05/08/2013 10:46:02 AM	0	MPEG Playback	1,00:02:24,Vol077000-01:\totalinfo\sports.mpg
05/08/2013 10:47:14 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:47:14 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:47:14 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:47:15 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:47:15 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:47:15 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:47:15 AM	0	File	Send file request; IP Address:10.255.11.1; Request: STOR files_help.php
05/08/2013 10:47:54 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:47:54 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:47:54 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:47:54 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:47:54 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:47:54 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:47:54 AM	0	File	Send file request; IP Address:10.255.11.1; Request: STOR files_help.php
05/08/2013 10:48:31 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:48:31 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:48:31 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:48:31 AM	0	File	User Login request; IP Address:10.255.11.1; Request: USER admin
05/08/2013 10:48:31 AM	0	File	User Password entry; IP Address:10.255.11.1
05/08/2013 10:48:31 AM	0	File	User Login successful; IP Address:10.255.11.1; Reply: 230 User "admin" logged in.
05/08/2013 10:48:31 AM	0	File	Send file request; IP Address:10.255.11.1; Request: STOR files_help.php

Table 56, Log File Types

Log File Type	Description
Playback Event	<p>Each playback event log file is a monthly record of MPEG video and slide playback events scheduled on your NEXUS series system (see Illustration 196 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 event descriptors, including the status of each event. Event execution results are logged in the file’s “Result” column, with</p>

Log File Type	Description
	“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.
System Event	<p>The NEXUS series system activity log files are called “EVENTS.LOG” and “OLDEVNTS.LOG” (see Illustration 198 for example). When a new NEXUS series system is powered on for the first time, it creates a file called “EVENTS.LOG.” The NEXUS series system will continually write to this file until it reaches 7 MB. Once “EVENTS.LOG” reaches 7 MB, the NEXUS 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 NEXUS series system, such as when a particular program aired, user logins, file transfers, all schedule event actions, and more. Refer to page 340 for more detailed information on system event logs.</p>
Firmware Update	NEXUS series server systems create 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 NEXUS series server and is named after the corresponding firmware update file.
Disk Diagnostics	The “scan_C.log” file displays information from the most recent NEXUS series server drive scan performed with the “Disk Diagnostics” utility. The “scan_C.log” file is automatically overwritten each time you run a drive scan.

Manage your NEXUS series 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

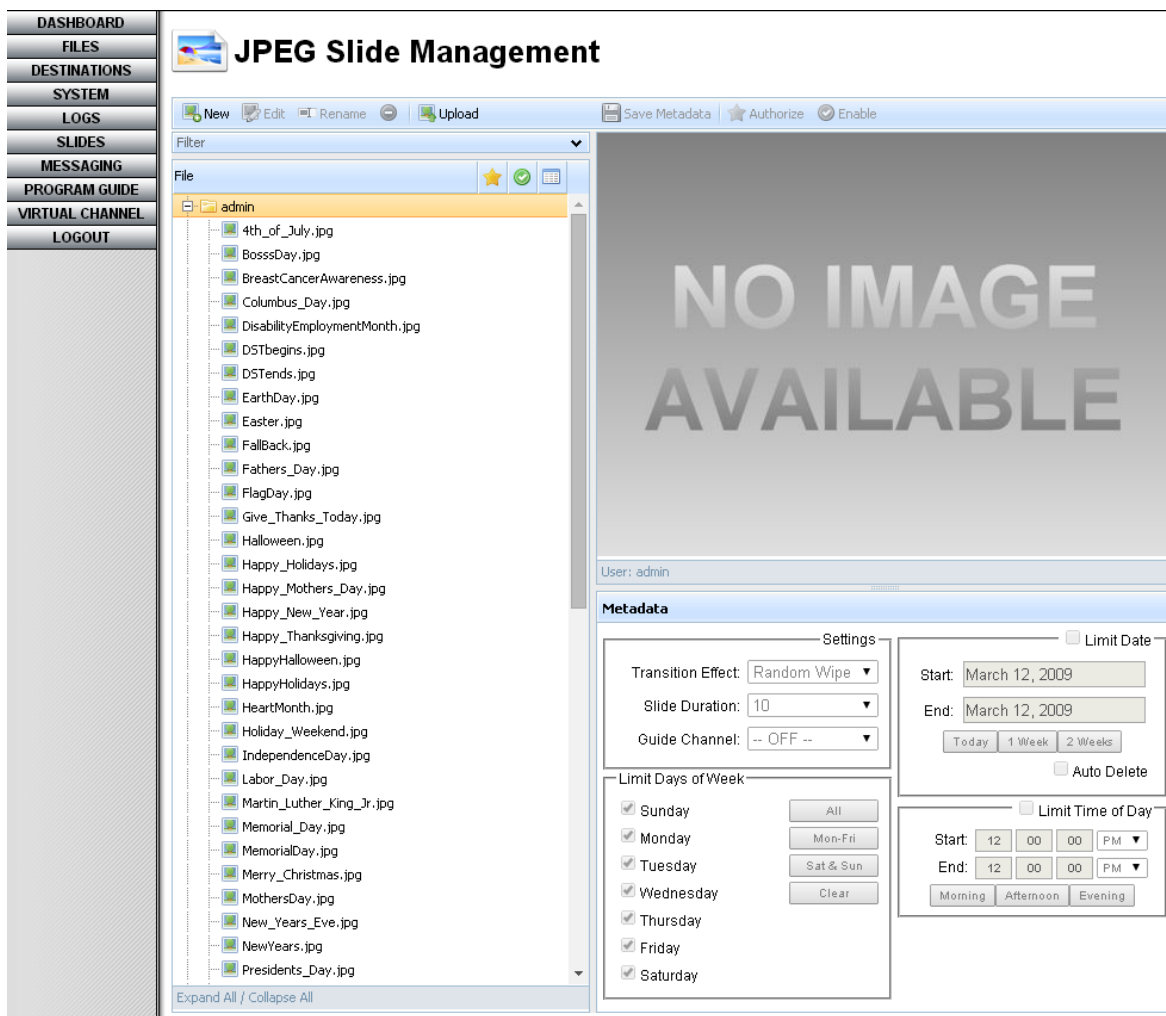
From the top panel on the “Log Files” screen, single click the desired log file to select it and then click the “Delete Log” button. A popup box will appear, asking whether or not you wish to delete the file. Click “Yes” to delete or “No” to abort.

MANAGING SLIDES

Click the “Slides” menu button to display the "JPEG Slide Management" Screen (see Illustration 205, “System Dashboard” Screen). The WebNEXUS slide management screen allows all users to upload, create, edit, and delete slides in their own user account folders on your NEXUS series 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 389 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 217, "JPEG Slide Management" Screen



UPLOADING SLIDES TO A NEXUS SERIES SERVER/CONTROLLER

NOTE: Slides within each user folder play back in alphabetical order when scheduled in slide shows, so assign filenames accordingly.


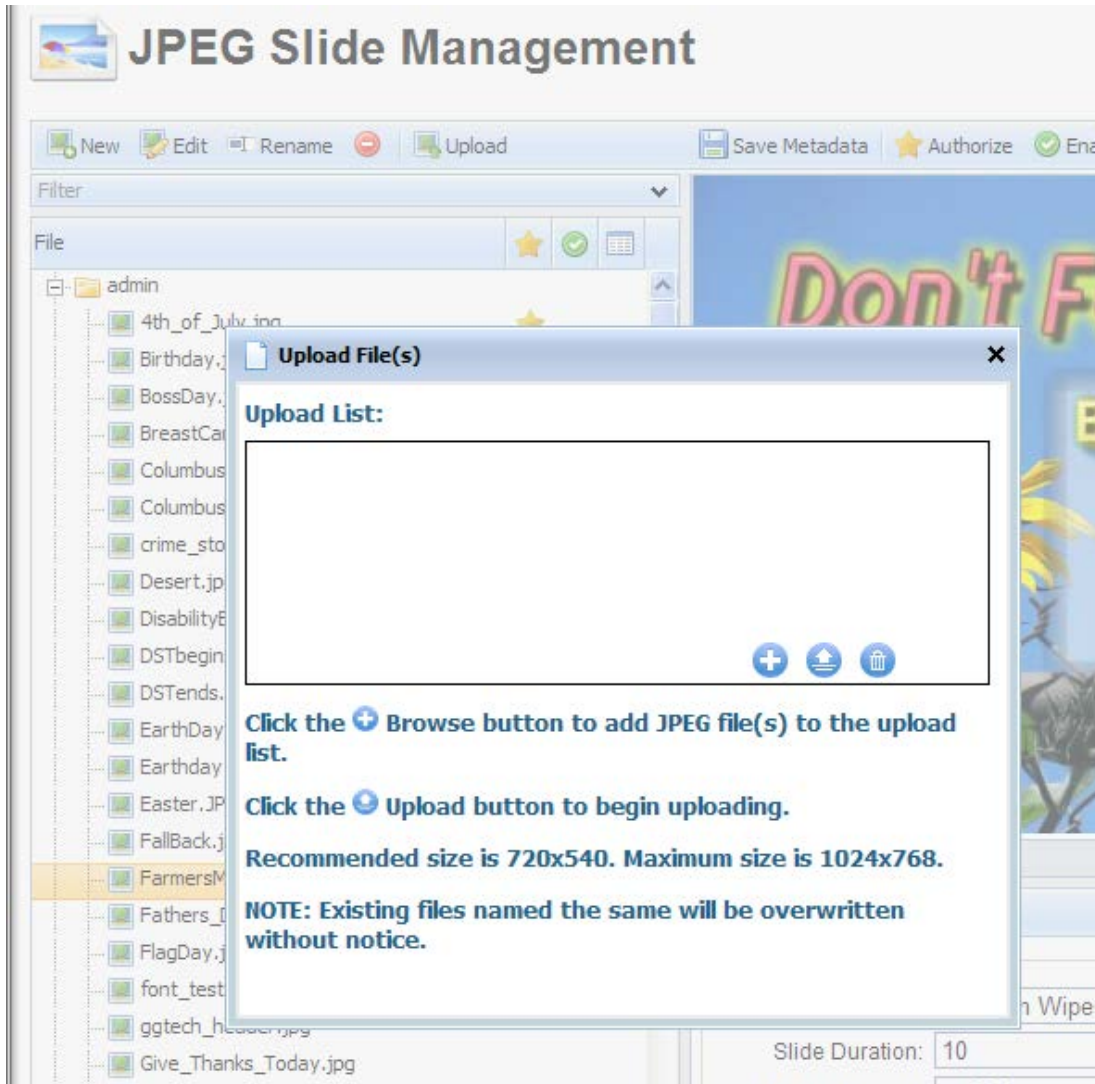

1. In the “File” list on the lefthand side of the screen, single click on the user folder you want to contain the slide.
2. Click the  button to open the upload file window shown in Illustration 218.

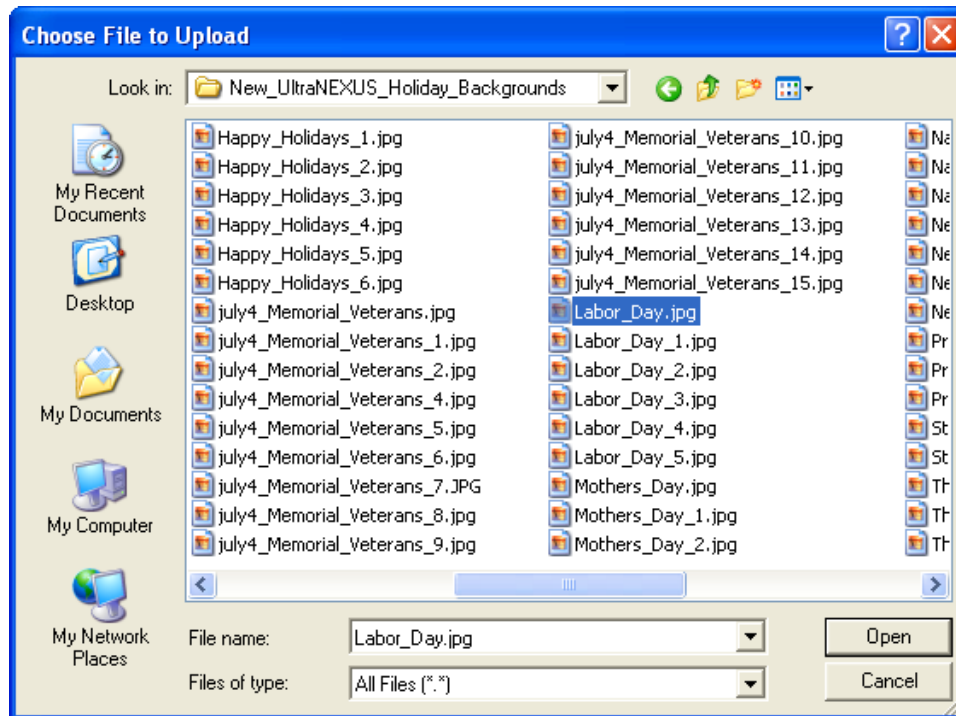
Illustration 218, New Slide Upload Window



3. Click the  browse button to open the “Select file(s)” window shown in Illustration 219. Navigate to the desired file and click “Open.”

NOTE: NEXUS series server/controllers only support slide names containing up to 27 characters (no spaces) in addition to the “.jpg” extension.

Illustration 219, “Choose File to Upload” Window







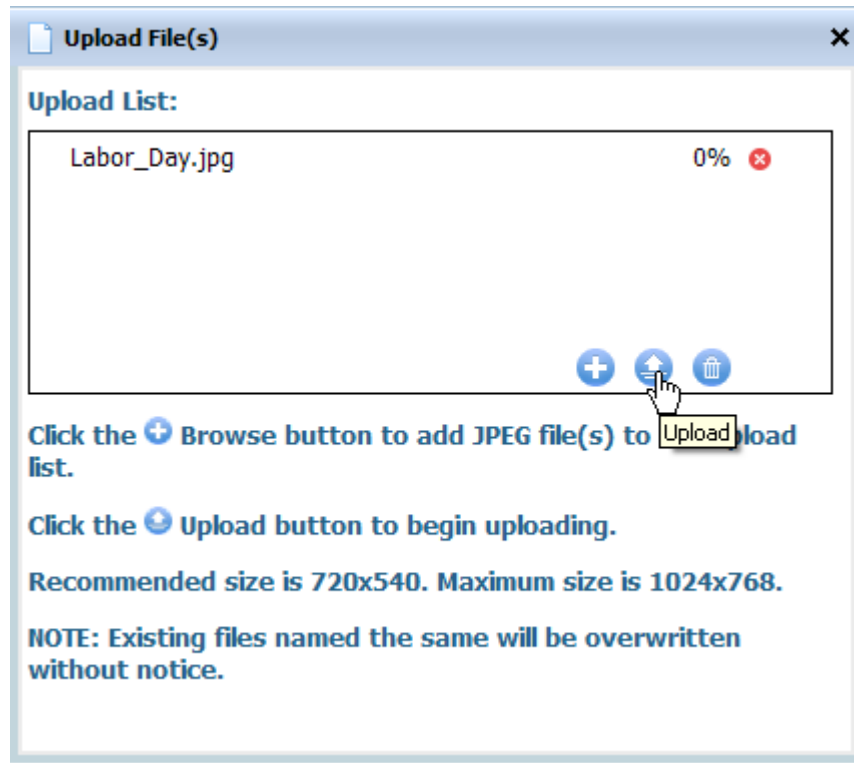
4. WebNEXUS allows you to add and remove slides from the “Upload File” window as follows:
 - Add slides: to upload a batch of slides, click the plus  button and repeat step 3 for each additional slide.
 - Remove one slide: click the red “x”  button next to the slide you wish to remove.
 - Remove all slides: click the blue trash  button to clear the upload file listing.
5. Click the  upload button to load the slide(s) onto the NEXUS series system or “Cancel” to abort the change (see Illustration 220). When each slide has finished loading, the “Upload File(s)” window will indicate the slide is “100%.”

Illustration 220, "Upload File" Window



6. 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 NEXUS series server slide editors. The NEXUS includes a basic slide editor that allows users to upload their own images or select from included images and then add text and/or graphics. The UltraNEXUS and UltraNEXUS-SDI come with an Advanced Slide Editor, which builds on the NEXUS slide editor functions to provide enhanced drawing and image effects tools as well as the ability to capture images from your webcam.

NOTE: Throughout this section, screen captures of the Advanced Slide Editor are used to illustrate the text and descriptions of its more advanced features are also included. Some features are only available to UltraNEXUS and UltraNEXUS-SDI users and are excluded from the NEXUS slide editor. Contact the LEIGHTRONIX sales department to learn more about upgrading to an UltraNEXUS.



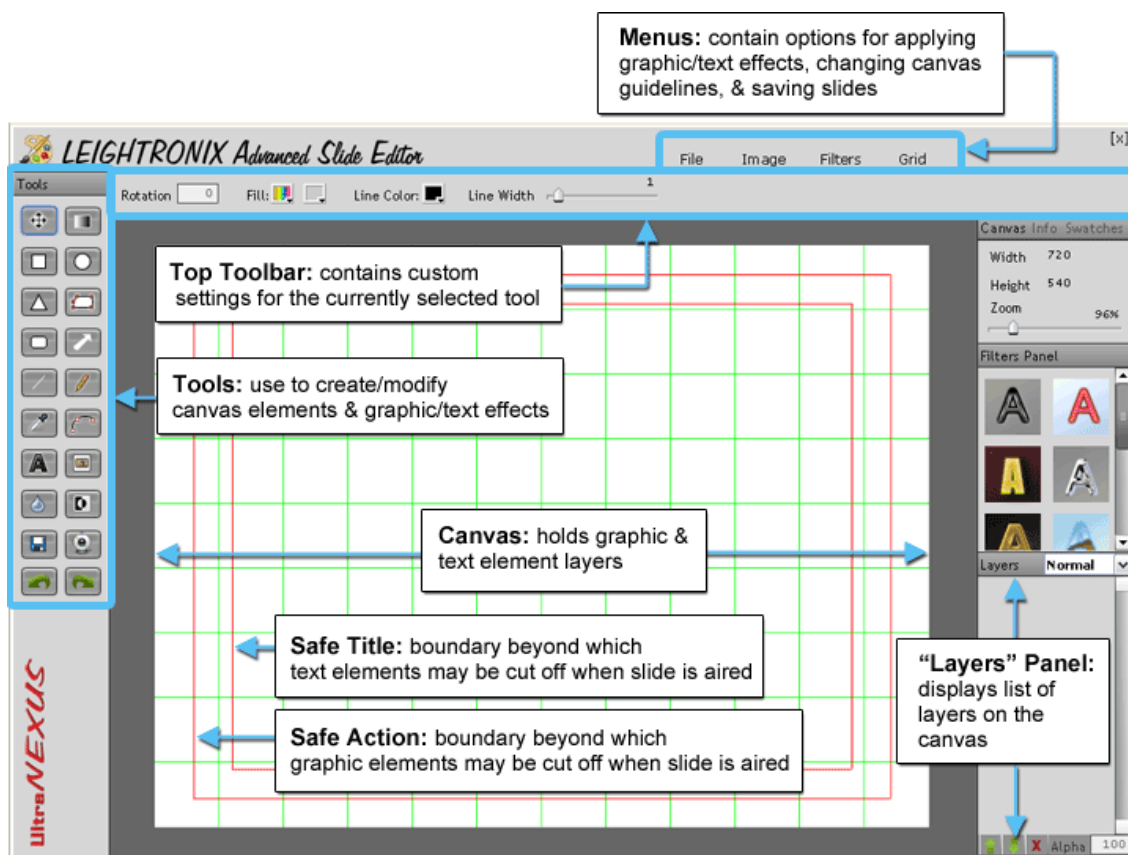
Click the  button on the “JPEG Slide Management” screen to open your NEXUS series server’s slide editor window (see Illustration 221, Advanced Slide Editor Window and Illustration 222, Advanced Slide Editor Toolbox) or, if you have already been working in your slide editor, select the “File”/“New” menu 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.

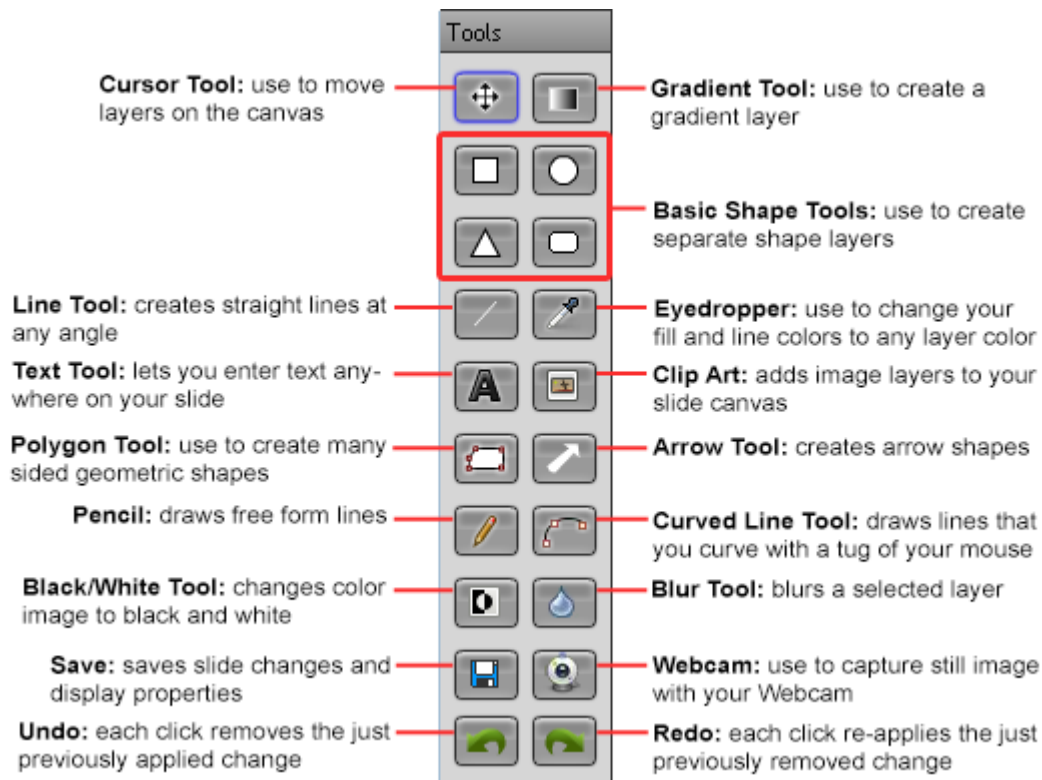
Illustration 221, Advanced Slide Editor Window



1. 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.
2. Add graphics and/or text to the slide editor’s canvas using the tools in the editor’s toolbox (see Illustration 222). 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.

NOTE: Some tools are not available in the NEXUS slide editor.

Illustration 222, Advanced Slide Editor Toolbox



Layer Management

When adding your layers, keep in mind the following slide editor layer management features:



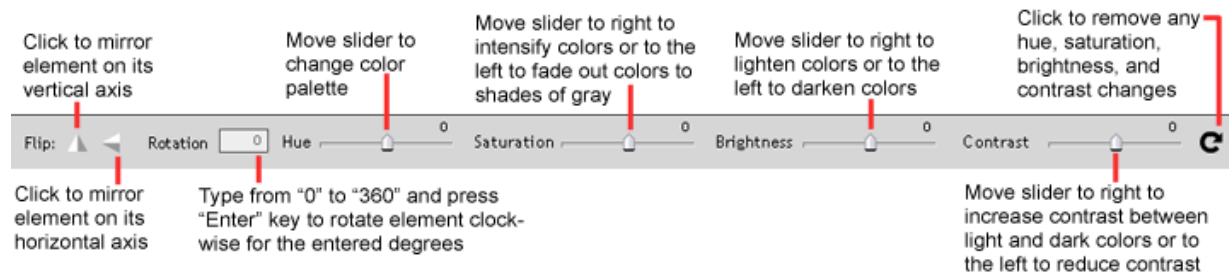

- **Zoom (UltraNEXUS/UltraNEXUS-SDI Only):** if no layer is selected, the “Canvas Info” panel displays the width and height of the canvas in pixels, while also providing a zoom slider for viewing the canvas in more or less detail.
- **Delete:** to remove a layer from your slide, select the layer on the 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 (UltraNEXUS/UltraNEXUS-SDI Only):** each slide editor also provides a universal graphic toolbar that provides display settings for any layer type except text (see Illustration 223). 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 223, first select the layer on the canvas with the cursor tool or by clicking on its layer in the “Layers” panel.

Illustration 223, 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.”
 - **UltraNEXUS/UltraNEXUS-SDI only: 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 system to access your webcam by clicking the “Allow” option (see Illustration 224). 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 224, 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**


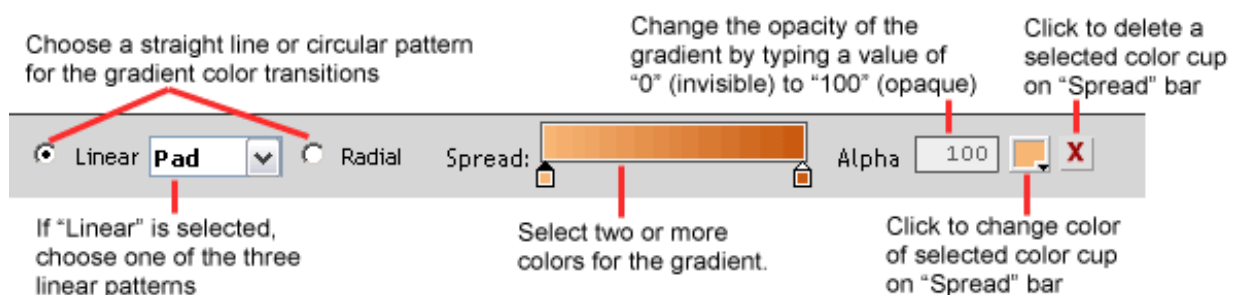
An easy way to create a background for your slide is with the  gradient tool. Click the gradient tool and select your gradient color, pattern, and opacity from the gradient toolbar at the top of the editor (see Illustration 225) according to the following:

Illustration 225, 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
- **“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.

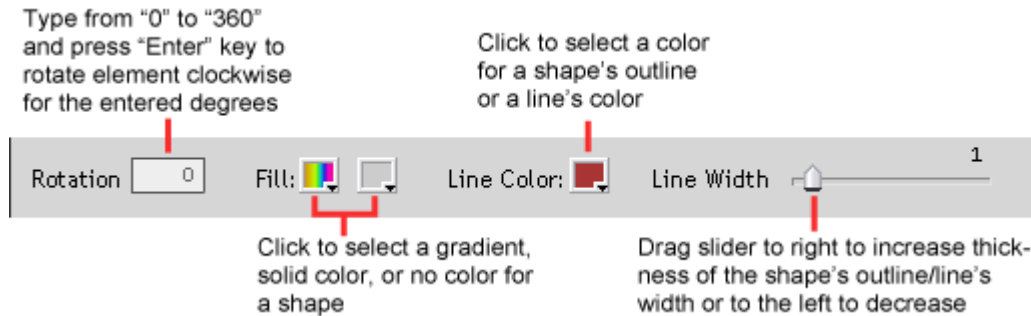
- **Shapes**

Click the desired basic shape tool or, for UltraNEXUS/UltraNEXUS-SDI users, the polygon or arrow shape tool (see Illustration 222, 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.

