

User Guide

Nexio® InfoCaster™

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Contents

Install and Set Up InfoCaster	15
Installation Workflow	15
Install InfoCaster Manager	15
Set InfoCaster System Options	16
Supported Operating Systems.....	16
Confirm Your Administrator Privileges.....	16
Turn Off Windows Automatic Updates	17
Turn Off Your Screen Saver	18
Turn Off Monitor Power Saving Options.....	18
Turn Off Simple File Sharing	19
Connect Hardware.....	20
Connect Triggers.....	20
Install Output Hardware.....	20
Install InfoCaster Software	21
Publishers and Players.....	21
Connect the Dongle to Your PC Tower	21
Install Software.....	21
Video Configuration	23
The InfoCaster Configuration Utility	23
Log In	24
Troubleshoot ATI Hardware Output.....	24
Connect InfoCaster to InfoCaster Manager.....	25
Run Publishers as Players	25
Connect Publishers to InfoCaster Manager	25
Connect Players to InfoCaster Manager	27
Welcome to InfoCaster	32
InfoCasts	32
InfoCaster Workflow	32
Distributing InfoCasts	33
Publishers and Players.....	33
InfoCaster Workspace	35
Start InfoCaster	35

Workspace Windows.....	36
Tree View.....	37
Preview Window	38
Change VGA Aspect Ratio.....	38
Display Safe Title Area	38
Display Grid Lines	39
Exit InfoCaster	39
Purchase Options	40
The Configuration Utility	40
Manage InfoCasts	41
Create a New InfoCast.....	41
Workflow	41
New InfoCasts.....	42
Design for Different InfoCaster Products	42
Open an InfoCast	42
Open InfoCast Dialog.....	43
InfoCast Resolutions.....	44
InfoCast Types	44
Manage InfoCasts.....	44
Rename InfoCasts.....	44
Close InfoCasts	45
Delete InfoCasts	45
Expire InfoCasts on Player	45
Save InfoCasts.....	46
InfoCast Pages	47
Switch to Pages Window	47
Manage Pages	47
Edit Page.....	48
Change Page Display	48
InfoCast Regions	50
Switch to Regions Window.....	50
Add Regions.....	51
Draw a Background	52
Draw a DVE Region.....	52
Pause Rolls.....	53
Closed Captioning.....	53
Select Regions	54
Manage Regions	54

Change Region Order	55
Delete Regions.....	56
Preview Regions	56
Use Touchscreen Trigger	56
Add Items to Regions.....	57
Workflow	57
Switch to Items Window	58
Add Items to a Region	59
Change Item Display.....	60
Manage Items.....	61
Publish InfoCasts to InfoCaster Manager	63
Set Up InfoCaster Publishers	63
Publish InfoCasts	63
Download InfoCasts.....	66
Approve InfoCasts	67
Work with Display Walls.....	69
Configure System	69
Synchronize Video Clips	69
Design for Display Walls	69
Display Wall Designer	71
External Data Sources	76
Use Data Tags	76
Link Data Tags to External Data Sources	78
Data Gatherer.....	78
External Data Output.....	78
External Data Features	79
Show All New Data at Least Once	79
Enable Onscreen Update.....	79
Set Transition Options.....	80
Set Item Duration	80
Data Source Content	80
Use Internet Data Sources.....	80
Use the Data Source Wizard	81
Content Editors Overview	82
Still Regions	82
Crawl Regions	83
Roll Regions	84

Media Regions	84
Digital Clock Regions.....	86
Analog Clock Regions.....	86
Analog Meter Regions	86
Temperature Regions	87
RTX Port Regions	87
Common Content Editor Features.....	88
Play Files From Source.....	88
Add Log Note.....	88
Add Alpha Mask.....	88
Format Text	88
Add Audio	88
Device Control	89
External Data Sources	89
Analog Clock Quick Editor	90
Add Content	90
Adjust Clock Settings	90
Design a Clock in Photoshop	91
Animation Importer	93
Add Content	93
Adjust Settings.....	94
Preview Item	95
Animation Playback.....	95
Animation Quick Editor	96
Use the Animation Quick Editor	96
Add Content	97
Audio Clip Quick Editor	98
Add Content	98
Adjust Settings.....	99
Preview Item	99
Crawl Quick Editor	100
Add Content	100
Adjust Settings.....	102
Digital Clock Quick Editor	103
Adjust Settings.....	103
Digital Timer Quick Editor.....	105
Adjust Settings.....	105
Dynamic Web Quick Editor.....	107
Limitations.....	107

Add URL Content	108
Add File Content.....	108
Interact with Content	108
Graphic Importer	109
Add Content	109
Adjust Settings.....	111
Live Audio Quick Editor	112
Add Content	112
Adjust Settings.....	112
Live Video Quick Editor.....	114
Add Content	114
Configure Tuners	115
Adjust Settings.....	116
Add a Graphic Overlay.....	117
Mix Audio	118
Set Picon	119
Odometer Quick Editor.....	120
Add Content	121
Connect to the UDP Multicast.....	121
Adjust Settings.....	123
Create an Odometer in Photoshop	124
Roll Quick Editor	126
Add Content	126
Adjust Settings.....	127
Table Quick Editor	128
Add Content	128
Adjust Column and Heading Settings	128
Adjust Row Formatting Settings.....	129
Temperature Probe Quick Editor	131
Set Up Temperature Probe	131
Display the Temperature From a Probe	132
Display a Manual Temperature	132
Offset a Temperature	132
Title Quick Editor	133
Add Content	133
Adjust Settings.....	134
TitleMotion	135
Add Content	135
Edit Content with TitleMotion or with a Content Editor.....	136

Create a Template	136
Use a Template.....	137
TitleMotion Documentation.....	138
Video Clip Quick Editor	139
Add Content	139
Adjust Settings.....	143
Preview Item	144
Supported Video Clip Formats	144
Add A Graphic Overlay	145
Mix Audio	146
Flash Animations	147
Video Stream Quick Editor	148
Add URL Content	148
Add Channel Guide.....	149
Change Channel Guide Appearance.....	154
Adjust Settings.....	156
Supported Streaming Formats	157
Add a Graphic Overlay.....	157
Mix Audio	158
Play From Folder or Source	160
Play From Folder.....	160
Play From Data Source	161
Store Shared Media	163
Set the Shared Media Folder Location	163
Store Files in the Shared Media Folder	163
Add an Alpha Mask.....	164
Apply an Alpha Mask.....	164
Adjust Mask Settings	164
Format Text	166
Apply Custom Formatting Options.....	166
Apply Template Formatting	168
Add Audio	169
Add Audio Items to Page.....	169
Apply Audio Options.....	169
Control Serial Devices.....	171
Configure Serial Devices.....	171
Control Serial Devices with Items.....	172
Schedule Playback	174

Synchronized Player Playback	174
Enable Synchronization	174
Design for Synchronized Playback	174
Synchronization Limitations	175
Use a Touchscreen	175
Enable Touchscreen Detection	176
Set Regions to Detect Touches	176
Create Region Touched Rules	177
Schedule InfoCast Pages	178
Change Page Sequence Display	178
Add a New Page Sequence	179
Manage Sequence Pages	179
Manage Sequences	180
Adjust Sequence Settings	180
Adjust Page Settings	181
Schedule Region Items	183
Change Item Sequence Display	183
Add a New Item Sequence	184
Manage Sequence Items	185
Manage Sequences	185
Adjust Sequence Settings	186
Adjust Item Settings	188
Conditional Playback	189
Disable Sequence, Page, or Item	189
Open Conditional Playback Dialog	189
Add New Rule	190
Manage Rules	190
Create Rules	191
Set Rule Name	191
Set Rule Trigger	191
Set Rule Action	194
Save Rule	197
Use Triggers to Play Other InfoCasts	198
Use Software GPI Triggers to Trigger Playback in another InfoCast	198
Use USB GPI Triggers to Trigger Playback in another InfoCast	199
Output	200
Playback	200
Preview Before Playback	200

Use GPU Acceleration.....	201
Play an InfoCast	202
Play at Scheduled Time	202
Play from Start.....	202
On Air Indicator	202
Stop InfoCasts.....	203
Animation Playback.....	203
Monitoring Playback.....	204
View from Preview Window.....	204
Select Output Mode	204
Track Output.....	204
Change Content During Playback	205
Control Display Monitors.....	206
Add Display Screens	206
Display Status	208
Automate Display Control	209
Use a PC Remote	210
Set Up Streamzap Hardware	210
Display Closed Captions with the PC Remote	210
Control Display Monitors with the PC Remote	211
Control Channel Guides with the PC Remote	211
Control Multiple Players with One PC Remote	213
Log Output.....	214
Log Region Playback	214
View Log File.....	214
Log Queries.....	214
Change Logging Defaults	214
Log Notes.....	215
Logging Server	216
Access the Logging Server	216
Create Data Sources.....	217
Create a Text File	217
Create a Linear Text File	217
Create a Database Text File	217
Create an ODBC Data Source.....	218
Create Database in Microsoft Access.....	219
Create Database in Microsoft Excel	219
Add a Database to the ODBC System List.....	221

Add Database to ODBC System List.....	221
The InfoCaster Configuration Utility.....	223
Launch the Configuration Utility	223
Configuration Utility Tabs.....	223
Multiple Instances	224
Auto-Login Tab	226
Set Up Auto-Login.....	226
Disable Auto-Login	226
Clock Sync and Display Wall	227
Configure Synchronization	227
Monitor Synchronization Status.....	228
Device Configuration Tab	230
Add Device Types	230
Define Device Commands	231
Add Devices to the Device Configuration List	231
Email Settings Tab	232
Use Microsoft Outlook	232
Use Harris Mailer.....	232
Disable Email	233
External Triggers Tab	234
Add External Triggers	234
Software GPIs	235
Multicast Triggers.....	236
General Tab	237
InfoCast Settings.....	237
Presentation Settings	238
Location Settings	238
Data Source Settings	238
Media Store Settings	238
Output Settings	239
Multiple Instances	239
InfoCaster License	240
Find InfoCaster Dongle	240
Current License.....	240
Request License.....	240
InfoCaster Manager Publishing	242
Manage InfoCaster Manager Systems	242
InfoCaster Manager Server Account Tab.....	243

Local System Account.....	243
Set InfoCaster Manager Service Account	243
Multi Screen Playback Tab.....	244
Spanning Tables.....	244
Set Table Spanning Across Multiple Players.....	247
Set Table Spanning Across Player Instances.....	247
Multicast Mode Distribution Tab	248
Multiple Instances	248
Manage Folders.....	248
Playback Logging Tab.....	250
Playback Logs.....	250
Multiple Instances	251
Player Settings Tab	252
Player Settings	252
Multiple Instances	253
Player Server Account Tab.....	254
Player Server User Account	254
Player Server HTTP Account	255
Use Passive FTP	255
Proxy Server Settings Tab	256
Set Up Proxy Server Connection	256
Bypass Proxy Server	256
Remote Control Configuration	257
Specify Player Response	257
Temperature Probe Tab	258
Configure DGH Temperature Probe	258
Set Default Units.....	258
Set Up a Temperature Probe.....	258
Video/Audio Standard Tab	260
Video/Audio Configuration	261
Launch the Configuration Utility	261
Use the Video/Audio Standard Tab	261
Configure InfoCaster Video Output.....	262
Configuration Workflow.....	262
Single Head.....	262
TV Out.....	262
Spanning	263
Edit & Playback.....	263

Multi Head.....	263
Configure the Video Hardware.....	264
Launch the InfoCaster Configuration Utility.....	264
Select the Video Output Mode.....	265
Configure Standard or Fullscreen Mode	265
Resolution Considerations	266
Configure Desktop Video Output	266
Configure Single Head Output.....	266
Configure Spanning Output.....	267
Configure Edit & Playback Output.....	267
Configure Multi Head Output.....	268
Set Device Output Options	268
Audio/Video Options	270
Configure Audio Output	270
Single-Instance and Split Audio Output	270
Configure Live Audio/Video Input	271
Configure ATSC-MH Tuner Card	271
Configure ATSC-MH Tuner Card for A/V Only	272
Configure ATSC-MH Tuner Card for A/V & Datacast.....	272
Confirm the Video Output.....	273
Configure InfoCaster Network Streaming	274
Use Network Stream	274
Use Multiple Instances	274
Use Multiple Outputs	274
Presets and Custom Settings.....	275
Basic Settings.....	276
Cropping and Resizing	276
Streaming and Encoder Settings	278
Advanced Video Stream Settings	280
Warning.....	281
Change Display Mode.....	281
Card Category.....	281
Output Category.....	282
Streaming Settings Category	282
MPEG-2 Encoder Settings Category	284
H.264 Encoder Settings Category.....	288
AAC Encoder Settings Category.....	296
MPEG2 Multiplexer Settings Category.....	297
Program Category	297

Stream Category..... 298

Video Cropping/Scaling Settings Category..... 299

Index..... 300

Install and Set Up InfoCaster

Typically, a software customer is excited about getting their new software up and running, and might attempt to install the software immediately after opening the box. This approach could cause frustration and problems with the install because Nexio® InfoCaster™ requires several conditions for an uninterrupted software install.

The following topics describe how to set up and install both Nexio® InfoCaster™ Creator™ and Nexio® InfoCaster™ Player™ systems. The steps for InfoCaster creators and InfoCaster players are similar.

Installation Workflow

1. Configure the InfoCaster system options.
2. Connect any external triggers you wish to use with the system.
3. Install output hardware.
4. Connect output hardware cabling.
5. Configure output hardware.
6. The USB software dongle must be attached to the computer, unless you are using an operating license.
7. Install and configure InfoCaster software.
8. Configure audio and video.
9. If you are using InfoCaster with InfoCaster Manager, enable InfoCaster within InfoCaster Manager.

One important lesson learned from early installations is that all the above conditions should be met, and the software installed and configured before attempting to connect InfoCaster, InfoCaster Manager, and InfoCaster players in the field. The installation team should not plan to configure InfoCaster in the field. Field installation should only consist of connecting the power cord, network, and video output.

Install InfoCaster Manager

The InfoCaster Manager User Guide is available on your InfoCaster Manager CD. Consult that guide for detailed information about setting up file servers and installing InfoCaster Manager.

Set InfoCaster System Options

InfoCaster is designed to run continuously on your system, which makes the application available to play InfoCasts at any time. Since InfoCaster is designed to run without interruption, you must turn off certain system settings like screen savers and monitor power saving options that interrupt InfoCaster operations.

Supported Operating Systems

InfoCaster can be installed on the Windows XP, Windows Vista, and Windows 7 Professional, Ultimate, or Enterprise 32-bit operating systems.

Windows 7 64-bit, Home Basic, and Premium editions are not supported.

Confirm Your Administrator Privileges

You must have administrator privileges to install the application. Complete the following steps to confirm your administrator privileges.

For Windows XP systems:

1. Log in to your computer with your username and password.
2. Select Start > Control Panel > User Accounts.
 - If the computer is in a domain, the login account is listed in "Users for this computer." Check that "Administrators" displays under the Group heading.
 - If the computer is not in a domain, "Computer Administrator" displays beside your login account.

For Windows Vista and Windows 7 systems:

1. Log in to your computer with your username and password.
2. View your account's status depending on your system setup.
 - If the computer is in a domain, select Start > Control Panel > User Accounts > Change Account Type. The group type for your account should be listed as "Administrators."
 - If the computer is part of a workgroup, select Start > Control Panel > User Accounts > Add or Remove User Accounts. Your account should be listed as "Administrator."

If you do not have administrator privileges, contact your IT professional.

Admin Approval Mode

On Windows Vista and Windows 7 systems, installing the application will automatically disable the Run All Administrators in Admin Approval Mode setting.

Details on the security implications of changing this setting can be found in the Windows Local Security Policy control panel, where this setting can also be enabled. Follow these steps if you need to re-enable the setting.

1. Select Start > Control Panel > System and Security > Administrative Tools. The Administrative Tools window opens.
2. Double-click on the Local Security Policy option. The Local Security Policy window opens.
3. Browse to Security Settings > Local Policies > Security Options.
4. Double-click on the User Account Control: Run All Administrators in Admin Approval Mode option.
 - To enable or disable the option, use the radio buttons in the Local Security Setting tab.
 - To view an explanation of the security implications of changing the setting, switch to the Explain tab.

Note: The application will not operate properly if this setting is enabled.

Aero Themes

On Windows Vista and Windows 7 systems, installing the application will automatically disable the Aero themes. If necessary, you can enable the themes in the Control Panel > Appearance and Personalization menu.

Note: The application will not operate properly if this setting is enabled.

Turn Off Windows Automatic Updates

Windows Automatic Updates reboots the system when an update arrives, interrupting your output. Use the following steps to turn off Windows Automatic Updates.

For Windows XP systems:

1. On the desktop, right-click on My Computer.
2. Select Properties from the menu.
3. Switch to the Automatic Updates tab.
4. Select the Turn off Automatic Updates radio button.
5. Click the Apply button and then click OK.

For Windows Vista and Windows 7 systems:

1. On the desktop, right-click on Computer.
2. Select Properties from the menu.
3. Select Action Center.
4. In the Windows Update section of the tab, click the Change Settings button.
5. Select the Let Me Choose option.

Turn Off Your Screen Saver

If a screen saver turns on after a period of inactivity, output goes blank. For proper operation you must ensure the screen saver is turned off.

For Windows XP systems:

1. Right-click on the Windows desktop.
2. Select Properties from the menu to open the Display Properties dialog.
3. Switch to the Screen Saver tab.
4. On the Screen Saver drop-down list, select (None).
5. Click the Apply button and then click OK.

For Windows Vista and Windows 7 systems:

1. Right-click on the Windows desktop.
2. Select Personalize from the menu.
3. Click the Screen Saver button. The Screen Saver Settings window opens.
4. Select None from the drop-down list.
5. Click the Apply button and then click OK.

Turn Off Monitor Power Saving Options

To avoid losing your video output you must turn off the monitor power saving option. If the monitor power saving option interrupts playback, your output goes blank and your computer screen turns black. To regain your video output you must restart your computer.

Complete the following steps to turn off your monitor power saving option and ensure you do not lose your output.

For Windows XP systems:

1. Right-click on the Windows desktop.
2. Select Properties to open the Display Properties dialog.
3. Switch to the Screen Saver tab.
4. Click on the Power button to open the Power Schemes and Settings dialog.
5. From the Turn Off Monitor drop-down list, select Never.
6. Click the Apply button and then click OK.

For Windows Vista and Windows 7 systems:

1. Right-click on the Windows desktop.
2. Select Personalize from the menu.
3. Click the Screen Saver button. The Screen Saver Settings window opens.
4. Click the Change Power Settings link. The Select a Power Plan window opens.
5. Expand the Hide Additional Plans menu.
6. For the custom plan, click Change Plan Settings.

7. In the Change Plan Settings window, choose the following options.
 - Turn Off the Display: Never.
 - Put Computer to Sleep: Never.
8. Save the plan.
9. In the Select a Power Plan window, select the custom plan you modified.

Turn Off Simple File Sharing

Windows XP users must make sure Simple File Sharing is not enabled.

1. Click on Start > Control Panel.
2. Double-click on Folder Options.
3. In the Folder Options window, switch to the View tab.
4. Scroll to the bottom of the Advanced settings list.
5. Make sure Use Simple File Sharing is unchecked.

By default, Simple File Sharing is disabled on Windows Vista and Windows 7 systems.

Connect Hardware

InfoCaster can be configured to support many types of external triggers, output cards, and other external hardware. If you received InfoCaster as part of a turnkey system, then the InfoCaster Hardware Manual describes how to install and set up your hardware.

Connect Triggers

If you are using serial or USB triggers to control your output, consult the InfoCaster Hardware Manual to learn how to install and configure the triggers.

Note: Not all InfoCaster systems contain serial ports. If your system does not have a serial port, use a third-party Serial to USB converter to map system USB ports to virtual serial ports.

Install Output Hardware

If you need to install an output card into your InfoCaster system, consult the card's documentation for complete instructions.

Install InfoCaster Software

The following instructions describe how to install InfoCaster. Before you install your InfoCaster software, ensure that you have configured your system (see Set InfoCaster System Options (on page 16)) and installed your output hardware.

Publishers and Players

Publishers are InfoCaster systems used to create InfoCasts. InfoCasts must be published to InfoCaster Manager before they can be sent through the network.

In order to publish InfoCasts, a publisher must have a connection to the InfoCaster Manager system.

Player systems are InfoCaster systems configured to receive InfoCasts and play them using their output hardware. InfoCaster Manager sends commands to players, instructing them to download InfoCasts and play them at a specified time.

Connect the Dongle to Your PC Tower

Unless you are licensing your system through InfoCaster Manager, the green USB dongle (sometimes called interlock device) is included in the InfoCaster software envelope. The InfoCaster install reads the dongle for necessary installation information, including whether InfoCaster will be installed as a player or a publisher.

Note: InfoCaster systems can be licensed by InfoCaster Manager instead of using a hardware dongle. If you are not using a hardware dongle, see InfoCaster License (on page 240) to learn how to complete the licensing procedure after install.

1. If your system or software came with an external dongle, connect the InfoCaster or InfoCaster player dongle to a USB port on your system.
2. Wait a few seconds.
3. If you get a message indicating that new hardware (the dongle) has been found, cancel the message. The dongle driver is installed during the InfoCaster installation.

If you ever need to switch the publisher and player computers, you can't just switch the dongles; you must do a complete reinstall. Also, you cannot add a second full copy of the InfoCaster player software on the same computer, or add an InfoCaster publisher to a system that already has player software installed.

Install Software

Depending on the dongle attached to your system or the license you have received from InfoCaster Manager, InfoCaster will be installed as either a player or a publisher. Since publishers can also operate as players, you will always be prompted to enter player information during the install.

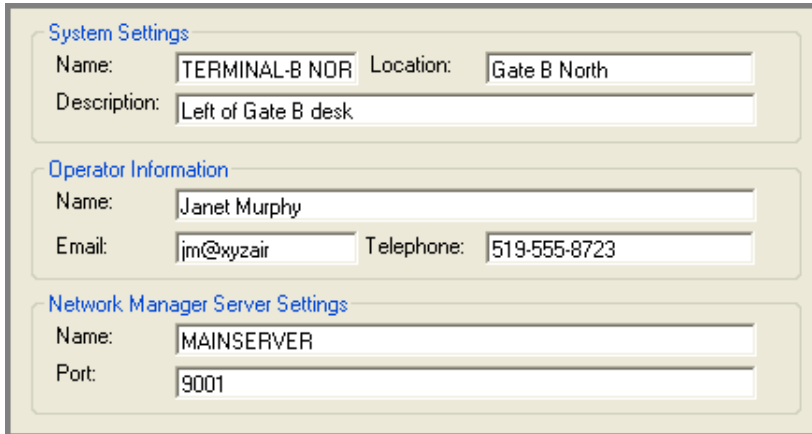
Note: You cannot install InfoCaster remotely through a Windows® remote desktop connection.

Start the Install

1. Login to the system as a user with administrator privileges.
2. Insert the InfoCaster CD into the CD ROM tray. Use the same CD for both publisher and player installation.
3. If the installation process does not start automatically, double-click on the install option from the CD. The Welcome to InfoCaster Installation Wizard screen displays.
4. Click Next to start the install.
5. Accept the license agreement and click Next. The next screen appears.
6. Leave the default destination program folder and click Next.
7. On the next screen, choose whether to place InfoCaster shortcuts on your desktop and click Next.

Enter Preferences

1. On the InfoCaster Player Preferences dialog, enter optional system and operator information.



System Settings

Name: Location:

Description:

Operator Information

Name:

Email: Telephone:

Network Manager Server Settings

Name:

Port:

- For System Settings the fields include: system Name, physical Location, and system Description.
- For Operator Information fields include: Name, Email, Telephone.

Information you add in these fields appears in InfoCaster Manager for the selected player on the Players tab.

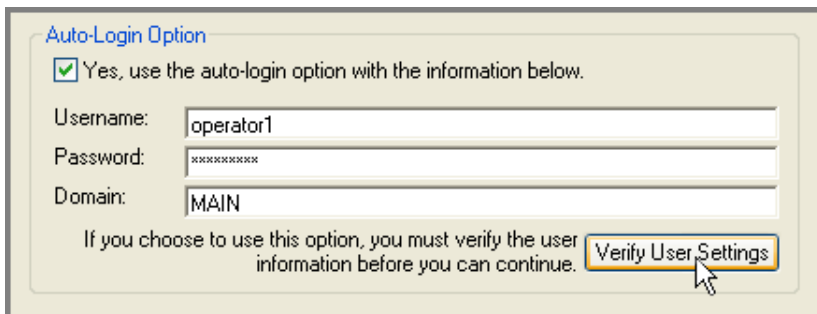
2. In the Network Server Settings section, type in the name of the InfoCaster Manager computer.
3. Do not change the default Server Port value of 9001, unless you changed this value in the InfoCaster Manager install.
4. Click on Next.

Set Up Auto-Login

If you want the player to automatically login and restart the InfoCast if the computer restarts, click in the Auto-Login Option checkbox.

1. Enter a valid username and password.
An administrative user account is not required. The account you use to run InfoCaster must have at least Power User access.
2. Enter the Domain name, or leave the Domain field blank if you are using a Workgroup.

3. Click on Verify User Settings to confirm the user name and password.



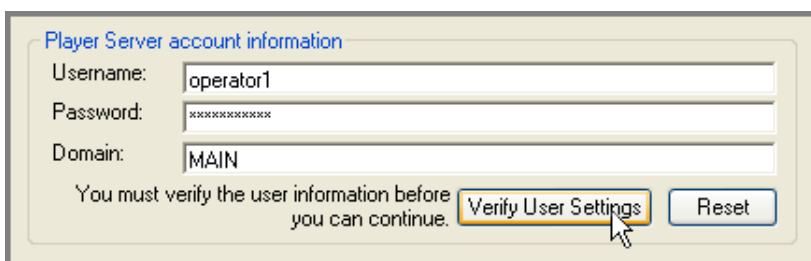
The screenshot shows a dialog box titled "Auto-Login Option". It contains a checked checkbox labeled "Yes, use the auto-login option with the information below." Below this are three text input fields: "Username:" with the value "operator1", "Password:" with masked characters "xxxxxxxx", and "Domain:" with the value "MAIN". At the bottom, there is a message: "If you choose to use this option, you must verify the user information before you can continue." and a button labeled "Verify User Settings". A mouse cursor is pointing at the "Verify User Settings" button.

4. Click on Next.

Set Up Server Access Account

Follow these steps to specify the account used for the Player Server.

1. Enter an account username and password that has read and write access to the file server.
If the server computer is part of a LAN workgroup, a common username and password must be used for all InfoCaster players.
2. Enter the Domain name, or leave the Domain field blank if you are using a Workgroup.
3. Click on Verify User Settings to confirm the user name and password.



The screenshot shows a dialog box titled "Player Server account information". It contains three text input fields: "Username:" with the value "operator1", "Password:" with masked characters "xxxxxxxx", and "Domain:" with the value "MAIN". Below these fields is a message: "You must verify the user information before you can continue." and two buttons: "Verify User Settings" and "Reset". A mouse cursor is pointing at the "Verify User Settings" button.

4. Click on Next.

Video Configuration

After the InfoCaster files are installed, the Configuration Utility opens, allowing you to set up your audio and video.

- If your InfoCaster is a turnkey system, see the Video Configuration section of the InfoCaster Hardware Manual for configuration instructions that are specific to your system.
- For more general instructions, see Video/Audio Configuration (on page 261) to learn how to use the InfoCaster Configuration Utility to configure your output.

The InfoCaster Configuration Utility

After the program is installed, you can change your settings at any time with the InfoCaster Configuration Utility.

Open the InfoCaster Configuration Utility using one of the following methods.

- Within InfoCaster, choose Edit > Preferences.
- From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

See The InfoCaster Configuration Utility (on page 223) for more detailed information.

Log In

Windows XP users can run InfoCaster with either an Administrator or Power User account. Windows Vista and Windows 7 users must have Administrator privileges.

Note: Be sure that Power Users have read and write access to the folder where InfoCasts are stored. This folder is **C:\InfoCasts** by default, but can be changed in the General tab of the Configuration utility.

Switch Users

InfoCaster relies on processes that are registered to the current user. The "Switch User" feature in Windows Vista and Windows 7 confuses these processes and results in unpredictable behavior.

If you need to change user accounts while using InfoCaster, be sure to fully log out of the current account and log in with the new account. This will shut down InfoCaster but will ensure proper operation.

Troubleshoot ATI Hardware Output

You must have your secondary monitor configured correctly for output before you open InfoCaster. If, after installing InfoCaster the output monitor is not configured correctly through XP, you will get an error when you open InfoCaster. Follow this procedure for correct operation.

1. The output monitor must be powered on, and not in a stand-by mode.
2. Adjust the settings for the output monitor, including size and type (TV or VGA), using the ATI configuration settings. If you are not using the Catalyst Control Center, make sure "Extend Desktop to Secondary Monitor" is checked.
3. Make sure you've selected your VGA output and resolution in the InfoCaster Configuration Utility. If you want a custom resolution, set it in the Configuration Utility before setting it in the display properties.
4. Open InfoCaster.

If this procedure does not fix the problem, please contact our support to discuss system settings.

Connect InfoCaster to InfoCaster Manager

InfoCaster systems can connect to InfoCaster Manager systems as publishers (creation stations) or as players. InfoCaster Manager Pro can also allow publishers to approve and download InfoCasts from the file servers.

The following instructions describe how to connect publishers and players to InfoCaster Manager servers.

Note: The InfoCaster Manager User Guide is available on your InfoCaster Manager CD. Consult that guide for detailed information about setting up file servers and installing InfoCaster Manager. The following instructions assume that InfoCaster Manager has already been installed and configured.

Run Publishers as Players

If they are set to run as players, publishers are unable to publish InfoCasts or connect to InfoCaster Manager as publishers.

Set your publisher mode by choosing the Tools menu within InfoCaster. If there is a checkmark beside the Run as Player menu option, the system is set to run as a player. Otherwise the system is set to run as a publisher.

Choose Tools > Run as Player to switch between modes.

Connect Publishers to InfoCaster Manager

Follow these steps to connect a publisher to the InfoCaster Manager server.

Add InfoCaster Manager to the Publisher's Location List

Before InfoCaster publishers can communicate with InfoCaster Manager, you must add InfoCaster Manager to the Locations list in the InfoCaster Configuration Utility.

You can add more than one InfoCaster Manager to the Locations list if you plan to publish InfoCasts to multiple InfoCaster Manager servers.

1. Open InfoCaster.
2. Select Edit > Preferences. The Configuration Utility opens.

3. Switch to the InfoCaster Manager tab.

These locations appear in the Network Manager Publish, Download and Approve windows. Consult with your Network Manager Administrator for details.

Locations	Name	Network Manager Location	Network Manager Server Port	E-Mail Contact
Main Network Manager	Main Network Manager	MasterControl01	9001	MCDoperator@xyzbroadcasting.ca

4. Click the New button. A new untitled location appears in the Locations list.
5. Enter the details for the InfoCaster Manager system selected in the Locations list.
 - In the Name field, enter a descriptive name for the InfoCaster Manager system that the publisher will connect to.
 - In the InfoCaster Manager Location field, click the Choose button to select the network computer name for the InfoCaster Manager system. You can also identify the InfoCaster Manager system by entering the system's IP address in the InfoCaster Manager Location field.
 - If you want to change the port that the publisher uses to communicate to the InfoCaster Manager, type a new number in the InfoCaster Manager Server Port field.
 - In the E-Mail Contact field, enter the email address of a person who should be notified every time a page is updated. This information is optional.
6. To add more InfoCaster Manager systems to the Locations list, press the New button and enter details for the new InfoCaster Manager.

Click the OK button to close the Configuration Utility when you are finished adding and editing InfoCaster Manager locations.

Add a Publisher to the Publisher List in InfoCaster Manager

To add publishers to the list of publishers in InfoCaster Manager, you must first publish an InfoCast to the InfoCaster Manager system. The InfoCaster Manager system will deny your first attempt to publish an InfoCast, but this process adds the system to the Publishers list.

Once the publisher is added to the Publishers list, the InfoCaster Manager operator can enable the system as a publisher.

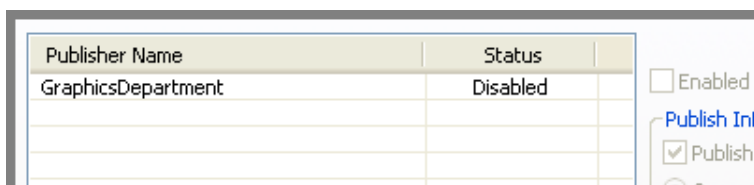
1. In the publisher, select File > Open to open the InfoCast you want to publish.
2. With the InfoCast open select File > InfoCaster Manager > Publish. The Publish to InfoCaster Manager window opens.
3. Select one of the InfoCaster Manager systems from the drop-down list. The list displays the InfoCaster Manager systems defined in your Locations list.
4. Click the Send button to attempt to publish the InfoCast. An error message displays in the window.

This first publishing attempt adds the publisher to the InfoCaster Manager Publishers list. The InfoCaster Manager operator must enable the publisher before you can send InfoCasts to the InfoCaster Manager system without error.

Enable Publisher in InfoCaster Manager

After a publisher attempts to publish an InfoCast, the InfoCaster Manager operator can enable the system as a publisher.

1. In InfoCaster Manager, switch to the NM Publishers tab. Any publishers that have attempted to publish an InfoCast to the InfoCaster Manager system will display in the Publishers list with the Disabled status.



2. Select the publisher from the Publisher list.
3. Check the Enabled checkbox.
4. Click the Apply New Settings button near the bottom of the InfoCaster Manager window. The publisher is enabled and can now publish InfoCasts to the InfoCaster Manager system.

Connect Players to InfoCaster Manager

Follow these steps to connect InfoCaster players to InfoCaster Manager.

Configure the Player Server

The Player Server tab allows you to set the accounts used by the Player Server to access InfoCasts on the InfoCaster Manager LAN and HTTP servers.

1. Open the InfoCaster Configuration Utility using one of the following methods.
 - Within InfoCaster, choose Edit > Preferences.
 - From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

2. Switch to the Player Server Account tab within the Configuration Utility.

Player Server User Account

This username and password will be used by the Player Server which will need the permissions to access files in the Network Manager LAN File Server across the network.

☐ Local System Account

☐ Allow Service to interact with desktop

Username:

Password:

Domain:

Note:

- If the user account that you are using is a local account, do not enter a domain.
- Domain names are not required if you are using a workgroup.
- The account, password and optionally the domain name must have read/write access rights to the Network Manager share.

Player Server HTTP Account

This username and password will be used by the Player Server which will need the permissions to access files in the Network Manager HTTP File Server across the internet.

Username:

Password:

3. Choose the type of account you will use to connect to the InfoCaster Manager LAN servers.
- The Local System Account is a built-in default account on all Windows machines. It is designed to allow services to run, but it does not often have permission to access the network. You can usually run the Player service with the Local System Account when accessing a InfoCaster Manager LAN file server, though it is recommended that you use an Administrator account for this service instead. To use the Local System Account, check the Local System Account checkbox. When using the Local System Account, check the Allow Service to Interact with Desktop to allow the Player Server to open windows on the desktop when necessary. This also allows the Player Server to place a monitor icon in the Windows task bar.
 - If you are not using the Local System Account, uncheck the Local System Account checkbox and enter the account's username, password, and domain information. Do not enter a domain if you are using a workgroup.
4. In the Player Server HTTP Account section of the tab, enter the username and password that the Player Server will use when accessing the InfoCaster Manager system's HTTP file servers.

Player Preferences

The Player Settings tab displays information about the player that was entered when the player was installed. You can update this information at any time. Check the Notify checkbox at the bottom of the tab to immediately update InfoCaster Manager when information on this tab changes.

1. Switch to the Player Settings tab within the Configuration Utility.

2. In the System section of the tab, enter the name and physical location of the player, as well as a brief description. By default the description displays the log-in ID of the individual who installed the player. The player's name is used by InfoCaster Manager to select the player when sending InfoCasts.
3. In the Server Name field, enter the name of the system that InfoCaster Manager is installed on.
4. Enter the port used to communicate with InfoCaster Manager in the TCP/IP Port field.
5. Player systems can provide InfoCaster Manager with information about the system's operator. Use the Name, Email, and Telephone fields to enter or update the operator's contact information. This information is displayed when player systems are selected within InfoCaster Manager.

Multiple Player Instances

When working with multiple player instances, use the drop-down list on the Player tab to select the instance you are configuring. Each instance can be configured separately.

InfoCaster Manager treats each instance as a separate player when sending and scheduling InfoCasts.

Note: You can only configure multiple player instances for players which support the feature. See Multiple Instances (on page 224) for more information about multiple instances.

The Player Service

The player cannot connect to InfoCaster Manager unless its Player Server is running. Use the Windows Services window to check the status of the Player Server, and to start or stop it if necessary.

1. On the player system, choose Start > Settings > Control Panel. The Windows Control Panel window opens.
2. Select Administrative Tools > Services. The Services window opens.
3. Find the InfoCasterPlayerServer entry. If the service is running its status is "Started."

Name	Description	Status	Startup Type
IMAPI CD-Burning COM Ser...	Manages C...		Manual
Indexing Service	Indexes co...		Manual
InfoCasterPlayerMonitor		Started	Automatic
InfoCasterPlayerServer		Started	Manual
InstallDriver Table Manager	Provider c...		Manual

4. To start, restart, or stop the service, select it and click one of the links in the upper-left corner of the Services window.

InfoCasterPlayerServer

[Stop](#) the service
[Restart](#) the service

The Player System

With the Player Server running properly and the correct Server Name entered, the player shortly appears in the Player tab within InfoCaster Manager with a "Not Playing" status.

Player Name	Location	Group	Playing InfoCast	Status
Lobby System	Lobby			Not Playing
Cafeteria Southeast				Not Playing

Confirm Permissions for Players

You should confirm that the player system has permission to download InfoCasts from the file servers. A simple test from the player system confirms that permissions are set correctly.

1. Open Windows Explorer on the player system.
2. Browse to the file server where InfoCasts are stored.
3. Right-click in the file server's folder and choose New > Text Document. If you can create a text file, then permissions are set correctly. If you can't create a text file then you need to have your permission level reset on the file server.
4. Repeat this test for any other file servers that the player needs to access.

Troubleshoot Communication

If you are having difficulty connecting your player to InfoCaster Manager, use the ping command to return ping statistics and prove communication with the InfoCaster Manager system.

1. Click on Start > Run.
2. Type "cmd" to bring up the DOS command window.
3. Type "ping [InfoCaster Manager computer name or IP address]". The format for names and IP addresses is shown in the following examples.
 - On a network:

```
ping MyComputerName
ping 10.0.0.72
```
 - Over HTTP:

```
ping innfo.innfo.net
ping 27.344.232.1
```

Note: For communication between players and InfoCaster Manager systems, port 9001 must be open for communication on the InfoCaster Manager system.

If the installation uses HTTP, the computer might be closed to blind pings. In this case use the TELNET command.

1. Select Start > Run.
2. Type "cmd" to bring up the DOS command window.
3. Type "telnet [InfoCaster Manager computer name or IP address] 9001". The format is shown in the following examples:

```
telnet MyComputerName 9001
```

```
telnet 27.344.232.1 9001
```

If you connect, the CMD window will clear and you will see a number of data tags. The last tag should read:

```
</Inscriber-InfoCaster-ClientServerCommand-Init>
```

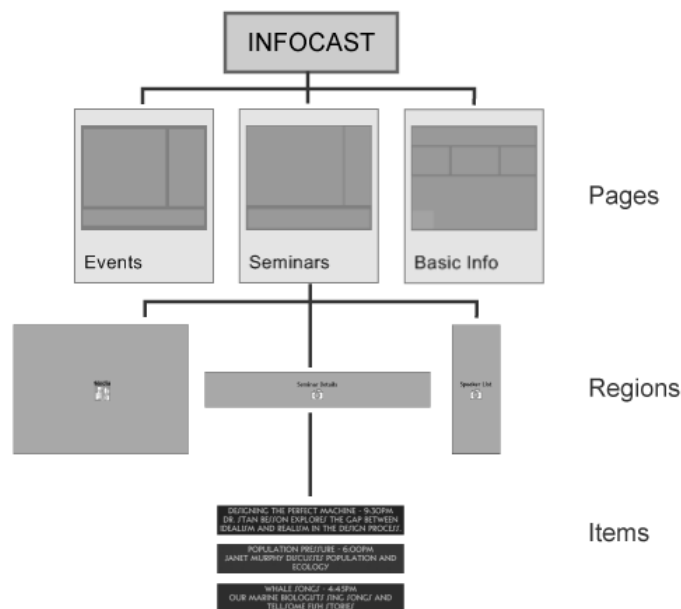
To exit the TELNET window, press 'CTRL+]' then type 'quit' to return to the DOS prompt.

Welcome to InfoCaster

Nexio® InfoCaster™ is an exciting out-of-the box communications solution that produces powerful, attractive, multi-zone broadcast-quality page layouts for immediate display on video monitors to capture and inform your audience.

InfoCasts

Each InfoCast is a single project containing one or more pages. Every page is an independent, full-screen layout containing all the content that will appear when the page is played.



Each page consists of one or more regions. Regions are containers where you place the items that you want to output.

The items within each region are individual pieces of content such as video clips, still images, tables, or titles. Items may contain static content or can be updated from an external data source.

If a region contains more than one item, the items are placed in sequences. Sequences allow you to schedule when each item is displayed in the region.

InfoCasts can be as simple as a single page with a few items, and as complex as multi-page projects with scheduled output and conditional playback.

InfoCaster Workflow

See the following list for InfoCaster's general workflow:

1. Start an InfoCast containing one or more pages.
2. Add regions to the pages.
3. Add items to the regions.
4. Schedule playback of pages and regions using sequences and conditional playback rules.
5. Output the InfoCast.

Distributing InfoCasts

If you are using InfoCaster with InfoCaster Manager, InfoCasts are distributed to InfoCaster players that are distributed throughout a network.

1. Create InfoCasts on a publisher.
2. Publish the InfoCasts to InfoCaster Manager. The InfoCasts are stored on the InfoCaster Manager file servers.
3. Set the editing permissions and logging options for the InfoCasts within InfoCaster Manager.
4. Use InfoCaster Manager to send commands to the players, telling them which InfoCasts to play and when to play them.
5. The players automatically retrieve the latest versions of the InfoCasts from the file servers if necessary.
6. The players display the InfoCasts at the times specified by InfoCaster Manager.

For more detailed information about using InfoCaster with InfoCaster Manager, see the InfoCaster Manager User Guide.

Publishers and Players

InfoCaster systems can behave as either publishers (creation stations) or players, depending on their current modes and their licensing settings.

Publishers can create new InfoCasts and make extensive changes to existing InfoCasts. When connected to output hardware, publishers can also output InfoCasts.

Once an InfoCast has been created on a publisher, the publisher can publish the InfoCast to InfoCaster Manager, and InfoCaster Manager can send the InfoCast to one or more players. Player systems are primarily set up for hands-off, scheduled display of InfoCasts, but publisher and InfoCaster Manager operators can give player systems some editing permissions.

Publishers can run as players by selecting Tools > Run as Player. When running as a player, InfoCaster has limited permission and cannot publish InfoCasts.

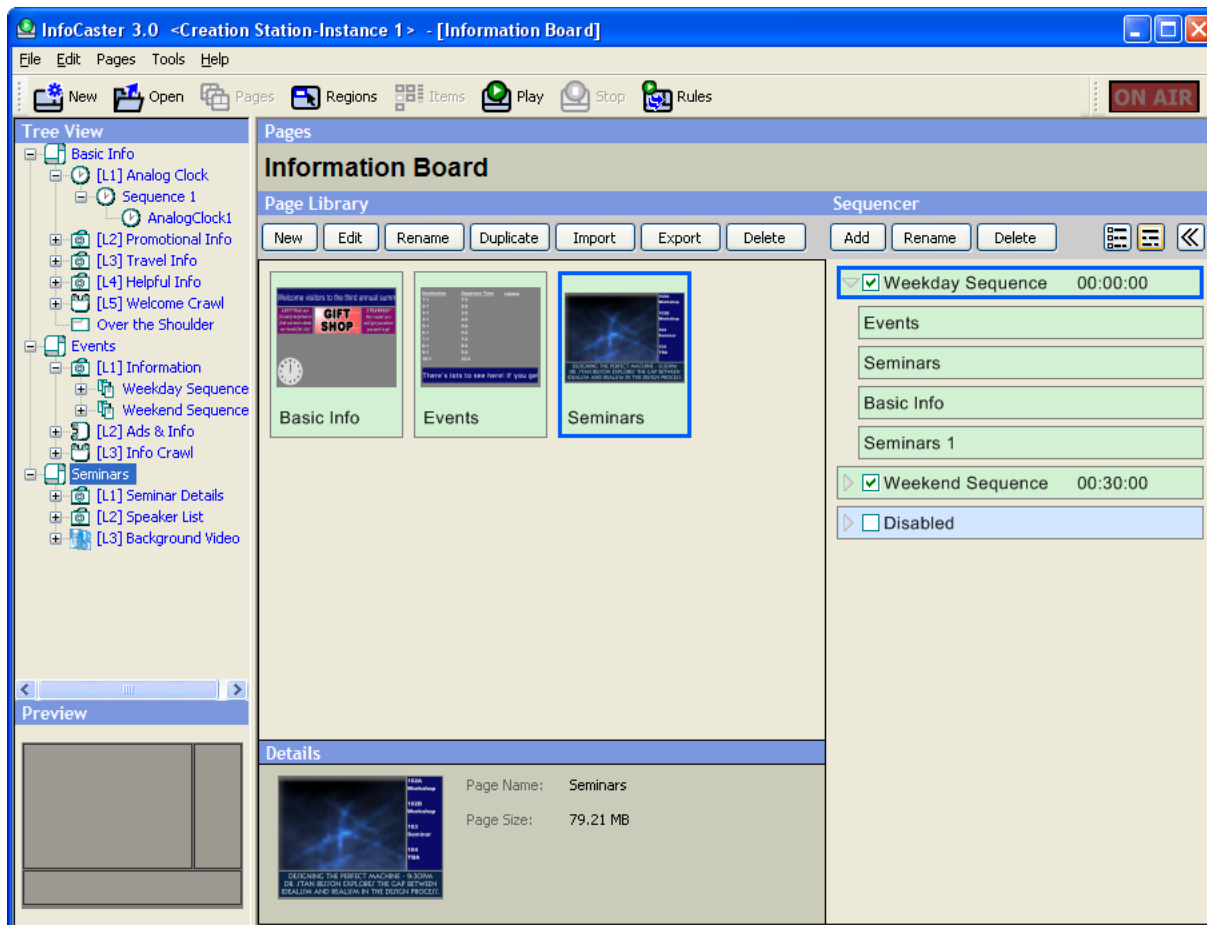
Some of the features described in this manual will not be available on some player systems. If you require the ability to edit an InfoCast on a player system, contact your InfoCaster Manager or publisher operator to have the InfoCast permissions changed.

Consult the InfoCaster Manager User Guide to learn how to change InfoCast permissions in InfoCaster Manager, and see Designate Player Permissions (on page 55) to learn how to change permissions on a publisher.

InfoCaster Workspace

The InfoCaster workspace consists of the Pages window, the Regions window, the Items window, and the Tree View list.

The Tree View list is always available on the left side of the screen. The Tree View displays all of the pages available in the project, as well as the regions, items, and sequences in each page. Select a page, region, or item by double-clicking on it in the Tree View list or in the appropriate window.



Start InfoCaster

To start InfoCaster, double-click on the InfoCaster icon on your computer desktop. The InfoCaster workspace opens.

Note: You cannot launch InfoCaster remotely through a Windows® remote desktop connection.

Workspace Windows

Click on the Pages, Regions, or Items button on the main toolbar at the top of the screen to switch between windows.



Pages Window

Every InfoCast consists of one or more pages which contain regions and scheduling information. All the pages in the current InfoCast appear in the Pages window.

See InfoCast Pages (on page 47) to learn how to use the Pages window.

Regions Window

After you have opened an InfoCast and selected a page, use the Regions window to add regions to the page and position them for on-air playback. Regions are containers where you place the items that you want to output.

See Add Regions (on page 51) for more information about the Regions window.

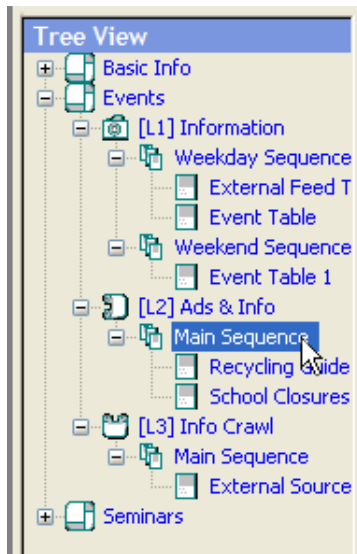
Items Window

Once you have drawn regions on a page in an InfoCast, use the Items window to add items to the regions. Items are individual pieces of content such as video clips, still images, and titles.

See Add Items to Regions (on page 57) to learn about the Items window.

Tree View

The Tree View is a collapsible display that shows all of the pages, regions, sequences, and regions in the current InfoCast. Double-click in the Tree View to quickly display and edit part of the InfoCast, and drag items between compatible region types to move the items within the InfoCast.

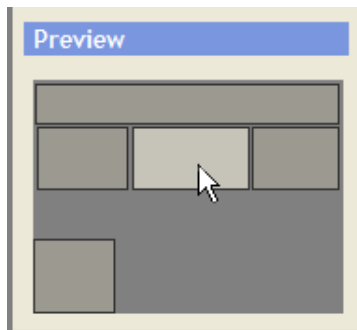


You can also right-click on a Tree View element to:

- Expand all elements.
- Collapse all elements.
- Start playing a page.
- Edit the sequences in a region.
- Delete a region.
- Disable a sequence.
- Delete a sequence.
- Edit an item.
- Rename an item.

Preview Window

The Preview Window displays a rough thumbnail of all the regions in the current page. Click on a region to select it in the workspace, and double-click a region to switch to the Items Window.



You can also right-click on a region to:

- Edit the region.
- Delete the region.
- Change the layering of the region.

Change VGA Aspect Ratio

After you start adding items to your InfoCasts you may notice that objects seem slightly distorted on your computer's VGA screen. Selecting the correct VGA aspect ratio ensures that objects maintain their proper shape while you create your InfoCasts.

The default aspect ratio for your computer display is 4:3. To select another aspect ratio, select Edit > Preferences, then select another VGA Aspect Ratio in the General tab. The aspect ratio is a global setting that applies to all InfoCasts.

Display Safe Title Area

The safe title area marks a safe area for displaying items on a typical output screen. The safe title area displays as a green boundary box in your workspace.

Display the safe title area using one of the following methods:

- Select Regions > Show Safe Title Area.
- Check the Show Safe Title Area checkbox below the workspace. To hide the safe title area boundary, clear the Show Safe Title Area checkbox.



The default safe title area is set to 86% of the workspace window. To change the safe title area parameters, use one of these methods:

- Select the Percent option in the Safe Title Area panel below the workspace, then drag the Percent control to the left or right.
- Select the second option (before the Left box), then enter a number in the Left, Right, Top, or Bottom box.
- Click on the Default button to set the safe title area back to 86% of the workspace.

Display Grid Lines

To display grid lines on the Regions window, select Regions > Show Grid Lines. Grid lines can help you draw and align regions.

Exit InfoCaster

To exit InfoCaster, select File > Exit.

Note: If the InfoCaster Monitor is operating, InfoCaster automatically restarts. To exit InfoCaster you must turn this feature off, as explained below.

Included with InfoCaster is a program-monitoring feature that automatically restarts InfoCaster after a system interruption, such as a program closing or the computer rebooting. During a system interruption, the monitor automatically logs in (if required), restarts InfoCaster, and starts the last InfoCast that was playing.



The monitor icon is displayed on the task bar at the bottom-right corner of your computer screen. For the most efficient operation of InfoCaster, you should keep the monitor turned on.

However, under some conditions, you might want to turn the monitor off so the automatic function does not interfere with other activities such as software installation. To turn this feature off, right-click on the monitor icon and select Shut Down InfoCaster to shut down both InfoCaster and the monitoring feature.

To restart InfoCaster and the monitoring feature, right-click on the monitor icon and select Start InfoCaster.

Note: You can also press the CTRL+SHIFT+ALT+HOME keys to shut down InfoCaster immediately. This is useful if you need to quickly remove output from your display monitors.

Purchase Options

InfoCaster is suitable for single installations, large scale networks, and everything in between. InfoCaster offers the following additional options that you can purchase to meet your needs:

- The RTX Port option plays RTX applications as items within InfoCaster.
- InfoCaster Manager enables you to manage multiple InfoCaster systems and effectively target localized audiences.
- Analog capture and sound devices.
- Publishers with the Display Wall option can create display wall InfoCasts, with each synchronized player displaying a section of the InfoCast.
- Publishers with the Dynamic Web option can create InfoCasts with realtime, interactive web content.
- Systems with the Network Stream option can stream their output across the network.
- The DVE option allows you to create media regions that switch between full-screen and pop-back sizes.

The Configuration Utility

The InfoCaster Configuration Utility is installed on all InfoCaster systems. Use the utility to configure your InfoCaster settings and the devices connected to your system. If you are using InfoCaster Manager with InfoCaster you can also change your InfoCaster Manager settings.

Open the InfoCaster Configuration Utility using one of the following methods.

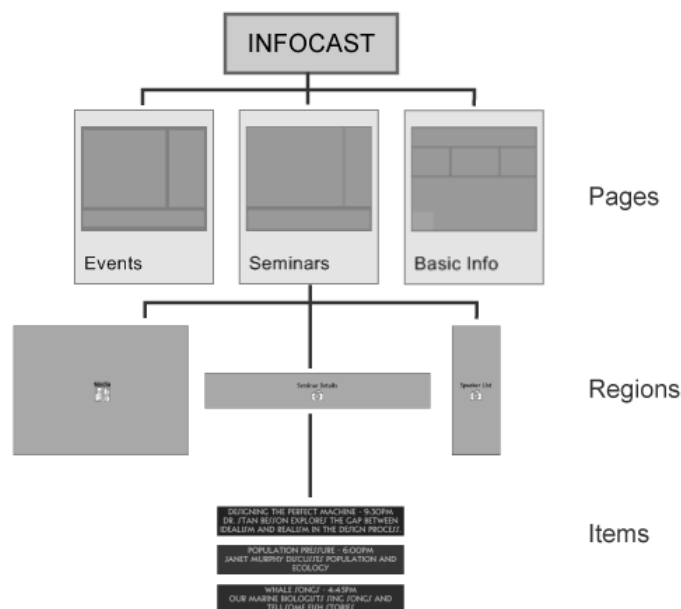
- Within InfoCaster, choose Edit > Preferences.
- From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

See The InfoCaster Configuration Utility (on page 223) for more information.

Manage InfoCasts

Each InfoCast is a single project containing one or more pages. Every page is an independent, full-screen layout containing all the content that will appear when the page is played.



Each page consists of one or more regions. Regions are containers where you place the items that you want to output.

The items within each region are individual pieces of content such as video clips, still images, tables, or titles. Items may contain static content or can be updated from an external data source.

If a region contains more than one item, the items are placed in sequences. Sequences allow you to schedule when each item is displayed in the region.

InfoCasts can be as simple as a single page with a few items, and as complex as multi-page projects with scheduled output and conditional playback.

Create a New InfoCast

Workflow

Creating an InfoCast usually involves the following steps.

1. Within InfoCaster, choose File > New to create a new InfoCast and give it a name as described in New InfoCasts (on page 42).
2. If you are creating an InfoCast that will be used by a player system, select the type of system you are designing for as described in Design for Different InfoCaster Products (on page 42).
3. Add and edit pages as described in InfoCast Pages (on page 47).

4. Add regions to the pages as described in InfoCast Regions (on page 50).
5. Add items to the regions as described in Add Items to Regions (on page 57).
6. Schedule playback of pages and regions using sequences and conditional playback rules. See Schedule Playback (on page 174).

New InfoCasts

To begin creating a new InfoCast within InfoCaster, choose File > New. The New InfoCast window opens.

You are prompted for an InfoCast name. By default, InfoCasts are saved to the C:\PageLayouts folder on your system.

If your publisher has the Display Wall option enabled and you want to create an InfoCast that will synchronize with other players, select the Synchronized Playback radio button. See Synchronized Player Playback (on page 174).

If your publisher has the Display Wall option enabled and you want to create an InfoCast for a display wall, select the Display Wall radio button. See Work with Display Walls (on page 69) for more information about configuring and designing for display walls.

Click OK to begin creating your InfoCast.

Note: You cannot create new InfoCasts on player systems.

Design for Different InfoCaster Products

There are two different InfoCaster products available, each with different features:

- InfoCaster.
- InfoCaster SE.

InfoCaster SE is a player system and cannot behave as a publisher. See Purchase Options (on page 40) for more information.

If you are using InfoCaster and you are designing InfoCasts for InfoCaster SE players, select Edit > Design For and choose the product you want to design for. The features available will be limited to those for the product specified, so you can be sure that your InfoCast will work in that product.

Open an InfoCast

Use the menus and toolbar buttons to open InfoCasts.

Opening InfoCasts

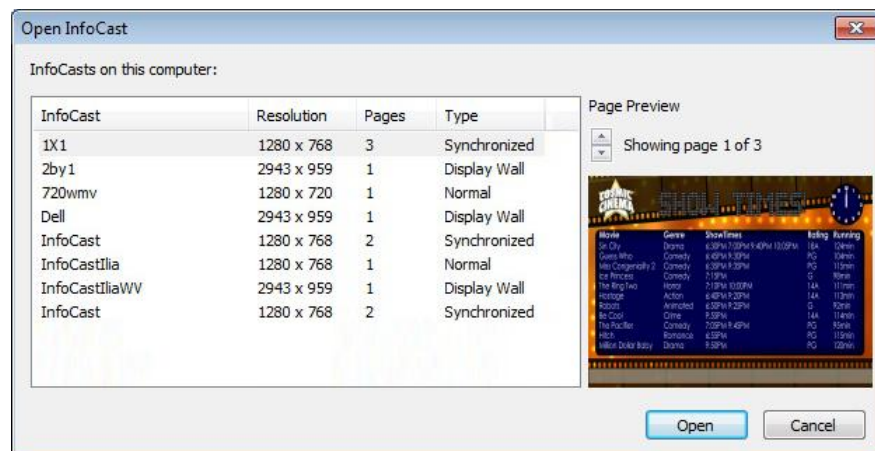
Open Option	Steps

Open Option	Steps
Create New InfoCast	Select File > New. See Create a New InfoCast (on page 41) to learn how to create InfoCasts. Player systems cannot create new InfoCasts.
Open InfoCast from Default Location	Select File > Open to open an InfoCast from the default location (C:\PageLayouts). Select the InfoCast name in the list to view a preview in the Open dialog.
Open Exported InfoCast	Select File > Import to open an InfoCast that was exported using the File > Export option. You can also import individual InfoCast pages. See Manage Pages (on page 47).
Open InfoCast from Disc	If there is not an InfoCast open in your workspace, select File > Get InfoCast From CD to open an InfoCast from a CD ROM or DVD ROM. If an InfoCast is already open in your workspace, select File > InfoCaster CD > Get from CD.
Open Last InfoCast on Program Launch	To have the last project you were working on automatically open when you start InfoCaster, select Edit > Preferences. Switch to the General tab and check the Load Last InfoCast On Startup checkbox.

Open InfoCast Dialog

The Open InfoCast dialog contains a list of all the InfoCasts stored in the current InfoCast folder, along with the resolution, number of pages, and type of each InfoCast. You can sort the list by clicking one of the list headers.

To see a preview of an InfoCast, select it in the list and use the page arrows to select the page to preview.



InfoCast Resolutions

If you try to open an InfoCast that was created at a different resolution than the current output resolution, you are prompted to choose a resolution option:

- Click Resize InfoCast to convert all pages in the InfoCast to the current output resolution.
- Click Open Without Resizing to continue opening the InfoCast without converting it.
- Click Change Output Resolution to launch the InfoCaster Configuration Utility. Switch to the Video/Audio Standard tab and change the current resolution, then close the utility to resume loading the InfoCast. See Video/Audio Configuration (on page 261) for more information about setting resolutions and video standards.
- Click Cancel to choose a different InfoCast from the Open dialog.

InfoCast Types

Three types of InfoCasts are displayed in the Open InfoCast dialog.

- Normal InfoCasts do not use display wall or synchronized playback features.
- Synchronized InfoCasts are designed to be played with the synchronized playback feature enabled. See Synchronized Player Playback (on page 174) for more information.
- Display Wall InfoCasts are designed to be displayed by multiple players in a display wall. See Work with Display Walls (on page 69) for more information.

Manage InfoCasts

Rename InfoCasts

When you create a new InfoCast you are prompted for a name. To rename an InfoCast later, select File > Rename.

Note: Renaming an InfoCast in any other way may break file paths referenced by the InfoCast, so don't manually change the file name on your computer. Always rename InfoCasts with InfoCaster's Rename function.

Close InfoCasts

To close an InfoCast select File > Close. If the InfoCast is playing you are prompted before closing the InfoCast.

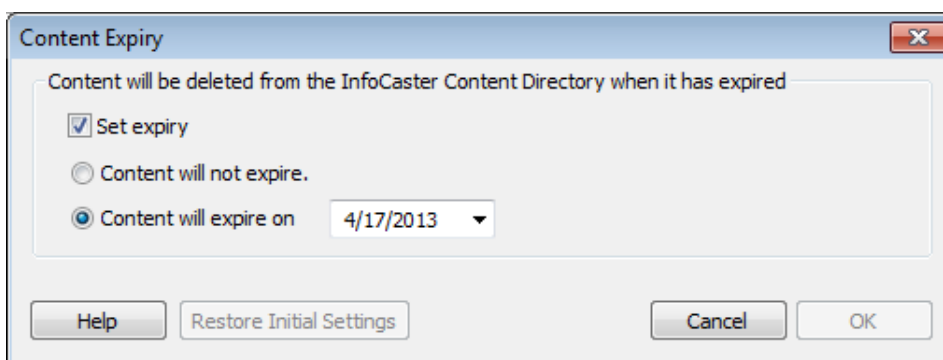
Delete InfoCasts

To delete an InfoCast from your system, select File > Delete and choose the InfoCasts you want to delete from the Delete InfoCasts window.

Expire InfoCasts on Player

You can set your InfoCasts to automatically expire at specific times. Expired InfoCasts are automatically deleted from your system's content storage folder.

1. To change the expiry settings of the InfoCast which is currently open, select File > Set Expiry. The Content Expiry window opens.



2. Check the Set Expiry checkbox.
3. Change the expiry settings for the InfoCast.
 - If you want the InfoCast to expire at a future date, select the Content Will Expire On radio button and use the field to select an expiry date.
 - If you do not want the InfoCast to expire, select the Content Will Not Expire radio button.
4. If you want to undo the changes you've made since you opened the Content Expiry window, click the Restore Initial Settings button.
5. Click OK to finalize your changes.

If your InfoCast is set to expire, it will be deleted from your content storage folder on the selected date.

Note: If you are using InfoCaster with InfoCaster Manager, this setting will not cause InfoCasts to expire on the InfoCaster Manager file servers. See Publish InfoCasts to InfoCaster Manager (on page 63) to learn how to expire content on file servers.

Save InfoCasts

InfoCaster saves all changes as you work so your project is always up-to-date. You never have to save InfoCasts as you go. Even if something happens to your system, like a power outage, your InfoCasts will always load with your latest changes intact.

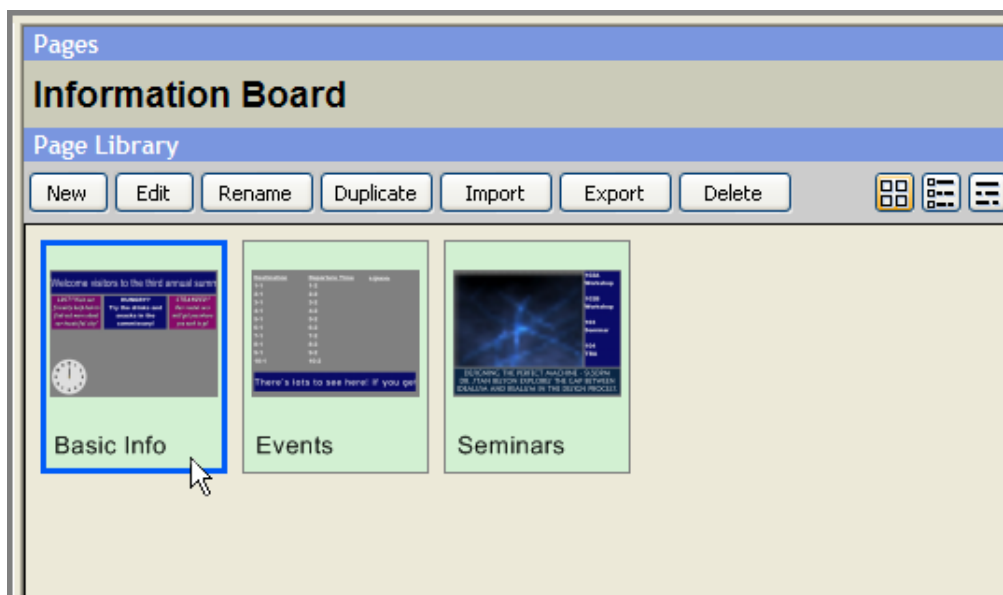
Save InfoCasts

Save Option	Steps
Export InfoCast to Folder	Select File > Export. In the Export dialog, select a new folder for the InfoCast.
	Note: Exporting an InfoCast in any other way may break file paths referenced by the InfoCast.
Save InfoCast Copy	To save a copy of the InfoCast that is currently open, select File > Save As and enter a name for the InfoCast copy.
Save InfoCast to Disc	Select File > InfoCast CD > Save to CD. The Save InfoCast to Disc dialog opens, which allows you to save InfoCasts to CD ROM or DVD ROM, add comments, and set when the InfoCast starts playback.
Change Default Save Location	Select Edit > Preferences to open the Configuration Utility. On the General tab, click the Choose button beside the Store InfoCasts In field to set a new location for InfoCasts. When you change the default saved location, all subsequent InfoCasts are saved to the new location.

InfoCast Pages

Each InfoCast is a single project containing one or more pages. Every page is an independent, full-screen layout containing all the content that will appear when the page is played.

You add and edit InfoCast pages using the Pages Window. This window includes a Page Library for organizing and editing the InfoCast's pages, a details panel which displays basic page information, and a sequencer for setting the playback of the pages.



Switch to Pages Window

To switch to the Pages window, use one of these methods:

- Click on the Pages button on the main toolbar.



- Select Tools > Pages.
- Double-click on a page in the Tree View list.

Manage Pages

Use the Page Window's toolbar buttons to add, manage, and delete the pages in the current InfoCast.

Note: Player systems cannot add pages to InfoCasts.

Manage Pages

Option	Steps

Option	Steps
Add New Page	A blank page is automatically added to all new InfoCasts. To add additional pages to an InfoCast select Pages > Add Page. There is no limit to the number of pages you can have in an InfoCast.
Duplicate Page	Select a page in the Page Library and click the Duplicate button. A new copy of the page appears in the Page Library. Duplicated pages are not automatically added to the sequence.
Import Page	Click the Import button to import a page that was previously exported.
Export Page	To export a page so that it can later be imported into an InfoCast, select the page in the Page Library and click the Export button.
Rename Page	Rename a page by selecting the page in the Pages window and clicking the Rename button.
Delete Page	Click the Delete button to delete the selected page from the Page Library. To delete a page from a InfoCast sequence but still keep it in the Page Library, see Delete Pages from the Sequence (on page 180).

Edit Page

Use one of these methods to edit a page:

- Select a page in the Page Library and click the Edit button.
- Right-click on a page and select Edit Page from the right-click menu.
- Select a page in the Page Library and select Pages > Edit Regions.

The page opens in the Regions window where you can select any region and edit its content. See InfoCast Regions (on page 50).

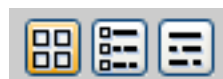
Change Page Display

You can change the size of the pages displayed in the Page Library and the sequencer.

To change the way pages are displayed in the Page Library select Pages > Show Page Library As, then select one of the following options:

- Large Thumbnails displays pages as large thumbnails with page names.
- Small Thumbnails displays pages as smaller thumbnails with page names.
- Text Only displays only page names, without any thumbnails.

You can also click the thumbnail buttons to change the way the pages are displayed.

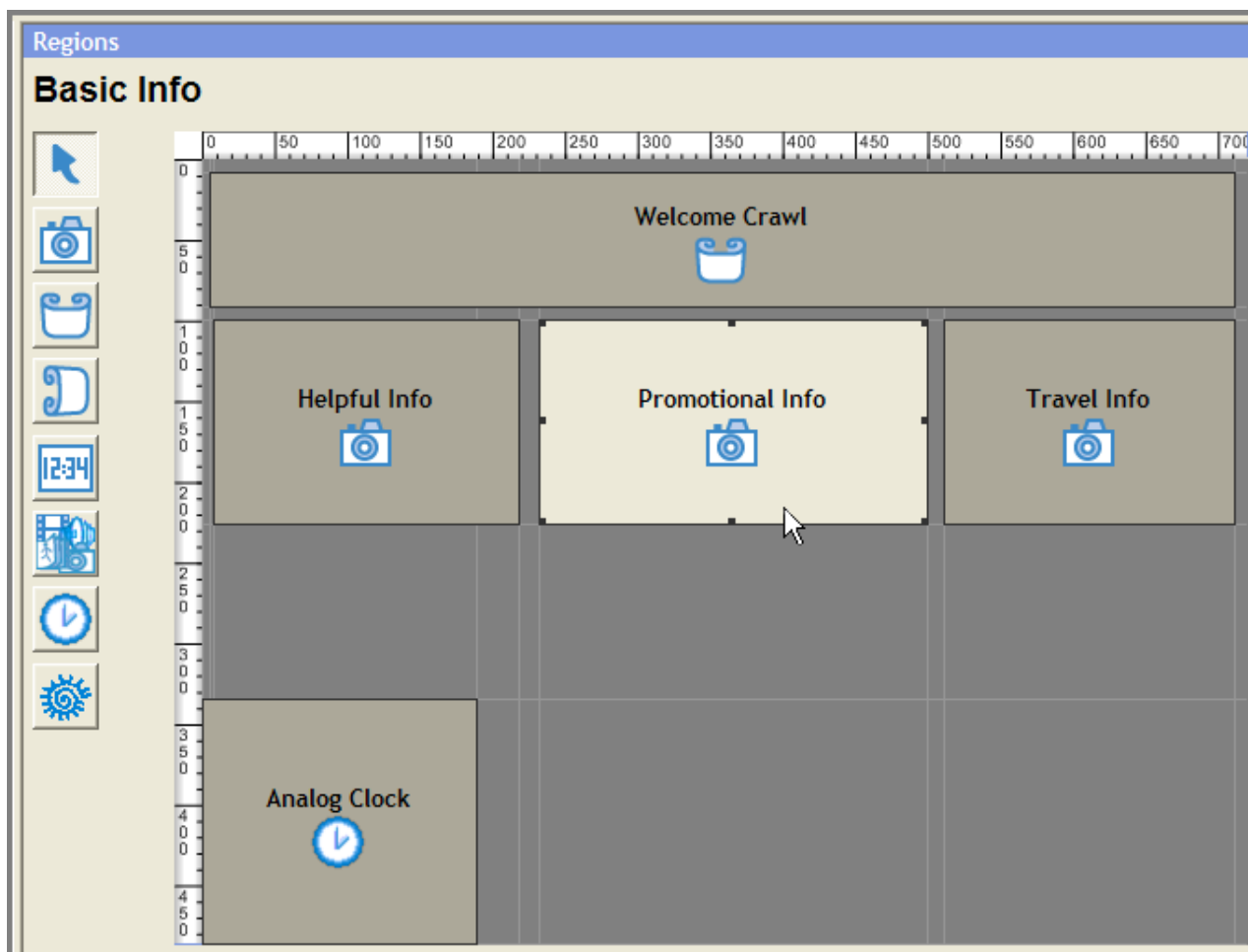


InfoCast Regions

After you have opened an InfoCast and selected a page, you can add regions to the page and position them for on-air playback. Regions are containers where you place the items that you want to output. You can add many items to each region and sequence them to output at different times.

Each region is placed on a different layer, so regions can overlap. You can edit the layer order to move regions in front of or behind each other.

Use the Regions Window to create, delete, and manage the regions in each InfoCast page. This window includes a workspace for creating and positioning regions, a set of region creation tools, and a Region panel for setting the properties for the selected region.



Switch to Regions Window

To switch to the Regions window, use one of these methods:

- Double-click on a page in the Pages Window.

- Click on the Regions button on the main toolbar.



- Select Tools > Regions.

Add Regions

To add regions to a page, click on a region creation tool and draw the region in the workspace. To constrain the region to a perfect square, hold down the SHIFT key while you are drawing.

The region is automatically placed on the highest layer, above all the other regions currently in the page.

Note: Player systems cannot add new regions to pages.

Region Types

The types of regions you can create are determined by your version of InfoCaster. Hold the cursor over a region creation tool button to see the type of region created by the tool.

Each region type is designed to play specific types of content.

- Still Regions play static text or graphics such as titles or logos.
- Crawl regions play text and graphics that move horizontally across the region.
- Roll regions play text and graphics that scroll up or down the region.
- Digital Clock regions play a real-time digital clock or digital timer.
- Media regions play the following types of content.
 - Static text or graphics such as titles or logos.
 - Animated text and graphics.
 - Video clips, video streams, or live video.
 - Audio which is independent of other region items.
- Analog Clock regions play an imported graphical clock.
- With the RTX Ports option you can air data from RTX applications. See Purchase Options (on page 40).
- Temperature regions display a temperature reading from a probe connected to the system.
- If you purchased the DVE option you can create DVE regions and use them to expand or shrink region items during output. See Draw a DVE Region (on page 52).
- Using any of the region types, you can create a background that fills up any part of the screen. See Draw a Background (on page 52).

To learn how to add content items to regions, see Add Items to Regions (on page 57).

Display Wall InfoCasts

When creating InfoCasts for display walls, it is useful to see the outlines and bezels of the displays you're designing for. See Add Regions to Display Wall InfoCasts (on page 70) to learn how to position regions with the Show Displays feature.

To modify the display wall configuration that you are using for your InfoCast, choose File > Edit Display Wall Configuration to launch the Display Wall Designer. See Display Wall Designer (on page 71) for more information.

Draw a Background

A background is simply any full-size region moved to the bottom layer of a page. You can create a background using any of the region types.

1. Draw a region in the workspace window that covers the entire area.
2. Select Regions > Arrange Region > Send to Back to move the region behind all the other regions.
3. Add content to the region as described in Add Items to Regions (on page 57).

Draw a DVE Region

If you purchased the DVE option you can expand or shrink any region during output by creating a unique DVE region, then setting a conditional playback trigger that will start the DVE action.

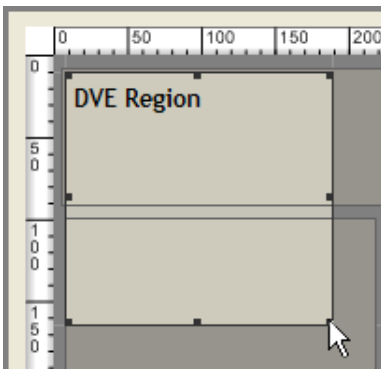
To draw a DVE region:

1. Select Regions > DVE Regions in the Regions window.

The region creation tools change to display the DVE Region tool. Other regions that you have drawn can be seen in the workspace but cannot be selected.



2. Click on the DVE Region button to switch to the DVE Region tool.

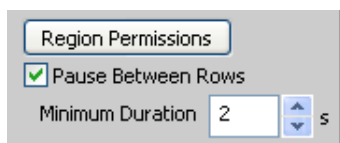


3. Click in the page workspace and drag the mouse cursor across the workspace to draw the DVE region. This is the area that your region will DVE into.
You can draw as many DVE regions as you want to use on the page. For example, you can draw a full-size region to expand a region to full-size or you can draw a small over-the-shoulder region to shrink a region to that size.
4. In the Details panel below the workspace, give the region a unique name to make it easier to identify it in a list.

5. To exit the DVE Regions window and be able to select other regions, select Regions > DVE Regions again. The region creation tools become available again, and you can select and edit your non-DVE regions.
6. You need to specify a "DVE Resizing" conditional playback rule that will cause regions to shrink or expand into the DVE regions you created. To set up the rule, see Conditional Playback (on page 189).

Pause Rolls

When a roll region is selected in the Regions window, the Region Panel shows options for automatically pausing rolls between each data source row.



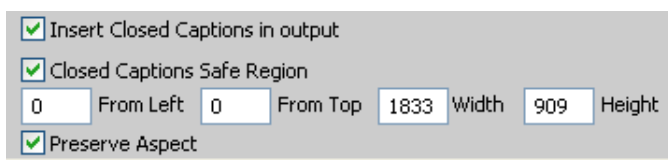
Check the Pause Between Rows checkbox to enable automatic roll pausing. During playback, roll items within the region pause their output after each row of the item's data source.

Use the Minimum Duration field to set the minimum length of time that each data source item appears before the next is displayed. This is particularly useful when linking a roll to an Internet Relay Chat (IRC) source. See External Data Sources (on page 76) to learn how to set up and link data sources to rolls.

Closed Captioning

InfoCaster can display embedded closed captions in regions that display video clip and video stream items in MPEG-2 or H.264 format.

1. Enable closed captions on the player by choosing the Tools menu option and ensuring that the Closed Captions option is checked.
This option applies to any InfoCasts played on the player system. InfoCaster Manager operators with appropriate permissions can change this option for any players on the InfoCaster Manager network.
2. Within your InfoCast, select the media region that you want to display closed captions.
3. In the Region panel, check the Insert Closed Caption in Output checkbox to enable closed captioning for the region.



4. By default, captions appear wherever they have been encoded to appear in the video, but you can define a safe area within the region where closed captions will be displayed.
 - a. Check the Closed Captions Safe Region checkbox.
 - b. Use the From Left and From Top fields to specify how far from the boundaries of the media region the closed captions will appear.
 - c. Use the Width and Height fields to specify the size of the closed captions safe region.

- d. To scale the safe region to match the aspect ratio of the media region, click the Preserve Aspect checkbox.

Control Closed Captions with a PC Remote

A PC remote can be used to turn closed captions on or off. See Use a PC Remote (on page 210) for more information.

Select Regions

Use one of the following methods to select a region.

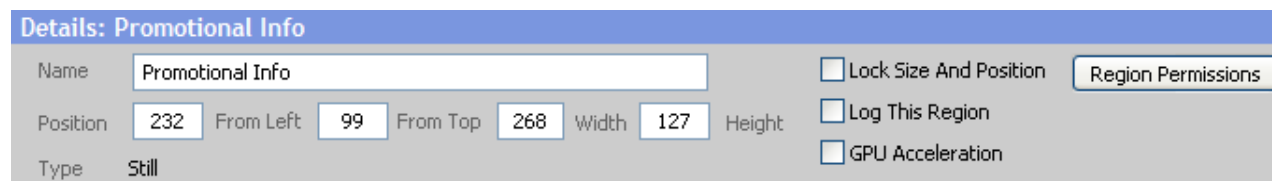
- Click on the region in the region workspace.
- Click on the region name in the Tree List.

When many regions are overlapping in the workspace it can be difficult to click on the region you want to select. In this case, right-click on the overlapping area and choose Select from the right-click menu. Choose the region you want to select from the list of overlapping regions.

Manage Regions

Show Region Panel

When you select a region, the Region panel below the workspace displays options available for that region.



The screenshot shows a software interface for managing video regions. At the top is a blue header bar with the text 'Details: Promotional Info'. Below this, the 'Name' field contains 'Promotional Info'. To the right of the name field are three checkboxes: 'Lock Size And Position', 'Log This Region', and 'GPU Acceleration'. A 'Region Permissions' button is located to the right of these checkboxes. Below the name field, the 'Position' section includes four input fields: '232' for 'From Left', '99' for 'From Top', '268' for 'Width', and '127' for 'Height'. The 'Type' field is set to 'Still'.

If the Safe Title Area options are displayed and you do not see the Region panel, select a region in the page workspace or in the Tree list.

Rename Regions

By default regions in the pages are named after their region type, followed by a unique number if there is more than one region of that type.

To rename the selected region, enter a new name in the Name box on the Region panel below the workspace window. Press ENTER to apply the change.

Scale or Resize Regions

Use one of the following methods to resize a region in the Region Window.

- Click on the region in the page workspace, then drag its selection handles. To maintain the region's aspect ratio hold the SHIFT key while dragging.
- To resize the region precisely, select the region and enter a number in the Width and Height boxes on the Region panel.

Note: These options are not available if the Lock Size and Position checkbox is checked. You also cannot scale a region if the InfoCast is on-air.

Move Regions

To move a region within the page use one of these methods.

- Drag the region in the workspace to a new position.
- To position the region precisely, select the region, and enter a number in the From Left and From Top boxes on the Region panel.
- To nudge the region one pixel at a time, select the region and press the keyboard's ARROW keys.

Note: These options are not available if the Lock Size and Position checkbox is checked. You cannot move a region if the InfoCast is on-air. Full-screen media regions cannot be moved.

Lock Region Size and Position

When you have finished positioning a region, you may want to protect the region from accidental movement.

To lock the size and position of a region so the region cannot be moved or resized, select the region then check the Lock Size and Position checkbox on the Region panel.

To unlock the region's size and position, clear the checkbox.

Designate Player Permissions

If you are using InfoCaster with InfoCaster Manager, you may wish to give player systems limited editing permissions for each region.

Click on the Region Permissions button on the Region panel, then use the Region Permissions dialog to set which regions the players can modify when they receive the InfoCast from InfoCaster Manager.

Log Region Playback

To create a playback log for a region, check the Log This Region checkbox in the Region panel. Regions are not set for logging by default.

See Log Output (on page 214) for more information about playback logs.

Change Region Order

To change the z-order (front-to-back order) of overlapping regions, use one of the following methods.

- In the Tree View, drag the region up to move it in front of other regions, or drag it down to move it behind other regions.
- Use the options in the Regions > Arrange Region menu.

Delete Regions

To delete a region, select it and press the DELETE key on the keyboard. You can also use the following methods.

- Right-click on the region, then select Delete Region from the menu.
- Select Regions > Delete Region.

Preview Regions

As you add content to the regions on your page, set your preview options with the Regions menu.

- To display only the region borders in the workspace, select Regions and make sure that the Preview All Regions menu option is unchecked. This is the standard view.
- To display the region borders with a still image representing the content within each region, select Regions > Preview All Regions.
- To display the region borders with a still image in selected regions only, select Regions > Preview All Regions. Disable the region previews that you don't want to view by selecting individual regions and unchecking Regions > Preview Region.
- To display each region with a still image representing the content, but without region borders, select Regions > Show Page Without Adornments. This gives you an accurate idea of how the page will look when it is played. You cannot edit the page while viewing the regions without adornments.

Use Touchscreen Trigger

If you have a touchscreen connected to your system, check the Use Touchscreen Trigger checkbox in the Region panel to enable that region to detect a touch. The region becomes available in the Conditional Playback dialog as described in Region Touched (on page 194).

To learn how to set up a touchscreen, see Set Device Output Options (on page 268).

Add Items to Regions

After you have added regions to a page in an InfoCast, create content for your regions by adding items to them. Items are individual pieces of content such as video clips, still images, tables, or titles. Using Content Editors you can create multiple items in each of the regions, and you can schedule when each item will appear in each region.

Use the Items Window to add and manage the items in each region. This window includes an Item Library to organize the region items, a details panel which displays basic item information, and a sequencer for setting the playback of the items.



This section contains instructions on how to add items to regions using the Content Editors. You can use the same instructions to edit content. See Content Editors Overview (on page 82) for detailed descriptions of each Content Editor.

Note: Player systems can only add and edit items with the proper permissions. See Purchase Options (on page 40) for more information.

Workflow

The following steps show the workflow for adding items to regions and adding content to items.

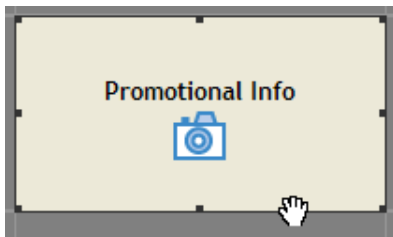
1. Select a region in an InfoCast page.
2. Switch to the Items window.
3. Open a Content Editor for the item.

4. Add an item to the region.
5. Format the item's content or apply other options as desired.
6. Save the item.
7. Add additional items to the region as required.
8. Assign the items to one or more sequences.

Select a Region

To select a region, use one of these methods:

- Click on a region in the Tree View list.
- Click on a region in the Preview window.
- Click on the region in the Regions workspace.



Switch to Items Window

Use one of these methods to switch to the Items window.

- With the region selected, click on the Items button on the main toolbar.

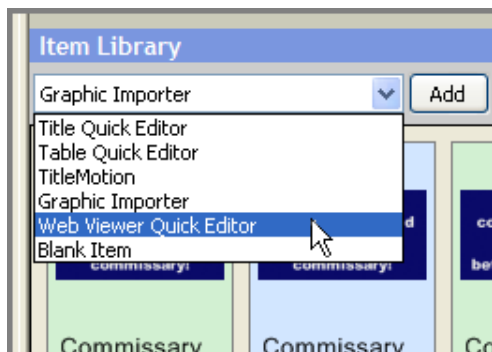


- Select Tools > Items.
- Double-click on the region in the Page Library, in the Tree View list, or in the Preview window.
- Select Regions > Edit Item Sequences to switch to the Items window and schedule the region's playback sequence.

The Items Window opens, showing all the of the items available within the Item Library. Green items have already been added to a sequence and blue items are not currently in any sequences.

Add Items to a Region

To add items to a region, select a Content Editor from the drop-down list in the Item Library.



Alternately, you can select Items > Add Item, then select a Content Editor from the list.

After you have selected a Content Editor, click on the Add button beside the Content Editor drop-down list. The Content Editor opens.

Add Content with the Content Editor

Use the options in the Content Editor to add content to the item, to format the content, and to attach audio, overlays, device control, and masks to the item when available. Click on the Save button in the Content Editor to save the item.

See Content Editors Overview (on page 82) for detailed descriptions of each Content Editor.

Automatically Add Items to the Sequence

You can set InfoCaster to automatically add new items to the end of the currently selected region sequence. Otherwise items are stored in the Item Library and you must manually add them to sequences.

To automatically add all new items to the current sequence, check the Auto Add to Sequence checkbox in the item's Content Editor. This is a global setting that applies to all Content Editors. Selecting the checkbox in one Content Editor applies the setting to all editors.

Expire Items

Each item in your region can be set to expire on a certain date. Expired items are automatically deleted from the InfoCast and will not be played in the future.

To set an item to expire, check the Expire Item On This Day checkbox in the item's Content Editor and choose the date for expiry.

Use the General tab of the InfoCaster Configuration Utility to choose the time of day when expired items are deleted. See General Tab (on page 237) for more information.

Edit Items

To edit an existing item, double-click the item in the Item Library. The Content Editor which was used to create the item opens, allowing you to make changes and re-save the item.

If you want to edit an item with a different Content Editor:

1. Select the item you want to edit in the Item Library.
2. Select the Content Editor you want to use in the Content Editor drop-down list.
3. Click the Edit button in the Item Library toolbar. The selected Content Editor opens, allowing you to edit the item.

Blank Items

Each Content Editor drop-down list contains a Blank Item option. Add the blank item to a playback sequence to output no content for the set duration without otherwise interrupting the sequence. See Schedule Playback (on page 174) for details on sequences.

Punctuate Items

Use Punctuate items to schedule specially-targeted content within still and media regions. These items must integrate with the Punctuate™ business management application to target detailed messages to specific players.



Only one Punctuate item can be added to each region. Add one or more copies of the Punctuate item to your region's sequences to specify when Punctuate content is retrieved and displayed.

Punctuate users should consult the Punctuate documentation for more information.

Add More Items

To add another item to the same region, select a Content Editor and click the Add button on the toolbar. The Content Editor opens, allowing you to add a new item to the region.

Create more items in the same region when you want the content in that region to change during output. The items can loop during playback. For example, you could add multiple items to a still region displaying movie titles and times. The movie items would loop continuously, displaying one list of movie times followed by the next list of movie times.

Change Item Display

You can change the size of the items displayed in the Item Library and in the Items Sequence list.

To change the size of the items displayed in the Items Library, select Items > Show Item Library As, then select one of the following options.

- Large Thumbnails displays your items as large thumbnails with item names.
- Small Thumbnails displays your items as smaller thumbnails with item names.
- Text Only displays only your item names, without any thumbnails.

Manage Items

You can duplicate, rename, edit, and delete your items.

Duplicate Item

To create a copy of an item:

1. Select the item in the Item Library.
2. Click on the Duplicate button on the Items toolbar.



Alternately, you can select Items > Duplicate Item.

If you can't see the button, change the size of the Sequence list by clicking on the Brief View button (double arrows) above the Sequence Settings.

Rename Item

1. Select the item in the Item Library.
2. Click on the Rename button on the Items toolbar.



If you can't see the button, change the size of the Sequence list by clicking on the Brief View button (double arrows) above the Sequence Settings.

3. In the Rename Item dialog box that opens, rename the item.

Edit Item

To open a Content Editor for the purpose of editing an item, use one of these methods:

- Double-click on the item in the Item Library.
- Click on the item then click on the Edit button in the Items window toolbar.
- Click on the item, then select Items > Edit Item With, and select the Content Editor from the list.
The editor that was used to create the content opens, allowing you to change the item and re-save it back to the Item Library.

Delete Item

To permanently delete an item from a region's Item Library, right-click on the item in the Item Library and select Delete Item from the menu that appears.

Alternately you can select Items > Delete Item in Library.

To delete an item from a region sequence but still keep it in the Item Library, see Delete Items from the Sequence (on page 185).

Publish InfoCasts to InfoCaster Manager

InfoCaster publishers can publish, approve, and download InfoCasts.

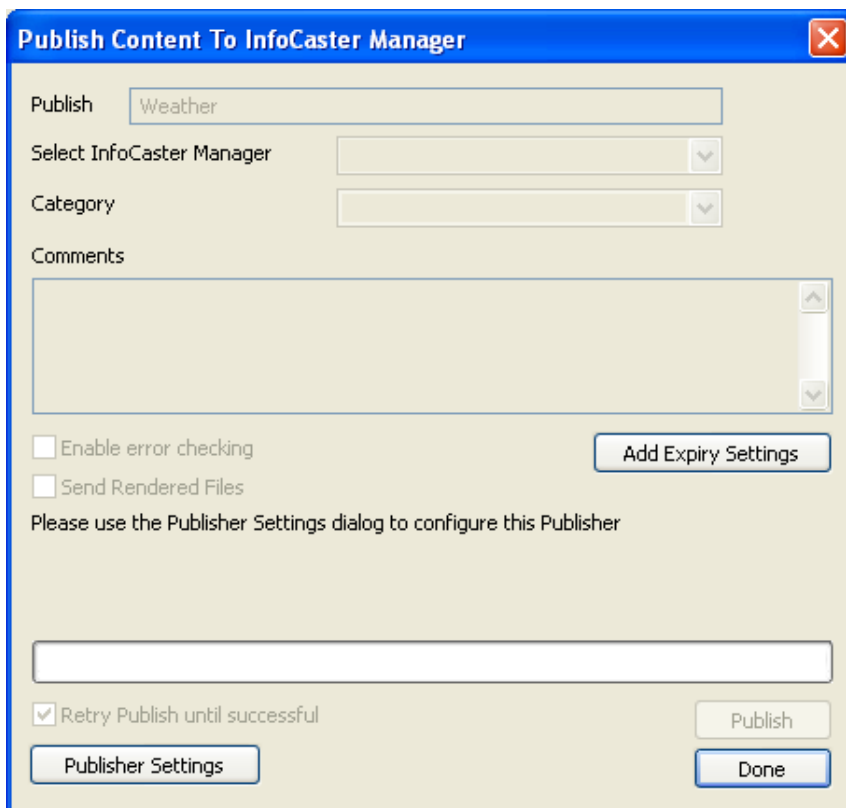
Set Up InfoCaster Publishers

Before publishers can communicate with InfoCaster Manager, they must be configured to connect with the InfoCaster Manager system. You must add the InfoCaster Manager system to the Locations list in the publisher's Configuration Utility.

To learn how to connect your system to InfoCaster Manager, see [Connect InfoCaster to InfoCaster Manager](#) (on page 25).

Publish InfoCasts

1. In the publisher, select **File > Open** to open the content you want to publish.
2. With the content open, select **File > InfoCaster Manager > Publish**. The Publish Content to InfoCaster Manager window opens.



The screenshot shows a dialog box titled "Publish Content To InfoCaster Manager" with a blue header bar and a red close button. The dialog contains the following elements:

- A "Publish" text field with the value "Weather".
- A "Select InfoCaster Manager" dropdown menu.
- A "Category" dropdown menu.
- A "Comments" text area with a vertical scrollbar.
- Two checkboxes: "Enable error checking" and "Send Rendered Files", both of which are unchecked.
- An "Add Expiry Settings" button.
- A line of text: "Please use the Publisher Settings dialog to configure this Publisher".
- A long, empty text field.
- A "Retry Publish until successful" checkbox, which is checked.
- A "Publisher Settings" button.
- A "Publish" button.
- A "Done" button.

3. Select the InfoCaster Manager system you want to publish to from the drop-down list. The list displays the InfoCaster Manager systems defined in the publisher's location list. To add, edit, or

remove InfoCaster Manager systems from the list, see [Connect Publishers to InfoCaster Manager](#) (on page 25).

4. If you want to assign the content to a category that already exists on the InfoCaster Manager server, use the Category drop-down list to select a category.
You can also type a new category name into the Category field.
5. Set how you want to publish the content.
 - Type any notes or reminders about the content into the Comments area. These comments appear when content is selected in InfoCaster Manager.
 - Check the Enable Error Checking checkbox to set InfoCaster Manager to check the content for errors that may have occurred during publishing. Selecting this option ensures the integrity of your files but they may take longer to publish.
 - Check the Send Rendered Files checkbox to send pre-rendered animations, rolls, and crawls to the InfoCaster Manager. This increases the amount of information sent through the network but may reduce rendering time on the player systems.
 - Check the Retry Publish Until Successful checkbox if you want the publisher to keep attempting to publish after a failed attempt.
 - If you want to customize the expiry settings for the content, click the Add Expiry Settings button. See [Add Expiry Settings](#) (on page 64) for more information.
6. Click the Publish button to publish the content.
If an error tells you that the publisher doesn't have permission to publish to the InfoCaster Manager, contact the InfoCaster Manager operator. The publisher must be enabled on the InfoCaster Manager system as described in the InfoCaster Manager User Guide.
7. To send the content to another InfoCaster Manager, select a different InfoCaster Manager system from the drop-down list and click Send again.

Click Done when you are finished publishing the content to your InfoCaster Manager systems. To publish a different content project, open the content you want to send and repeat these steps.

Add Expiry Settings

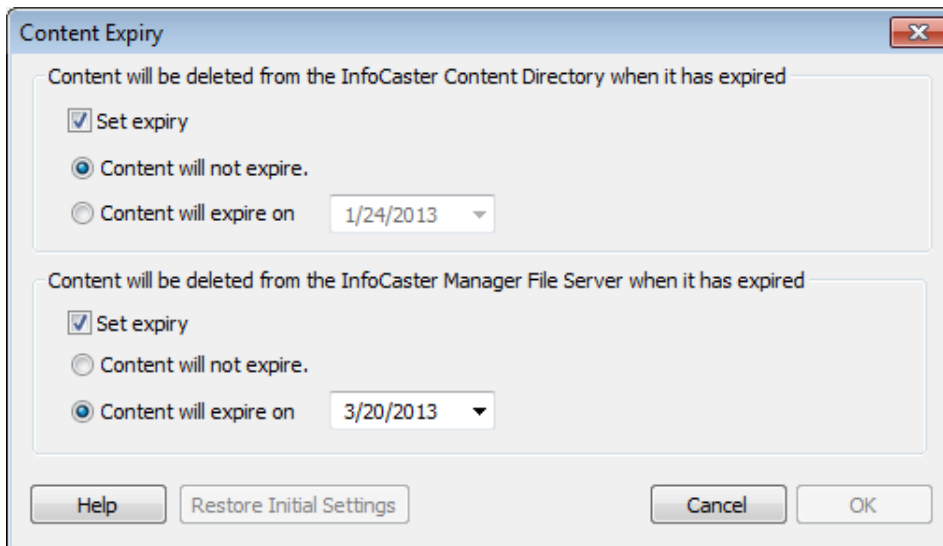
You can set your content to automatically expire at specific times. Expired content is automatically deleted from InfoCaster Manager file servers, player systems, or both.

While publishing content from InfoCaster, the publisher can define expiry settings for the content as part of the publishing procedure.

Follow these steps to add expiry settings when you publish content to InfoCaster Manager.

Note: These settings will override any previous expiry settings which have been applied to the content. See [Expire InfoCasts on Player](#) (on page 45) to learn how to expire InfoCasts on player systems with the File > Set Expiry option.

1. In the Publish Content to InfoCaster Manager window within InfoCaster, click the Add Expiry Settings button. The Content Expiry window opens.



The image shows a 'Content Expiry' dialog box with a title bar and a close button. It contains two sections for setting expiry dates. The first section is for the 'InfoCaster Content Directory' and the second is for the 'InfoCaster Manager File Server'. Each section has a 'Set expiry' checkbox, a 'Content will not expire.' radio button, and a 'Content will expire on' radio button with a date picker. The date picker for the file server is set to 3/20/2013. At the bottom, there are buttons for 'Help', 'Restore Initial Settings', 'Cancel', and 'OK'.

Content Expiry

Content will be deleted from the InfoCaster Content Directory when it has expired

☒ Set expiry

☐ Content will not expire.

☐ Content will expire on 1/24/2013

Content will be deleted from the InfoCaster Manager File Server when it has expired

☒ Set expiry

☐ Content will not expire.

☒ Content will expire on 3/20/2013

Help Restore Initial Settings Cancel OK

2. If you wish to define the way that this content is expired on player systems, check the Set Expiry checkbox in the first section of the window.
 - Content Will Not Expire: The content has no player expiry date.
 - Content Will Expire On: The content expires on the player at a specific date and time.
3. If you wish to define the way that this content is expired on file servers, check the Set Expiry checkbox in the second section of the window.
 - Content Will Not Expire: The content has no server expiry date.
 - Content Will Expire On: The content expires on the servers at a specific date and time.
4. If you wish to restore the settings to the way they were when you opened the window, click the Restore Initial Settings button.
5. Click OK to finalize your changes.

Download InfoCasts

On the publisher select File > InfoCaster Manager > Download. The Download Content from InfoCaster Manager window opens.

Download Content from InfoCaster Manager

Select InfoCaster Manager: node-b

Search: Content Name

Filters: All Content

Content Type: All Content

Category: All Categories

Published: Anytime

Published by: All Publishers

Buttons: Save Query, Delete Query, Reset Query, Search

Thumbnail	Content Name	Type	Server Version	Category	Comments
	Concessions	InfoCast	2010-09-15 09:38:19		
	PIZZA MENU NO BRAND	InfoCast	2010-07-13 15:49:18		

Download Location: E:\Infocasts\ Choose...

Ready to download "golf NAB 2005" version "2010-07-13 15:48:51"

Buttons: Publisher Settings, Download, Done

1. Use the Select InfoCaster Manager drop-down list to select the server you want to access.
2. Use the Search field to display only the content that contains the search text.
Enter your search text in the Search field and click the Search button. Only the content which matches your search condition will appear in the Content list.
To display all of your content again, remove the text in the Search field and click the Search button.
3. Use the Filter controls to display only the content that meets certain conditions. To learn how to manage filter queries, please consult the InfoCaster Manager User Guide.
4. Select the content you want to download from the Content list.
Click within the Server Version column to see a list of any additional content versions that are stored on the server. You can select a specific content version by choosing it in the list.

5. Click the Download button to download the selected content to the download location.

If you checked the Show the Confirm Content Download Dialog checkbox when you set up your publisher, the Confirm Content Download dialog appears. To learn about content download confirmation, please consult the InfoCaster Manager User Guide.

Approve InfoCasts

On the publisher system select File > InfoCaster Manager > Approve. The Approve/Disapprove Content on InfoCaster Manager window opens.

Approve/Disapprove Content on InfoCaster Manager

Select InfoCaster Manager: node-b

Search: [] Search

Filters: All Content

Content Type: All Content

Category: All Categories

Published: Anytime

Published by: All Publishers

Save Query Delete Query Reset Query Search

Thumbnail	Content Name	Type	Server Version	Category	Comments
	Concessions	InfoCast	2010-09-15 09:38:19		
	PIZZA MENU NO BRAND	InfoCast	2010-07-13 15:49:18		

Comments: []

Approve Done

Publisher Settings

1. Use the InfoCaster Manager Server drop-down list to select the server you want to access.
2. Use the Search field to display only the content that contains the search text.
Enter your search text in the Search field and click the Search button. Only the content which matches your search condition will appear in the Content list.
To display all of your content again, remove the text in the Search field and click the Search button.

3. Use the Filter controls to display only the content that meets certain conditions. To learn how to manage filter queries, please consult the InfoCaster Manager User Guide.
4. Select the content you want to approve or disapprove from the Content list.
5. Any comments associated with the content appear in the Comments field.
6. Click the Approve or Disapprove button to change the approval status of the selected content.

Work with Display Walls

Display walls consist of multiple output displays, each showing a different section of a larger InfoCast.

Each player in a display wall configuration is synchronized with the other players in the configuration, and each player plays a section of a larger InfoCast.

Configure System

Display wall players must be perfectly synchronized during playback. See [Synchronized Player Playback](#) (on page 174) to learn how to synchronize your players, set which display number a player is assigned to, and to read about the limitations of synchronized playback.

Note: All players in a display wall must be on the same subnetwork.

Synchronize Video Clips

To ensure that video clips on display walls remain in sync, make sure the clips are indexed when you encode them. Video clips that are not indexed may lose synchronization.

Design for Display Walls

When you create a new InfoCast you can choose the display wall configuration you want to design for.

Note: Only publishers with the Display Wall purchase option can create display wall InfoCasts.

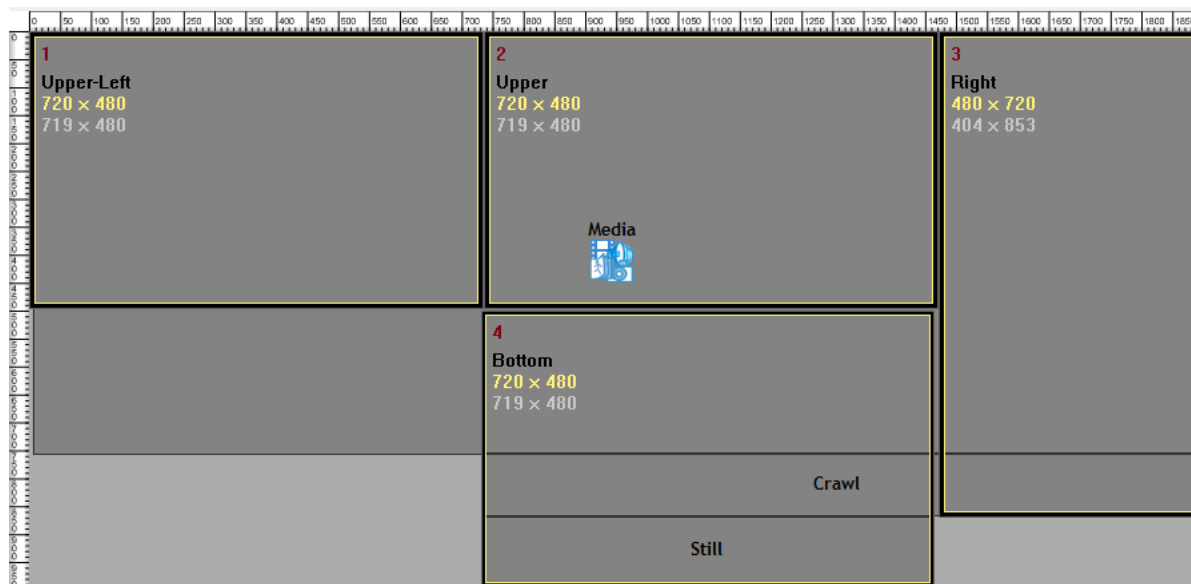
1. Within InfoCaster, choose File > New. The New InfoCast dialog opens.



2. Enter a name for your InfoCast in the field.
3. Select the Display Wall radio button. A list of available display wall configurations appear in the list. The Synchronized Playback radio button is for creating synchronized InfoCasts that are not part of a display wall. See [Synchronized Player Playback](#) (on page 174) for more information.
4. Select a display wall configuration from the list. If you need to create a new display wall configuration for your wall arrangement, see [Display Wall Designer](#) (on page 71).
5. Click OK. The Pages window appears, allowing you to create your new InfoCast.

Add Regions to Display Wall InfoCasts

If your InfoCast is being created for a display wall you can choose to show or hide the displays within the Regions window.



Use one of these methods to show displays within the Regions window.

- Check the Show Displays checkbox in the Region panel.
- Choose Regions > Show Displays.
- Press CTRL+ALT+D.

Displays in the Regions window are indicated by their display number, their display name, their native resolution, and their scaled resolution (if applicable). Display bezels are represented as black areas around the displays.

Your regions within the display wall can span displays. Anything outside the display boundaries is not rendered or displayed on output.

See Synchronized Player Playback (on page 174) to learn how to assign players to display numbers.

Video Clips in Display Walls

You have the following options for video clip regions which span multiple displays.

- Create a single media region which spans your displays, and import a single video clip which fills the entire region. This probably results in an HD clip being scaled up, with a resulting loss in display quality.
- Create a media region in each display, and import a video clip into each region which has been pre-sliced to fit the region.
- Create a single media region which spans your displays, and import multiple pre-sliced video clips as a Display Wall fileset which you assign to each display. This method is easy to use and still maintains video quality. See Add a Display Wall File Set (on page 140) for more information.

Audio in Display Walls

Each display monitor will output audio from the regions that are inside the display area, and will not output any audio from regions outside the display.

If a region which plays audio spans more than one display, the audio will be output by all display monitors which contain the region.

Note: An item with audio ducking enabled will only duck the audio of other items in the same display. Items in other displays will continue to play at their regular volume.

Display Wall Designer

Before you can create an InfoCast for a display wall, you must use the Display Wall Designer to define a display wall configuration which matches the size and arrangement of your displays.

Note: Only publishers with the Display Wall purchase option can create display wall InfoCasts and display wall configurations.

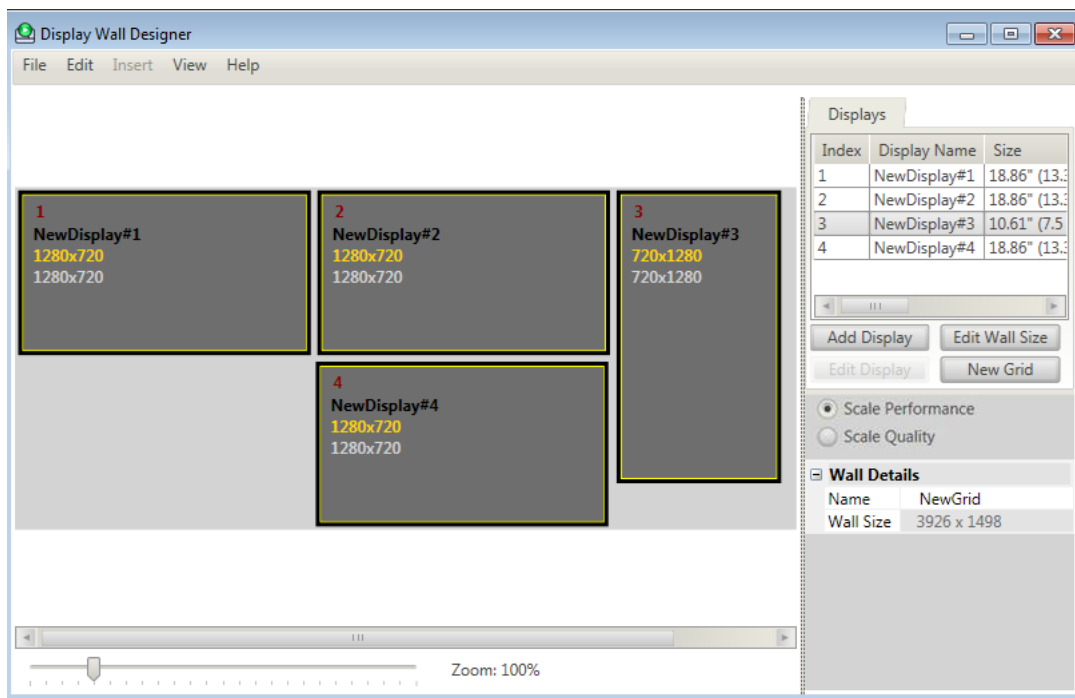
Open the Display Wall Designer

Publishers can open the Display Wall Designer in two ways.

- Open the Display Wall Designer with the New InfoCast dialog.
 - a. Within InfoCaster, choose File > New. The New InfoCast dialog opens.
 - b. Check the Design for Display Wall checkbox. A list of existing display wall configurations become available.
 - c. Click the Display Wall Configuration button. The Display Wall Designer opens.
If you want to base your configuration on an existing configuration, select the configuration in the New InfoCast dialog before you click the button. You can also choose File > Import within the Display Wall Designer to open a configuration.
- If you are editing an InfoCast that uses an existing display wall configuration, open the Display Wall Designer by selecting File > Edit Display Wall Configuration. This allows you to edit your current configuration.
Exiting the Display Wall Designer applies the edited configuration to your InfoCast.

Use the Display Wall Designer

The Display Wall Designer has three panes to help you design your wall.



- The Preview pane shows you how your display wall is arranged. The black area around each display represents the monitor bezel.
- The Displays tab shows a list of the displays in your wall.
- The Wall Details pane displays the name and the total size of your wall.

Set Measurement Mode

To change the units used for setting and displaying your wall configuration, select Edit > Measurement Mode. You can choose inches or centimeters.

Create a New Grid

Display walls are based on a grid of displays within a wall. The wall represents the entire area of the InfoCast, and the displays are the individual player outputs positioned within it. To create a new grid of displays and a new wall, click the New Grid button in the Display Wall Designer. The New Display Wall Grid dialog opens.

New Display Wall Grid

▼ **Monitor Dimensions**

Monitor:

Monitor Bezel: Left: Top:
Right: Bottom: Inches

Screen Width: Inches

Screen Height: Inches

Native Resolution: x Pixels

▼ **Grid**

Vertical Spacing: Inches

Horizontal Spacing: Inches

Grid Name:

Monitors Across:

Monitors Down:

▼ **Wall Dimensions**

Width: Inches

Height: Inches

The displays in your grid must all start with the same characteristics. Use the Monitor Dimensions options to set the characteristics of a single display in the wall.

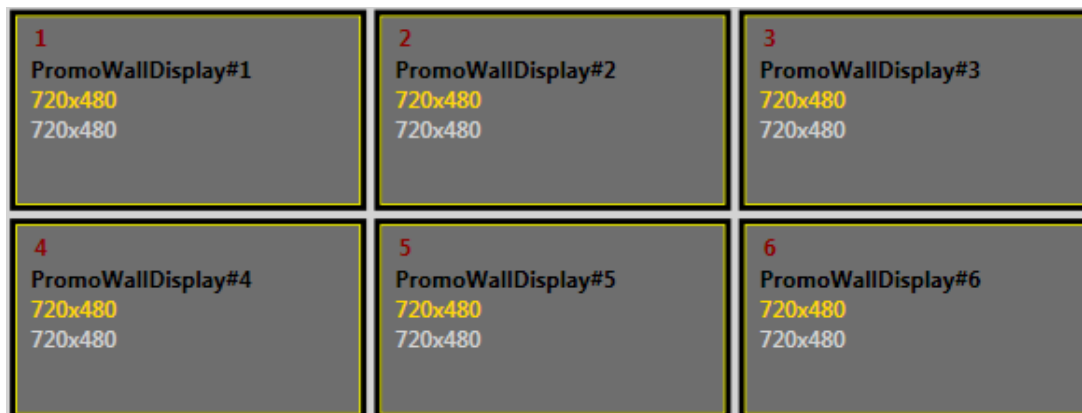
- Enter a name in the Monitor field. All of your displays will share this name with an appended number ("Promo Display Wall #3," for example). Use the numbers when you are assigning players to displays as described in Synchronized Player Playback (on page 174).
- Enter the size of your display's bezel. The bezel is the frame around the outside of the display.
- Enter the physical width and height of the display's screen. These values do **not** include the bezel.
- Use the Native Resolution drop-down list to select the native pixel resolution of the display. To enter a custom resolution, select the Custom option from the drop-down list and enter the custom resolution in the Pixels fields.

Use the Grid options to arrange your displays into a wall.

- Use the Vertical Spacing and Horizontal Spacing fields to set the amount of space between each display in the wall. These values do **not** include the display bezels.

- Enter a name for the grid in the Grid Name field.
- Use the Monitors Across and Monitors Down fields to arrange the displays into a rectangular grid. Your grid can contain a maximum of 254 displays.

When you are finished configuring your sample display and your grid, click the Generate Grid button. The Display Wall Designer displays your grid arrangement in the Preview pane.

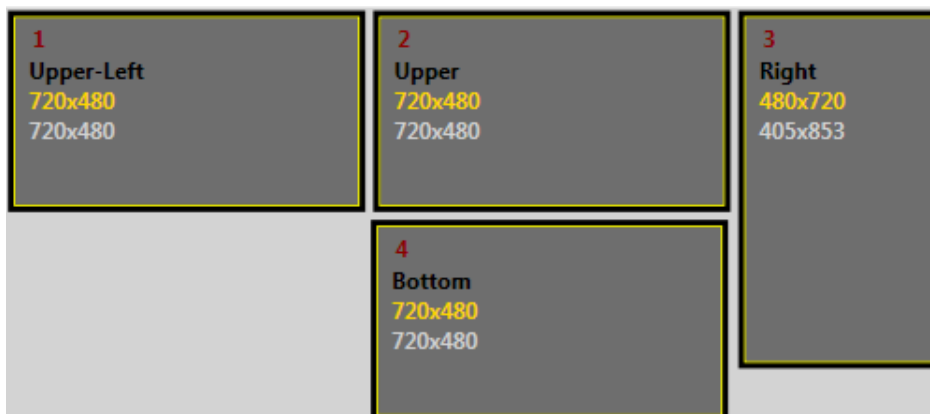


Edit Your Wall

After you have generated your grid, you can edit the display wall in the following ways.

- When you generate a new grid, the size of your wall automatically equals the size of the grid. Click the Edit Wall button to manually change the width and height of your wall in the Edit Display Wall Grid dialog.
- To add a new display to your wall, click the Add Display button and enter its name, bezel size, and screen size in the New Display dialog.
- To delete a display from your wall, select the display and press the DELETE key on your keyboard.
- To edit a display, select the display and click the Edit Display button. The Edit Display dialog opens, allowing you to change the name, bezel size, or screen size of the display. Changing the screen size also allows you to define the size of a rotated display.
- To reposition a display, select it and move it within the wall.

These options allow you to design a flexible display wall which is not based upon a simple grid.



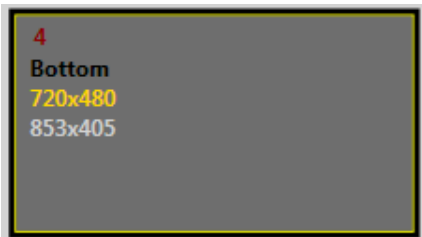
Change Scaling

If all the monitors in your display wall are the same resolution, you do not need to make any decisions about scaling. If the monitors are different resolutions, however, then parts of your display wall must be scaled to ensure that the aspect ratio and appearance of your InfoCasts is the same on all monitors.

If the resolutions of your display wall are mixed, use the Scale radio buttons to choose how your wall is scaled.

- **Scale Performance:** The resolution of all monitors is scaled using the pixels per inch (ppi) of the monitor with the lowest ppi.
- **Scale Quality:** The resolution of all monitors is scaled using the ppi of the monitor with the highest ppi.

The Display Wall Designer shows the native resolution and the scaled resolution for each monitor.



Save a Display Wall Configuration

Within the Display Wall Designer, exit the designer by clicking the X in the corner of the window. You are prompted to name the configuration, and the configuration is saved as a DWL file.

When you exit the Display Wall Designer your new configuration appears in the New InfoCast dialog. If you launched the Display Wall Designer while editing a display wall InfoCast, your configuration is applied to the InfoCast.

You can also import and export configurations within the Display Wall Designer by choosing File > Import and File > Export.

External Data Sources

By creating data tags in your items and linking them to data sources with the Data Source Wizard, InfoCaster allows you to link your still items to content in an external data source. Maintaining your data in an external file allows you to update information automatically, without needing to edit the InfoCast items. You can link most items to text files, XML/RSS data feeds, and ODBC data sources, and roll items can also be linked to Internet Relay Chat (IRC) servers.

You can also use external data sources to trigger conditional playback rules, to store references to item files, and to play a sequence of audio files in some Content Editors.

Use Data Tags

Still, roll, animation, and crawl items use data tags to link to the external data source.

- Title items use multiple data tags to link to multiple external data sources, or to multiple columns/feeds in one data source. You can edit the name of the data tags in the Title Quick Editor.

Tags	Text
ExhibitName	From External Source
Time	From External Source
Location	From External Source
☒ Show Tags	

To view the data tags, check the Show Tags checkbox on the Content tab in the Title Quick Editor. To add a new data tag/text line in the Title Quick Editor, click in the text box and then press ENTER. To remove a data tag/text line, select the text in the text box and press BACKSPACE to delete the text. When the text box is empty, press BACKSPACE again to delete the tag.

- Table items use multiple data tags to link to multiple columns/feeds in one data source. Each column in the Table Quick Editor has a labeled data tag. The first column's data tag is 1-1, the second column's data tag is 1-2, and so on. The data tag labels are visible when you link to the external data source.



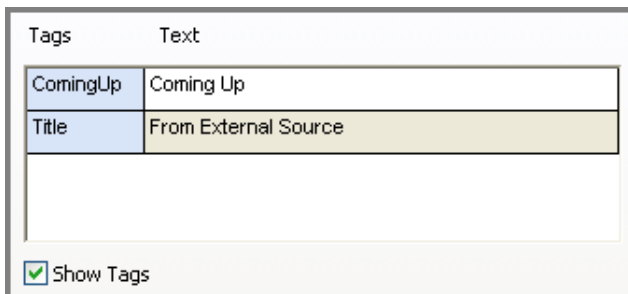
Destination	Departure Time
1-1	1-2
2-1	2-2
3-1	3-2
4-1	4-2
5-1	5-2
6-1	6-2
7-1	7-2
8-1	8-2
9-1	9-2
10-1	10-2
11-1	11-2

- Roll items have one data tag that you can link to one external data source. The data tag is labeled 1-1 and is visible when you link to an external data source. Rolls can also be linked to Internet Relay Chat (IRC) servers, in which case the single data tag does not need to be explicitly linked.
- Crawl items have multiple data tags that you can link to multiple external data sources, or to multiple columns/feeds in one data source. Add graphics, animations, or videos to create separators between the text entries in the crawl.
- Animation items can have multiple tags that are linked to one external data source. You can edit the tags in TitleMotion when you create the animation.



Use the Animation Quick Editor to link the data tags from a TitleMotion animation to an external data source. To view the data tags, check the Show Tags checkbox on the Content tab in the Animation Quick Editor.

To add a new data tag/text line, use the Data Tags tab in TitleMotion.



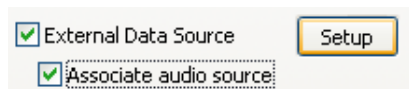
Tags	Text
ComingUp	Coming Up
Title	From External Source

☒ Show Tags

To remove a data tag/text line, open the animation in TitleMotion and delete the data tag.

- Some editors have an Associate Audio Source checkbox in the Content tab. If you check the checkbox, an Audio tag is automatically added to your item. Link this tag to a database of audio file paths to play the linked audio files during playback.

Switch to the Audio tab of the Content Editor to control level, ducking, and looping options.



- Some editors have a Play from Data Source radio button in the Content tab. If you select the radio button, a tag is automatically added to your item. Link this tag to a database of file paths to play the linked files during playback.

See Play From Data Source (on page 161) to learn how to use the Play from Data Source options.



Link Data Tags to External Data Sources

After you have set up the data tags, use the Data Source Wizard to link them to external data sources. See the InfoCaster Data Source Wizard Guide for complete instructions.

Data Gatherer

The Data Gatherer application allows you to create, view, and manage the data sources which connect to player content. If you are using the Data Gatherer application to manage your data sources, the Data Gatherer User Guide explains how to create data sets and store gathered data so it is accessible to players.

External Data Output

The item type you use determines how the external data displays during output.

- Titles display one entry at a time during output. Each entry displays for the amount of time set in the Item Duration field in the Content Editor. The transition and duration options are available after you link to the external data source.
- Tables display the number of entries that fit in the title table item.
For example, if a region is sized to display six rows and the data source contains six entries, all six entries display on output. If the region is sized to display three rows and the data source contains six entries, the first three entries play for the amount of time set in the Item Duration field in the Content Editor, followed by the next three entries.

You can also set tables to repeat columns across one or more displays. See Table Quick Editor (on page 128) for more information.

The transition and duration options are available after you link to the external data source.

- Rolls gradually display the content as the text moves up or down the screen.
When a roll region has the Pause Between Rolls option enabled, roll items within the region will pause their output after each row of the item's data source. See [Pause Rolls](#) (on page 53) for more information.
- Crawls gradually display the content as the text moves across the screen.
- Animations display one entry at a time during output. Each entry displays for the amount of time set in the Item Duration field in the Content Editor. The transition and duration options are available after you link to the external data source.

External Data Features

After you link data tags to external data sources, the external data features become available in the Content Editors. You must link to the external data source before the options are available.

Show All New Data at Least Once

The Show All New Data at Least Once option is recommended if you update the data constantly and it is important to show all data in the data source before playing new updates. The option is available for animation, still, roll, and crawl items.

1. On the Content tab in the Content Editor, check the Show All New Data at Least Once checkbox to play all data in the data source once before it renders new data. The option is available after you link to the external data source.
2. Click the Save button to save the setting.

Disabling this option sets InfoCaster to render and display new data almost immediately as the data source is updated, whether the previous data was shown or not.

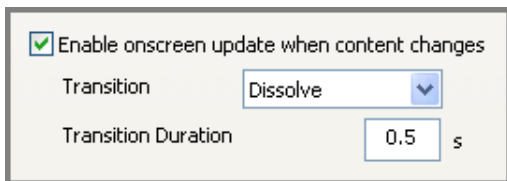
Enable Onscreen Update

The Enable Onscreen Update option sets InfoCaster to display updated text immediately onscreen. Updates you make in the Content Editor or in an external source are immediately updated during output. The option is available for roll and crawl items.

The Enable Onscreen Updates option is recommended if the text contains information like temperatures or sports scores where the spacing remains constant. The option is not recommended if the length of the text changes, since the spacing of the text will not adjust until the item playback restarts from the beginning. For example, a text entry that is shorter than the current entry will contain extra space.

1. On the Content tab in the editor check the Enable Onscreen Update checkbox.

2. Set the transition options that apply when the information is updated.

A screenshot of a configuration window for transition options. It features a checked checkbox labeled 'Enable onscreen update when content changes'. Below this, there is a 'Transition' dropdown menu currently set to 'Dissolve' and a 'Transition Duration' text box containing '0.5' followed by a 's' for seconds.

- Select a transition type from the Transition drop-down list.
- Set a transition duration in the Transition Duration field. Duration is set in hours:minutes:seconds:frames.

If you don't want to apply a transition, enter 00:00:00:00 in the Transition Duration field.

When the Enable Onscreen Update option is not selected, the item is updated with new content once playback restarts at the beginning.

Set Transition Options

The transition and duration options allow you to apply a transition between the layers of external data. This option is available for title and table items.

1. On the Content tab in the editor, select a transition from the Transition drop-down list. The transition applies when the new layer of data displays on-air.
2. Set the duration of the transition in the Transition Duration item box. The duration is set in seconds.

Set Item Duration

The Item Duration sets the display duration for each layer of data. This option is available for title and table items.

On the content tab in the editor, set the display duration for the external data output in the Item Duration boxes. The duration is set in minutes and seconds.

Data Source Content

The InfoCaster Manager application can distribute Data Source content to players. See Data Source Settings (on page 238) to learn how to set a central location for storing Data Source content received from InfoCaster Manager.

Use Internet Data Sources

When accessing data sources through the internet, you may need to set the amount of time InfoCaster waits for a response after pinging each source. See The InfoCaster Configuration Utility (on page 223) to learn how to change the Internet Timeout Value on the General tab.

Use the Data Source Wizard

The Data Source Wizard allows you to link your item's data tags to the columns or entries of a data source. It is also opened when you use a data source as the trigger in a Conditional Playback rule (see [Data Source Changes](#) (on page 193)) or when you reference filenames from a data source in a Content Editor (see [Play From Folder or Source](#) (on page 160)).

You can add new text files or RSS/XML sources to the Data Source Wizard. You can also format the data tags, use SQL conditions to refine the data selection, color the text, sort the data, set rules for data retrieval, and set output behavior for when data sources become unavailable.

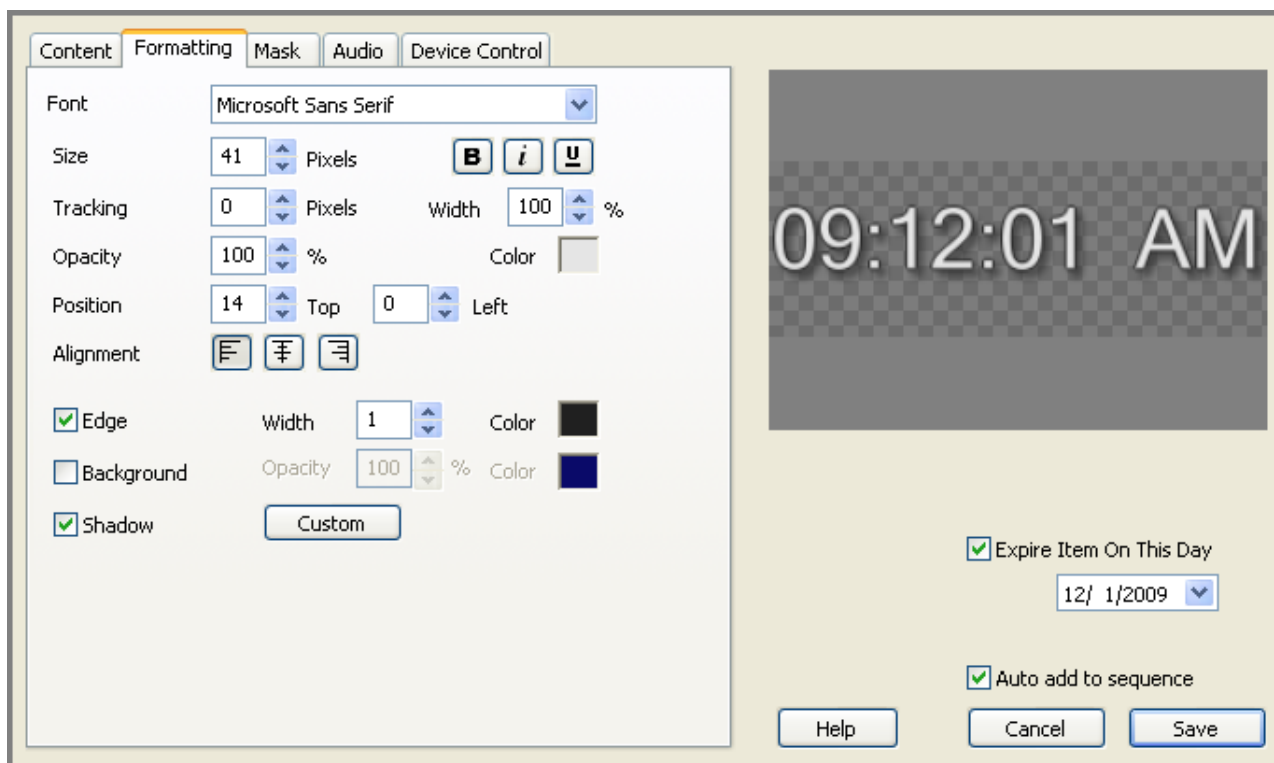
The Data Source Wizard is fully described in the [InfoCaster Data Source Wizard Guide](#).

For information about creating new data sources, see [Create a Text File](#) (on page 217) and [Create an ODBC Data Source](#) (on page 218).

Content Editors Overview

Use Content Editors to add and edit the items in your regions. Some region types have more than one Content Editor to choose from. When you have finished editing an item, click on the Save button in the Content Editor to add the item to the region.

Most Content Editors allow you to add audio, external data sources, alpha masks, and serial device control to items. Many Content Editors also allow you to play multiple elements stored in folders or referenced by databases (see Play From Folder or Source (on page 160)).



This section lists the Content Editors available for each region type. The following sections list each Content Editor in detail. The final sections explain how to format your text and use other features common to most Content Editors.

Still Regions

Still regions play non-moving text and/or graphics such as titles and logos. You can enter text manually, or connect each text line to a data source. For instructions on creating and linking to an external data source, see External Data Sources (on page 76).



- **Title Quick Editor**
Add text to a still region on the layout. The data can be text that you type in or text from an external data source. You can create as many lines of text as you are able to display at a time in the selected region. See Title Quick Editor (on page [133](#)).
- **Table Quick Editor**
Quickly display information from multiple columns of an external data source during output. See Table Quick Editor (on page [128](#)).
- **TitleMotion**
Create a layout that consists of text and graphics for the item. The content can be text that you type in or text that you link to an external data source. Create the layout in TitleMotion, then apply the data links in the Table Quick Editor. You cannot add audio to TitleMotion items.
To help you apply more complex formatting to title, roll, and crawl quick editors, you can create templates in TitleMotion that become available in other editors. See TitleMotion (on page [135](#)).
- **Graphic Importer**
Import a still image from a variety of file formats into the selected item. You can play multiple images and audio files which are defined in a folder or a database. You can set the graphic to fill the entire Still item or maintain the image aspect ratio. See Graphic Importer (on page [109](#)).
- **Punctuate Item**
Use Punctuate items to schedule specially-targeted content within regions. These items must integrate with the Punctuate™ business management application to target detailed messages to specific players.
Only one Punctuate item can be added to each region. Add one or more copies of the Punctuate item to your region's sequences to specify when Punctuate content is retrieved and displayed.
Punctuate users should consult the Punctuate documentation for more information.