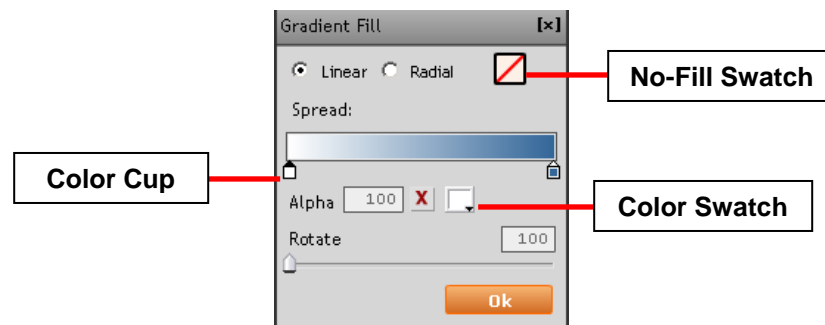
Use the shape/line toolbar at the top of the editor (see Illustration 226) to select the shape's fill and outline color, outline width, and orientation according to the following:

Illustration 226, Shape Toolbar



Shape Gradients: clicking on the gradient fill swatch will open the window shown in Illustration 227. When you have finished selecting your gradient settings based on the following information, click “Ok” to make your changes.

Illustration 227, "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 226) 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 (UltraNEXUS/UltraNEXUS-SDI only):** 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 (UltraNEXUS/UltraNEXUS-SDI only):** 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**


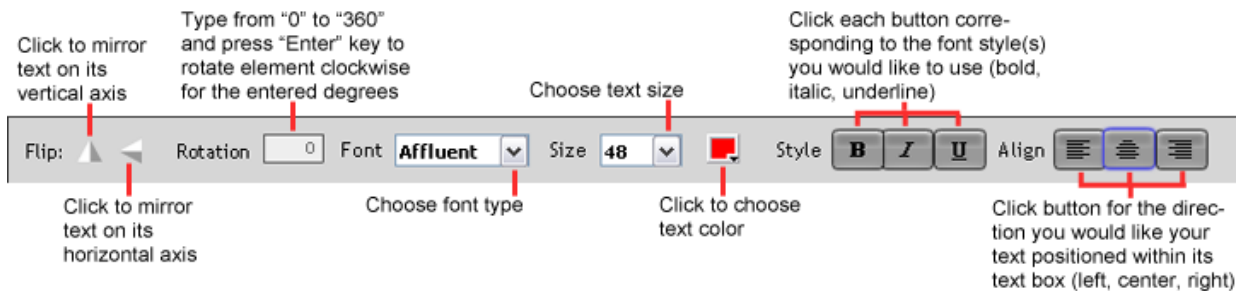
Click the  text tool. Use the text toolbar that appears at the top of the editor (see Illustration 228) to select the orientation, font, font size, and color.

Illustration 228, 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.

3. 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:


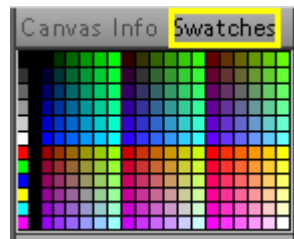

- **Layer Position:** when a layer is selected, the “Canvas Info” panel displays the position of the layer along the canvas’s x and y axes. The x/y position values for the selected layer may be changed by typing a new value into either or both fields and pressing the “Enter” key.
- **Layer Size**
When 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 229). Click on one of the color swatches to select a new color.

Illustration 229, "Swatches" Tab Panel





- **Image Saturation (UltraNEXUS/UltraNEXUS-SDI Only)**

Desaturate: click the  black/white tool to remove the color from a selected image layer.

- **Text Filter Effects (UltraNEXUS/UltraNEXUS-SDI Only):** clicking a text filter effect icon will cause selected text to take on the look depicted by the filter icon (see Table 57, Text Filter Effects).



Table 57, Text Filter Effects


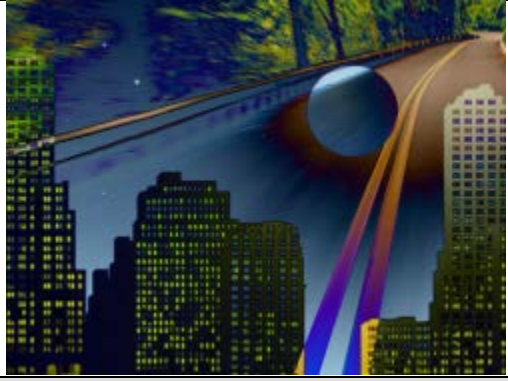


Filter Icon	Effect Name	Result
	Black Plastic	
	Candy	
	Casino	
	Chrome	
	Gold	
	Horizon	
	Horizon2	
	Mercury	





Filter Icon	Effect Name	Result
	Metal	
	Neon	
	Plastic	
	Water	

- **Layer Blend Modes (UltraNEXUS/UltraNEXUS-SDI Only):** 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 58, Layer Blend Modes, for a description of each blend mode.


Table 58, 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	
"Lighten":	Blends the selected layer with the layer(s) below it, putting the lighter of the colors from each layer on the surface	
"Multiply":	Blends the selected layer with the layers below it by multiplying the layers' RGB color values together for a darkening effect	
"Overlay":	Blends the selected layer with the layer(s) below it by lightening the lighter pixels and darkening the darker pixels in each layer	
"Screen":	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	

Filter Effect	Result
"Subtract":	Subtracts the RGB color values in the selected layer from RGB color values in the underlying layer(s)



- **Layer Filters (UltraNEXUS/UltraNEXUS-SDI Only)**

- **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 230, "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.


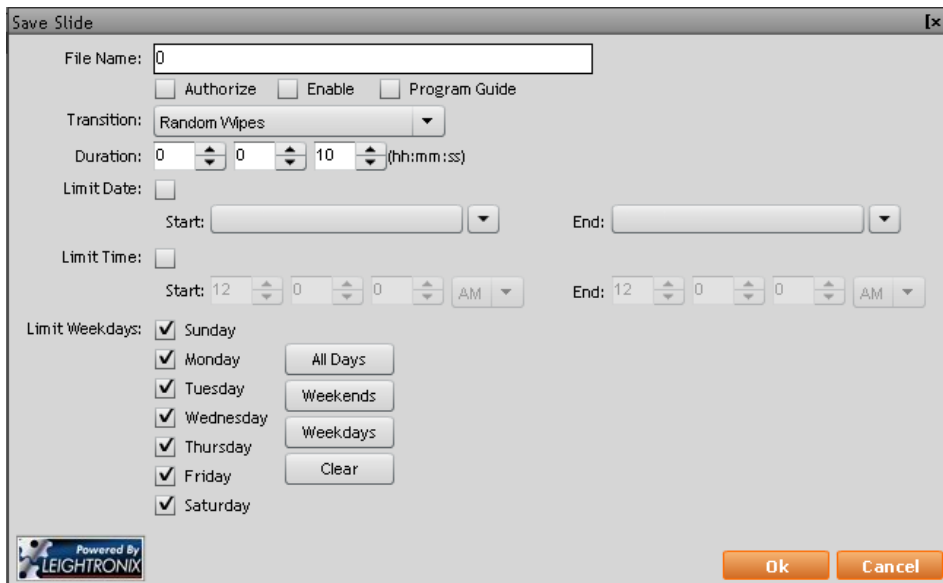
4. When you have finished making changes, save your slide by clicking the  save icon or selecting the “File”/“Save” menu option. The “Save Slide” window shown in Illustration 231 will appear, allowing you to add metadata to your slide that will control display of the slide in slide shows. Perform the following:

Illustration 231, “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 389 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 387, 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 NEXUS series server for editing in your slide editor (see “Managing Storage of Video, Slide, and Overlay,” starting on page 327).

CREATING A DEFAULT SLIDE

Create a default slide that will automatically display if a slide show is scheduled without slides or without approved slides.

1. Select the “admin” user folder in the “File” list. Your NEXUS series 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.
2. Upload the slide you would like to serve as the default (see “Uploading Slides to a NEXUS Series Server/Controller,” on page 369).
3. Rename the slide to “Default.jpg” (see “Renaming Slides on a NEXUS Series Server/Controller,” on page 391).
4. Approve the slide for display (see “Approving Slides for Display in Slide Shows,” on page 389).

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.

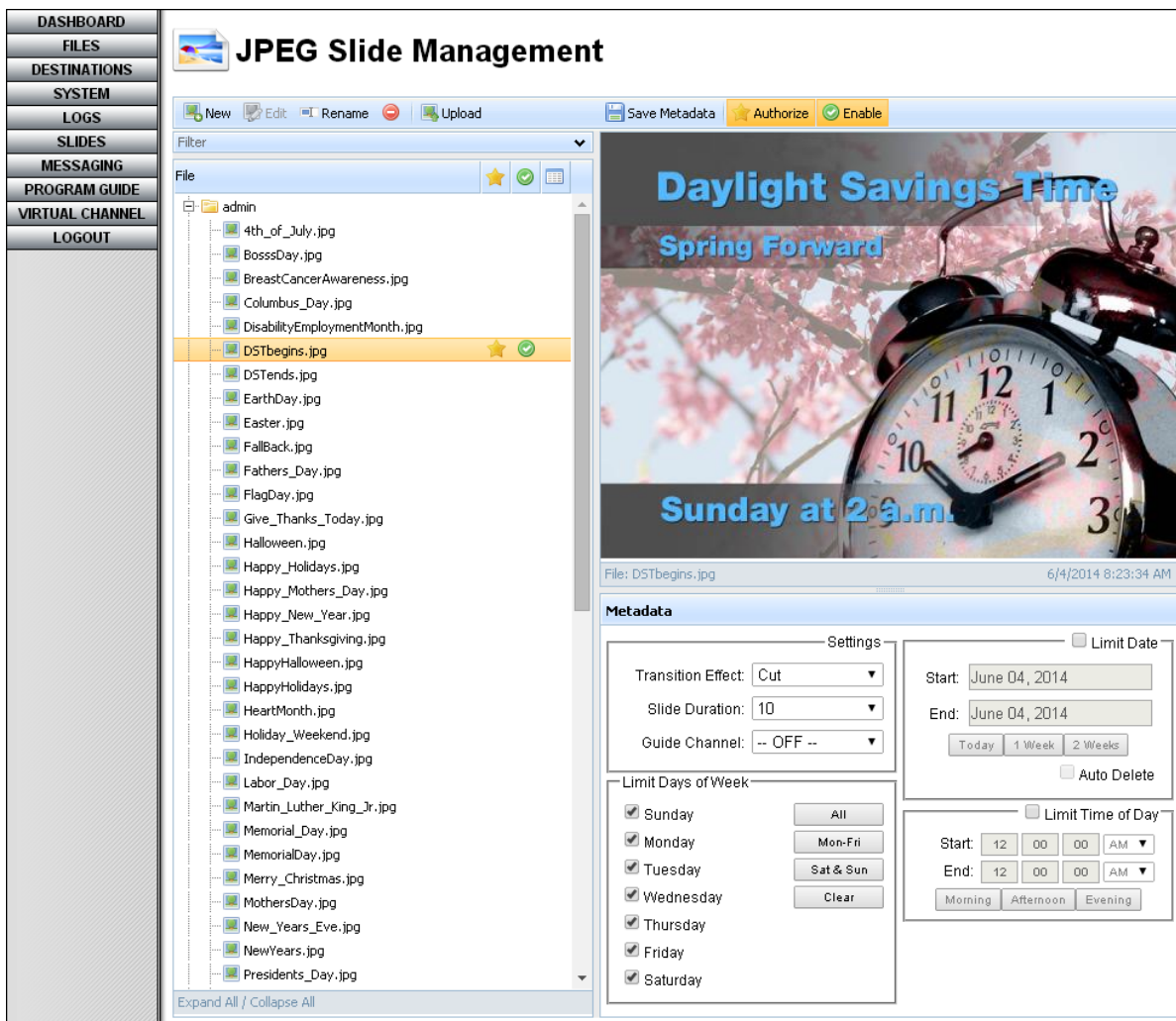
ADDING SLIDE SHOW SETTINGS TO SLIDE METADATA

Each NEXUS series 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 274, 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.**

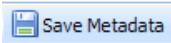
1. Select the desired file in the “File” list to enable the metadata fields on the right side of the slide management screen (see Illustration 232, Slide Metadata Fields). The following settings may be modified:

Illustration 232, Slide Metadata Fields



- **“Transition Effect” drop down list:** select from the following to determine how the slide will be displayed on screen:
 - “Cut”: displays entire slide image at once
 - “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 105, Example of Onscreen Program Guide, on page 203). 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 NEXUS series system 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
- 2. 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.
- 3. If desired, enable and authorize the slide for display in slide shows according to “Approving Slides for Display in Slide Shows” on page 389.

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.

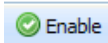

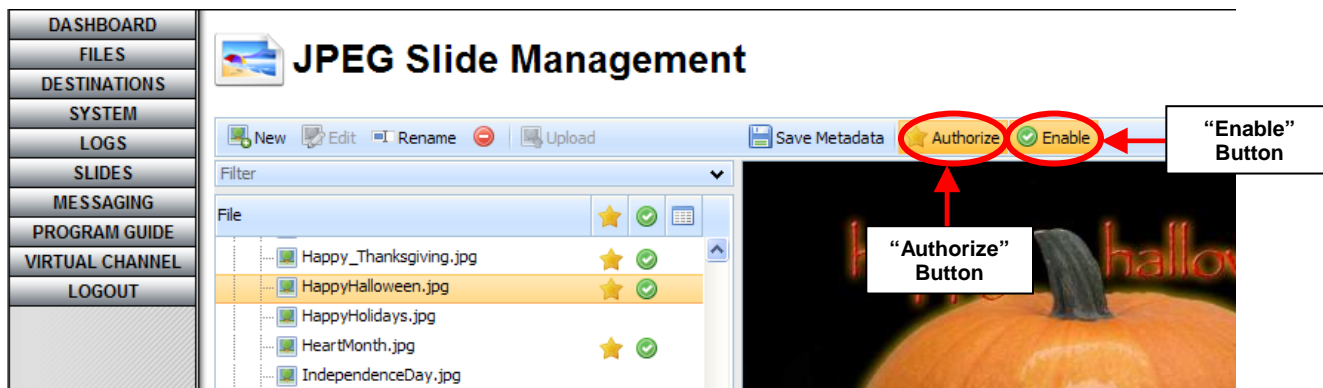
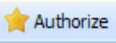
- **“Enable” Slides:** when set, the “Enable” setting tells your NEXUS series server that the slide is allowed to be included in slide shows. Each user has the ability to enable slides in his own user folder, while the “admin” user and users with the “Slide Administrator” right can change the “Enable” 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 NEXUS series server 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 (Including WinLGX Password Changes),” on page 109 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 233, WebNEXUS Authorize and Enable Buttons, throughout the following steps):

Illustration 233, 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  button. The  authorization icon appears in the “File” list next to each slide authorized for display in slide shows.

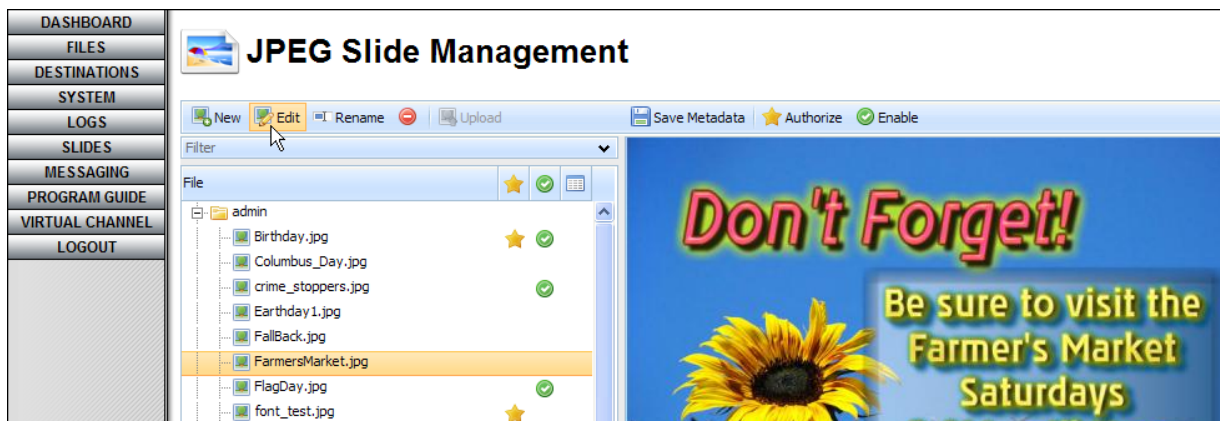
EDITING SLIDES CREATED IN WEBNEXUS

WebNEXUS gives you the ability to edit any slides created in your NEXUS series server/controller’s slide editor. Perform the following steps:

NOTE: Slides can only be changed in the editor used to create them.

1. From the “JPEG Slide Management” screen, single click on the slide you wish to edit in the “File” list (see Illustration 234). When selected, the slide will be highlighted in orange.

Illustration 234, WebNEXUS Slide Editing Feature



2. If the selected slide can be modified in your slide editor, the “Edit” button will be enabled. Click on the “Edit” button (see Illustration 234) to display your selected slide in the slide editor window for your system.
3. Edit your slide with any of the formatting options described in steps 2 and 3 of the “Creating New Slides” section on page 372

4. 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 4 of the “Creating New Slides” section on page 385.

RENAMING SLIDES ON A NEXUS SERIES SERVER/CONTROLLER

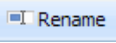
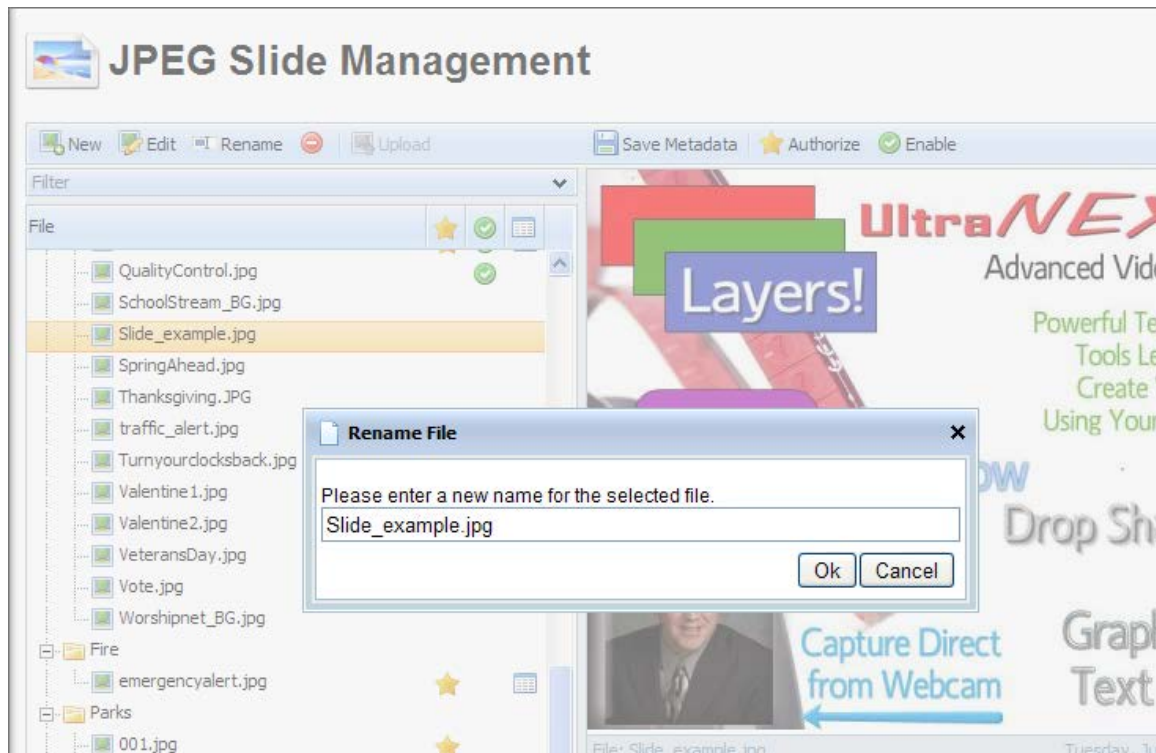

1. Single click to select the desired file in the “File” list.
2. Click  icon to open the rename window shown in Illustration 235.

Illustration 235, “Rename File” Window



3. Enter up to 27 characters in the rename field.
4. Click the “Ok” button to make the change or “Cancel” to abort.

DELETING SLIDES FROM A NEXUS SERIES SERVER/CONTROLLER

1. Select the desired file in the “File” list.
2. Click the  icon. A dialog box will appear asking whether or not you would like to delete the selected slide from the NEXUS series server/controller. Click “Yes” to make the change or “No” to abort.

CREATING EMERGENCY MESSAGES

NOTE: Only the “admin” user and users with the “slide administrator” right are able to access the emergency messaging screen.

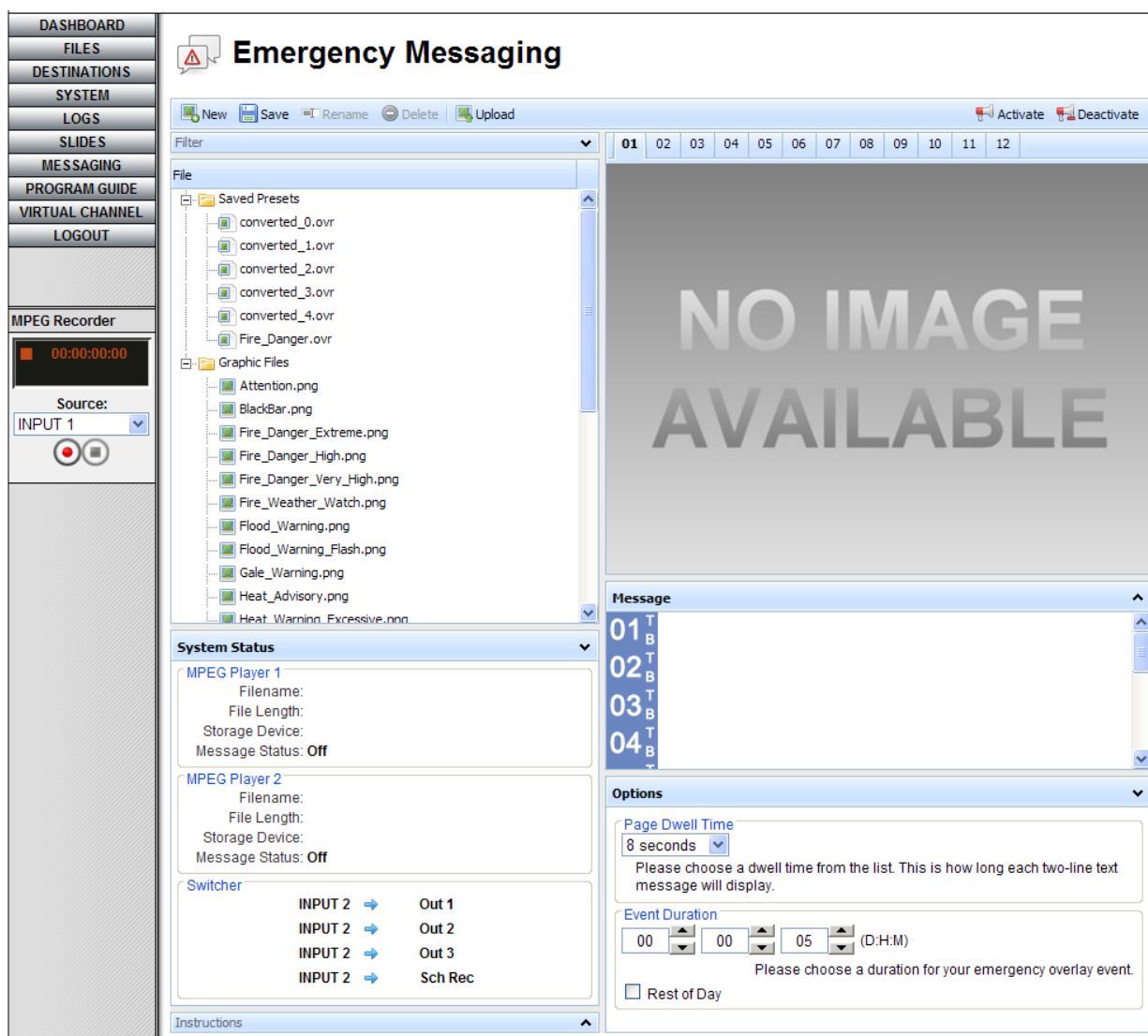
Use the emergency messaging feature to immediately alert viewers to weather conditions, school closings, road construction, and any other urgent events. You have the option of displaying a partial or full screen graphic with or without a text message over scheduled and unscheduled (activated from the Control Panel) digital programming.

The emergency message will be displayed by the selected MPEG player for the specified duration or until the message is manually deactivated. WebNEXUS offers varying levels of emergency messaging activation, so that you may choose to have your emergency message displayed on whichever channel the selected MPEG player(s) is currently switched to or switch and lock the selected player to its associated channel (MPEG Player 1 to Channel 1 or MPEG Player 2 to Channel 2). If you are using the UltraNEXUS/NEXUS server’s internal switcher, you may even display your emergency message with MPEG Player 1 on all three rear panel outputs in one click.

To create an emergency message, click the “Messaging” menu button to open the emergency messaging screen (see Illustration 236, Emergency Messaging Screen) and perform the following steps:

NOTE: To display the emergency messaging steps on the “Emergency Messaging” screen, click the expand/collapse arrow button on the “Instructions” panel.

Illustration 236, Emergency Messaging Screen



CREATING A NEW EMERGENCY MESSAGE

1. If you need to clear a previously entered emergency message, click the “New” button.
2. 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.


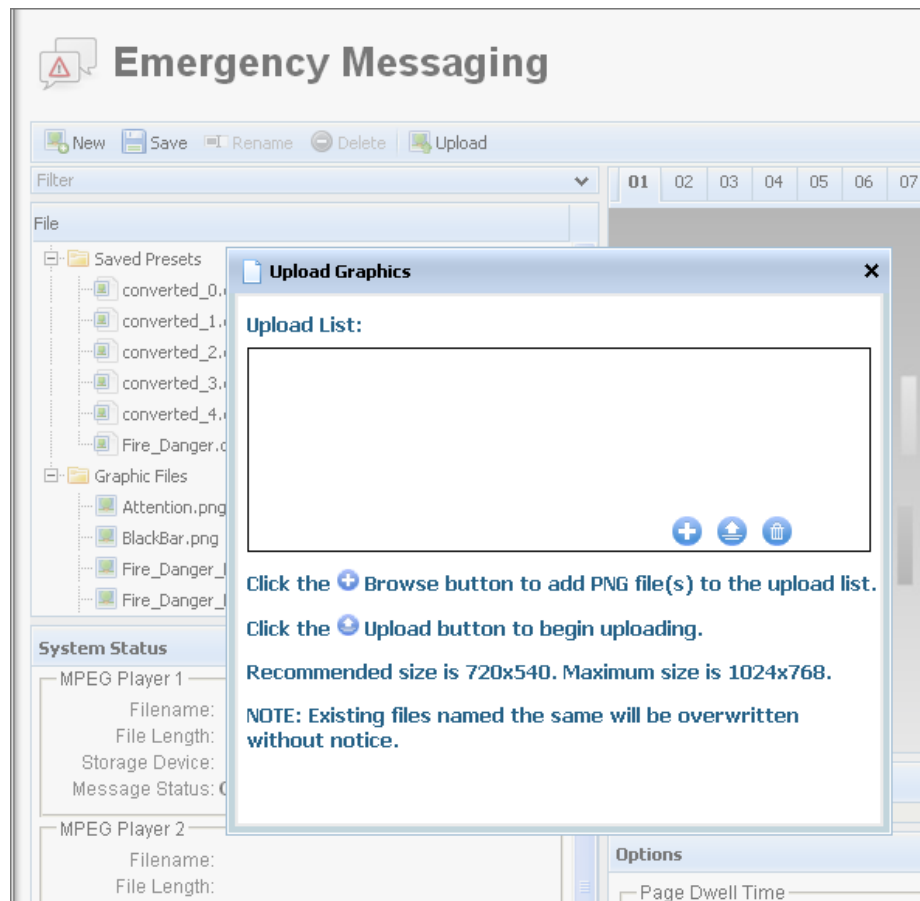
- Click the  button and add your own overlay through the “Upload Graphics” window (see Illustration 237).
- NOTE:** The emergency messaging feature utilizes “.png” files. These images can be created in most popular graphics programs. PNG files can contain transparent areas, allowing your MPEG player programming to be seen behind your overlays.

Illustration 237, New Graphic Overlay Upload Window




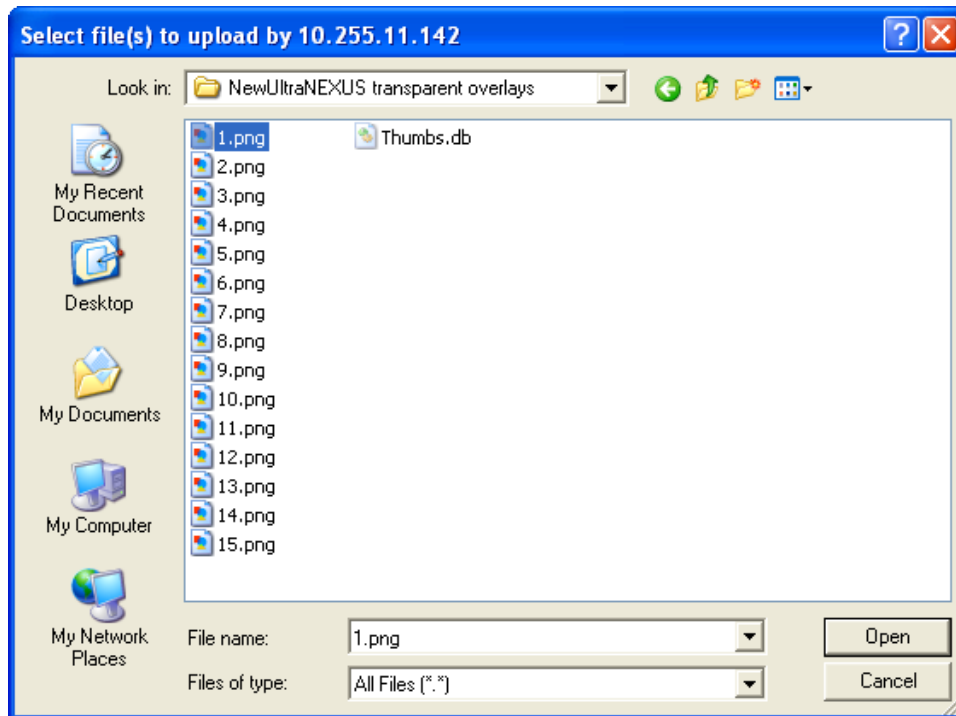
- Click the  browse button to open the “Select file(s)” window shown in Illustration 238. Navigate to the desired file and click “Open.”
- NOTE:** NEXUS series server/controllers only support overlay names containing up to 27 characters (no spaces) in addition to the “.png” extension.

Illustration 238, "Select file(s)" Window







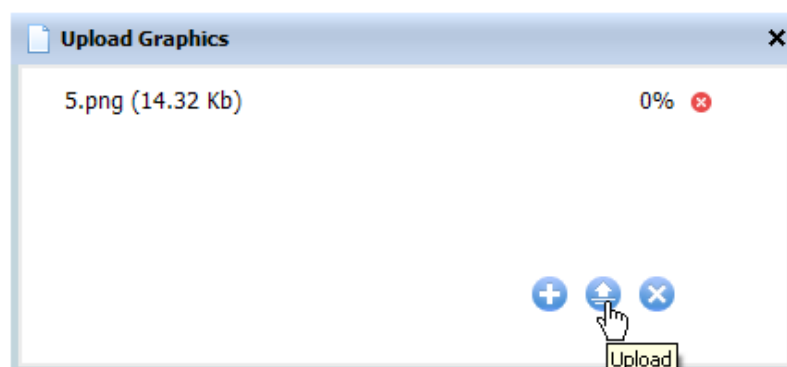
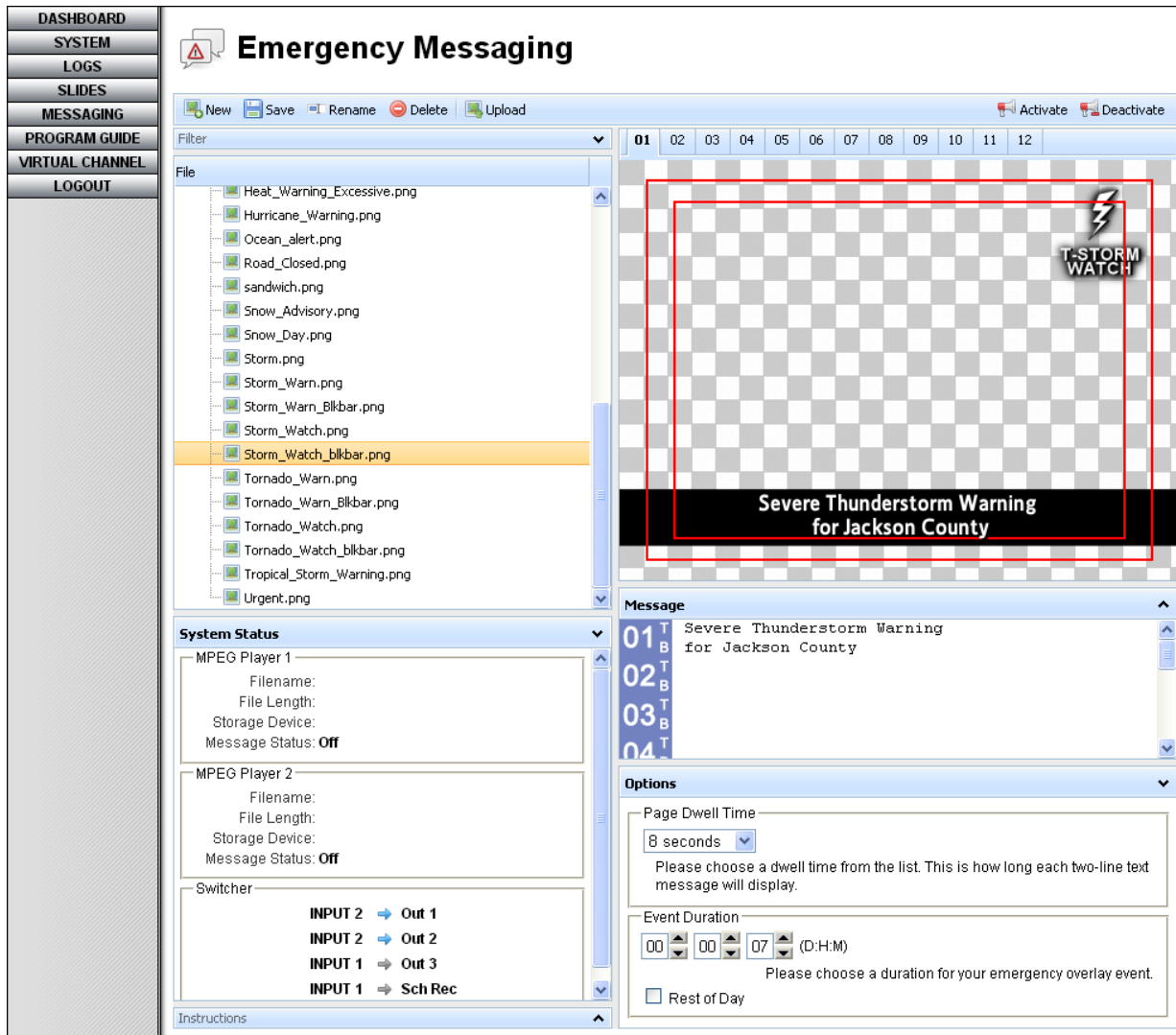
- b. WebNEXUS allows you to add and remove overlays from the "Upload Graphics" window as follows:
- Add overlays: to upload a batch of overlays, click the plus  button and repeat step 3 for each additional overlay.
 - Remove one overlay: click the red "X"  button next to the overlay you wish to remove.
 - 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 NEXUS series 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 239, "Upload Graphics" Window



- d. When you have finished uploading files, click the close “x” button in the upper right corner of the window.
3. In the message box on the right, type a sequence of up to 12 pages of two-line messages, as shown in Illustration 240. 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 240, Text Entry on Emergency Messaging Screen



A preview window at the top of the “Emergency Messaging” 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.

4. On the “Options” panel shown in Illustration 241, complete the following steps:

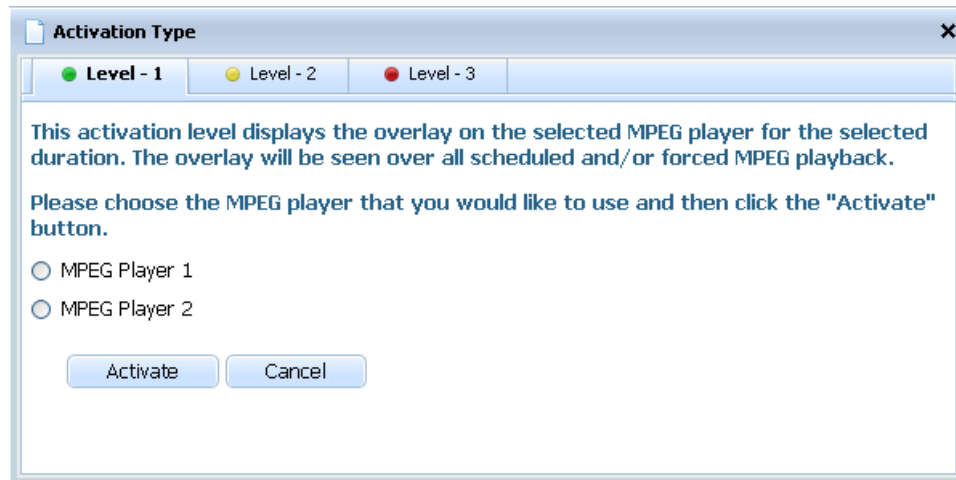
Illustration 241, "Options" Panel

- 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.
5. If you wish to save the message for reuse, click the "Save" button.
 6. If desired, activate the emergency message for display according to "Activating an Emergency Message," on page 397.

ACTIVATING AN EMERGENCY MESSAGE

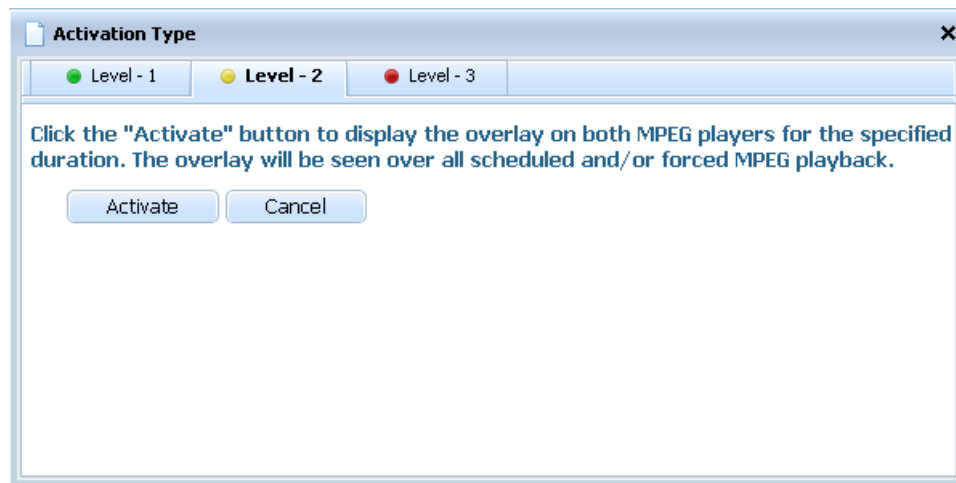
1. If you wish to display a saved emergency message, click on the "Saved Presets" tab and single click the desired message in the presets listing. Otherwise, create a new message according to the steps in the "Creating Emergency Messages" section on page 392.
2. Click the "Activate" button to display the "Activation Options" dialog box and select one of the following three activation levels for your message. The "System Status" panel on the "Emergency Messaging" screen indicates the message activation status for each MPEG player.
 - **Level 1** (see Illustration 242): click to select either MPEG Player 1 or 2 to display your message and then click the "Activate" button. The selected MPEG player will display your emergency message on its current channel output for the duration specified on the "Options" panel or until the message is manually deactivated. Non-MPEG events scheduled for the same channel output will override the emergency message.

Illustration 242, Level 1 "Activation Options"



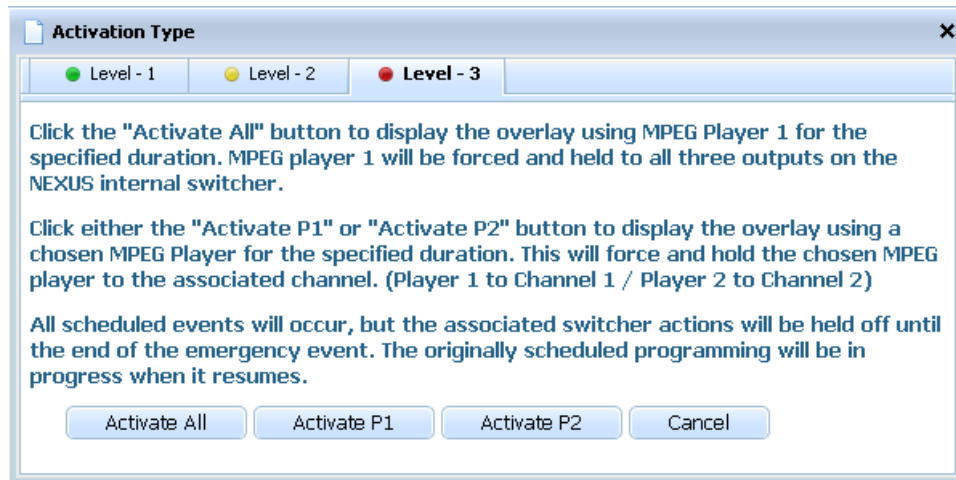
- **Level 2** (see Illustration 243): click the "Activate" button to display your message on both MPEG Players 1 and 2. The MPEG players will display your message on their current channel outputs for the duration specified on the "Options" panel or until the event is manually deactivated. Non-MPEG events scheduled for the same channel outputs will override the emergency message.

Illustration 243, Level 2 "Activation Options"



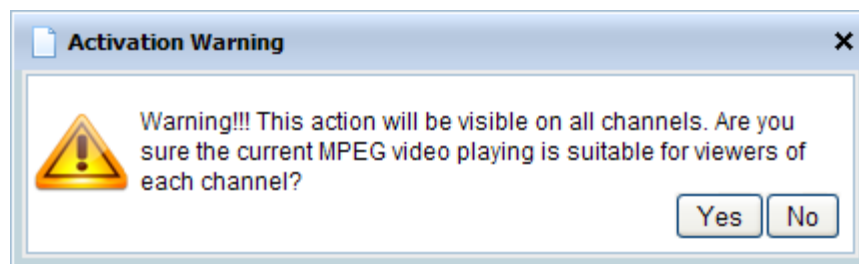
- **Level 3** (see Illustration 244): choose to use MPEG Player 1 or MPEG Player 2 to display your message on one of the outputs associated with the first two channel output tabs in your WinLGX system setup. The message will be displayed for the duration specified on the "Options" panel or until the message is manually deactivated. All scheduled events will occur, but the associated switcher actions will be held off until the end of the emergency messaging event. The originally scheduled programming will be in progress when it resumes.

Illustration 244, Level 3 "Activation Options"



- **Display Message on All UltraNEXUS/NEXUS System Outputs:** click the "Activate All" button to display your message on MPEG Player 1, which will be forced and held to all of the outputs on the UltraNEXUS/NEXUS internal switcher. A dialog box will automatically display a warning stating that **any content currently being displayed on MPEG Player 1 will be broadcasted on all channel outputs** (see Illustration 245). Click "Yes" to continue.

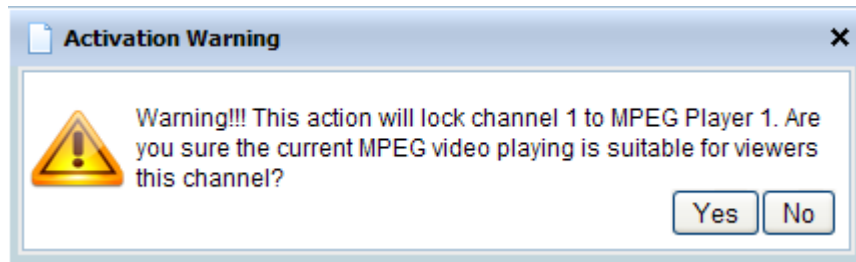
Illustration 245, Level 3 Warning Dialog Box for Activation of all Channels



- **Display Message on Channel 1 or 2:** click the "Activate P1" button to display your message on MPEG Player 1 or the "Activate P2" button to display on MPEG Player 2. The selected MPEG player will be forced and held to the output configured in your WinLGX system setup for the channel output tab of the same number (MPEG Player 1 to the output on channel output tab 1 and MPEG Player 2 to the output on channel output tab 2). Refer to "Configuring the Switch Type of a NEXUS Series System," page 135, for more information on WinLGX channel output tab assignments.

After you click one of the MPEG player activate buttons, a dialog box will automatically display a warning stating that any content currently being displayed on the selected MPEG Player will be broadcasted on the output assigned to the specified channel (see Illustration 246). Click "Yes" to continue.

Illustration 246, Level 3 Warning Dialog Box for Channel 1 or 2 Activation



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 NEXUS series system schedule from the WebNEXUS screen, a web browser, or your own website.

VIEWING PROGRAM GUIDE WITHIN WEBNEXUS

1. Click the “Program Guide” menu button to display a program guide screen like the example shown in Illustration 247.

Illustration 247, WebNEXUS Program Guide Screen

WebNEXUS **LEIGHTRONIX**

Program Guide

Options

Channel: All Channels
Mode: Day
Day Headers: on off
Day to View: Sunday Monday Tuesday Wednesday **Thursday** Friday Saturday
Show Seconds: on off

Preview

All Channels: Program Guide for Monday

Start	Title	Channel
8:00 AM	Jazzercise Hour	Out 1
9:00 AM	Morning Announcements	Out 1
9:30 AM	Sensible Nutrition	Out 1
9:41 AM	Meet Your Neighbors!	Out 1

*This schedule is valid as of 3:31 PM on Wednesday, June 12, 2013 and is subject to change. Refresh this screen often for the most up-to-date scheduling information.

LEIGHTRONIX POWERED

<http://10.7.1.172:50001/websched.php?channel=0&mode=day&day=thu&headers=0&secs=0>



Embed Script

```
<script type="text/javascript">
var address = "10.7.1.172"; //showing the current systems ip address, needs to be the publicly
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 prog
var headers = "0"; //0=off, 1 = shows date, day, and program time headers above respected colu
var showSecs = "0"; //0=off, 1 = shows seconds in start time
```

2. 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 247) or choose "Week" to view programming for all seven days of your schedule (see Illustration 248). 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 248. 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 248, Program Guide Screen in Week Mode with Day Headers "ON"



DASHBOARD

FILES

DESTINATIONS

SYSTEM

LOGS

SLIDES

MESSAGING

PROGRAM GUIDE


VIRTUAL CHANNEL


LOGOUT

MPEG Recorder

00:00:00:00

Source: INPUT 1



**Program Guide**

Options

Channel: All Channels

Mode: Week

Day Headers: **on** off

Day to view

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

Show Seconds: on off

Preview

Weekly Program Guide for All Channels - Jun 12, 2013 to Jun 18, 2013

Start Day	Start Time	Title	Channel
Wednesday, June 12, 2013			
	5:00 PM	Community History	Out 1
	6:00 PM	Local Heroes	Out 1
Monday, June 17, 2013			
	8:00 AM	Jazzercise Hour	Out 1
	9:00 AM	Morning Announcements	Out 1
	9:30 AM	Sensible Nutrition	Out 1
	9:41 AM	Meet Your Neighbors!	Out 1

*This schedule is valid as of 3:45 PM on Wednesday, June 12, 2013 and is subject to change. Refresh this screen often for the most up-to-date scheduling information.

LEIGHTRONIX POWERED

<http://10.7.1.172:50001/websched.php?channel=0&mode=week&day=thu&headers=1&secs=0>

Embed Script

<script type="text/javascript">
var address = "10.7.1.172"; //showing the current systems ip address, needs to be the publicly
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 = "week"; //day mode displays programming for the current day, week mode displays pro
var headers = "1"; //0=off, 1 = shows date, day, and program time headers above respected colu
var showSecs = "0"; //0=off, 1 = shows seconds in start time

4. For the “Day” mode view, click on a day of the week to view programming for the corresponding weekday. If you selected the “Week” mode, clicking a day button will sort your programming schedule by the selected day.
5. 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 NEXUS series 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 WebNEXUS schedule display can use a web address to view the current NEXUS series schedule online. To obtain the web address and display the program guide in a web browser, perform the following steps:

1. Click the “Program Guide” menu button to display your NEXUS series system’s program guide (see Illustration 247 for an example).
2. Click the URL link on the “Program Guide” screen as shown in Illustration 249 to open your NEXUS program guide in a separate browser tab window.

Illustration 249, Program Guide URL Link

The screenshot shows the NEXUS Web Control interface. On the left, there's a control panel with a 'Source' dropdown set to 'INPUT 1' and two buttons. The main area is titled 'Preview' and displays 'All Channels: Program Guide for Monday'. Below this is a table with columns 'Start', 'Title', and 'Channel'. The table lists four programs: 'Jazzercise Hour' (8:00 AM, Out 1), 'Morning Announcements' (9:00 AM, Out 1), 'Sensible Nutrition' (9:30 AM, Out 1), and 'Meet Your Neighbors!' (9:41 AM, Out 1). Below the table, a note states: '*This schedule is valid as of 3:31 PM on Wednesday, June 12, 2013 and is subject to change. Refresh this screen often for the most up-to-date scheduling information.' A 'LEIGHTRONIX POWERED' logo is visible. At the bottom, there's an 'Embed Script' section with a code block. A red circle highlights the URL 'http://10.7.1.172:50001/websched.php?channel=0&mode=day&day=thu&headers=0&secs=0' in the code block, with a red arrow pointing to it from a label 'Program Guide URL'.

| Start | Title | Channel |
|---------|-----------------------|---------|
| 8:00 AM | Jazzercise Hour | Out 1 |
| 9:00 AM | Morning Announcements | Out 1 |
| 9:30 AM | Sensible Nutrition | Out 1 |
| 9:41 AM | Meet Your Neighbors! | Out 1 |

```
<script type="text/javascript">
var address = "10.7.1.172"; //showing the current systems ip address, needs to be the publicly
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 prog
var headers = "0"; //0=off, 1 = shows date, day, and program time headers above respected colu
var showSecs = "0"; //0=off, 1 = shows seconds in start time
```

3. Copy the program guide web address and, if desired, 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 NEXUS series 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
 - “channel=2”: displays the programming on channel two
 - [“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): 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”](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”](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 248)
 - [“http://10.255.11.142:50001/websched.php?channel=1&mode=day&day=fri&headers=0&secs=0”](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”](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.
4. 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 WebNEXUS program guide is linked to Port 50001, preventing unauthorized users from accessing the other WebNEXUS features. If you need to select a different port number for the program guide, refer to “Editing Web Schedule Port,” on page 80.

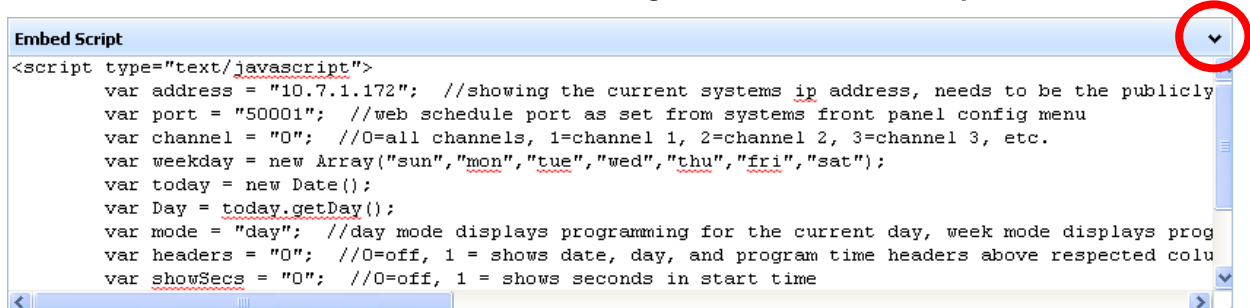
First make the program guide publically accessible by forwarding Port 50001 through your firewall to your NEXUS series server/controller. Port forwarding requires an external, public IP address which is configured in the router to have certain ports forwarded to the NEXUS system’s internal IP Address. Forward Port 50001 of the

external IP address to your NEXUS series server/controller, then point your website to the external address.

Once your program guide has been made publically accessible, add the WebNEXUS program guide embed code to one of your own web pages according to the following steps:

1. Click the WebNEXUS "Program Guide" button to display the corresponding screen.
2. To display the embed code, click on the "Embed Script" arrow (see Illustration 250).