Crawl Regions

Crawl regions move text and graphics horizontally across the region. You can add text and text separators and set the crawl speed and direction. For instructions on creating and linking crawls to an external data source, see External Data Sources (on page [76](#)).



You can change the speed of your crawls and set them to move left or right. See Adjust Sequence Settings (on page [186](#)) for details on using the Sequence settings. Use the Configuration Utility to change the default direction of all crawls (see General Tab (on page [237](#))).

- **Crawl Quick Editor**
Create a simple line of crawling text that displays content that you type in or text from an external data source. Format the item with a template or with custom settings. See Crawl Quick Editor (on page [100](#)).
- **TitleMotion**

TitleMotion is a full-featured, broadcast quality character generator that you can use to create high-end titles, rolls, crawls and animations. See TitleMotion (on page [135](#)) for details.

Roll Regions

Roll regions scroll text and graphics up or down the region. You can manually add text to rolls or you can connect them to a data source. For instructions on creating and linking to an external data source, see External Data Sources (on page [76](#)).



You can change the speed of rolls and set them to move up or down. See Adjust Sequence Settings (on page [186](#)) for details on using the Sequence settings. Use the Configuration Utility to change the default direction of all rolls (see General Tab (on page [237](#))).

- Roll Quick Editor
Create rolling text that displays content that you type in or text from an external data source. See Roll Quick Editor (on page [126](#)).
- Table Quick Editor
Quickly display information from an external data source during output. See Table Quick Editor (on page [128](#)).
- TitleMotion
TitleMotion is a full-featured, broadcast quality character generator that you can use to create high-end titles, rolls, crawls and animations. See TitleMotion (on page [135](#)) for details.

Media Regions

Media regions play many different types of content including videos, animations, audio, and stills. Although it shares many content editors with the Still region, this region is useful when you need to mix many different types of content items in the same region.



- Still - Title Quick Editor
Add text to a still region on the layout. The data can be text that you type in or text from an external data source. You can create as many lines of text as you are able to display at a time in the selected region. See Title Quick Editor (on page [133](#)).
- Still - Table Quick Editor
Quickly display information from multiple columns of an external data source during output. See Table Quick Editor (on page [128](#)).
- Still - TitleMotion

Create a layout that consists of text and graphics for the item. The content can be text that you type in or text that you link to an external data source. Create the layout in TitleMotion, then apply the data links in the Table Quick Editor. You cannot add audio to TitleMotion items.

To help you apply more complex formatting to title, roll, and crawl quick editors, you can create templates in TitleMotion that become available in other editors. See TitleMotion (on page 135).

- Still - Graphic Importer

Import a still image from a variety of file formats into the selected item. You can play multiple images and audio files which are defined in a folder or a database. You can set the graphic to fill the entire Still item or maintain the image aspect ratio. See Graphic Importer (on page 109).

- Web - Dynamic Web Quick Editor

Display realtime, interactive web content (including HTML5 and Flash) in your InfoCasts. See Dynamic Web Quick Editor (on page 107).

Note: Dynamic Web content can only be displayed in Standard mode, and cannot be used in Display Walls. See Video/Audio Configuration (on page 261) to learn how to change output modes.

- Animation - TitleMotion

TitleMotion is a full-featured, broadcast quality character generator that you can use to create high-end animations. See Add Content (on page 135) for details.

- Animation - Quick Editor

Quickly edit the text in animations that were originally created in TitleMotion. The text can be linked to an external data source and audio can be attached to the items.

You cannot add a new item with the Animation Quick Editor, you can only edit existing items. See Animation Quick Editor (on page 96).

- Animation - Importer

Import an existing animation into the selected region. You can import multiple animations defined in a folder or a database. Attach or adjust audio using the audio options on the Audio tab. See Animation Importer (on page 93).

- Video - Clip Quick Editor

Import a video file into the selected region. You can play multiple video files defined in a folder or a database. Select which segment to play, set display options, apply graphics to overlay the video, scale the video, and adjust audio. See Video Clip Quick Editor (on page 139).

- Video - Live Quick Editor

Set the region to display live video. Select hardware sources for video and audio, apply a graphic overlay to the video, scale the video, and adjust the audio settings. See Live Video Quick Editor (on page 114).

- Video - Stream Quick Editor

Link the region to a streaming media file. See Video Stream Quick Editor (on page 148).

- Audio - Clip Quick Editor

Play an audio file, or play multiple audio files defined in a folder or a database. You can adjust the item's audio level and enable audio ducking. See Audio Clip Quick Editor (on page 98).

- Audio - Live Quick Editor

Play live audio from a hardware device during playback. You can adjust the item's audio level and enable audio ducking. See Live Audio Quick Editor (on page 112).

- Punctuate Item

Use Punctuate items to schedule specially-targeted content within regions. These items must integrate with the Punctuate™ business management application to target detailed messages to specific players.

Only one Punctuate item can be added to each region. Add one or more copies of the Punctuate item to your region's sequences to specify when Punctuate content is retrieved and displayed.

Punctuate users should consult the Punctuate documentation for more information.

Digital Clock Regions

Digital clock regions play a real-time digital clock or a timer that counts up or down.



- **Digital Clock Quick Editor**
Create real-time clocks displaying local or offset time. The time display is based on your computer's clock. See Digital Clock Quick Editor (on page [103](#)).
- **Digital Timer Quick Editor**
Create a digital timer that counts up or down. See Digital Timer Quick Editor (on page [105](#)).

Analog Clock Regions

Analog clock regions play a real-time analog clock.



- **Analog Clock Quick Editor**
InfoCaster provides a selection of pre-made analog clock files that you can import into the Analog Clock Editor. InfoCaster also provides an analog clock building utility. By default, the time displayed by the clock is the local time provided by your computer clock. See Analog Clock Quick Editor (on page [90](#)).

Analog Meter Regions

With the purchase of the Analog Meter option you can display a customized, constantly-updating meter in your page.



- **Odometer Quick Editor**

Use the Odometer Quick Editor to create an odometer-style counter with up to ten "wheels." The odometer receives information from a UDP Multicast and updates the wheels with a motion effect. Use Photoshop to create custom borders, symbols, and wheels for your odometers. See Odometer Quick Editor (on page [120](#)).

Note: Odometers can only be displayed in Legacy Mode (Fullscreen) or Legacy Mode (Desktop Video Window). See Video/Audio Configuration (on page [261](#)) to learn how to change output modes.

Temperature Regions

If you have a temperature probe connected to your system you can display current temperature readings in your page. You can also manually enter the temperature if no probe is available.



- Temperature Probe Quick Editor
Display the current temperature on the page. Temperatures can also be entered manually. See Temperature Probe Quick Editor (on page [131](#)).

RTX Port Regions

With the purchase of the RTX Port option you can display RTX application content in RTX Port regions.



1. Make sure that the RTX application is open on your system.
2. In InfoCaster, select the RTX Port region in the Regions window.
3. In the Name field of the region details section below the Regions window, enter the name of the RTX surface area exactly as it is found in the RTX EXE code. This name is set in the SharedID property of the Framebuffer object.
4. Run the RTX application to output the region content.

You can open the RTX Port region in the Items window but you cannot schedule RTX Port regions using the Sequencer. RTX Port content outputs when you play the InfoCast and run the RTX application.

Common Content Editor Features

The following features are available in most Content Editors. They are discussed at the end of this section of the help document.

Play Files From Source

You usually set items to play one specific content file. When you want to display more content files, you can add more items to the region and play them in sequence.

When you want to play a large number of files with a single item, however, it is easier to use the Play Files From Source option. This option sets the item to play multiple files which are either stored in a folder or referenced in a database.

See Play From Folder or Source (on page 160) for more information.

Add Log Note

Content Editors allow you to add log notes which will appear in playback logs. To add a log note to the item, click the Log Note button. The Log Note window allows you to enter a note which appears in the playback log whenever the item is played.

Enter any notes about the item in the text box without pressing ENTER, and then click Save.

See Log Output (on page 214) for more information about playback logging.

Add Alpha Mask

Add an alpha mask to make sections of items transparent, translucent, and opaque. This is useful if you want to overlay a logo or other branding element on the item. See Add an Alpha Mask (on page 164).

Format Text

Some of the Content Editors allow you to format item text using a Formatting tab. See Format Text (on page 166) for more information about the common formatting options available in Content Editors.

Add Audio

You can add audio to most items using the Audio tab in the Content Editors. See Add Audio (on page 169).

Device Control

Most editors allow you to control serial devices when items start or stop playing. See [Control Serial Devices](#) (on page 171).

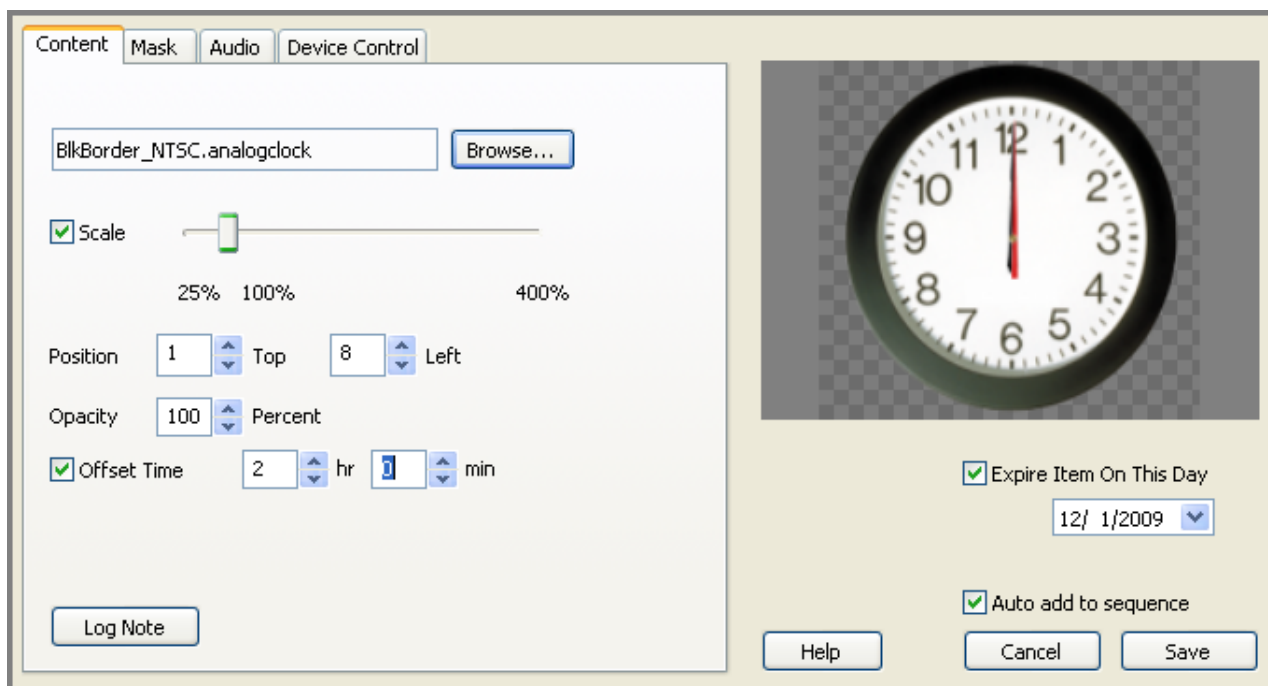
External Data Sources

Some Content Editors allow you to link items to external data sources. See [External Data Sources](#) (on page 76) for more information.

Analog Clock Quick Editor

InfoCaster ships with sample analog clocks that you can use in your pages, and you can also use the analog clock builder utility to create your own analog clocks. The time displayed by the clock is the local time provided by your computer clock. Use the Offset Time control to add or subtract time when the clock is displayed.

Use the tabs in the Analog Clock Quick Editor to add audio, device control, or an alpha mask to the item.



Add Content

InfoCaster ships with a number of analog clocks, located in InfoCaster\Analog Clock Builder Samples\Clocks. The clock file uses the extension ANALOGCLOCK or PSD.

1. To add content, click on the Choose button.
2. In the Open dialog, select the clock style you want to use and choose the NTSC or PAL version, depending on your video standard. The folders are located in the InfoCaster\Analog Clock Builder Samples\Clocks folder.
3. Select a clock and click Open.

Adjust Clock Settings

Use the controls in the Content Editor to adjust the clock's settings.

Clock Transparency

To adjust the transparency of the content, enter a number in the Opacity box on the Content tab. 0% represents complete transparency.

Offset Time

Check the Offset Time checkbox and use the number fields to add or subtract hours or minutes from the displayed clock.

Clock Size

To change the size of the analog clock within the region, check the Scale checkbox, then drag the Scale control to the left to decrease the size or to the right to increase the size.

Position Clock

You can change the horizontal and vertical position of the content within the region by either using the Position fields or by dragging the content within the Preview window.

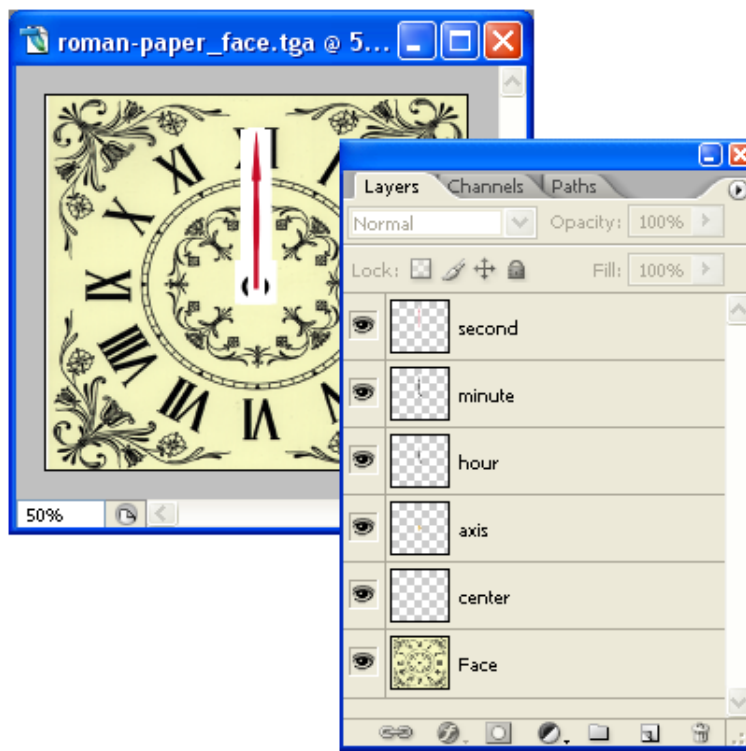
- Use the Top and Left Position fields to change the number of pixels between the upper-left corner of the content and the edges of the region.
- Click on the content in the Preview window and drag it to its new position.

Design a Clock in Photoshop

To design a custom clock in Adobe Photoshop you must add the clock elements on specific layers.

1. In Photoshop, open a new document.
2. Add the following six layers in the Layers palette: hour, minute, second, face, axis, center.
3. Add clock elements to the appropriate layers.
 - Hour: Place the image of the hour hand on the hour layer.
 - Minute: Place the image of the minute hand on the minute layer.
 - Second: Place the image of the second hand on the second layer.
 - Face: Place the image of the clock face on the face layer.
 - Axis: Place the image of the clock axis on the axis layer.

- Center: Place a filled pixel on the center layer. This pixel anchors the center of the face and the rotation axis of the clock hands.



4. Save the clock as a .psd file.
5. Use the Analog Clock Quick Editor to add the clock to your layout.

Build Analog Clocks

Use the Analog Clock Builder utility to create more complex analog clocks. To open the Analog Clock Builder select Start > Programs > Harris > InfoCaster > Utilities > Analog Clock Builder.

For instructions on how to use this utility to create an analog clock file, see the Help menu in Analog Clock Builder.

Animation Importer

You can import an existing animation into a media region in your page. You can also play multiple animations that are stored in a folder or referenced in a database. Use the Animation Importer to adjust animation opacity, specify where the animation file is saved, preview the animation, and choose an item thumbnail.

Use the tabs in the Animation Importer to add audio, device control, or an alpha mask to the item.

Content Mask Audio Device Control

Source Type Files

Select a via animation or an image from a series of images.

Add... Remove Remove All

#	Filename
1	D:\Animation\cosmic sparkle 180.via

☒ Shared Media animations

Playback

Duration 00:00:00:02 Opacity 100 %

Thumbnail

Frame 1

First Last

Scale

☒ Scale To Fill Region

☐ Maintain Aspect Ratio

Log Note

Help Cancel Save

☐ Expire Item On This Day 3/14/2013

☒ Auto Add To Sequence

COSMIC CINEMA

Add Content

If you want to play multiple animations within the item see Play From Folder or Source (on page 160).

Follow these steps to add a single animation to the item, or to add multiple animations which will each become a separate content item when you save the animation:

1. Use the Source Type drop-down list to select the Files option.
2. Click the Add button. An Open dialog appears.
3. Select either VIA animations or a series of numbered images.
 - To select a series of images, navigate to the folder containing the numbered image files and open one of the files.
 - To select multiple VIA animations to import at once, hold down the SHIFT or CTRL key as you click.
4. Click Open. Your content files are added to the Filename list in the Quick Editor.

If you have more than one content file in the list, each will become a separate content item when you click Save in the Quick Editor. This allows you to quickly create several different content items without repeatedly opening the Quick Editor.
5. Use the buttons above the Filename list to modify your list of content files.
 - To add more content files to the Filename list, click the Add button and select additional files.
 - To remove a content file from the Filename list, select the file and click the Remove button.
 - To remove all the content files from the Filename list, click the Remove All button.

Share Media

If several region items are using the same content file, it is economical to store the file in a central location so that all items can use the same file instead of storing different copies for each item. See Store Shared Media (on page 163) for more information.

Adjust Settings

Use the controls in the Content Editor to adjust the animation's settings.

Animation Transparency

To adjust the transparency of the content, enter a number in the Opacity box on the Content tab. 0% represents complete transparency.

Set Item Thumbnail

If you imported a series of images for the animation, choose a frame of the animation to use as an item thumbnail. This is especially useful if the first few frames of the animation are blank. Click the First or Last buttons to display the first or last thumbnail in the image sequence.

You cannot set a thumbnail for VIA animations.

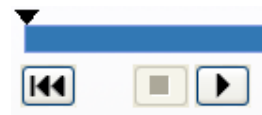
Animation Scale

To set the content to fill the entire region select the Scale to Fill Region checkbox. Filling the region may increase or decrease the size of the original content, causing some distortion.

Use the Maintain Aspect Ratio option to set the content to scale to the largest possible size without changing the aspect ratio of the original content.

Preview Item

Use the buttons on the Content tab to preview the animation.



Animation Playback

Animations play back at the frame rate of the playback device:

- ATI: 1 second = 60 frames
- NTSC: 1 second = 30 frames
- PAL: 1 second = 25 frames

Animation Quick Editor

Use the Animation Quick Editor to edit the text in animations that were created in TitleMotion. You can also link animation text to an external data source and set audio, device control, and mask options for the item.

To use the Animation Quick Editor, create and save an animation item with TitleMotion, then edit the animation item in the Animation Quick Editor. You cannot add a new animation using the Animation Quick Editor, you can only edit existing animations.

Use the tabs in the Animation Quick Editor to add audio, device control, and alpha masks to the items.

Tags	Text
Location	Dawson City
Company	Gold Rush Tours
Date	February 5, 2008

☒ Show Tags

☒ External Data Source Setup

☒ Associate audio source

☐ Show all new data at least once

Log Note

☒ Expire Item On This Day
12/ 1/2009 ▼

☒ Auto add to sequence

Help Cancel Save

Use the Animation Quick Editor

Follow these steps to use the Animation Quick Editor:

1. Create and save an animation item in TitleMotion.
2. Add the animation item to a media region.
3. Select the animation item in the Items window.
4. Select the Animation Quick Editor from the Content Editor drop-down list.
5. Click the Edit button. The Animation Quick Editor opens.

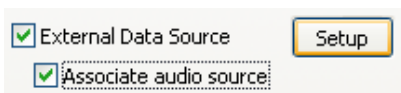
Add Content

To manually add text to the TitleMotion animation, type the text in the Text box on the Content tab. Check the Show Tags checkbox to see the data tags associated with each text line.

You can also link data tags to external data sources. For details on linking an animation to a text file, an XML/RSS data feed or an ODBC data source, see [External Data Sources](#) (on page 76).

Associate Audio Source

If you are linking data tags to external data sources, check the Associate Audio Source checkbox to play a specific audio file for each piece of data that is displayed.



When you check the checkbox, an Audio data tag is added to your item. Using the Data Source Wizard, link this tag to an external data source containing full paths to each audio file you want to play. When new data is displayed by the item, the audio associated with it will also play.

Switch to the Audio tab in the Content Editor to change looping, level, and audio ducking settings.

See [External Data Sources](#) (on page 76) for more information about linking item tags to external data.

Audio Clip Quick Editor

The Audio Quick Editor allows you to play audio files in a region. You can also play multiple audio files that are stored in a folder or defined in a database, and you can enable audio ducking for audio items.

Use the Device Control tab to control devices with the item.

The screenshot shows the 'Audio Clip Quick Editor' dialog box. It has two tabs: 'Audio' (selected) and 'Device Control'. The 'Audio' tab contains the following elements:

- Source Type:** A dropdown menu set to 'Files'.
- Buttons:** 'Add...', 'Remove', and 'Remove All'.
- Table:** A table with two columns: '#' and 'Filename'. It contains one row with the value '1' in the first column and 'D:\Media\promo.audio.mp3' in the second column.
- Shared Media:** A checkbox labeled 'Shared Media' and a dropdown menu set to 'All'.
- Audio Levels & Control:** A section containing:
 - Level:** A numeric input field set to '100' with up/down arrows, and a 'Preview' button.
 - Enable Audio Ducking:** A checkbox that is checked, followed by two radio button options:
 - Lower all audio using System Default:** A radio button that is selected, followed by a numeric input field set to '50' and a '%' symbol.
 - Lower all audio by Custom Amount:** A radio button that is not selected, followed by a numeric input field set to '15' with up/down arrows and a '%' symbol.
- Log Note:** A button.
- Expire Item On This Day:** A checkbox that is not checked, followed by a date dropdown menu set to '3/14/2013'.
- Auto add to sequence:** A checkbox that is checked.
- Buttons:** 'Help', 'Cancel', and 'Save'.

Add Content

If you want to play multiple audio files within the item see Play From Folder or Source (on page 160).

Follow these steps to add a single audio file to the item, or to add multiple files which will each become a separate content item when you save the audio:

1. Use the Source Type drop-down list to select the Files option.
2. Click the Add button. An Open dialog appears.
3. Select one or more audio files.
4. Click Open. Your content files are added to the Filename list in the Quick Editor.

If you have more than one content file in the list, each will become a separate content item when you click Save in the Quick Editor. This allows you to quickly create several different content items without repeatedly opening the Quick Editor.

5. Use the buttons above the Filename list to modify your list of content files.
 - To add more content files to the Filename list, click the Add button and select additional files.
 - To remove a content file from the Filename list, select the file and click the Remove button.
 - To remove all the content files from the Filename list, click the Remove All button.

Share Media

If several region items are using the same content file, it is economical to store the file in a central location so that all items can use the same file instead of storing different copies for each item. See Store Shared Media (on page 163) for more information.

Adjust Settings

Use the controls in the Content Editor to adjust the audio settings.

Audio Level

Change the Level value to adjust the volume for the audio. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.

Audio Ducking

The Enable Audio Ducking checkbox sets the item to trigger a reduction in the audio level of other items that are currently playing. Ducking occurs when the item is played. Use the radio buttons to choose your ducking method.

- To lower all other audio by the default value set in Preferences, select the Lower All Audio Using System Default radio button.
- To lower all other audio by a custom value, select the Lower All Audio By Custom Amount radio button and enter the custom value in the provided field.

Preview Item

Click the Preview button to preview the audio file.

Crawl Quick Editor

Use the Crawl Quick Editor to add text lines and text separators to crawl regions. Switch to the tabs in the Crawl Quick Editor to add audio and device control to the crawl.

The screenshot shows the 'Crawl Quick Editor' window with the 'Content' tab selected. The interface includes a 'Content Items List' table, buttons for 'Add', 'Modify', and 'Delete', and several checkboxes for configuration. A preview window on the right shows a checkered background with the text 'From External Source...'. At the bottom right, there are buttons for 'Help', 'Cancel', and 'Save'.

Name	Content	Type	Source
Titles	From External Source	Text	External Source
Separator	...	Text	Manual

☒ External Data Source

☒ Show all new data at least once

☒ Enable onscreen update when content changes

Transition:

Transition Duration: s

☒ Expire Item On This Day

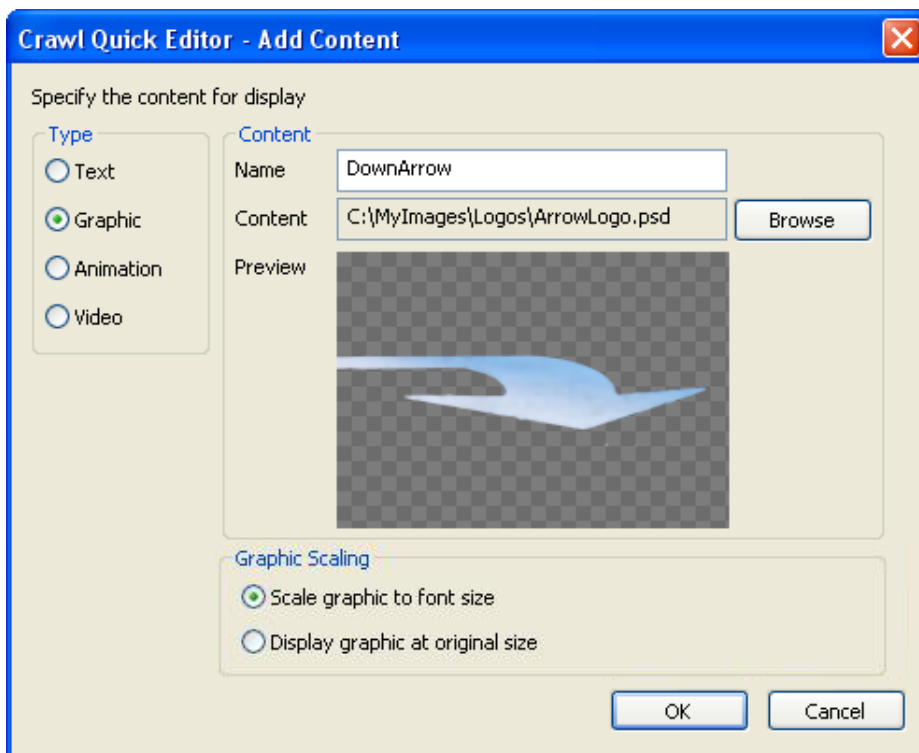
☒ Auto add to sequence

Add Content

Use the Add button to add text and crawl separators directly in the Crawl Editor.

When you click Add you have the choice to add text to the crawl, or to add a text separator that displays between text entries. Select the Text option to add crawl text. Select the Text, Graphic, Animation, or Video option to add a text separator.

1. To add crawl content directly in the Crawl Editor click the Add button. The Add Item dialog opens.



2. Select the Text radio button.
3. Enter a name for the text entry in the Name box.
4. Add the first entry of crawl content in the Content area. Click OK.
5. In the Crawl Editor, click the Add button again to add a separator. The Add Item dialog opens.
6. Select the type of separator you want to use: Text, Graphic, Animation, or Video.
7. Set up the separator content in the dialog:
 - If you selected Text, enter a name for the separator in the Name field and then enter the text characters in the Content area. For example, enter " ... ".
 - If you selected Graphic, enter a name for the separator in the Name field, click the Choose button to select the file you want to use as a graphic separator, and use the radio buttons to set the size of the graphic.
 - If you selected Animation or Video, enter a name for the separator in the Name field and then click the Choose button and select the file you want to use.
8. Click OK in the Add Content dialog to add the separator to the crawl.
9. Repeat steps 1 to 8 to add more text and separators to the crawl.

For details about linking crawl text to a text file, an XML/RSS data feed, or an ODBC data source, see External Data Sources (on page 76).

Edit Crawl Text

Click the Modify button to edit the crawl text or text separator.

1. Select the text entry or separator from the list on the Content tab.
2. Click the Modify button. The Add Content dialog opens with the entry selected.
3. Update the entry and click OK.

Adjust Settings

Use the controls in the Content Editor to adjust the crawl settings.

Format Text

Switch to the Formatting tab to change the formatting for your text. For details on formatting crawl text, see Format Text (on page 166).

Onscreen Update

The Enable Onscreen Update option sets InfoCaster to display updated text immediately onscreen. Updates you make in the Crawl Quick Editor or in an external data source are immediately updated during output.

The Enable Onscreen Update option is recommended if the crawl text contains information like temperatures or sports scores where the spacing remains constant. The option is not recommended if the length of the text entries changes, since the spacing of the text will not adjust until the item playback starts again from the beginning. For example, a text entry that is longer than the current entry will not display entirely, and a text entry that is shorter than the current entry will contain extra space.

To set up onscreen update, check the Enable Onscreen Update checkbox and set the transition options that apply when the information is updated. Select a transition type from the Transition drop-down list and set a transition duration in the Transition Duration field.

When the Enable Onscreen Update option is not selected, the item updates with new content once playback starts again at the beginning of the crawl.

Show All New Data At Least Once

If your crawl is linked to an external data source, it will update each time the data source changes. If the data source changes several times while the crawl is playing, it is possible that not all crawl data will be played.

Check the Show All New Data At Least Once checkbox to make sure that all updated data is displayed at least one time, even if the data has changed in the meantime.

Digital Clock Quick Editor

Use the Digital Clock Quick Editor to add a digital clock to a region. You can display local or offset time, the current date, or custom text either before or after the clock. You can also display a date or some custom text without displaying the digital clock. Use the tabs in the Digital Clock Quick Editor to add audio, device control, or an alpha mask to the item.

Adjust Settings

Use the controls in the Content Editor to adjust the digital clock settings.

Digital Clock Display Options

Display Option	Description
Show Time	Sets whether the time displays on output. If you want the time displayed, check the Show Time checkbox and then set the options.
Clock Type	Select the 12 Hour or 24 Hour option to set the clock format.
Show AM/PM	Select the Show AM/PM checkbox to display the AM or PM indicator.

Display Option	Description
Show Leading Zeros	Sets the hour to display as two digits. If the current time is 9:00 AM the clock displays 09:00 AM, for example.
Show Seconds	Includes seconds in the digital clock display.
Offset Time	Delays or advances the clock by the set number of hours and minutes. By default the time displayed by the digital clock is the local time provided by the computer clock. To delay a clock, check the Offset Time checkbox and enter a negative value in the HR and MIN fields. For example if you want to delay the time display by 1 hour 5 minutes, enter -1 in the HR field and -5 in the MIN field. To advance a clock, check the Offset Time checkbox and enter a positive value in the HR and MIN fields. For example if you want to advance the time display by 1 hour 5 minutes, enter 1 in the HR field and 5 in the MIN field.
Separator	Select a clock separator from the drop-down list. To choose a custom separator, select the Custom separator from the drop-down list and enter one or more characters or symbols in the Separator field.
Show Prefix	Displays a string of text before the clock. Check the Show Prefix checkbox to enable the prefix options. Select the first option to choose a preset Day/Date/Month arrangement. The Windows Short Format and Windows Long Format options use the format set in the Windows Date and Time Control Panel. Select the second option to enter custom text that appears before the digital clock.
Show Suffix	Displays a string of text after the clock. Check the Show Suffix checkbox to enable the suffix options. Select the first option to choose a preset Day/Date/Month arrangement. The Windows Short Format and Windows Long Format options use the format set in the Windows Date and Time Control Panel. Select the second option to enter custom text that appears after the digital clock.

Digital Timer Quick Editor

Use the Digital Timer Editor to add a digital timer to your page that counts up or down with precision. The tabs in the quick editor add audio, device control, or a mask to the item.

Adjust Settings

Use the controls in the Content Editor to adjust the digital timer settings.

Digital Timer Display Options

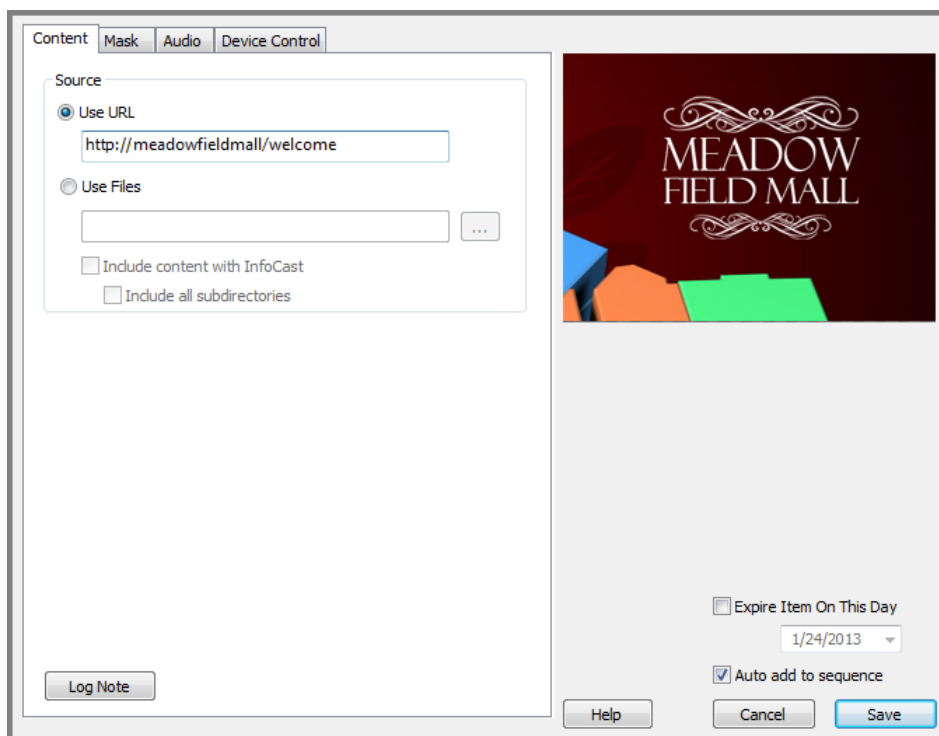
Display Option	Description
Format	Sets the timing elements (hours, minutes, seconds) that the timer displays.
Separator	Sets which character separates the hours, minutes, and seconds. To use a custom separator, select Custom from the drop-down list and enter one or more characters in the Separator field.
Leading Zeros	Sets the timer to display the time in two digits. For example, 8:00 displays as 08:00.
Count From __ to __	Sets the timer to count from the first value to the second value, then to stop.

Display Option	Description
Count From ___ to Stop	Sets the timer to count up from the first value. The timer will continue to continue to count until the item is stopped.
Count Time Remaining Until ___	Sets the timer to show the amount of time remaining until the specified time is reached.
Count Time Elapsed Since ___	Sets the timer to show the amount of time that has elapsed since the specified time.

Dynamic Web Quick Editor

The Dynamic Web Quick Editor allows you to display realtime, interactive web content (including HTML5 and Flash) in your InfoCasts.

You must purchase the Dynamic Web purchase option before you can add Dynamic Web items to your InfoCasts, though players do not require the Dynamic Web option to play the InfoCasts. Dynamic Web content can only be displayed in Standard mode, and cannot be used in Display Walls. See Video/Audio Configuration (on page 261) to learn how to change the output mode of your system.



Limitations

Be aware of the following Dynamic Web limitations.

- Some complex Javascripts may not be supported by the viewer. While designing your content, verify that it displays correctly before going live.
- If you are using Windows XP, Standard mode, and the Fullscreen option, the quick editor's Preview window is disabled.
- If your system has a player-only dongle or a player-only license, the quick editor's Preview window is disabled.

Add URL Content

If you want to access web page content hosted by a web server, select the Use URL radio button and type the page's URL path. Any InfoCaster systems which play the InfoCast must be able to access the URL.

Add File Content

If you want to access a web page which is stored as a series of files on your system drive or your local area network, follow these steps.

1. Select the Use Files radio button.
2. Click the Browse button beside the Use Files field. A file browser opens.
3. Navigate to the HTM web file you want to use and click Open. The file and its path appear in the Use Files field.
4. By default, the web file is accessed from the specified location during playback. Other InfoCaster systems must be able to access the same location when they play the InfoCast, but this ensures that all players are playing the same file.

Instead, you can check the Include Content with InfoCast checkbox to package the web file with the InfoCast when it is distributed to other players. Each player will have its own copy of the web file.

Check the Include All Subdirectories checkbox if you want to package the web content's subfolders as well, to ensure that web assets in the subfolders are distributed to players with the InfoCast.

Interact with Content

Viewers can interact with Dynamic Web regions by either touching within the regions or by using a standard keyboard.

- When you touch a Dynamic Web region which is displayed on a touchscreen monitor, InfoCaster passes left-click mouse state data to the Flash/HTML5 content. You can design your content to respond to these touches in an interactive way. Please consult your Flash or HTML5 documentation to learn how to interpret this data.

Touchscreen-enabled Dynamic Web regions must be displayed on the first head of your video output. Please see Use a Touchscreen (on page 175) to learn how to configure a touchscreen with InfoCaster.

- If you have a keyboard attached to your system, Dynamic Web regions will also transmit keyboard text to your Flash/HTML5 content.

Graphic Importer

Use the Graphic Importer to import a still graphic into a region. You can display a single graphic, or play multiple graphic files stored in a folder or defined in a database. The images can be located on a local drive or on an internet site.

Use the tabs in the quick editor to add audio, device control, or a mask to the item.

Content Mask Audio Device Control

Source Type Files

Add... Remove Remove All

#	Filename
1	D:\Media\promo.tga

☐ Shared Media

Scale

☒ Scale To Fill Region

☐ Maintain Aspect Ratio

Position 0 Top 0 Left

Log Note ☐ Update When Source Changes

Expire Item On This Day 3/14/2013

☒ Auto add to sequence

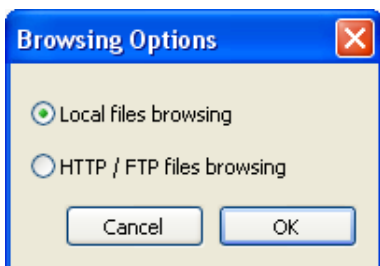
Help Cancel Save

Add Content

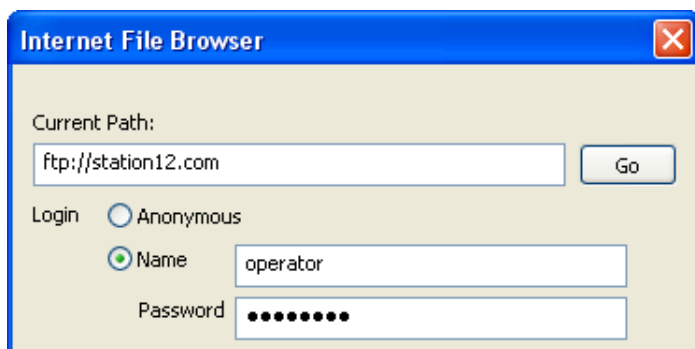
You can add a single image to the item from either a local or an internet source, or you can add multiple images stored in a folder or referenced in a database. To play multiple image files within an item, see Play From Folder or Source (on page 160).

Follow these steps to add a single image file to the item, or to add multiple files which will each become a separate content item when you save the image:

1. Use the Source Type drop-down list to select the Files option.
2. Click the Add button. The Browsing Options dialog appears.



- If the images are located on your hard drive:
Select the Local Files Browsing radio button and click OK. The Open dialog appears. In the Open dialog select the image files you want to use.
- If the images are located on an HTTP or FTP site:
Select the HTTP/FTP Files Browsing option and then click OK. In the Internet File Browser dialog box enter the address of the HTTP or FTP site in the Current Path box. The address must start with **http://** or **ftp://**.



Log on to the site with one of the following options:

- If the site permits anonymous login, select the Anonymous option.
- If the site requires a name and password, select the Name option, then enter a Name and Password.

Click on the Go button next to the Current Path box to go to that site. The files that are available on the HTTP or FTP site are displayed in the lower portion of the dialog box. Select the graphic files you want to use.

3. Click Open. Your content files are added to the Filename list in the Quick Editor.
If you have more than one content file in the list, each will become a separate content item when you click Save in the Quick Editor. This allows you to quickly create several different content items without repeatedly opening the Quick Editor.
4. Use the buttons above the Filename list to modify your list of content files.
 - To add more content files to the Filename list, click the Add button and select additional files.
 - To remove a content file from the Filename list, select the file and click the Remove button.
 - To remove all the content files from the Filename list, click the Remove All button.

Adjust Settings

Use the controls in the Content Editor to adjust the graphic settings.

Graphic Scale

To set the content to fill the entire region select the Scale to Fill Region checkbox. Filling the region may increase or decrease the size of the original content, causing some distortion.

Use the Maintain Aspect Ratio option to set the content to scale to the largest possible size without changing the aspect ratio of the original content.

Position Graphic

You can change the horizontal and vertical position of the content within the region by either using the Position fields or by dragging the content within the Preview window.

- Use the Top and Left Position fields to change the number of pixels between the upper-left corner of the content and the edges of the region.
- Click on the content in the Preview window and drag it to its new position.

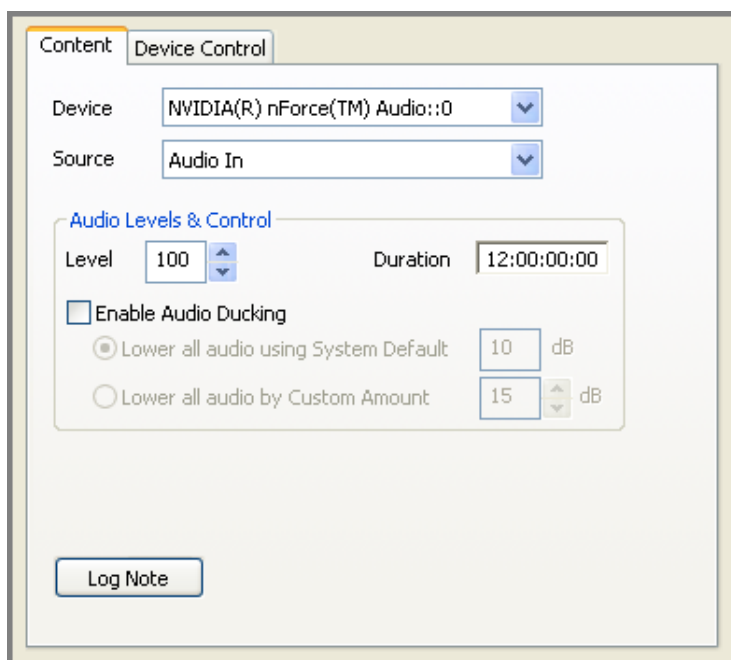
Update Graphic

To set the image to be updated when the source file in the referenced location changes, select the Update when Source Changes checkbox.

Live Audio Quick Editor

The Live Audio Quick Editor sets the region to play live audio during playback. Select a hardware source for the audio and set audio levels and control options.

Use the Device Control tab to control devices with the item.



The screenshot shows the 'Live Audio Quick Editor' window. It has two tabs: 'Content' and 'Device Control'. The 'Content' tab is active. Inside, there are two dropdown menus: 'Device' set to 'NVIDIA(R) nForce(TM) Audio::0' and 'Source' set to 'Audio In'. Below these is a section titled 'Audio Levels & Control'. It contains a 'Level' slider set to 100, a 'Duration' field set to '12:00:00:00', and an 'Enable Audio Ducking' checkbox which is unchecked. Under the checkbox, there are two radio button options: 'Lower all audio using System Default' (selected) with a value of 10 dB, and 'Lower all audio by Custom Amount' with a value of 15 dB. At the bottom left of the window is a 'Log Note' button.

Add Content

To add audio from a device connected to your system, select a hardware device from the Device list. The list displays all available hardware devices capable of delivering audio. The device must be properly installed on the computer that is running InfoCaster.

If the device offers more than one audio source, select a source from the Source list.

Adjust Settings

Use the controls to adjust the audio settings.

Audio Level

Change the Level value to adjust the volume for the audio. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.

Duration

Use the Duration field to specify how long you want the audio to play when the item is played.

Audio Ducking

The Enable Audio Ducking checkbox sets the item to trigger a reduction in the audio level of other items that are currently playing. Ducking occurs when the item is played. Use the radio buttons to choose your ducking method.

- To lower all other audio by the default value set in Preferences, select the Lower All Audio Using System Default radio button.
- To lower all other audio by a custom value, select the Lower All Audio By Custom Amount radio button and enter the custom value in the provided field.

Live Video Quick Editor

Use the Live Video Quick Editor to add live video to a media region. You can choose hardware sources for video and audio. You can also scale and set the duration of the source.

Use the tabs in the quick editor to add audio, device control, a mask, or an overlay to the item.

The screenshot displays the 'Live Video Quick Editor' window. It features a tabbed interface with 'Content', 'Mask', 'Overlay', 'Audio', and 'Device Control' tabs. The 'Content' tab is selected, revealing configuration options for video and audio sources, duration, and scaling. A video preview window on the right shows a live feed of an airplane on a runway. Below the preview are buttons for 'Set Picon' and a date selector for 'Expire Item On This Day'. At the bottom right are 'Help', 'Cancel', and 'Save' buttons.

Add Content

Follow these steps to add video from a video device connected to your system. Video and audio devices must be properly installed on the system that is running InfoCaster.

1. Select a hardware device from the Video Device list. The list displays all available hardware devices capable of delivering video, with their standards shown as a prefix. If a device supports multiple standards, each standard is listed separately.

If a corresponding audio device exists for the chosen video device, InfoCaster automatically selects it in the Audio Device list.

2. Select a source from the Source list. The list displays the sources available within the selected video device.
3. Select an audio device from the Audio Device list, which may or may not be the same as the video device. The list displays all available hardware devices capable of delivering audio.

Streaming Input Settings

When streaming video into a Live Video region, the following settings are recommended.

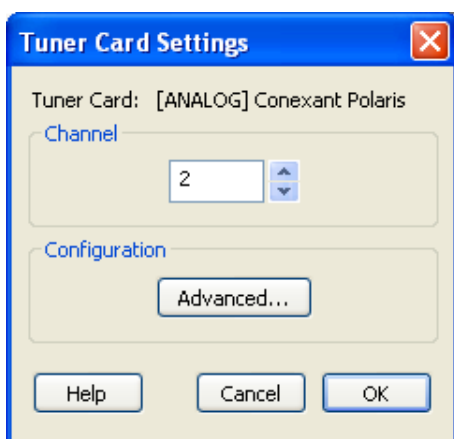
Recommended Streaming Input Settings

Setting	Recommended Value
Codec, resolution, and bitrate	• MPEG2, 1280x720, 16Mbps. • MPEG2, 1920x1080i, 16Mbps. • H.264, 1280x720, 8Mbps. • H.264, 1920x1080i, 8Mbps.
GOP Interval	Closed.
GOP Length	Long (eg. 15-18).
Latency	Low (immediate delivery of frames upon completion of encoding and compression).

Configure Tuners

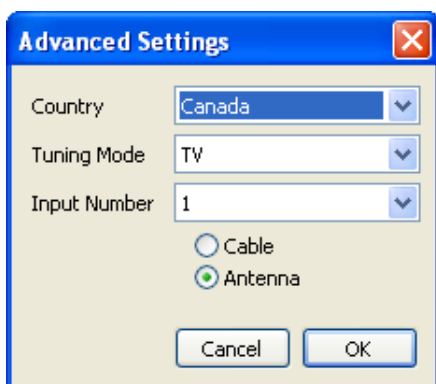
A Setup button appears in the Live Video Quick Editor when you select a tuner as your video device. This button allows you to configure your tuner settings.

1. Click the Setup button. The Tuner Card Settings window opens. The controls in the window depend on the type of tuner you are using.



2. If you are using a digital tuner and you have not already tuned it, you must allow InfoCaster to tune the digital tuner before you can select a channel.
 - a. Click the Auto Tune button. The Auto Tune window opens, displaying the frequencies that will be scanned.

- b. Click the Start Tuning button. The progress bar indicates the scan progress.
 - c. When the scan is finished, the Channel section of the Tuner Card Settings window contains the channels that were detected during the scan.
3. In the Tuner Card Settings window, use the Channel section to select the channel you want to use. ATSC and QAM tuners allow you to select a major and a minor channel.
4. To configure your tuner's more advanced settings, click the Advanced button. The Advanced Settings window opens.



5. Use the controls in the Advanced Settings window to configure your tuner. The controls available depend on the type of tuner you are using.
 - If you are using an analog tuner, use the Country list to select the tuner's country.
 - Use the Tuning Mode to set your tuner's mode.
 - Use the Input Number to set your tuner's input.
 - If you are using an analog tuner, use the radio buttons to set whether the tuner is using cable access or an antenna.
6. Click the OK button. You are returned to the Tuner Card Settings window.
7. Click OK. Your tuner is configured.

Tuner Guidelines

Consider the following guidelines when using tuner items in your InfoCasts.

- Do not schedule tuner items back-to-back in an item sequence.
- Do not change the channel of a tuner item (using the Tuner Card Settings window) while an InfoCast is playing.

Adjust Settings

Use the controls in the Content Editor to adjust the live video settings.

Live Video Scale

To display the live video at full screen size during output, check the Show Full Screen checkbox. The live video plays over top of all other regions. After the media region item finishes playback, the other region items are visible onscreen again.

To enable the scale options check the Scale checkbox. Use the following scale options to set the video display in the region item.

- Check the Scale to Fit Region checkbox to scale the live video to fill the entire region. The graphic may appear distorted.
- Check the Maintain Aspect Ratio checkbox to display the live video at its original aspect ratio. The live video will not appear distorted but it may not fill the entire region.
- Use the Scale slider to size the video display in your region.

Live Video Duration

Enter a duration for the live video display in the Duration field. Time is measured in HH:MM:SS:FF (hours:minutes:seconds:frames).

Field Order

To reverse the field order of the incoming live video check the Invert Fields checkbox. Use this option if your input device plays video in the opposite field order to your output device.

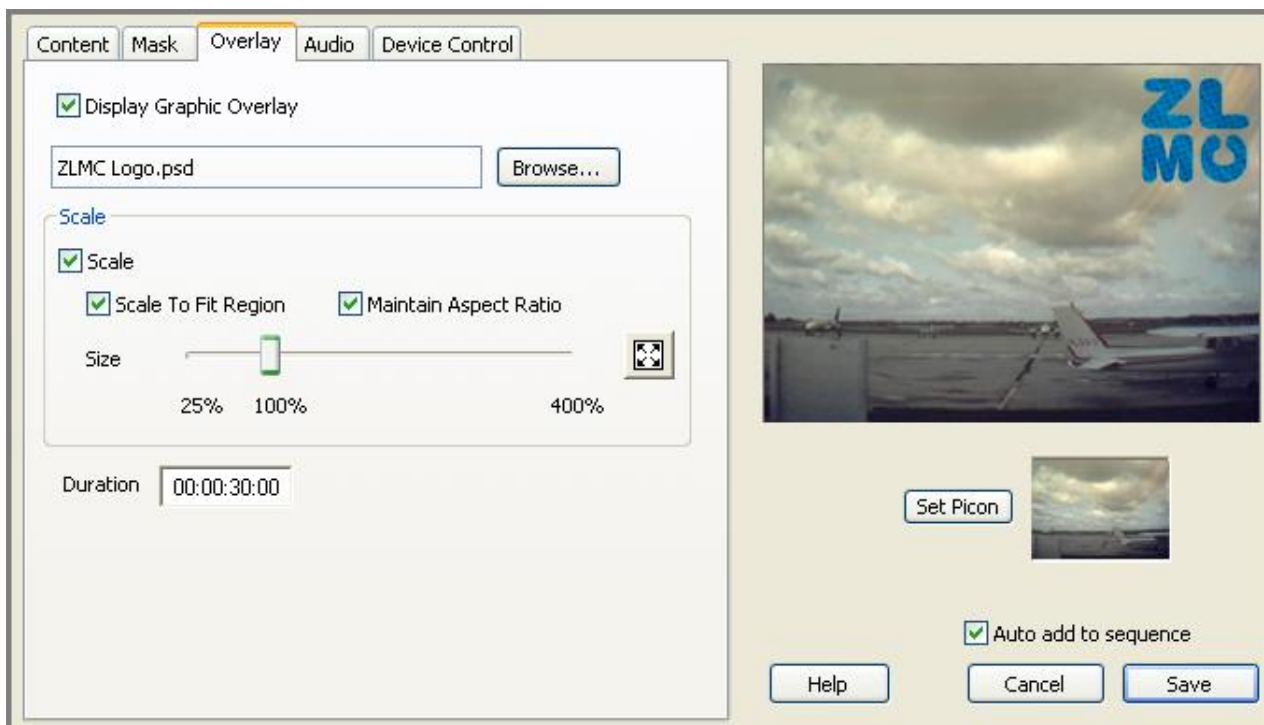
Live Video Position

To reposition the video display in the region, click on the video in the editor's Preview window and drag the video to its new location.

Add a Graphic Overlay

Use the Overlay tab to apply a graphic which will display over the video during output . This is often used to add branding logos to the item.

1. Check the Display Graphic Overlay checkbox to enable the options.



2. Click the Choose button, then open the graphic file as prompted.
3. Check the Scale checkbox to enable scaling options. Use the following scale options to set the display options for the graphic.
 - Check the Scale to Fit Region checkbox to size the graphic so it fills the entire region. The graphic may appear distorted.
 - Check the Maintain Aspect Ratio checkbox to display the graphic at the aspect ratio stored in the image file. The graphic will not be distorted but it may not fill the entire region.
 - Use the scale slider to size the image to fit the region while maintaining the image's aspect ratio.
4. To reposition the graphic, drag the image in the editor's Preview window.

The Duration field displays the set duration of the live video or the playback duration for the graphic. You cannot edit the Duration field when live video is set for playback. However, if there is no live video source selected, enter a playback duration for the selected graphic file. Time is measured in HH:MM:SS:FF (hours:minutes:seconds:frames).

Mix Audio

You can mix audio, use the live video source's audio, or disable audio on the Audio tab.

1. Switch to the Audio tab.
2. To enable audio, check the Enable Audio checkbox.
3. Select one of the following options
 - To play audio from the live video source, select the Live Audio Source option.

- To play audio from another source, select the External Audio File option and click on the Choose button. Select the audio file in the next dialog box.
4. If you selected external audio, change the Level, Delay or Loop options as required.
 - To adjust the volume for the audio, use the Level option. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.
 - If you have more than one audio output card configured in your system, select the output card you want to use for this item from the Audio Card drop-down list.
 - To delay the playback of the audio, set a time in the Delay field.
 - To play the audio once and stop, select the Play Once option. To continue playing the audio until another item with audio is played within the region, select the Loop option.
 5. If you selected external audio, click on the Preview button to hear the audio.
 6. Check the Enable Audio Ducking checkbox to set the item's audio to trigger a reduction in the audio level of other items that are currently playing. The trigger occurs when the item's audio is sent to air. Use the radio buttons to set your ducking method.
 - To lower all other audio by the default value set in Preferences, select the Lower All Audio Using System Default radio button.
 - To lower all other audio by a custom value, select the Lower All Audio By Custom Amount radio button and enter the custom value in the provided field.

Set Picon

Click the Set Picon button below the Preview window to set the frame currently displayed in the preview as the image for representing the live video. The image displays in the Items window's Item Library and Sequence list.

Odometer Quick Editor

Use the Odometer Quick Editor to create an odometer-style counter with up to ten "wheels." The odometer receives information from a UDP Multicast and updates the wheels with a motion effect. Use Photoshop to create custom borders, symbols, and wheels for your odometers.

You must purchase the Analog Meter option before you can use the Odometer Quick Editor. Odometers can only be used in Legacy Mode (Fullscreen) or Legacy Mode (Desktop Video Window). See Video/Audio Configuration (on page 261) to learn how to change the output mode of your system.

Select a PSD file and configure the properties for the odometer to save

Name:

Content

Formatting

Mask

Audio

Device Control

Select a PSD template file to build your odometer from.

☒ Scale to Fill Region
☐ Maintain Aspect Ratio

External Data

Xml Type

UDP Multicast IP Address

Port Number

Sender IP Address
☒ Any
☐

Location Id

Odometer Wheels

Display Wheels total

☐ Spin wheels when idle

☐ Remember last value

☐ Clear current value if no new data arrives after

Preview

☒ Expire Item On This Day

☒ Expire Item On This Day

☒ Auto add to sequence

Add Content

On the Content tab, click the Browse button to select a PSD template file to build your odometer with. Sample PSD template files are located in C:\Program Files\Harris\InfoCaster\Samples\Odometer Files.

Odometer Size

To set the content to fill the entire region select the Scale to Fill Region checkbox. Filling the region may increase or decrease the size of the original content, causing some distortion.

Use the Maintain Aspect Ratio option to set the content to scale to the largest possible size without changing the aspect ratio of the original content.

Odometer Wheels

In the Odometer Wheels section of the Content tab, enter the number of wheels you want to display in the analog meter region, and use the checkboxes to control odometer behavior.

- Check the Spin Wheels When Idle checkbox to spin the odometer wheels even when the jackpot value is constant.
- By default, odometers are reset to zero each time InfoCasts are loaded and played. Check the Remember Last Value checkbox to set the odometer to display its most recent value when the InfoCast is loaded and played.
- To force the odometer to display a zero value if new data has not been received after a specified time, check the Clear Current Value checkbox and enter the time interval in the field.

Connect to the UDP Multicast

Odometers receive information from a UDP Multicast. Use the External Data section of the Content tab to connect the odometer to the UDP Multicast and set the type of data that is received.

XML Type

Odometers can receive different types of XML data. Select the XML type you are receiving from the XML Type drop-down list.

Each XML type provides additional options.

Odometer Data Source Type Options

Data Source Type	Options
Bally's	Each Bally server can be configured with a location ID. If the multicast contains information from multiple servers, enter the number for the server that you want to monitor in the Location ID field.

Data Source Type	Options
Harris	If the multicast contains information from an external data source, use the Data Source controls to specify which sources are used. • To use the information from any data source, select the Any radio button. • To use the information from a specific data source, select the second radio button and enter the name of the data source in the field.

UDP Multicast IP Address

Enter the IP address and port number of the UDP Multicast. If you are getting information from a Bally server, this information is set in your multicast application.

Use the Sender IP Address controls to filter the address of the server computer that the data originated from.

- Select the Any radio button to accept data from any sender IP.
- Select the other radio button and enter an IP address to only accept data from a specific sender IP.

Adjust Settings

Switch to the Formatting tab within the Odometer Quick Editor to change the appearance of the odometer item.

The screenshot shows the 'Formatting' tab of the Odometer Quick Editor. It is divided into four sections:

- Alignment:** Contains a dropdown menu labeled 'Align' with 'Left' selected.
- Symbols and Decimals:** Contains four checkboxes: 'Show Decimal Place' (checked), 'Show Thousands' (checked), 'Show Symbol' (checked), and 'Floating' (checked). There is also a dropdown menu labeled 'Left Side' and another 'Floating' checkbox.
- Height Margin and Motion Blur:** Contains a 'Height Margin' input field with '0' and a 'Motion Blur Distance' slider with a value of '180'.
- Adjust Padding and Position:** Contains two radio buttons: 'Independently' (selected) and 'Uniform'. Under 'Independently', there are input fields for 'Left' (0) and 'Right' (0) pixels. Under 'Uniform', there is an input field for '0' pixels. At the bottom, there are input fields for 'Position' (0) and 'Left' (0).

Alignment

Choose an option from the Align drop-down list to change the alignment of the wheels within the odometer border.

Symbols and Decimals

Set how symbols and decimals are displayed within the odometer.

- Check the Show Decimal Place checkbox to display the odometer with two decimal places.
- Check the Show Thousands checkbox to show thousands markers within the odometer.
If Floating is enabled for the thousands markers then left-most wheels will not display if they contain zeros. Otherwise, left-most wheels set to zero will display the zero digit.
- Check the Show Symbol checkbox to show a currency symbol within the odometer. Use the drop-down list to set where the symbol is displayed.
If Floating is enabled for the symbol, then the currency symbol will move based on the left-most digits. Otherwise it will stay in a fixed position.

Note: The thousands markers will only float when the currency symbol is not being shown.

Wheel Appearance

To show more of the digits above and below the current row on each wheel, increase the Height Margin value. A higher value can increase the "wheel" appearance of the odometer.

The Motion Blur Distance value sets the amount of blur that is added when the wheels spin. Increase the value to increase the amount of blur on the wheels.

Wheel Padding

Select either the Independently or Uniform radio button to adjust the padding between the wheels.

- Select the Independently radio button to set independent padding for each wheel in the odometer. Use the Select Decimal drop-down list to select the wheel you want to pad, and enter the number of pixels you want to pad on the left and right-hand sides of the selected wheel.
- Select the Uniform radio button to apply uniform padding between all the wheels in the odometer. Set the amount of padding with the Pixels field.

Wheel Position

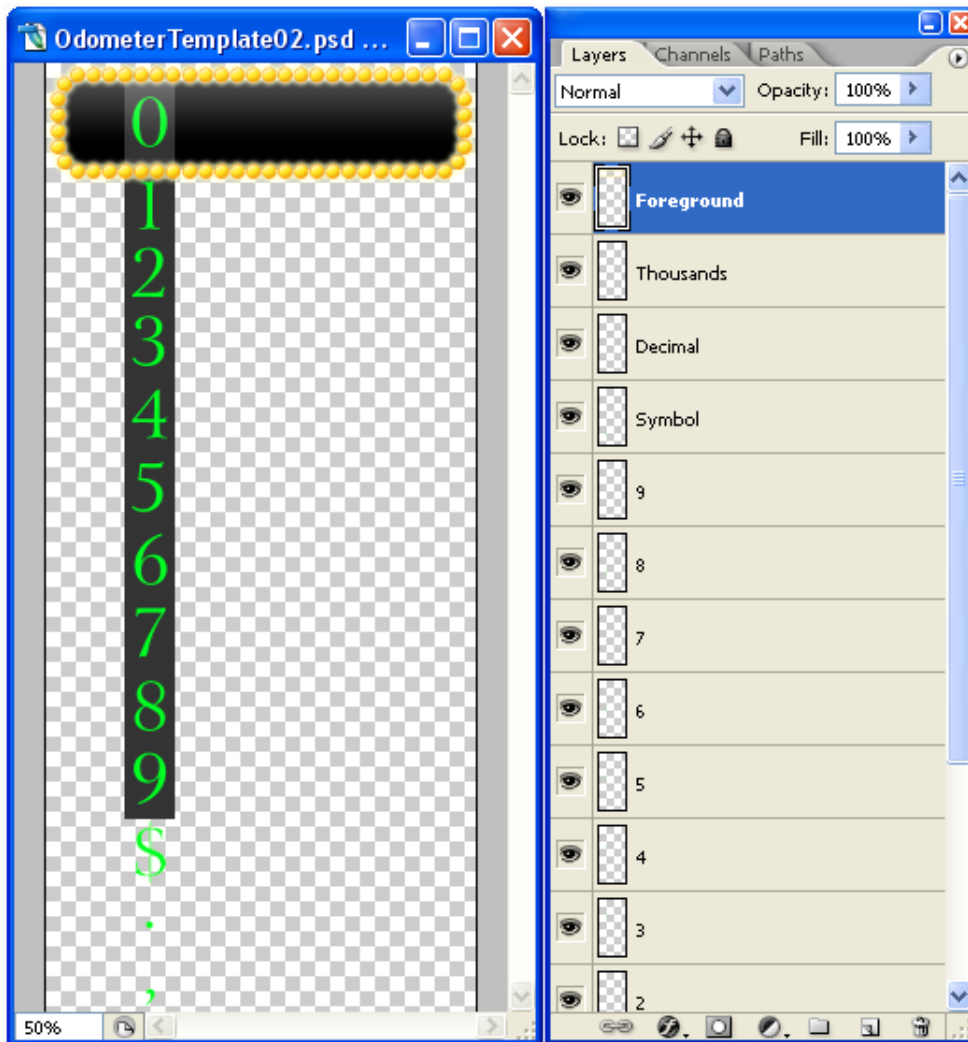
Use the Position fields to set the distance of the wheels from the top and left-hand sides of the odometer.

Create an Odometer in Photoshop

To create a custom odometer in Adobe Photoshop you must add the odometer elements on specific layers.

1. In Photoshop, create a new RGB document set to 8 bits per channel.
Three sample odometers are located in the C:\Program Files\Harris\ InfoCaster\Samples\Odometer Files folder.

2. Add the following sixteen layers in the Layers palette: Foreground, Thousands, Decimal, Symbol, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, Wheel Texture, Background.