Illustration 250, WebNEXUS Program Guide "Embed Script"



3. 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.
4. Paste the code onto one of your web pages by simultaneously pressing the "Ctrl" and "V" keys on your keyboard.
5. 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
 - "channel=2": displays the programming on channel two
 - 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
6. 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 VIRTUAL CHANNELS

OVERVIEW

NOTE: Only users with the “administrator” right are able to access the Virtual Channels feature.

The Virtual Channels provide looping playlists consisting of your MPEG clips, slides, switcher input devices, and LEIGHTRONIX TOTAL INFO, a subscription-based dynamic video content service (30 day, free trial available for NEXUS and 1 year free for the UltraNEXUS and UltraNEXUS-SDI). 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 251). 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 59, Virtual Channel Playlist Resources.

Illustration 251, Virtual Channel Editor

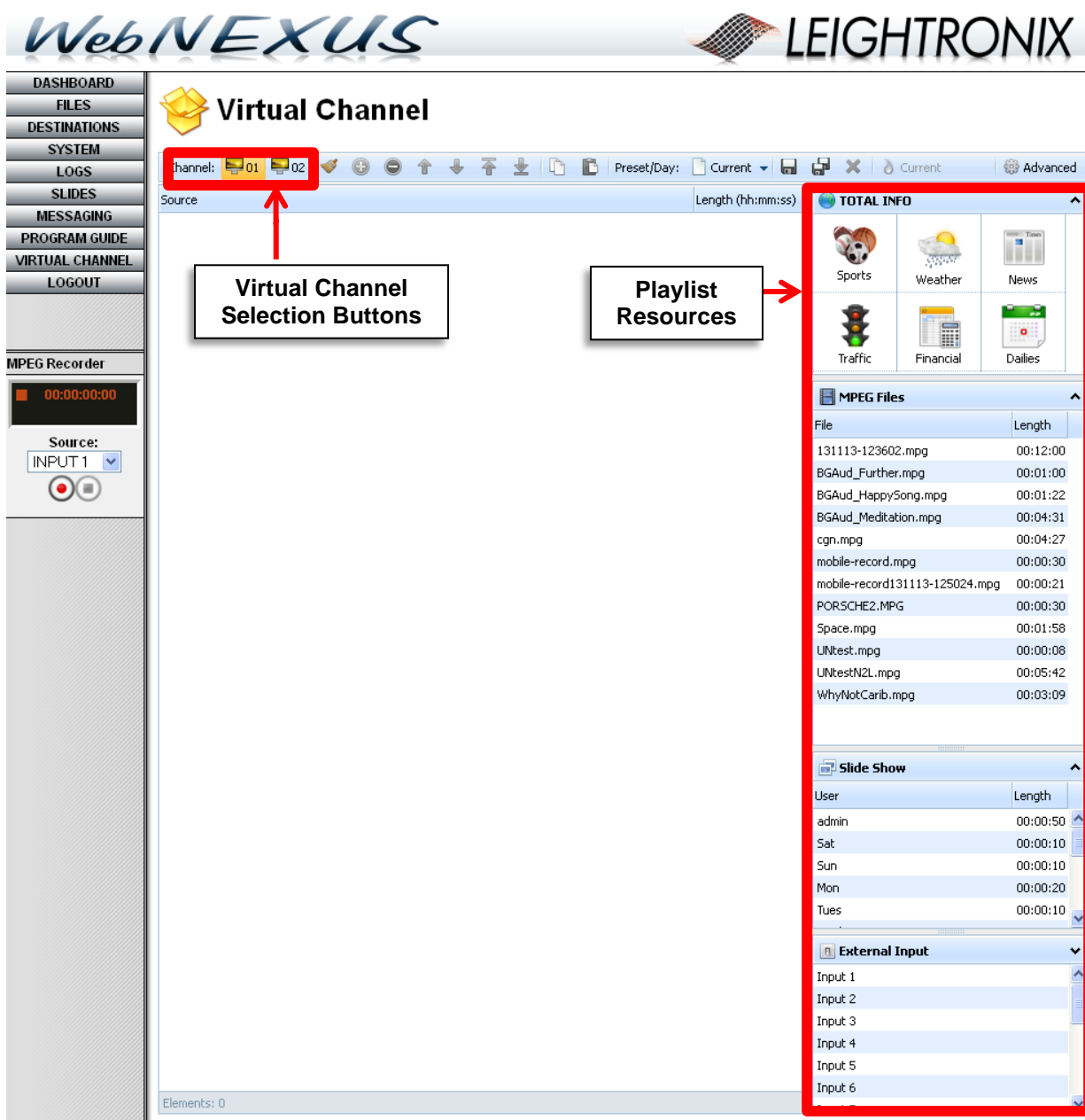


Table 59, Virtual Channel Playlist Resources

| CONTENT BOX | DESCRIPTION |
|-------------------|---|
| TOTAL INFO | Displays the available TOTAL INFO data categories. "Sports," "News," "Financial," and "Dailies" selections offer worldwide headlines, while "Traffic" and "Weather" information is specific to the registered location. |
| MPEG Files | Displays a list of the MPEG files on your attached digital media storage devices. |
| Slide Show | Displays a list of all user accounts on your NEXUS series server. |

| CONTENT BOX | DESCRIPTION |
|------------------------------|---|
| | <p>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 "Finding Slides/User Folders").</p> <p>WebNEXUS provides the following tools for managing and searching your slide list for user folders and files:</p> <ul style="list-style-type: none"> • "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. <p><u>ADDING</u> Slide Show Settings to Slide Metadata," on page 386).</p> <p>NOTE: Adding a user account without enabled/authorized slides to a Virtual Channel playlist will cause the Virtual Channel to freeze and display black.</p> |
| <p>External Input</p> | <p>Displays a list of your routing switcher's inputs. In the UltraNEXUS/NEXUS internal switcher mode, eight inputs will be shown as available. When the NEXUS series system is controlling an external switcher, the number of available inputs in this field will correlate to the number of inputs on the external switcher.</p> <p>NOTE: This option is disabled for the UltraNEXUS-SDI switch type (configuration without an external switcher) and the Zoned TOTAL INFO feature.</p> |

Set up and use your Virtual Channels according to the following steps:

1. Select Virtual Channel 1 or 2 by clicking the corresponding "Channel" button on top of the Virtual Channel editor screen (see Illustration 251, Virtual Channel Editor on page 407).

2. If you have a new TOTAL INFO 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 content in your Virtual Channel playlists. TOTAL INFO enhances your digital video playback with automatically updated video content, including news, sports, and entertainment. Refer to “TOTAL INFO Configuration,” on page 409, for setup and configuration information.
3. Refer to the following sections for playlist management instructions:
 - “Creating/Modifying Virtual Channel Playlists,” on page 423
 - “Saving Virtual Channel Playlists,” on page 429
 - “Deleting Virtual Channel Playlist,” on page 437
4. Activate Virtual Channel playlists for display according to “Displaying Virtual Channel Playlists,” on page 433.

TOTAL INFO CONFIGURATION

SETTING UP TOTAL INFO

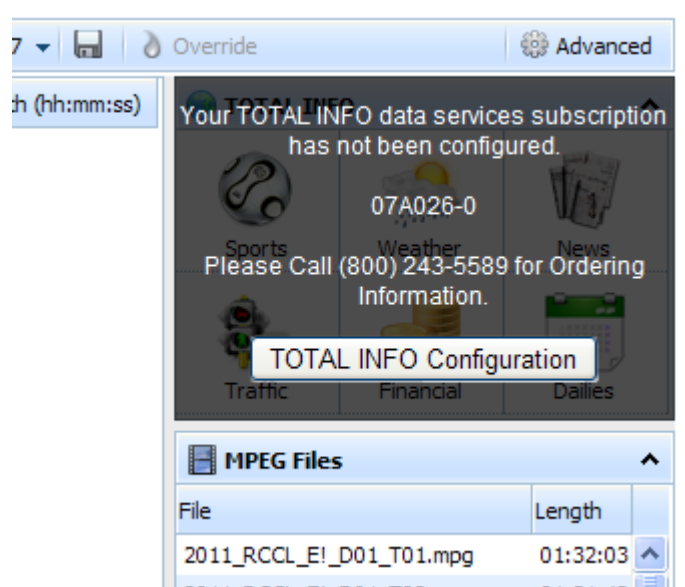
Before you can display *TOTAL INFO* content on your Virtual Channels, you must submit the necessary configuration information to LEIGHTRONIX. For your convenience, WebNEXUS gives you the option to submit this information online. LEIGHTRONIX will use the information submitted through WebNEXUS to register your Virtual Channels and activate *TOTAL INFO* on your NEXUS series server.

- NOTES:**
- A free trial (and each *TOTAL INFO* paid subscription) covers two, same-location Virtual Channels per NEXUS series system. A location is defined by a combination of zip code, closest metropolitan area, and time zone. *If you would like to set up separate TOTAL INFO location information for each Virtual Channel, you will need to purchase two TOTAL INFO subscriptions and contact LEIGHTRONIX for help with the configuration.*
 - 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 251, Virtual Channel Editor), click on the “Virtual Channel” menu button.
2. On the Virtual Channel editor screen, click on the “Channel” button for the Virtual Channel you would like to configure (see Illustration 251, Virtual Channel Editor on page 407).

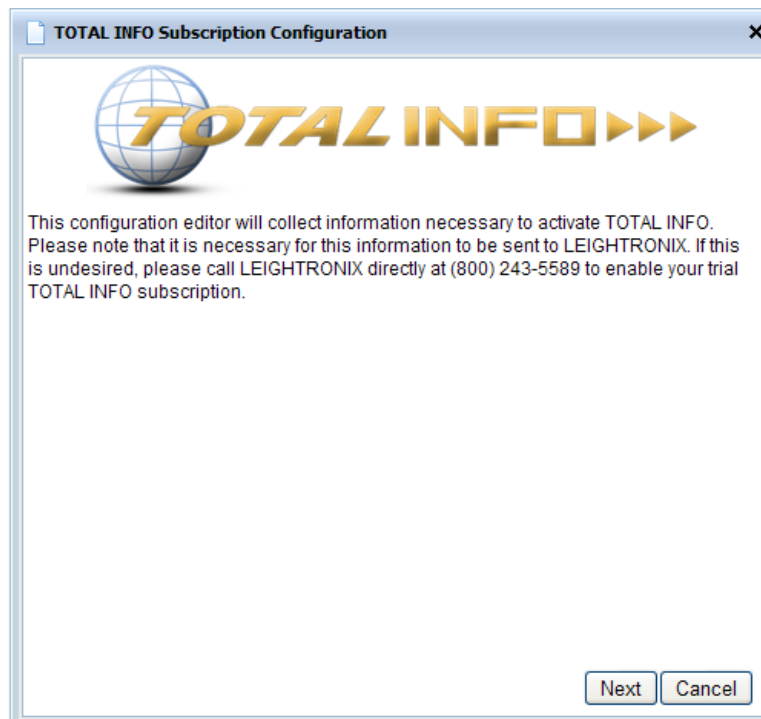
- a. Click the “TOTAL INFO Configuration” button on the selected Virtual Channel (see Illustration 252).

Illustration 252, “TOTAL INFO” Configuration Message on Virtual Channel Editor



A dialog box will appear, explaining the TOTAL INFO activation process (see Illustration 253). Click “Next” to continue.

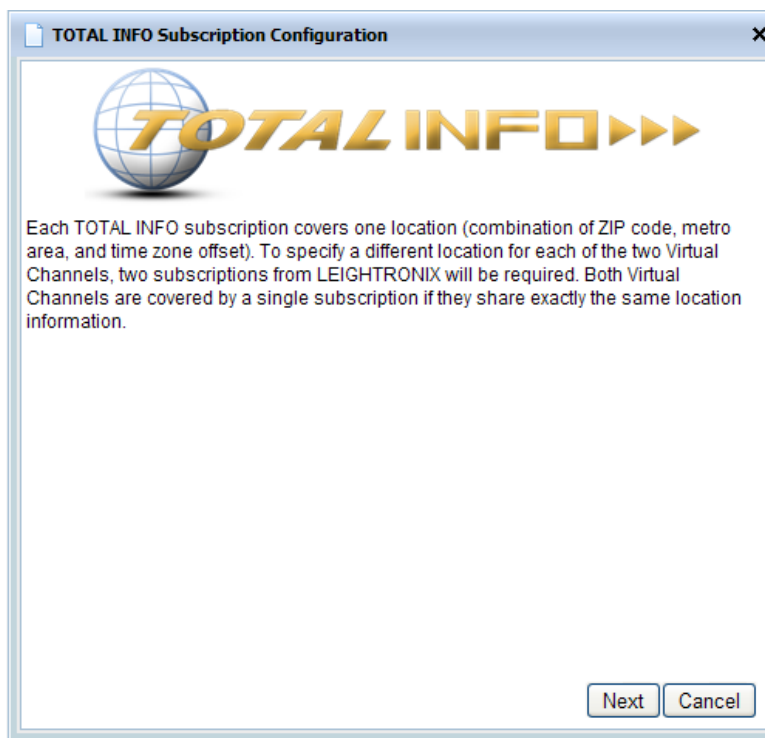
Illustration 253, “TOTAL INFO Subscription Configuration” Box



- b. If you are using the same TOTAL INFO subscription for both Virtual Channels, click the “Next” button following the subscription location information (see

Illustration 254) and proceed to the next step. Otherwise, click “Cancel” and contact LEIGHTRONIX to set up your separate TOTAL INFO subscriptions.

Illustration 254, TOTAL INFO Subscription Location Information



- c. In the subscription configuration box (see Illustration 255), enter the following information:

Illustration 255, TOTAL INFO Subscription Configuration Information

TOTAL INFO Subscription Configuration

CONTACT INFORMATION

Name: John Smith

Company: LEIGHTRONIX INC.

Email: jsmith@leightronix.com

Telephone:

Contact Preference: ☒ Email ☐ Telephone

LOCATION CONFIGURATION

Location Type: ☒ US Zip Code ☐ ICAO Location Indicator ☐ WMO Index Number

ZIP/Location Code: 48820

Metro Area: Detroit, MI

Time Zone: (GMT-05:00) Eastern Time

MPEG Volume: Vol1

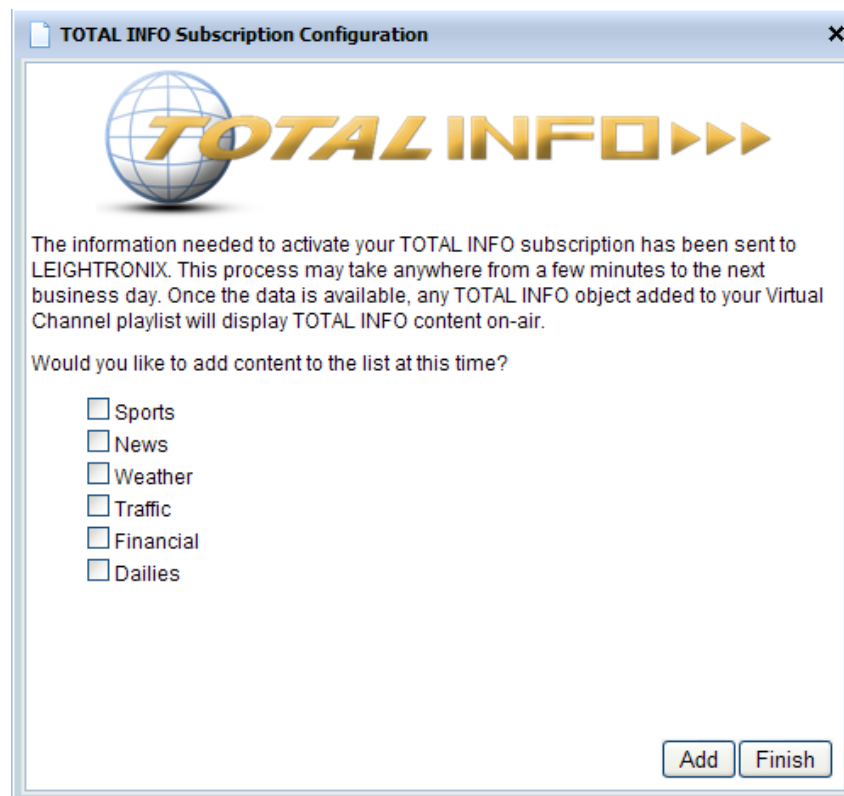
Next Cancel

- **“Name,” “Company,” “Email,” and “Telephone”:** LEIGHTRONIX uses this information to contact users about TOTAL INFO.
- **“Contact Preference”:** method LEIGHTRONIX will use to contact user about TOTAL INFO.
- **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 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 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 NEXUS series storage device that you would like to hold your TOTAL INFO system and MPEG video background files (occupies approximately 700 MB of storage).
- d. 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 activation information to LEIGHTRONIX. Please read the TOTAL INFO user agreement. Click “Accept” to transmit your TOTAL INFO subscription information to LEIGHTRONIX or “Decline” to abort.
- e. 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 content to your Virtual Channel playlist before your subscription is officially activated (see Illustration 256). Alternatively, just click the “Finish” button and wait for your subscription to be activated before adding TOTAL INFO content to your Virtual Channel playlists.

Illustration 256, Adding TOTAL INFO Content to Current Playlist



- f. Click “Done” to close the last window in the TOTAL INFO subscription configuration process.

CONFIGURING OPTIONAL TOTAL INFO SETTINGS

Customizing TOTAL INFO Logo

Add your station ID, logo, bug, or other custom graphics/text to all of the TOTAL INFO content displayed on the selected Virtual Channel or remove a previously selected bug overlay according to the following steps:

NOTE: Create your custom bug overlays with a third-party graphics program such as Adobe Photoshop®. Overlays must be saved as PNG files.

1. Click the “Advanced” button on the top of the Virtual Channel screen to display the “Advanced Virtual Channel Options” window. Click the “TOTAL INFO” tab (see Illustration 257, “Advanced Virtual Channel Options”).

Illustration 257, “Advanced Virtual Channel Options”

Advanced Virtual Channel Options

TOTAL INFO | General | List Config

TOTAL INFO

Current Subscription(s)

| Channel 1 | Channel 2 |
|-------------------------------------|-------------------------------------|
| Expiration: January 1, 2020 | Expiration: January 1, 2020 |
| Location: 48842 | Location: ksgs |
| Time Zone: (GMT-05:00) Eastern Time | Time Zone: (GMT-06:00) Central Time |
| Metro Area: Detroit, MI | Metro Area: Minneapolis, MN |

Background MPEG File Source

TOTAL INFO requires MPEG files to be stored on one of your storage volumes. If you are using TOTAL INFO, please select the volume you want the files to be stored on.

Vol077000-01 | Check for Update

☐ Automatically Update TOTAL INFO MPEG files

Logo Bug Overlay

TOTAL INFO can display a PNG file on the top most layer of the outputted display. This is mainly used for station bugs.

| Channel 1 | Channel 2 |
|------------|------------|
| -- NONE -- | -- NONE -- |

Upload Image

Audio Source

| Channel 1 | Channel 2 |
|-----------|-----------|
| From MPEG | From MPEG |

Extra

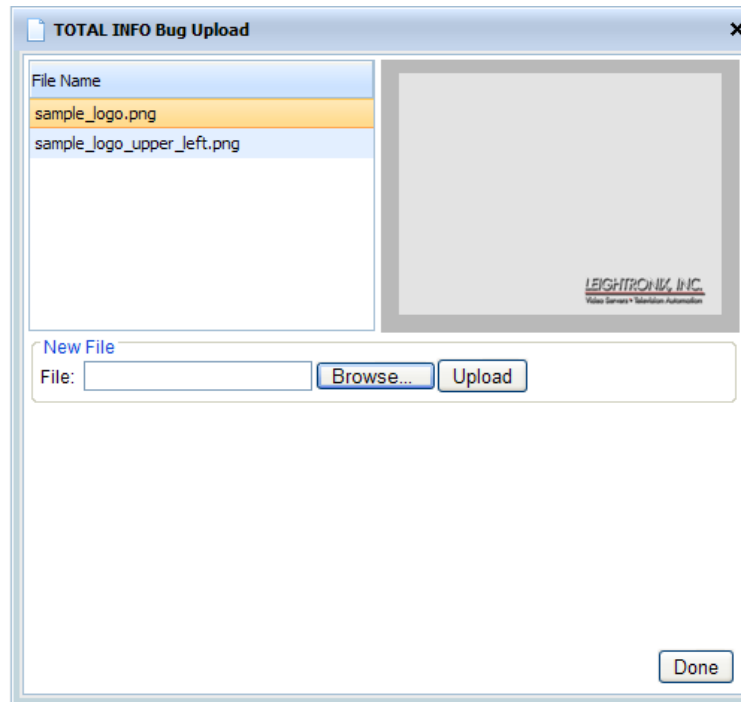
| Channel 1 | Channel 2 |
|--|---|
| <input checked="" type="checkbox"/> Horoscopes in Dailies Feed | <input type="checkbox"/> Horoscopes in Dailies Feed |
| <input type="checkbox"/> Entertainment News in News Feed | <input checked="" type="checkbox"/> Entertainment News in News Feed |

Save | Cancel

2. If you do not display an overlay, select “NONE” from the “Logo Bug Overlay” drop down menu for the currently selected Virtual Channel. Otherwise, click the “Upload

Image” button to open the “TOTAL INFO Bug Upload” window (see Illustration 258).

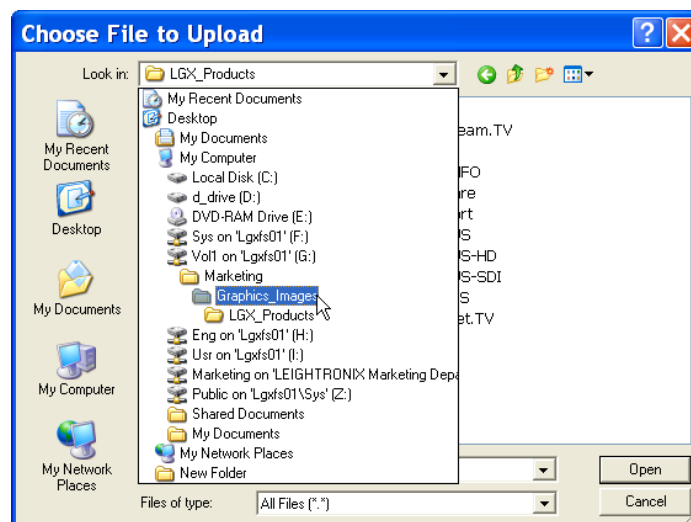
Illustration 258, "TOTAL INFO Bug Upload" Window



3. Either enter the file path of the desired PNG overlay or click the “Browse” button to open the “Choose file to upload” window shown in Illustration 259. Navigate to the desired file and click “Open.”

NOTE: NEXUS series systems only support overlay names containing up to 27 characters (no spaces) in addition to the “.png” extension.

Illustration 259, “Choose File” Window



4. Click the "Upload" button on the upload window to add the overlay to the "Logo Bug Overlay" drop down menu on the "Advanced Virtual Channel Options" box's "TOTAL INFO" tab.
5. Select the uploaded overlay file from the selected Virtual Channel's "Logo Bug Overlay" drop down menu. The selected overlay file *will only be displayed over TOTAL INFO content*.

Customizing TOTAL INFO Audio

You may either play the provided audio background music or your own audio input source behind your TOTAL INFO MPEG video backgrounds as follows:

1. Click the "Advanced" button on the top of the Virtual Channel screen to display the "Advanced Virtual Channel Options" window. Click the "TOTAL INFO" tab (see Illustration 257, "Advanced Virtual Channel Options").
2. From the "Audio Source" drop down box for the currently selected Virtual Channel, select "From MPEG" to opt for the default music included with each TOTAL INFO video background file or select an audio source connected to one of your inputs as follows:

NOTE: You may only use an audio source connected directly to the audio inputs on your NEXUS series system.

- **NEXUS/UltraNEXUS only:** select an audio input on your NEXUS or UltraNEXUS's rear panel that is connected to an audio source.
- **UltraNEXUS-SDI only:** select an "Analog," "AES," "Embedded 1-2," "Embedded 3-4," "Embedded 5-6," or "Embedded 7-8" audio input source connected directly to the corresponding audio input on the rear panel.

Customizing TOTAL INFO MPEG Video Background Files

If preferred, you may also customize the TOTAL INFO MPEG video background files representing each TOTAL INFO data category (one video background per category) for both Virtual Channels. To do this, perform the following steps:

1. Using a third-party video software program, create your own MPEG background files. As you save the files, be certain to name each file after the TOTAL INFO data category it represents (ex., "Sports.mpg" and "News.mpg").
2. Then use a third-party file transfer protocol (FTP) program (ex., Filezilla) to access the file directory of your NEXUS series server. Perform the following steps:
 - a. Open the folder of the NEXUS system's storage volume that you selected to hold your video background files during the initial configuration of TOTAL INFO.
 - b. Open the "totalinfo" subfolder.
 - c. Rename or delete the LEIGHTRONIX TOTAL INFO video background files.
 - d. Transfer your custom TOTAL INFO video background files into the "totalinfo" subfolder.
3. From the WebNEXUS Virtual Channel editor, click the "Advanced" button and then click on the "TOTAL INFO" tab to display the window shown in Illustration 260. This

option is shared by both Virtual Channels and may be performed from either channel's editor. Perform the following steps:

- a. Ensure the NEXUS system's storage volume containing your new TOTAL INFO backgrounds is selected in the top field.
- b. Next, uncheck the "Automatically Update TOTAL INFO MPEG files" box.
- c. Click "Save" to make the changes.

Illustration 260, "TOTAL INFO" Video Background Files Settings

Advanced Virtual Channel Options

TOTAL INFO | General | List Config

Current Subscription(s)

| Channel 1 | Channel 2 |
|-------------------------------------|-------------------------------------|
| Expiration: January 1, 2020 | Expiration: January 1, 2020 |
| Location: 48842 | Location: ksgs |
| Time Zone: (GMT-05:00) Eastern Time | Time Zone: (GMT-06:00) Central Time |
| Metro Area: Detroit, MI | Metro Area: Minneapolis, MN |

Background MPEG File Source

TOTAL INFO requires MPEG files to be stored on one of your storage volumes. If you are using TOTAL INFO, please select the volume you want the files to be stored on.