3. Add odometer elements to the appropriate layers.
 - The Foreground layer should have areas of transparency. It is displayed in front of all the elements in the odometer. If you want to create a "frame" around the odometer it should be placed on this layer.
 - The Thousands, Decimal, and Symbol layers represent the markers displayed within the odometer. You can enable or disable these markers in the Formatting tab.
 - The layers 9 to 0 represent the numbers displayed within the odometer.
 - The Wheel Texture layer is the image displayed behind the elements in each wheel. As the wheels spin, this layer moves vertically along with the elements.
 - The Background layer displays behind all the other odometer elements.
4. Save the odometer as a PSD file.
5. Use the Odometer Quick Editor to add the odometer to your page.

Roll Quick Editor

Select the Roll Quick Editor to add text to roll items. Use the tabs in the quick editor to add audio and device control to the roll.

Content Formatting Audio Device Control

Text

Staying Fit
Local Support
Organizing Events
Nutritious Meals
Do-It-Yourself
Community
Take Charge!

☐ Show One Character Per Line

☐ External Data Source Setup

☐ Show all new data at least once

☒ Enable onscreen update when content changes

Transition Dissolve

Transition Duration 0.5 s

Log Note

☒ Expire Item On This Day 12/ 1/2009

☒ Auto add to sequence

Help Cancel Save

Add Content

To add text in the Roll Quick Editor directly, enter your text in the text box.

Note: For details on linking your roll text to a text file, an XML/RSS data feed, or an ODBC data source, see External Data Sources (on page 76).

Show One Character Per Line

Check the Show One Character Per Line to display every character from the text box in a single vertical line of unrotated characters.

This is useful when entering text for display in a language that uses vertical processing.

Pause Rolls

Roll regions can be set to automatically pause rolls between each data source row. The Pause Between Rows option applies to all items in the Roll region and is set in the Regions window.

See Pause Rolls (on page 53) for more information about pausing roll region items.

Adjust Settings

Use the controls in the Content Editor to adjust the roll settings.

Format Text

To learn how to format your roll text, see Format Text (on page 166).

Roll Direction and Speed

To change the speed of the items in a roll region, change the region sequence settings as described in Schedule Region Items (on page 183).

To change roll direction select Edit > Preferences and switch to the General tab. In the Presentation Settings section of the tab select a radio button to set the direction of rolls.

Onscreen Update

The Enable Onscreen Update option sets InfoCaster to display updated text onscreen. Updates you make in the Roll Quick Editor or in an external data source are immediately updated during output.

1. On the Content tab in the editor, check the Enable Onscreen Update checkbox.
2. Set the transition options that apply when the information is updated:
 - Select a transition type from the Transition drop-down list.
 - Set a transition duration in the Transition Duration field.

When the Enable Onscreen Update option is not selected, the item is updated with new content once playback starts again at the beginning.

Show All New Data At Least Once

If your roll is linked to an external data source, it will update each time the data source changes. If the data source changes several times while the roll is playing, it is possible that not all roll data will be played.

Check the Show All New Data At Least Once checkbox to make sure that all updated data is displayed at least one time, even if the data has changed in the meantime.

Table Quick Editor

The Table Quick Editor allows you to quickly enter columns of placeholders for an external data source (either a text file, an XML/RSS source, or an ODBC database). The placeholders display information from the external data source during output. Use the Table Quick Editor when you want to quickly create columns of external data in a still, media, or roll region item.

Use the tabs in the Table Quick Editor to add audio, device control, and masks to the item.

Content Headers Row Formatting Mask Audio Device Control

Number Of Columns: 2

☒ Replicate Table

☒ Show 2 Copies of Table

☐ Show Across 2 Displays

☒ Repeat header for each repeated column

☒ Header

☐ Use First Entry From Database

☒ Custom header

Column: 1

Header: Destination

☐ Show all new data at least once

Setup Data Source

Log Note

☒ Expire Item On This Day 12/ 1/2009

☒ Auto add to sequence

Help Cancel Save

Destination	Departure Time	Destination	Departure Time
Albany, NY	10:15:00	Dayton	18:35:00
Atlanta	10:18:00	Denver	10:55:00
Baltimore	10:22:00	Indianapolis	14:24:00
Boston	10:27:00	Kansas City	16:28:00
Calgary	10:33:00	Kingston	17:29:00
Charlotte	10:36:00	London, UK	19:35:00
Atlanta	11:18:00	Los Angeles	13:45:00
Calgary	16:33:00	Madrid	14:26:00
Baltimore	16:14:00	Manchester, UK	15:20:00
Boston	14:27:00	Montreal	18:44:00
Chicago	10:40:00	Mexico City	10:19:00
Charlotte	12:38:00	Miami	10:22:00
Chicago	18:40:00	Milan	10:27:00
Cleveland	10:44:00	Milwaukee	10:35:00
Cleveland	16:44:00	Minneapolis	17:56:00
Cleveland	12:44:00	Moncton	13:59:00
Columbus	16:23:00	Montreal	14:50:00
Dallas	15:22:00	Munich	19:25:00

Add Content

Click the Setup Data Source button to link the table item to an external data source. For details on linking tables to text files, XML/RSS data feeds, or ODBC data sources see External Data Sources (on page 76).

Adjust Column and Heading Settings

Set column and header display options on the Content tab.

In the Number of Columns field on the Content tab, enter the number of columns you want the table to contain.

Set Header Names

Check the Header checkbox to assign headers to the table columns. You can choose to use the first entries from the data source as the header names, or you can define custom names for each header.

- To use the first row of data in each column of the database as the column header, select the Use First Entry from Database option.
- To create your own custom column headings, select the Custom option. The Column options are enabled.

Select a column from the Column item list and then enter a name for the column in the Header field. Repeat this for each column header you want to label.

Replicate Table

Check the Replicate Table checkbox to repeat the table columns across the item or across multiple player displays.

1. If you want to repeat the table columns, check the Show checkbox and select the number of times you want to display the columns. For example if you have two columns in your table, selecting "2" will display 4 columns in total.

Check the Repeat Header checkbox to display headers above the repeated columns. Otherwise, headers only appear above the first columns displayed.

2. Choose how you want to display the table:
 - To span the table across multiple player screens, check the Show Across checkbox and set the number of displays the table will span.
 - At least one player or player instance should be configured to display each screen. See Multi Screen Playback Tab (on page 244) to learn how to configure players and player instances for spanning output.
 - To repeat the columns within the region, uncheck the Show Across checkbox.

Header Formatting

Use the options on the Header tab to set the header display options.

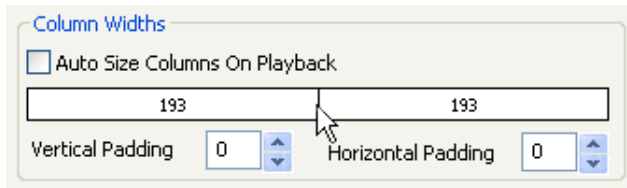
1. Switch to the Headers tab.
2. Check the Space Below Header checkbox to add extra space between the bottom of the header and the top of the first column row. This space is added to the amount of leading that is set on the Row Formatting tab.
3. Use the standard formatting options on the Headers tab to set the display options for header text. For a description on the standard formatting options see Format Text (on page 166).

Note: If you are using column headers from the database, and you update the column headers in the database, you need to open the item in the Table Editor and then resave it so InfoCaster recognizes the header name update.

Adjust Row Formatting Settings

Use the options on the Row Formatting tab to change the way rows display.

1. Switch to the Row Formatting tab.
2. Use the padding options in the Column Widths section to set the space (in pixels) above and below or to the left and right of the text. Enter a number in the Vertical Padding or Horizontal Padding fields to set the vertical or horizontal padding.
3. Use the Custom Widths section of the tab to adjust the width of the columns. By default columns are spaced evenly. Drag the column separators to change the width of the columns in the table.



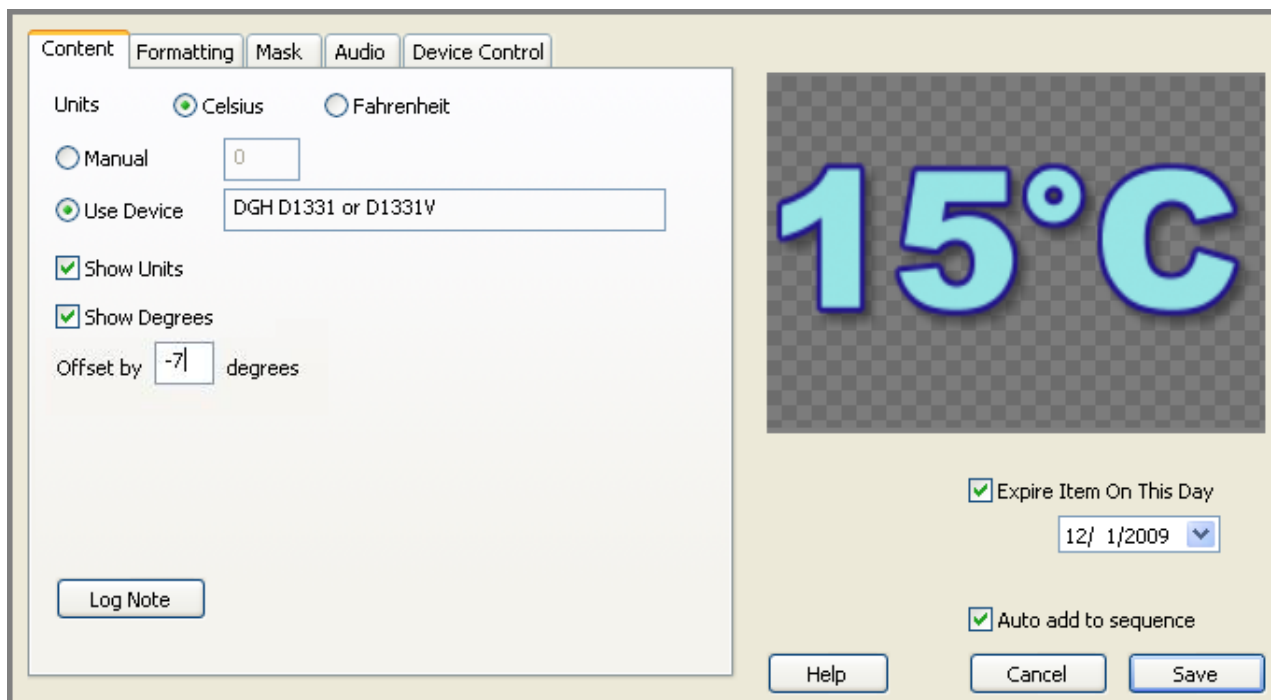
If you want your columns to resize automatically to fit the data that is currently being displayed, check the Auto Size Columns on Playback checkbox.

4. Use the standard formatting options on the Row Formatting tab to set the display options for row text. For a description of the standard formatting options see Apply Custom Formatting Options (on page 166).

Temperature Probe Quick Editor

Use the Temperature Probe Quick Editor to display the current temperature. You can enter the temperature manually or set InfoCaster to read the temperature from a probe connected to the system.

Use the tabs in the quick editor to add audio or masks to the item.



The screenshot shows the 'Temperature Probe Quick Editor' dialog box. It has five tabs: 'Content' (selected), 'Formatting', 'Mask', 'Audio', and 'Device Control'. The 'Content' tab contains the following settings:

- Units:** Radio buttons for 'Celsius' (selected) and 'Fahrenheit'.
- Manual:** A radio button and a text box containing '0'.
- Use Device:** A radio button (selected) and a text box containing 'DGH D1331 or D1331V'.
- Show Units:** A checked checkbox.
- Show Degrees:** A checked checkbox.
- Offset by:** A text box containing '-7' followed by the word 'degrees'.
- Log Note:** A button at the bottom left.

On the right side of the dialog, there is a large preview area showing the text '15°C' in a large, blue, outlined font on a grey checkered background. Below the preview, there are two checked checkboxes:

- Expire Item On This Day:** A checked checkbox with a date dropdown set to '12/ 1/2009'.
- Auto add to sequence:** A checked checkbox.

At the bottom right, there are three buttons: 'Help', 'Cancel', and 'Save'.

Set Up Temperature Probe

In the Temperature Probe Quick Editor you have the option to manually enter the temperature or to display the temperature from a probe connected to the system.

You need to set up the temperature probe in the Configuration Utility before the Temperature Probe options are available. To set up a temperature probe select Edit > Preferences and switch to the Temperature Probe tab.

1. Connect the temperature probe to one of your system's COM ports.
2. Check the Use Temperature Probe checkbox.
3. Select your temperature probe device model from the drop-down list.
4. Select the COM port that the temperature probe is connected to.
5. Check the Celsius or Fahrenheit radio button to set the default units for the temperature probe. This affects the temperature and unit suffix that is displayed.

Display the Temperature From a Probe

In the Temperature Quick Editor you can display the temperature reading from the probe connected to the system.

1. Select the default units for the temperature probe: Celsius or Fahrenheit.
2. Select the Use Device radio button.
3. Select the probe device from the Temperature Probe list.

Display a Manual Temperature

You can manually enter a temperature into the Temperature Probe Quick Editor.

1. Select the default units for the temperature: Celsius or Fahrenheit.
2. Select the Manual radio button.
3. Enter a temperature in the text field.

Offset a Temperature

To change the displayed temperature by a fixed amount, enter a positive or negative value in the Offset field.

Title Quick Editor

Use the Title Quick Editor to add motionless text to still or media regions. Titles can include multiple lines of text and can be based on templates created in TitleMotion. Use the tabs in the quick editor to add audio, device control, or masks to the item.

Content Formatting Mask Audio Device Control

Tags Text

ExhibitName	The Brachiosaur!
Time	9:30 - 11:00
Location	West Atrium

☒ Show Tags

☐ External Data Source Setup

☐ Associate audio source

☐ Play to length of audio

☐ Show all new data at least once

Log Note

☒ Expire Item On This Day
12/ 1/2009

☒ Auto add to sequence

Help Cancel Save

Add Content

Type in the text box to add text in the Quick Editor. To add multiple lines of text, type additional lines in the text box.

Text

Weather Update
Toronto
Sunny

To add text lines, place your cursor in the text box and press the ENTER key. Press ENTER again to add another line.

Data Tags

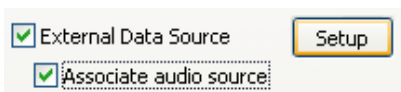
To view the data tags for the text lines, check the Show Tags checkbox.

Each line of text in the Title Quick Editor is labeled with a data tag. Data tags can be linked to external data sources. The external data feature is flexible, so you can link one or all of your text lines to an external data source.

For details on linking title text to a text file, an XML/RSS data feed, or an ODBC data source, see External Data Sources (on page 76).

Associate Audio Source

If you are linking data tags to external data sources, check the Associate Audio Source checkbox to play a specific audio file for each piece of data that is displayed.



When you check the checkbox, an Audio data tag is added to your item. Using the Data Source Wizard, link this tag to an external data source containing full paths to each audio file you want to play. When new data is displayed by the item, the audio associated with it will also play.

Switch to the Audio tab in the Content Editor to change looping, level, and audio ducking settings.

See External Data Sources (on page 76) for more information about linking item tags to external data.

If you want each title to remain onscreen until its associated audio file has finished playing, check the Play to Length of Audio checkbox.

Remove a Text Line

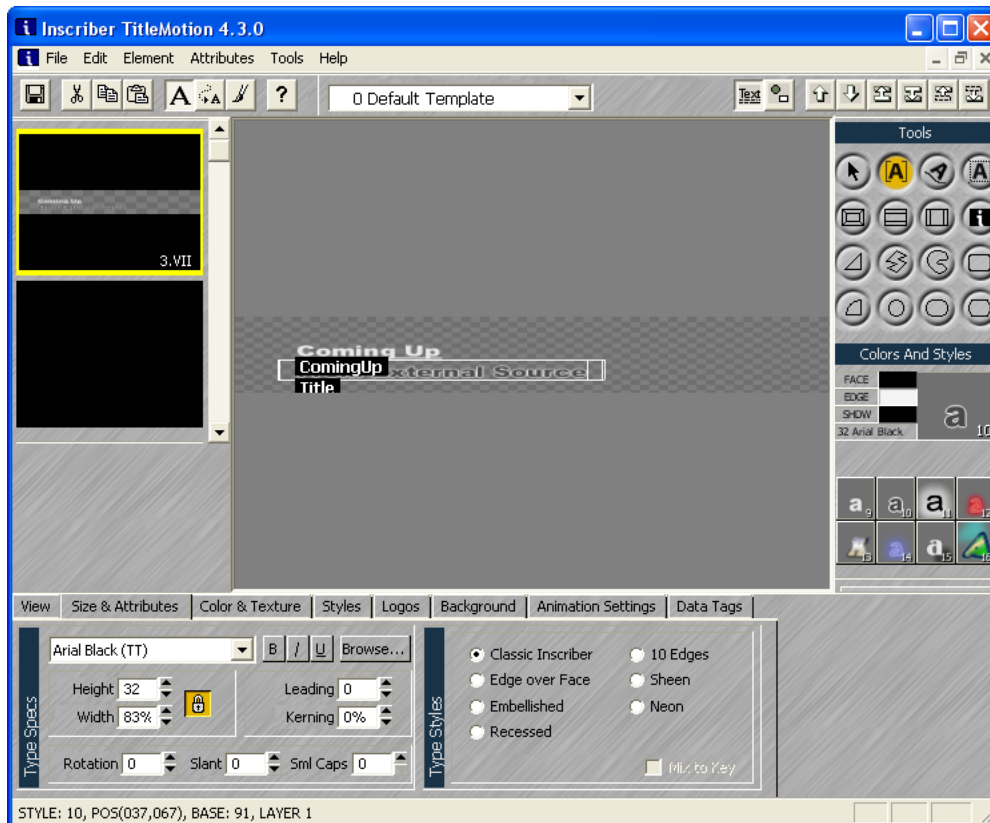
To remove a line of text from the Title Quick Editor, select the text in the text box and press BACKSPACE to delete the text. When the text box is empty, press BACKSPACE again to delete text line.

Adjust Settings

For details on formatting text, see Format Text (on page 166).

TitleMotion

TitleMotion is a full-featured, broadcast quality character generator that you can use to create high-end titles, rolls, crawls and animations. You can use the templates provided in TitleMotion or you can create your own templates for still, crawl and roll items. You cannot attach audio to TitleMotion items.



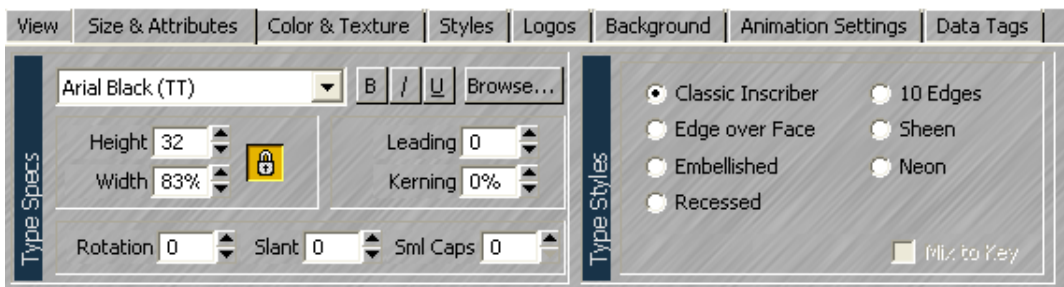
Add Content

TitleMotion can create stills, rolls, crawls, and animations. The type and size of the title is automatically determined by the region it is in.

1. Enter the text in the main workspace. Make sure that the Text Plane button is selected.



2. Use the tabs below the workspace to format the text.



3. To add graphics click the Graphics Plane button at the top of the screen. Use the tools in the Tools palette on the right side of the screen to draw the graphic.
4. Select File > Save to save the title back to InfoCaster. TitleMotion closes.

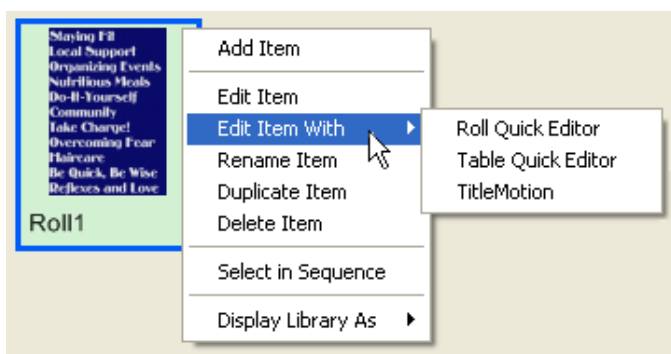
See the TitleMotion Essentials manual that came with InfoCaster or refer to TitleMotion's Online Help menu for further information on using TitleMotion.

Edit Content with TitleMotion or with a Content Editor

After you add TitleMotion content to the TitleMotion item, you can edit the content of the item with either TitleMotion or with a Content Editor.

- To edit the content in the TitleMotion application, right-click on the TitleMotion item in InfoCaster, then select Edit Item With > TitleMotion.
- To edit the content with the Title, Roll, Crawl, or Animation Quick Editor, right-click on the TitleMotion item in the Item Library, then select an editor from the list. The commands in the list vary according to the type of item you created in TitleMotion.

Note: The Formatting tab in the Title, Roll, Crawl, or Animation Quick Editor is not available when you open the Editor from a TitleMotion item. You must format the text in TitleMotion.

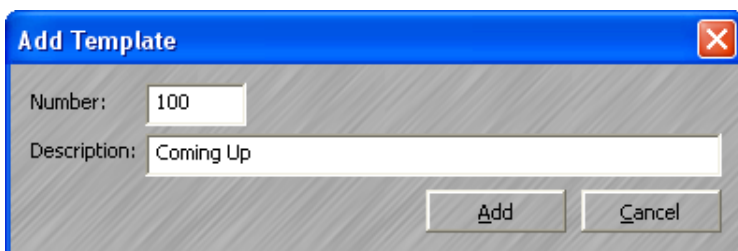


Create a Template

Use TitleMotion to create templates for still, crawl, or roll items in InfoCaster. Once the template is added to the current template registry, you can select it as a template in the InfoCaster Content Editors. You can apply templates to title, crawl, and roll items.

1. Add text in the TitleMotion workspace.

2. Use the tabs below the workspace window to apply formatting options to the text. The formatting options are saved with your template and are applied to your InfoCaster items when you select the template.
3. Select File > Template Manager. The Template Manager opens, displaying all the templates in the current template registry.
4. Click the Add button. The Add Template dialog allows you to give the template a name and a number.

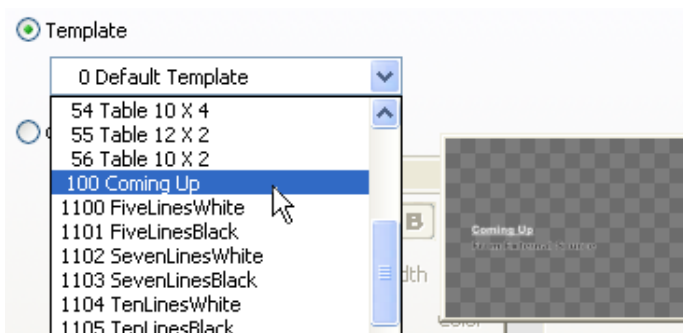


5. Click the Add button. The template is added to the list of templates in the current template registry.
6. Click the Template Manager's Close button to return to TitleMotion. You can create more templates and add them to the template registry if you wish.

Use a Template

Use the template to apply consistent formatting to InfoCaster items. You can apply templates to title, crawl, and roll items.

1. In InfoCaster, create or edit a crawl, roll, or still item.
2. In the Title, Roll, or Crawl Quick Editor switch to the Formatting tab and select the Template radio button.
3. In the drop-down list select a template. The formatting from the template file is applied to the current item.



Note: The three different quick editors (title, roll, and crawl) can only use templates created for that type of region.

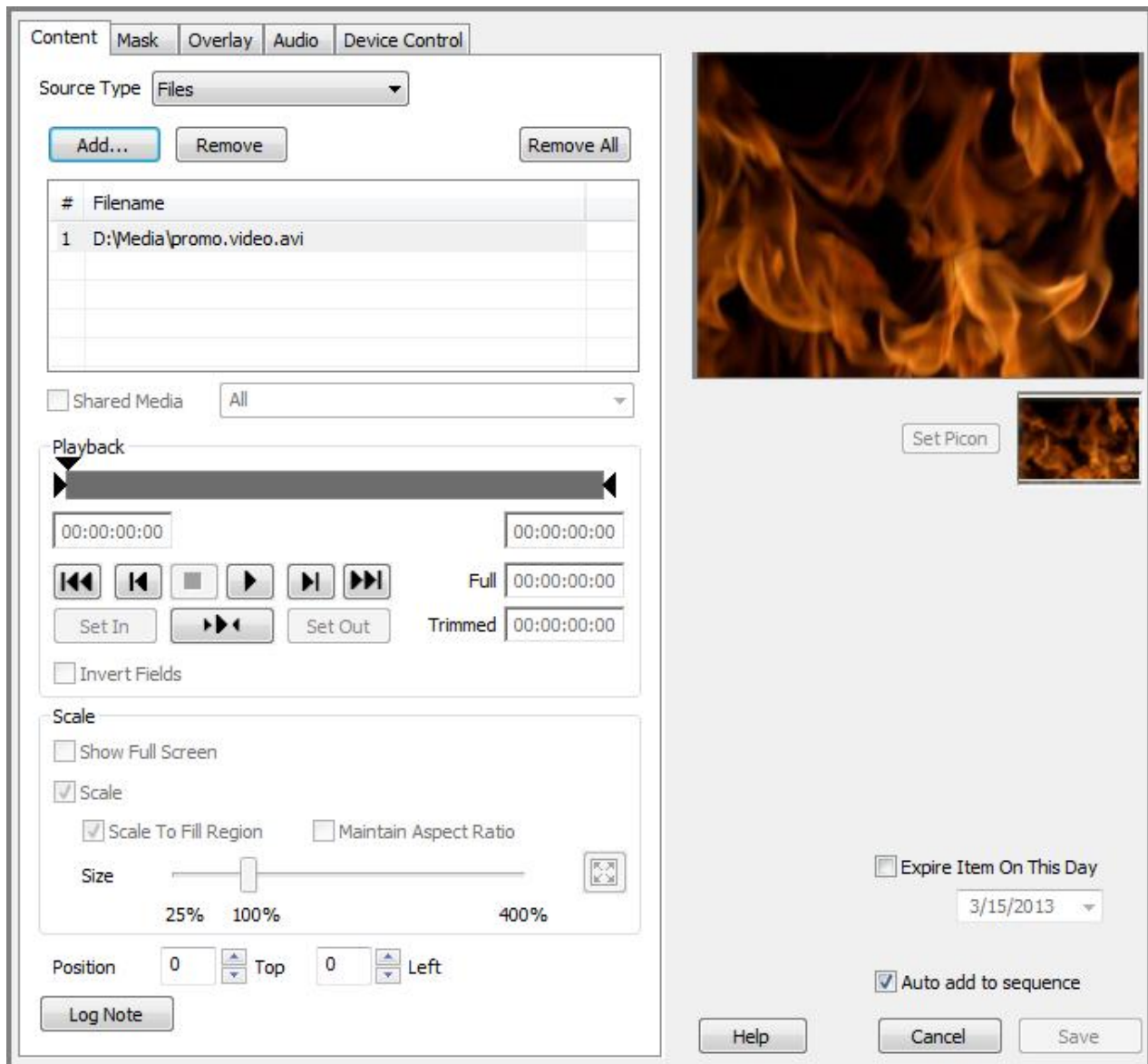
TitleMotion Documentation

TitleMotion comes with its own set of documentation that is separate from the InfoCaster material. If you would like more information on using TitleMotion, see the TitleMotion Essentials document that came with InfoCaster or refer to TitleMotion's Online Help.

Video Clip Quick Editor

You can import a video clip into the Video Clip Quick Editor and select which segment to play. You can also choose to play multiple video clips stored in a folder or referenced by a database. If you are playing flash animations, see Flash Animations (on page 147) for information about creating and playing flash files.

Use the tabs in the quick editor to add audio, device control, masks, and overlays to video clip items.



Add Content

If you want to play multiple video clips within the item, see Play From Folder or Source (on page 160).

Follow these steps to add a single video file to the item, or to add multiple files which will each become a separate content item when you save the video:

1. Use the Source Type drop-down list to select the Files option.
2. Click the Add button. An Open dialog appears.
3. Select one or more video files.
4. Click Open. Your content files are added to the Filename list in the Quick Editor.

If you have more than one content file in the list, each will become a separate content item when you click Save in the Quick Editor. This allows you to quickly create several different content items without repeatedly opening the Quick Editor.

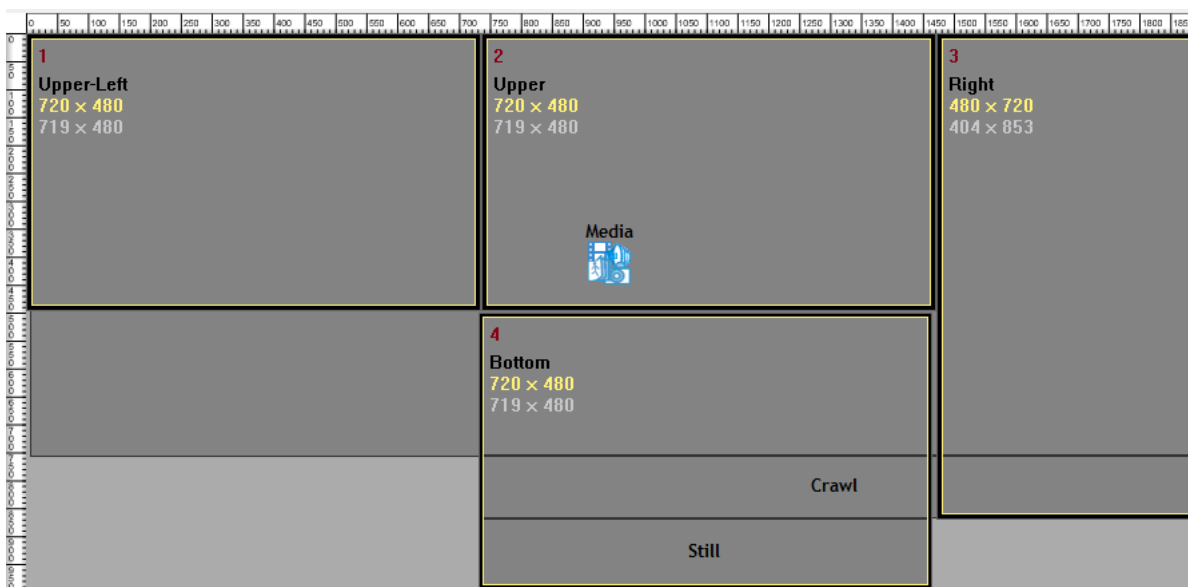
5. Use the buttons above the Filename list to modify your list of content files.
 - To add more content files to the Filename list, click the Add button and select additional files.
 - To remove a content file from the Filename list, select the file and click the Remove button.
 - To remove all the content files from the Filename list, click the Remove All button.

See Supported Video Clip Formats (on page 144) for a list of supported formats.

Add a Display Wall File Set

If your media region spans multiple displays in a display wall, use the Display Wall File Set option to import multiple pre-sliced video clips and assign them to the proper displays.

1. Create your InfoCast using a display wall configuration. See Work with Display Walls (on page 69) to learn more about display walls in InfoCaster.
2. Create a media region which spans multiple display monitors. For example, this sample InfoCast contains four display monitors with a large media region, a crawl, and a still.



This media region will contain the video clip, and it intersects the display monitors in the following ways.

- The upper-left corner of the media region completely fills the display monitor called **Upper-Left**.

- The upper-middle part of the media region completely fills the display monitor called **Upper**.
- The right part of the media region partially fills the display monitor called **Right**.
- The lower-middle part of the media region partially fills the display monitor called **Center**.

Note that the lower-left part of the media region is outside all of the display monitors.

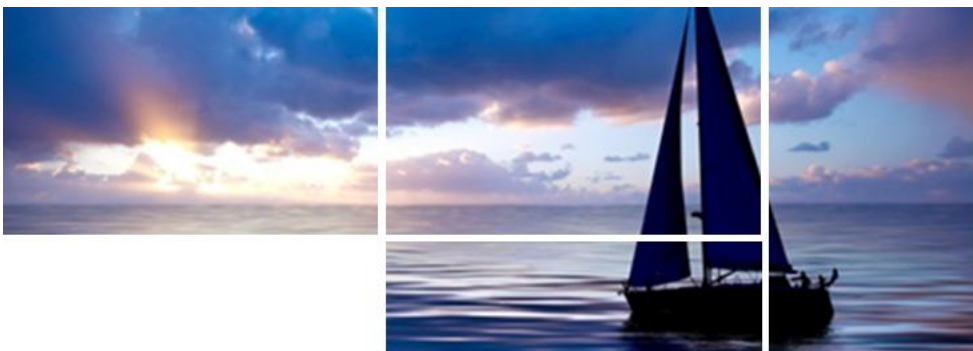
3. When display wall configurations are created, each display monitor is automatically assigned a number. The display number for each display appears above the display's name. You will use these numbers to help you pre-slice and import the video.



4. Using external software, create a large video clip which is the same size as the entire media region.

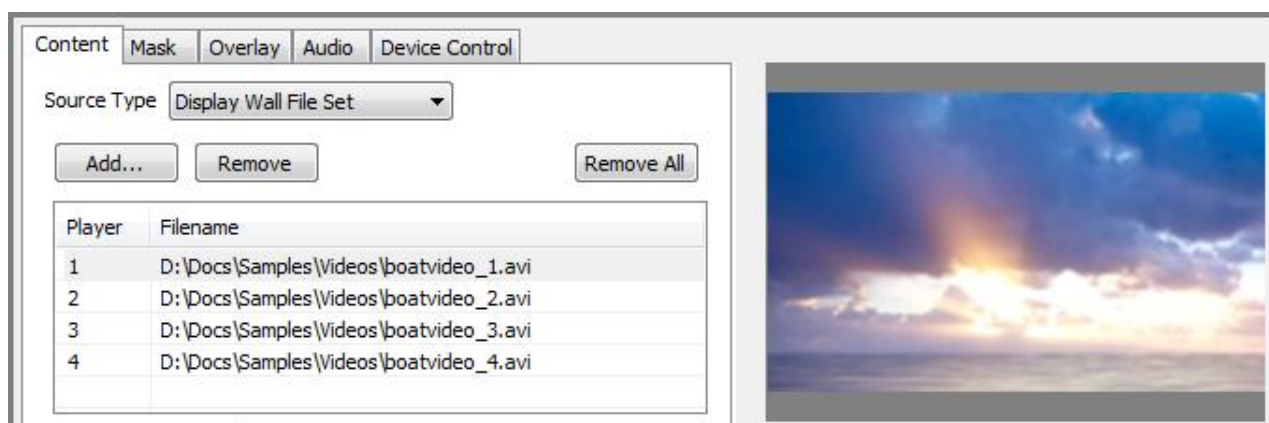


- Bring the large video clip into software such as Adobe® After Effects® and slice it into separate video files, one video file for each display monitor. Each video file's size must equal the portion of the media region which intersects the display monitor it will appear within.



You must remember to compensate for the thickness of the bezels and "throw away" the parts of the media region which would appear behind the display wall bezels. You will also be throwing away any sections of the video clip which are outside the display monitors.

- When you save your video clip slices, the last character in each filename must be the number of the display that the file is associated with.
For example, for the video clip slice which will appear in display one ("Upper-Left" in our example), the filename might be **boatvideo_1.avi**. The video clip which will appear in display two ("Upper") could be named **boatvideo_2.avi**, etc.
- Within InfoCaster, add a **Video - Clip Quick Editor** item to the large media region.
- Within the Video Clip Quick Editor, use the Source Type drop-down list to select the Display Wall File Set option.
- Click the Add button. An Open dialog appears.
- Select all of the pre-sliced video clip files you created and named.
- Click Open. Your video clip files are added to the Filename list in the Quick Editor.



- Click Save. The video clip files are saved to a single item within the media region. During playback, the files appear within the displays based on the display number and the filename.

Share Media

If several region items are using the same content file, it is economical to store the file in a central location so that all items can use the same file instead of storing different copies for each item. See [Store Shared Media](#) (on page 163) for more information.

Adjust Settings

Use the controls in the Content Editor to adjust the video clip settings.

Field Order

To reverse the field order of the video clip check the Invert Fields checkbox. Use this option if your video clip was encoded in the opposite field order to your output device.

Video Clip Timeline

The timeline shows the entire the length of the video clip. The indicator on top of the timeline marks the current playback position of the preview in the Editor. You can drag the indicator back and forth to any position in the timeline.

The indicators at the left and the right of the timeline show the current In and Out points for the clip. When the clip is first opened the In point is set at the first frame and the Out point is set at the last frame. Drag the left and right indicators to change the In and Out points for the video clip. The fields for the In point, Out point, and Trimmed time update automatically.

Double-click on the left indicator to jump the preview to the In point. Double-click on the right indicator to jump the preview to the Out point.

Set In and Out Points

To set the In and Out points for the clip use one of these methods:

- Drag the left indicator in the timeline to the frame that you want to use as the In point. Drag the right indicator in the timeline to the frame that you want as the Out point.
- Enter the timecode of the frame you want to use for the In and for the Out point in the fields below the timeline. The timecode is measured in hours:minutes:seconds:frames (HH:MM:SS:FF). The left field is for the In point and the right field is for the Out field.
- During preview, click the Set In button to set the current frame as the In point and click the Set Out button to set the current frame as the Out point.

Video Clip Size

To display the video clip at full screen size during output, check the Show Full Screen checkbox. The clip plays over top of all other regions. After the clip finishes playback, the other region items are visible onscreen again.

To scale the video, check the Scale checkbox to enable the scale options, then use any of these methods:

- Check the Scale to Fit Region checkbox to scale the clip to fill the entire region. The clip may appear distorted.
- Check the Maintain Aspect Ratio checkbox to display the video clip at the aspect ratio stored in the video file. The clip will not be distorted but it may not fill the entire region.
- Use the Scale slider to size the video display in your region.
- Click and drag the video in the editor's Preview window to reposition the video display in the region.

Video Clip Position

You can change the horizontal and vertical position of the content within the region by either using the Position fields or by dragging the content within the Preview window.

- Use the Top and Left Position fields to change the number of pixels between the upper-left corner of the content and the edges of the region.
- Click on the content in the Preview window and drag it to its new position.

Preview Item

To preview the clip in the Video Clip Quick Editor use the following buttons on the Content tab:

Video Clip Quick Editor Preview Buttons

Button	Function
	Jumps to the first frame in the clip.
	Jumps to the previous frame.
	Stops playing the clip.
	Plays the clip from the current position.
	Jumps to the next frame.
	Jumps to the last frame in the clip.
	Plays the clip from the current In point to the current Out point.

Supported Video Clip Formats

The following formats are supported by the Video Clip Quick Editor.

Supported Video Clip Formats

Format	Notes
AVI - 32 Bit Uncompressed	HD resolution files require high bandwidth.
AVI - DivX MPEG-4	Implemented but still being tested.
AVI - H.264/AVC	
AVI - MPEG-1	
DV, DVCPro 25/50	
DVCProHD	Implemented but still being tested.
LXF - Harris	
LTV - Harris	Requires Altitude Express hardware. Without Altitude Express hardware some limited resolution support is possible.
MOV - QuickTime	Performance issues currently limit support of 1080i H.264 files.
MPEG-2	
MPEG-4 Part 2	
MXF wrapped media	Implemented but still being tested. Can only be played if the appropriate codec is installed. No support for metadata extraction.
Windows Media, VC-1	

The following formats are not currently supported.

- RealVideo.
- AVI - Matrox M-JPEG OpenDML

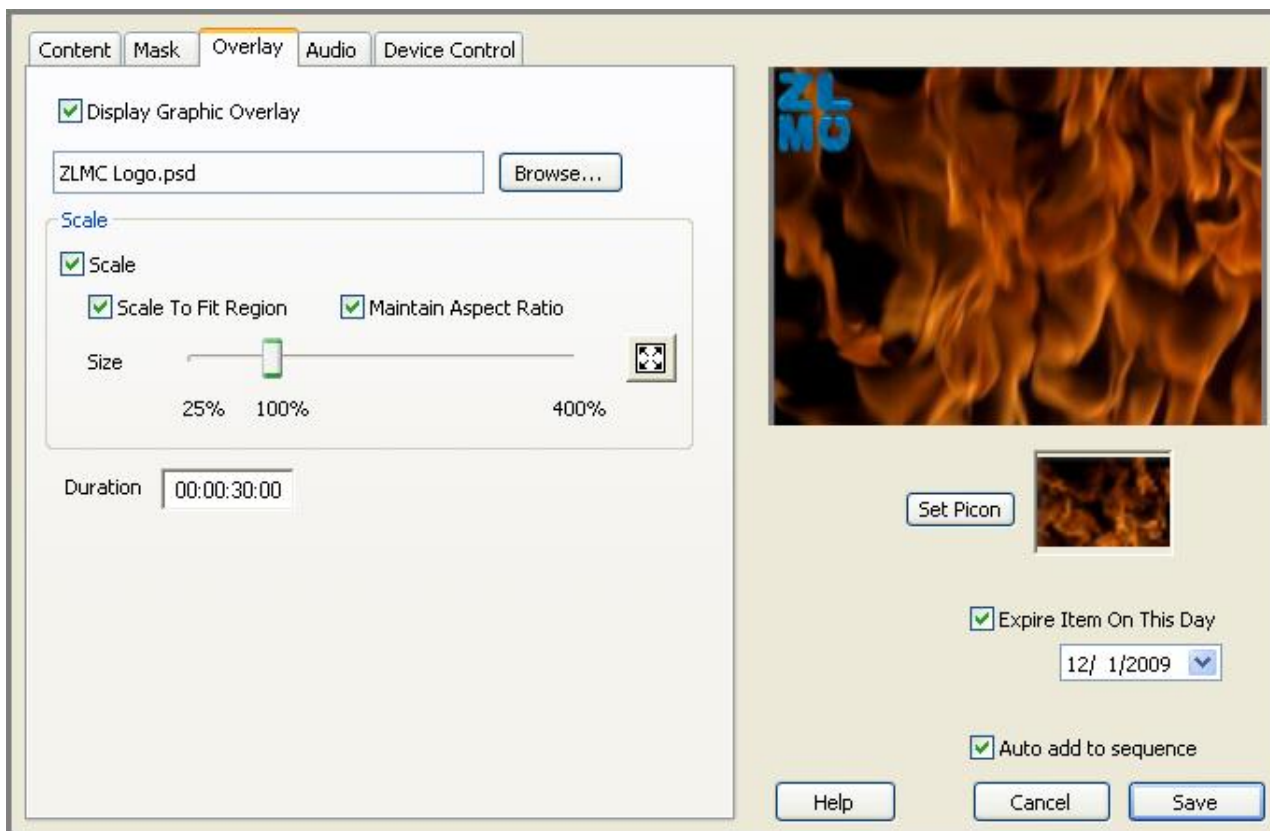
Closed Captioning

InfoCaster can display embedded closed captioning in MPEG-2 and H.264 video clips. See Closed Captioning (on page 53) for more information.

Add A Graphic Overlay

Choose a graphic to display over the video on the Overlay tab. This is useful for adding station logos or other branding elements to the video display.

1. Check the Display Graphic Overlay checkbox to enable the overlay options.



2. Click the Choose button and open the graphic file as prompted. When the graphic first loads, the image appears in the editor's Preview window at its original size.
3. Check the Scale checkbox to enable the scale options. Use the scale options to change the display for the graphic.
 - Check the Scale to Fit Region checkbox to size the graphic so it fills the entire region. The graphic may appear distorted.
 - Check the Maintain Aspect Ratio checkbox to display the graphic at the aspect ratio stored in the image file. The graphic will not be distorted, but it may not fill the entire region.
 - Use the Scale slider to resize the graphic.
4. Click and drag the image in the editor's Preview window to reposition the graphic.
5. If a video clip is selected for playback, the Duration field displays the duration of video clip between the In and Out points. The Duration field is not editable when a video clip is selected.
If there is no video clip selected, enter a playback duration for the selected graphic file. Time is measured in HH:MM:SS:FF (hours:minutes:seconds: frames).

Mix Audio

You can mix audio, use the clip's audio, or disable audio on the Audio tab.

1. Switch to the Audio tab.
2. To enable audio, check the Enable Audio checkbox.

3. Select one of the following options:
 - To play audio from the video source, select the Clip Audio Source option.
 - To play audio from another source, select the External Audio File option and click on the Choose button. Select the audio file in the next dialog box.
4. Use the Audio Card drop-down list to select the audio card you want to use for this item's output.
5. If you selected external audio, change the Level, Delay or Loop options as required.
 - To adjust the volume of the audio use the Level option. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.
 - To delay the playback of the audio set a time in the Delay field.
 - To play the audio once and stop, select the Play Once option. To continue playing the audio until another item with audio is played by the region, select the Loop option.
6. If you selected external audio, click on the Preview button to hear a preview of the audio.
7. Check the Enable Audio Ducking checkbox to set the item's audio to trigger a reduction in the audio level of other items that are currently playing. The trigger occurs when the item's audio is sent to air. Use the radio buttons to choose your ducking method.
 - To lower all other audio by the default value set in Preferences, select the Lower All Audio Using System Default radio button.
 - To lower all other audio by a custom value, select the Lower All Audio By Custom Amount radio button and enter the custom value in the provided field.

Flash Animations

When creating and using Flash animations with InfoCaster, be aware of the following:

- For best results, play SWF files in Standard mode. Playing SWF files in the legacy Fullscreen mode is not recommended.
- In Fullscreen mode, audio in SWF files is not supported. Audio **is** supported when using Standard mode.
- FLV files are supported, but they must be the recent F4V version, containing H.264 video.
- Some Flash files which worked in InfoCaster previous to 4.2 may not work in versions 4.2 or later.
- If you want InfoCaster to play the audio in a Flash file, ensure that the audio is in the first frame when you create the file.
- Back-to-back Flash files played in a region will not display transitions and will display a few seconds of output.

Video Stream Quick Editor

You can stream videos into a media region using the Video Stream Quick Editor. If you are using a PC remote with your InfoCaster system, you can define a list of channel streams that can be displayed within a video stream item.

Use the tabs in the quick editor to add audio, device control, masks, and overlays to video stream items.

The screenshot shows the 'Video Stream Quick Editor' window. At the top, there are five tabs: 'Content', 'Mask', 'Overlay', 'Audio', and 'Device Control'. The 'Content' tab is selected. Below the tabs, there are two main sections: 'Source' and 'Scale'. In the 'Source' section, the 'Use URL' radio button is selected, and the URL field contains 'http:\\xzynews\\traffic.asx'. There is also an 'Audio Source' dropdown menu and a 'Use Channel Guide' radio button. In the 'Scale' section, there are checkboxes for 'Show Full Screen', 'Scale', 'Scale To Fit Region', and 'Maintain Aspect Ratio'. A 'Size' slider is set to 100%, with markers at 25%, 100%, and 400%. To the right of the 'Scale' section is a large preview window showing a gray checkered pattern. Below the preview window is a 'Set Picon' button. At the bottom of the window, there are several buttons: 'Log Note', 'Help', 'Cancel', and 'Save'. There is also a checkbox for 'Expire Item On This Day' with a date dropdown set to '5/31/2010', and a checked checkbox for 'Auto add to sequence'.

Add URL Content

To add video from an ASX or ASF media file streaming over the network:

1. Select the Use URL radio button.
2. Type in the URL or file path for the media file, or click the Browse button next to the field and browse to the file location. You can choose a locally stored ASX file which manages the connection to ASF media files.

3. If you want to use a separate audio source, select an audio source from the Audio Source drop-down list. The list displays all available hardware devices capable of delivering audio. The audio device must be installed on the computer that is running InfoCaster.
4. Click the Connect button to start streaming the media file.

See Supported Streaming Formats (on page 157) for a list of supported formats.

Windows Media Reconnection

If you are accessing a Windows Media stream and your connection is lost, Windows will continue to try to reconnect to the stream until the connection is restored. This may prevent subsequent items in a sequence from playing.

To reduce the timeout to thirty seconds and ensure that sequences will play properly, append the **?WMReconnect=0** URL modifier to your URL, for example **http://videostream.local:8080?WMReconnect=0**. This modifier prevents Windows from attempting to reconnect to a lost source.

Add Channel Guide

If you are using a PC remote with your InfoCaster system, you can define a Channel Guide which will appear in your video stream item. Channel Guides are lists of channel streams which viewers browse with the PC remote.

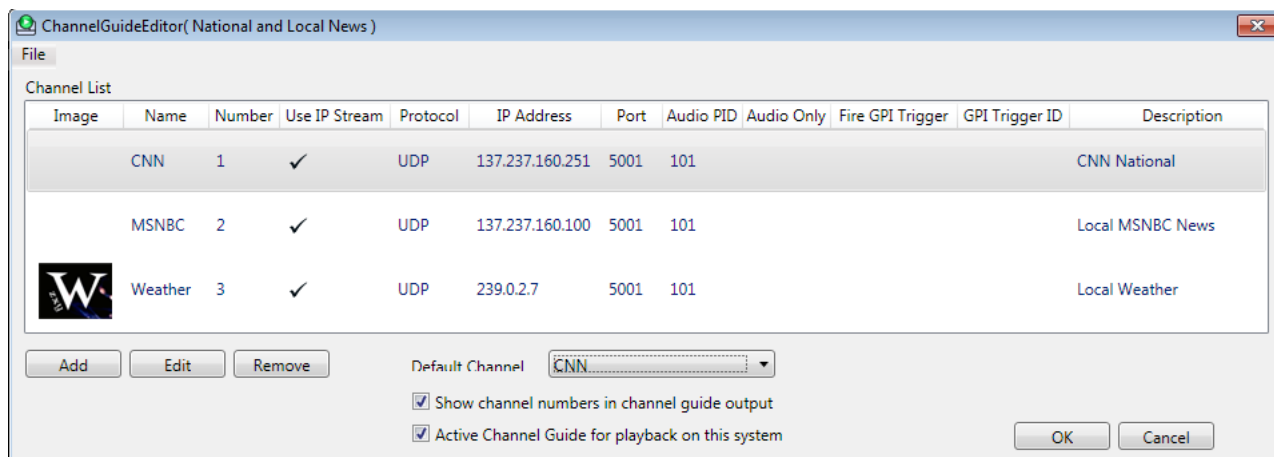
You can save multiple Channel Guides within InfoCaster, but only one can be used by each Video Stream item at any one time. Channel Guides can also be published to and downloaded from InfoCaster Manager for quick distribution between players. You must have InfoCaster Manager version 4.8 if you wish to distribute your Channel Guides with InfoCaster Manager.

Add Channel Guide Content

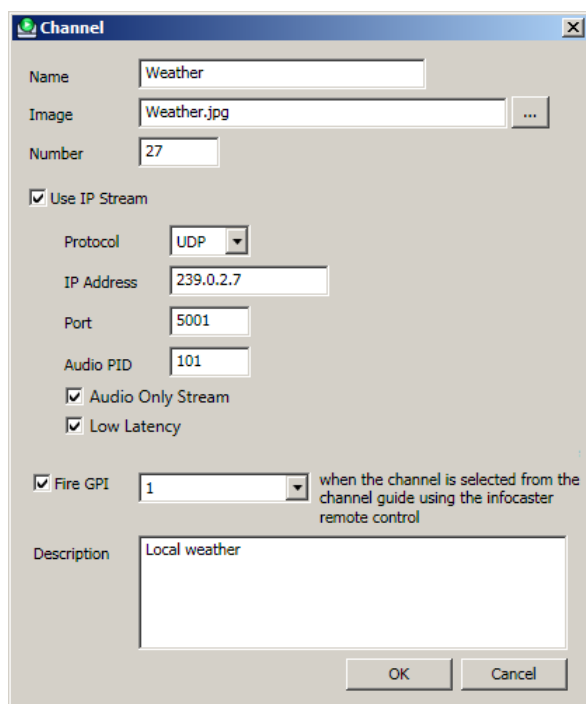
To set up a Channel Guide for an item:

1. Within the Video Stream Quick Editor, select the Use Channel Guide radio button.
2. Click the Edit Channel Guide button. The Channel Guide Editor opens.
3. Select File > New to create a new Channel Guide.

You can also select File > Open to open a Channel Guide you have created previously. The Channel Guide will appear in the editor.



- Click the Add button to define a new channel for the Channel Guide. The Channel dialog opens.



Use the fields in the Channel dialog to define your channel. The name, image, number, and description are displayed when channels are browsed or changed with the PC remote.

- Enter a name for the channel.
- If you want to display an image for the channel, click the Image button and select an image file to display.
- Enter a number for the channel. The channels are arranged by number in the Channel Viewer. If your tuner supports minor channels, enter the minor channel as a decimal. For example, enter **27.100** for minor channel 100 of major channel 27. Channels selected with the PC remote will automatically select the first minor channel available.

5. If you want to display the content of an IP stream when the channel is chosen, check the Use IP Stream checkbox and enter the stream details.
 - Use the Protocol drop-down list to select the protocol for the channel stream. You can select the HTTP, HTTPS, MMS, RTSP, RTP, or UDP protocol.
 - Enter the IP address and port that the stream is being broadcast from.
 - Enter the packet ID for the audio portion of the stream in the Audio PID field.
 - If the stream only contains audio, check the Audio Only Stream checkbox. If you want to fire a GPI trigger when the channel is chosen, check the Fire GPI checkbox and select a trigger from the drop-down list.
 - Channel Guide streams play in Low Latency mode by default, but some streams require additional processing. If you have trouble playing a stream, try unchecking the Low Latency checkbox. This will delay the output of the stream by approximately half of a second.

Use this option to trigger conditional playback rules when the channel is chosen. See Conditional Playback (on page 189) for more information.
6. Enter a description for the channel.
7. Click the OK button to add the channel to the Channel Guide Editor list.
8. Add additional channels as required.
9. In the Channel Guide Editor, use the Default Channel drop-down list to select the channel that is displayed when the InfoCast begins playing.
10. If you want to briefly display channel information on your output when a channel is selected, check the Show Channel Numbers in Channel Guide Output checkbox.
11. If you want this Channel Guide to be used by the video stream item, check the Active Channel Guide For Playback On This System checkbox.

To use a different Channel Guide in the future, open the Channel Guide you wish you use and check its Active Channel Guide For Playback On This System checkbox.
12. Select File > Save to save the Channel Guide.
13. Click the OK button to exit the Channel Guide Editor.

See Use a PC Remote (on page 210) to learn how to browse and change the channels with a PC remote.

Manage Channel Guides

Use the File menu in the Channel Guide Editor to manage and edit multiple Channel Guides.

- **New:** Create and open a new, empty Channel Guide.
- **Open:** Open a saved Channel Guide for editing. You are prompted to select the Channel Guide from a list of ones available on the InfoCaster system.

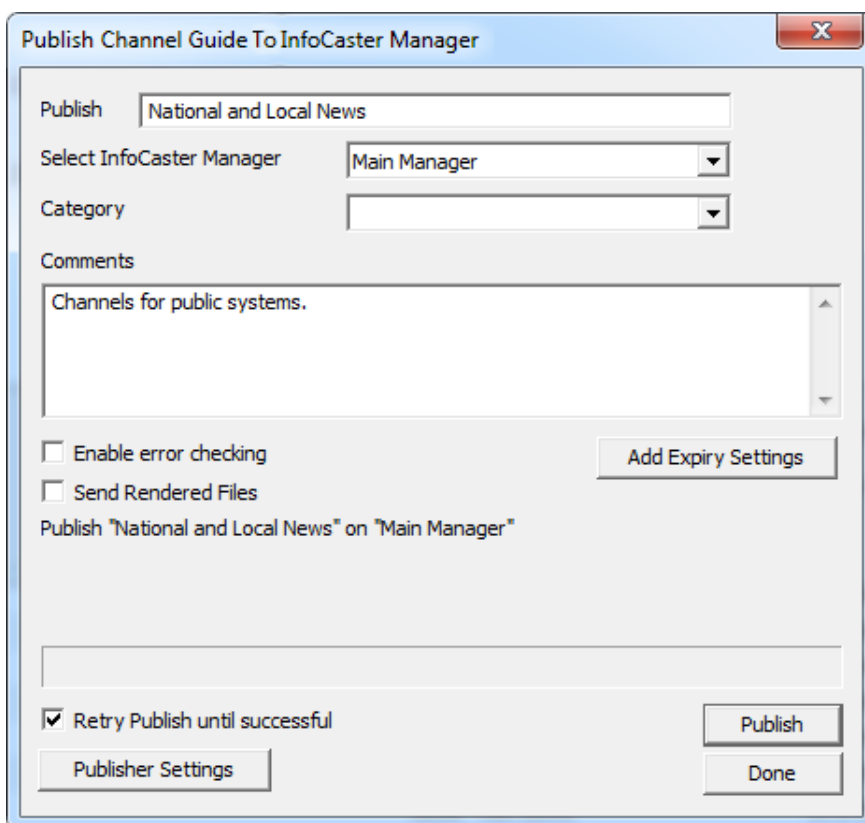
The Open dialog also indicates which Channel Guide is currently being used.
- **Rename:** Rename the Channel Guide which is currently open.
- **Save:** Save the Channel Guide which is currently open.
- **Save As:** Save a copy of the Channel Guide which is currently open, giving it a new name. This allows you to duplicate your Channel Guides for future editing.
- **Close:** Close the Channel Guide which is currently open.

- **Delete:** Delete a saved Channel Guide. You are prompted to select the Channel Guide from a list of ones available on the InfoCaster system.
- **InfoCaster Manager:** Publish, download, or approve Channel Guides with InfoCaster Manager. See [Publish Channel Guides to InfoCaster Manager](#) (on page 152) for more information.
- **Exit:** Exit the Channel Guide Editor.

Publish Channel Guides to InfoCaster Manager

Follow these steps to publish an open Channel Guide to InfoCaster Manager.

1. In the Channel Guide Editor, select **File > InfoCaster Manager > Publish**. The **Publish Channel Guide to InfoCaster Manager** window opens.



The screenshot shows a dialog box titled "Publish Channel Guide To InfoCaster Manager". It contains the following fields and controls:

- Publish:** A text field containing "National and Local News".
- Select InfoCaster Manager:** A dropdown menu showing "Main Manager".
- Category:** A dropdown menu.
- Comments:** A text area containing "Channels for public systems."
- Enable error checking:** An unchecked checkbox.
- Send Rendered Files:** An unchecked checkbox.
- Add Expiry Settings:** A button.
- Publish "National and Local News" on "Main Manager":** A status line.
- Retry Publish until successful:** A checked checkbox.
- Publisher Settings:** A button.
- Publish:** A button.
- Done:** A button.

2. Select the InfoCaster Manager system you want to publish to from the drop-down list. The list displays the InfoCaster Manager systems defined in the publisher's location list. To add, edit, or remove InfoCaster Manager systems from the list, see [Connect InfoCaster to InfoCaster Manager](#) (on page 25).
3. If you want to assign the content to a category that already exists on the InfoCaster Manager server, use the Category drop-down list to select a category.
You can also type a new category name into the Category field.
4. Set how you want to publish the content.
 - Type any notes or reminders about the content into the Comments area. These comments appear when content is selected in InfoCaster Manager.

- Check the Enable Error Checking checkbox to set InfoCaster Manager to check the content for errors that may have occurred during publishing. Selecting this option ensures the integrity of your files but they may take longer to publish.
 - The Send Rendered Files feature is not applicable to Channel Guide content.
 - Check the Retry Publish Until Successful checkbox if you want the publisher to keep attempting to publish after a failed attempt.
 - If you want to customize the expiry settings for the content, click the Add Expiry Settings button. See Add Expiry Settings for more information about content expiry.
5. Click the Publish button to publish the content.

If an error tells you that the publisher does not have permission to publish to the InfoCaster Manager, contact the InfoCaster Manager operator. The publisher must be enabled on the InfoCaster Manager system as described in Enable Publisher in InfoCaster Manager (on page 27).
 6. To send the content to another InfoCaster Manager, select a different InfoCaster Manager system from the drop-down list and click Send again.

Click Done when you are finished publishing the content to your InfoCaster Manager systems.

Download Channel Guides from InfoCaster Manager

Follow these steps to download a Channel Guide from InfoCaster Manager.

1. In the Channel Guide Editor, select File > InfoCaster Manager > Download. The Download Channel Guide from InfoCaster Manager window opens.

Download Channel Guide From InfoCaster Manager

Select InfoCaster Manager: Main Manager

Search: Content Name [Search]

Filters: All Content

Select the server version column to select which version to download if multiple versions of the same content exist.

Thumbnail	Content Name	Type	Server Version	Category	Comments

Download Location: C:\ProgramData\Harris\InfoCaster [Choose...]

[Publisher Settings] [Download] [Done]

2. Use the Select InfoCaster Manager drop-down list to select the server you want to access.
3. Use the Search field to display only the content that contains the search text.
Enter your search text in the Search field and click the Search button. Only the content which matches your search condition will appear in the Content list.
To display all of your content again, remove the text in the Search field and click the Search button.
4. Use the Filter controls to display only the content that meets certain conditions. To learn how to manage filter queries, please consult the InfoCaster Manager User Guide.
5. Select the content you want to download from the Content list.
Click within the Server Version column to see a list of any additional content versions that are stored on the server. You can select a specific content version by choosing it in the list.
6. Click the Download button to download the selected content to the download location.

If you checked the Show the Confirm Content Download Dialog checkbox when you set up your publisher, the Confirm Content Download dialog appears. To learn about content download confirmation, please consult the InfoCaster Manager User Guide.

Change Channel Guide Appearance

InfoCaster uses a group of template files to create the style and appearance of the Channel Guides. By default, these template files are located in **C:\Program Files\Harris\InfoCaster\ChannelGuide**.

You can edit these files in the following ways.

- Use a third-party image-editing tool to edit the **channelguide_background.png** file. This is the image file which appears in the background of the Channel Guide.
- Use TitleMotion to edit the remaining ICG files. These files specify the location and style of the Channel Guide text.

Use TitleMotion to Edit Channel Guide Templates

You can edit the following ICG files in TitleMotion.

Channel Guide ICG Files

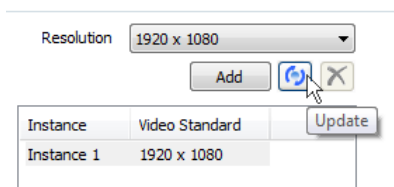
File	Resolution	Description
channelguide	1920x135	Within the Channel Guide list, displays the number, logo, and name of a channel. This is duplicated for each channel displayed in the list.
channelguideerror	1920x1080	Displays an error message when a channel cannot be loaded.
channelguideinfo	1920x1080	When the Show Channel Numbers in Channel Guide Output checkbox is checked, displays the number, logo, name, and description of a channel when it has finished loading.
channelguideloading	1920x1080	Displays a message while a channel is loading.

File	Resolution	Description
channelguidenumber	1920x1080	Displays the channel numbers when the remote control's number buttons are pressed.

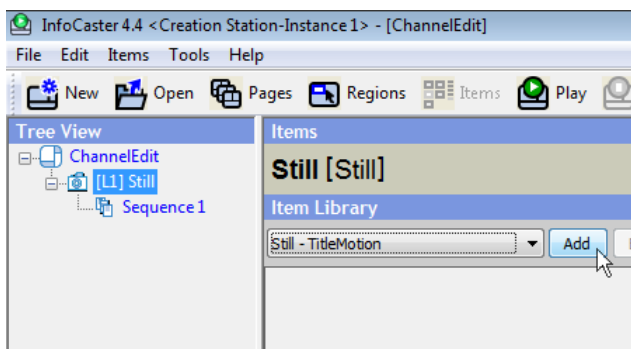
Follow these steps to edit the ICG files.

1. Make a backup copy of the ICG files and store them in a safe place, in case you need to revert to the original versions in the future.
2. Ensure that your InfoCaster output is set to 1920x1080. This is the resolution of the largest Channel Guide templates.

You can set your output resolution in the Video/Audio Standard tab of the InfoCaster Configuration Utility by selecting a new resolution and clicking the Update button. See Video/Audio Configuration (on page 261) for more information about setting your output resolution.



3. Launch InfoCaster.
4. Create a new InfoCast.
5. In the InfoCast, create a Still region which is the size of the ICG file you wish to edit.
 - **channelguide.icg** requires a 1920x135 region.
 - All other files require a full-size 1920x1080 region.
6. Double-click the region to enter the Items view.
7. Select Still - TitleMotion from the drop-down list and click Add.



The TitleMotion interface opens with a blank canvas the size of your region.

8. In the upper-right corner of the TitleMotion interface, click the Maximize button to maximize the application. This will help you to see the canvas better.



9. Within TitleMotion, select File > Import > Import ICG File. A file browser opens.

10. Import the ICG file you wish to edit. The ICG file appears on the TitleMotion canvas.



Each ICG file consists of one or more text objects which are linked to data tags. The data tags appear in black boxes under the text objects.

11. Use the TitleMotion controls to modify the text objects.

- Change the font, color, and other attributes of the text styles.
- You can change the position of the text objects within the 1920x1080 files.
- You can customize the text messages in the **channelguideerror.icg** and **channelguideloading.icg** files.

Note: Do not edit the data tags under the text objects.

Consult the TitleMotion User Guide to learn how to use the TitleMotion editing tools.

12. When you have finished modifying the ICG file, select File > Export > Export ICG file and overwrite the original ICG file. InfoCaster will use the modified ICG file when it displays a Channel Guide.