Vol077000-01 | Check for Update

☐ Automatically Update TOTAL INFO MPEG files

Logo Bug Overlay

TOTAL INFO can display a PNG file on the top most layer of the outputted display. This is mainly used for station bugs.

| Channel 1 | Channel 2 |
|------------|------------|
| -- NONE -- | -- NONE -- |

Upload Image

Audio Source

| Channel 1 | Channel 2 |
|-----------|-----------|
| From MPEG | From MPEG |

Extra

| Channel 1 | Channel 2 |
|--|---|
| <input checked="" type="checkbox"/> Horoscopes in Dailies Feed | <input type="checkbox"/> Horoscopes in Dailies Feed |
| <input type="checkbox"/> Entertainment News in News Feed | <input checked="" type="checkbox"/> Entertainment News in News Feed |

Save Cancel

Changing Storage Location of TOTAL INFO MPEG Video Background Files

From the WebNEXUS Virtual Channel editor, click the "Advanced" button and then click on the "TOTAL INFO" tab to display the window shown in Illustration 260. This option is shared by both Virtual Channels and may be performed from either channel's editor. Select the storage volume from the "Background MPEG File Source" drop down menu list and then click "Save" to make the change.

Updating the LEIGHTRONIX TOTAL INFO MPEG Video Background Files

From the WebNEXUS Virtual Channel editor, click the “Advanced” button and then click on the “TOTAL INFO” tab to display the window shown in Illustration 260. This option is shared by both Virtual Channels and may be performed from either channel’s editor. Perform the following on the options window:

1. Ensure the “Automatically Update TOTAL INFO MPEG files” box is checked. If not, select it and click the “Save” button.
2. Click the “Check for Update” button to check for updated video background files.
3. Close the options window by clicking the “Cancel” button or “x” icon. The update will continue to run as a background process.

Displaying TOTAL INFO Horoscopes or Entertainment News

From the WebNEXUS Virtual Channel editor, click the “Advanced” button and then click on the “TOTAL INFO” tab to display the window shown in Illustration 261. Enable/disable the following information displays for the selected Virtual Channel:

- Check the “Horoscopes in Dailies Feed” box by clicking to display horoscopes within the TOTAL INFO “Dailies” category.
- Check “Entertainment News in News Feed” by clicking to display entertainment information within the TOTAL INFO “News” category.

Illustration 261, "TOTAL INFO" Data Enable/Disable Settings

Advanced Virtual Channel Options

TOTAL INFO | General | List Config

TOTAL INFO

Current Subscription(s)

| Channel 1 | Channel 2 |
|-------------------------------------|-------------------------------------|
| Expiration: January 1, 2020 | Expiration: January 1, 2020 |
| Location: 48842 | Location: ksgs |
| Time Zone: (GMT-05:00) Eastern Time | Time Zone: (GMT-06:00) Central Time |
| Metro Area: Detroit, MI | Metro Area: Minneapolis, MN |

Background MPEG File Source

TOTAL INFO requires MPEG files to be stored on one of your storage volumes. If you are using TOTAL INFO, please select the volume you want the files to be stored on.

Vol077000-01 | Check for Update

☐ Automatically Update TOTAL INFO MPEG files

Logo Bug Overlay

TOTAL INFO can display a PNG file on the top most layer of the outputted display. This is mainly used for station bugs.

| Channel 1 | Channel 2 |
|------------|------------|
| -- NONE -- | -- NONE -- |

Upload Image

Audio Source

| Channel 1 | Channel 2 |
|-----------|-----------|
| From MPEG | From MPEG |

Extra

| Channel 1 | Channel 2 |
|--|---|
| <input checked="" type="checkbox"/> Horoscopes in Dailies Feed | <input type="checkbox"/> Horoscopes in Dailies Feed |
| <input type="checkbox"/> Entertainment News in News Feed | <input checked="" type="checkbox"/> Entertainment News in News Feed |

Save | Cancel

Activating/Deactivating Zoned TOTAL INFO Multi-Zone Display Feature

- NOTES:**
- Zoned TOTAL INFO is only available for UltraNEXUS/UltraNEXUS-SDI servers.
 - A TOTAL INFO subscription is required in order to activate the multi-zone display feature.

Zoned TOTAL INFO gives UltraNEXUS and UltraNEXUS-SDI users the ability to simultaneously display digital video clips and/or slide shows with TOTAL INFO local weather as well as news, sports, dailies, financials, and/or metro traffic. The multi-zone display feature can be used on either or both of the UltraNEXUS/UltraNEXUS-SDI server's digital playback channels. Video/slides are scaled to fit on the left side of viewers' television screens while TOTAL INFO local weather is always displayed on the right. For the lower third of the screen, users choose which of the remaining TOTAL INFO data categories (news, sports, dailies, financials, and/or metro traffic) will display in rotation. See Illustration 262 for an onscreen display example of Zoned TOTAL INFO.

Illustration 262, Zoned TOTAL INFO Onscreen Display Example



Use the WebNEXUS interface to set up when Zoned TOTAL INFO as follows:

1. From the selected Virtual Channel tab screen, click the “Advanced” button and then click on the “General” tab to display the window shown in Illustration 263.

Illustration 263, "General" Tab on the "Advanced Virtual Channel Options" Window

Advanced Virtual Channel Options

TOTAL INFO **General** List Config

Switcher
When the UltraNEXUS is connected to an external switcher and there is no schedule running to define the switcher settings, the following settings will be used.

| Channel 1 | Channel 2 |
|--------------------------|--------------------------|
| MPEG Input: Input 1 | MPEG Input: Input 1 |
| Channel Output: Output 1 | Channel Output: Output 1 |

"MPEG Input" defines which input on the external switcher is connected to the UltraNEXUS MPEG player.
"Channel Output" defines which output will display the above MPEG Input.

Slide Show

Channel 1
Background Audio Source: From MPEG
MPEG File name: Currently Playing MPEG (if any)

Channel 2
Background Audio Source: From MPEG
MPEG File name: Currently Playing MPEG (if any)

Zone Mode

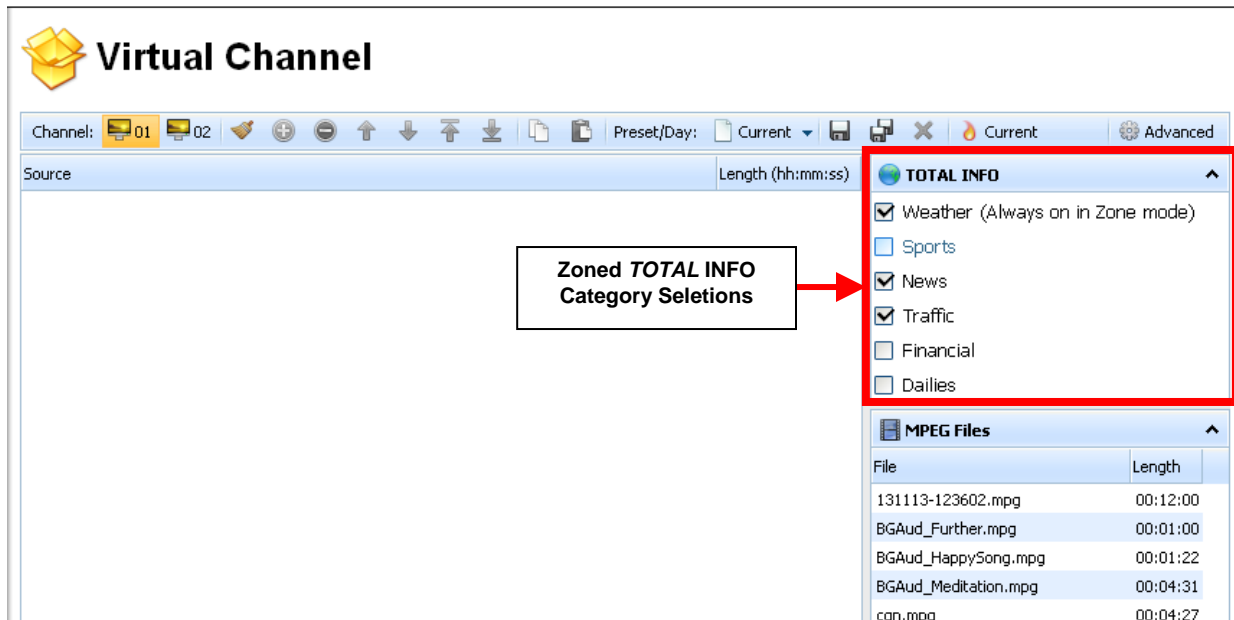
| Channel 1 | Channel 2 |
|--|--|
| <input checked="" type="radio"/> Off | <input checked="" type="radio"/> Off |
| <input type="radio"/> With Virtual Channel | <input type="radio"/> With Virtual Channel |
| <input type="radio"/> Always | <input type="radio"/> Always |

Save Cancel

2. Under the "Zone Mode" section, single click to select one of the following zone display modes:
 - "Off": deactivates Zoned TOTAL INFO on the selected Virtual Channel
 - "With Virtual Channel": causes Zoned TOTAL INFO to be displayed with Virtual Channel playlists (see "Displaying Virtual Channel Playlists," on page 433 for more details).
 - "Always": causes the UltraNEXUS MPEG player corresponding to the selected Virtual Channel to display Zoned TOTAL INFO with all digital programming, including scheduled programming, Control Panel events, and Virtual Channel playlists. Zoned TOTAL INFO content on Virtual Channel 1 will be displayed by MPEG Player 1 on the switcher output assigned to WinLGX Channel/Output Tab 1 while an active playlist on Virtual Channel 2 will be displayed by MPEG Player 2 on the output assigned to WinLGX Channel/Output Tab 2.

- Click “Save” to make the change or “Cancel” to abort. If you selected either the “With Virtual Channel” or “Always” mode, you will notice that the “TOTAL INFO” icons are changed into a checklist on the Virtual Channel editor. TOTAL INFO weather is always in the right onscreen zone when the “Zone” mode is activated, so this category will be automatically selected. Select at least one additional TOTAL INFO data category for display in the zone on the bottom of the screen (see Illustration 264). Click the “Current” button to change your TOTAL INFO data selections in the onscreen Zoned TOTAL INFO display.

Illustration 264, Virtual Channel Editor with Zoned TOTAL INFO Settings



Customizing Zoned TOTAL INFO Image Backgrounds

Zoned TOTAL INFO includes a separate PNG image file for display behind each TOTAL INFO data category. If desired, you may replace the included files with your own custom image backgrounds created with any third party graphics program. The files must be saved in the PNG format and adhere to the following size and filename guidelines:

- TOTAL INFO Weather Zone: the graphic for weather on the right side of the screen must be 180 pixels wide x 400 pixels high and saved under the filename “wbar.png”
- Mixed TOTAL INFO Data Zone: the graphics for display under the rotating TOTAL INFO data on the bottom of the screen must be 720 pixels wide x 140 pixels high. Files must be saved under the following names:
 - Traffic: “TrafficL3.png”
 - Sports: “SportsL3.png”
 - Sports Scores: “ScoresL3.png”
 - News: “NewsL3.png”
 - Financial: “FinancialL3.png”

- Dailies: "DailiesL3.png"

Once the new files have been created, use a third party FTP program to access the "Internal"/"totalinfo"/"zone_backgrounds" folder on the Flash drive of your NEXUS series server system. Replace the existing files with your new, custom files.

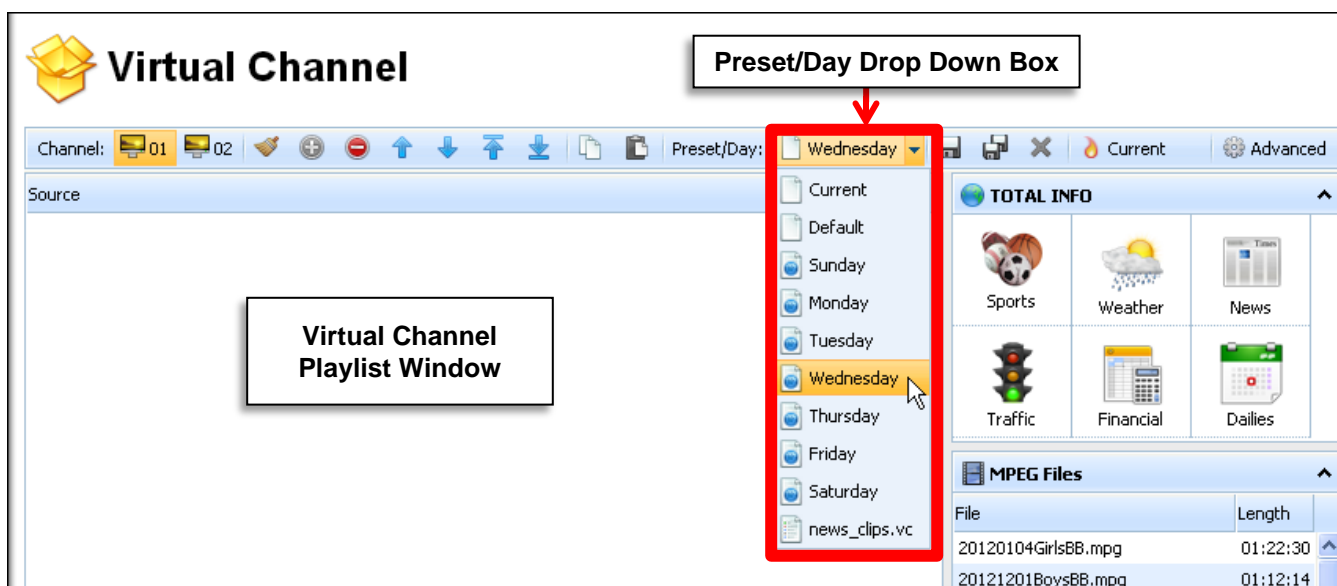
CREATING/MODIFYING VIRTUAL CHANNEL PLAYLISTS

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/default playlist presets/configuration files (.vcf), playlist files (.vc), and the “Current” playlist. 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. Unique day/default playlist presets can be saved for each week in Virtual Channel configuration files (.vcf). 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 NEXUS series 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 100 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 425.
 - **Load Resources from a Virtual Channel Playlist File (.vc) or a Day/Default Preset:** from the “Preset/Day” 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 265).

Illustration 265, Loading a Playlist Preset into the Virtual Channel Playlist Window



- **Load Resources from a Virtual Channel Configuration File (.vcf):**
 - a. Click the “Advanced” button to display the “Advanced Virtual Channel Options” window and then click the “List Config” tab to display the window shown in Illustration 266.

Illustration 266, “List Config” Tab on “Advanced Virtual Channel Options” Window

Advanced Virtual Channel Options

TOTAL INFO General **List Config**

Please enter a new Virtual Channel List Configuration file name or select an existing file to overwrite. List Configuration files contain programming for all profile days.

| Name | Modified |
|-----------------------|--------------------|
| mon-fri_playlists.vcf | Thu, September 12, |

New File

File Name:

Load Save Cancel

- b. Single click to select a configuration file in the file listing and then click the “Load” button to populate the “Preset/Day” drop down menu’s day/default presets with the file’s playback resources or “Cancel” to abort.
 - c. From the “Preset/Day” drop down box, select a day/default preset to load the playlist you wish to modify (see Illustration 265).

2. Add, remove, and re-order resources in the Virtual Channel playlist window according to Illustration 267 and Table 60. 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 “MPEG 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 NEXUS series server’s storage areas and will be skipped during playlist playback.
 - **TOTAL INFO:** data displays at a rate of 180 words/minute, with a total minimum duration of three minutes
 - **MPEG:** 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 a 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 428.



Illustration 267, Virtual Channel Playlist

The screenshot shows the WebNEXUS Virtual Channel Playlist window. On the left is a sidebar with navigation links: DASHBOARD, FILES, DESTINATIONS, SYSTEM, LOGS, SLIDES, MESSAGING, PROGRAM GUIDE, VIRTUAL CHANNEL, and LOGOUT. Below these is the MPEG Recorder section with a timer at 00:00:00:00 and a Source dropdown set to INPUT 1. The main area is titled 'Virtual Channel' and contains a toolbar with icons for channel selection, playlist management, and playback controls. A 'Preset/Day Drop Down Box' is highlighted with a red box and an arrow pointing to the 'Preset/Day: Default' dropdown. To the right, a '4 Content Boxes of Playback Resources' is highlighted with a red box and an arrow pointing to the 'TOTAL INFO' section. The 'TOTAL INFO' section displays a grid of content boxes: Sports, Weather, News, Traffic, Financial, and Dailies. Below this is the 'MPEG Files' section, which lists files with their lengths. The 'Slide Show' section lists users and their lengths. The 'External Input' section lists inputs 1 through 7. A red box labeled 'Virtual Channel Playlist Window' is drawn around the main content area, with arrows pointing to the 'Preset/Day Drop Down Box' and the '4 Content Boxes of Playback Resources'.

Table 60, Creating Playlists in the Virtual Channel Playlist Window

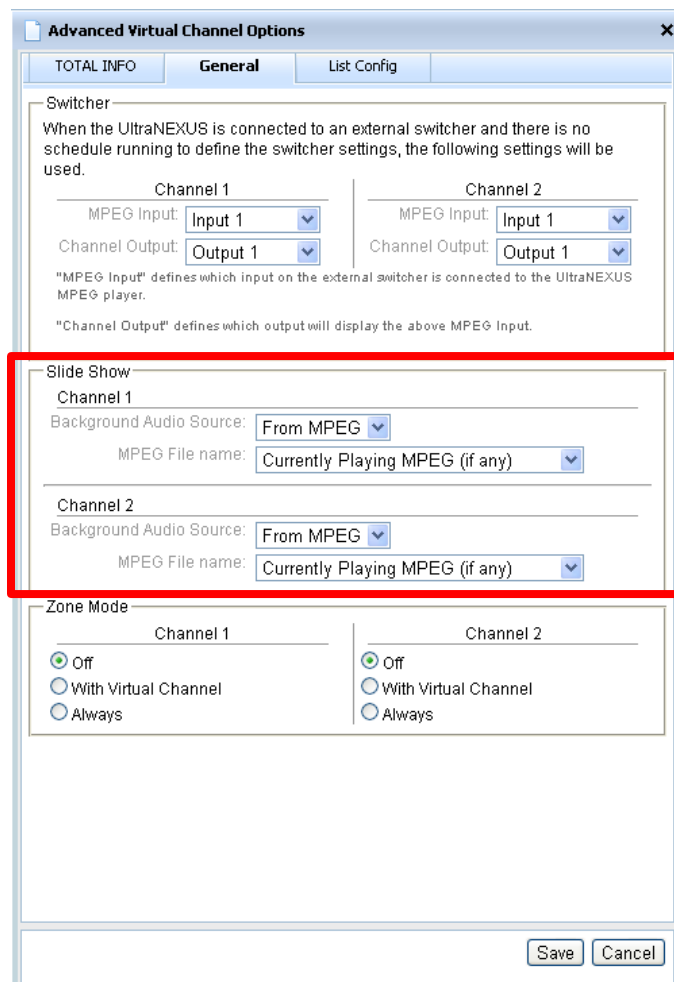
| Action | Steps |
|---------------------------------|--|
| Select a single resource | Single click the resource. A successfully selected resource will be highlighted in orange. |

| Action | Steps |
|--|--|
| 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  add button. • Double click the resource. |
| Add multiple resources from one content box to a Virtual Channel playlist | <p>Select multiple resources in the same content box and then add to a Virtual Channel playlist window by clicking the  add button.</p> |
| Remove resources from a playlist | <p>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.</p> |
| Remove all resources from a playlist | <p>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.</p> |
| 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. <p>Depending on the operation performed, the remaining playlist resources will be pushed above or below the moved resources.</p> |

| Action | Steps |
|--|--|
| 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 268). 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 268, Slide Show Audio Settings



Advanced Virtual Channel Options

TOTAL INFO **General** List Config

Switcher
When the UltraNEXUS is connected to an external switcher and there is no schedule running to define the switcher settings, the following settings will be used.

Channel 1
MPEG Input: Input 1
Channel Output: Output 1

Channel 2
MPEG Input: Input 1
Channel Output: Output 1

"MPEG Input" defines which input on the external switcher is connected to the UltraNEXUS MPEG player.
"Channel Output" defines which output will display the above MPEG Input.

Slide Show

Channel 1
Background Audio Source: From MPEG
MPEG File name: Currently Playing MPEG (if any)

Channel 2
Background Audio Source: From MPEG
MPEG File name: Currently Playing MPEG (if any)

Zone Mode

Channel 1
☒ Off
☐ With Virtual Channel
☐ Always

Channel 2
☒ Off
☐ With Virtual Channel
☐ Always

Save Cancel

- No audio: select an input on your NEXUS series system that does not have an audio source connected to it.
 - Audio:
 - “From MPEG”: pick an MPEG file from the “MPEG File Name” drop down list. This listing displays the MPEG files on your attached digital media storage devices. The selected MPEG file’s audio will be played behind the slide show. Any video in the file will not be displayed.
 - **NEXUS/UltraNEXUS only**: select an audio source connected to an input on the NEXUS/UltraNEXUS’s internal switcher.
 - **UltraNEXUS-SDI only**: 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 429 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 NEXUS series 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 433, 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 423.
2. Save the playlist according to one of the following save options:



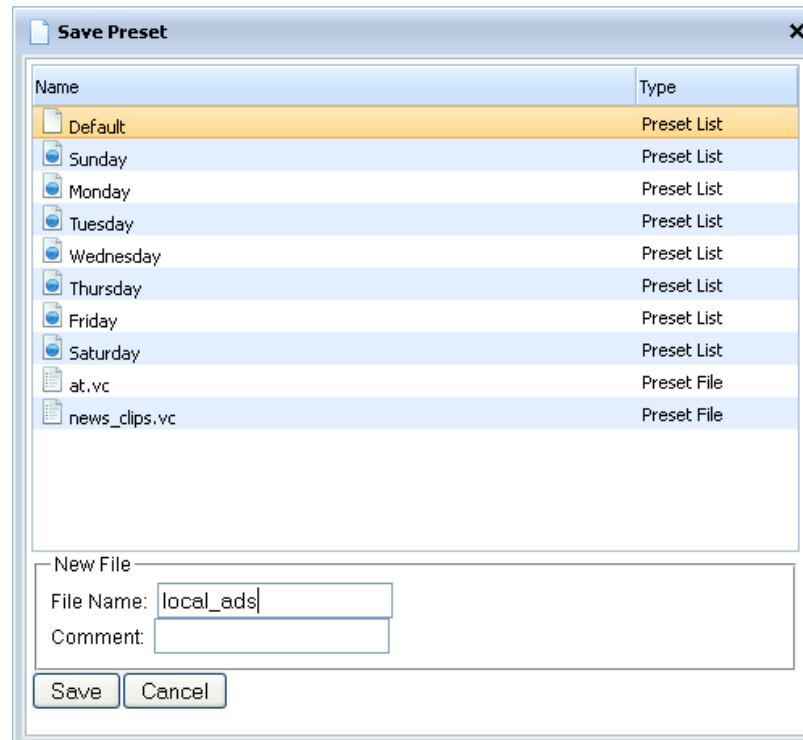
- **Save as a Virtual Channel Playlist File (.vc):** save one playlist in a file for display in place of scheduled programming or as a scheduled program as follows:
 - If you edited an existing .vc file, click the  save button.
 - For new .vc files or to overwrite an existing .vc file, click the  save list as button on top of the Virtual Channel playlist window to display the "Save Preset" Window shown in Illustration 269 and perform the following steps:

Illustration 269, "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.



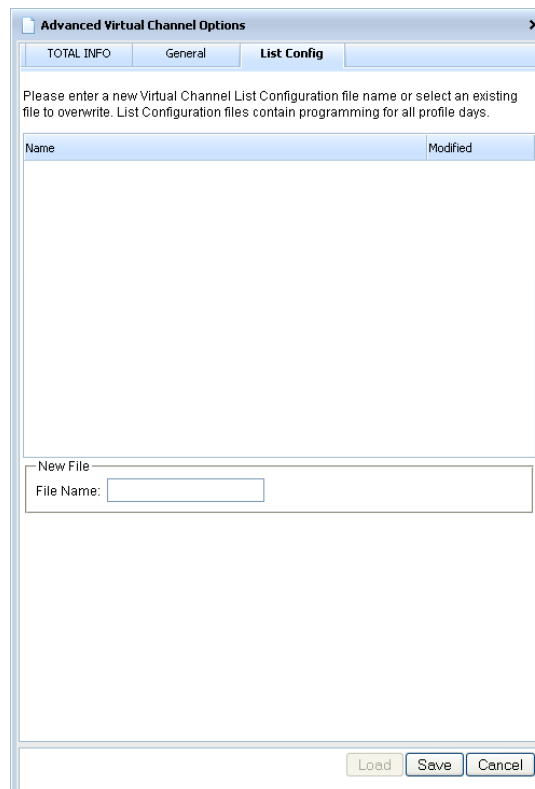
- **Save as a Day or Default Preset:** save one playlist in a preset for display in place of scheduled programming or to fill time between scheduled programs on a specific day as follows:
 - If you edited an existing preset, click the  save button.
 - To overwrite a preset, click the  save list as button on top of the Virtual Channel playlist window to display the "Save Preset" Window shown in Illustration 269 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 NEXUS series server 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.
- **Save as a Virtual Channel Configuration File (.vcf):** save a collection of up to seven weekday playlist presets and one "Default" preset in a .vcf file as follows:
 - a. Click the "Advanced" button on the Virtual Channel editor window and then click the "List Config" tab to display the window shown in Illustration 270.

Illustration 270, "List Config" Tab Window



Advanced Virtual Channel Options

TOTAL INFO General List Config

Please enter a new Virtual Channel List Configuration file name or select an existing file to overwrite. List Configuration files contain programming for all profile days.

| Name | Modified |
|------|----------|
| | |

New File

File Name:

Load Save Cancel

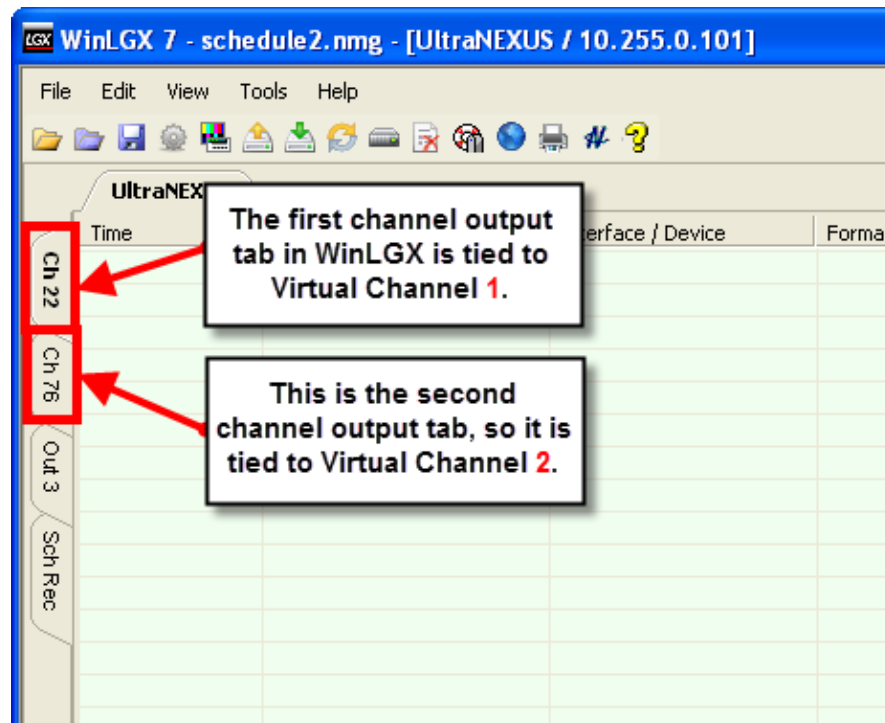
- b.** Perform one of the following save options:
 - Create a new file: type up to 27 alphanumeric characters without spaces into the “File Name” field.
 - Save over an existing file: single click to select an existing file to replace.
 - c.** Click the “Save” button to save your configuration file or “Cancel” to abort.
- 3.** If desired, immediately activate your Virtual Channel and display your playlist according to “Displaying Virtual Channel Playlists,” on page 433.

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 MPEG player and output that display your Virtual Channel playlists are determined by your switch type as follows:

- Internal Switcher Mode/“UltraNEXUS-SDI” Switch Type:**
 Virtual Channel 1 playlists as well as playlist files added to the first channel output tab will be displayed by MPEG Player 1 on the output assigned to WinLGX Channel/Output Tab 1, while the Virtual Channel 2 playlist and playlist files added to the second channel output tab will be displayed by MPEG Player 2 on the output assigned to WinLGX Channel/Output Tab 2 (see Illustration 271, Virtual Channel WinLGX Tab Assignments).

Illustration 271, Virtual Channel WinLGX Tab Assignments



- External Switcher:**
 In your WinLGX NEXUS series image file, assign the external switcher outputs that you wish to display Virtual Channel content to the NEXUS series MPEG player inputs and first two WinLGX channel/output tabs. For more information, see “Editing Internal MPEG Player and Recorder Device Resource,” on page 154 and “Configuring the Switch Type of a NEXUS Series System,” on page 135.

If a NEXUS series image file with switcher settings has **not** been sent to your NEXUS series unit and a Virtual Channel playlist is then activated, the Virtual Channel will use the MPEG player and channel output defined in its

WebNEXUS default switcher settings. To set up default switcher settings for each of your Virtual Channels, 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 272. Under the “Switcher” section, select an MPEG input and channel output from the drop down menus for each Virtual Channel.
 - **“MPEG Input”**: choose the input on your external switcher that is connected to the NEXUS series MPEG player for each Virtual Channel
 - **“Channel Output”**: choose the output you wish to air each Virtual Channel’s active playlists.

Illustration 272, Default External Switcher Settings

Advanced Virtual Channel Options

TOTAL INFO **General** List Config

Switcher

When the UltraNEXUS is connected to an external switcher and there is no schedule running to define the switcher settings, the following settings will be used.

| Channel 1 | Channel 2 |
|---|---|
| MPEG Input: <input type="text" value="Input 1"/> | MPEG Input: <input type="text" value="Input 1"/> |
| Channel Output: <input type="text" value="Output 1"/> | Channel Output: <input type="text" value="Output 1"/> |

"MPEG Input" defines which input on the external switcher is connected to the UltraNEXUS MPEG player.

"Channel Output" defines which output will display the above MPEG Input.

Slide Show

| Channel 1 | Channel 2 |
|--|--|
| Background Audio Source: <input type="text" value="From MPEG"/> | Background Audio Source: <input type="text" value="From MPEG"/> |
| MPEG File name: <input type="text" value="Currently Playing MPEG (if any)"/> | MPEG File name: <input type="text" value="Currently Playing MPEG (if any)"/> |

Zone Mode

| Channel 1 | Channel 2 |
|--|--|
| <input checked="" type="radio"/> Off | <input checked="" type="radio"/> Off |
| <input type="radio"/> With Virtual Channel | <input type="radio"/> With Virtual Channel |
| <input type="radio"/> Always | <input type="radio"/> Always |

Save Cancel

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 435
- **“Displaying a Playlist as a Scheduled Program Event”** on page 436
- **“Displaying a Playlist in Place of a Schedule”** on page 436

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 two channel output tabs. Virtual Channel 1 playlists are tied to NEXUS series MPEG Player 1 and the first WinLGX channel output tab and Virtual Channel 2 playlists are tied to the second MPEG player and channel output tab (see Illustration 271, Virtual Channel WinLGX Tab Assignments).

To display a Virtual Channel playlist between scheduled programs, perform the following steps:

1. If your day/default playlist(s) are saved in a Virtual Channel configuration file (.vcf), load it in WebNEXUS as follows:
 - a. Click the “Advanced” button to display the “Advanced Virtual Channel Options” window and then click the “List Config” tab to display the window shown in Illustration 266.
 - b. Single click to select a configuration file in the file listing and then click the “Load” button to add the file’s playlists into the Virtual Channel’s day/“Default” presets.
2. In your WinLGX schedule file (.nmg), be sure to do the following:
 - a. Enable your Virtual Channels 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 a NEXUS Series System,” on page 135).
 - b. Perform any of the following to fill channel switchbacks on the first two WinLGX channel output tabs:
 - **During configuration of WinLGX:** when selecting your switchback inputs for the first two WinLGX schedule tabs (see “Configuring the Switch Type of a NEXUS Series System” on page 135 for further instructions), choose “Virtual Channel” as the video source in the “Switchback Input” field.
 - **During scheduling:** when scheduling a resource on the first two channel output tabs, the switchback input may be changed to “Virtual Channel” in the resource’s event properties window.

Your NEXUS series 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 209 for information on creating a Virtual Channel playlist file library resource and page 294 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 NEXUS series server.


- **“Current” Virtual Channel Playlist**
 1. Add/remove resources in the Virtual Channel playlist window (see “Creating/Modifying Virtual Channel Playlists,” on page 423).
 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 Virtual Channel’s MPEG player, and click the “Force Start Virtual Channel” button.
- **Virtual Channel Day/Default Playlist Presets**
 1. Select one or more day/default playlists through one of the following options:
 - Select the current day’s playlist or “Default” from the “Preset/Day” drop down menu.
 - Select multiple day/default playlists through a configuration file (.vcf) as follows:
 - a. Click the “Advanced” button to display the “Advanced Virtual Channel Options” window and then click the “List Config” tab to display the window shown in Illustration 266.
 - b. Single click to select a configuration file in the file listing and then click the “Load” button to add the file’s day/default playlists to the Virtual Channel editor.
 2. If the current day or default preset does not display, go to the WinLGX Control Panel, select the Virtual Channel’s 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 you want to display the playlist’s MPEG video and JPEG slide resources.
 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 NEXUS series server, perform the following steps:

1. From the “Preset/Day” drop down menu, select the playlist file you wish to delete.
2. Click the  icon on the Virtual Channel toolbar.
3. On the “Delete Preset” popup window, click “Yes” to delete the file or “No” to cancel the action and close the popup.

EDITING NEXUS SERIES SITE NAME AND LOCATION

NOTE: Only the “admin” account and users with the “slide administrator” right are able to see the “System Management” screen.

Customize the “Site Name” and “Site Location” on the WebNEXUS “System Dashboard” screen and WinLGX “Controller Site Manager” window. Click the “SYSTEM” button to display the “System Management” 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 “System Dashboard” screen.

Illustration 273, “Site Information” Screen

System Management

Site Information Security Maintenance ePRO-BUS Total Share

Site Name: UltraNEXUS

Site Location: Undefined

Time Zone: (GMT-05:00) Eastern Time (US & Canada)

☒ Automatically adjust clock for daylight savings changes

Apply Changes

UltraNEXUS Time: January 18, 2013 3:17:50 PM

Computer Time: January 18, 2013 3:17:06 PM Set

Manual: January 18, 2013 03 06 15 PM Set

CHANGING NEXUS SERIES SYSTEM TIME

Click the “SYSTEM” button to display the “System Management” screen and then click the “Site Information” tab. NEXUS series server “Time” shows the date and time currently on your server. To change the NEXUS series server’s date/time, perform one of the following:

- Sync your NEXUS series 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 NEXUS series 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.

CHANGING THE FRONT PANEL AND “ADMIN” PASSWORDS

Click the “SYSTEM” button to display the “System Management” screen and then click the “Security” tab. See Illustration 274 and refer to the following:

- “System User (admin)”: the “admin” user account password provides access to your NEXUS series server through WinLGX and WebNEXUS. Enter the new password into both fields and then click the “Change Password” button to make the change.
- “Front Panel Password”: click on a combination of five arrows for the new front panel password. Then, click “Save” to accept new password or “Clear” to cancel.

Illustration 274, “Security” Tab Screen

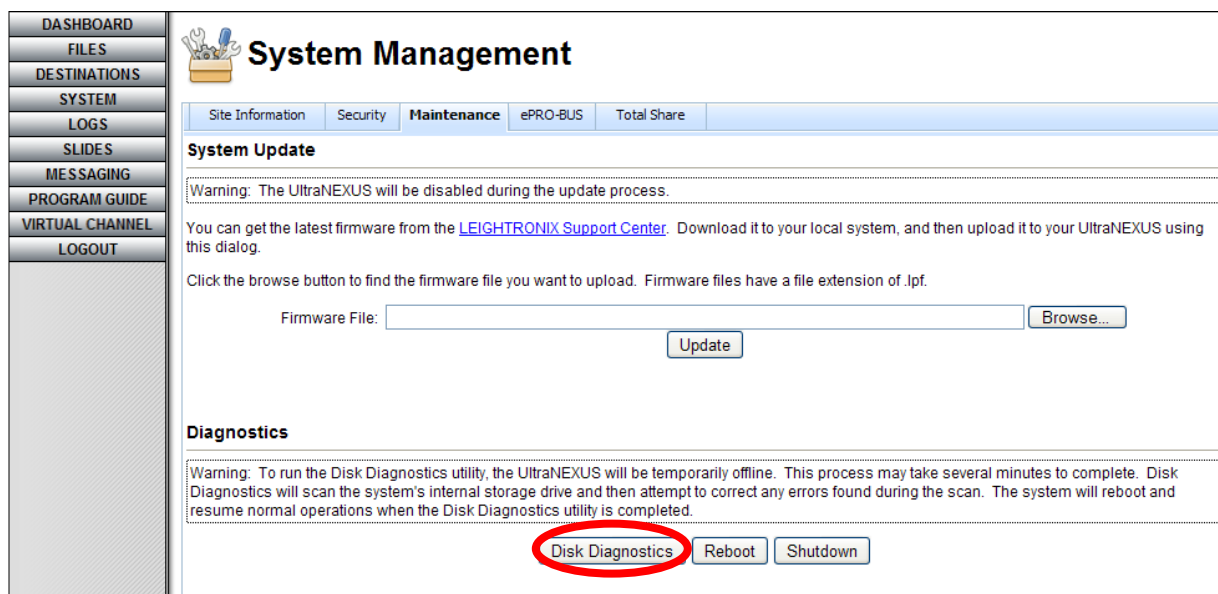
MAINTAINING USB DRIVES AND COMPACT FLASH

Use the WebNEXUS disk diagnostics feature to automatically fix many common File Allocation Table (FAT) errors that may impair your NEXUS series system's USB drives and compact flash drive or cause data loss on the drives. LEIGHTRONIX recommends using the feature on a monthly basis to ensure optimal drive performance as well as any time you discover file/drive errors in your log files or notice drive performance issues.

NOTE: *The disk diagnostics process does not fix physical hardware degradation.*

To run the disk diagnostics feature, log into the WebNEXUS interface and click the "SYSTEM" button and then the "Maintenance" tab to display the screen shown in Illustration 275.

Illustration 275, "Maintenance" Tab Screen



Click the "Disk Diagnostics" button and then select the popup menu's "Yes" option to perform the disk check process. When the diagnosis has been completed, a log file describing any errors discovered and actions performed will be added to your system's "EVENTS.LOG" file (see the "System Log Files" section on page 338 for more information on the "EVENTS.LOG" file).

UPDATING SYSTEM FIRMWARE

LEIGHTRONIX places the most current NEXUS series firmware files on the LEIGHTRONIX Support Center website. Save the update files to an accessible directory on your computer or network.

Once you have downloaded the NEXUS series firmware update file from the Support Center, open WebNEXUS and click the "SYSTEM" menu button. Select the "Maintenance" tab and use the "Browse" button to navigate to the saved location of the

firmware file (see Illustration 275). Click the “Update” button to download and install the firmware file onto your NEXUS series server.

ULTRANEXUS/ULTRANEXUS-SDI ONLY: CONFIGURING EPRO-BUS SETTINGS

The ePRO-BUS control feature allows you to send ePRO-BUS control commands over your Ethernet network to up to 16 PEGvault-SD or LABvault-SD digital video recorders or other supported devices. To get started, the ePRO-BUS feature must be configured for your UltraNEXUS/UltraNEXUS-SDI server and each PEGvault-SD or LABvault-SD according to the following steps:

- PEGvault-SD or LABvault-SD: refer to the device’s manual for instructions.
- UltraNEXUS/UltraNEXUS-SDI Server:
 1. Click the “SYSTEM” menu button and then the “ePRO-BUS” tab to display the window shown in Illustration 276.

Illustration 276, "ePRO-BUS" Tab Screen

| DASHBOARD | System Management | | | |
|-----------------|-------------------|---------------|-------------------------------------|-------------|
| FILES | | | | |
| DESTINATIONS | | | | |
| SYSTEM | | | | |
| LOGS | | | | |
| SLIDES | | | | |
| MESSAGING | | | | |
| PROGRAM GUIDE | | | | |
| VIRTUAL CHANNEL | | | | |
| LOGOUT | | | | |
| | Site Information | Security | Maintenance | ePRO-BUS |
| | PRO-BUS Address | IP Address | Enabled | Total Share |
| 1 | | 10.255.11.151 | <input checked="" type="checkbox"/> | |
| 2 | | 10.255.11.151 | <input checked="" type="checkbox"/> | |
| 3 | | 0.0.0.0 | <input type="checkbox"/> | |
| 4 | | 0.0.0.0 | <input type="checkbox"/> | |
| 5 | | 0.0.0.0 | <input type="checkbox"/> | |
| 6 | | 10.255.72.1 | <input checked="" type="checkbox"/> | |
| 7 | | 0.0.0.0 | <input type="checkbox"/> | |
| 8 | | 0.0.0.0 | <input type="checkbox"/> | |
| 9 | | 0.0.0.0 | <input type="checkbox"/> | |
| 10 | | 10.255.72.2 | <input checked="" type="checkbox"/> | |
| 11 | | 0.0.0.0 | <input type="checkbox"/> | |
| 12 | | 0.0.0.0 | <input type="checkbox"/> | |
| 13 | | 0.0.0.0 | <input type="checkbox"/> | |
| 14 | | 0.0.0.0 | <input type="checkbox"/> | |
| 15 | | 0.0.0.0 | <input type="checkbox"/> | |
| 16 | | 0.0.0.0 | <input type="checkbox"/> | |

2. For each of your PEGvault-SD or LABvault-SD recorders, select a PRO-BUS address and enter the recorder’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 PEGvault-SD or LABvault-SD IP address to a separate PRO-BUS address: control each of your recorders individually by entering the IP

- address for each of your PEGvault-SD or LABvault-SD recorders on a separate “PRO-BUS Address” line.
- Assign the same PRO-BUS address to multiple PEGvault-SDs or LABvault-SDs: to control multiple recorders from one PRO-BUS address, enter each recorder’s IP address on a separate line and then make the PRO-BUS address numbers the same for the desired PEGvault-SD or LABvault-SD IP addresses. Given that the PEGvault-SD and LABvault-SD each has only one recorder, using one ePRO-BUS address for multiple PEGvaults/LABvaults is especially useful for simultaneously recording a video source as a broadcast file on one PEGvault or LABvault and a streaming video-on-demand file on another.
 - 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 PEGvault-SD/LABvault-SD you want to receive ePRO-BUS commands from your UltraNEXUS 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 “UltraNEXUS/UltraNEXUS-SDI Only: Scheduling/Editing ePRO-BUS-Controlled Device Resources,” on page 268) or immediately (see the control panel subsection on “Controlling External Devices,” on page 322) start/stop recording on your PEGvault-SDs/LABvault-SDs.

CONFIGURING TOTAL SHARE SETTINGS

If you have purchased the 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 NEXUS series system to recognize your NAS devices.

NOTE: If LEIGHTRONIX preconfigured all of the NEXUS series systems and NAS devices for your TOTAL SHARE network at the factory, *then you can skip this step.*

Click the “SYSTEM” menu button and then select the “Total Share” tab to display the window shown in Illustration 277.

Illustration 277, “Total Share” Tab Screen

Enter the requested information for each of your NAS devices and click “Save Changes.”

- NOTES:**
- If you have more than one NEXUS series system connected to your TOTAL SHARE network, you will need to repeat these steps on the WebNEXUS interface for each NEXUS system.
 - For further instructions on setting up your TOTAL SHARE network, refer to the “TOTAL SHARE” tutorial.

LOGGING OUT OF WEBNEXUS

Click the “LOGOUT” button in the menu bar to log out of WebNEXUS and return to the login screen.

TOTAL BACKUP

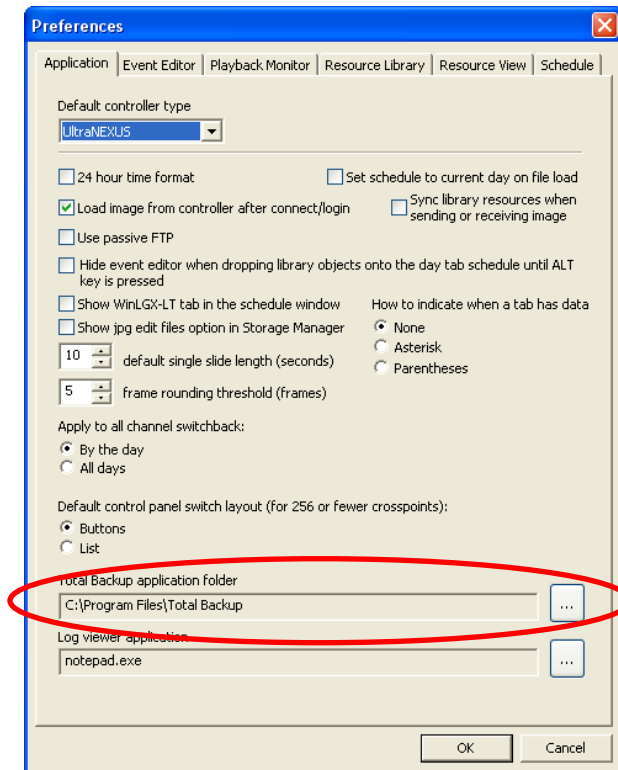
With Total Backup, you can ensure that your MPEG videos, slides, and critical NEXUS series system information are automatically protected against loss. Perform immediate or scheduled backups of all connected USB drives to save copies of your MPEG videos and the internal NEXUS series storage area to preserve your slides, network configuration settings (IP address), usernames and passwords, front panel password, and the current schedule. The internal storage information may be copied onto a local drive or network storage area, while digital video files on attached USB drives may be saved on a PC, network, or another USB drive connected to your PC.

Restoring your internal and external NEXUS series server/controller's storage areas is just as easy. If you have backed up your MPEG videos onto an external USB drive purchased from LEIGHTRONIX, you can instantly swap it with one of your NEXUS series system's external storage drives. Total Backup also lets you instantly download backup information on your local and network drives to the NEXUS series system in just a few mouse clicks.

OPENING AND LOGGING INTO TOTAL BACKUP

1. Select “Preferences” under the “Tools” menu to open the “Preferences” window. Ensure the file path under “Total Backup application folder” matches the location where the Total Backup program is installed on your computer or network (see Illustration 278) and then click “OK” to close window.

Illustration 278, File Path Field for NEXUS Series Total Backup




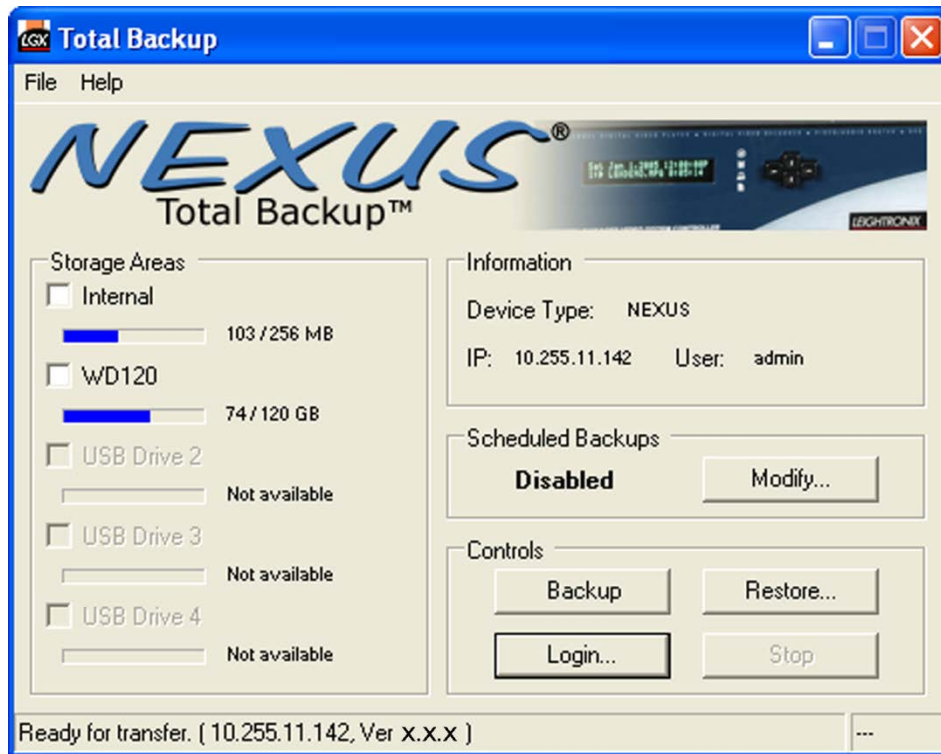
2. Open the Total Backup program using one of the following methods:
 - Double click the Total Backup desktop icon. This method automatically displays the NEXUS series system settings for Total Backup, but does not log into your controller. To log in, perform the steps in the note below.
 - From WinLGX, select “Total Backup” from the “Tools” menu or click the  icon on the toolbar. Total Backup will automatically log into your current NEXUS series system connection and display the Total Backup Main Window shown in Illustration 279.

Illustration 279, Total Backup Main Window



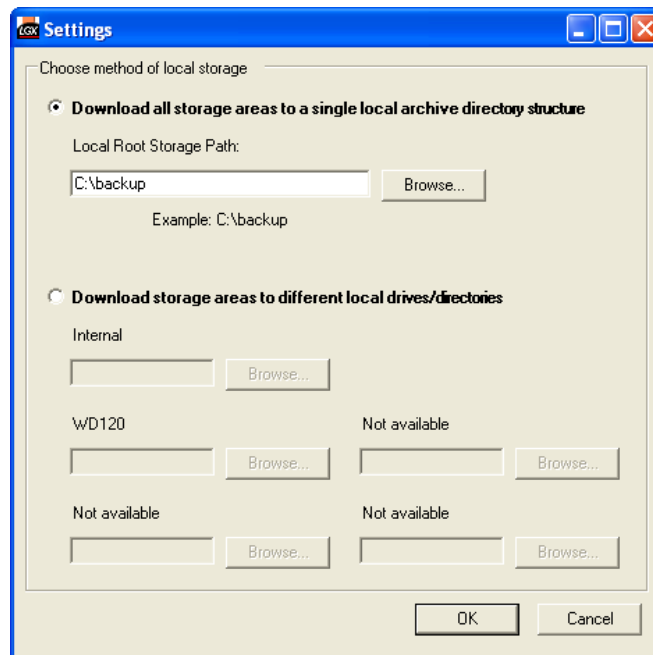
- NOTE:** To log in or change the Total Backup controller connection, click the “Login” button to display the “Login” window. Enter the following information and then click “OK” to log in or “Cancel” to abort.
- “IP Address”: IP address of the NEXUS series system you want to backup or restore
 - “User”: username for the entered IP address
 - “Password”: corresponding password for the entered IP address

SELECTING STORAGE LOCATIONS FOR NEXUS SERIES INFORMATION

Next, specify where you would like to create fully redundant copies of your NEXUS series system's internal memory and attached USB drives by performing the following steps:

1. From the "Total Backup" window, select "Local Path Settings" from the "File" menu to display the backup path window shown in Illustration 280.

Illustration 280, Backup Path Window



2. Save your NEXUS series data to one or more of the following locations:
 - One Storage Location: click the top radio button. Browse to a local or network storage area in the "Browse for Folder" window and click "OK."
 - Multiple Storage Locations: click the bottom radio button and make the following selections:
 - NEXUS series internal storage area: select a storage location for your slides, current schedule on the NEXUS series server/controller, and system information (network configuration settings, usernames and passwords, and the front panel password). Click the "Browse" button to display the "Browse for Folder" window. Navigate to a local or network storage area and click "OK."
 - Each of your USB drives: select a storage location for your MPEG videos. Click the "Browse" button to display the "Browse for Folder" window. Navigate to a local or network storage area or even another external USB drive connected to your PC and click "OK." Downloading a copy of your NEXUS series system's USB drive to another external USB drive allows you to quickly swap the drives, if necessary.

- NOTES:**
- A backup drive intended to be used as a physical replacement for any drives connected to your NEXUS series server/controller must be purchased from LEIGHTRONIX.
 - USB drives used for backup must be formatted with the FAT32 file system.

3. Click "OK" to save storage path settings and close the "Settings" window.
4. Perform one of the following:
 - Immediately perform file backup: perform steps under "Performing an Immediate Backup," on page 450
 - Schedule automatic file backups: perform steps under "Performing Scheduled Backup," on page 450
 - Restore NEXUS series storage areas: perform steps under "Restoring NEXUS Series System Information," on page 451

PERFORMING AN IMMEDIATE BACKUP

Total Backup uses your “Local Path Settings” to determine where to save the backup information for the selected NEXUS series server/controller storage areas.

1. On the “UltraNEXUS/NEXUS Total Backup” window, check the boxes next to the NEXUS series server/controller storage areas you would like backed up.
2. Click the “Backup” button to start an immediate backup. Click the “Stop” button to halt a backup before it finishes. To restart, click the “Backup” button again. The backup will resume from where it left off.

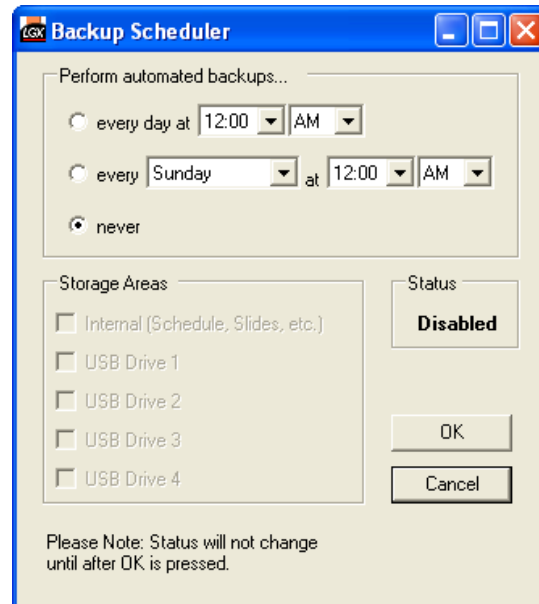
PERFORMING SCHEDULED BACKUPS

Total Backup uses your “Local Path Settings” to determine where to save the backup information for the selected NEXUS series server/controller storage areas.