13. Select File > Exit to exit TitleMotion.

Adjust Settings

Use the controls in the Content Editor to adjust the video stream settings.

Duration

Video stream items continue to play until their duration is reached. Use the Duration field to set the total duration of the video stream item.

Field Order

To reverse the field order of the video stream check the Invert Fields checkbox. Use this option if your video stream was encoded in the opposite field order to your output device.

Video Stream Size

To display the video stream at full screen size during output, check the Show Full Screen checkbox. The stream plays over top of all other regions. After the stream finishes playback, the other region items are visible onscreen again.

To scale the video, check the Scale checkbox to enable the scale options, then use any of these methods:

- Check the Scale to Fit Region checkbox to scale the stream to fill the entire region. The stream may appear distorted.
- Check the Maintain Aspect Ratio checkbox to display the video stream at the aspect ratio stored in the stream. The stream will not be distorted but it may not fill the entire region.

- Use the Scale slider to size the video display in your region.
- Click and drag the stream in the editor's Preview window to reposition the stream display in the region.

Supported Streaming Formats

The Video Stream Quick Editor uses the MainConcept™ Network Streaming Package to receive media data over a network. It supports the Real-Time Transport Protocol (RTP) for connecting to broadcast servers and the Real Time Streaming Protocol (RTSP) for video on demand.

MainConcept can receive the following media streams from the network.

- MPEG-1 System Stream
- MPEG-2 Transport Stream
- MPEG-2 Program Stream
- MPEG-1 Video
- MPEG-1 Audio (including mpa-robust for MP3 audio according to RFC-3119)
- MPEG-2 Video
- MPEG-2 Audio
- AVC/H.264
- MPEG-4 Part 2 Video
- AAC
- AMR
- RAW data
- VC-1
- Streams can be specified by .SDP file

For complete information about the features of the MainConcept Network Streaming Package, visit the [Main Concept](http://www.mainconcept.com) (<http://www.mainconcept.com>) website.

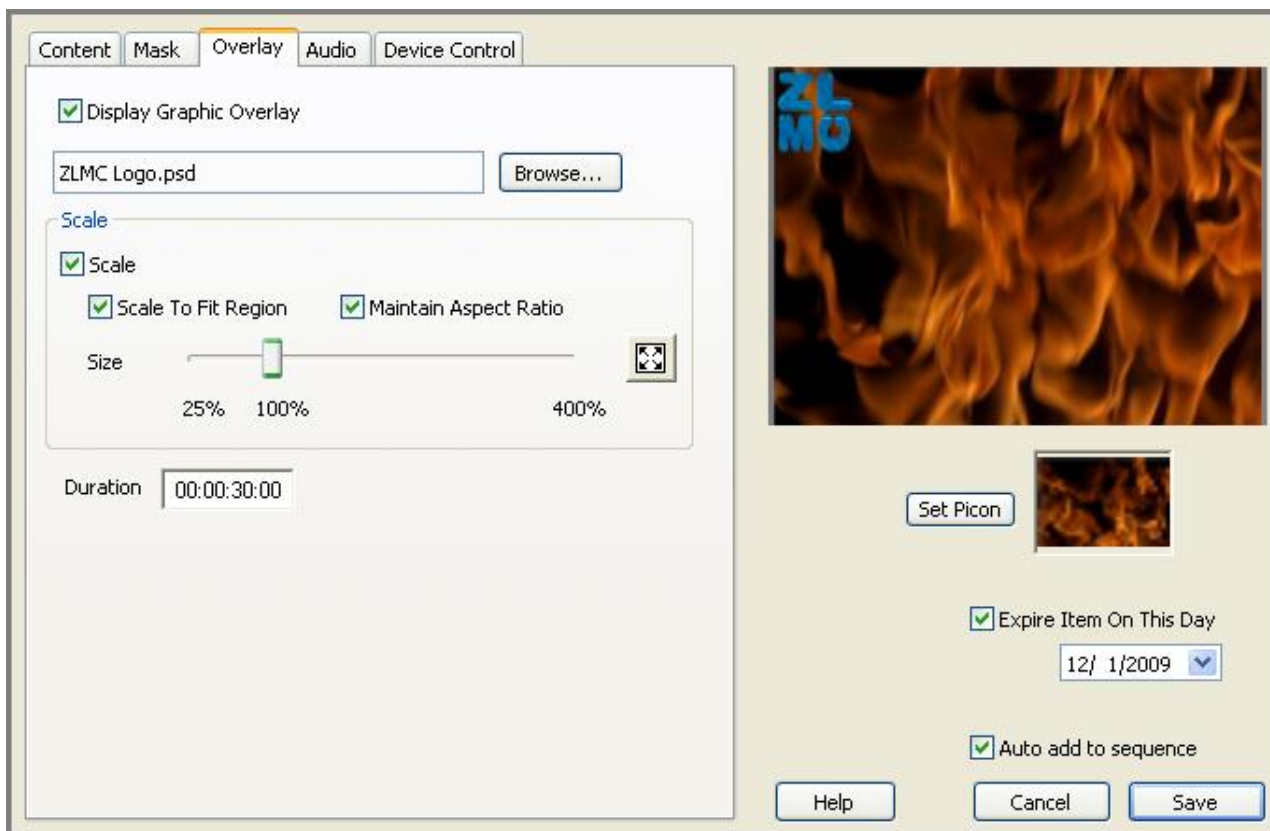
Closed Captioning

InfoCaster can display embedded closed captioning in MPEG-2 and H.264 video clips. See Closed Captioning (on page 53) for more information.

Add a Graphic Overlay

Choose a graphic to display over the video on the Overlay tab. This is useful for adding station logos or other branding elements to the video display.

1. Check the Display Graphic Overlay checkbox to enable the overlay options.



2. Click the Choose button and open the graphic file as prompted. When the graphic first loads, the image appears in the editor's Preview window at its original size.
3. Check the Scale checkbox to enable the scale options. Use the scale options to change the display for the graphic.
 - Check the Scale to Fit Region checkbox to size the graphic so it fills the entire region. The graphic may appear distorted.
 - Check the Maintain Aspect Ratio checkbox to display the graphic at the aspect ratio stored in the image file. The graphic will not be distorted, but it may not fill the entire region.
 - Use the Scale slider to resize the graphic.
4. Click and drag the image in the editor's Preview window to reposition the graphic.

Mix Audio

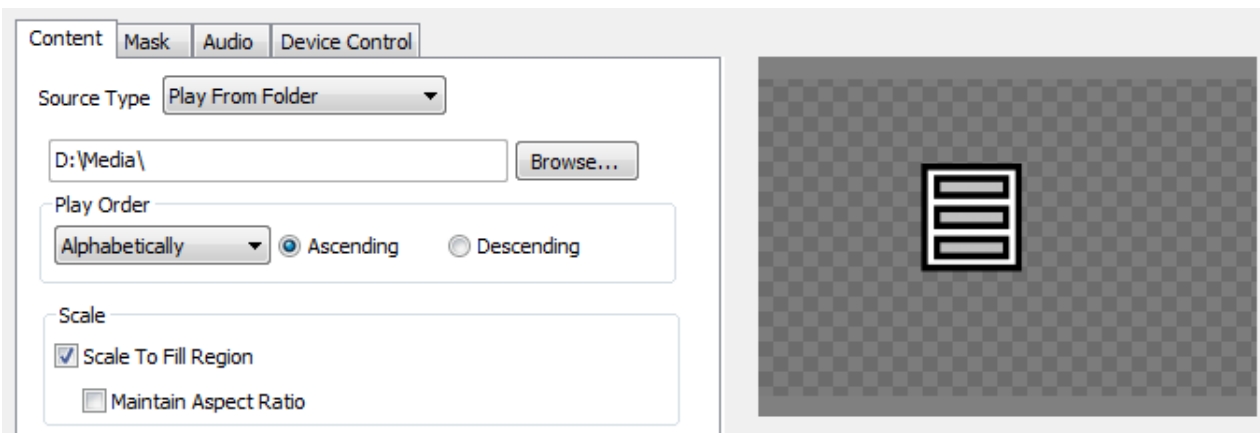
You can mix audio, use the stream's audio, or disable audio on the Audio tab.

1. Switch to the Audio tab.
2. To enable audio, check the Enable Audio checkbox.
3. Select one of the following options:
 - To play audio from the stream, select the Clip Audio Source option.
 - To play audio from another source, select the External Audio File option and click on the Choose button. Select the audio file in the next dialog box.

4. Use the Audio Card drop-down list to select the audio card you want to use for this item's output.
5. If you selected external audio, change the Level, Delay or Loop options as required.
 - To adjust the volume of the audio use the Level option. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.
 - To delay the playback of the audio set a time in the Delay field.
 - To play the audio once and stop, select the Play Once option. To continue playing the audio until another item with audio is played by the region, select the Loop option.
6. If you selected external audio, click on the Preview button to hear a preview of the audio.
7. Check the Enable Audio Ducking checkbox to set the item's audio to trigger a reduction in the audio level of other items that are currently playing. The trigger occurs when the item's audio is sent to air. Use the radio buttons to choose your ducking method.
 - To lower all other audio by the default value set in Preferences, select the Lower All Audio Using System Default radio button.
 - To lower all other audio by a custom value, select the Lower All Audio By Custom Amount radio button and enter the custom value in the provided field.

Play From Folder or Source

Many of the importers and quick editors allow you to play multiple files which are either stored in a folder or referenced by a database.



Play From Folder

The Play From Folder option plays all of the files from a specific folder.

1. On the Content tab of the Content Editor, use the Source Type drop-down list to select the Play From Folder option.
2. Click the Add button. An Open dialog appears.
3. Select the folder where the files are stored and click OK.

Note: Playing content from a folder on a network path can have a negative impact on playback and network bandwidth. We strongly recommend that the folder and its files are located on the local system.

4. Select a play order from the Play Order drop-down list:
 - Select Alphabetically to play all the files in the folder alphabetically.
 - Select Date to play the files chronologically, based on their creation dates.
 - Select Random to play the files in random order. Each file will only play once.
5. If you chose the Alphabetical or the Date option, you can also select whether to play the files in ascending or descending order.
6. If you are using the Video Clip Quick Editor, check the Show Full Screen checkbox to display the video clip at full screen size during output. The clip plays over top of all other regions. After the clip finished playback, the other region items are visible onscreen again.
7. To reverse the field order of a video clip check the Invert Fields checkbox. Use this option if your video clip was encoded in the opposite field order to your output device.
8. Additional Playback options appear if you are using the Animation Importer or the Video Clip Quick Editor.

- Select the File Duration radio button to play the file once for its entire length, then play the next file.
 - Select the Custom Duration radio button to specify a duration for the files. Each file plays for the custom duration, and loops at the end if its file duration is shorter. When the duration is reached the next file is immediately played, regardless of the playback position of the current file.
9. In some quick editors a data source icon appears in the preview window. Drag the icon inside the window to set where the files will play.



Play From Data Source

The Play From Data Source option plays files referenced by an external data source.

Note: Playing files which are located on a network path can have a negative impact on playback and network bandwidth. We strongly recommend that the files are located on the local system.

1. On the Content tab of the Content Editor, use the Source Type drop-down list to select the Play From Data Source option.
2. Check the Associate Audio checkbox to play audio files when the associated content file is played. This adds an Audio data tag to the item, which you link to a table of audio file path names in the Data Source Wizard.
3. Click the Setup button to select a data source using the Data Source Wizard (see Use the Data Source Wizard (on page 81)). The table column you choose with the Wizard must contain the absolute path names of all the files you want to play.

You can refine and sort the table column using the Data Source Wizard.

- Click the Browse button in the Alternate Playback section of the Content tab to select an alternate file. This file is played if the data source becomes unavailable.

The screenshot shows a configuration window for a data source. At the top, 'Source Type' is set to 'Play From Data Source'. Below this, the 'Data Source' section includes a 'Source:' field, a 'Table:' field, and a 'Setup' button. Two checkboxes are present: 'Associate audio source' (checked) and 'Play to length of audio' (checked). The 'Alternate Playback' section contains a description: 'Select alternate files to play in place of the sourced files if there are issues with the Data Source.' It features two rows: 'Still' and 'Audio', each with a text input field and a 'Remove' button. At the bottom, the 'Scale' section has two checkboxes: 'Scale To Fill Region' (checked) and 'Maintain Aspect Ratio' (unchecked).

- If you are associating an audio source with your item, choose an alternate audio file by clicking the Browse button beside the Audio field.
- If you are using the Video Clip Quick Editor, check the Show Full Screen checkbox to display the video clip at full screen size during output. The clip plays over top of all other regions. After the clip finished playback, the other region items are visible onscreen again.
- To reverse the field order of a video clip check the Invert Fields checkbox. Use this option if your video clip was encoded in the opposite field order to your output device.
- Playback options appear if you are using the Animation Importer or the Video Clip Quick Editor.
 - Select the File Duration radio button to play the file once for its entire length, then play the next file.
 - Select the Custom Duration radio button to specify a duration for the files. Each file plays for the custom duration, and loops at the end if its file duration is shorter. When the duration is reached the next file is immediately played, regardless of the playback position of the current file.
- In some quick editors a data source icon appears in the preview window. Drag the icon inside the preview window to set where the files will display.



Store Shared Media

If several region items are using the same media file, it is economical to store the file in a central location so that all items can use the same file instead of storing different copies for each item. You can add video clips, audio files, and animation files to a shared media folder.

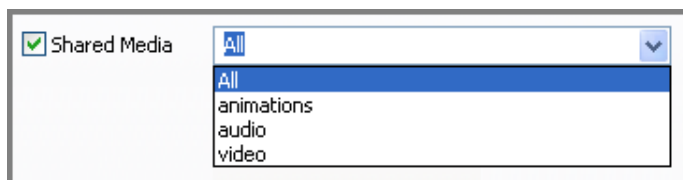
Set the Shared Media Folder Location

By default, shared media is stored in the C:\Shared Media folder. Use the Configuration Utility to change the location of the folder.

1. Within InfoCaster, choose Edit > Preferences. The Configuration Utility opens.
2. Switch to the General tab.
3. In the Media Store Settings section of the tab, click the Choose button and select the folder where you'd like to store shared media files.
4. To periodically delete the files in the Shared Media folder that are not being used by any InfoCast on your system, check the Automatically Delete checkbox.
5. Click OK to close the Configuration Utility.

Store Files in the Shared Media Folder

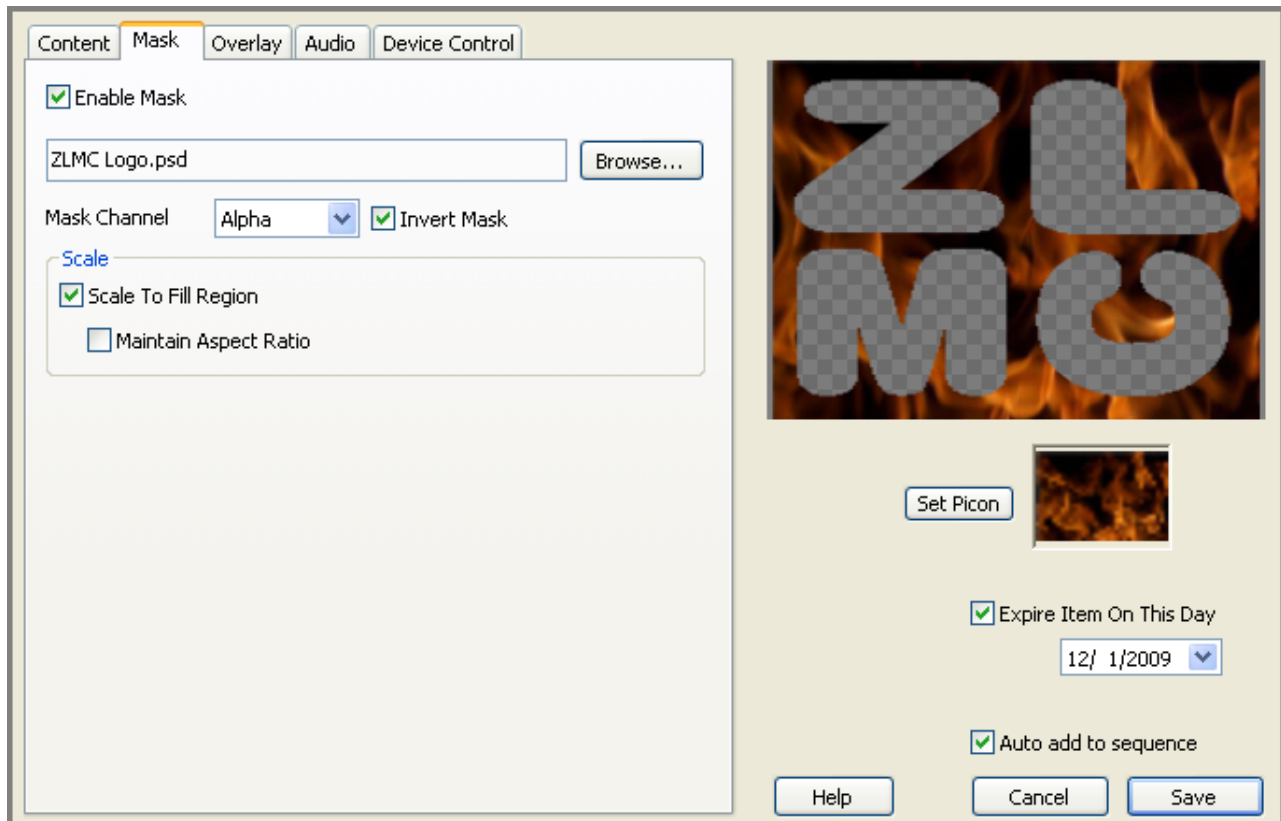
To store media files in the Shared Media folder, check the Shared Media checkbox within the Content Editor, then select the storage location from the following options:



- All: Adds the file to the main Shared Media folder.
- Select any other existing sub-folder in your shared media folder.
- Type in a sub-folder name to create a new sub-folder in your shared media folder.

Add an Alpha Mask

An alpha mask makes sections of an item transparent, semi-transparent, and opaque. Use the Mask tab to add an alpha mask to the supported quick editors.



Apply an Alpha Mask

You can use any image file as a mask.

1. Switch to the Mask tab of the Content Editor.
2. Check the Enable Mask checkbox.
3. Click the Browse button and choose the image file you want to use as a mask.

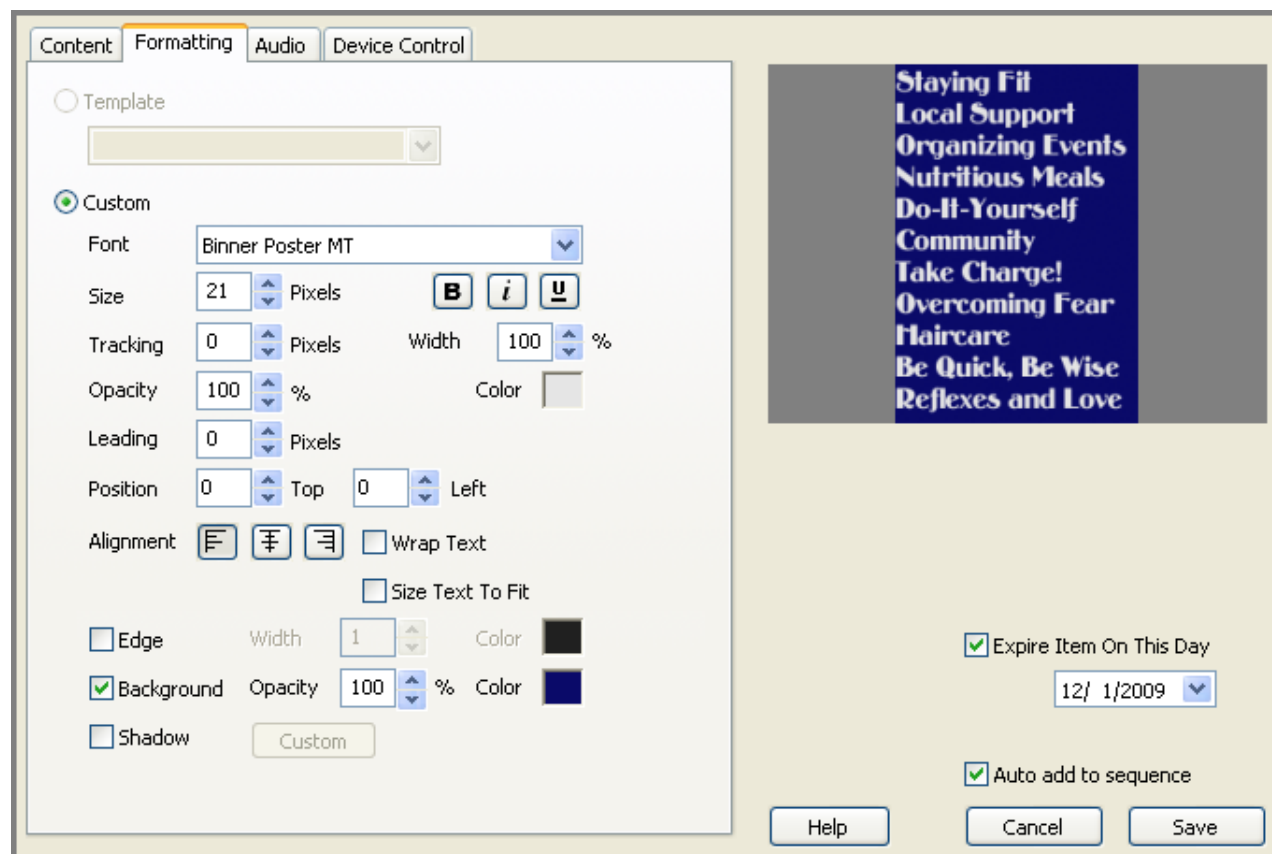
Adjust Mask Settings

Image files usually contain more than one channel of information. You can choose which channel you want to use as your mask with the Mask Channel drop-down list. The channels available in the Mask Channel drop-down list depend on the format of the image and how the image was created.

When the Invert Mask checkbox is checked, the part of the item that is inside the image mask is visible. When the Invert Mask checkbox is unchecked, the part of the item that is outside the image mask is visible.

Format Text

Use the Formatting tab in the Content Editors to format the display of item text. Depending on the item type the Formatting tab includes font, size, spacing, alignment, position, shadow, word wrap, and background options.



Apply Custom Formatting Options

All items share the same standard formatting options. The options may change slightly depending on the item type.

1. Switch to the Formatting tab.
2. Select the Custom option.
3. Apply the formatting options to the text.

Formatting Tab Options

Formatting Option	Function

Formatting Option	Function
Font	Lists all the available fonts for the text. Select a font to apply the font to the text. You can set a default font for all new items with the General tab in the Configuration Utility. See General Tab (on page 237).
Size	Sets the size of the text.
B	Applies bold formatting.
i	Applies italicized formatting.
<u></u>	Applies underline formatting.
Tracking	Sets the space between characters.
Width	Sets the width of the characters. By default text is set at 100% of its normal width. Increase the value to expand the text and decrease the value to compress the text.
Opacity	Sets the text opacity. Zero is completely transparent and 100 is completely opaque.
Color	Sets the text color. Click the color chip to open the Color Picker. Select a new color for the text face using the Color Picker tools.
Leading	Sets the amount of space between lines in roll or title items.
Position: Top, Left	Positions the text within the region box. Enter a number in the Top position field to move the text X number of pixels from the top of the region. Enter a number in the Left position field to move the text X number of pixels from the left side of the region.
Position: Top, Middle, Bottom	Positions the crawl text at the top, middle, or bottom of the region. This option is for crawls only.
Alignment: Left, Center, Right	Aligns the text to the left, center, or right-side of the item box.
Wrap Text	Wraps the text so that it fits within the item boundaries.
Size Text to Fit	When text wrapping is enabled, this changes the size of the text in each line so that the lines fill the region.
Edge	Adds an edge to the text. Click on the Color chip to select the edge color.
(Edge) Width	Sets the edge width.
(Edge) Color	Sets the edge color.
Background	Adds a background to the region. Click on the Color chip to select color.

Formatting Option	Function
(Background) Opacity field	Sets background color opacity. Zero is completely transparent and 100 is completely opaque.
(Background) Color	Sets background color.
Shadow checkbox	Adds a shadow to the text.
(Shadow) Custom button	Sets the shadow distance, softness, opacity, color and position.

Apply Template Formatting

You can apply formatting from a TitleMotion template to title, crawl and roll items.

1. In the Title, Roll or Crawl Quick Editor, switch to the Formatting tab and select the Template radio button.
2. In the next dialog box, select template file you want to use. The formatting from the template file is applied to the current item.

Note: For details on creating TitleMotion templates see Create a Template (on page 136).

Add Audio

You can add audio to existing items or you can add audio directly to a page. When you add audio to a page, the audio plays independent of the other content in the page. You can import an audio WAV, MP3, or WM2 file.

Add Audio Items to Page

Adding audio to a page using a media region allows you to play an audio file independent of all other page items. See the audio quick editors in Media Regions (on page 84) for more information.

Apply Audio Options

You can apply audio to an independent audio item, or to any item in the page.

- To apply audio to an independent audio item within a media region, double-click on the media region and open the Audio Quick Editor from the Items window.
- To apply audio to a region item, double-click on the region in the Regions window, select the region item in the Items window, select a Content Editor, and click the Edit button. In the Content Editor, switch to the Audio tab.

Audio Tab Options

Option	Description
Enable Audio checkbox	Enables the audio options.
Browse	Launches the Open dialog where you can choose an audio file.
Shared Media	Enables the shared media option to put the audio file in a central location for shared referencing. See Store Shared Media (on page 163) for more information.
Level	Adjusts the volume for the audio. Audio levels range from zero to 100. Zero mutes the audio completely. One is the lowest audible level and 100 is the highest.
Delay	Delays the audio playback from the start of the region item by the set time, measured in hours:minutes:seconds.
Play Once	Sets the audio file to play once and then stop.
Loop	Sets the audio file to continue playing. The audio plays when the region item plays in the sequence. The audio continues playing until another item with audio is played by the region.
Preview button	Previews the audio file so you can hear the audio before sending it to air.

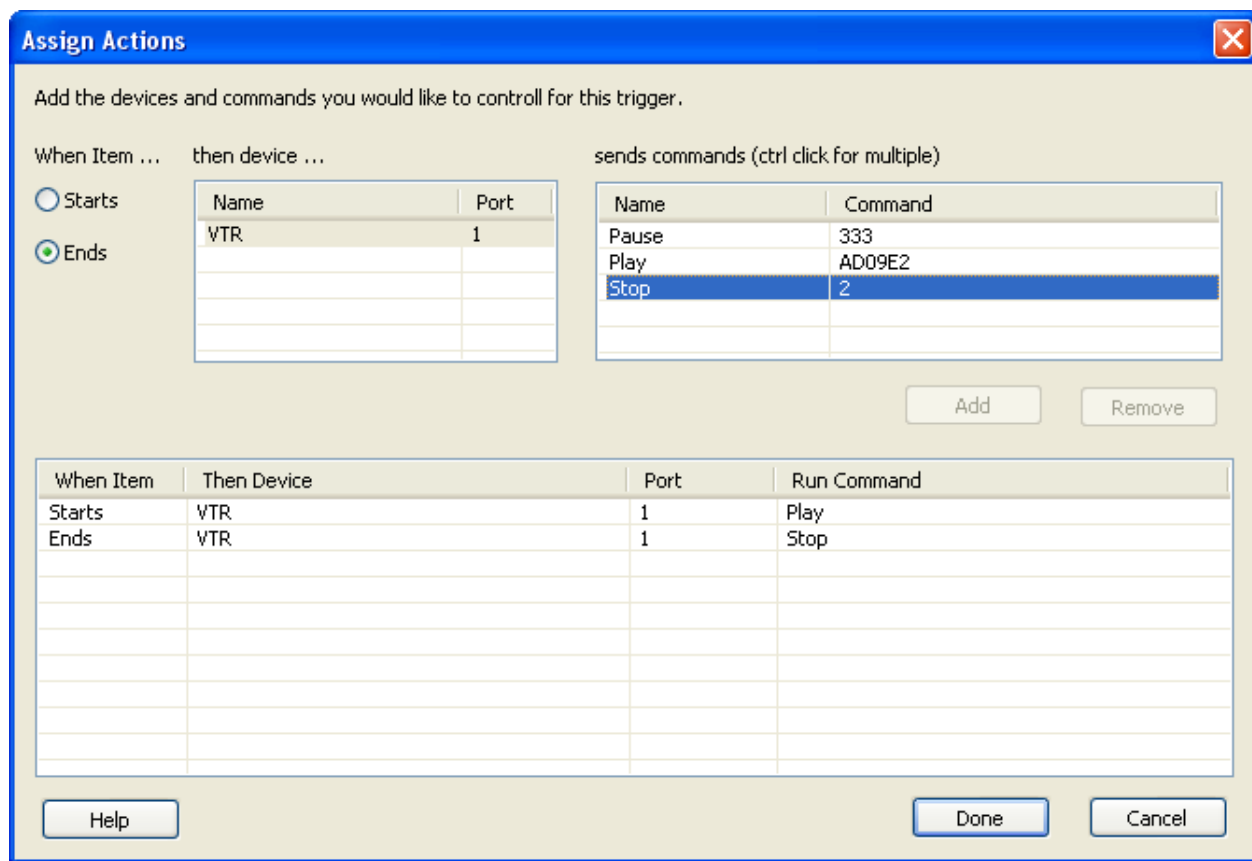
Enable Audio Ducking checkbox	Sets the audio to trigger a reduction in the audio level of other items that are currently playing. The trigger occurs when the item is played. You can set the audio ducking level on the General tab in the Configuration Utility (Edit > Preferences > General).

If your region supports an associated audio source, the settings in the Audio tab also control the playback of the associated audio.

Control Serial Devices

Most Content Editors allow you to control serial devices attached to the computer's COM ports. Once you have configured the devices in the InfoCaster Configuration Utility, use the Device Control tab to send commands to the devices.

You can also create rules that send commands to serial devices. See Send Command to Device (on page 196) for more information.



Assign Actions

Add the devices and commands you would like to control for this trigger.

When Item ... then device ... sends commands (ctrl click for multiple)

☐ Starts
☒ Ends

Name	Port
VTR	1

Name	Command
Pause	333
Play	AD09E2
Stop	2

Add Remove

When Item	Then Device	Port	Run Command
Starts	VTR	1	Play
Ends	VTR	1	Stop

Help Done Cancel

Configure Serial Devices

You must configure devices in the InfoCaster Configuration Utility before you can control them with the Content Editor or add them to Conditional Playback rules.

To configure serial devices, launch the Configuration Utility within by choosing Edit > Preferences within InfoCaster, then switch to the Device Configuration tab. See Device Configuration Tab (on page 230) to learn how to add device types, define device commands, and add devices to the configuration list.

Control Serial Devices with Items

The Device Control tab in the Content Editor allows you to send commands to configured serial devices.

When Item	Device	Run Command
Starts	VTR	Play
Ends	VTR	Stop

Assign Parameters

1. Open the Content Editor for the item that will control the serial devices.
2. Switch to the Device Control tab.
3. Check the Use Device Control checkbox. The Device Control Parameters list shows all of the device controls that have been added to the item. Each device control contains a command that will be sent to a device when the item is either started or stopped.
4. To add new device controls to the item, click the Assign Parameters button. The Assign Actions dialog opens.
5. Create new device controls by selecting options in the dialog.
 - a. Select the Starts radio button to send the command when the item starts to play. To send the command when the item finishes playing, select the Ends radio button instead.
 - b. Select the device and the port you want to send the command to in the Then Device list. The list displays all the devices configured on your system and the COM ports they are connected to.
 - c. Select the command you want to send to the device in the Sends Commands list. The list displays all the commands configured for the device. Select multiple commands by holding the CTRL key while clicking.
6. Click the Add button to add the command to the Device Commands list.
7. Delete a command by selecting it in the Device Commands list and clicking the Remove button.
8. Click the Done button when you are finished adding commands.

The commands are sent to the devices when the InfoCast is played. When the item begins to play, all of the Starts commands are sent. When the item finishes playing, all of the Ends commands are sent.

Disable Commands

To stop the item from sending commands:

1. Edit the item.
2. Switch to the Device Control tab.
3. Uncheck the Use Device Control checkbox.

Schedule Playback

Pages and items do not need to be played in the order that they were created. Use sequencers to choose when your pages and items are played and how they transition during playback.

- Schedule page playback sequences with the Pages sequencer. You can set the page start time, transition, duration and days of the week for page playback. For instructions on setting page playback, see [Schedule InfoCast Pages](#) (on page 178).
- Schedule region playback sequences with the Items sequencer. You can set the region start time, transition, duration, looping, and days of the week for region item playback. For instructions on setting region playback, see [Schedule Region Items](#) (on page 183).
- For more flexible sequencing, create "rules" to trigger events using the Conditional Playback dialog. For instructions on using triggers for playback see [Conditional Playback](#) (on page 189).

Synchronized Player Playback

There are situations when InfoCasts on different players must be perfectly in sync, especially when the players are part of a display wall or when they need to receive triggers at time from InfoCaster Manager systems. The synchronized player playback feature uses player network cards to synchronize the clocks of selected players.

Note: All synchronized players must be on the same subnetwork.

Enable Synchronization

To synchronize players, each player must enable synchronized player playback and choose the card that will be used to enforce the sync.

1. Within InfoCaster, choose Edit > Preferences. The InfoCaster Configuration Utility opens.
2. Switch to the Clock Sync and Display Wall tab.
3. Configure the synchronization of your player using the controls in the tab. See [Clock Sync and Display Wall](#) (on page 227) for full instructions.
4. Repeat these steps for the rest of the players you want to synchronize together.

Design for Synchronized Playback

When you create a new InfoCast you can choose to design it specifically for synchronized playback. This disables the InfoCaster features that cannot be used while synchronized playback is enabled.

1. Within InfoCaster, choose File > New. The New InfoCast dialog opens.



2. Enter a name for your InfoCast in the field.
3. Select the Synchronized Playback radio button.
4. Click OK. The Pages window appears, allowing you to create your new InfoCast. All InfoCaster features that cannot be used with synchronized playback are disabled.

Synchronization Limitations

The following InfoCaster features will not display correctly when synchronized player playback is turned on.

- Transitions are limited to snap and dissolve.
- The Play from Folder feature cannot be used in the Graphic Importer, Animation Importer, Audio Quick Editor, or Video Quick Editor.
- Sequences cannot be set to reoccur.
- DVE regions cannot be resized.
- Dynamic Web Quick Editor content cannot be displayed.
- Video clips and live videos cannot be set to display at full screen.
- All video clip media must be able to be trimmed and must be seekable.
- Ensure that indexing is enabled when generating WMV content.
- RTX regions cannot be displayed.
- The Play from First Item and Play from First Page options cannot be used.
- WMV files will not sync in Standard mode on the Windows 7 operating system.

These features are automatically disabled when you are designing an InfoCast for a display wall or for synchronized playback.

Use a Touchscreen

InfoCaster supports touchscreen capabilities for applicable touchscreen monitors. After you have set up a touchscreen on your InfoCaster system, individual regions in your InfoCast can be set to trigger conditional playback rules when they are touched.

In addition, Dynamic Web items can detect and respond to touches within the regions themselves. See Dynamic Web Quick Editor (on page 107) for more information.

Enable Touchscreen Detection

Follow these steps to enable touchscreen detection on your system.

1. Connect the touchscreen monitor to your system.
2. Ensure that the correct drivers for your monitor are installed.
3. Ensure that the monitor is connected to the first head of your system. InfoCaster will only detect touchscreen events from the monitor attached to the first head.
4. Launch the Configuration Utility either within InfoCaster or from the Windows Start Menu.
 - Within InfoCaster choose Edit > Preferences.
 - From the Windows Start Menu choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.
5. Switch to the Video/Audio Standard tab.

You must be using either Standard mode or Legacy Mode (Fullscreen) for touchscreen support. Dynamic Web items can only be used in Standard mode.
6. Set InfoCaster to output to the head that is attached to the touchscreen monitor.

For more details about configuring output with the InfoCaster Configuration Utility, see [Configure InfoCaster Video Output](#) (on page 262).

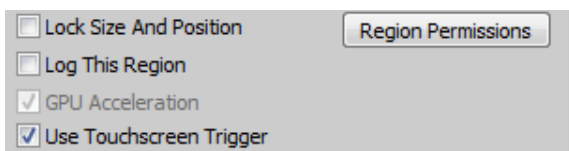


7. Within the Video/Audio Standard tab, check the Supports Touchscreen checkbox to enable touchscreen support.
8. Close the InfoCaster Configuration Utility.

Set Regions to Detect Touches

Follow these steps to set your InfoCast regions to detect a touch.

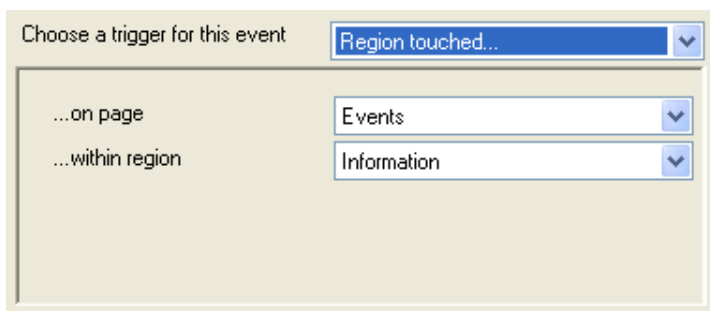
1. Within InfoCaster, open an InfoCast.
2. If your InfoCast consists of multiple pages, select the page you want to edit.
3. Switch to the Regions Window to edit the regions on that page.
4. Select the region you want to enable for touch detection.
5. Within the Region panel, check the Use Touchscreen Trigger checkbox. The selected region is set to detect touches and fire a Region Touched trigger when a touch occurs, as described below.



Create Region Touched Rules

Use the Region Touched option within the Conditional Playback window to define what happens when a Region Touched trigger occurs.

1. Within InfoCaster, select Tools > Conditional Playback to open the Conditional Playback dialog.
2. Click the Add New Rule button. The Event Setup dialog opens, allowing you to define a trigger and an action for the rule.
3. From the Trigger drop-down list, select the Region Touched trigger.
4. Use the Trigger drop-down list to select the region that will be used as a trigger. Only regions that have been enabled for touch detection will appear in the list.



Choose a trigger for this event

Region touched...

...on page Events

...within region Information

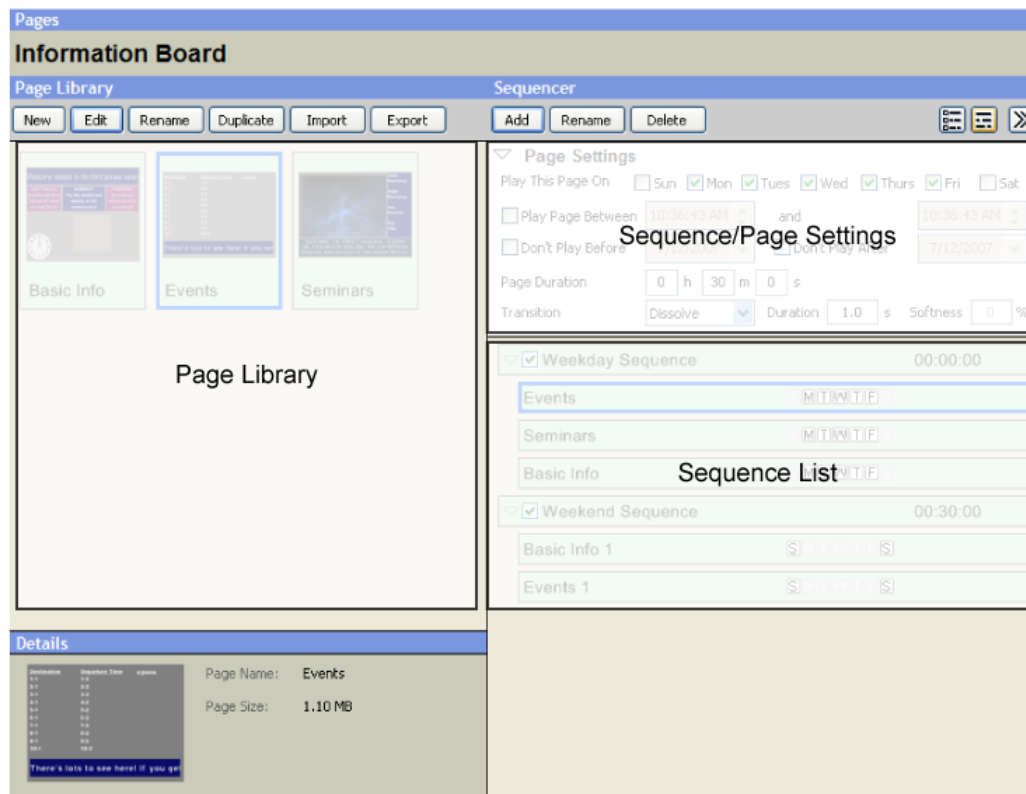
5. Use the Action drop-down list to select the event that occurs when the Region Touched trigger is fired. For example, you can choose to play a different page in the InfoCast when the appropriate region is touched.
6. Click Save to save your rule. You can create additional rules to respond to different regions being touched, or to add additional actions to a region.

For more information about creating Conditional Playback rules, see Conditional Playback (on page 189).

Schedule InfoCast Pages

Schedule the pages in an InfoCast using the options in the page sequencer. You can set up multiple sequences, each containing multiple pages with individual playback conditions.

Use the Pages Window to schedule InfoCast pages. Drag pages from the Page Library into the sequence list. Select sequences and pages in the sequence list and edit their properties in the Sequence/Page Settings panel.



A sequence containing the first page of the InfoCast is automatically added to the sequence list by default. New pages that you create or import are not automatically added to the page sequence list.

Change Page Sequence Display

Use the buttons above the Sequencer/Page Settings panel to change the way page sequences display.

Page Sequence Display Buttons

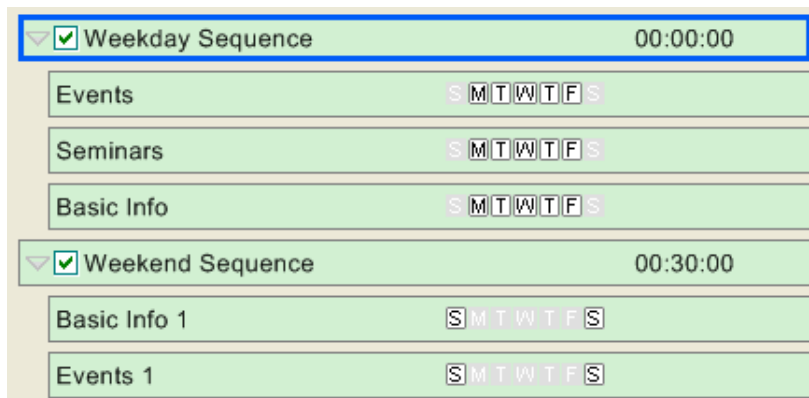
Button	Description

Button	Description
	Switch to Sequencer View. By removing the Page Library pane from the display and expanding the Sequence list to maximum width, this view is ideal for rearranging page sequences that have already been created. To exit this view, click either the Small Thumbnails or Text Only button. Note: The Sequencer View will not display correctly at screen resolutions 1024x768 or below. We recommend higher screen resolutions when operating InfoCaster.
	Switch to Small Thumbnails view, which displays sequence pages as both text and thumbnails.
	Switch to Text Only view, which displays sequence pages as text only.
	Toggle between Brief and Extended view. Brief view shrinks the Sequence list and removes the Sequencer/Page Settings pane, providing more room for the Page Library. This is ideal when you are creating sequences from a large number of pages.

Add a New Page Sequence

Each InfoCast can contain one or more page sequences. A page sequence specifies the order that the pages in an InfoCast are played, as well as the durations and transitions for each page.

By creating multiple page sequences you can play different pages in an InfoCast on different days.



To add a new page sequence to an InfoCast, click the Add button in the sequencer toolbar.

Pages that are in a sequence are colored green in the Page Library. Pages that are not in a sequence are colored blue.

Manage Sequence Pages

Add pages to the sequence by dragging the page from the Page Library to the sequence heading. You can add the same page to a sequence more than once.

Change Order of Pages in the Sequence

To change the playback order of pages, drag the page up or down in the sequence list.

Delete Pages from the Sequence

To remove a page from the sequence, use one of these methods:

- Drag the page from the sequence back to the Page Library.
- Right-click on the page in the sequence and select Remove Page from the menu.
- Select the page, then select Pages > Delete Page from Sequence.

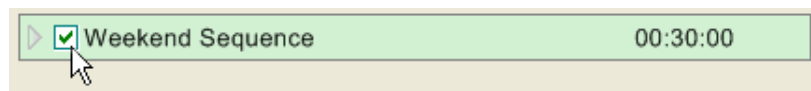
The page remains available in the Page Library so you can add it to a sequence at a later time.

Manage Sequences

Skip or Play Sequence During Playback

By default the checkboxes on the page sequence headings are checked so that they play during output.

To skip a sequence during playback, clear the page sequence heading checkbox.



Rename Sequence

To give a sequence a new name, select the sequence heading in the sequence list, then click on the Rename button above the Sequence/Page Settings panel. Name the sequence as prompted.

Delete a Sequence

To remove a sequence from the sequence list, select the sequence heading and click the Delete button above the Sequencer panel. InfoCaster deletes the sequence heading and removes the pages from the sequence list.

The pages remain available in the Page Library.

Adjust Sequence Settings

When you schedule a page sequence you can set the sequence start time and the transition between pages. Sequence Settings are applied to every page in a sequence.

Click on a sequence heading in the sequence list to select it. The Sequence Settings panel becomes available.

Set Sequence Start Time

To set the start time for the selected sequence, enter a time in the Start Sequence At field. When you start playback, the page sequence that is set for output at the current time plays.

Set Default Transition

You can apply a transition for page switches in the sequence. Select a transition from the Default Transition drop-down list, and set how long the transition should take (in seconds) in the Duration field.

If you have selected a Wipe transition and are using Progressive VGA for output with GPU Acceleration enabled, enter a number in the Softness field to set how soft the edges of the transition appear. Increase the number to increase the softness.

Adjust Page Settings

Use page settings to set the playback of individual pages within a sequence. You can set the transition for the page, set the page to play on specific days of the week, set the page to not play before or after a specific date, and set the page to play for a specific length of time.

Click on a page in the sequence to select it. The Sequence Settings panel changes to the Page Settings panel.

Set Days of the Week for Playback

Check the checkbox beside the days of the week that you want the page to play, and clear the checkboxes beside the days of the week during which you do not want the page to play.

You can also click on the buttons that appear beside the page in the sequence list to quickly set which days the page will play.

Set Timeline for Page Playback

To allow the page to play only between certain times, check the Play Page Between checkbox and use the fields to define a time range.

If you don't want the page to play before a certain date, check the Don't Play Before checkbox and enter a date in the field. If you don't want the page to play after a certain date, check the Don't Play After checkbox and enter a date in the field.

Set Page Duration

You can set how long pages play before the next page in the sequence is displayed. Enter how long the page should play in the Page Duration field, in hours, minutes, and seconds.

Set Page Transition

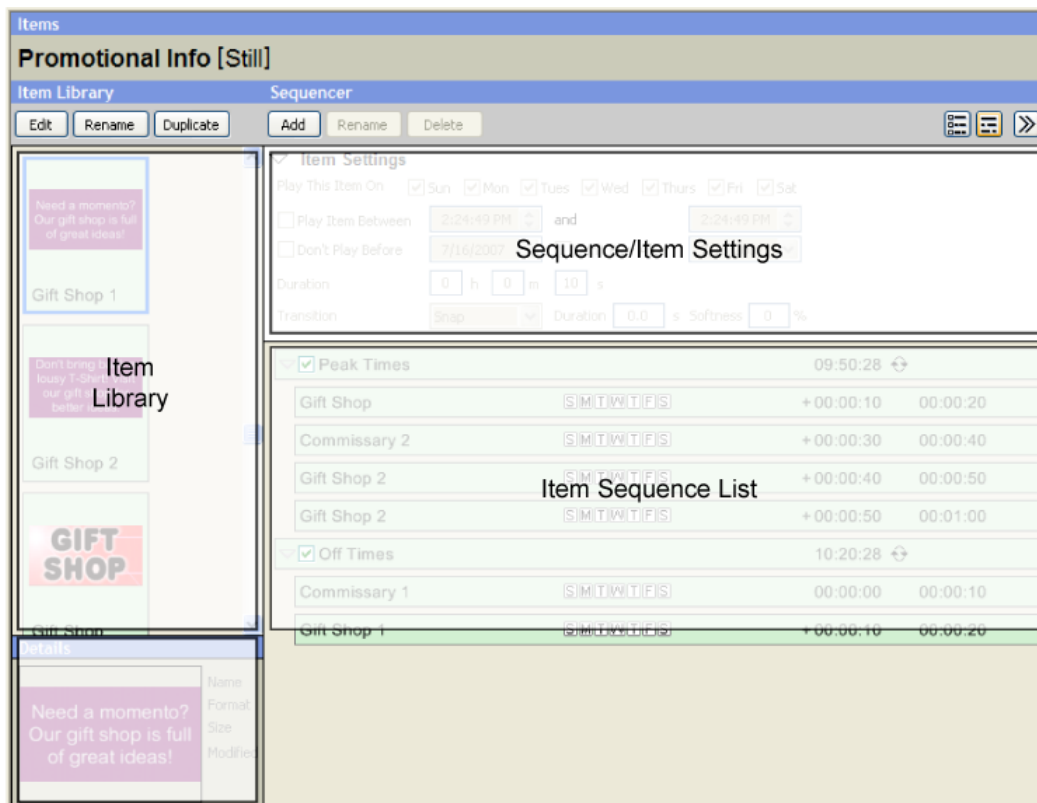
Each sequence has a default transition, as described in Set Default Transition (on page 181). You can override the default transition for specific pages.

1. Select a page in the sequence list.
2. Select a transition from the Transition drop-down list.
3. Set how long the transition should take (in seconds) in the Duration field.
4. If you have selected a Wipe transition and are using Progressive VGA for output with GPU Acceleration enabled, enter a number in the Softness field to set how hard or soft the edges of the transition appear. Increase the number to increase the softness.

Schedule Region Items

Schedule the playback of the items in each region using the options in the item sequencer. You can set up multiple sequences, with one or more region items for playback.

Use the Items Window to schedule the items in the selected region. Drag items from the Items Library into the sequence list. Select sequences and items in the sequence list and edit their properties in the Sequence/Item Settings pane



If you selected the Auto Add To Sequence checkbox in the region Content Editor, all your region items are added to the sequence automatically. See Automatically Add Items to the Sequence (on page 59) for details on this option.

Change Item Sequence Display

Use the buttons above the Sequencer/Item Settings panel to change the way Item sequences display.

Item Sequence Display Buttons

Button	Description

Button	Description
	Switch to Sequencer View. By removing the Item Library pane from the display and expanding the Sequence list to maximum width, this view is ideal for rearranging item sequences that have already been created. To exit this view, click either the Small Thumbnails or Text Only button. Note: The Sequencer View will not display correctly at screen resolutions 1024x768 or below. We recommend higher screen resolutions when operating InfoCaster.
	Switch to Small Thumbnails view, which displays sequence items as both text and thumbnails.
	Switch to Text Only view, which displays sequence items as text only.
	Toggle between Brief and Extended view. Brief view shrinks the Sequence list and removes the Sequencer/Item Settings pane, providing more room for the Item Library. This is ideal when you are creating sequences from a large number of items.

Add a New Item Sequence

Each region in your InfoCast can contain one or more item sequences. An item sequence specifies the order that the items in a region are played, as well as the durations and transitions for each item.

By creating multiple item sequences you can play and loop certain items during one part of the day, then play other items in the same region at other times or on different days.

 ☒ Peak Times	09:00:00 
Gift Shop	SMTWTFS 00:00:00 00:01:00
Commissary 2	SMTWTFS +00:01:00 00:02:00
Gift Shop 2	SMTWTFS +00:02:00 00:03:00
Gift Shop 2	SMTWTFS +00:03:00 00:04:00
 ☒ Off Times	17:00:00 
Commissary 1	SMTWTFS 00:00:00 00:02:00
Gift Shop 1	SMTWTFS +00:02:00 00:04:00

To add a new item sequence to a region, click the Add button in the sequencer toolbar. Enter a name and start time for the new sequence.

Manage Sequence Items

Add items to a sequence by dragging the item from the Item Library to the sequence heading. You can add the same item to a sequence more than once.

Items that are in the sequence are colored green in the Item Library. Items that are not in the sequence are colored blue.

Auto Add to Sequence

If you checked the Auto Add to Sequence checkbox in the Content Editor when you created your item, the item is automatically added to the sequence list. See Automatically Add Items to the Sequence (on page 59) for details.

Change Order of Items in the Sequence

To change the playback order of items, drag the item up or down in the sequence list.

Delete Items from the Sequence

To remove an item from the sequence, use one of these methods.

- Drag the item from the sequence list back to the Item Library.
- Right-click on the item in the sequence list, then select Remove Item from the menu.
- Select Items > Delete Item in Sequencer.

The item remains available in the Item Library so you can add it to a sequence at a later time.

Add Blank Item to Sequence

To make the region transparent during playback for a period of time, add a blank item to the sequence.

1. If you don't already have a blank item in the region's Item Library, select Items > Add Item > Blank Item. A new blank item is added to the Item Library.
2. Drag the blank item into your sequence and set its item settings. The region will be transparent as long as the blank item plays.

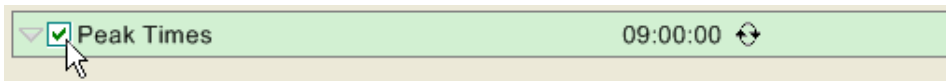
See Blank Items (on page 60) for more information.

Manage Sequences

Skip or Play Sequence During Playback

By default the checkboxes on the item sequence headings are checked so that they play during output.

To skip a sequence during playback, clear the item sequence heading checkbox.



Rename Sequence

To give a sequence a descriptive name, select the sequence heading in the sequence lists, then click on the Rename button above the Sequence/Item Settings panel. Name the sequence as prompted.

Delete a Sequence

To remove a sequence from the sequence list, select the sequence heading and click the Delete button above the Sequencer panel. InfoCaster deletes the sequence heading and removes the region items from the sequence list.

The region items remain available in the Item Library.

Adjust Sequence Settings

When you schedule an item sequence you can set the sequence start time, the playback duration of certain region items, the transition between items, and looping options. Sequence Settings are applied to every item in a sequence.

Click on a sequence heading in the sequence list to select it. The Sequence Settings panel becomes available.

Set Sequence Start Time

To set the start time for the selected sequence, enter a time in the Start Sequence At field. When you start playback, the region sequence that is set for output at the current time plays.

Set Sequence to Reoccur

If you want the selected item sequence to reoccur at specific intervals, check the Reoccurring checkbox and choose the number of hours and minutes between each occurrence.

The reoccurring interval is applied from the start of each sequence playback. For instance, if you set a sequence to reoccur every hour and the sequence starts playing at 2pm, it will reoccur at 3pm and every hour afterward, preempting any other sequence which is scheduled for that time.

Reoccurring item sequences continue to reoccur each day, between their start time and midnight, until you play a different page or InfoCast. Items within the reoccurring sequence will only play on the days of the week for which they are assigned. See Adjust Item Settings (on page 188) to learn how to assign sequence items to certain days.

Set Roll and Crawl Speed

Use the Speed slider to set the speed at which a region's rolls and crawls move across the screen. Drag the speed slider right to increase the speed, and drag the speed slider left to decrease the speed.

Set Roll and Crawl Direction

You can set the direction that rolls and crawls move across the screen. Use the Direction radio buttons to set the direction the roll or crawl.

To change the default direction for all rolls and crawls, change the setting in the Configuration Utility (see Presentation Settings (on page 238)).

Set Default Item Duration

You can set how long non-moving items (such as stills) play in the region until the next item plays. Enter a duration in the Default Duration field in hours, minutes and seconds.

Set Default Item Transition

You can apply a default transition for when items switch within a sequence. Select a transition from the Default Transition drop-down list, and set how long the transition should take (in seconds).

If you have selected a Wipe transition and are using Progressive VGA for output with GPU Acceleration enabled, enter a number in the Softness field to set how hard or soft the edges of the transition appear. Increase the number to increase the softness.

Loop Sequences

You can set a sequence to play through once or to continue playback until another sequence is scheduled to play. Check the Loop Sequence checkbox to set the sequence to loop when the sequence finishes, and to continue looping until the next sequence is set to play.

Clear the Loop Sequence checkbox to set the sequence to play through once and then stop.

Set Items to Finish Playback Before Next Sequence Begins

You can set InfoCaster to finish playing the current sequence before starting the next sequence, or to play sequences when they are scheduled no matter what is currently playing.

Check the End Item Before Changing Sequences checkbox to set InfoCaster to let the current item finish playback before the next sequence begins. For example, if you are playing a 5 minute video clip at 9:57 and the next sequence is scheduled to begin at 10:00, the video clip will play for the full five minutes and the 10:00 sequence will begin at 10:02.

Clear the checkbox if you want the next sequence to start at the correct time no matter what is currently playing in the region.

Adjust Item Settings

Use item settings to set the playback of individual region items within a sequence. You can set the item to play on specific days of the week, set the item to not play before or after a specific date, set the item to play for a specific length of time, and set the transition for the item.

Click on an item in the sequence to select it. The Sequence Settings panel switches to the Item Settings panel.

Set Days of the Week for Playback

Check the checkbox beside the days of the week that you want the item to play, and clear the checkboxes beside the days of the week that you do not want the item to play.

You can also click on the buttons that appear beside the item in the sequence list to set which days the item plays.

Set Timeline for Item Playback

To allow the item to play only between certain times, check the Play Item Between checkbox and use the fields to define a time range.

If you don't want the item to play before a certain date, check the Don't Play Before checkbox and enter a date in the field. If you don't want the item to play after a certain date, check the Don't Play After checkbox and enter a date in the field.

Set Item Duration

You can set how long non-moving items (such as stills) play before the next item in the sequence is displayed. Enter how long the item should play in the Duration field, in hours, minutes and seconds.

Set Item Transition

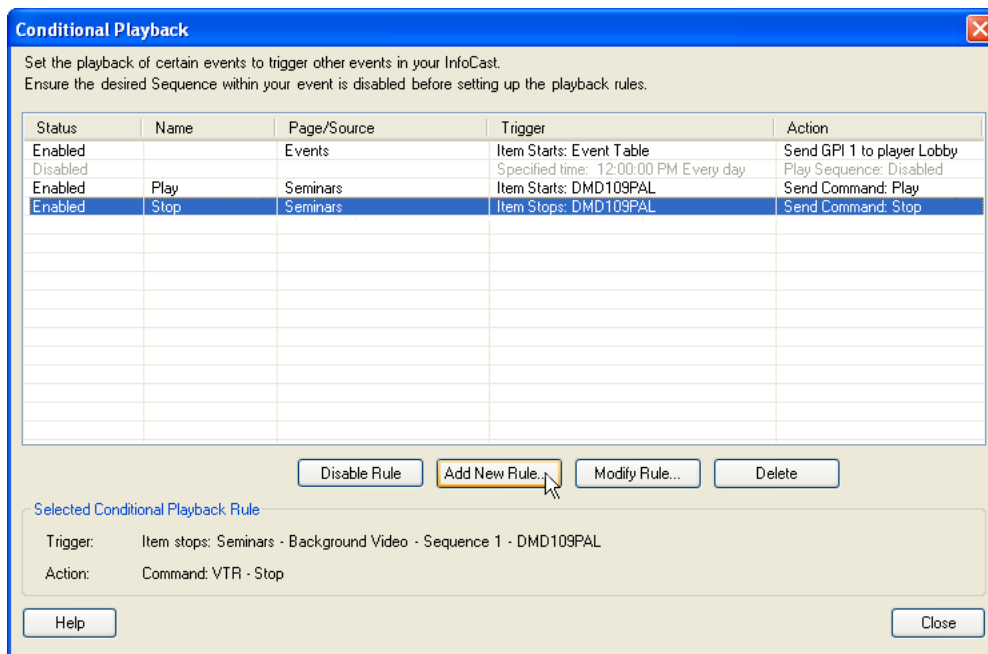
Each sequence has a default transition, as described in Set Default Item Transition (on page 187). You can override the default transition for specific items.

1. Select an item in the sequence list.
2. Select a transition from the Transition drop-down list.
3. Set how long the transition should take (in seconds) in the Duration field.

If you have selected a Wipe transition and are using Progressive VGA for output with GPU Acceleration enabled, enter a number in the Softness field to set how hard or soft the edges of the transition appear. Increase the number to increase the softness.

Conditional Playback

The Conditional Playback dialog allows you to create and manage rules for the current InfoCast. Rules set certain events to trigger other events within InfoCaster.



Disable Sequence, Page, or Item

Rules can only trigger sequences, pages, or events that have been disabled. In the sequence list, disable the sequence, page, or item that you want to use as the resulting action of the trigger.

1. Switch to the Pages or Items window.
2. Clear the checkbox in the page or region sequence heading. See Skip or Play Sequence During Playback (on page 185) for details.

You may need to put an item in its own sequence, then disable the sequence.

Open Conditional Playback Dialog

Open the Conditional Playback dialog by selecting Tools > Conditional Playback or by clicking on the Conditional Playback button on the main toolbar, located next to the Stop button.



The Conditional Playback dialog opens, displaying a list of the existing Conditional Playback Rules. The list shows you the name of the rule, the page or source of the rule, the trigger for the rule, and the event triggered by the rule. You can also see whether or not the rule is enabled.

- When you select a rule in the Conditional Playback Rules list the details of the rule display at the bottom of the dialog.
- Sort the rules by clicking on a column header. Click the column header again to sort the rules in reverse order.

When you have finished managing rules, click the Close button to close the Conditional Playback dialog.

Add New Rule

Click the Add New Rule button to create a new rule. The Event Setup dialog opens, allowing you to specify the triggers and actions for the rule. See Create Rules (on page 191).

Manage Rules

Modify a Rule

To modify a rule, select it in the Conditional Playback Rules list and click the Modify Rule button. The Event Setup dialog opens, allowing you to modify and save your rule. See Create Rules (on page 191).

Skip a Rule

To set a rule to be skipped during playback, select the rule in the Conditional Playback Rules list and click the Disable Rule button.

To enable a rule that has been disabled, select it in the Conditional Playback Rules list and click the Enable Rule button.

Delete a Rule

Delete a rule by selecting it in the Conditional Playback Rules list and clicking the Delete button.

Create Rules

Use the Event Setup dialog to add new rules or to modify existing rules. Each rule consists of a trigger which fires an action.

When you select a trigger or an action, a panel allows you to set the exact details of the event. The triggers and actions available in the Event Setup dialog depend on the regions in the current InfoCast and the way the system is configured.

Set Rule Name

In the Event Name field at the top of the window, enter a name for the rule you are creating.

Set Rule Trigger

From the Trigger drop-down list in the Event Setup dialog, select the event which will fire the rule's action.

Item Starts

The screenshot shows a configuration panel for the 'Item Starts' trigger. At the top, a label 'Choose a trigger for this event' is followed by a dropdown menu currently showing 'Item Starts...'. Below this, there are four rows of configuration options, each with a label on the left and a dropdown menu on the right:

...on page	Events
...within region	Ads & Info
...with sequence	Main Sequence
...on the following item	Recycling Guide

Fires the rule's action when an item in your InfoCast starts playing. Select the page, region, sequence, and item from the drop-down lists.

When the item is aired, the item plays once, then scheduled playback resumes. If you want the item to loop during playback, place the item in its own sequence, then select the Loop option in the Items Sequence Settings panel. See Loop Sequences (on page 187).

Item Stops

Choose a trigger for this event	Item Stops...
...on page	Basic Info
...within region	Travel Info
...with sequence	Sequence 1
...on the following item	Still1

Fires the rule's action when an item in your InfoCast stops playing. Select the page, region, sequence, and item from the drop-down list.

When the item is aired, the item plays once, then scheduled playback resumes. If you want the item to loop during playback, place the item in its own sequence, then select the Loop option in the Items Sequence Settings panel. See Loop Sequences (on page 187).

Sequence Starts

Choose a trigger for this event	Sequence Starts...
...on page	Seminars
...within region	Speaker List
...with sequence	Sequence 1

Fires the rule's action when a sequence starts playing. Select the page that contains the sequence, the region that contains the sequence, and the sequence that is used as the trigger.

Depending on the settings in the Sequence Settings panel the sequence either plays once or loops, then scheduled playback resumes.

GPI Initiated

Choose a trigger for this event	GPI initiated...
...on GPI number	1

Sets a GPI trigger to fire the rule's action. You can use any external trigger that is configured for your system. See External Triggers Tab (on page 234) to learn how to attach and configure GPI triggers.

Select the GPI number from the list of all GPIs connected to your system.

You can use software and USB GPIs to trigger playback in other InfoCasts. See Use Triggers to Play Other InfoCasts (on page 198) for more information.

Reaching Specified Time

The screenshot shows a configuration window titled 'Choose a trigger for this event'. The first dropdown menu is set to 'Reaching specified time...'. Below this, there are two options: '...on the date' with a date picker set to '10/ 1/2007', and '...at this time' with a time picker set to '12:00:00 PM'. A checkbox labeled 'Every day occurrence.' is checked.

Sets the rule's action to be triggered at a particular date and time.

If you want the event to occur every day at a specific time, check the Every Day Occurrence checkbox. Otherwise, clear the checkbox and select the date from the Date drop-down list.

Select the event time from the Time drop-down list.

Data Source Changes

The screenshot shows a configuration window titled 'Choose a trigger for this event'. The first dropdown menu is set to 'Data Source Changes...'. Below this, there are fields for 'Source: Airport Database' and 'Table: Departures'. A 'Setup' button is next to the 'Source' field. Below these fields, there is a section labeled 'Trigger Condition' with the text 'If the number of records is...'. A dropdown menu is set to 'Greater than or equal to', followed by a text input field containing '25', and the word 'then...'.

Fires the rule's action when the number of records in a data source meet a certain condition. The data source is examined whenever the source's information changes.

Click the Setup button to specify the data source using the Data Source Wizard (see External Data Sources (on page 76)).

Select a trigger condition from the Trigger Condition drop-down list and enter an appropriate number in the field beside it. The rule's action is fired when the number of records in the data source satisfies this condition.

Region Touched

Choose a trigger for this event

Region touched...

...on page Events

...within region Information

The rule's action is fired when a region is touched on a plasma touchscreen. It is only available after you have enabled a region to detect a touch (see Use Touchscreen Trigger (on page 56)).

Use the Trigger drop-down lists to select the region that will be used as a trigger.

Set Rule Action

From the Action drop-down list, select an event to occur when the trigger fires.

Only pages, items, and sequences that are disabled in the sequence list are available in the Action list, as explained in Disable Sequence, Page, or Item (on page 189).

Item Playing

Action results in...

Item playing...

...on page Basic Info

...within region Promotional Info

...with sequence Disabled

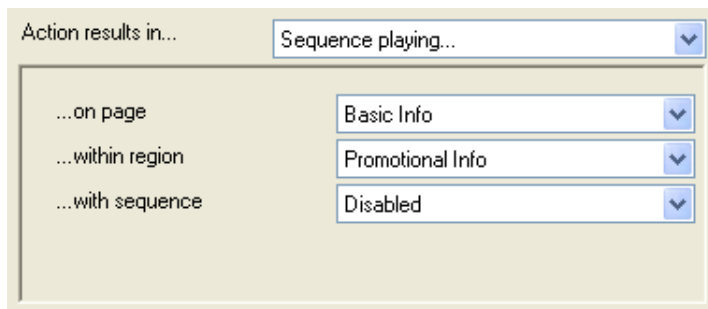
...on the following item Commissary 1 1

Sets an item to play when the trigger fires.

Only items that are disabled in the sequence list are available in the Action list, as explained in Disable Sequence, Page, or Item (on page 189).

Select the page, region, sequence, and item from the list.

Sequence Playing



Action results in... Sequence playing...

...on page Basic Info

...within region Promotional Info

...with sequence Disabled

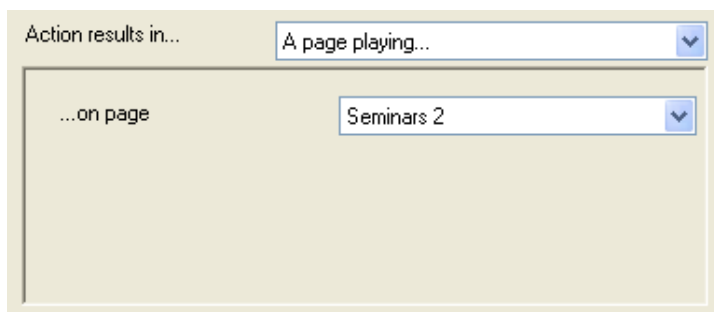
Sets a sequence to play when the trigger fires.

Only sequences that are disabled in the sequence list are available in the Action list, as explained in [Disable Sequence, Page, or Item](#) (on page 189).

Select the page, region, and sequence from the list.

Note: If you trigger a reoccurring sequence with a conditional playback rule, the sequence will only play once and will not reoccur. Reoccurring sequences only reoccur when they are scheduled within a page's sequence list.

A Page Playing



Action results in... A page playing...

...on page Seminars 2

Sets all the regions in a page to play when the trigger fires.

Only pages that are disabled in the sequence list are available in the Action list, as explained in [Disable Sequence, Page, or Item](#) (on page 189).

Select the page from the list.

Send Command to Device



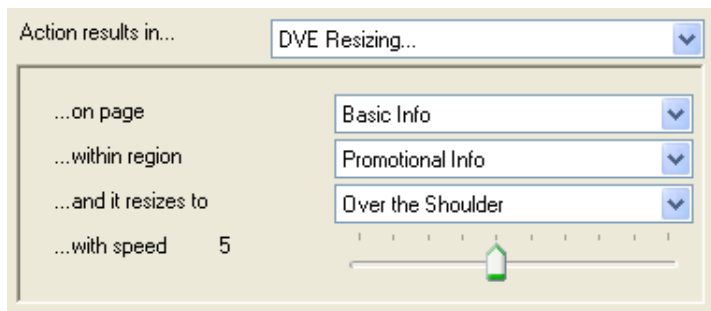
The screenshot shows a configuration window titled 'Send Command to Device'. At the top, there is a dropdown menu labeled 'Action results in...' with the text 'Send command to device...' and a downward arrow. Below this, there are two rows of configuration options. The first row is labeled '...device name' and has a dropdown menu with 'VTR (COM1)' selected. The second row is labeled '...send command' and has a dropdown menu with 'Play' selected.

Sends a command to a device when the trigger fires.

Choose the device and the command from the drop-down lists.

You must configure your devices and commands before they appear in the lists. See Device Configuration Tab (on page 230) to learn how to configure devices.

DVE Resizing



The screenshot shows a configuration window titled 'DVE Resizing...'. At the top, there is a dropdown menu labeled 'Action results in...' with the text 'DVE Resizing...' and a downward arrow. Below this, there are four rows of configuration options. The first row is labeled '...on page' and has a dropdown menu with 'Basic Info' selected. The second row is labeled '...within region' and has a dropdown menu with 'Promotional Info' selected. The third row is labeled '...and it resizes to' and has a dropdown menu with 'Over the Shoulder' selected. The fourth row is labeled '...with speed' and has a value of '5' next to a slider control. The slider has a green handle and a scale from 1 to 10.

Sets a region to resize when the trigger fires.

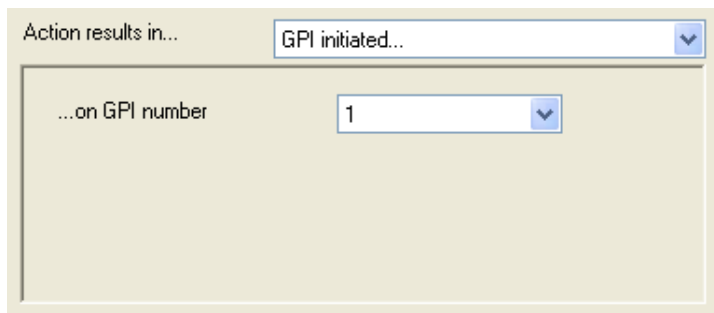
Select the page that the region is in and the region that will be resized. In the And It Resizes To field, select the DVE region that you want the region to be resized to.

Change the speed of the DVE event using the Speed slider.

To return the region of a DVE action to its original size, create another trigger event and select Its Original Size in the And It Resizes To field.

For details on DVE regions, see Draw a DVE Region (on page 52).

GPI Initiated



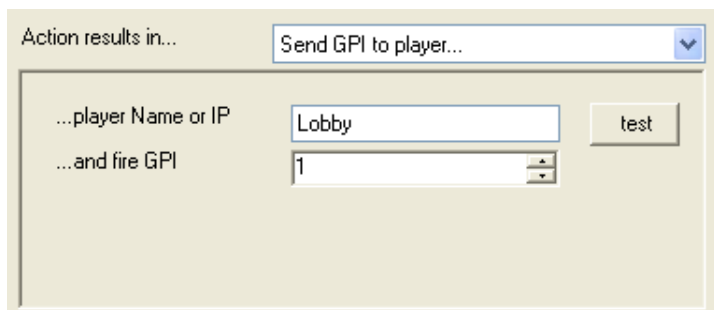
The screenshot shows a configuration window for the 'GPI Initiated...' action. At the top, a dropdown menu is set to 'GPI initiated...'. Below it, a label '...on GPI number' is followed by a dropdown menu showing the value '1'.

Fires a GPI when the trigger fires. Select the number of the GPO in the list.

In order to use a GPI Initiated action, you must first configure the external triggers on your system. See External Triggers Tab (on page 234) for information about setting up triggers.

You can use software and USB GPIs to trigger playback in other InfoCasts. See Use Triggers to Play Other InfoCasts (on page 198) for more information.

Send GPI to Player



The screenshot shows a configuration window for the 'Send GPI to player...' action. At the top, a dropdown menu is set to 'Send GPI to player...'. Below it, there are two input fields: '...player Name or IP' with the text 'Lobby' and '...and fire GPI' with the value '1'. To the right of these fields is a 'test' button.

If InfoCaster is part of a network, this action sends a software GPI trigger to another player on the network. The receiving player must have a software GPI set up with the appropriate number, and its InfoCast must have a GPI Initiated rule. See External Triggers Tab (on page 234) for information about setting up triggers.

Enter the player's computer name or IP address, and enter the software GPI you'd like to send. Click the Test button if you want to test the connection between the players.

Save Rule

Click Save in the Event Setup dialog box to save your rule. The rule displays in the Conditional Playback dialog box.

Use Triggers to Play Other InfoCasts

You can use software and USB GPI triggers to trigger playback in other InfoCasts.

Use Software GPI Triggers to Trigger Playback in another InfoCast

If you have a multi-head system, you can use software GPI triggers to set a rule in an InfoCast on one monitor to trigger a rule in an InfoCast on the second monitor.

For example, if you have InfoCast A set to play on the first output monitor and InfoCast B set to play on the second output monitor:

- In InfoCast A, set a still item to trigger GPI 2.
- Then in InfoCast B, set GPI trigger 2 to trigger a video item.

When InfoCast A reaches the still item on the first monitor, GPI trigger 2 will set the video item to play in InfoCast B on the second monitor.

Set Rule to Trigger Software GPI

1. Open the InfoCast that contains the trigger event.
2. Select Tools > Conditional Playback to open the Conditional Playback dialog.
3. In the Conditional Playback dialog, click Add New Rule to create a conditional playback rule.
4. In the Trigger section of the Event Setup dialog, select the trigger that will fire the rule's action.
5. In the Action section of the Event Setup dialog, select GPI Initiated.
6. Select a GPI number from the On GPI Number drop-down list.
7. Click Save to save the event.

Use Software GPI to Trigger Rule

1. Open the InfoCast that contains the event that will be triggered.
2. Select Tools > Conditional Playback to open the Conditional Playback dialog.
3. In the Conditional Playback dialog, click Add New Rule to create a conditional playback rule.
4. In the Trigger section of the Event Setup dialog, select GPI Initiated.
5. In the On GPI Number drop-down list, select the same GPI number from step 6 in the previous procedure.
6. In the Action section of the Event Setup dialog, select an event to occur when the trigger fires.
7. Click Save to save your rule.

Trigger Playback

When you output the InfoCasts, the trigger you chose for the first InfoCast will trigger the action you chose for the second InfoCast, using the software GPI.

Use USB GPI Triggers to Trigger Playback in another InfoCast

If you have two systems that are connected through the USB U2IO device, you can use USB GPI triggers to set a rule in an InfoCast on one system to trigger a rule in an InfoCast on the second system.

For example, if you have InfoCast A set to play on the first system and InfoCast B set to play on the second system:

- In InfoCast A, set a still item to trigger GPO 2.
- Then in InfoCast B, set GPI trigger 2 to trigger a video item.

When InfoCast A reaches the still item on the first system, the trigger will set the video item to play in InfoCast B on the second system.

Set Rule to Trigger USB GPO

1. Open the InfoCast that contains the trigger event.
2. Select Tools > Conditional Playback to open the Conditional Playback dialog.
3. In the Conditional Playback dialog, click Add New Rule to create a conditional playback rule.
4. In the Trigger section of the Event Setup dialog, select the trigger that will fire the rule's action.
5. In the Action Results In drop-down list, select GPI Initiated.
6. Select a GPI number from the On GPI Number drop-down list.
7. Click Save to save the rule.

Use USB GPI to Trigger Rule

1. On the second system, open the InfoCast that contains the event that will be triggered.
2. Select Tools > Conditional Playback to open the Conditional Playback dialog.
3. In the Conditional Playback dialog, click Add New Rule to create a conditional playback rule.
4. In the Trigger section of the Event Setup dialog, select GPI Initiated.
5. In the On GPI Number drop-down list, select the same GPI number from step 6 in the previous procedure.
6. In the Action section of the Event Setup dialog, select an event to occur when the trigger fires.
7. Click Save to save the rule.

Trigger Output

Click Play on each system to output the InfoCasts. The event on the first system will trigger the event on the second system using the USB GPI.

Output

You can play InfoCasts in two ways:

- Click on the Play button in the main toolbar. The InfoCast outputs, starting from the scheduled time, according to the times that are set in the page and region item sequence lists.
- Right-click on a blank space in the pages or items sequence list, then select Start Playback from the First Page. The first page and item in the first sequence list is played.

The following sections describe how to play, monitor, and log InfoCasts.

Playback

InfoCaster plays the InfoCast on the output monitor. The region item that is set for output plays for the set duration, then the next item in the sequence plays, and so on. InfoCaster loops through each sequence of pages and items until it reaches the start time of the next sequence in the list. Only one item in each region of a page is played at any time.

You cannot adjust regions in the Regions window or change the crawl or roll speed while an InfoCast is playing, but you can add, delete, and modify content, and you can also rearrange the sequence. Changes apply the next time InfoCaster plays the item.

During playback you can control display screens and log output.

Preview Before Playback

Before you send an InfoCast to air you can preview the content in the following ways:

- **Content Editor Preview Panel**
You can preview the content of each item in the preview panel of the Content Editor as you create the items. Refer to chapters about adding region items, starting with Add Items to Regions (on page [57](#)).
- **Regions Window Workspace**
You can preview a still image of each region item on a page layout in the Regions window workspace. See Preview Regions (on page [56](#)) for details.
- **Desktop Video Window**
If you are using Desktop Video Window as the output mode, the InfoCast outputs to a window on the computer monitor. You can use this method to test layouts before outputting them or sending them to InfoCaster Manager.

Use GPU Acceleration

GPU Acceleration uses your system's graphics processing unit (GPU) instead of the central processing unit (CPU) to accelerate certain effects. GPU Acceleration is available for progressive VGA output. By default it is enabled in new InfoCasts.

If you are updating an InfoCast that has been created in an earlier version of InfoCaster, you need to enable GPU Acceleration.

To enable GPU Acceleration, switch to the Regions window and select Regions > GPU Acceleration > All Regions On.

It is recommended that you leave GPU Acceleration on.

Play an InfoCast

There are two ways you can output an InfoCast: starting from the beginning of the sequence or starting from the scheduled time.

Play at Scheduled Time

You can play an InfoCast so that it starts playing from the scheduled time, according to the times that are set in the page and region item sequence lists.

For example, if you have a sequence of three items with a sequence start time of 1:00 PM and each item is set to play for one hour, starting playback at 2:30 PM would set item number two to play.

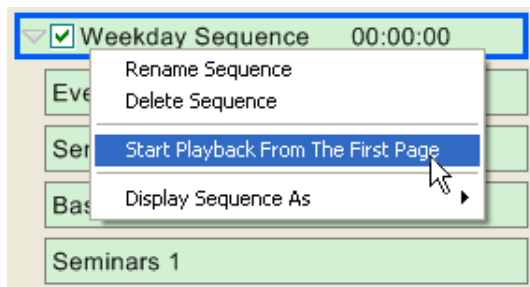
With an InfoCast open, click the Play button on the main toolbar at the top of the screen. Alternately, you can right-click on the page in the Pages window, then select Play Page from the menu, or you can select File > Start Playback.



Play from Start

You can play an InfoCast so that it starts playing the content on the first page, starting with the first region item in the page's item sequence list.

Right-click on the pages or region items sequence window below the sequence list, then select Start Playback from the First Page.



On Air Indicator

When an InfoCast is being played, the On Air indicator lights up to warn you that InfoCaster is playing.



Stop InfoCasts

Click the Stop button on the main toolbar at the top of the screen to stop output. Alternately you can select File > Stop Playback.

Animation Playback

Animations play back at the frame rate of the playback device:

- ATI: 1 second = 60 frames
- NTSC: 1 second = 30 frames
- PAL: 1 second = 25 frames

Monitoring Playback

While an InfoCast is on air you can view the InfoCast in two locations: the Preview window at the bottom left corner of the InfoCaster screen, and on the selected output device.

View from Preview Window

To see the output of an InfoCast in the Preview window at the bottom-left corner of the InfoCaster screen, select Tools > Preview Playback. InfoCaster displays what is being aired.

Note: If Desktop Video Window is selected as the output mode, this option is not available.

Select Output Mode

InfoCaster plays InfoCasts to an output device. This may be a VGA monitor, a video monitor, a desktop video window, or a plasma display, depending on your hardware configuration. If your output monitor supports external control you may be able to control it from within InfoCaster.

You can change the output mode after installation by manually launching the Configuration Utility (Edit > Preferences). See The InfoCaster Configuration Utility (on page 223) for information about changing and configuring output modes.

Track Output

You can track which item in the sequence list is currently playing in any region. You can also use log files to track the playback of region items.

Track Playback Item in Sequence List

To highlight the item that is currently playing:

1. Open the region in the Items window to display its sequence list.
2. Select Items > Display Playback Position in the Items window to enable this feature.
3. Click the Play button to output the InfoCast.

Track Playback of Region Items in Log File

To create a log file of all the times the content of a region is aired, check the Log This Region checkbox in the Details panel below the Regions workspace as explained in Log Region Playback (on page 55).

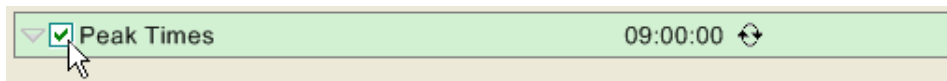
Each day InfoCaster creates a new log file that contains the playback information for the entire day. The log includes the player name, page name, region name, item name, start date, start time, stop date, stop time, and duration.

Use the Configuration Utility to change default log settings. See Playback Logging Tab (on page 250).

Change Content During Playback

While an InfoCast is playing you cannot adjust regions in the Regions window or change the crawl or roll speed, but you can add, delete, and modify content and rearrange the sequence. Changes apply the next time InfoCaster plays that item.

To skip a sequence during playback, clear the sequence heading checkbox. To set a sequence to play during output, check the sequence heading checkbox. To skip or enable a trigger, see Skip a Rule (on page 190).



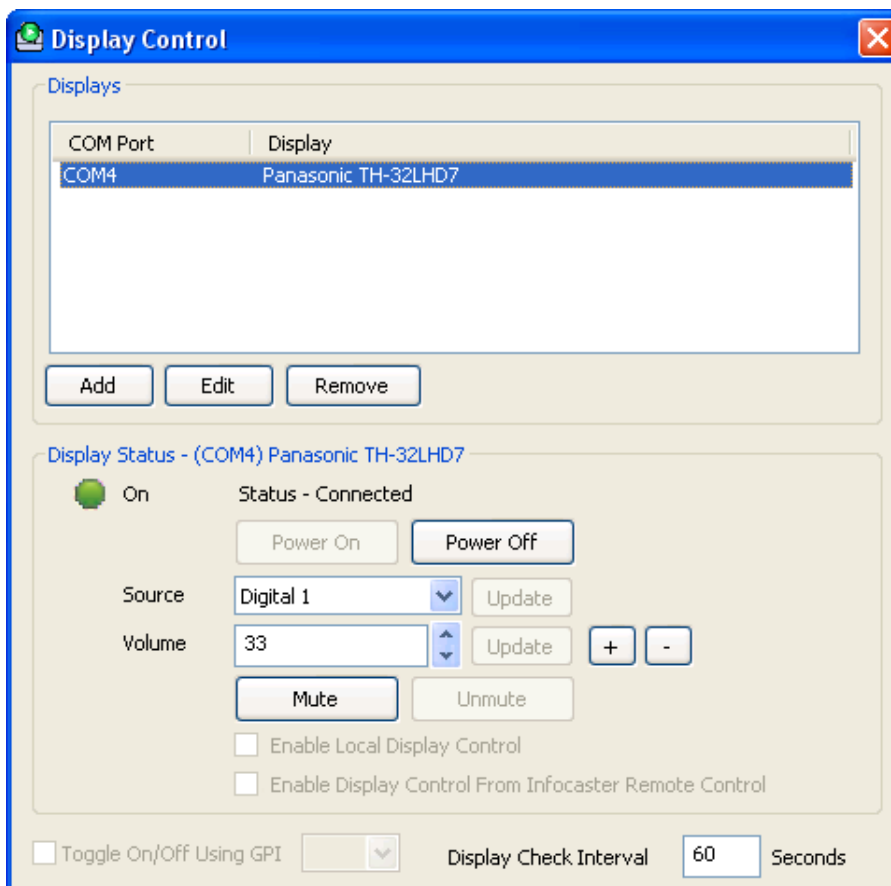
Control Display Monitors

You can use the Display Control dialog to control the power status, input source, and volume level of your display.

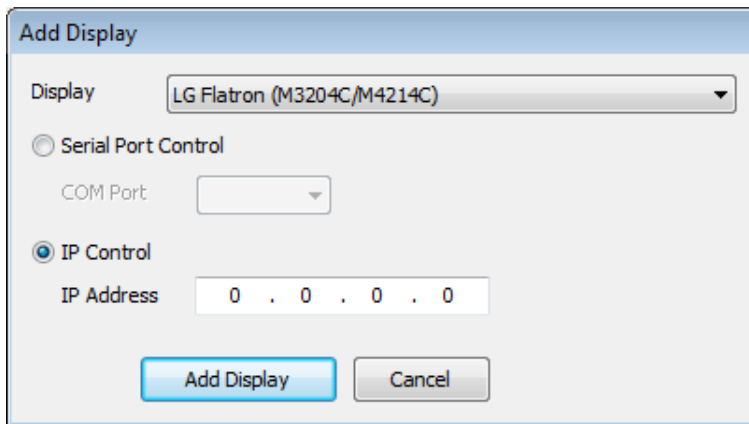
Add Display Screens

Follow these steps to configure the screens you can control.

1. Attach your display to one of the COM ports on your InfoCaster system. If your system does not support COM ports, use third-party Serial to USB converters to map system USB ports to virtual serial ports.
2. In the Pages window within InfoCaster, select Tools > Display Control. The Display Control dialog opens.



3. To add a new display to the list of displays for your InfoCaster system, click the Add button. The Add Display dialog opens.



4. Select the display's make and model from the Display list.
InfoCaster comes with a list of pre-configured displays, but you can add new displays to the list if necessary. You can also send updated display lists to other players using InfoCaster Manager. See the InfoCaster Display List document on your InfoCaster install disk for full instructions.
5. Configure the display for either serial port control or IP control.
 - For serial port control, select the Serial Port Control radio button, and use the COM Port drop-down list to select the COM port which connects to the display.
 - For IP control, select the IP Control radio button, and enter the address of the display in the IP Address field.
6. Click the Add Display button. Your display is added to the list in the Display Control dialog.

Displays can be controlled from InfoCaster Manager. If you have more than one display in your list, each display is given its own entry in InfoCaster Manager and can be controlled independently.

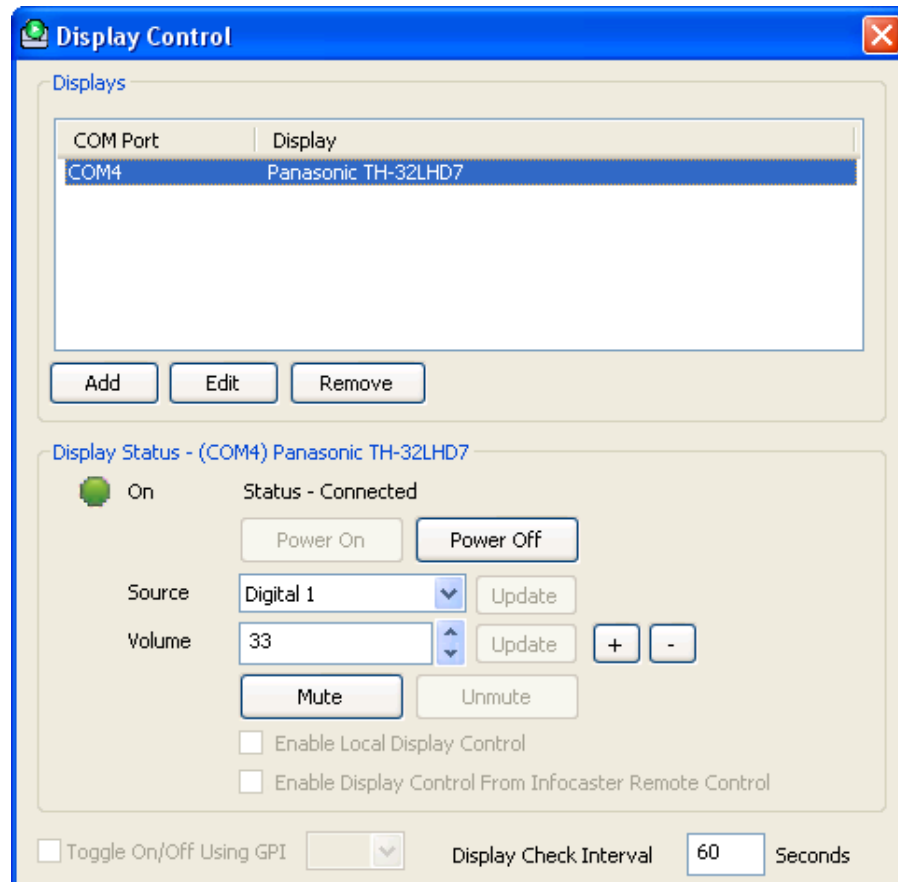
Note: The pre-configured display information provided with InfoCaster assumes that the display has its physical display ID set to zero. This is configured within the display itself and is usually an option in the display's menu.

Control Displays with a PC Remote

Displays that have been added to your Display list can be controlled with a PC remote. See Use a PC Remote (on page 210) for more information.

Display Status

The Display Status section of the Display Control dialog provides the power status, input source, and volume level of the selected display. You can control the display using the options in the dialog.



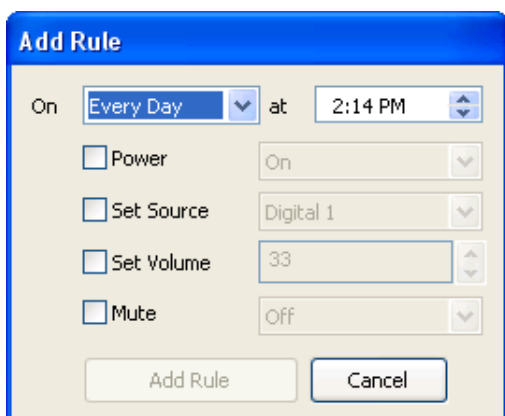
- Click the Power On and Power Off buttons to turn the display on and off.
- Select the display's input source from the Source drop-down list and press the Update button to apply the change.
- Select a volume level for the display and press the Update button to apply the change. To change the volume in small increments, press the PLUS and MINUS buttons.
- To mute the display's volume, click the Mute button. Unmute a muted display by clicking the Unmute button.
- To prevent local changes to the player's display, uncheck the Enable Local Display Control checkbox. When unchecked, the display can only be controlled from InfoCaster Manager. See Rules and Local Display Control (on page 209) to learn how rules behave when Local Display Control is checked.
- To prevent the player's display from being changed by a PC remote, uncheck the Enable Display Control from InfoCaster Remote Control checkbox.
- If you want to turn the display on and off with an external trigger, check the Toggle On/Off Using GPI checkbox and select the trigger from the drop-down list. See External Triggers Tab (on page 234) to learn how to configure your triggers.

- Use the Display Check Interval field to choose the number of seconds that elapse between each display check. Shorter intervals will ensure more accuracy of the Display Status fields but may negatively impact CPU and display performance.

Automate Display Control

The Control Automation section of the dialog allows you to manage automated rules for controlling your display.

1. Within the Display Control dialog, click the Add button to add a new rule. The Add Rule dialog opens.



2. Use the On drop-down list to set the days when the rule is activated.
3. Use the At drop-down list to set the time when the rule is activated.
4. Use the checkboxes to choose the actions that the rule performs:
 - Turn the display on or off.
 - Set the display's input source.
 - Set the display's volume level.
 - Mute or unmute the display.
5. Click the Add Rule button to add your rule to the Display Control dialog. Your rule is run at the specified times.

Rules and Local Display Control

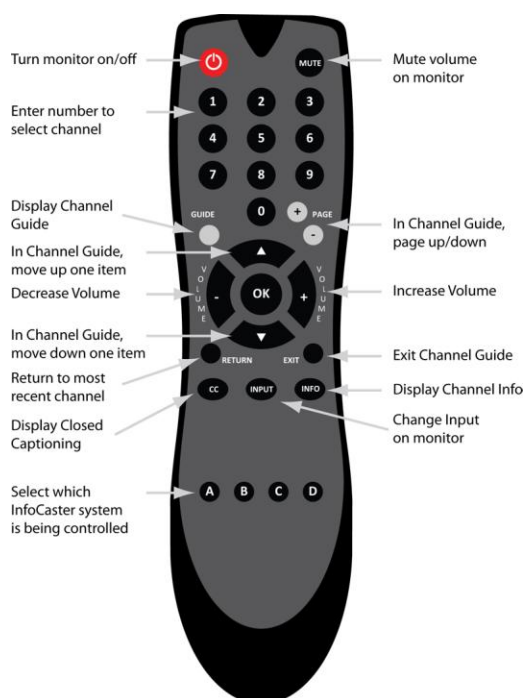
When the "Enable Local Display Control" checkbox is checked for a display (in the InfoCaster Manager or the InfoCaster Display Control dialog), display control rules are only enforced once, at the rule's scheduled time. This prevents the rules from continually overriding local display settings.

After a rule has been enforced, the following conditions will cause it to be enforced again.

- The day of the week changes. Rules will be enforced again at midnight.
- The InfoCaster player relaunches.
- The Local Display Control checkbox for the display is toggled.

Use a PC Remote

Viewers can use the Streamzap® PC remote to control the power, volume, and input source of InfoCaster monitors. They can also dynamically change InfoCast video stream content with the Channel Viewer feature and browse a list of available stream channels.



Set Up Streamzap Hardware

The Channel Viewer feature requires the following components.

- If the Streamzap drivers have not been installed on your system, install the PC Remote Software from the PC Remote Installation Software CD which came with the remote.
Additional support information for the PC remote is available from the <http://www.streamzap.com> website.
- A Streamzap PC remote is required. Each remote can control up to four separate InfoCaster players.
- One Streamzap receiver is required for each InfoCaster player. The receiver plugs into one of the player's USB ports.
- If the remote will be used to control a InfoCaster display monitor, the monitor must be attached to one of the COM ports on the InfoCaster system. If the system does not support COM ports, use third-party Serial to USB converters to map system USB ports to virtual serial ports.

Display Closed Captions with the PC Remote

If your InfoCast contains regions with closed caption insertion enabled, the PC remote can turn the captions on or off with the CC button.

See Closed Captioning (on page 53) to learn how to insert closed captions in InfoCast regions.

Control Display Monitors with the PC Remote

The PC remote can be used to control the power, input source, and volume of the display monitors that are connected to the InfoCaster system. See Control Display Monitors (on page 206) to learn how to configure monitors for display control.

Press the following buttons on the PC remote to control a display.

Display Control Buttons

Button	Description
Power	Turns the display on and off.
Mute	Mutes the volume of the display.
Volume -	Decreases the volume of the display.
Volume +	Increases the volume of the display.
Input	Changes the input source of the display.

Control Channel Guides with the PC Remote

Channel Guides can be added to the video stream items in an InfoCast. While a video stream item is displayed, use the PC remote to view the available channels for the item and switch between channels. See Video Stream Quick Editor (on page 148) to learn how to add Channel Guides to a video stream item.

Press the following buttons on the PC remote to control the Channel Guide feature.

Channel Guide Buttons

Button	Description
Buttons 0 to 9	Enter number to select channel.
Guide	Display the Channel Guide.
Page +	In the Channel Guide, display the previous page of channels.
Page -	In the Channel Guide, display the next page of channels.
Up	In the Channel Guide, move to the previous channel.
Down	In the Channel Guide, move to the next channel.
OK	Choose the selected channel and exit the Channel Guide.
Exit	Exit the Channel Guide without changing the channel.
Info	Display information about the current channel.
Return	Change to the most recent channel.

By default, the channel number, name, image, and description is displayed in the upper-right corner of the video stream item when the channel is changed or the Info button is pressed. See Add Channel Guide (on page 149) to learn how to hide this information with the Channel Guide Editor.



When the channel is changed it may take a few seconds for the new channel to be displayed. A "Please Wait..." message displays in the video stream item until the channel is completely loaded.

If InfoCaster is unable to connect to the selected channel stream, a "This channel is not accessible at this time" message displays for a brief period, and then the previously-selected channel is loaded.

Use the Channel Guide

The Channel Guide allows viewers to browse the list of available channels within a video stream item.

1. While a video stream item is being displayed, press the Guide button on the PC remote. The Channel Guide appears within the video stream item, with a list of all available channels.



2. Use the PC remote buttons to browse the list of channels.
 - Press the Page + and Page - buttons to display the previous and next pages in the list.
 - Press the Up and Down buttons to move to the previous and next channels in the list.
3. Press the Exit button to exit the Channel Guide without changing the channel, or press the OK button to exit the Channel Guide and switch to the selected channel.

Control Multiple Players with One PC Remote

A single PC remote can control up to four different players. Press the A, B, C, and D mode buttons on the remote to select which player you want to control.

See Remote Control Configuration (on page 257) to learn how to set which mode a player responds to.

Log Output

You can log the playback of region items. A new log file is created each day so the playback of an entire day is stored in one log file.

You can automatically set all regions to be logged, change the log file location, or change the number of days a log file is kept on your system.

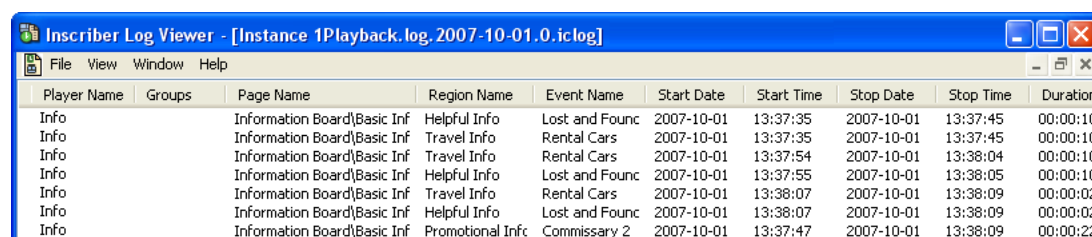
Log Region Playback

To create a log file of all the times the content of a region is aired, check the Log This Region checkbox in the Details panel below the Regions workspace as explained in Log Region Playback (on page 55).

Each day, InfoCaster creates a new log file that contains the playback information for the entire day.

View Log File

To view the log file after you output the project, select Tools > Log Viewer. The Log Viewer opens, displaying the log file for the current day.



The screenshot shows the 'Inscriber Log Viewer - [Instance 1Playback.log, 2007-10-01.0.iclog]' window. It contains a table with the following data:

Player Name	Groups	Page Name	Region Name	Event Name	Start Date	Start Time	Stop Date	Stop Time	Duration
Info		Information Board\Basic Inf	Helpful Info	Lost and Founc	2007-10-01	13:37:35	2007-10-01	13:37:45	00:00:10
Info		Information Board\Basic Inf	Travel Info	Rental Cars	2007-10-01	13:37:35	2007-10-01	13:37:45	00:00:10
Info		Information Board\Basic Inf	Travel Info	Rental Cars	2007-10-01	13:37:54	2007-10-01	13:38:04	00:00:10
Info		Information Board\Basic Inf	Helpful Info	Lost and Founc	2007-10-01	13:37:55	2007-10-01	13:38:05	00:00:10
Info		Information Board\Basic Inf	Travel Info	Rental Cars	2007-10-01	13:38:07	2007-10-01	13:38:09	00:00:02
Info		Information Board\Basic Inf	Helpful Info	Lost and Founc	2007-10-01	13:38:07	2007-10-01	13:38:09	00:00:02
Info		Information Board\Basic Inf	Promotional Inf	Commissary 2	2007-10-01	13:37:47	2007-10-01	13:38:09	00:00:22

To open a different log file, select File > Open in the Log Viewer dialog box, then select the log file you want. The default folder is C:\Program Files\Harris\InfoCaster\PlaybackLogs. The date that the data was logged is stored as part of the log file name.

Log Queries

Log Viewer allows you to create and save log queries based on playback criteria, and then create printable reports. To learn how to use log queries, please choose Help within the Log Viewer.

Change Logging Defaults

By default, items are not set to be logged. You can enable or disable logging, change the storage folder for log files, and change the number of days that log files are stored on your system.

Use the Configuration Utility to change logging defaults. See Playback Logging Tab (on page 250) for more information.

Log Notes

The Content Editors allow you to add notes to your playback logs. See [Add Log Note](#) (on page 88).

Logging Server

Debug logs contain internal messages that InfoCaster and its services produce during operation. These logs can be sent to Imagine Communications technical support to help diagnose problems on InfoCaster systems.

Within your web browser, use the IP address **localhost:8000** to access the Logging Server. The Logging Server allows you to set the detail level of the debug logs, search your debug logs, export logs, and delete logs you no longer require.

Note: Editing, viewing, and managing debug logs is generally done under supervision from technical support.

Server: main.player.local

Settings

[Quota Management](#)

Tools

[Save Logs](#)

[Export Logs To Text](#)

[Delete Logs](#)

Application Profiles

Application Name
ICConfigUtility
ICConfigUtility Phoenix
ICPlayerMonitor
ICPlayerMonitor Phoenix
ICTestPattern
ICTestPattern Phoenix
InfoCaster
InfoCaster Phoenix
InfoCaster Player Monitor
InfoCaster Player Server

Access the Logging Server

To access the Logging Server, open a web browser on your InfoCaster system and enter the following IP address:

http://localhost:8000/

The Logging Server opens in your web browser.

Create Data Sources

This section explains typical methods for creating text and ODBC data sources. You can use these data sources in your InfoCasts.

Create a Text File

The text lines in a text-based region item contain data tags. InfoCaster uses these data tags to link the content of an external data source to the item. The external data displays as the item content during output. You need to create your data source before you can link it to your data tags.

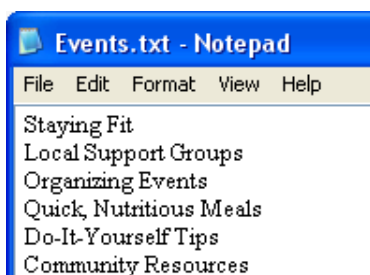
There are two main types of text files you can use in InfoCaster: linear text files and database text files. Database text files can contain multiple columns of data.

Create a Linear Text File

Linear text files contain information that InfoCaster reads line-by-line. InfoCaster reads the data directly from the text file, one line at a time.

Use the following steps to create a linear text file:

1. Open a text editor, like Windows Notepad (Start > Programs > Accessories > Notepad).
2. Type the first entry, such as a word, number, or phrase.
3. Press ENTER and add another entry.
4. Continue adding entries as needed.
5. Save the file as a .txt file.



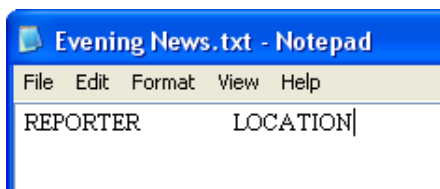
Note: For information on adding a text file to InfoCaster's Data Source Wizard, see the InfoCaster Data Source Wizard guide.

Create a Database Text File

Database text files contain information that InfoCaster reads as a database table. When you set InfoCaster to read the multiple-column text file through the ODBC driver, the columns remain formatted. Advanced ODBC settings are available for text formatting and display options.

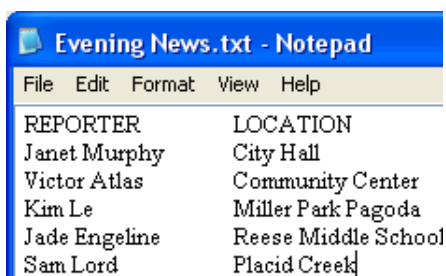
If you set InfoCaster to read the data directly from the text file (rather than through the ODBC driver) the items read each line as a single row and the column formatting is ignored.

1. Open a text editor, like Windows Notepad (Start > Programs > Accessories > Notepad).
2. On the first line of text in the file, type the name of the first column heading.
3. Press the TAB key and enter the second column heading.



You do not have to use tabs as the delimiter (column separator) between columns. You can use commas or your own custom delimiter. You will set the delimiter type when you link to the text file in InfoCaster.

4. Enter the remaining column headings, using the TAB key (or other delimiter) to move to the next column.
5. Press ENTER to move to the second line.
6. Add the first data entry, such as a word, number, or phrase, under the first column heading.
7. Press TAB (or other delimiter) to move to the second column, and add the column entry.
8. Add the remaining column entries using the TAB key (or other delimiter) to move to the next column.
9. Press ENTER to move to the next line of text, as needed.
10. Continue adding column entries in each new line, using the TAB key (or other delimiter) to move to the next column.



11. Save the file as a TXT file to a unique folder.

Note: For information on adding a database text file to InfoCaster's Data Source Wizard, see the InfoCaster Data Source Wizard Guide.

Create an ODBC Data Source

The Open Database Connectivity (ODBC) protocol allows different programs, like Microsoft Access and Microsoft Excel, to share information held in database applications. You can easily create a database and place almost any type of information in it including weather data, TV shows, and arrival/departure times. After you create a database, add it to the ODBC System List (see Add a Database to the ODBC

System List (on page 221)) and link the data to an InfoCaster item (see External Data Sources (on page 76)).

Create Database in Microsoft Access

These steps describe how to create a database file in Microsoft Access:

1. Open Microsoft Access and start a new Blank Access Database. Depending on the version of Access you use, the Blank Access Database option is accessed in different ways. If you're unsure where the option is, select File > New.
2. In the File New Database window, enter a name and select a location for your database. Click the Create button.
3. In the Database window, double-click on the Create Table in Design View option.
4. In the new Table window enter ID in the first Field Name text box and select Auto Number as the Data Type.
5. Right-click on the ID entry and select Primary Key from the menu. In Access, every table must have a column that uniquely identifies each table row.
6. Enter the field names (or column headings) and data types for the table. The field names are the column headings.
7. Select File > Save. In the Save As dialog, enter a name for the table.
8. Select View > Datasheet View to view the table cells.
9. Enter information in the table cells and save the table.

Create Database in Microsoft Excel

These steps describe how to create a database file in Microsoft Excel:

1. Open Microsoft Excel.
2. Enter the column headings in the first cell of the column. InfoCaster uses the heading to refer to the column text.

	A	B
1	Reporter	Location
2		
3		
4		

3. Enter information in the table cells.
4. Highlight all of the cells you want included in the table. Make sure to include the headings as well. You can highlight the cells by clicking and dragging your mouse over the cells, or by clicking on the first cell and then SHIFT+clicking on the last cell.
5. Select Insert > Name > Define.
6. Enter a name for the table. The name must be one word only, and must not contain spaces, underscores, slashes, or dashes.
7. Click the Add button.
8. Click OK to close the dialog.

9. Save the Excel spreadsheet.

Add a Database to the ODBC System List

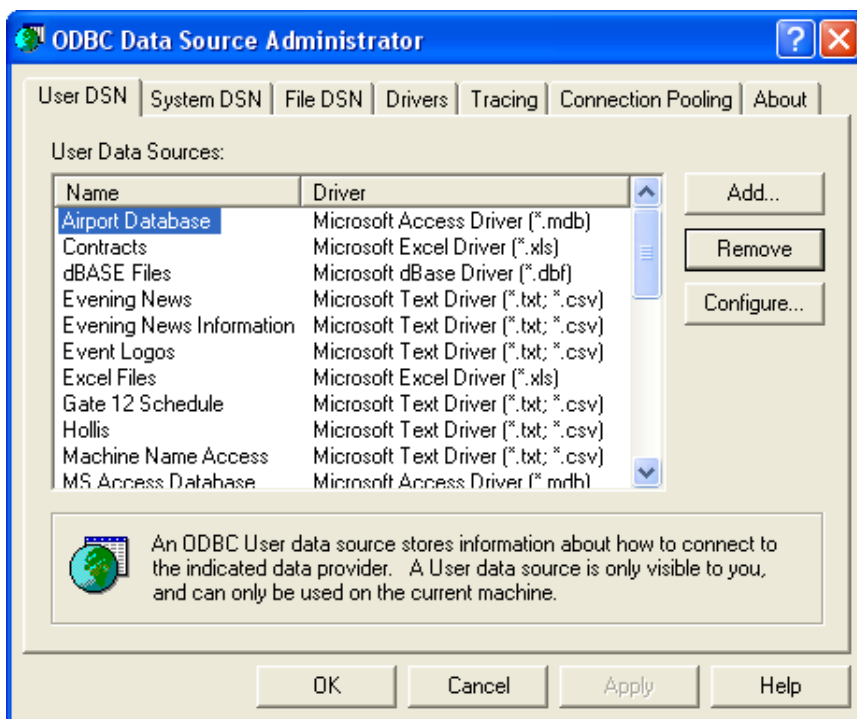
After you create database tables, you need to add the database to the ODBC system list before InfoCaster can read the database content.

Add Database to ODBC System List

To add a Microsoft Access, Microsoft Excel, or text file to an ODBC system list, complete the following steps. If you are using a different database source the steps will differ slightly.

1. In Windows, open the Data Sources (ODBC) option.
 - In Windows XP view: Select Start > Control Panel > Performance and Maintenance > Administrative Tools > Data Sources (ODBC).
 - In Windows Classic view: Select Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC).

The ODBC Data Source Administrator dialog opens, displaying the databases currently in the system list.



2. Select the User DSN tab or the System DSN tab.
 - The User DSN tab registers the database for the current logged-on user. If someone else logs on to the computer, the database is not visible.
 - The System DSN tab registers the database in a global location on the computer and is visible for any logged-on user.
3. Click the Add button to open the Create New Data Source dialog.

4. Select the driver from the list for the database.
 - If you're connecting to an Access database select Microsoft Access Driver (MDB).
 - If you're connecting to an Excel spreadsheet select Microsoft Excel Driver (XLS).
 - You can use InfoCaster's Data Source Wizard to add text files to the ODBC System List (see the InfoCaster Data Source Wizard guide). If you wish to add a text file without using the Data Source Wizard, select Microsoft Text Driver (TXT, CSV).
5. Click the Finish button to add the selected driver to the system and to continue with the database set up.
6. In the new dialog enter a name for the data source.
7. Select the external data source.
 - For Access data, click the Select button. In the dialog, navigate to and select the database. Clear the Read Only checkbox if necessary.
 - For Excel data, click the Select Workbook button. In the dialog, navigate to and select the spreadsheet. Clear the Read Only checkbox if necessary.
 - For text files, clear the Use Current Directory checkbox and click the Select Directory button. In the file dialog, navigate to the folder which contains the text file.
8. Click OK in all the dialogs until you return to Windows.

The InfoCaster Configuration Utility

The InfoCaster Configuration Utility allows you to configure InfoCaster settings and the devices connected to the system, and if you are using InfoCaster Manager you can also apply your InfoCaster Manager settings. The Configuration Utility includes options that apply to all InfoCaster configurations, so certain settings may not apply to your system.

Launch the Configuration Utility

Open the InfoCaster Configuration Utility using one of the following methods.

- Within InfoCaster, choose Edit > Preferences.
- From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

Configuration Utility Tabs

The Configuration Utility contains a number of tabs. Each tab allows you to view and modify a certain group of settings. See the following table for details.

Tab Functionality

Tab	Description
Auto-Login	Sets InfoCaster to automatically log in and restart after the system restarts.
Clock Sync and Display Wall	Allows you to configure the way players are synchronized when using display walls and synchronized InfoCasts.
Device Configuration	Allows you to define new devices, enter commands that the devices recognize, and assign those devices to your system's COM port. InfoCaster uses this information to send commands to the devices.
Email Settings	Sets the way notification emails and log files are sent.
External Triggers	Configures the triggers attached to your system so InfoCaster can recognize them. See the InfoCaster Hardware Installation Manual if you need help connecting USB or serial port triggers to your system.

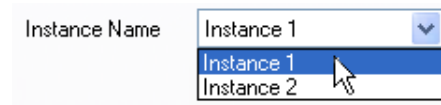
Tab	Description
General	Changes the way InfoCasts and their resources are stored and displayed.
InfoCaster License	Allows players and publishers to receive operating licenses from InfoCaster Manager, instead of requiring a hardware dongle.
InfoCaster Manager Publishing	Sets the InfoCaster Manager used by publisher systems.
InfoCaster Manager Server Account	If you have InfoCaster Manager installed on your system, this tab sets up the InfoCaster Manager Server account.
Multi Screen Playback	Sets information for displaying multi screen tables on multiple player instances.
Multicast Mode Distribution	If you are using Multicast Mode distribution for third-party transmissions, this tab sets the folders that InfoCaster monitors.
Playback Logging	Manages playback log storage.
Player Settings	Displays and updates information about the player system, its InfoCaster Manager system, and its primary operator.
Player Server Account	Allows you to set the accounts used by the Player Server to access InfoCasts on the InfoCaster Manager LAN and HTTP file servers.
Proxy Server Settings	Enables connection to the internet through your network's proxy server.
Remote Control Configuration	Sets the PC remote mode that the player responds to.
Temperature Probe	Sets up a temperature probe.
Video/Audio Standard	Configures your input and output devices. See Video/Audio Configuration (on page 261) for complete instructions.

Multiple Instances

If you have purchased the Multi Head option and have set up additional player instances in the Video/Audio Standard tab, the following Configuration Utility tabs allow you to separately configure each instance:

- General tab
- Multi Screen Playback tab
- Playback Logging tab

- Player Settings tab

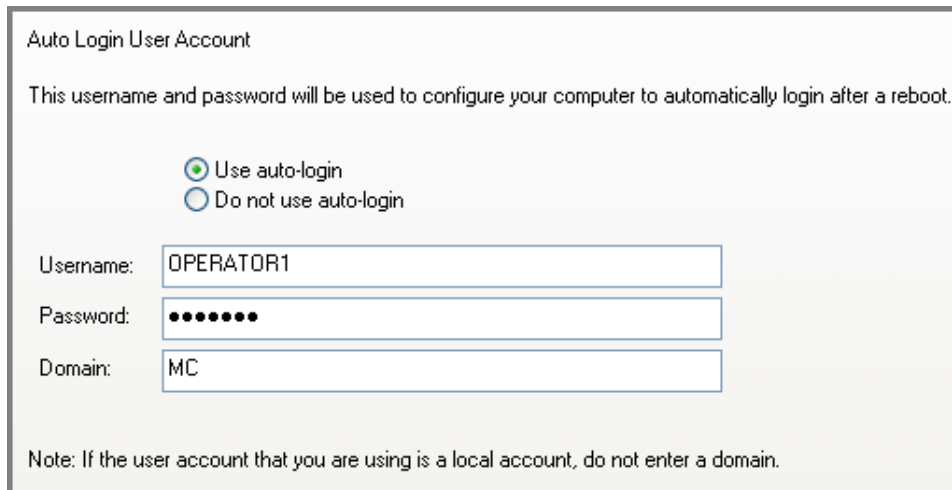


Use the Instance drop-down list on the above tabs to choose an instance to configure.

See Video/Audio Configuration (on page 261) to learn how to set up multiple player instances on the Video/Audio Standard tab.

Auto-Login Tab

If you want your InfoCaster player to automatically login and restart after the system reboots, use the Auto-Login tab to enter your login details.



The screenshot shows a window titled "Auto Login User Account". Inside, there is a text box stating: "This username and password will be used to configure your computer to automatically login after a reboot." Below this, there are two radio buttons: "Use auto-login" (which is selected) and "Do not use auto-login". Underneath the radio buttons are three text input fields: "Username:" containing "OPERATOR1", "Password:" containing seven dots, and "Domain:" containing "MC". At the bottom of the window, a note reads: "Note: If the user account that you are using is a local account, do not enter a domain."

Set Up Auto-Login

To enable auto-login on your system, click the Use Auto-Login radio button and enter a username, password, and domain to login with. Do not enter a domain if you are using a workgroup.

An administrative user account is not required. The account you use to run InfoCaster must have at least Power User access.

Disable Auto-Login

To disable auto-login click the Do Not Use Auto-Login radio button.

Clock Sync and Display Wall

If you are using features which require extreme timing accuracy such as display walls, synchronized InfoCasts, or timed triggers from InfoCaster Manager, use the Clock Sync and Display Wall tab to configure the way your players are synchronized.

See Synchronized Player Playback (on page 174) to learn about the conditions and limitations of synchronized playback, and see Player Settings Tab (on page 252) to learn how to set the address and port that players use to receive timed triggers from InfoCaster Manager.

The screenshot shows a configuration window for 'Clock Sync and Display Wall'. It includes a 'Synchronize Clock' checkbox which is checked. Below it is a 'Display Wall Index' field set to '1'. A 'Multicast Network Adapter' dropdown menu is set to 'Broadcom NetXtreme 57xx Gigabit Controller (Local Area Connection)'. A 'Clock Messages Multicast Time To Live' field is set to '1'. A 'Clock Priority' dropdown menu is set to 'Master', with a note: 'It is recommended that one Master and at least one Backup Master be configured.' There is also a 'Disable Windows Time Service' checkbox which is unchecked. A section titled 'Playback Synchronization Messages' contains fields for 'Multicast Address' (239 . 0 . 0 . 222), 'Multicast Port' (2222), and 'Multicast Time To Live' (1). A note on the right states: 'The default settings for Playback Synchronization Messages are recommended unless you have multiple displays walls on the same network using the same InfoCast.'

Configure Synchronization

Follow these steps to synchronize your InfoCaster player with other players on the network.

1. Check the Synchronize Clock checkbox to enable synchronization for the InfoCaster player.
2. If the player is part of a display wall, use the Display Wall Index field to set which display section of the wall the player is assigned to. See Work with Display Walls (on page 69) to learn more about display walls and how display numbers are assigned.
3. Use the Multicast Network Adapter drop-down list to choose the system network card which will enforce the synchronization.
4. Synchronization uses a UDP multicast and network player cards to keep players in sync. To prevent multicasts from creeping too far into networks and clogging bandwidth, multicast packets have a Time to Live (TTL) number which specifies the number of network hops a packet can take before being discarded.
Use the Clock Messages Multicast Time to Live field to specify the TTL number for the UDP multicast. The default is one.

5. To ensure that synchronization is consistent, one system on the network needs to be set as Master, others as Backup Masters, and the rest of the systems as Slave Only. Use the Clock Priority drop-down list to choose your system's type.

Systems set to Slave Only will never become clock masters, even if the network's Master and Backup Masters fail.

6. If you are configuring a Master system and you do not wish it to use the Windows NTP implementation, check the Disable Windows Time Service checkbox. This should not be checked in most configurations.

Note: All synchronized players must be on the same subnetwork.

Playback Synchronization Messages

Display wall players enforce their synchronization by sending messages through a default IP address (239.0.0.222). If you have multiple display walls on the same network which use the same InfoCast, define a different IP address for each set of display wall players. This prevents display wall players in one set from receiving inappropriate synchronization messages from another set.

Use the Playback Synchronization Messages section of the Clock Sync and Display Wall tab to define unique message addresses for each set of players.

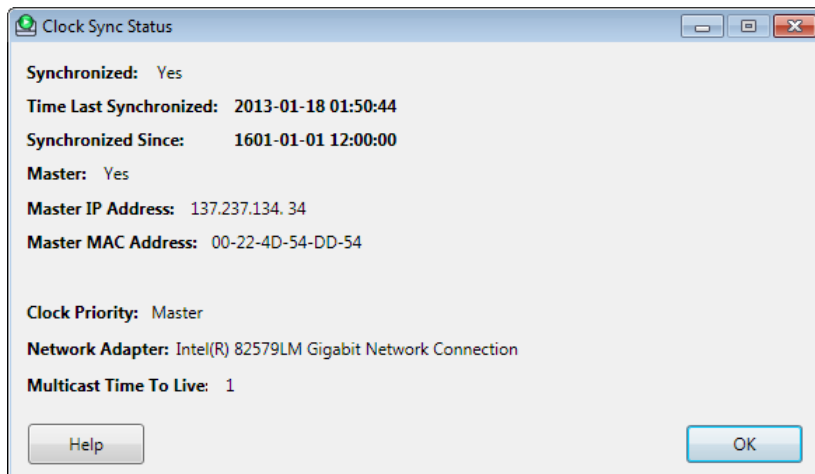
- Multicast Address: The IP address which the players in the set use to communicate with each other.
- Multicast Port: The multicast port which the players in the set use for communication.
- Multicast Time to Live: Synchronization messages use a UDP multicast and network player cards to keep the players within a set in sync. To prevent multicasts from creeping too far into networks and clogging bandwidth, multicast packets have a Time to Live (TTL) number which specifies the number of network hops a packet can take before being discarded.

Use the Multicast Time to Live field to specify the TTL number for the UDP multicast.

Monitor Synchronization Status

After you have configured your system with the Clock Synchronization tab, you can use the Clock Sync Status utility to monitor the synchronization status of your system.

From the Windows Start Menu choose Programs > Harris > InfoCaster > Utilities > Clock Sync Status. The Clock Sync Status utility opens.



The utility displays your system's current synchronization status.

Clock Synchronization Status

Field	Description
Synchronized	Whether the system is synchronized. If you have not enabled synchronization in the Clock Synchronization tab, this value will be Disabled and all other fields will display N/A . See Configure Synchronization (on page 227) to learn how to enable synchronization.
Time Last Synchronized	The time the system last received (or sent, if the system is a Master) a time sync message.
Synchronized Since	The length of time the system has been synchronized.
Master	Whether the system is a Master.
Master IP Address	The IP address of the system that is the Master clock.
Master MAC Address	The MAC address of the system that is the Master clock.
Clock Priority	Whether the system is the Master, a Backup Master, or a Slave Only system.
Network Adapter	The network card which enforces the system's synchronization.
Multicast Time to Live	The TTL number for the synchronization UDP multicast.

Device Configuration Tab

Most InfoCaster Content Editors allow you to control serial devices attached to your system's COM ports. The Device Configuration tab allows you to define new devices, enter commands that the devices recognize, and assign those devices to your system's COM ports. Once you have configured the devices, use InfoCaster's Device Control tab to send commands to the devices. You can also create conditional playback rules that send commands to serial devices.

Configuration Parameters

Serial Port: COM1
Serial Device: VTR
Baud Rate: 9600 Data Length: 8 Bits
Stop Bits: 1.0 Parity: Even

Buttons: Add Device, Modify, Delete

Device Commands

Name	Command
Pause	333
Play	AD09E2
Stop	2

Buttons: Add, Modify, Delete

Buttons: Add to List, Clear

Device Configuration List

Serial Port	Serial Device	Baud Rate	Data Length	Stop Bits	Parity
COM1	VTR	9600	8	1.0	Even

Buttons: Delete

Add Device Types

You need to add a new serial device type if it is not already in the Serial Device drop-down list.

1. Click the Add Device button. The Serial Device dialog opens.

Serial Device

Serial Device Name: VTR

Baud Rate: 9600 Data Length: 8 Bits

Stop Bits: 1.0 Parity: Even

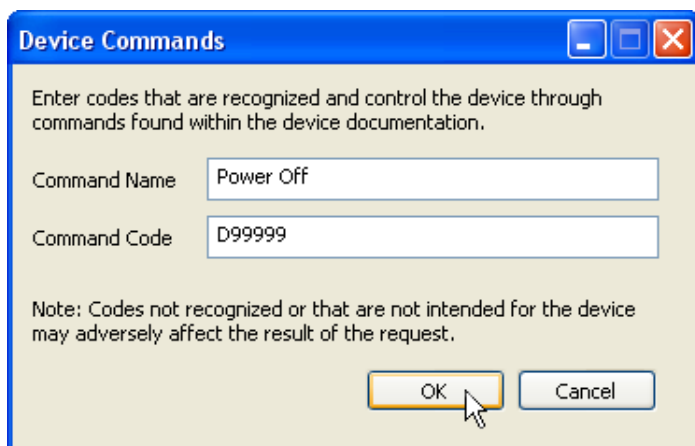
Buttons: OK, Cancel

2. Enter the device's name, baud rate, data length, number of stop bits, and parity in the dialog fields.
3. Click OK. The Serial Device dialog closes and the device is added to the Serial Device drop-down list.

Define Device Commands

To define commands that your device type will respond to:

1. Open the Serial Device drop-down list and select the device you want to define commands for. Any commands already configured for that device type appear in the Device Commands list.
2. Choose the device command that you want your device type to recognize in the Device Commands list.
 - To add a new command, click the Add button. A dialog allows you to enter a command name and a command code. These codes are found in the documentation for the device.



- To modify a command, select it and click the Modify button. A dialog allows you to change the command name and command code.
- To delete a command, select it and click the Delete button.

Add Devices to the Device Configuration List

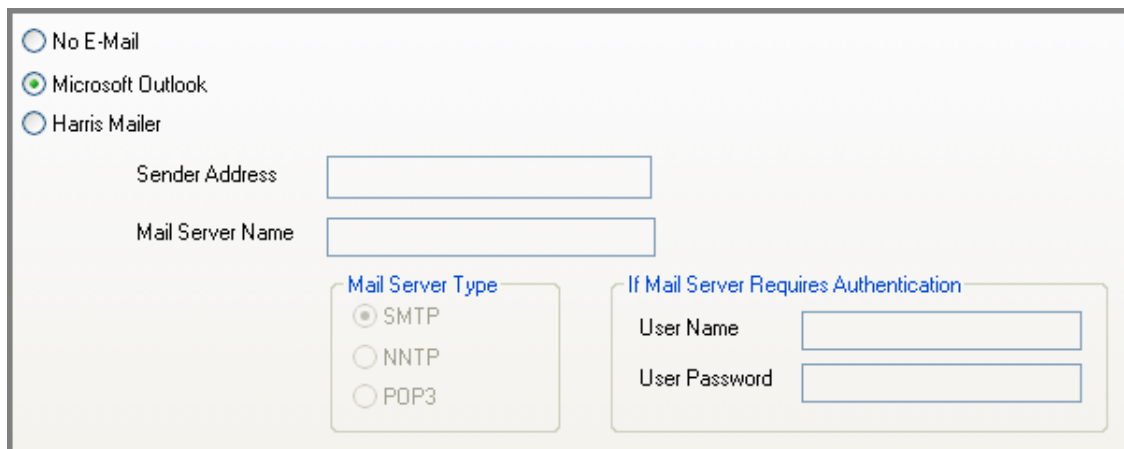
Once you have defined your devices and the commands they respond to, you need to tell InfoCaster which COM ports the devices are attached to.

1. Open the Serial Port drop-down list and select one of your computer's COM ports.
2. Open the Serial Device drop-down list and select the device attached to that COM port.
3. Click the Add to List button. The device attached to the selected COM port is added to the Device Configuration list.

If you have more than one COM port with devices attached to them, repeat steps 1-3 for each port.

Email Settings Tab

The settings in the Email Settings tab are used to send notification emails and collect log files. You can choose to use Microsoft Outlook or the Harris Mailer, or you can prevent the player system from sending any emails.



The screenshot shows the 'Email Settings' configuration window. At the top, there are three radio buttons: 'No E-Mail', 'Microsoft Outlook' (which is selected), and 'Harris Mailer'. Below these are two text input fields: 'Sender Address' and 'Mail Server Name'. Under the 'Mail Server Name' field, there is a section titled 'Mail Server Type' with three radio buttons: 'SMTP' (selected), 'NNTP', and 'POP3'. To the right of this section is another section titled 'If Mail Server Requires Authentication' which contains two text input fields: 'User Name' and 'User Password'.

Use Microsoft Outlook

If you have Microsoft Outlook installed on your system, click the Microsoft Outlook radio button to send InfoCaster emails with Outlook.

Use Harris Mailer

InfoCaster provides a Harris Mailer feature which allows you to send email through an existing mail server without installing a third-party email application. You may need to contact your Network Administrator to get information about your mail server.

To send InfoCaster emails with Harris Mailer:

1. Click the Harris Mailer radio button.
2. Enter the sender's email address in the Sender Address field.
3. Enter the name of the mail server in the Mail Server Name field. This mail server must be connected to your system and configured to send emails using the Sender Address.
4. Choose the Mail Server Type of your mail server by clicking one of the radio buttons.
 - Click the SMTP radio button to send email using the Simple Mail Transfer Protocol.
 - Click the NNTP radio button to send email using the Network News Transfer Protocol.
 - Click the POP3 radio button to send email using Post Office Protocol version 3.
5. If the mail server requires authentication, enter a name and password in the User Name and User Password fields. Inscriber Mailer uses this information to access the mail server.

Disable Email

To prevent InfoCaster from sending any emails from this system, click the No Email radio button.