You must leave the Total Backup software running in order for a scheduled backup to occur. Total Backup will run as a background task without interfering with other programs open on your computer.

1. Click the “Modify” button or “Scheduler Settings” under the “File” menu to open the “Backup Scheduler” Window shown in Illustration 281.

Illustration 281, “Backup Scheduler” Window



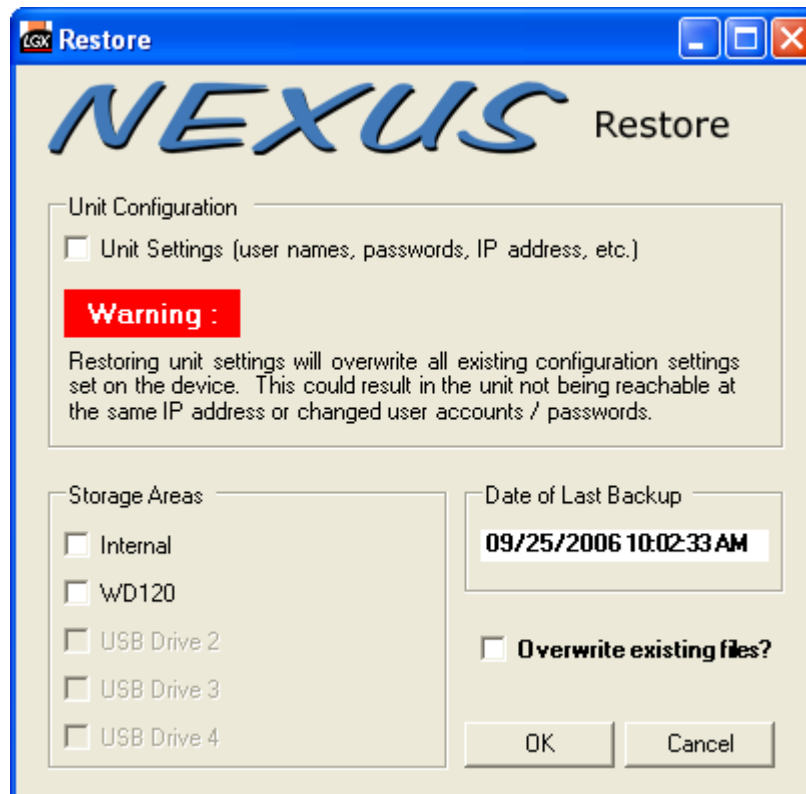
2. Using the date and time drop down boxes, specify how often you would like the backup to occur.
3. Check boxes next to the NEXUS series server/controller storage areas you would like backed up.
4. Click “OK” to make backup schedule changes or “Cancel” to abort.

RESTORING NEXUS SERIES SYSTEM INFORMATION

Total Backup uses your “Local Path Settings” to find the backup information for the NEXUS series server/controller storage areas you wish to restore.

1. On the “Total Backup” window, click the “Restore” button to open the “Restore” Window shown in Illustration 282.

Illustration 282, “Restore” Window



2. Check the “Unit Settings” box if you would like to restore network configuration settings, usernames and passwords, and front panel password.
3. Check boxes next to the NEXUS series storage areas you would like to restore with the last saved backup information.
4. Select “Overwrite existing files?” to replace existing files that have the same name as the backup files.
5. Click “OK” to restore files or “Cancel” to abort.

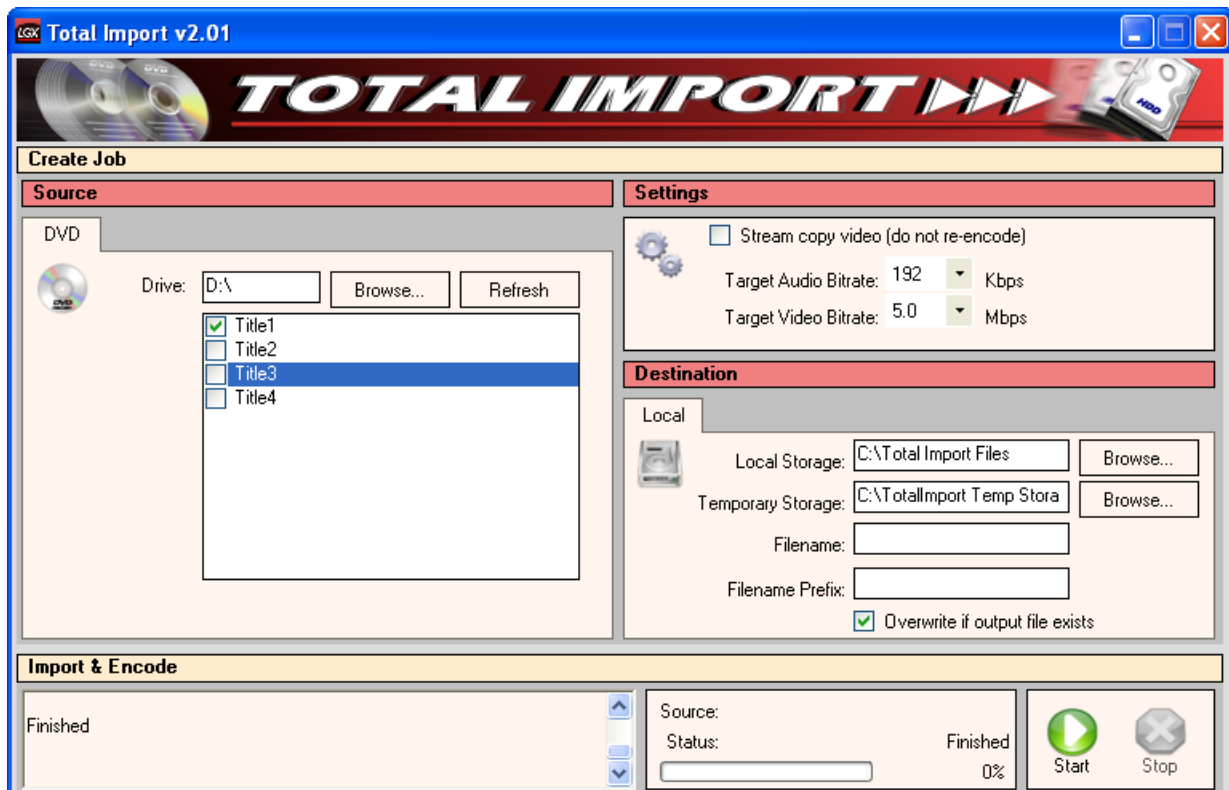
TOTAL IMPORT

In a few steps, Total Import allows you to create NEXUS series compatible, high quality digital video files from non-encrypted MPEG-1 and MPEG-2 DVDs. Just insert a DVD into your PC's disc drive and specify where on your PC or network you would like to save the digital video files. You may also customize the files for your video system by changing the Total Import encoding settings and filename assignments.

Each title on a DVD is segmented into one or more ½ hour MPEG-1 or 2 video and audio files. Total Import saves the files within the selected DVD title on your PC or network and then converts the files into one industry standard MPEG-2 file with layer 2 audio. Once converted, simply use the Storage Manager in the LEIGHTRONIX management software, WinLGX, to transfer the MPEG file from your PC to the external USB hard drives connected to your NEXUS series server/controller.

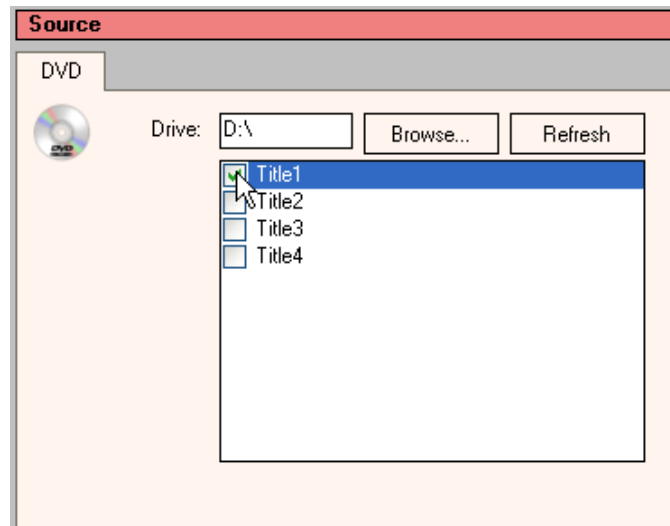
1. Double click on the Total Import desktop icon to display the Total Import program window (see Illustration 283, Total Import Main Window).

Illustration 283, Total Import Main Window



2. Insert a DVD into your PC's DVD drive. Load the DVD titles (files) into the "Source" panel on the Total Import window according to the following steps (see Illustration 284):

Illustration 284, Total Import DVD “Source” Panel



- a. Click the “Browse” button. In the “Browse for folder” window that appears, navigate to your local DVD drive and select the DVD drive letter. Click “OK” to display a list of your DVD’s titles on the “Source” panel.
 - b. Select each DVD title you would like to import by checking the boxes to the left of the titles. A selected title will have a green checkmark in its box.
3. In the “Settings” panel, LEIGHTRONIX recommends leaving the “Stream copy video” option checked and just selecting a target audio bit rate to encode the DVD audio files into Audio layer II (see Illustration 285). While the video and audio will still be combined into one MPEG-2 file, the “Stream copy video” option leaves the video for your DVD files at its original quality rather than re-encoding and possibly degrading the quality of the video.

NOTE: If you experience sync problems between your DVD video and audio files in the final MPEG-2 file or you just want to create a smaller file, you may uncheck the “Stream copy video” option and select a video bit rate for encoding (see Illustration 286). While a lower video bit rate may result in a smaller MPEG file size, keep in mind the file quality may also be lower.

Illustration 285, Total Import “Settings” Panel

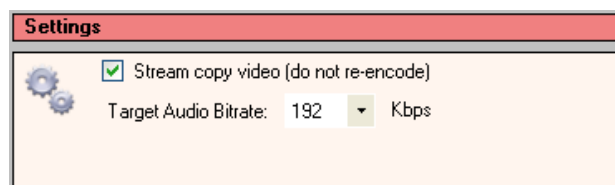
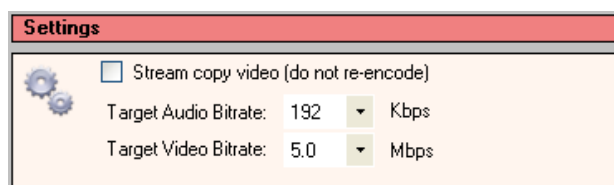
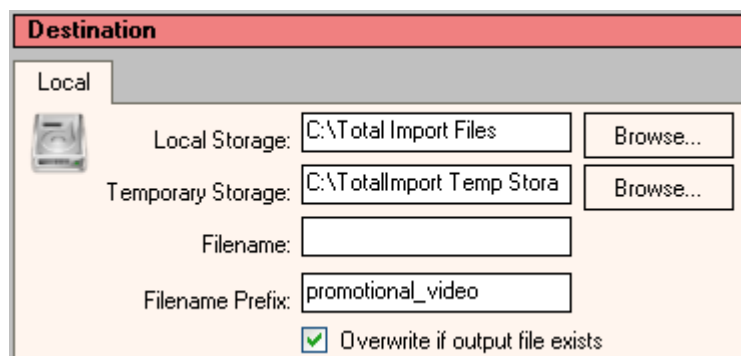


Illustration 286, Total Import "Settings" Panel with Selectable Video Bit Rate



4. Under "Destination," specify where on your PC you would like your newly encoded MPEG file(s) saved (see Illustration 287). Total Import will create a separate MPEG file for each DVD title within the specified storage area.

Illustration 287, Total Import "Destination" Panel



- a. Click the "Browse" button and in the "Browse for folder" window that appears, navigate to a storage area on your PC large enough to hold the MPEG files. The Total Import encoding process will create MPEG files that are larger than the original DVD titles.
 - b. Use the "Temporary Storage" field's "Browse" button to specify where on your PC you would like Total Import to store the imported DVD titles. Total Import automatically deletes the imported titles once they are converted into an MPEG-2 file.
 - c. Assign filenames with either the "Filename" or "Filename Prefix" field as follows:
NOTE: NEXUS series systems do not recognize filenames with spaces.
 - "Filename": *this field becomes available if you are only converting one title.* Enter up to 27 characters, no spaces, in the field. Total Import will automatically add ".mpg" to the filename.
 - "Filename Prefix": *if you are converting more than one title, the "Filename" field is disabled and the "Filename Prefix" field becomes available.* Enter up to 17 characters, no spaces, in the field and your entry will be added before each converted DVD title's job ID and title numbers (for example, "promotional_video-DVD000-01.mpg").
 - d. Check the "Overwrite" box if you want to save the file over an existing file with the same name.
5. Click the "Start" button to import and encode the DVD titles. The percentage of the job completed will be displayed in the "Source" panel next to the "Start" and "Stop"

buttons. Click “Stop” if you need to prematurely end the job. Any of the job’s DVD titles not fully encoded will need to be reimported and encoded from the beginning.

Once you have finished importing and encoding your DVD titles through Total Import, use the Storage Manager in WinLGX to transfer the new MPEG files to your NEXUS series system’s hard drives. See “Managing Storage of Video, Slide, and Overlay,” on page 327, for instructions.

TROUBLESHOOTING

Always ensure that the NEXUS series system physical connections (power cable, video/audio cables, PRO-BUS, DVply, and Ethernet cables) are secure.

PARTS REPLACEMENT

Due to the placement and sensitivity of components inside each NEXUS series server/controller, the systems do not contain any user-serviceable parts.

The NEXUS series server/controller must be sent back to the factory if battery replacement is necessary. Whenever the NEXUS series system is unplugged, its backup battery automatically provides standby power to the unit. Leaving the NEXUS series system unplugged for extended periods of time will drain its backup battery.

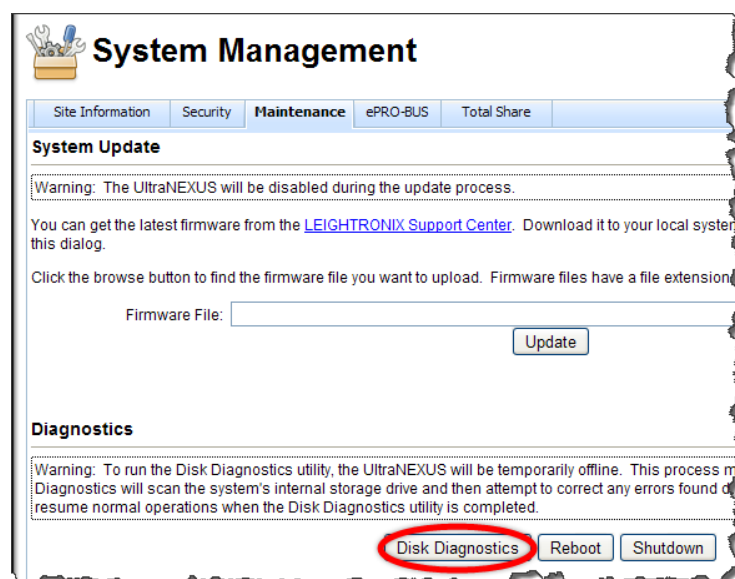
CHECKING EXTERNAL USB DRIVES AND INTERNAL COMPACT FLASH DRIVE

Use the WebNEXUS disk diagnostics feature to automatically fix many common File Allocation Table (FAT) errors that may impair your NEXUS series system's USB drives and compact flash drive or cause data loss on the drives. LEIGHTRONIX recommends using the feature on a monthly basis to ensure optimal drive performance as well as any time you discover file/drive errors in your log files or notice drive performance issues.

NOTE: *The disk diagnostics process does not fix physical hardware degradation.*

To run the disk diagnostics feature, log into the WebNEXUS interface and click the "SYSTEM" menu button and then the "Maintenance" tab to display the screen shown in Illustration 288.

Illustration 288, "System" Screen with "Disk Diagnostics" Button



Click the “Disk Diagnostics” button and then select the pop-up menu’s “Start Diagnostics” option to perform the disk check process. When the diagnosis has been completed, a log file describing any errors discovered and actions performed will be added to your system’s “EVENTS.LOG” file (see the “System Log Files” section on page 338 for more information on the “EVENTS.LOG” file).

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, and 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.
2330 Jarco Drive
Holt, MI 48842
Phone: (800) 243-5589
Fax: (517) 694-1600

WARRANTY

LEIGHTRONIX, INC. warrants this NEXUS series server/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.

PRODUCT SAFETY CERTIFICATIONS

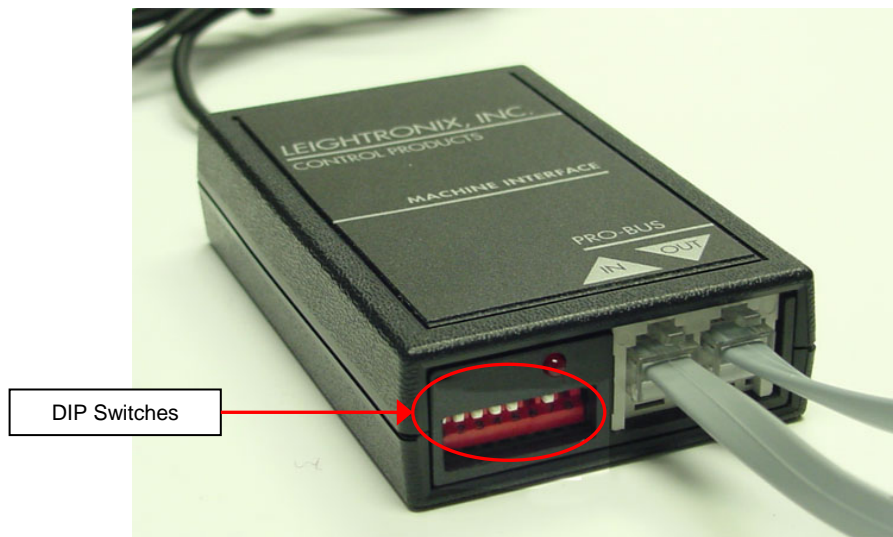
The NEXUS series products have been certified by ETL Semko for U.S. Standards for Audio, Video & Similar Electronic Apparatus (UL-60065) and Canadian Standard(s) for Safety Requirements for Audio, Video & Similar Electronic Apparatus (CAN/CSA-C22.2 No. 60065)

APPENDIX A: PRO-BUS INTERFACE CONNECTIONS

Each NEXUS series server/controller comes equipped with a LEIGHTRONIX PRO-BUS control output. By connecting addressable PRO-BUS interfaces to your NEXUS series server/controller, you can use pre-programming or immediate remote control to operate up to 16 of your devices (play, rewind, record, and stop).

PRO-BUS interfaces use standard phone cables with RJ-11 connectors that loop between each interface. Each NEXUS series system provides both control signals and power to your devices through PRO-BUS interfaces. Connect your PRO-BUS interfaces as follows (refer to Illustration 289, PRO-BUS Interface):

Illustration 289, PRO-BUS Interface



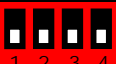


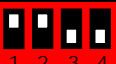












SET SWITCHES

ASSIGN INTERFACE AN ADDRESS

Each PRO-BUS interface relays the control commands issued to its address number. The interface's activity LED toggles from its previous state (ON or OFF) when the interface receives a command. To assign your interface an address, set Switches **1–4** (see Illustration 289, PRO-BUS Interface) according to Table 61, PRO-BUS Address Configuration. For organizational purposes, please:

- Assign your interfaces consecutive address numbers, starting with “01” at the Controller.
- NOTES:**
- If your Controller has two PRO-BUS ports, continue numbering the first interface in the second PRO-BUS chain where the first chain left off.
 - For interfaces attached to a TCD/IP Controller, the address settings for Switches **1–4** shown in Table 61, PRO-BUS Address Configuration are repeated for each PRO-BUS chain (for example, Switches **1–4** for Device 1 and Device 17 are the same).
 - If possible, match each device's interface address to its switcher input number.
 - Label devices and interfaces with their address and input numbers.
 - Document your entire PRO-BUS interface/device/switcher setup.

Table 61, PRO-BUS Address Configuration

| | | | |
|---|---|--|---|
| DEVICE 01  | DEVICE 02  | DEVICE 03  | DEVICE 04  |
| DEVICE 05  | DEVICE 06  | DEVICE 07  | DEVICE 08  |
| DEVICE 09  | DEVICE 10  | DEVICE 11  | DEVICE 12  |
| DEVICE 13  | DEVICE 14  | DEVICE 15  | DEVICE 16  |

CONFIGURE INTERFACE TO SEND CONTROL COMMANDS

When an interface receives a PRO-BUS command, it checks the settings of Switches **5–8** and emits the corresponding command(s). The emitted command(s) will change the device from its initial, operational mode to a new mode. The settings for Switches **5–8** vary depending on the PRO-BUS interface model, so refer to the corresponding PRO-BUS manual for more information.

ATTACH PRO-BUS TO CORRESPONDING DEVICE

LEIGHTRONIX PRO-BUS interfaces are sold separately for many brands and models of professional video equipment and are available with infrared, mini-jack, and multi-pin connectors. Refer to your PRO-BUS interface's manual for more information on connecting the interface to a device.

CONNECT PRO-BUS TO CONTROLLER AND OTHER PRO-BUS INTERFACES

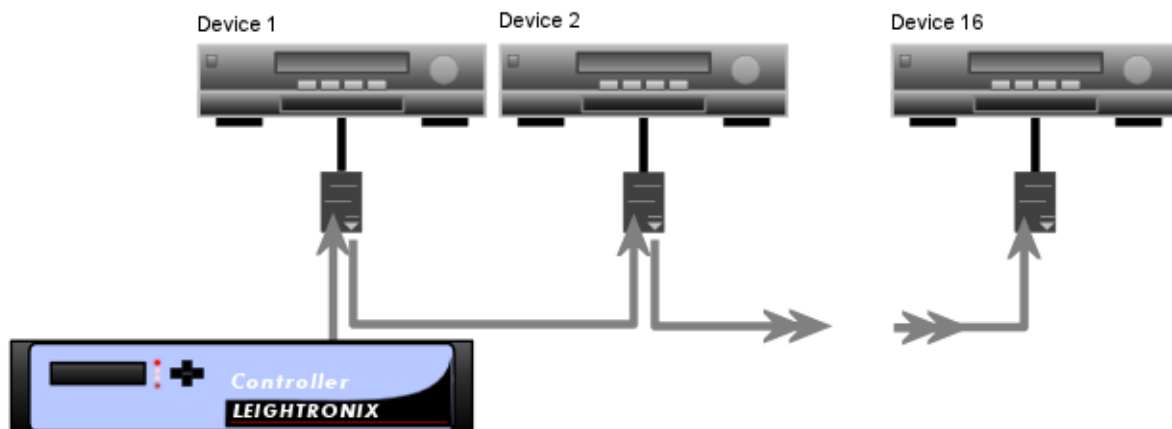
Starting from the PRO-BUS port on your NEXUS series server/controller, daisy-chain the provided RJ-11 cables between interfaces as shown in Illustration 290, PRO-BUS Daisy Chain, observing the “IN” and “OUT” labels on the interfaces. These labels indicate the signal path from the Controller. **Do not loop the last interface back to the NEXUS series server/controller! It should have an OPEN “OUT” connector.** Only 16 interfaces may be connected in a chain.



CAUTION

Interfaces will not work and equipment may be damaged if the “IN” and “OUT” labels are not observed!

Illustration 290, PRO-BUS Daisy Chain



APPENDIX B: CABLE PINOUTS FOR LEIGHTRONIX-SUPPORTED EXTERNAL SWITCHERS

Each NEXUS series server/controller is equipped with a male DB9M RS-232 port ("COM 1") for an external switcher. Table 62 lists the external switcher cables compatible with the NEXUS series systems.

NOTE: LEIGHTRONIX ships the following external switcher cables with each NEXUS series system: part #s 10-4869, 10-4421, and 10-2372.

Table 62, Cable Information for LEIGHTRONIX-Supported External Switchers

| LEIGHTRONIX
PART # | COMPATIBLE
SWITCHER(S) | CABLE
ILLUSTRATION | PINOUT DIAGRAM |
|-----------------------|--|-----------------------|----------------|
| 10-4869 | <ul style="list-style-type: none"> • Extron • Knox • Utah (9 pin) • Creator | Illustration 291 | Figure 4 |
| 10-4421 | <ul style="list-style-type: none"> • Autopatch • Leitch • LGX NET-164 • Pesa | Illustration 292 | Figure 5 |
| 10-4617 | LGX PRO-16 | Illustration 293 | Figure 6 |
| 10-2372 | <ul style="list-style-type: none"> • Kramer • Sigma | Illustration 294 | Figure 7 |
| 10-4588 | Sierra | | Figure 8 |

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 shipped with each NEXUS series system may differ from the cables shown in the following illustrations.

NOTE: Handshaking lines are driven, but not utilized.