External Triggers Tab

InfoCaster supports different external triggers for controlling output. You use conditional playback to set certain items, sequences, or pages to be triggered by an external trigger. You can also use external triggers to set the playback of an item in one InfoCast to trigger playback of an item in another InfoCast.

Use the External Triggers tab to add triggers that have been connected to your system.

GPI #	Type	Port	Name
1	Serial	COM1	VTR Signal
2			
3			
4			
5			
6			
7			
8			

Add External Triggers

By adding external triggers to the GPI List you make them available within InfoCaster. You can add four types of triggers to the list.

LIVE!Link

If you have one or more LIVE!Link boards installed in your system, check the Live Link Installed checkbox. Eight LIVE!Link GPIs are added to the GPI List.

Serial GPI

Serial port GPI triggers take the voltage from a serial port pin to close a switch and complete the circuit, triggering the selected event. Each COM port on your system can be connected to one serial GPI. To learn how to connect serial GPI triggers to your system, see the InfoCaster Hardware Installation Manual.

To add serial GPIs that are connected to your system check the Serial GPI checkbox. In the Serial GPI Configuration section of the tab, choose the port number and name for each of the serial GPIs. Only one GPI can be attached to each serial port.

Note: Not all InfoCaster systems contain serial ports. See your hardware manual to learn about the ports provided for your system.

USB U2IO

InfoCaster supports GPI triggers connected to the USB U2IO device for controlling output. A USB U2IO device supports 14 GPI triggers. See the InfoCaster Hardware Installation Manual to learn how to connect USB triggers to your system.

Check the U2IO Installed checkbox to add the 14 USB U2IO triggers to the GPI List.

Software GPIs

You can use a software GPI instead of a hardware GPI to trigger events in InfoCaster. Software GPI events are triggered by clicking a link on the maxisoftgpi web page.

To add software GPIs to the GPI list, check the Software GPIs checkbox and enter the number of triggers you want to enable in the Count field. The requested number of GPIs are added to the GPI list. The maximum number of software GPIs you can use is 4096.

Trigger Software GPIs

Because no hardware is involved with software GPIs, they are set up in the Configuration Utility then triggered by clicking a link on the maxisoftgpi web page.

If you have a multi-head system, you can use software GPI triggers to set an event in an InfoCast on one monitor to trigger an event in an InfoCast on the second monitor. See Use Triggers to Play Other InfoCasts (on page 198) for more information.

Follow these instructions to trigger the software GPIs that have already been set up:

1. Open InfoCaster to initialize the software GPI drivers.
2. Open your web browser.
3. In the Address field, type

`http://localhost:8009/`

A locally stored web page opens. You do not need to be connected to the internet.

4. Click on the maxisoftgpi link.

The maxisoftgpi web page opens. This page contains as many hyperlinks as you have enabled. These links are the triggering devices for your software GPI.

Multicast Triggers

Check the Fire GPIs via Multicast checkbox to allow your player to respond to multicast triggers sent by InfoCaster Manager. Enter the IP address and port that the InfoCaster Manager system is sending triggers to.

General Tab

The General tab allows you to set the way InfoCasts and their resources are stored and displayed. If you have purchased the Multi Head option and have set up additional player instances in the Video/Audio Standard tab (described in Multiple Instances (on page 224)), you can configure each instance separately with the Instance Name drop-down list.

The screenshot displays the 'General Tab' configuration window, organized into several sections:

- InfoCast Settings:** Includes a text field for 'Store InfoCasts In' (set to 'D:\InfoCasts') with a 'Choose...' button, a checkbox for 'Load last InfoCast on startup', a numeric field for 'Image file life time interval' (set to 3) with a unit of 'minutes', a numeric field for 'Internet timeout value' (set to 400) with a unit of 'milliseconds', and a 'Check for expired content at' dropdown (set to 12:00 AM).
- Presentation Settings:** Includes a checkbox for 'Show Frames in Sequencer', radio buttons for 'Default Roll Direction' (Up/Down) and 'Default Crawl Direction' (Left/Right), and a 'Default Font' dropdown (set to Arial Black).
- Location Settings:** Includes a 'Location' text field (set to N23 3C4).
- Display Wall:** Includes a checkbox for 'Synchronize clock with other InfoCasters (required for Display Wall, but disables some features)' and a 'Display number' field (set to 1).
- Network adapter:** A dropdown menu showing 'Generic Marvell Yukon Chipset based Gigabit Ethernet Controller #2 - Packet Scheduler Minip...'.
- Data Source Settings:** Includes a 'Store Data Source Files In' text field (set to 'D:\Datasources') with a 'Choose...' button.
- Media Store Settings:** Includes a 'Store Shared Media Files In' text field (set to 'D:\Shared Media') with a 'Choose...' button, and a checked checkbox for 'Automatically delete stored media files that are not referenced or being used by any InfoCast'.
- Output Settings:** Includes dropdowns for 'Output Aspect Ratio' and 'VGA Aspect Ratio' (both set to 4:3), and a numeric field for 'Audio Ducking Level' (set to 50 %). A note below states: 'The background audio level is reduced by this amount when an additional audio source is present.'

InfoCast Settings

Use the InfoCast Settings section of the tab to change the way InfoCasts and their resources are stored.

- To change where the InfoCasts are stored on your system, click the Choose button and navigate to a different folder.
- Check the Load Last InfoCast on Startup checkbox to set InfoCaster to load the last opened InfoCast every time InfoCaster starts.
You can override this automatic load by holding down the CTRL key while InfoCaster starts.
- Every time an image is updated from an ODBC or HTTP source it is placed in a temp images folder. This can sometimes fill up disk space. To delete images that haven't been accessed within a certain amount of time, enter a value in the Image File Life Time Interval.
If you keep the default setting at 0, images in the temp images folder are not deleted.
- When accessing a data source through the internet, InfoCaster pings the source and waits for a response. The Internet Timeout Value specifies how many milliseconds InfoCaster will wait before trying again.

If this value is too large, you risk an item playing blank if InfoCaster is still waiting for a response when the item is scheduled to play. If the value is too low, you risk not outputting the most current data from the internet source.

- Each of your InfoCast items can be set to expire on a certain date. Use the Check For Expired Content field to choose the time of day when expired items are deleted.
See [Expire Items](#) (on page 59) to learn how to set items to expire.

Presentation Settings

The Presentation Settings section of the tab allows you to set the way rolls, crawls, and the sequencer are displayed.

- By default, InfoCaster sets item sequence times in hours:minutes:seconds format. Check the Show Frames in Sequencer checkbox to fine-tune item sequence times with the hours:minutes:seconds:frames format.
- The Roll Direction radio buttons set the direction of rolls in InfoCasts.
- The Crawl Direction radio buttons set the direction of crawls in InfoCasts.
- The Default Font drop-down list sets the default font for new items which display text, such as the Title Quick Editor and Table Quick Editor.

Location Settings

When connecting to an external RSS feed, InfoCaster allows you to replace a URL query value with your InfoCaster player's location setting. For example, the existing value for the URL query tag **location** could be replaced with **waterloo** when connecting to an RSS weather feed.

Use the Location field in the General tab to set the player's location. This information will replace the URL query value when you connect to an RSS source. See the InfoCaster Data Source Wizard guide to learn how to specify which URL query tag is referenced.

Data Source Settings

The InfoCaster Manager application can distribute Data Source content to players. Use the Store Data Source Files In field to specify where Data Source files are stored when they are received from InfoCaster Manager.

When you connect InfoCast items to external data sources and you want the data sources to be updatable by InfoCaster Manager, connect the InfoCast items to the data source files in this folder.

Media Store Settings

Click the choose button and select the folder where you'd like to store Shared Media files. You can use the Shared Media folder to save all of your audio and video files in one location instead of within each InfoCast folder. This reduces the amount of disk space used by your InfoCasts if you use the same audio and video files in several different InfoCasts.

The Automatically Delete Stored Media Files checkbox sets InfoCaster to delete the files in the Shared Media folder that are not being used by any InfoCast on your system.

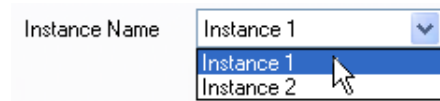
Output Settings

The Output Settings section of the tab sets the way InfoCasts are created and output.

- The Output Aspect Ratio drop-down list sets the aspect ratio for your output display. If you output to a 16:9 display, select 16:9 from the list.
- The VGA Aspect Ratio drop-down list sets the aspect ratio for the InfoCaster display on your publisher. Selecting the correct aspect ratio ensures that objects are created at the correct size. If you output to a 16:9 display, select 16:9 from the list when you are creating 16:9 pages.
- The Audio Ducking Level sets the level the background audio is lowered to when another audio file is playing. Audio ducking for an item is enabled using the Audio Ducking checkbox on the Audio tab in the Content Editors.
- Use the Current Time Source radio buttons to choose either the PC clock or an external timecode source. InfoCaster can receive timecode from an installed XD-200 board.

Multiple Instances

When working with multiple player instances, use the drop-down list to select the instance you want to configure. Each instance can be configured separately.



InfoCaster License

InfoCaster systems require either a hardware dongle or an operating license before InfoCaster can launch or run. InfoCaster Manager can import operating licenses and distribute them to the InfoCaster systems on its network.

The InfoCaster License tab allows InfoCaster publishers and players to request licenses from InfoCaster Manager, and to release their licenses when they no longer require them. Systems which use a hardware dongle can also use the tab to see information about their dongle type and expiration date.

To learn how to use InfoCaster Manager to control publisher and player licensing, see the License Manager section of the InfoCaster Manager User Guide.

The screenshot shows the 'InfoCaster License' tab interface. It is divided into three main sections: 'Current HASP Dongle', 'Current License', and 'Request License'. The 'Current HASP Dongle' section shows 'No InfoCaster HASP dongle detected.' with a 'Find InfoCaster Dongle' button. The 'Current License' section shows 'The InfoCaster License detected on this system is valid.' with details: 'Type: InfoCaster Creation Station (Regular)' and 'Expiry: 2011-01-10 10:52:59 (y-m-d h:m:s Local Time)', along with a 'Release InfoCaster License' button. The 'Request License' section prompts the user to select a license type from a table. The table has two columns: 'License Type' and 'Available'. It lists three options: 'InfoCaster Creation Station (Display Wall)' (1 of 1), 'InfoCaster Creation Station (Regular)' (0 of 3), and 'InfoCaster Player (Unlimited Heads)' (91 of 100). A note at the bottom states: 'Note: the license availability has been retrieved from InfoCaster Manager on: 2011-01-10 10:27:27 (y-m-d h:m:s Local Time)'.

License Type	Available
☐ InfoCaster Creation Station (Display Wall)	1 of 1
☐ InfoCaster Creation Station (Regular)	0 of 3
☐ InfoCaster Player (Unlimited Heads)	91 of 100

Find InfoCaster Dongle

If your system is operating with a hardware dongle, click the Find InfoCaster Dongle button to see the type and expiration date of the dongle.

Current License

The Current License section of the tab displays the type and expiration date of the license that the InfoCaster system is currently using. InfoCaster will contact InfoCaster Manager to renew the license when it expires.

Note: If your system is operating with a hardware dongle instead of a license, no information is displayed.

Request License

Use the Request License section of the tab to request a new operating license from InfoCaster Manager.

The list at the bottom of the tab displays the number of each license type that is currently available from InfoCaster Manager. To request a license or change your current license, check the license type you want to use. Each type allows your InfoCaster system to behave in a certain way.

- InfoCaster Creation Station (Display Wall): Publisher systems that can create all types of InfoCasts, including display walls.
- InfoCaster Creation Station (Regular): Publisher systems that can create any InfoCasts except display walls.
- InfoCaster Player (Unlimited Heads): Player systems with support for unlimited output heads.

Exit the Configuration Utility to complete your license request. When you relaunch InfoCaster, InfoCaster Manager sends the license type to your system if one is available.

InfoCaster Manager Publishing

If you are using your publisher to publish InfoCasts, use the InfoCaster Manager tab to set which InfoCaster Manager systems the publisher publishes to.

These locations appear in the InfoCaster Manager Publish, Download and Approve windows. Consult with your InfoCaster Manager Administrator for details.

Locations	Name	InfoCaster Manager Location	InfoCaster Manager Server Port	E-Mail Contact
Main Network Manager	Main Network Manager	\\mastercontrol-NM	9001	mc@zyxstation.org

New Edit Delete

Choose...

Manage InfoCaster Manager Systems

Before publishers can publish, download, or approve InfoCasts, they must have one or more InfoCaster Manager systems in the Locations list.

1. To add a new InfoCaster Manager system to the Locations list, click the New button. An Untitled Location is added to the Locations list.
2. Type a name for the InfoCaster Manager system in the Name field. This name appears when the publisher publishes, downloads, or approves InfoCasts.
3. Click the Choose button to find and select the network computer name for the InfoCaster Manager system, or enter the IP address of the InfoCaster Manager system.
4. To change the port that the publisher uses to communicate with InfoCaster Manager, enter a new port number in the InfoCaster Manager Server Port field.
5. In the E-Mail Contact field, enter the email address of a person who is notified whenever an InfoCast is updated. This is optional.

Edit InfoCaster Manager

To edit one of the InfoCaster Manager systems, select it in the Locations list and click the Edit button. Use the Name, InfoCaster Manager Location, and E-Mail Contact fields to edit the InfoCaster Manager.

Delete InfoCaster Manager

To delete one of the InfoCaster Manager systems, select it in the Locations list and click the Delete button.

InfoCaster Manager Server Account Tab

When you have InfoCaster Manager installed on your system, the InfoCaster Manager Server Account tab allows you to set the account used by the InfoCaster Manager Server to access InfoCasts on the InfoCaster Manager file servers.

This username and password will be used by the InfoCaster Manager Service which will need the permissions to access files on its file server across the network.

☐ Local System Account
☐ Allow Service to interact with desktop

Username:

Password:

Domain:

Note:

- If the user account that you are using is a local account, do not enter a domain.
- Domain names are not required if you are using a workgroup.
- The account, password and optionally the domain name must have read/write access rights to the network share for the InfoCaster Manager file server.

Local System Account

The Local System Account is a built-in default account on all Windows machines. It is designed to allow services to run, but it does not often have permission to access the network.

If the InfoCaster Manager file server is being accessed through HTTP/FTP, it is okay to run the InfoCaster Manager Service with the Local System Account, though it is recommended that you use an Administrator account for this service instead.

To use the Local System Account, check the Local System Account checkbox.

Allow Service to Interact with Desktop

Check the Allow Service to Interact with Desktop to allow the Player Server to open windows on the desktop when necessary. This also allows the Player Server to place a monitor icon in the Windows task bar.

Set InfoCaster Manager Service Account

If you are not using the Local System Account, uncheck the Local System Account checkbox and enter the account's username, password, and domain information. Do not enter a domain if you are using a workgroup.

Multi Screen Playback Tab

InfoCasts can contain tables that span across the displays of multiple players. In order to properly display multi screen tables, InfoCaster needs to know which table screen should be displayed on each player. See Table Quick Editor (on page 128) to learn how to add spanning tables to InfoCasts.

If you have purchased the Multi Head option and have set up additional player instances in the Video/Audio Standard tab (described in Multiple Instances (on page 224)), you can configure each instance separately with the Instance Name drop-down list.

Spanning Tables

A spanning table is a table that displays a different range of data on each player display, depending on the screen numbers assigned to the players or player instances. The InfoCast that contains the spanning table must be the same resolution as a single player's output, and all players must use the same resolution while playing spanned tables.

To display spanning tables, each player or player instance must be configured to display a specific screen number.

When the player or instance plays an InfoCast that contains a spanning table, it will only display the range of data for that screen number. If there is no data in that range (for instance, if the player is configured to display the fourth screen of table data and there is only enough data for three screens) the player displays an empty table on that screen.

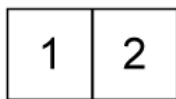
If the amount of data exceeds the number of screens set in the table item, the table data cycles during playback until all the data is displayed, then the data repeats. See Replicate Table (on page 129) to learn how to set the number of screens for a table.

Arranging Displays for Spanning Tables

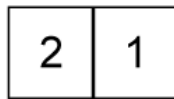
Because each player or instance is set to display a specific screen of table data, you have a great deal of flexibility when arranging your displays. To accommodate left-to-right, right-to-left, or top-to-bottom arrangements, configure each player or instance to display the appropriate screen number.



Top-to-Bottom

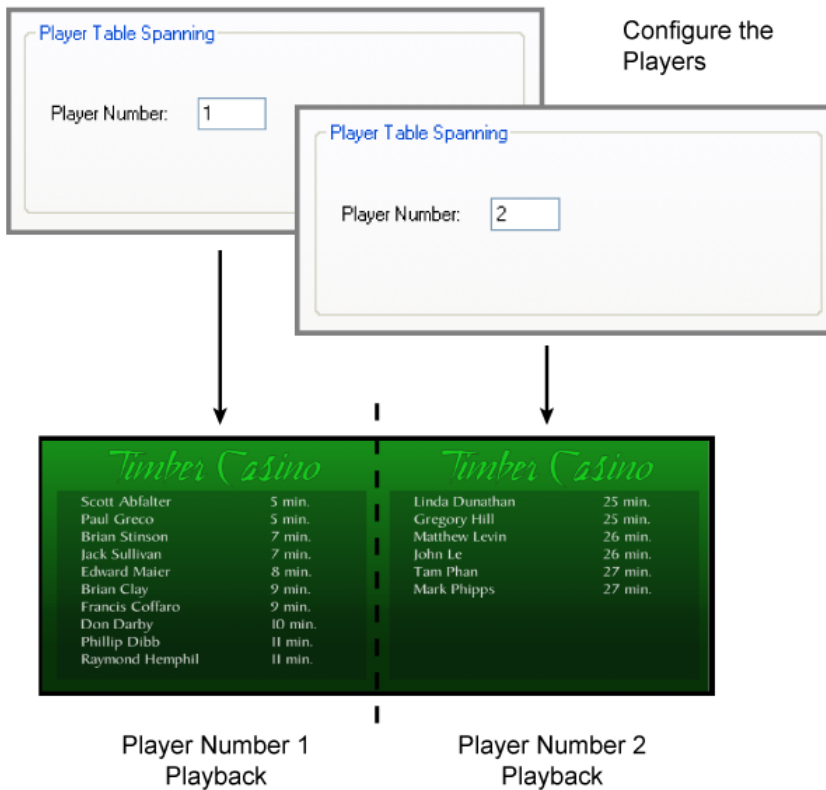
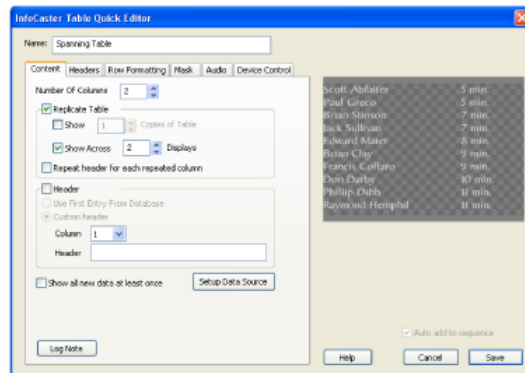


Left-to-Right



Right-to-Left

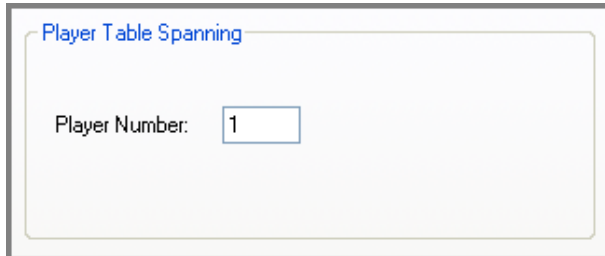
Create an
InfoCast with a
Spanning Table



Configure the
Players

Set Table Spanning Across Multiple Players

To set the table screen displayed by a single-instance player, type the table screen that you want the player to display. Whenever that player receives an InfoCast containing a spanning table, the player will display the data range for that screen.



Player Table Spanning

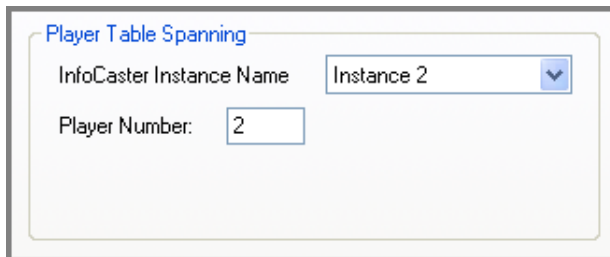
Player Number:

For example, if you are displaying a table across two players in a left-to-right display arrangement, set the player on the left to display screen number one and set the player on the right to display screen number two.

Set Table Spanning Across Player Instances

If you have purchased the Multi Head option and configured the player for multiple instances, use the Player Number drop-down list to choose each player instance and set its screen number.

Select the instance you want to configure from the Instance Name drop-down list, then enter the table screen you want that instance to display in the Player Number field. Whenever that instance receives an InfoCast containing a spanning table, the instance will display the data range for that screen.



Player Table Spanning

InfoCaster Instance Name

Player Number:

For example, if you are displaying a table across two player instances in a left-to-right arrangement, set the instance on the left to display screen number one and set the instance on the right to display screen number two.

Multicast Mode Distribution Tab

When using InfoCaster Manager to send InfoCasts via satellite, third-party transmission software sends InfoCasts to specific folders on player systems. The InfoCaster Player Server monitors these folders and copies new InfoCasts to the InfoCaster content folder.

Use the Multicast Mode Distribution tab to tell the Player Server which folders to monitor. You can also use the tab to specify where incoming ATSC-MH datacasts are stored.

Third party software (e.g. satellite transmission) will copy updates to this folder for distribution of InfoCasts from InfoCaster Network Manager to InfoCaster Players.

InfoCaster Player Server will monitor these folders and copy InfoCasts to the InfoCaster Content Directory.

Folders To Monitor
\\SystemShare\PageLayoutsSat
\\SystemShare\PageLayoutsSat2

☐ Delete the InfoCasts on the monitored folders after copying them.

Multiple Instances

When working with multiple player instances, use the drop-down list to select the instance you want to configure. Each instance can be configured separately.

Instance Name

Manage Folders

To add a new folder to the folder list, click the New button and navigate to the folder you want to monitor. The folder must be a local folder or referenced via a network share that is accessible to the InfoCaster system user.

The Player Server will monitor the folder and copy any new InfoCasts from it to the content folder.

You can also use the folder to specify where incoming ATSC-MH datacasts are stored. You choose the folder when configuring an ATSC-MH tuner card in the Video/Audio Standard tab. See Configure

ATSC-MH Tuner Card (on page 271) to learn how to configure an ATSC-MH tuner card and choose the folder you have defined.

Remove a Folder

To remove a folder from the Multicast Mode Distribution list, select the folder in the list and click the Remove button. The folder is removed and is no longer monitored by the Player Server.

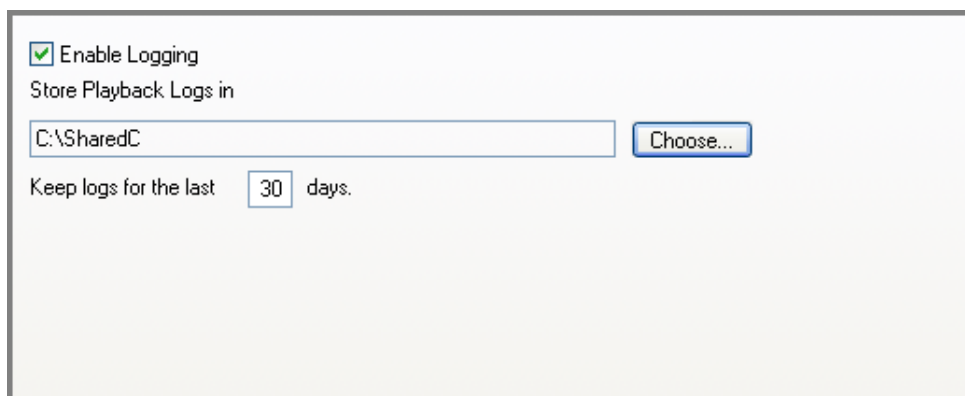
Delete the InfoCasts

Check the checkbox if you want to delete InfoCasts from the folders after they are copied to the player.

Playback Logging Tab

When you log the playback of region sequences, InfoCaster creates a log file that includes information about the items in the regions. A new log file is created each day, so the playback of an entire day is stored in one log file. You can view the log file within InfoCaster using the Log Viewer (Tools > Log Viewer).

If you have purchased the Multi Head option and have set up additional player instances in the Video/Audio Standard tab (described in Multiple Instances (on page 224)), you can configure each instance separately with the Instance Name drop-down list.



The screenshot shows a configuration window for playback logging. It features a checked checkbox labeled 'Enable Logging'. Below this is the text 'Store Playback Logs in' followed by a text input field containing 'C:\SharedC' and a 'Choose...' button. At the bottom, it says 'Keep logs for the last' followed by a spin box set to '30' and the word 'days'.

Playback Logs

Playback logs contain the following information every time an item is displayed:

- Player name.
- Groups (the name of the InfoCaster Manager group that the player is part of, if any).
- Page name.
- Region name.
- Item name.
- Start date.
- Start time.
- Stop date.
- Stop time.
- Duration.

Set Up Logging

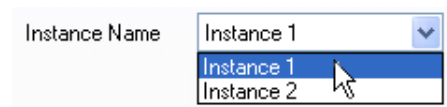
Check the Enable Logging checkbox to make logging available within InfoCaster. Logging is enabled by default.

To choose a new location for storing playback logs, click the Choose button and select a new folder for your log files.

Use the Keep Logs For the Last ___ Days field to set the number of days InfoCaster keeps the finished log files. After a log has been stored for the specified number of days, InfoCaster deletes the log file.

Multiple Instances

When working with multiple player instances, use the drop-down list to select the instance you want to configure. Each instance can be configured separately.



Player Settings Tab

The Player Settings tab is only available for the player systems. It displays information about the player that was entered when the player was installed. You can update this information at any time. Check the Notify checkbox at the bottom of the tab to immediately update InfoCaster Manager when information on this tab changes.

If you have purchased the Multi Head option and have set up additional player instances in the Video/Audio Standard tab (described in Multiple Instances (on page 224)), you can configure each instance separately with the Instance Name drop-down list.

System

Name:

Location:

Description:

InfoCaster Manager

Server Name:

TCP/IP Port:

Operator

Name:

E-Mail:

Telephone:

IP Multicast

InfoCaster Manager sends IP multicast commands to Players.
Please enter the multicast address and port on which this Player receives the multicast commands.

Address:

Port:

☒ Notify InfoCaster Manager immediately when player status changes

Player Settings

System

The System section of the tab displays the name and physical location of the player, as well as a brief description. By default, the description displays the log-in ID of the individual who installed the player.

The player's name is used by InfoCaster Manager to select the player when sending InfoCasts.

InfoCaster Manager

The Server Name and Server Port of the InfoCaster Manager system are displayed in the InfoCaster Manager section of the tab.

Operator

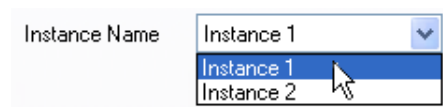
Player systems can provide InfoCaster Manager with information about the system's operator. Use the Name, Email, and Telephone fields to enter or update the operator's contact information. This information is displayed when player systems are selected within InfoCaster Manager.

IP Multicast

If your InfoCaster Manager system is sending IP multicast commands to your player, enter the multicast address and the port that the player is using to receive the multicast commands. See Clock Sync and Display Wall (on page 227) to learn how to synchronize your players when using IP multicast triggers.

Multiple Instances

When working with multiple player instances, use the drop-down list to select the instance you want to configure. Each instance can be configured separately.



Player Server Account Tab

When using InfoCaster with InfoCaster Manager, the Player Server Account tab allows you to set the accounts used by the Player Server to access InfoCasts on the InfoCaster Manager LAN and HTTP file servers.

The screenshot shows the 'Player Server User Account' tab in the InfoCaster Configuration Utility. It contains three sections: 'Player Server User Account', 'Player Server HTTP Account', and 'Player Server FTP Settings'. The 'Player Server User Account' section has a checkbox for 'Local System Account' and a checkbox for 'Allow Service to interact with desktop'. Below these are input fields for 'Username' (containing 'OPERATOR01'), 'Password' (masked with dots), and 'Domain' (containing 'MC'). A 'Note' section provides instructions for local accounts and domain names. The 'Player Server HTTP Account' section has input fields for 'Username' and 'Password'. The 'Player Server FTP Settings' section has a checked checkbox for 'Use Passive FTP'.

Player Server User Account

This username and password will be used by the Player Server which will need the permissions to access files in the InfoCaster Manager LAN File Server across the network.

☐ Local System Account

☐ Allow Service to interact with desktop

Username:

Password:

Domain:

Note:

- If the user account that you are using is a local account, do not enter a domain.
- Domain names are not required if you are using a workgroup.
- The account, password and optionally the domain name must have read/write access rights to the InfoCaster Manager

Player Server HTTP Account

This username and password will be used by the Player Server which will need the permissions to access files in the InfoCaster Manager HTTP File Server across the internet.

Username:

Password:

Player Server FTP Settings

☒ Use Passive FTP

Player Server User Account

You can use either a specific user account or the Local System Account to connect to the InfoCaster Manager LAN file servers.

Local System Account

The Local System Account is a built-in default account on all Windows machines. It is designed to allow services to run, but it does not often have permission to access the network.

You can usually run the Player Service with the Local System Account when accessing the LAN file server for your InfoCaster Manager system, though it is recommended that you use an Administrator account for this service instead.

To use the Local System Account, check the Local System Account checkbox.

When using the Local System Account, check the Allow Service to Interact with Desktop to allow the Player Server to open windows on the desktop when necessary. This also allows the Player Server to place a monitor icon in the Windows task bar.

Specific User Account

If you are not using the Local System Account, uncheck the Local System Account checkbox and enter the account's username, password, and domain information. Do not enter a domain if you are using a workgroup.

Player Server HTTP Account

Enter the username and password that the Player Server will use when accessing the HTTP file servers for your InfoCaster Manager system.

Use Passive FTP

This checkbox changes the mode that the Player Server uses when downloading from an FTP server.

- Checked: The Player Server downloads in passive mode.
- Unchecked: The Player Server downloads in active mode.

Proxy Server Settings Tab

The Proxy Server Settings tab allows you to set-up a connection to your local network's proxy server. The settings entered on the tab are stored in the Windows Registry. InfoCaster systems and InfoCaster players read the settings in the registry during playback and connect to the proxy server.

The screenshot shows the Proxy Server Settings tab with the following fields and controls:

- ☒ Use proxy server to access Internet resources
- Proxy server name / address: Port:
- Username: Password:
- ☒ Bypass proxy server for local addresses
- Bypass proxy server for these addresses:
-
- Sites to bypass:

Set Up Proxy Server Connection

To set up the proxy server connection, complete the following steps.

1. On the Proxy Server Settings tab, select the Use Proxy Server to Access Internet Resources checkbox.
2. In the Proxy Server Name/Address field enter the proxy server name or IP address.
3. In the Port field, enter the port used to communicate with the proxy server.
4. In the Username field, enter the username for the proxy server.
5. In the Password field, enter the password for the proxy server.

Bypass Proxy Server

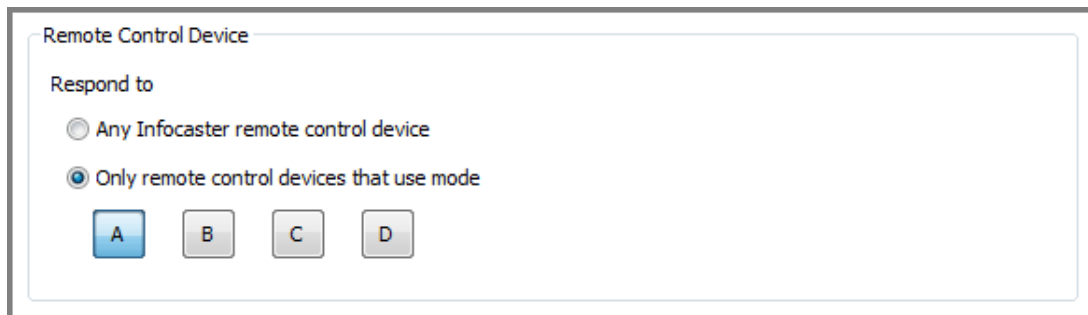
To bypass the proxy server and connect to specific internet sites directly, complete the following steps.

1. Select the Bypass Proxy Server for Local Addresses checkbox.
2. In the text box, enter the site address that you are connecting to directly.
3. Click the Add button to add the site to the Sites to Bypass list.
4. To remove a site from the list, select the site address and click Remove.

Remote Control Configuration

If you are using a PC remote to control the displays and channels for your players, the remote is capable of operating in A, B, C, or D mode. Each InfoCaster player can respond to only one mode, allowing you to control up to four players with a single remote.

Use the Remote Control Configuration tab to specify which mode your player responds to.



Specify Player Response

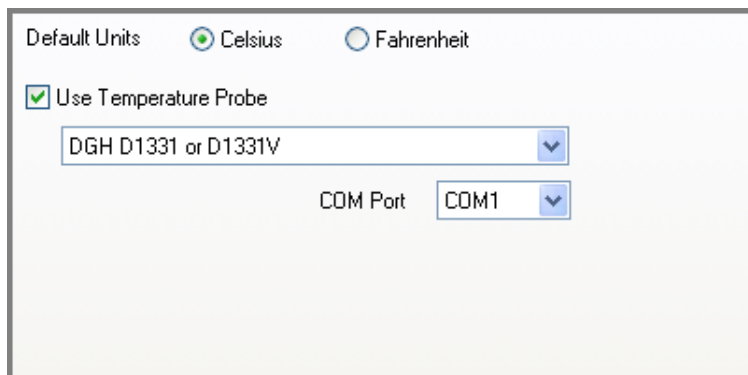
- If you want the player to respond to any InfoCaster PC remote, select the Any InfoCaster Remote Control Device radio button.
- If you want the player to only respond to InfoCaster PC remotes which are set to a particular mode, select the Only Remote Control Devices That Use Mode radio button, and click the button for the mode you want the player to respond to.

When the PC remote is set to the player's mode, the player will respond to commands sent by the remote.

See Use a PC Remote (on page 210) to learn more about using a PC remote with your InfoCaster systems.

Temperature Probe Tab

The Temperature Probe tab allows you to configure an external probe that you can use in a Temperature Probe region.

A screenshot of the 'Temperature Probe' configuration window. At the top, there are two radio buttons for 'Default Units': 'Celsius' (selected) and 'Fahrenheit'. Below this is a checked checkbox labeled 'Use Temperature Probe'. Under the checkbox, there is a dropdown menu showing 'DGH D1331 or D1331V'. To the right of this dropdown is a label 'COM Port' followed by another dropdown menu showing 'COM1'.

Configure DGH Temperature Probe

If you are using a DGH temperature probe, ensure that it is configured in the following way.

- 9600 baud rate.
- Eight data bits.
- No parity.
- One stop bit.

Steps for configuring DGH temperature probes are in the DGH set up manual.

Note: After configuring the probe, be sure to power down the probe and remove the wire connecting the default pin to ground. This procedure is described in the DGH set up manual.

If you have difficulty viewing temperature probe information within InfoCaster, set your DGH probe to **31020080** as described in the DGH set up manual.

Set Default Units

Check the Celsius or Fahrenheit radio button to set the default units for the temperature probe. This affects the temperature and unit suffix that is displayed.

Set Up a Temperature Probe

Follow these steps to set up your temperature probe:

1. Connect the temperature probe to one of your system's COM ports.
2. Check the Use Temperature Probe checkbox.
3. Select your temperature probe device from the drop-down list.

4. Select the COM port that the temperature probe is connected to from the COM Port drop-down list.

Video/Audio Standard Tab

The Video/Audio Standard tab allows you to configure InfoCaster's input and output options. See Video/Audio Configuration (on page 261) for full instructions.

Video/Audio Configuration

To configure InfoCaster's input and output options, use the Video/Audio Standard tab in the InfoCaster Configuration Utility.

- To learn how to configure InfoCaster video output, see [Configure InfoCaster Video Output](#) (on page 262).
- To learn how to configure InfoCaster network streaming output, see [Configure InfoCaster Network Streaming](#) (on page 274).

Launch the Configuration Utility

Open the InfoCaster Configuration Utility using one of the following methods.

- Within InfoCaster, choose Edit > Preferences.
- From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

Use the Video/Audio Standard Tab

Within the Configuration Utility, switch to the Video/Audio Standard tab to configure your video and audio settings.

Configure InfoCaster Video Output

You can configure your output device, video standard, and device output options. You can also enable audio output and audio/video input devices. If you have purchased the Multi Head option, use the Video/Audio Standard tab to set up multiple Standard player instances.

Configuration Workflow

Configuring your InfoCaster video options involves the following steps.

1. Decide which output option you wish to use.
2. Connect the system's video card(s) to your output monitor(s).
3. Configure the output heads of the video card(s) based on the output option you have chosen.
4. Configure the InfoCaster application's output based on the output option you have chosen.

Single Head

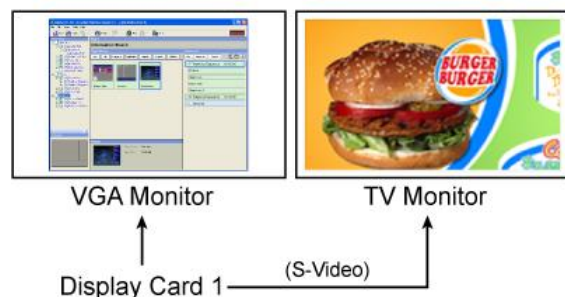
Single head output is used to display the player's output on a single output monitor, or to a desktop video window. The monitor is attached to the first head of your display card.

Note: When your player has started playback in single head mode you will be unable to return to the desktop without shutting down InfoCaster. If you need to switch back to the desktop at any time, hold down the **CTRL+ALT+SHIFT+HOME** key combination for five seconds. Alternately, you can display the output in a desktop video window.

TV Out

The TV Out setup displays the player's output on a single external NTSC or PAL TV monitor, while your InfoCasts are edited on an output monitor.

The TV monitor is attached to the display card's S-Video port and the output monitor is attached to one of your display card's heads.

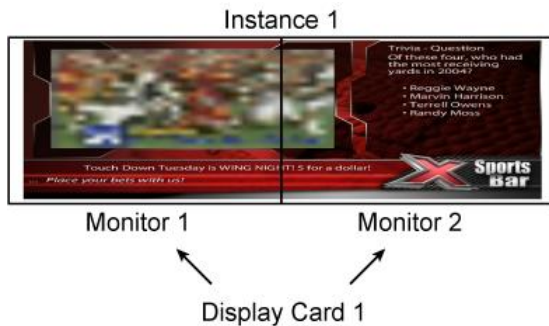


Spanning

Spanning output is used to display a player's output across two output monitors. Both monitors must be attached to the same display card.

Each monitor is attached to one of your display card's heads.

Only one InfoCast can be displayed at a time in this configuration. Spanned InfoCasts are designed at a resolution that fills both monitors.

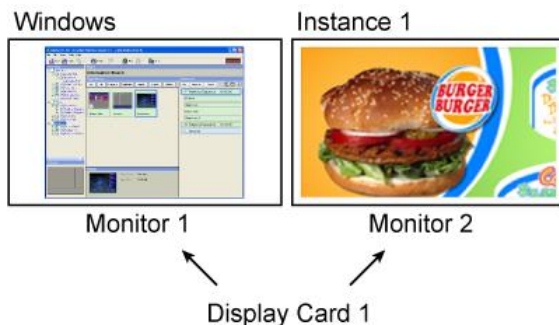


Note: The spanning output option is only supported in Windows XP.

Edit & Playback

Edit & playback output allows you to edit InfoCasts on one output monitor and display them on the other.

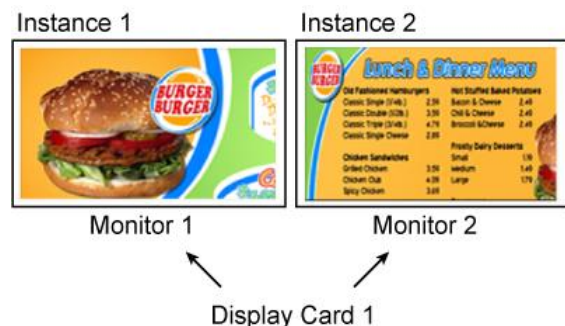
Each monitor is attached to one of your display card's heads. Only one InfoCast can be displayed at a time with this configuration.



Multi Head

If you have purchased the Multi Head option, multi head output is used when you want to operate two or more player instances on a single system, each instance displaying a different InfoCast.

Each monitor is attached to one of your display card's heads. InfoCaster can display two to four player instances, allowing you to play two to four different InfoCasts at the same time.



With two dual-head cards, quad head output is possible, displaying four different InfoCasts at the same time.



Configure the Video Hardware

After connecting one or more monitors to your video hardware according to the options listed above, configure your hardware to use the option you have chosen.

- If you purchased InfoCaster as a turnkey system, your InfoCaster hardware manual explains how to configure your video hardware, and also contains instructions tailored to your hardware.
- If you are using NVIDIA hardware, please see the Install NVIDIA Hardware application note included on your install CD.
- If you are using a Matrox G450 or G550 output card, please see the Install G450 and G550 application note included on your install CD.

Launch the InfoCaster Configuration Utility

1. Open the InfoCaster Configuration Utility using one of the following methods.
 - Within InfoCaster, choose Edit > Preferences.
 - From the Windows START Menu, choose Programs > Harris > InfoCaster > Configuration Utilities > InfoCaster Configuration Utility.

Note: You must have administrator permissions in order to properly use the Configuration Utility.

2. Switch to the Video/Audio Standard tab to set up your video and audio options.

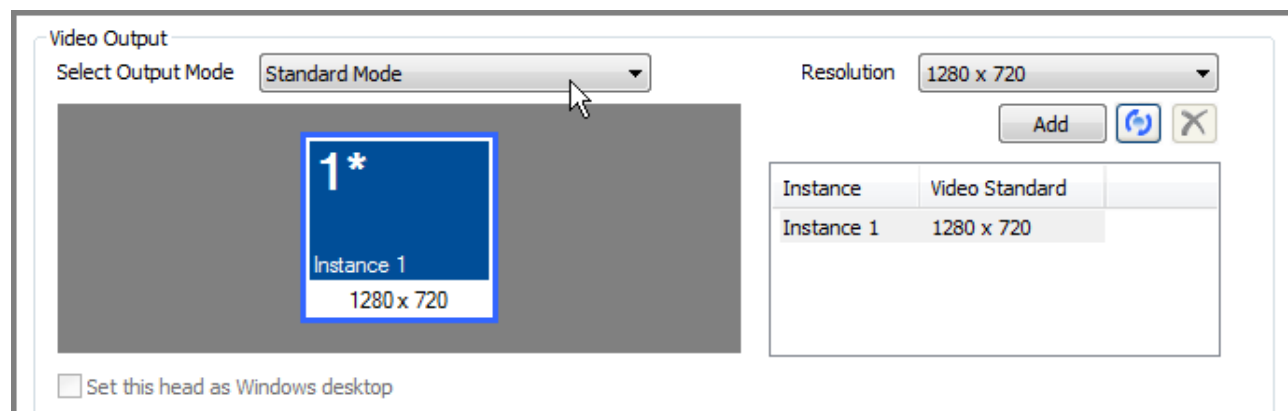
Select the Video Output Mode

Choose your system's output mode from the Select Output Mode drop-down list.

- Select Standard mode if you are using single head, spanning, edit & playback, desktop video, or multi head output. See Configure Standard or Fullscreen Mode (on page 265) to learn how to configure your output.
- Select Legacy Mode (TV Out) if you are using TV Out output to display playback on an external NTSC or PAL TV monitor.
When TV Out is selected, use the Video Standard drop-down list to select the video standard for TV Out output.
- If you have a Matrox G450 or G550 card installed in your system, use this option to display player output on an S-video or composite TV monitor.
- Legacy Mode (Fullscreen) or Legacy Mode (Desktop Video Window) should only be selected if you require Odometer functionality, or if you experience problems playing legacy content in Standard mode.

Configure Standard or Fullscreen Mode

If you are using single head, spanning, edit & playback, desktop video, or multi-head output, select Standard Mode from the drop-down list and use the tab's options to configure your output.



Note: If you need to use Odometers or if you are having trouble playing legacy content in Standard mode, you may need to select Legacy Mode (Fullscreen) instead.

The Video section of the tab displays color-coded boxes to represent each output instance.

- To add an instance, click the Add button. A new instance is added to the display and is automatically assigned to one of the heads on your video card. All instances attached to the same card are displayed in the same color.

- To change the resolution of an instance, select it and use the Resolution drop-down list.
If your video card has been configured to rotate an instance's display, choose the rotated resolution from the drop-down list. For example, if the display has been configured to 720x480 with a rotation of 90 degrees, choose the 480x720 resolution from the drop-down list.
- If you want to be able to edit InfoCasts and control output locally on an instance, select the instance you want to use and check the Set This Head as Windows Desktop checkbox.
- If you want to combine two instances into a single spanned display, select the instance that you configured as the left monitor and check the Span Across Both Heads checkbox. The displays are combined.

Use the Resolution drop-down list to select a resolution that matches the total size of both instances. For example, if you are spanning an instance across two 1024x768 monitors, set the instance resolution to 2048x768.

Note: Display spanning is only supported in Windows XP, and is not available when Standard mode is selected.

- To remove an instance, select it and click the Remove button. You must always have at least one instance while configuring Standard or Legacy (Fullscreen) mode.

When you change the settings of a card, always click the Update button to finalize the changes.

Resolution Considerations

Highest quality playback is accomplished by choosing a resolution that is identical to your output monitor's native resolution. If you are creating very complex InfoCasts for monitors with high native resolutions, however, consider choosing a lower output resolution to reduce processing requirements.

Note: Single and multi head output is limited to 1920x1080.

Configure Desktop Video Output

Follow these steps to configure desktop video when you are using Standard mode.

1. Ensure that you have one instance in the configuration utility.
2. Select the instance.
3. Use the Resolution drop-down list to select the resolution for the desktop video.
4. Use the Show Output drop-down list to select the Windowed option.

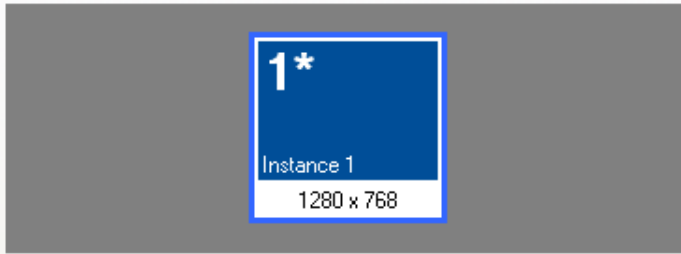
Note: Desktop video output cannot be configured in the Legacy Mode (Fullscreen) output mode. If you are unable to display legacy content in Standard mode and you wish to display the legacy content in a desktop video window, select Legacy Mode (Desktop Video Window) as your output mode instead.

Configure Single Head Output

If your video card is set for the default single head output, follow these steps to configure InfoCaster.

1. Ensure that you have one instance in the configuration utility.
2. Select the instance.
3. Use the Resolution drop-down list to select the resolution for the single output.

4. If you are using Standard mode, use the Show Output drop-down list to select the Fullscreen option.



Configure Spanning Output

If you are using Legacy Mode (Fullscreen) and your video card is set for spanning output, follow these steps to configure InfoCaster.

1. Ensure that you have two instances in the configuration utility. Both instances must be attached to the same video card.
2. Select the instance that corresponds to the left monitor.
3. Check the Spanned Display checkbox. Both instances are combined.
4. Use the Resolution drop-down list to select the resolution for the spanned output. This is the resolution of both displays combined.



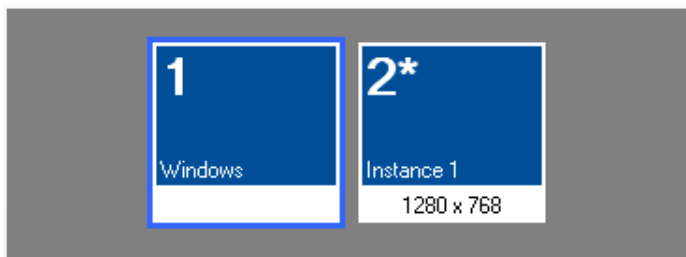
Note: The spanning output option is only available in Windows XP. It cannot be used in Standard mode.

Configure Edit & Playback Output

If your video card is set for edit & playback output, follow these steps to configure InfoCaster.

1. Ensure that you have two instances in the configuration utility.
2. Select the instance that corresponds to the editing monitor.
3. Check the Set This Head as Windows Desktop checkbox.
4. Use the Resolution drop-down list to select the resolution for the editing monitor and the playback monitor.

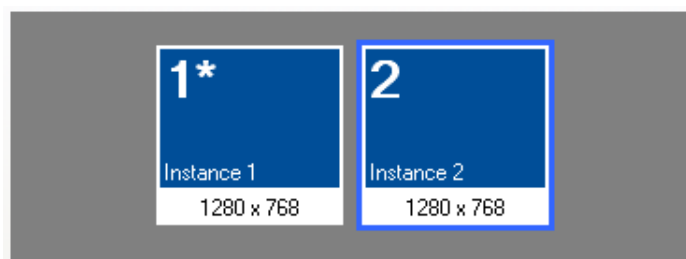
- If you are using Standard mode, use the Show Output drop-down list to select the Fullscreen option.



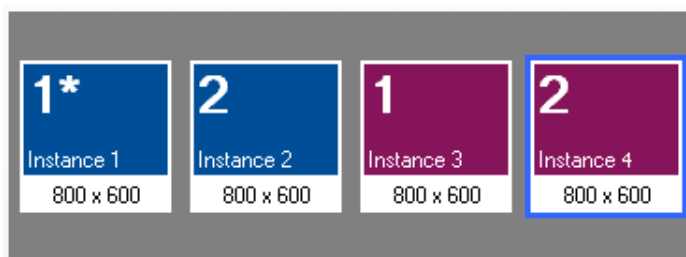
Configure Multi Head Output

If your video card is set for multi head output, follow these steps to configure InfoCaster.

- Ensure that you have two or more instances in the configuration utility.
- Use the Resolution drop-down list to select the resolution for each instance.
- If you are using Standard mode, use the Show Output drop-down list to select the Fullscreen option.



Systems with two dual-head video cards can be configured for quad head output using the same method. The instances attached to the different cards are color-coded.



Set Device Output Options

Depending on your output device you can customize your output options using the available checkboxes.

Device Output Options

Option	Description

Option	Description
Use GPU Acceleration	Legacy Mode (Desktop Video Window) provides a Use GPU Acceleration checkbox. To improve video output quality and speed, the application can tell your video card to perform many of the output tasks that the application would otherwise perform itself. Select the Use GPU Acceleration checkbox if your video card is capable of handling advanced video output tasks.
Confidence Preview	Standard mode, Legacy Mode (Fullscreen), and Legacy Mode (Desktop Video Window) provide a Confidence Preview checkbox. Select it to enable InfoCaster Manager and InfoCaster to display thumbnails of player output. Confidence Previews are CPU and GPU intensive.
Exclusive Mode	Legacy Mode (Fullscreen) normally runs in exclusive mode, which improves performance by preventing you from switching between applications. To help you configure your system, you may find it useful to uncheck the Exclusive Mode checkbox during configuration. During regular playback, however, be sure to keep the Exclusive Mode checkbox checked.
Supports Touchscreen	Standard mode and Legacy Mode (Fullscreen) provide a Supports Touchscreen checkbox. If your output monitor has touchscreen capabilities, select this checkbox to allow InfoCaster to detect screen touches. To use this feature within InfoCaster, enable a region to detect a touch and assign that region to a Conditional Playback trigger. To set up a touchscreen: 1. Connect the touch screen monitor to your system. 2. Right-click on your computer desktop and select Properties. 3. Switch to the Settings tab. 4. Set up the touch screen so that it is the first head. 5. Within the InfoCaster Configuration Utility, set InfoCaster to output to that head.
DirectX Yield Technique	Legacy Mode (Fullscreen) provides a DirectX Yield Technique drop-down menu to control video output. The default selection (Query) is the most efficient, but it is not supported on some cards. Try the other yield techniques only if you are experiencing serious output problems.

Option	Description
Show Output	Standard mode can display its output either windowed or fullscreen. Fullscreen output fills the entire monitor and improves performance by preventing you from switching between applications, while windowed output is useful when creating or troubleshooting InfoCasts. Use the Show Output drop-down list to change the way output is displayed.

Audio/Video Options

Use the options in the Audio/Video section of the tab to configure your audio and video input and output.

Configure Audio Output

To allow your player to output audio, check the Enable Audio Output checkbox. When checked, the player uses the default audio device currently set up within Windows. Use the Audio tab in the Sounds and Audio Devices dialog within Windows to choose the default audio device. Under most circumstances, you will want to ensure that no effects are applied to your audio output by either Windows or the card drivers.

Single-Instance and Split Audio Output

You can either operate in single-instance audio, assigned audio, or split audio mode. These modes depend on whether the Split Audio Card To Virtual Stereo Cards checkbox is checked and whether you have assigned audio outputs.

- **Single-Instance Audio:** In single-instance audio mode, your analog audio output follows the first instance of InfoCaster output, and any other instances are unavailable via the analog audio output connections. This allows for flexibility when you are configuring the audio for the first instance. It is the default mode, and is configured if the Split Audio Card To Virtual Stereo Cards checkbox is unchecked and you have not assigned any audio outputs.
See the Configure the Hardware Audio I/O section below to learn how to choose audio settings up to and including 7.1 channel output for the first instance while in single-instance mode.
- **Assigned Audio:** In assigned audio mode, your player can output audio from each instance to a separate audio driver and/or output port. To use this mode, make sure the Split Audio Card To Virtual Stereo Cards checkbox is unchecked, then click the Assign Audio Outputs button to open the Assign Audio Outputs window.
Use the Assign Audio Outputs window to select the audio driver and the port you want to assign to each instance.

- **Split Audio:** When the Split Audio Card to Virtual Stereo Cards checkbox is checked, your player can output audio from different instances to separate audio ports on the same audio card.

Each instance is assigned to a pair of channels on the audio card. The following table shows the audio card ports that are assigned to instances by default. Most audio cards allow you to override the port assignments if necessary. Refer to the card's documentation to learn how to override port assignment, or refer to your hardware manual if you are using one of the InfoCaster hardware platforms.

Split Audio Card Channel Assignments

Instance Number	Assigned Ports	Port Color
One	• Front Left • Front Right	Green
Two	• Front Center • Low Frequency	Black
Three	• Back Left • Back Right	Orange
Four (Only available on systems with 7.1 audio cards)	• Side Left • Side Right	Grey

Note: Each time you launch the player, channel assignments are made based on the output connections detected by the audio card. To ensure that all assignments are made correctly, be sure to connect all of your output hardware to the audio card BEFORE launching the player.

To prevent Windows from removing assignments during operation, ensure that all of your output hardware remains connected while InfoCaster is operating. This applies both to hardware which is plugged into audio ports and to video outputs which provide audio support.

Configure Live Audio/Video Input

If you have supported audio/video capture cards installed on your InfoCaster system, check the Enable Live Audio/Video Input checkbox. Players allow you to use input from the cards within your Live Video regions if you select this option.

If your audio input is being used exclusively for live video or live audio playback, you may want to disable pass-through (sometimes called "line monitor" or "listen to this device") for your capture card and/or Windows, with the recording source in the Windows audio mixer set to line in, unmuted, maximum volume. Consult the documentation for your operating system and/or capture card for more information.

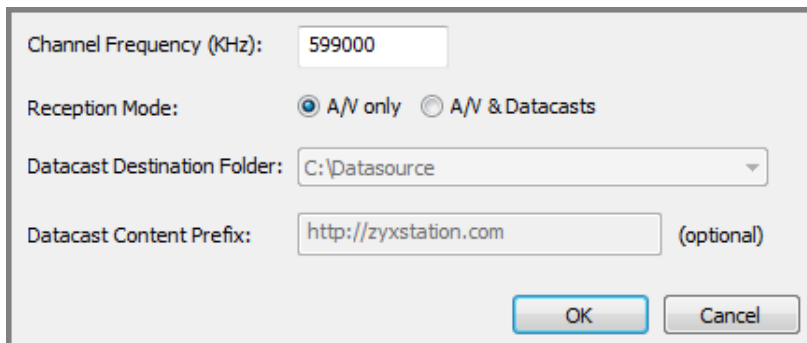
Configure ATSC-MH Tuner Card

You can configure an ATSC-MH tuner card for either A/V only or A/V & datacast operation.

Configure ATSC-MH Tuner Card for A/V Only

Follow these steps to configure an ATSC-MH tuner card for A/V only operation.

1. In the Video/Audio Standard tab, ensure that the Enable Live Audio/Video Input checkbox is checked.
2. Check the Enable ATSC-MH Tuner checkbox.
3. Click the ATSC-MH Tuner Settings button to configure the card. The ATSC-MH Tuner Settings dialog opens.



The dialog box for configuring the ATSC-MH Tuner Card for A/V Only operation. It contains the following fields and controls:

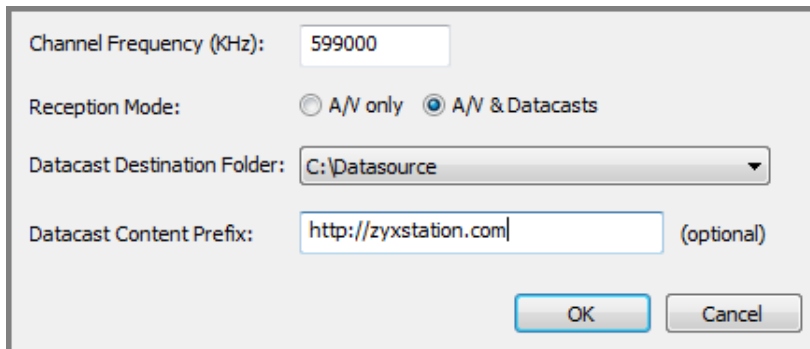
- Channel Frequency (KHz):** A text box containing the value "599000".
- Reception Mode:** Two radio buttons. The first, labeled "A/V only", is selected. The second, labeled "A/V & Datacasts", is unselected.
- Datacast Destination Folder:** A dropdown menu showing "C:\Datasource".
- Datacast Content Prefix:** A text box containing "http://zyxstation.com" followed by "(optional)".
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

4. Set the frequency of the connection with the Channel Frequency field.
5. Select the A/V Only radio button.
6. Click the OK button to save your configuration.

Configure ATSC-MH Tuner Card for A/V & Datacast

Follow these steps to configure an ATSC-MH tuner card for A/V & datacast operation.

1. In the Video/Audio Standard tab, ensure that the Enable Live Audio/Video Input checkbox is checked.
2. Check the Enable ATSC-MH Tuner checkbox.
3. Click the ATSC-MH Tuner Settings button to configure the card. The ATSC-MH Tuner Settings dialog opens.



The dialog box for configuring the ATSC-MH Tuner Card for A/V & Datacast operation. It contains the following fields and controls:

- Channel Frequency (KHz):** A text box containing the value "599000".
- Reception Mode:** Two radio buttons. The first, labeled "A/V only", is unselected. The second, labeled "A/V & Datacasts", is selected.
- Datacast Destination Folder:** A dropdown menu showing "C:\Datasource".
- Datacast Content Prefix:** A text box containing "http://zyxstation.com" followed by "(optional)".
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

4. Set the frequency of the connection with the Channel Frequency field.
5. Select the A/V & Datacasts radio button. The Datacast Destination Folder and Datacast Content Prefix controls are enabled.

6. Use the drop-down list to select the folder where your datacast information will be stored. This list contains folders which have been defined in the Multicast Mode Distribution tab, as described in Multicast Mode Distribution Tab (on page 248).
7. The Datacast Content Prefix field allows you to filter datacasts and manage their storage within the destination folder.
 - The Datacast Content Prefix field can be used as a media type filter to specify that only content files of a specific extension are accepted and stored. For example, *.txt accepts only .txt datacasts.
 - If no explicit extension is given, all the files that are part of the datacast are accepted by default, as though an implicit *.* wildcard were entered.
 - The Datacast Content Prefix field can also be used as a "group" media filter, to specify that only content (files, subfolders, and sub-subfolders) belonging to a particular subfolder inside the root datacast set are accepted.
 - The subfolder/group is specified as a URL in the form of **protocol://DatacastSetRootName[/subfolder1[/subfolder2...]....] where the protocol is usually ftp or http (but can be a user string). The root part of the URL does not need to exist physically anywhere, it is a symbolic name used to differentiate between multiple content stores that the server side of the ATSC-MH datacast transmission (the Roundbox server appliance) may declare as available for a given physical ATSC channel frequency and a given logical MH digital channel.**
 - This feature is especially useful in a multi-host environment, where a server is configured to provide different datacast sets and the MH receivers will prefer to receive data only from a given set.
 - When a Datacast Content Prefix is defined in this way, the whole path segment of the URL (**/DatacastSetRootName/subfolder1/...**), which is normally prefixed to the incoming datacast prior to being stored at the client side, is removed. All URL roots must be defined at the server side first.
 - You can use both of the above techniques in the Datacast Content Prefix field at the same time.
8. Click the OK button to save your configuration.

Confirm the Video Output

After configuring your video output and saving your settings, a warning dialog appears stating that all software will shut down and restart when exiting the Configuration Utility.

1. Click OK to continue with the setup. An ICConfig dialog appears asking if you want to test your settings.
2. Click Yes to open the Test Pattern Output dialog.
3. Click the Start button and then OK when you see the color bars on your output monitor.
4. Click Yes on the Output Test dialog to confirm the color bars appeared correctly, and to close the configuration utility.

Configure InfoCaster Network Streaming

Follow these steps to configure your InfoCaster system for network streaming.

Use Network Stream

When InfoCaster players use the Network Stream option as their output mode, the Video/Audio Standard tab lists video and audio options for the output stream, allowing preset, general, or advanced settings.

InfoCasts played with the Network Stream mode are encoded to one or more streams according to their output settings. These settings include video standard, encoding methods for both video and audio, cropping, resizing, and streaming settings.

The instructions in the remainder of this section are for InfoCaster users who choose the Network Stream output mode.

Note: Network streaming is a purchase option.

Use Multiple Instances

InfoCaster users can run multiple instances of InfoCaster on a single system. Each player instance is independent and can stream separate InfoCasts at the same time.

To enable multiple player instances on your system, check the Enable checkbox in the Video/Audio Standard tab. Use the drop-down list to set the number of instances you want to use.



Each instance can be separately configured on the following Configuration Utility tabs.

- General tab
- Playback Logging tab
- Player Settings tab
- Video Audio Standard tab

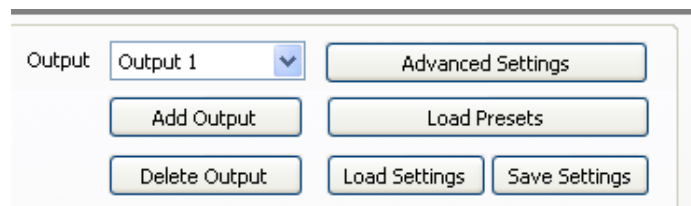


Use the drop-down menu at the top of these tabs to choose the player instance you want to configure.

Use Multiple Outputs

Each player instance can encode its InfoCast playback to multiple outputs simultaneously.

By default, your InfoCast is encoded by a single output called **Output 1**. Use the controls in the Video/Audio Standard tab to manage multiple encoded outputs with different settings.



1. Click the Add Output button to add an additional output stream that you can use for encoding.
2. Use the Output drop-down list to choose the output you want to edit within the Video/Audio Standard tab.
3. Customize the settings for the selected output.
4. To delete the selected output, click the Delete Output button.

When you play an InfoCast it is simultaneously encoded by all the outputs defined for that instance of InfoCaster.

Presets and Custom Settings

Use presets and custom settings to make your output configuration easier.

Load a Preset

InfoCaster comes with a list of pre-made streaming presets that you can apply to your outputs.

1. Use the Output drop-down list to select the output you want to edit.
2. Click the Load Presets button. The Load Encoder Presets window opens.
3. Select the preset you want to apply to your output.
4. Click OK.

Save and Load Custom Settings

If you use the same custom settings frequently, you can save and load them for easy access.

1. Use the Output drop-down list to select the output which contains the settings you want to save.
2. Click the Save Settings button. A Save As window opens.
3. Navigate to where you want to save your setting, and give the setting a name.
4. Click Save. The setting is saved as an XML file.

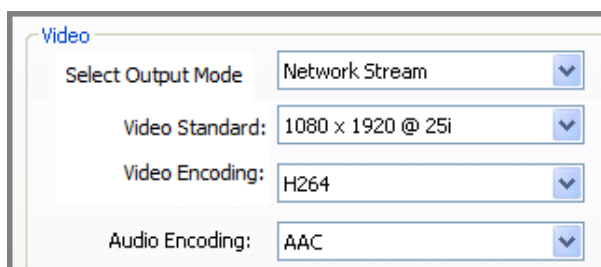
You can share these XML files with other InfoCaster systems. Use the Load Settings button in the Video/Audio Standard tab to apply your settings to an output.

Basic Settings

In most circumstances you can use the basic controls on the Video/Audio Standard tab to configure your outputs. If you require more control over your options, see Advanced Video Stream Settings (on page 280) to learn about the advanced video stream options which are available.