Illustration 291, DB9F-DB9M Straight-Through Cable, Part #10-4869



Figure 4, Pinout of DB9F-DB9M Straight-Through Cable, Part #10-4869

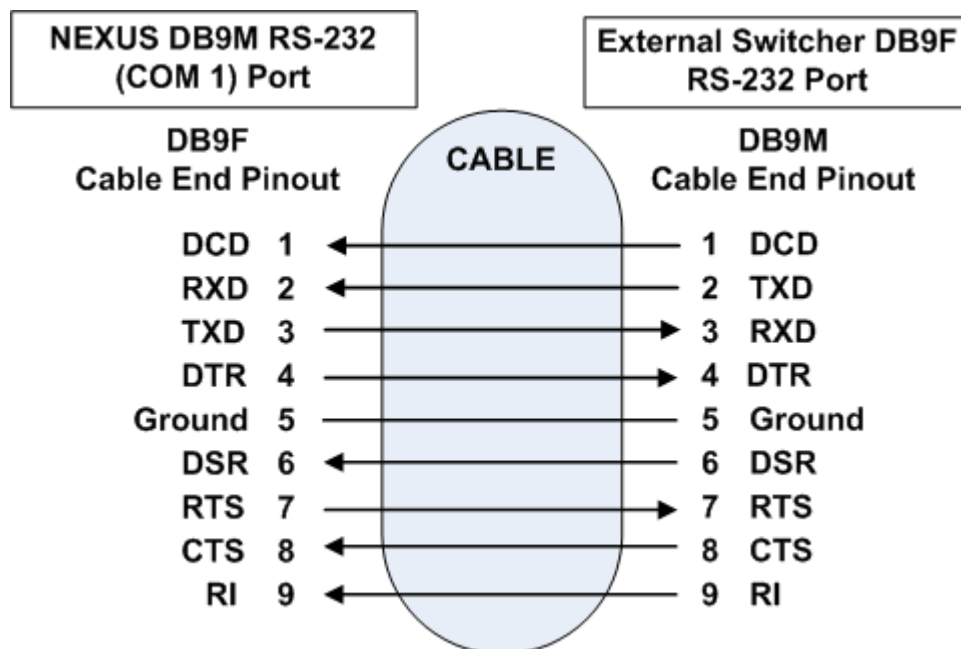


Illustration 292, DB9F-DB9F Null Cable, Part #10-4421



Figure 5, Pinout of DB9F-DB9F Null Cable, Part #10-4421

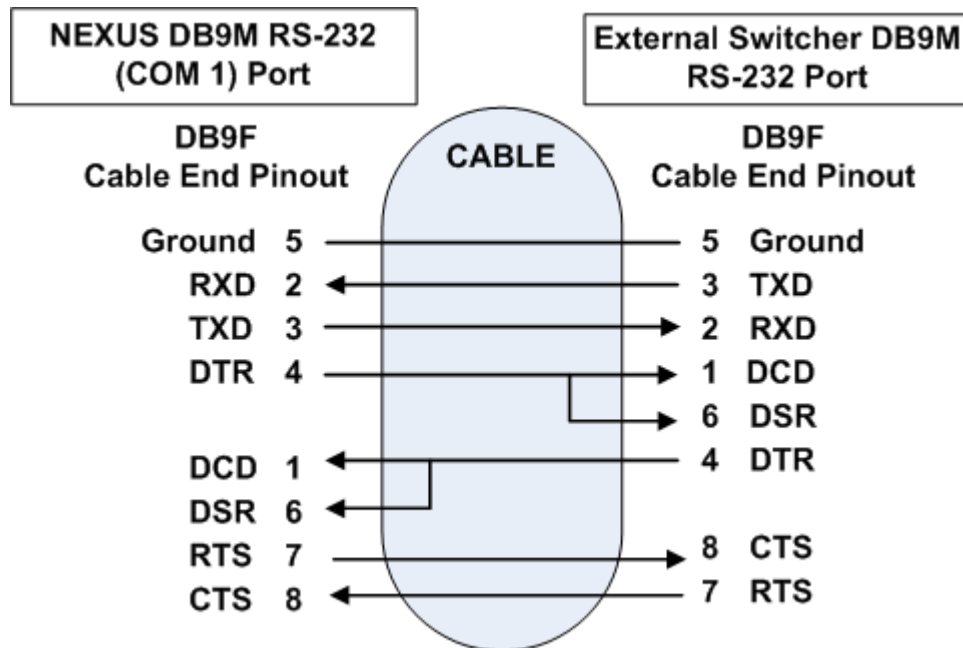


Illustration 293, DB9F-DB25F 6' Straight-Through Cable, Part #10-4617



Figure 6, Pinout of DB9F-DB25F 6' Straight-Through Cable, Part #10-4617

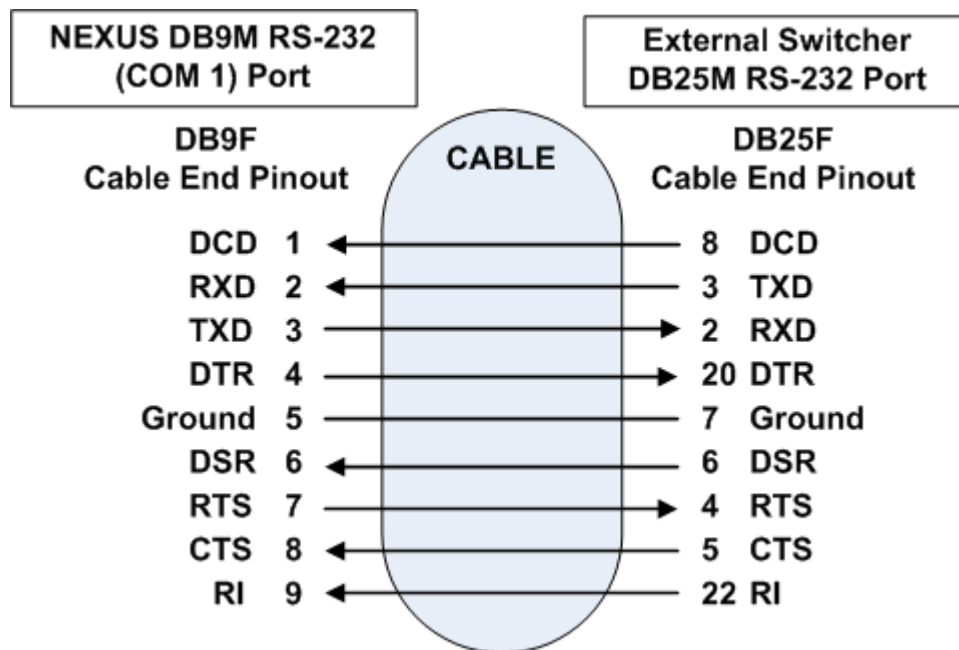


Illustration 294, DB9F-DB9M 6' Null Cable, Part #10-2372



Figure 7, Pinout of DB9F-DB9M 6' Null Cable, Part #10-2372

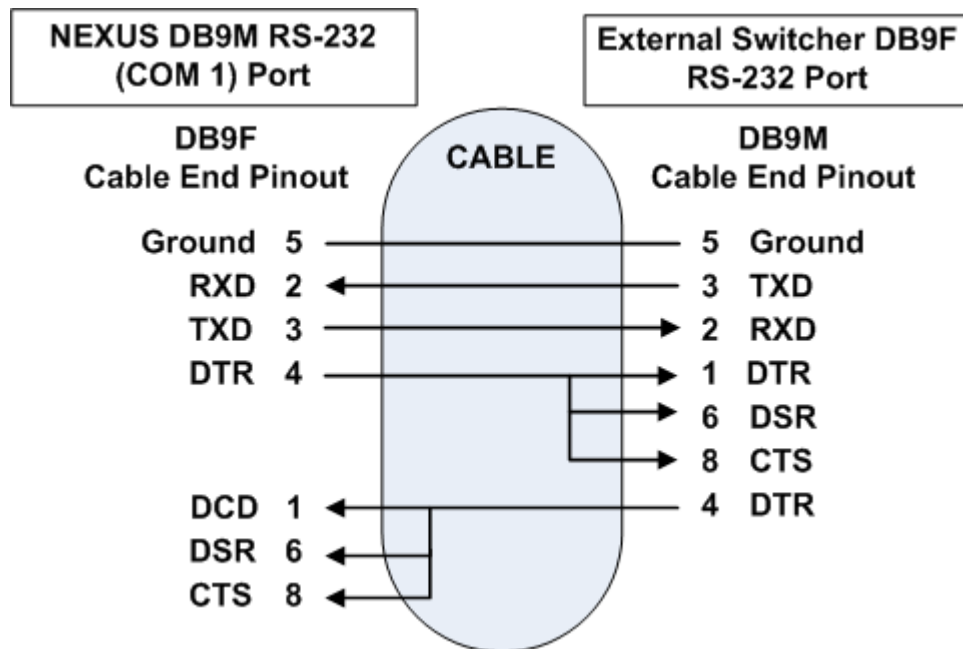
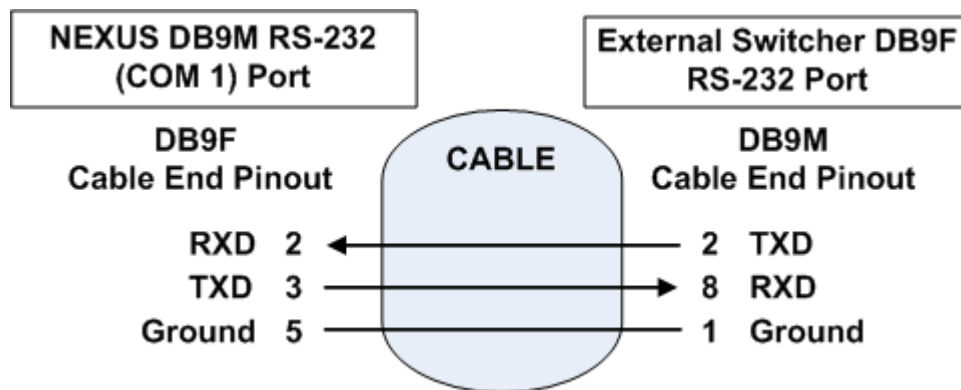


Illustration 295, DB9F-DB9M 6' Serial Cable, Part #10-4588



Figure 8, Pinout of DB9F-DB9M 6' Serial Cable, Part #10-4588



APPENDIX C: CABLE PINOUTS FOR LEIGHTRONIX-SUPPORTED EXTERNAL CLOCKS

Each NEXUS series system is equipped with a male DB9M RS-232 port ("COM 2") which may be connected to a LEITCH or ESE clock. Custom cables may be fabricated according to the following pinouts. The color and molding of cables shipped with each NEXUS series system may differ from the cables shown in the following illustrations.

NOTE: Handshaking lines are driven, but not utilized.

Illustration 296, DB9F-DB25M Straight-Through Cable, Part #10-4381



Figure 9, Pinout of DB9F-DB25M 6' Straight-Through Cable for LEITCH Clock, Part #10-4381

NOTE: If you are constructing your own LEITCH cable, only the TXD, RXD, and Ground wires are needed.

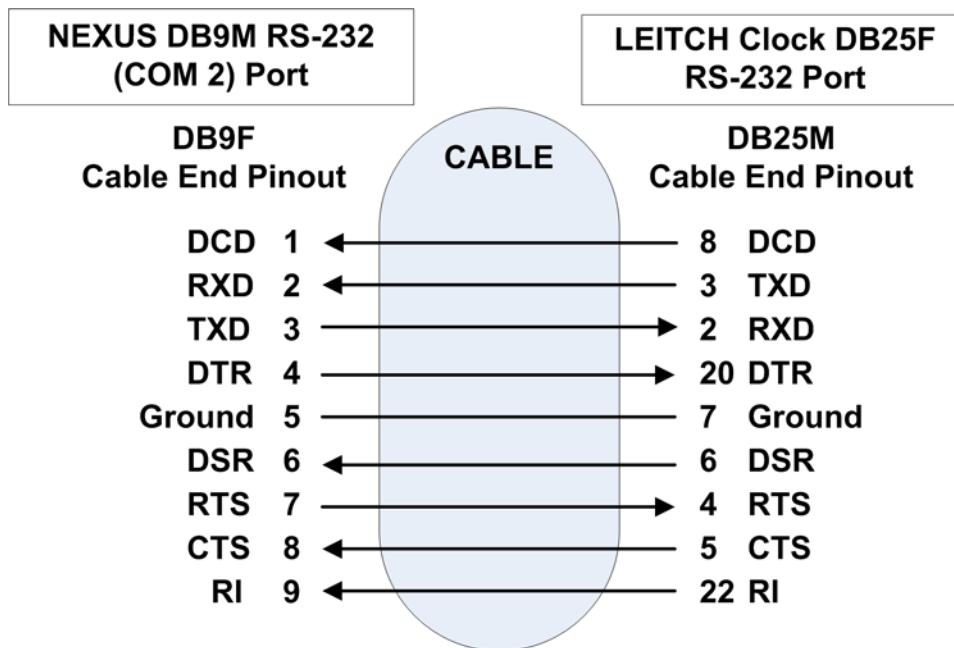
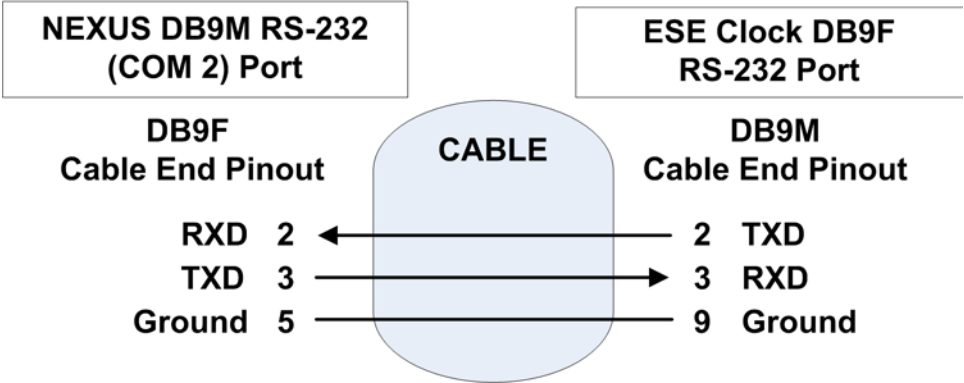


Illustration 297, DB9F-DB9M Serial Cable



Figure 10, Pinout of DB9F-DB9M 6' Serial Cable for ESE Clock



APPENDIX D: COPYRIGHT STATEMENTS

The UltraNEXUS/NEXUS and UltraNEXUS-SDI firmware contains portions of the following software.

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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 NEXUS series CBR recording preset option ensures the internal broadcast MPEG recorder records a program at the user-defined video bit rate. This option works best for video with little motion and allows you to reliably predict the record time of a video file. |
| Character Generator | Electronic device which produces graphics and characters for creating video titles |
| Client (software) | 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 patch cable wired to route the transmit signals from one piece of equipment to the receive signals of another piece of equipment, and vice versa. |
| Decoder | A software program and/or hardware device that converts a signal back into its original format |
| Destination | Output |
| Device | Any source (input) controlled by a PRO-BUS, IR, DVply, or switch interface; also referred to as "deck" |
| DHCP | Dynamic Host Configuration Protocol; protocol that automatically assigns IP addresses to devices as they are attached to a network |
| DTE | Data Terminating Equipment; refers to a communications device that is the source or destination of network signals |

| TERM | DEFINITION |
|---------------------|--|
| DVply | Serial device ports providing advanced control for select DVD players with random title:chapter access |
| 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” |
| Event Action | Any switch or device function |
| Fallback Input | Applies to internal UltraNEXUS/NEXUS switcher only: if valid video is lost on an output, the selected fallback input will be switched to the output |
| FAT | File Allocation Table; part of a hard disk where data is stored |
| Firmware | Software contained in a hardware device |
| FPTV | Full-power television |
| Gateway Address | IP address of computer or router that transfers communications from the local network to the broader network |
| GPI | General Purpose Interface |
| Host | IP-capable machine connected to an IP network |
| Image File | See <i>NEXUS Series Image File</i> |
| Immediate (control) | Control of UltraNEXUS/NEXUS through WinLGX control panel instead of a schedule |
| IP Address | Internet Protocol; 4-byte address used to identify devices on a network |
| IRD | Integrated Receiver Decoder |
| JPEG file | Graphic file that may be used to create slides and slide shows. Use the stock JPEG images included with the NEXUS series system and add messages with the text editor or upload any JPEG files you have created with third-party software. |
| LAN | Local Area Network; computer network that covers a relatively small area (single building) |
| LED | Light-emitting diode |

| TERM | DEFINITION |
|-------------------------|---|
| Library Resource | Contains the event actions of a frequently scheduled device medium. Each library resource contains event actions for a specific MPEG video, slide, tape, disc, or switch action. |
| Locked Event | An event with an editable, fixed time entered by the user |
| Log File | List of NEXUS series system actions and alarms |
| LPTV | Low-power television |
| MATV | Master-antenna television |
| Mb/s | Megabytes per second |
| Metadata | Data used to describe other data. Each NEXUS series system processes user-assigned, WebNEXUS slide metadata to determine when slides will appear in slide shows scheduled through WinLGX. |
| MPEG | Moving Pictures Expert Group; standards for compressing digital video and audio data |
| Network | A group of connected computers that can communicate with one another. Networks enable computers to share files and resources and exchange messages. |
| NEXUS Series Image File | Contains system, device, and library properties and may contain a schedule of events |
| NIC | Network Interface Card; Ethernet card used to connect to a network |
| OS | Operating System |
| Overlay | PNG file that may be layered over digital video and slide playback to add station IDs, emergency alerts, messages, and more to program playback |
| PC | Personal Computer |
| PNG file | Graphic file format that supports transparency. PNG files may be formatted to include station IDs, icons, message banners, and more and then placed over digital programming without blocking the entire slide or video picture. Use the stock PNG images included with the NEXUS series system and add messages with the text editor or upload any PNG files you have created with third-party software. |
| Preroll | Amount of time the NEXUS series system waits before switching device on-air (prevents the transmittal of black |

NEXUS Series Glossary

| TERM | DEFINITION |
|------------------|--|
| | video or static found at beginning of a program) |
| PRO-BUS | Interfaces used to connect VCRs/DVD players to an Controller |
| 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 device needs to prepare for playback; begins when device receives a playback command and ends at the first sign of video |
| Slide | JPEG file |
| SMTP | Simple Mail Transfer Protocol; protocol used to transfer email between or among servers |
| Source | Input (video and/or audio) |
| Subnet Mask | Separates IP address into 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 event's channel tab output |
| TCP/IP | Transmission Control Protocol/Internet Protocol |
| TOTAL INFO | An optional, subscription-based dynamic, video content service (30-day, free trial available) offered exclusively by LEIGHTRONIX. Part of the WebNEXUS Virtual Channel feature, TOTAL INFO adds local weather and traffic information as well as world news, sports, and entertainment to NEXUS series MPEG playback channels. |
| Unlocked Event | An event whose start 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 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 |
| VBR | Variable Bit Rate; the NEXUS series VBR recording preset option allows the internal MPEG recorder to automatically adjust the record rate of a program between the user-defined minimum and maximum video bit rates. This option ensures that the MPEG recorder captures the |

| TERM | DEFINITION |
|-----------------|--|
| | more detailed portions of the program (particularly important for motion-intensive video). |
| VFD | Vacuum Fluorescent Display |
| Video | MPEG file |
| Virtual Channel | The WebNEXUS Virtual Channel feature provides two looping video sources that may be configured to automatically appear between scheduled programs or in place of a schedule. |
| VOD | Video-on-Demand; UltraNEXUS-SDI/UltraNEXUS VOD files are available for viewing at any time from LEIGHTRONIX PEG Central |

INDEX

- AUTOMATIC MPEG AND VOD FILE TRANSFERS**..... 354
- BACKGROUNDS**
 Filenames..... 37
 Recommended resolutions..... 36
- CAUTION**..... 62, 70, 460, 464
- CHANNEL OUTPUT TABS**..... 232
- CONFIDENCE MONITOR** 320
- CONTROLLER WINDOW** 113
- COPYING/CUTTING/PASTING EVENTS** .. 241
- DAY TABS**
 Adding an event..... 238
 Functions..... 233
- DELETING EVENTS** 242
- DEVICE EVENT PROPERTIES**..... 248, 268
- DVD TO MPEG CONVERSION SOFTWARE**
 453
- DVPLY**
 Firmware version..... 44
 Immediate control..... 323
 Scheduling devices..... 248, 253, 268, 270
 Updating firmware 323, 344
- EDITING EVENTS**..... 241
- EPRO-BUS**
 Configuring in WebNEXUS..... 441
 Creating device resources..... 167
- ETHERNET**
 Connecting directly to a PC via Ethernet..... 72
 Rear panel Ethernet LEDs..... 73
- EXTERNAL CLOCKS**
 ESE cable pinout..... 472
 LEITCH cable pinout 471
- EXTERNAL DEVICE CONTROL PANELS** .. 322
- EXTERNAL SWITCHER**
 Cable pinouts..... 465
 Channel output tab assignments . 144
 Non-LEIGHTRONIX switcher configuration steps..... 142
- EXTERNAL SWITCHER**
 Supported external switchers and parameters 59, 64
- FALLBACK SETTING**..... 138
- FCC NOTICE**..... 460
- FORCING A SWITCH** 307
- FRONT PANEL**
 Display..... 43
 Keypad 43
 LEDs..... 47
 Password, changing 113
 Password, entering..... 75
- FTP TCP BUFFER SIZE** 81
- IMAGE FILES**
 Creating..... 94
 Opening..... 219
 Saving..... 224
 Sending to NEXUS 300
- INSTALLATION CHECKLIST** 21
- INTERNAL SWITCHER**
 Channel output tab assignments 138, 140
- IR PORTS**
 Configuration options..... 151
 Connections..... 61, 65
 Control options 48, 49
 Immediate control..... 322
 Scheduling devices..... 251
 Scheduling media 274
- LIBRARY RESOURCES**
 Exporting MPEG library resources 211
 Importing MPEG library resources 226
 Inserting library resource events.. 246
 Replacing library resource events 244

| | | | |
|--|-------------|--|----------|
| <i>Scheduling library resource events</i>
..... | 274 | PROGRAM GUIDE | |
| LOG FILES | | <i>Creating library resources</i> | 203 |
| <i>Downloading from a NEXUS series</i>
<i>system</i> | 336 | <i>Scheduling library resources</i> | 283 |
| <i>Viewer</i> | 125 | REBOOTING NEXUS SERIES SYSTEM | |
| MASTER CLOCK SYNCHRONIZATION | 79 | FROM WINLGX | 115 |
| MPEG CLIP | 313 | SAFETY INSTRUCTIONS | 28 |
| MPEG FILE SPECIFICATIONS | 38 | SCHEDULE COLUMN HEADINGS | 120 |
| MPEG FILES | | SERIAL PORT | 78 |
| <i>Filenames</i> | 41 | SHARED SWITCHER | |
| <i>Supported resolutions</i> | 41 | <i>Channel output tab assignments</i> . | 148 |
| MPEG PLAYER CONTROL PANEL | 308 | <i>Front panel IP address configuration</i>
..... | 78 |
| MPEG RECORDER (BROADCAST) | | <i>WinLGX configuration</i> | 146 |
| <i>Confidence monitor</i> | 320 | SLIDES | |
| <i>Control panel</i> | 317 | <i>Approving for display</i> | 389 |
| ULTRANEXUS REAR PANEL | 48 | <i>Approving for slide show displays</i> | 332 |
| NEXUS SERIES SYSTEM STATUS REPORT
..... | 352 | <i>Default slide</i> | 332, 386 |
| NEXUS SYSTEM WITH EXTERNAL
SWITCHER, DIAGRAM | 56 | <i>Filenames</i> | 36 |
| NEXUS SYSTEM WITHOUT EXTERNAL
SWITCHER, DIAGRAM | 53 | <i>Individual default display length</i> ... | 124 |
| OVERLAYS | | <i>Recommended resolutions</i> | 36 |
| <i>Emergency overlays</i> | 392 | <i>Uploading to a NEXUS series</i>
<i>server/controller</i> | 369 |
| <i>Filenames</i> | 36 | STORAGE MANAGER | |
| <i>Recommended resolution</i> | 36 | <i>Copying videos and slides</i> | 329 |
| <i>Templates for scheduling</i> | 171 | <i>Deleting videos and slides</i> | 330 |
| PREFERENCES WINDOW | 123 | <i>Moving videos and slides</i> | 330 |
| PRINTING SCHEDULES | | <i>Renaming videos and slides</i> | 331 |
| <i>Page layouts</i> | 117 | SWITCHBACK INPUT | 236 |
| <i>Print templates</i> | 115 | SWITCHER CONFIGURATION | 135 |
| <i>Printer and paper settings</i> | 118 | TCP/IP ADDRESSES | |
| <i>Printing</i> | 301 | <i>Gateway address</i> | 77 |
| PRO-BUS | | <i>IP address</i> | 75 |
| <i>Connections</i> | 61, 65, 462 | <i>Subnet mask</i> | 76 |
| <i>Control options</i> | 48, 49 | THEMES, CUSTOMIZING WINLGX | |
| <i>Immediate control</i> | 322 | APPEARANCE | 86 |
| <i>Scheduling devices</i> | 251 | TOTAL BACKUP | 445 |
| <i>Scheduling media</i> | 274 | <i>Immediate backup</i> | 450 |
| | | <i>Restore files</i> | 451 |
| | | <i>Scheduled backup</i> | 450 |
| | | TOTAL IMPORT | 453 |

TOTAL INFO

| | |
|--|-----|
| <i>Activating</i> | 409 |
| <i>Changing Storage Volume for MPEG</i> | |
| <i>Video Backgrounds</i> | 417 |
| <i>Customizing Audio</i> | 416 |
| <i>Customizing Logo</i> | 414 |
| <i>Customizing Video Background Files</i>
..... | 416 |
| <i>Updating LEIGHTRONIX MPEG</i> | |
| <i>Video Background Files</i> | 418 |

TURNING A NEXUS SERIES SYSTEM

| | |
|---------------------|----|
| ON/OFF | 74 |
|---------------------|----|

ULTRANEXUS-SDI REAR PANEL 49

ULTRANEXUS-SDI SYSTEM WITH

| | |
|---|----|
| EXTERNAL SWITCHER, DIAGRAM | 58 |
|---|----|

ULTRANEXUS-SDI/ULTRANEXUS VOD

| | |
|-----------------------|----|
| RECORDER | 42 |
|-----------------------|----|

UPDATING CONTROLLER FIRMWARE.... 344

UPDATING WINLGX 347

USB DRIVES

| | |
|----------------------------------|----|
| <i>Rear panel USB LEDs</i> | 62 |
|----------------------------------|----|

USER ACCOUNT RIGHTS 109

USER-DEFINED RESOURCE DATA DIALOG

| | |
|---|--|
| BOX,CUSTOM SCHEDULE HEADINGS 120 | |
|---|--|

VIRTUAL CHANNELS 406

| | |
|-----------------------------------|-----|
| <i>Creating Playlists</i> | 423 |
| <i>Displaying Playlists</i> | 433 |
| <i>Overview</i> | 406 |

VOD RECORDER

Automatic File Transfers to PEG

| | |
|---|----------|
| <i>Central</i> | 354 |
| <i>Enabling/Disabling</i> | 353 |
| <i>Files optimized for streaming VOD</i> | 42 |
| <i>Using with external switcher</i> | 144 |
| <i>Using with internal switcher</i> . | 138, 141 |

WARNING..... 28

WARRANTY 459

WEB SCHEDULE PORT 80

WEBNEXUS..... 349

WINLGX

| | |
|--|-------------|
| <i>Changing Themes</i> | 86 |
| <i>FACTORY-DEFAULT USERNAME AND</i>
<i>PASSWORD</i> | 89, 93, 215 |
| <i>Hiding/Displaying toolbars, windows,</i>
<i>and schedule columns</i> | 102 |
| <i>Installation</i> | 84 |
| <i>Main window components</i> | 96 |
| <i>Moving windows</i> | 104 |
| <i>Opening and logging in</i> | 92, 214 |
| <i>Rearranging schedule column</i>
<i>headings</i> | 104 |
| <i>Resizing schedule column widths</i> | 104 |
| <i>Updating software</i> | 347 |
| <i>Version number</i> | 216 |

WINLGX-LT TAB

| | |
|------------------------------|-----|
| <i>Adding an event</i> | 240 |
| <i>Functions</i> | 234 |