Basic Video and Audio Settings

Use the controls in the Video and Audio sections of the tab to configure your basic video and audio settings.



1. In the Video section of the tab, use the Video Standard drop-down list to select one of the video standard presets for your playback.

Note: The video standard you choose is applied to the playback which is encoded by all your outputs. Cropping or resizing an output will change the output's video stream to the cropped or resized resolution.

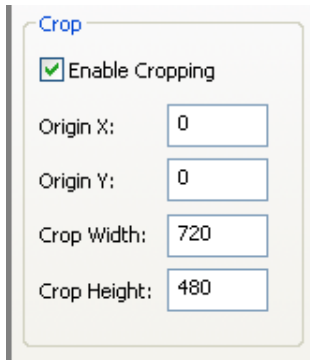
If you choose the Custom option from the drop-down window, you are prompted to enter a custom width, height, frame rate, and interlacing setting.

2. Use the Output drop-down list to select the output you want to configure.
3. Choose a video encoding method for your selected output from the Video Encoding drop-down list.
4. In the Audio section of the tab, check the Enable Audio checkbox to enable audio encoding for your selected output.
5. Choose an audio encoding method for your selected output from the Audio Encoding drop-down list.

Cropping and Resizing

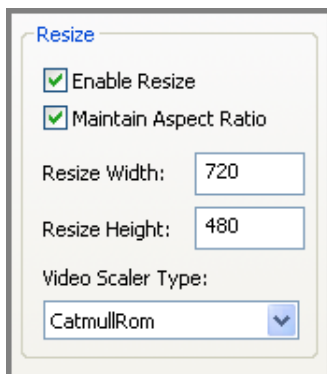
Each output of your player instance can crop and resize your InfoCast playback before it is encoded.

Use the Crop options in the Video/Audio Standard tab to crop the InfoCast in your selected output.

The screenshot shows a configuration panel titled "Crop". It contains a checked checkbox labeled "Enable Cropping". Below this are four input fields: "Origin X:" with the value "0", "Origin Y:" with the value "0", "Crop Width:" with the value "720", and "Crop Height:" with the value "480".

- Check the Enable Cropping checkbox to crop your output.
- Use the Origin X and Origin Y fields to specify the upper-left corner of the visible area within the InfoCast, in pixels.
- Use the Crop Width and Crop Height fields to specify the width and height of the visible area, in pixels.

Use the Resize options to change the size of your selected output. If you have chosen to crop your output, the resize settings are applied to the visible area of the output.

The screenshot shows a configuration panel titled "Resize". It contains two checked checkboxes: "Enable Resize" and "Maintain Aspect Ratio". Below these are three controls: "Resize Width:" with the value "720", "Resize Height:" with the value "480", and a "Video Scaler Type:" dropdown menu currently set to "CatmullRom".

- Check the Enable Resize checkbox to resize your output.
- If you want to ensure that your output is not distorted, check the Maintain Aspect Ratio checkbox. Your output will be letterboxed or pillarboxed if the resized aspect ratio does not match the original (or cropped, if applicable) aspect ratio.
- Use the Resize Width and Resize Height fields to set the size of the resized output.
- Use the Video Scaler Type drop-down list to choose the method that InfoCaster will use to scale your output.

Streaming and Encoder Settings

Use the Streaming Settings and Encoder Settings to manage the streaming of your outputs.

The screenshot shows two configuration sections. The 'Streaming Settings' section includes fields for Port (1100), Protocol (UDP), Max Bandwidth (4000 Kbps), Destination Address (234 . 5 . 5 . 5), Outgoing Network Interface (127.0.0.1), and Incoming Network Interface (127.0.0.1). The 'Encoder Settings' section includes a dropdown for VBR, and fields for Bitrate Max (6000 Kbps), Bitrate Average (6000 Kbps), and Bitrate Min (2500 Kbps).

The fields in the Streaming Settings and Encoder Settings sections of the tab allow you to configure the streaming and encoding of your selected output.

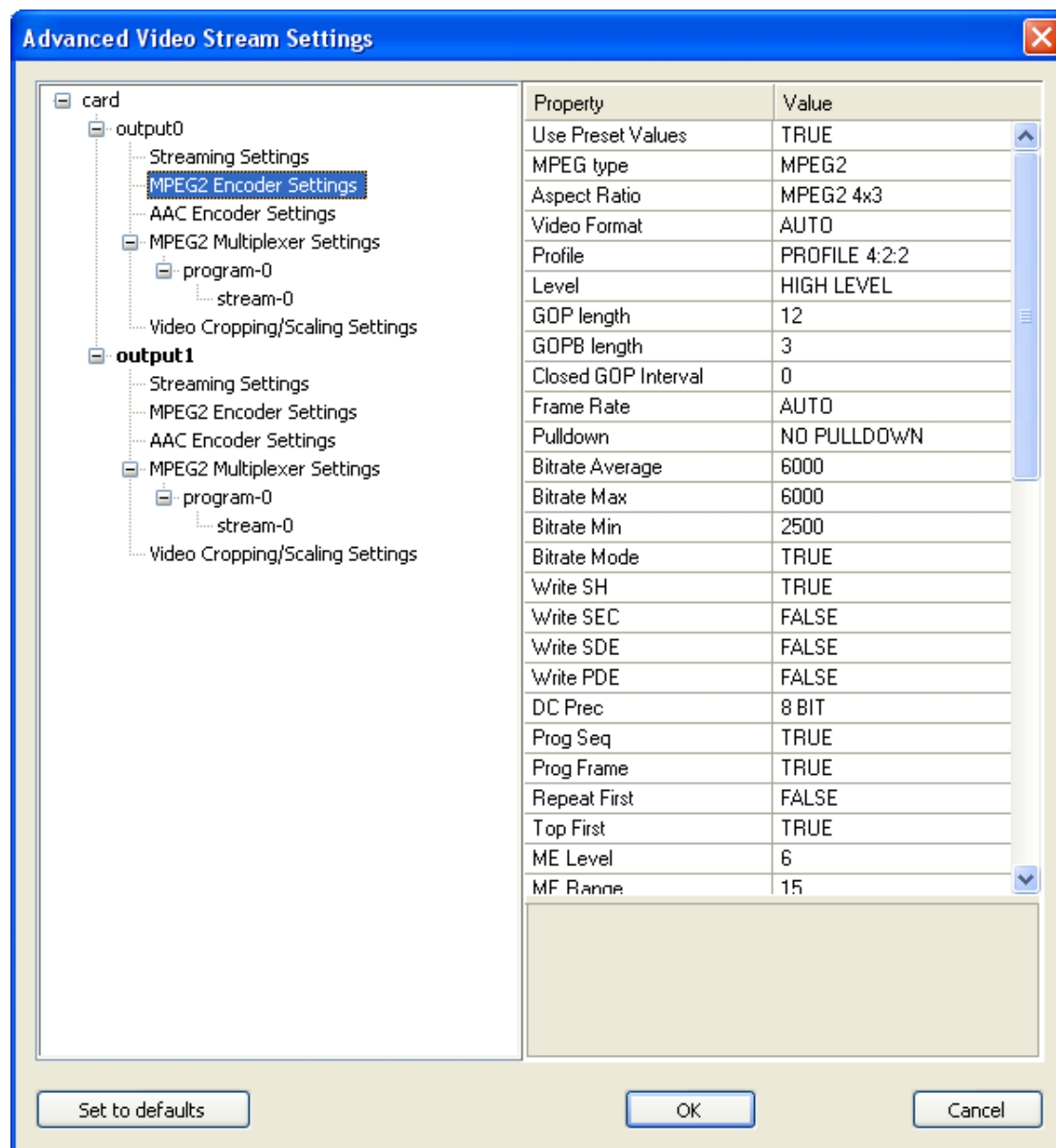
Streaming and Encoder Settings

Setting	Description
Port	The system port you want to stream through.
Max Bandwidth	The maximum number of kilobits per second that are allowed to be output by the transport stream. Make sure this value is greater than the expected bitrate of the output streams.
Protocol	The protocol used by the stream. • RTP/AVP: Real-time Transport Protocol with the absolute-value pair element. • UDP: User Datagram Protocol.
Destination Address	The destination IP address of the output stream.
Outgoing Network Interface	The network interface that the stream will output through.
Incoming Network Interface	Determines which network interface is used to accept incoming streaming video. This setting applies to all outputs and all instances.
Encoder drop-down list	The encoding method used. • CBR: Constant Bit Rate. You can only specify an average encoder bit rate. • VBR: Variable Bit Rate. You can specify minimum, average, and maximum encoder bit rates in the fields.

Setting	Description
Bitrate Average, Maximum, and Minimum	These fields allow you to set the average encoder bitrate. When the VBR encoding method is selected, you can also specify the minimum and maximum encoder bitrates. The Minimum field is not available when using H.264 video encoding.

Advanced Video Stream Settings

The Video/Audio Standard tab displays the most common network streaming settings, if you require more control over your settings, click the Advanced Settings button to open the Advanced Video Stream Settings window.



The properties in the window are arranged in categories under the **card** category. Click the PLUS sign beside the **card** category in the left-hand pane to reveal categories for each of your outputs, and click the PLUS sign beside each output to access its Streaming, MPEG2 Encoder, AAC Encoder, MPEG2 Multiplexer, and Video Cropping/Scaling categories.

To edit the property values within a category, select the category in the left-hand pane and edit the values in the right-hand pane. When you click a property in the right-hand pane, details about the property are listed in a dialog at the bottom of the window.

The following tables list all the properties you can edit in the Advanced Video Stream Settings window. If you have chosen the Frequently Used Settings option in the Mode drop-down list, not all properties in the tables will be available. Properties that are hidden in the Frequently Used Settings mode are displayed in the tables using *italics*. See Change Display Mode (on page 281) to learn how to switch modes.

Warning

The advanced encoder settings are extremely complex and many of them are interdependent. They should only be modified by those with extensive experience with encoding concepts. **We do not provide support for output streams created with customized advanced settings.**

Set to Defaults

If you select a preset in the Video/Audio Standard tab, then use the Advanced Video Stream Settings window to change the value of an MPEG2 or H.264 encoder property, the property's value is highlighted in red to remind you that the value has changed.

To revert all values to their preset settings, click the Set to Defaults button at the bottom of the Advanced Video Stream Settings window.

Change Display Mode

Use the Mode drop-down list at the bottom of the window to specify which properties are displayed.

- Frequently Used Settings: Only the most common settings are displayed, with the more unusual settings hidden. In the following tables, properties that are hidden in the Frequently Used Settings mode are displayed using *italics*.
- All Settings: All settings are displayed.

Card Category

The values in the Card category are applied to your InfoCaster playback before it is processed by your output streams. The values in all other categories are specific to the output streams whose headings they appear within.

Card Category

Property	Value
Frame Rate	The number of frames per second in your video playback. This value is set as part of the Video Standard basic setting.
Video Width	The width of your video playback in pixels. This value is set as part of the Video Standard basic setting.

Property	Value
Video Height	The height of your video playback in pixels. This value is set as part of the Video Standard basic setting.
Interlaced	Whether your playback frames are interlaced. This value is set as part of the Video Standard basic setting.
Aspect Ratio	The aspect ratio of the pixels in your playback.
Audio Enabled	Whether audio will be transmitted within your playback. This value corresponds to the Enable Audio basic setting.
Audio Channels	The number of audio channels that will be transmitted within your playback.
Audio Buffer Size	The number of ms provided for buffering the audio.
Audio Sample Rate	The number of samples that are taken of the playback audio per second.
Audio Sample Size	The number of bytes per audio sample.

Output Category

The Output Category contains general settings for each output.

Output Category

Property	Value
Capture Type	The video encoding method used for the selected output. This value corresponds to the Video Encoding basic setting.
Audio Capture Type	The audio encoding method used for the selected output. This value corresponds to the Audio Encoding basic setting.

Streaming Settings Category

The Streaming Settings category are used to configure the encoder's network renderer filter.

Streaming Settings Category

Property	Value
Session Description URI	The Universal Resource Identifier pointer to additional information about the session, as used by WWW clients.

Property	Value
Streaming Protocol	The protocol used by the stream. • RTP/AVP: Real-time Transport Protocol with the absolute-value pair element. • UDP: User Datagram Protocol. This value corresponds to the Protocol basic setting.
Network Type	The network type used by the stream. • IPv4 • IPv6
Streaming Port	The system port the output will stream through.
Max Transfer Unit	The largest protocol data unit that can be passed (MTU).
Outgoing Network Interface	The server's local network interface IP. This value corresponds to the Outgoing Network Interface basic setting.
Destination Address	The IP address that the stream is being sent to. This value corresponds to the Destination Address basic setting.
SAP Multicast Group	The IP address for the Session Announcement Protocol announcements group.
Connection TTL	The number of seconds InfoCaster will unsuccessfully try to send a packet of data before discarding it.
Bandwidth Value	The maximum number of kilobits per second that are allowed to be output by the transport stream. Make sure this value is greater than the expected bitrate of the output streams. This corresponds to the Max Bandwidth basic setting.
Rate Control	The method used for rate control. The following options are available. • Use sample times. • Use bitrate. • No rate control.
<i>Email Field</i>	<i>The email contact information for the session.</i>
<i>Phone Field</i>	<i>The telephone contact information for the session.</i>
<i>Session Name</i>	<i>The name of the session. This must not be empty.</i>
<i>Origin Creator Name</i>	<i>The name of the announce creator.</i>
<i>Session Info</i>	<i>A description of the session.</i>
<i>Server Work Mode</i>	<i>Specifies the engine work mode.</i>
<i>Use SAP Announce</i>	<i>Whether to use the Session Announce Protocol.</i>
<i>Use RTCP</i>	<i>Whether the Real-time Transfer Control Protocol is used. This value corresponds to the Enable RTCP basic setting.</i>

Property	Value
<i>Use Loss Tolerant MP3</i>	<i>Whether loss tolerant mode is enabled for MPEG audio RFC3119.</i>

MPEG-2 Encoder Settings Category

The MPEG-2 Encoder Settings category contains settings for the MPEG-2 video encoder. This category only appears when you are using the MPEG-2 encoder.

MPEG-2 Encoder Settings Category

Property	Value
Aspect Ratio	Display aspect ratio of the stream.
Video Format	The representation of the frames before being coded. • Auto • PAL • NTSC • SECAM • MAC
Profile	The subset of features supported by the video. • HIGH_PROFILE • MAIN_PROFILE • SIMPLE_PROFILE • PROFILE 4:2:2
Level	The subset of features supported by the video. • HIGH LEVEL • HIGH 1440 LEVEL • MAIN LEVEL • LOW LEVEL
GOP Length	The number of frames between I frames, or the number of frames in a group of pictures. Only I frames are generated if this value is one.
GOPB Length	The number of frames between I frames, or the number of frames in a group of pictures that contain at least one P-picture. Only I frames are generated if this value is one.
Closed GOP Interval	The number of frames allowed before GOPs are closed. GOPs are never closed if this value is zero.
Frame Rate	The frame rate of the video. The Auto setting encodes at the rate that frames are pushed to the encoder.

Property	Value
Pulldown	Specifies the NTSC pulldown generated in the video stream. This should only be used if the video frame rate is 23.976 or 24 fps. If enabled, 23.976 is encoded as 29.97 and 24 is encoded as 30, using the top field first and repeating first field flags in the picture coding extension.
Bitrate Average	Average bitrate in kbps.
Bitrate Max	Maximum bitrate in kbps.
Bitrate Min	Minimum bitrate in kbps.
Bitrate Mode	• FALSE: Variable bitrate • TRUE: Constant bitrate
Deinterlacing Mode	<i>Whether to deinterlace video that has been interlaced.</i>
Chroma Format	<i>Options for reducing chroma resolution.</i> • 4:0:0: Chroma is not sampled. • 4:2:0: Cb and Cr are each subsampled at a factor of two both horizontally and vertically. • 4:2:2: Cb and Cr are sampled at half the sample rate of luma. • 4:4:4: All components have the same sample rate.
Write Sequence Header	<i>Whether to write a sequence header every GOP or just one at the beginning of the stream. VCD, SVCD, and DVD should enable this option.</i> • FALSE: Only put a sequence header at the beginning of the stream. • TRUE: Put a sequence header before every GOP. This is the default in all presets.
Write Sequence End	<i>Whether to write a sequence end code at the end of the stream.</i>
Write Sequence Display Extension	<i>Whether to write a sequence display extension in every GOP.</i>
Write Picture Display Extension	<i>Whether to write picture display extensions in the video stream.</i>
DC Precision	<i>The effective precision of the DC coefficient in MPEG-2 intra coded macroblocks.</i>
Progressive Sequence	<i>Whether the stream can contain interlaced video. This value must be TRUE for MPEG-1 video.</i>
Progressive Frame	<i>Whether frames are interlaced or progressive.</i> • TRUE: Progressive. This is necessary for MPEG-1 video. • FALSE: Interlaced.

Property	Value
<i>Repeat First Field</i>	<i>Whether the first field of a frame must be repeated after the two fields have been displayed.</i>
<i>Top First</i>	<i>Field dominance of the video stream.</i> • <i>FALSE: Lower field first.</i> • <i>TRUE: Top field first.</i>
<i>ME Level</i>	<i>The motion search level of the MPEG-2 encoder. A higher value normally results in higher quality. Values are 0 (no motion search) to 15.</i>
<i>ME Range</i>	<i>The maximum movement of a pixel between frames when calculating motion search areas. The values are 0 (no motion search) to 31 (wide motion search range).</i>
<i>ME Half Pel</i>	<i>Whether to search for pixels that move only half a pixel between frames.</i>
<i>Scene Detection Mode</i>	<i>The scene change detection mode. Used by the codec to determine when an I-frame should be inserted.</i> • <i>NONE</i> • <i>FAST</i> • <i>REFINED</i> • <i>REGULAR</i>
<i>Output Sample Size</i>	<i>The output frame size. The recommended value is zero (which represents automatic sample size encoding).</i>
<i>Pad Skipped Frames</i>	<i>Whether to pad packets to compensate for skipped frames. If the padding mode is TRUE, the encoder detects gaps in the frame time stamps and inserts the skipped frames.</i>
<i>Closed Caption</i>	<i>This setting is not currently supported.</i>
<i>Q Scale</i>	<i>Whether to use linear or nonlinear quantization scaling.</i>
<i>Intra VLC</i>	<i>Which VLC table is used during encoding.</i> • <i>Intra VLC Table1</i> • <i>Intra VLC Table2</i>
<i>Alternate Scan</i>	<i>Specifies one of two entropy scanning patterns defining the order in which quantized DCT coefficients are run-length coded.</i> • <i>Alternate Scan</i> • <i>Zig Zag Scan</i>
<i>Two-Pass Rate Control Mode</i>	<i>Whether to use the two-pass rate control mode. Should be disabled for real-time encoding in InfoCaster.</i>

Property	Value
<i>VBV Buffer Size</i>	<i>The size of the virtual buffer verifier, in 2K byte units. If set to zero, the encoder computes an appropriate value. For MPEG-1 the range is 10 to 1023, for MPEG-2 the maximum values depend on the profile and level selected with a minimum of ten. ATSC specifies a maximum size of 488.</i>
<i>Matrix Coefficients</i>	<i>Coefficients used when deriving luminance and chrominance signals from the green, blue, and red primaries.</i>
<i>User I Quant</i>	<i>Whether to allow custom quantization matrices for I-frames to be used.</i>
<i>User NI Quant</i>	<i>Whether to allow custom quantization matrices for frames that are not I-frames.</i>
<i>Min Frame Percent</i>	<i>Percentage fullness of the VBV buffer at startup.</i>
<i>Pad Frame Percent</i>	<i>Percentage limit of padding to be added to the stream in variable mode.</i>
<i>Feature Flags</i>	<i>Currently there is only one flag defined.</i> • <i>1: MUX_FEATURE_TS_ATS. This is the default for the AVCHD preset. It is only used for transport stream mux types playing a 4-byte timestamp in front of the transport stream packet, yielding 192 byte packets instead of 188 byte packets.</i>
<i>Performance Online</i>	<i>This option maintains speed at the expense of quality. The values (from 0 to 31) adjust the CPU performance.</i>
<i>Performance Offline</i>	<i>This option maintains quality at the expense of speed. The values (from 0 to 31) adjust the desired quality.</i>
<i>Quant I</i>	<i>The frame quantization scale for I pictures to use in constant quantization bit rate mode. Available range is 2 to 62.</i>
<i>Quant P</i>	<i>The frame quantization scale for P pictures to use in constant quantization bit rate mode. Available range is 2 to 62.</i>
<i>Quant B</i>	<i>The frame quantization scale for B pictures to use in constant quantization bit rate mode. Available range is 2 to 62.</i>
<i>Pre Filtering</i>	<i>Used for blurring video, which is useful for complex content with low bitrate, when quantization reaches maximum and bitrate cannot be maintained. Values are 1 to 15, with zero representing no pre filtering.</i>
<i>Skip Mode</i>	<i>Whether to skip frames if required (FALSE) or skip only in the case of underflow (TRUE).</i>

H.264 Encoder Settings Category

The H.264 Encoder Settings category contains settings for the H.264 video encoder. This category only appears when you are using the H.264 encoder.

H.264 Encoder Settings Category

Property	Value
Video Format	The representation of the frames before being coded. • Auto • PAL • NTSC • SECAM • MAC
Profile	The subset of features supported by the video. • Baseline • Main • High • High 10 • High 4:2:2 • High 4:4:4
Level ID	The level ID used to maintain conformance of the encoded file. Depending on the level ID, there are limits to some of the parameters (for example, maximal frame size or maximal bitrate).
Interlace Mode	Specifies whether video is encoded frame-based or field-based. • Frame: H.264 progressive frame-based encoding. • Field: H.264 interlaced field-based encoding, with every frame encoded as two field pictures. • MBAFF: H.264 MBAFF macroblock adaptive frame/field encoding.
Bit Rate Mode	The bitrate control mode. • CBR: Constant bitrate • CQT: Constant quantization • VBR: Variable bitrate • TQM: Target Quality Mode
Bitrate Average	Average bitrate requested in Kbps.
Bitrate Maximum	Maximum bitrate requested in Kbps.
Bitrate Buffer Size	The size of the Hypothetical Reference Decoder (HRD) Coded Picture Buffer (CPB). Should be adjusted to bitrate, respectively bitrate maximum, to avoid DTS/PTS underflows during muxing.

Property	Value
VBV Buffer Fullness	Specifies the initial state of the HRD buffer. See the HRD Buffer Model in ISO/IEC 14496-10 for details. For best quality we recommend setting the VBV buffer to the level limit.
VBV Buffer Fullness Target	Specifies the target state of the HRD buffer when decoding is done.
Bitrate Pass	The multipass encoding mode. • Simple: Coding pass without any statistics gathering or dependency. • Analyze: Coding pass with gathering of encoding statistics. • Encode: Coding pass with statistic-dependent encoding and statistics updating.
Output Media Type	Whether to use the original or VSS output media type.
Stream Type	Defines the NALU (network abstraction layer unit) types being written into the stream. • Type I: Stream type I according to AVC/H.264 specification. • Type I plus SEI: Stream type I plus supplemental enhancement information messages. • Type II: Stream type II. • Type II minus SEI: Stream type II minus supplemental enhancement information messages.
Video Full Range	Whether to use the full range of colors. • FALSE: Reduced range of colors. • TRUE: Full range of colors.
CPU Optimization	Sets the optimization CPU instruction set. • Auto • PlainC • MMX • MMX Ext • SSE • SSE2 • SSE3
Num Threads	The number of threads to be used during encoding. Zero is auto mode, one is single threaded, and more threads use more CPUs/cores. Range is 0 to 16.
Field Order	<i>Specifies the field order.</i> • <i>FALSE: Top field first.</i> • <i>TRUE: Bottom field first.</i>

Property	Value
<i>Video Pulldown Flag</i>	<i>Specifies the NTSC pulldown generated in the video stream. This should only be used if the input (original) video frame rate is 23.976 or 24 fps. If enabled, 23.976 is encoded as 29.97 (59.94) fps, and 24 is encoded as 30 (60) fps.</i>
<i>Slice Arg</i>	<i>The available range is from zero (one slice per picture) to the height of the encoded picture in macroblock units (or macroblock pairs for MBAFF).</i>
<i>GOP Length</i>	<i>Length of group of picture. The number of frames between I frames, or the number of frames in a group of pictures. Only I frames are generated if this value is one. Range is 1 to 128.</i>
<i>GOP B Length</i>	<i>Length of group of picture B. The number of frames between I frames, or the number of frames in a group of pictures that contain at least one P-picture. Only I frames are generated if this value is one. Range is 0 to 128.</i>
<i>IDR Frequency</i>	<i>Used to mark I-pictures as IDR.</i> • 0: Only the first picture will be IDR. • 1: Only the first picture will be IDR. • 2: Every second I-picture will be IDR. • 3: Every third I-picture, etc.
<i>GOP Minimum Length</i>	<i>The minimum length of a group of pictures. The range is 1-128.</i>
<i>B Slice Reference</i>	<i>Allows usage of B-pictures as reference pictures.</i>
<i>B Slice Pyramid</i>	<i>Allows usage of pyramid B-picture encoding.</i>
<i>Adapt B Frames</i>	<i>In combination with VSCD mode, allows adaptive B-frame placement depending on the complexity of the sequence.</i> • TRUE: Adaptive placement. • FALSE: Fixed placement
<i>VCSD Mode</i>	<i>Visual content scene detection can be used for getting better quality on scene changes.</i> • OFF: Do not use VCSD. • IDR: Use VCSD.
<i>Quant pI</i>	<i>The macroblock quantization value for I slices to use in constant quantization variable bitrate mode. The range is 0-51. Maximum, average, and minimum bitrates must be zero.</i>
<i>Quant pP</i>	<i>The macroblock quantization value for P slices to use in constant quantization variable bitrate mode. The range is 0-51. Maximum, average, and minimum bitrates must be zero.</i>

Property	Value
<i>Quant pB</i>	<i>The macroblock quantization value for B slices to use in constant quantization variable bitrate mode. The range is 0-51. Maximum, average, and minimum bitrates must be zero.</i>
<i>Cb Chroma Quantization Offset</i>	<i>Usage depends on the profile being used. Range -12 to 12.</i> <i>Baseline and Main profiles: Represents chroma quantization offset for both Cb and Cr.</i> <i>High profile: Cb chroma quantization offset.</i>
<i>Cr Chroma Quantization Offset</i>	<i>Usage depends on the profile being used. Range -12 to 12.</i> <i>Baseline and Main profiles: Unused.</i> <i>High profile: Cr chroma quantization offset.</i>
<i>Spatial Range</i>	<i>The motion vector range. The available range depends on the level ID.</i> <i>Level 1.0 and 1b: 0 to 63.</i> <i>Level 1.1 to 2.0: 0 to 127.</i> <i>Level 2.1 to 3.0: 0 to 255.</i> <i>Level 3.1 to 5.1: 0 to 511.</i>
<i>Number Reference Frames</i>	<i>The number of reference frames used. Range is 0 to 16.</i>
<i>Inter Search Shape</i>	<i>Whether to use sub-block search for motion estimation.</i>
<i>ME Subpel Mode</i>	<i>The motion estimation sub-pixel depth.</i> <i>FullPel: Enables the use of only full pixel location for motion estimation.</i> <i>HalfPel: Enables the use of half pixel locations additionally.</i> <i>QuarterPel: Enables the use of all fractional pixel locations, including quarter pixel locations.</i>
<i>ME Weighted P Mode</i>	<i>Whether to use weighted prediction for P-frames. Used to compensate for flashes, fades, etc.</i>
<i>Fast Multi Reference ME</i>	<i>How reference frames for ME/MC are selected.</i> <i>Disable: Disabled.</i> <i>Enable: Enabled.</i> <i>Enable on Non-Reference Frames: Enabled with fast multi-reference estimation on non-reference frames.</i>

Property	Value
<i>Fast Sub Block ME</i>	The way sub-block (16x8/8x16 and 8x8 partition sizes) motion estimation is performed. • <i>Disable: Use greedy search mode (slower, better quality).</i> • <i>Enable: Use heuristic search mode (much faster, but can lose quality).</i> • <i>Enable on Non-Reference Frames: Use heuristic search mode on non-reference frames.</i>
<i>Allow Out of Pic MVS</i>	Whether to use pixels beyond the picture boundaries for motion compensation. • <i>FALSE: Do not use pixels outside of picture boundaries.</i> • <i>TRUE: Default behavior.</i>
<i>Enable Intra Big</i>	Whether to use intra 16x16 prediction for I-slices.
<i>Enable Intra 8x8</i>	Whether to use intra 8x8 prediction for I-slices.
<i>Enable Intra 4x4</i>	Whether to use intra 4x4 prediction for I-slices.
<i>Enable Intra PCM</i>	Whether to use intra PCM prediction for I-slices.
<i>Enable Inter Big</i>	Whether to use inter 16x16 prediction for I-slices.
<i>Enable Inter 8x8</i>	Whether to use inter 8x8 prediction for I-slices.
<i>Enable Inter 4x4</i>	Whether to use inter 4x4 prediction for I-slices.
<i>Enable Inter PCM</i>	Whether to use inter PCM prediction for I-slices.
<i>Use Deblocking Filter</i>	Whether to use deblocking for smoothing video frames. Deblocking also requires the following two properties.
<i>Deblocking Alpha Co Offset</i>	The offset used when accessing a deblocking filter table for filtering operations controlled by the macroblocks within a slice. The range is -6 to 6.
<i>Deblocking Beta Offset</i>	The offset used when accessing beta deblocking filter table for filtering operations controlled by the macroblocks within the slice. The range is -6 to 6.
<i>Entropy Coding Mode</i>	Specifies the entropy coding mode. • <i>CABAC: Context-adaptive binary arithmetic coding.</i> • <i>CAVLC: Context-adaptive variable-length coding.</i>
<i>RD Optimization</i>	Whether to optimize rate distortion. This property is obsolete, but should be set when using Fast RD optimization.

Property	Value
<i>Fast RD Optimization</i>	Activates calculating of real coding rate for rate-distortion cost, rather than using an approximation. • <i>Disable: Use greedy RD-optimization method without any simplifications.</i> • <i>Enable: Use simplified RD-optimization method, which is faster but can lose some quality.</i> • <i>Enable on Non-Reference Frames: Use simplified RD-optimization method on non-reference frames.</i>
<i>Use Hadamard Transform</i>	Whether to use Hadamard transformation to achieve a higher compression rate. This property controls the distortion metrics used (either SAD or sum of absolute values of Hadamard transform coefficients). • <i>Disable: Hadamard transform disabled.</i> • <i>Enable: Hadamard transform enabled.</i> • <i>Enable on reference frames only: Use Hadamard transform for reference frames only.</i>
<i>Enable Fast Inter Decisions</i>	Allows encoder to use fast inter coding decision metrics to speed up encoding. • <i>Disable: Disabled.</i> • <i>Enable: Enabled.</i> • <i>Enable on Non-Reference Frames: Enabled on non-reference frames.</i>
<i>Enable Fast Intra Decisions</i>	Controls the use of various early termination thresholds for examined intra prediction modes. • <i>Disable: Disabled.</i> • <i>Enable: Enabled.</i> • <i>Enable on Non-Reference Frames: Enabled on non-reference frames.</i>
<i>Quant Mode</i>	The quantization optimization method. • <i>Ref: Use reference plain quantization method without any optimization (for debugging and testing purposes only).</i> • <i>Mode 1: In most cases produces better results than Ref, but never worse.</i> • <i>Mode 2: In most cases produces better results than Mode 1.</i>
<i>Use Sample Aspect Ratio</i>	Whether to use sample aspect ratio.
<i>Use Aspect Ratio</i>	Whether to use picture aspect ratio.
<i>Aspect Ratio X</i>	The width of the picture aspect ratio. If the value is negative then the sample aspect ratio is used instead.

Property	Value
Aspect Ratio Y	<i>The height of the picture aspect ratio. If the value is negative then the sample aspect ratio is used instead.</i>
Auto Sample Aspect Ratio	<i>Whether to use an automatic aspect ratio, or a user-defined aspect ratio.</i> • FALSE: User-defined aspect ratio is used. • TRUE: Automatic aspect ratio is used.
Sample Aspect Ratio Horizontal	<i>Horizontal size in arbitrary units. Only applicable if Auto Sample Aspect Ratio is FALSE.</i>
Sample Aspect Ratio Vertical	<i>Vertical size in arbitrary units. Only applicable if Auto Sample Aspect Ratio is FALSE.</i>
Timestamp Mode	<i>Whether to use the original or AVI timestamp mode.</i>
Write AU Delimiters	<i>Whether to use access unit delimiters to indicate the type of slices present in a primary coded picture, and simplify the detection of the boundary between access units.</i>
Write Sequence End Code	<i>Whether to write end of sequence codes to specify that the next access unit will be an IDR access unit, starting with new sequence parameter set.</i>
Write Timestamps	<i>Whether to write picture timing information into the encoded stream. Picture timing can be useful for the decoding process.</i>
Fixed Rate	<i>Whether to use the fixed source frame rate.</i>
Frame Rate	<i>Specifies the frame rate of the encoded video elementary stream. Applicable if the fixed source frame rate is enabled. This property is recommended for getting the exact frame rate. Range is 1 to 100.</i>
Out Fixed Rate	<i>Whether to use the fixed output frame rate.</i>
Out Frame Rate	<i>Specifies the frame rate of the output. Applicable if the output fixed rate is enabled. Range is 1 to 100.</i>
Calculate PSNR	<i>Whether to calculate the overall peak signal-to-noise ratio.</i>
FGO Strength	<i>Limits the use of intra prediction on videos with intense noise or film grain. The value defines penalty distortion for intra prediction modes in inter frames. A value of zero is off, with a range of 0 to 100.</i>
AQ Strength Luminance	<i>The strength of adaptive quantization of luminance. Positive values cause coarser quantization for macroblocks with brightness higher than the average value for the current picture. Ranges are -100 to 100.</i>

Property	Value
<i>AQ Strength Contrast</i>	<i>The strength of adaptive quantization of contrast. Positive values cause coarser quantization for macroblocks with contrast higher than the average value for the current picture. Ranges are -100 to 100.</i>
<i>AQ Strength Complexity</i>	<i>The strength of adaptive quantization of complexity. Positive values cause coarser quantization for macroblocks with complexity higher than the average value for the current picture. Ranges are -100 to 100.</i>
<i>Picture Order Present Flag</i>	<i>Whether to keep the ordering of the pictures and the values of samples in the decoded pictures isolated from timing information.</i>
<i>Fixed Frame Rate Flag</i>	<i>Whether to control the fixed frame rate value in the bitstream's video usability information packet. This does not actually force the encoder to use a fixed frame rate.</i>
<i>Frame Based Timing</i>	<i>Whether to control the num_units_in_tick and time_scale values in the bitstream's video usability information.</i>
<i>HRD Param Writing</i>	<i>Controls writing of the hypothetical reference decoding parameter into the sequence heading.</i> • <i>NAL: Encoded into network abstraction layer units.</i> • <i>VCL: Encoded into video coding layer units.</i> • <i>Both: Encoded into both NAL and VCL units.</i>
<i>Write Picture Struct</i>	<i>Whether to write the picture structure information in the picture timing SEI.</i>
<i>Write PIC Timing SEI</i>	<i>Whether to write PIC timing in the supplemental enhancement information messages.</i>
<i>Log2 Max Frame Number</i>	<i>Specifies a custom log2_max_frame_num_minus4 value. Range is 4-16.</i>
<i>Picture Order Count Type</i>	<i>The picture order count process that is used. Ranges are 1 to 3.</i>
<i>Chroma Sampling</i>	<i>Options for reducing chroma resolution.</i> • <i>4:0:0: Chroma is not sampled.</i> • <i>4:2:0: Cb and Cr are each subsampled at a factor of two both horizontally and vertically.</i> • <i>4:2:2: Cb and Cr are sampled at half the sample rate of luma.</i> • <i>4:4:4: All components have the same sample rate.</i>
<i>Luma Bit Depth</i>	<i>The bit depth of encoded luminance samples. Available values are eight and ten. Ten is only available for High 10 profile and higher.</i>

Property	Value
<i>Chroma Bit Depth</i>	<i>The bit depth of encoded chroma samples. Available values are eight and ten. Ten is only available for high 10 profile and higher.</i>
<i>Use HRD</i>	<i>Whether to apply hypothetical reference decoder conformance. The FALSE setting is recommended whenever possible, but some video types (like Blu-ray) may require HRD conformance.</i>
HRD Param Writing	Specifies which hypothetical reference decoder parameters should be written to the output stream.
<i>Performance Preset</i>	<i>Specifies the speed/quality preset on the H.264 encoder.</i>
<i>Constrain Intra Prediction</i>	<i>Whether to enable constrained intra prediction (using adjacent inter coded macroblocks for intra prediction).</i>

AAC Encoder Settings Category

The AAC Encoder Settings category allows you to configure advanced audio encoding for the stream.

AAC Encoder Settings Category

Property	Value
AAC Bitrate Average	The average bitrate of the encoded AAC audio stream.
MPEG Version	The output format. • MPEG-4 (ISO/IEC 14496-3). • MPEG-2 (ISO/IEC 13818-7). • MPEG-4 for Sony PSP.
Output Format	Sets the output bit stream format. • Raw output. • Output with ADTS headers. • Output with LATM headers.
Variable Bit Rate (VBR)	Whether to enable variable bitrate encoding mode. • TRUE: Encoder runs in VBR mode. • FALSE: Encoder runs in CBR mode.
VBR Quality Mode	Sets variable bit rate mode quality. Range is 1 (lowest quality) to 9 (highest quality).
<i>High Frequency Cutoff</i>	<i>Whether to enable high-frequency cutoff.</i>
<i>Spectral Band Replication</i>	<i>Whether to enable spectral band replication (high-efficiency advanced audio coding version one).</i>

Property	Value
<i>Parametric Stereo</i>	<i>Whether to enable parametric stereo (high-efficiency advanced audio coding version two).</i>
<i>Protect ADTS Stream</i>	<i>Specifies whether the audio stream contains CRC protection.</i>

MPEG2 Multiplexer Settings Category

The MPEG2 Multiplexer settings control a DirectShow filter which generates MPEG-2 transport or MPEG-2 program streams.

MPEG2 Multiplexer Settings Category

Property	Value
Output Stream Type	Whether the multiplexer generates a program stream or a transport stream. • MPEG-2 Program Stream (ISO/IEC 13818-1). • MPEG-2 Transport Stream (ISO/IEC 13818-1).
Required Bitrate	The required bitrate of transport streams in bits per second. If the value is equal to zero, the transport stream bitrate is calculated from the bitrates of multiplexed streams. The value must exceed the total bit rate of the input streams by at least 5%.
Transport Stream ID	A numerical identification of the transport stream among other network streams (ISO/IEC 13818-1).
Enable Padding	Whether to send padding packets to meet T-STD restrictions for transport streams. If the value is FALSE, the bitrate of multiplexed streams is variable (VBR). Otherwise the bitrate is constant (CBR).
Transport Stream Out Packet Size	Size of packets in transport stream output.
Output Buffer Size	Set output buffer size for delivered samples.
<i>Auto Create Pins</i>	<i>Whether to automatically create output pins.</i>
<i>PCR Interval</i>	<i>The time distance between two consecutive program clock reference fields for transport streams, in milliseconds.</i>
<i>PSI Repetition Rate</i>	<i>The time distance between two consecutive PSI table sets for transport streams, in milliseconds.</i>

Program Category

The Program category contains settings for the program object of the MPEG2 multiplexer.

Program Category

Property	Value
Program ID	Specifies the program ID of the transport stream packets (ISO/IEC 13818-1).
Program Number	Specifies the program to which the program ID is applicable (ISO/IEC 13818-1).
PCRPID	Specifies the PID of the elementary stream that carries the Program Clock Reference timestamps for the program. Only applicable to transport streams.
User Defined PCRPID	Allows the specification of the independent PID at which the PCR will be carried. Only applicable to transport streams.

Stream Category

The Stream category contains settings for the stream object of the MPEG2 multiplexer.

Stream Category

Property	Value
PES Packet Size	The packetized elementary stream packet size, in bytes. 0: Packet size is greater than zero, less than 0xFFFF0. - Any other value: Packet size is greater than zero, less than the value entered.
Padding On	Whether to pad small PES packets to the specified size.
Input Buffer Size	The input buffer size used for the multiplexing process, in bytes.
Stream ID	Specifies the type of data stored in the packet payload of transport streams.
PESID	In program streams, specifies the type and number of the elementary stream as defined in ISO/IEC 13818-1. In transport streams, may be set to any valid value that correctly describes the elementary stream type as defined in ISO/IEC 13818-1.
<i>Initial Shift</i>	<i>Shifts presentation time stamp values in the stream to the specified time, in msec. Used to synchronize audio and video when the streams from capture devices are multiplexed.</i>
<i>Bitrate Correct</i>	<i>The stream bitrate in bits per second, if the announced bitrate value is incorrect.</i>
<i>EB Size Correct</i>	<i>The size of the elementary stream buffer that is used in T-STD or P-STD models.</i>

Video Cropping/Scaling Settings Category

The Video Cropping/Scaling Settings category contains the settings for the cropping and scaling of the output. These settings correspond to the basic settings in the Video/Audio Standard tab.

Video Cropping/Scaling Settings Category

Property	Value
Crop Image	Whether to crop the output.
Crop Origin X	The left boundary of the visible area, in pixels.
Crop Origin Y	The upper boundary of the visible area, in pixels.
Crop Width	The width of the visible area, in pixels.
Crop Height	The height of the visible area, in pixels.
Resize Image	Whether to resize the output.
Resize Width	The width of the resized output.
Resize Height	The height of the resized output.
Preserve Input Aspect Ratio	Whether to letterbox or pillarbox the output if the resized aspect ratio does not match the original (or cropped, if applicable) aspect ratio.
Rescaler Type	The method used to scale the output.

Index

?

?WMReconnect=0 URL modifier • 149

A

A Page Playing actions • 195

accounts • 24

log in • 24

switch • 24

active FTP downloads • 255

Admin Approval Mode settings • 16

administrator privileges • 16

Aero themes • 17

align regions • 39

align text • 166

Allow All Cards radio button • 270

Allow Broadcast Quality Cards Only • 270

alpha masks • 164

Alternate Playback options • 161

Altitude Express

fade live video audio • 118

Graphics Over Live setting • 265

graphics over live video • 196

output device • 265

Analog Clock Builder • 92

Analog Clock Quick Editor • 90, 91

analog clock regions • 86

analog meter regions • 86

analog tuners • 115

Animation Importer • 93

animation items • 84

Animation Quick Editor • 96

animations

add • 93

associate audio source • 97

data tags in • 76

edit text in • 96

external data output • 78

frame rate • 95, 203

link to external data • 97

opacity • 94

output speed • 95, 203

preview • 95

Punctuate items • 60

thumbnails • 94

TitleMotion • 135

antenna (tuners) • 115

arrange regions • 55

ASF files • 148

aspect ratio

change VGA aspect ratio • 38

graphic overlays • 117

output • 239

VGA • 239

video clips • 143

video streams • 156

assign audio outputs • 270

Associate Audio Source • 76, 161

for Animation Quick Editor • 97

for Title Quick Editor • 134

ASX files • 148

ATI cards (troubleshoot) • 24

ATSC-MH • 271

configure datacasts • 272

datacast folder • 248

select channel • 115

audio • 169

add audio files • 98

add audio files • 169

add from a database • 76

add from audio device • 112

Associate Audio Source • 161

connect before launching • 270

delay • 169

ducking level • 239

duration • 113

enable audio • 270

enable audio • 169

enable third-party audio • 270

external audio files • 118

in display walls • 71

level • 169

level of displays • 208

Live Audio Quick Editor • 112

live audio source • 118

live video • 118

mute displays • 208

preview • 118, 146, 158, 169

store in a central location • 169

streaming video • 158

video clips • 146

Audio data tags • 76

audio devices • 112, 114, 148

assign audio • 270

- enable audio output • 270
- enable third-party audio output • 270
- split audio • 270
- audio ducking • 118, 169
 - fade • 118
 - for associated audio sources • 76
 - in display walls • 71
 - level • 99, 113, 239
- Audio Only Stream checkbox • 149
- Audio PID field • 149
- Audio tab • 169
- Auto Add to Sequence checkbox • 59, 185
- Auto Size Columns on Playback checkbox • 129
- auto tune digital tuners • 115
- auto-login
 - set during install • 22

B

- backgrounds • 52
 - region color • 166
 - region opacity • 166
- Backup Master (synchronization) • 227
- bezels (display walls) • 73
- blank items • 60, 185
- bold font • 166
- Brief View button • 61, 178, 183
- bypass proxy server • 256

C

- cable (tuners) • 115
- captionsSee closed captioning • 210
- categories • 63, 152
- Channel Frequency (ATSC-MH) • 272
- Channel Guides • 212
 - add channels to • 149
 - appearance • 154
 - expire • 152
 - fire triggers • 149
 - hide channel information • 149
 - minor channels • 149
 - publish • 152
 - with PC remote • 211
- channel information (hide) • 149
- channels (tuners) • 115
 - in Channel Viewer • 149
- chat roll feature • 53
- Check for Expired Content field • 237
- Clear Current Value checkbox • 121

- clip audio source • 146
- Clock Messages Multicast Time to Live • 227, 228
- Clock Priority list • 227
- Clock Sync Status utility • 228
- clocks
 - analog clock regions • 86
 - analog clocks • 90
 - design analog clock in Photoshop • 91
 - digital clock regions • 86
 - digital clocks • 103
 - digital timers • 105
- close application with shortcut key • 262
- close InfoCasts • 45
- closed captioning • 53, 145, 157
 - with PC remote • 210
- codecs supported • 144, 157
- color
 - font • 166
 - font edge • 166
 - region backgrounds • 166
 - shadows • 166
- columns
 - auto size on playback • 129
- COM ports
 - control displays with • 206
 - display control • 206
 - serial to USB converters • 20, 206
 - serial triggers • 206
- conditional playback
 - open conditional playback dialog • 189
 - triggers • 191
- confidence preview • 268
- Configuration Utility
 - launch • 223, 261
 - player instances • 224
- configure output
 - add an instance • 265, 274
 - desktop video window • 265
 - edit & playback • 263, 267
 - hardware • 264
 - Legacy mode (Fullscreen) • 265
 - multi head • 263, 268
 - output options • 271
 - quad head • 263
 - resolution • 265
 - rotate output • 265
 - single head • 262, 266

- spanning • 263, 265, 267
- Standard mode • 265
- TV Out • 262
- windows desktop • 265
- workflow • 262
- XD-200 • 265
- Connectus
 - connect to publishers • 242
 - install • 15
- content
 - categories • 63, 152
 - error checking • 63, 152
- Content Editors
 - add content with • 59
 - add log notes • 88
 - add multiple files • 160
 - Analog Clock Quick Editor • 90
 - Animation Importer • 93
 - Animation Quick Editor • 96
 - Associate Audio Source • 76, 97, 134
 - Auto Add to Sequence checkbox • 185
 - Crawl Quick Editor • 100
 - Digital Clock Quick Editor • 103
 - Digital Timer Quick Editor • 105
 - edit items • 61
 - external data features • 79
 - Graphic Importer • 109
 - Live Audio Quick Editor • 112
 - Live Video Quick Editor • 114
 - Odometer Quick Editor • 120
 - open Content Editors • 59
 - play from source • 160
 - preview • 200
 - Roll Quick Editor • 126
 - save • 59
 - Table Quick Editor • 128
 - Temperature Probe Quick Editor • 131
 - Title Quick Editor • 133
 - Video Clip Quick Editor • 139
 - Video Stream Quick Editor • 148
- content prefix (datacasts) • 272
- country (tuners) • 115
- Crawl Quick Editor • 100
- crawl regions • 83
- crawls • 83
 - add text to • 100
 - data tags • 76
 - direction • 187, 238
 - enable onscreen update • 102
 - external data output • 78
 - format crawls • 102
 - format with templates • 168
 - link to external data • 100
 - position • 166
 - speed • 187
 - TitleMotion • 135
- CRC. See error checking • 63, 152
- CSV files • 221
- CTRL+ALT+SHIFT+HOME shortcut • 262
- Custom Duration radio button • 160, 161
- custom formatting • 166
- custom widths • 129
- D**
- Data Gatherer • 78
- data source changes trigger • 193
- Data Source content • 238
- Data Source Wizard
 - audio files • 76
 - Data Gatherer • 78
 - play from data source • 161
- data tags • 76
 - audio • 76
 - crawls • 76
 - Data Gatherer access • 78
 - in animations • 76
 - link to external data • 76
 - rolls • 76
 - tables • 76
 - titles • 134
- database text files • 217
 - delimiters • 217
- databases
 - add to ODBC system list • 221
 - create Microsoft Access databases • 219
 - create Microsoft Excel databases • 219
- datacast content prefix • 272
- datacasts • 272
 - configure • 272
 - folder • 248
- Datasources folder • 238
- default channel • 149
- default font • 238
- delay audio • 169
- delay external audio files • 118
- delete

- InfoCasts • 45
- items from library • 62
- items from sequences • 185
- pages from library • 47
- pages from sequence • 180
- regions • 56
- sequences • 180, 186
- delimiters (text files) • 217
- Design For options • 42
- desktop video window • 262, 265, 268
 - configure • 266
 - preview • 200
 - preview • 204
- DGH temperature probes • 258
- Digital Clock Quick Editor • 103
- digital clock regions • 86
- Digital Timer Quick Editor • 105
- digital tuners • 115
- direction (rolls and crawls) • 238
- directX yield technique • 268
- disable Windows Time service • 227
- discs
 - open InfoCasts from • 42
 - save InfoCasts to disc • 46
- Display Check Interval field • 208
- display control
 - add displays to display list • 206
 - automate • 209
 - disallow PC remote • 208
 - with PC remote • 211
- Display Graphic Overlay checkbox • 117
- Display Wall Designer • 71
 - open • 71
- Display Wall File Sets • 140
- display walls • 71
 - audio ducking items in • 71
 - audio output • 71
 - bezels • 73
 - create InfoCasts for • 69
 - create new configuration • 71
 - display numbers • 73, 227
 - import • 75
 - limitations • 175
 - purchase option • 40
 - save • 75
 - show displays • 70
 - synchronize playback for • 174
 - synchronize video • 69

- video clips • 69
- video clips in • 140
- display walls (license type) • 240
- Don't Play After option • 181, 188
- Don't Play Before option • 181, 188
- dongles • 21
 - type and expiration • 240
- download content • 153
- duck audio. See audio ducking • 118
- duration
 - default for items • 187
 - graphic overlays • 117
 - items • 188
 - live video • 117
 - set page durations • 181
 - video streams • 156
- DVE option • 40
- DVE regions • 52
 - graphics over live video • 196
 - name • 52
 - synchronization limitations • 175
- DVE resizing action • 196
- DWL files • 75
- Dynamic Web Quick Editor
 - purchase option • 40

E

- edge color • 166
- edge width • 166
- edit & playback configuration • 263, 267
- Edit Item With option • 61
- Enable Audio Output checkbox • 270
- enable error checking. See error checking • 63, 152
- Enable Local Display Control checkbox • 208
- Enable Third-Party Audio Output checkbox • 270
- end item before changing sequences • 187
- error checking • 63, 152
- exclusive mode • 268
- Exit button (PC remote) • 212
- exit program monitor • 39
- expiration (of dongles) • 240
- expiration (of licenses) • 240
- expire Channel Guides • 152
- expire InfoCasts • 45
 - on player • 45
- expire items • 59

- set expiry time • 237
- export InfoCasts • 46
- export pages • 47
- Extended View button • 178, 183
- external audio files • 118, 146, 158, 169
 - in a database • 76
 - Play Once option • 118
- external data
 - add to ODBC system list • 221
 - create database text files • 217
 - create Microsoft Access databases • 219
 - create Microsoft Excel databases • 219
 - data source changes trigger • 193
 - Internet Timeout value • 80, 237
 - item durations • 80
 - link to animations • 97
 - link to crawls • 100
 - link to data tags • 76
 - link to rolls • 126
 - link to tables • 128
 - link to titles • 134
 - location setting • 238
 - onscreen update • 79
 - play from data source • 161
 - roll output • 78
 - show all new data at least once • 79
 - Store Data Source Files In • 238
 - transitions • 80
 - update • 79

F

- F4V files • 147
- File Duration radio button • 160, 161
- Fire GPIs via Multicast checkbox • 236
- Flash files • 147
- FLV files • 147
- fonts • 166
 - default font • 238
- formats supported (videos) • 144, 157
- FTP (passive or active) • 255
- Fullscreen mode
 - configure hardware • 264
 - flash playback • 147
 - SWF files • 147
- fullscreen option (Show Output list) • 266, 268
- fullscreen output
 - edit & playback • 263

G

- GPI Initiated action • 197
- GPI Initiated trigger • 192
- GPI triggers. See triggers • 20
- GPU acceleration • 201, 268
- Graphic Importer • 109
- graphic overlays • 117, 145, 157
 - duration • 117
 - maintain aspect ratio • 145
 - maintain aspect ratio • 117
 - scale • 117, 145, 157
- Graphics Over Live setting • 265
- grid lines • 39
- grids (of displays) See Display Wall Designer • 73
- Guide button (PC remote) • 212

H

- header format • 129
- HTM files • 108

I

- ICG files • 168
- images (import) • 109
- import
 - animations • 93
 - audio files • 98
 - display wall video files • 140
 - image files • 109
 - InfoCasts • 42
 - pages • 47
 - video files • 139
- in and out points • 143
- InfoCaster
 - download content • 153
 - publish Channel Guide • 152
 - publish from • 63
- InfoCaster Manager • 40
 - connect to publishers • 242
 - install • 15
- InfoCasts
 - change content during output • 205
 - close • 45
 - copy • 46
 - create for display walls • 69
 - create for synchronized playback • 69, 174
 - create new InfoCasts • 42
 - delete • 45
 - Design For options • 42

- download • 153
 - expire • 45
 - export • 46
 - import • 42
 - Load Last InfoCast On Startup option • 42
 - open from disc • 42
 - play from start • 202
 - publish • 63
 - rename • 44
 - resize InfoCasts when opening • 44
 - save • 46
 - Save As option • 46
 - save to disc • 46
 - schedule pages • 178
 - show displays • 70
 - stop output • 203
 - input sources (displays) • 208
 - with PC remote • 211
 - input sources (tuners) • 115
 - install
 - <MNName> • 15
 - InfoCaster Manager • 15
 - log in • 24
 - through remote desktop • 21
 - instances • 263
 - add an instance • 265
 - assign audio • 270
 - Configuration Utility • 224
 - multi head configuration • 263
 - Multicast folders • 248
 - remove • 265
 - span • 265
 - split audio • 270
 - interlock devices • 21
 - Internet Relay Chat. See live chat data • 53
 - invert fields
 - for live video items • 117
 - for video clips • 143, 160, 161
 - for video streams • 156
 - invert masks • 164
 - IP address (Channel Viewer) • 149
 - IP address (display control) • 206
 - IP address (odometer) • 122
 - IP multicasts • 253
 - IRC. See live chat data • 53
 - italics • 166
 - Item Library • 58
 - change display • 60
 - set picons • 119
 - item playing action • 194
 - item starts trigger • 191
 - item stops trigger • 192
 - Item window • 58
 - items
 - add • 59
 - add blank items • 185
 - add multiple files • 160
 - add multiple items • 60
 - add to sequences • 184
 - alpha masks • 164
 - animations • 84
 - automatically add items • 59
 - blank items • 60
 - change order in sequences • 185
 - days of the week for playback • 188
 - default duration • 187
 - default transition • 187
 - delete from library • 62
 - delete from sequences • 185
 - duration • 188
 - edit • 61
 - expire • 59
 - external data durations • 80
 - item expiry • 59
 - log files • 204
 - loop • 60
 - onscreen update • 79
 - play between • 188
 - preview • 200
 - Punctuate items • 60
 - rename • 61
 - reoccurring sequences • 186
 - save • 59
 - schedule • 183
 - sequence start time • 186
 - set timeline for playback • 188
 - settings • 188
 - transitions • 188
 - tuner • 116
 - videos • 84
- J**
- Javascripts • 107
- K**
- kill application • 262

L

- launch • 35
 - through remote desktop • 35
- layers • 55
- leading (text) • 166
- leading zeros • 105
- Legacy mode (Fullscreen) • 265
- level (displays) • 208
- level (external audio files) • 118
- linear text files • 217
- Live Audio Quick Editor • 112
 - duration • 113
- live audio source • 118
- live chat data with paused rolls • 53
- Live Over Graphics setting • 265
- live video • 114, 117
 - audio • 118
 - graphic overlays • 117
 - scale • 116
 - tuners • 115
- Live Video Quick Editor • 114
 - fade audio ducking • 118
- LIVE!Link triggers • 234
- Load Last InfoCast On Startup option • 42
- local system account • 243
- location settings • 238
- lock panel (displays) • 208
- lock size and position (regions) • 55
- log files • 204
 - create • 204
 - view log file • 214
- log in • 24
- Log This Region option • 214
- Log Viewer • 88, 214
- logs
 - log notes • 88
 - log regions • 55
 - open • 214
 - regions • 214
- loop
 - associated audio source • 76
 - external audio files • 118, 169
 - items • 60
 - sequences • 187
- Low Latency mode • 149

M

- MAC address (of master) • 228

- maintain aspect ratio • 94, 111, 116, 143, 145
- major channels • 115
- masks • 164
- Master (synchronization) • 227
- Matrox G450 or G550 cards • 264
- MDB files • 221
- media regions • 84
 - Punctuate items • 84
- meters • 86
- Microsoft Access • 219, 221
- Microsoft Excel • 219, 221
- Minimum Duration option • 53
- minor channels • 115, 149
- monitor power saving • 18
- move regions • 55
- multi head configuration • 268
- multi head mode • 224, 263
 - configuration • 263
 - quad head • 263
- multicast mode
 - datacast folders • 248
- Multicast Network Adapter list • 227, 228
- multicast triggers • 236
- multiple displays (replicate tables) • 129
- mute (displays) • 208
 - with PC remote • 211

N

- native resolution (display walls) • 73
- network stream
 - add an instance • 274
 - advanced settings • 299
 - crop • 276
 - presets • 275
 - purchase option • 40
 - resize • 276
- NTP (disable) • 227
- NTSC • 262
- Number of Columns option • 128
- NVIDIA cards • 264

O

- ODBC
 - system list • 221
- Odometer Quick Editor • 120
 - connect to UDP Multicast • 121
 - create an odometer • 124
 - format odometer • 123

- offset time • 91, 103
 - OK button (PC remote) • 212
 - onscreen update • 79
 - crawls • 102
 - rolls • 127
 - transitions • 79
 - opacity
 - alpha masks • 164
 - analog clocks • 91
 - animations • 94
 - fonts • 166
 - region backgrounds • 166
 - shadows • 166
 - open
 - Analog Clock Builder • 92
 - Content Editors • 59
 - InfoCasts from disc • 42
 - Load Last InfoCast On Startup option • 42
 - logs • 214
 - resize InfoCasts when opening • 44
 - options. See purchase options • 40
 - output
 - add an instance • 265
 - animation external data • 78
 - animation speed • 95, 203
 - blank items • 185
 - change InfoCast content during output • 205
 - confidence preview • 268
 - crawl external data • 78
 - days of the week • 181
 - directX yield technique • 268
 - edit & playback • 267
 - exclusive mode • 268
 - external data item durations • 80
 - external data transitions • 80
 - GPU acceleration • 268
 - GPU acceleration • 201
 - logs • 55
 - loop items • 60
 - multi head • 268
 - output options • 271
 - page playback timeline • 181
 - play InfoCasts from start • 202
 - Preview window • 204
 - quad head • 268
 - resolution • 265
 - roll external data • 78
 - rotate • 265
 - RTX Ports • 87
 - schedule item playback • 183
 - schedule pages • 178
 - select output device • 204
 - single head • 266
 - skip sequences during playback • 205
 - spanning • 267
 - still external data • 78
 - stop output • 203
 - supports touchscreen • 268
 - synchronize playback • 174
 - table external data • 78
 - title external data • 78
 - touchscreens • 268
 - update crawl text immediately • 102
 - update roll text immediately • 127
 - output aspect ratio • 239
 - output devices
 - Altitude Express • 265
 - desktop video window • 265
 - select • 265
 - single head • 262
 - test settings • 273
 - TV Out • 262
 - XD-200 • 265
 - output mode • 265
 - configure • 264
 - Matrox G450/G550 • 264
 - NVIDIA • 264
 - Standard mode • 265
 - TV Out • 265
- ## P
- pages
 - add new page • 47
 - add regions to • 51
 - change order in sequences • 180
 - days of the week • 181
 - delete from library • 47
 - delete from sequences • 180
 - edit • 48
 - export • 47
 - import • 47
 - play between • 181
 - playback timeline • 181
 - preview • 56
 - preview with desktop video • 200
 - rename • 47

- schedule • 178
 - set default transition • 181
 - set durations • 181
 - settings • 181
 - show page without adornments • 56
 - transitions • 182
 - PAL • 262
 - panel lock (displays) • 208
 - passive FTP downloads • 255
 - Pause Between Rows option • 53
 - PC clock • 239
 - PC remote
 - Channel Guides • 211
 - fire triggers • 149
 - hide channel information • 149
 - prevent display control with • 208
 - select players • 213
 - support • 210
 - permissions (for regions) • 55
 - pixels per inch • 75
 - play
 - from data source • 161
 - from folder • 160
 - InfoCasts from start • 202
 - order (play from source) • 160
 - see also output • 180
 - sequences • 180, 185
 - play from source • 160
 - Alternate Playback • 161
 - play order • 160
 - synchronization limitations • 175
 - Play Item Between option • 188
 - Play Once option • 169
 - external audio files • 118
 - Play Page Between option • 181
 - Player Server • 23
 - FTP mode • 255
 - players • 21, 33, 55
 - instances • 224
 - location setting • 238
 - permissions • 33
 - synchronize playback • 174
 - ports. See RTX Ports • 40
 - position
 - analog clocks • 91
 - crawls • 166
 - graphics • 111
 - shadows • 166
 - text • 166
 - video clips • 144
 - Power On/Off (displays) • 208
 - with PC remote • 211
 - Power Users (log in as) • 24
 - ppi • 75
 - preferences • 223, 261
 - prefix (datacasts) • 272
 - pre-sliced video clips • 140
 - preview
 - all regions • 56
 - animations • 95
 - audio • 118, 146, 158, 169
 - items • 200
 - pages • 56
 - regions • 56, 200
 - video clips • 144
 - preview playback • 204
 - Preview window • 204
 - program monitor • 39
 - protocol (Channel Viewer) • 149
 - proxy server • 256
 - publish Channel Guide • 152
 - publish content • 63
 - publishers • 21, 33
 - categories • 63, 152
 - connect to <MNName> • 242
 - enable • 63
 - error checking • 63, 152
 - InfoCaster • 153
 - Punctuate application • 60
 - Punctuate items • 60
 - in media regions • 84
 - in still regions • 82
 - purchase options • 40
- ## Q
- QAM tuners • 115
 - quad head configuration • 263, 268
 - query tag • 238
- ## R
- random play order • 160
 - Reaching Specified Time triggers • 193
 - region permissions • 55
 - Region Touched triggers • 194
 - regions • 51
 - add content to • 59

- add items to • 59
- add region sequences to • 184
- add to pages • 51
- align • 39
- analog clocks • 86
- analog meters • 86
- arrange regions • 55
- backgrounds • 52
- crawls • 83
- delete • 56
- digital clocks • 86
- DVEs • 52
- edit • 48
- layers • 55
- lock size and position • 55
- log files • 204
- Log This Region option • 214
- logs • 55
- media • 84
- move • 55
- order of • 55
- preview • 56, 200
- rename • 54
- resize • 54
- rolls • 84
- RTX Ports • 87
- select • 54, 58
- show displays • 70
- stills • 82
- temperature items • 87
- z-order of • 55
- Remember Last Value checkbox • 121
- remote desktop • 21, 35
- rename
 - InfoCasts • 44
 - items • 61
 - pages • 47
 - regions • 54
 - sequences • 180, 186
- reoccurring sequences • 186
 - and conditional playback • 195
 - synchronization limitations • 175
- resize regions • 54
- resolution • 265, 266
 - display walls • 73
 - limits • 266
- restart program monitor • 39
- Roll Quick Editor • 126
- roll regions • 84
- rolls • 126
 - add text • 126
 - data tags • 76
 - direction • 187, 238
 - enable onscreen update • 127
 - external data output • 78
 - format • 127
 - format with templates • 168
 - link to external data • 126
 - pause between rows • 53
 - show one character per line • 126
 - speed • 187
 - TitleMotion • 135
 - vertical text • 126
- rotate display in a wall • 74
- rotate output • 265
- row format (tables) • 129
 - auto size columns • 129
- RTP • 148
- RTX Ports • 87
 - purchase options • 40
 - synchronization limitations • 175
- rules
 - add new rules • 191
 - names • 191
 - save • 197
 - skip rules • 190
 - sort • 189
- Run All Administrators settings • 16
- S**
- safe title area • 38
- save
 - audio files in a central location • 169
 - content • 59
 - copy InfoCasts • 46
 - default save location • 46
 - export InfoCasts • 46
 - InfoCasts • 46
 - InfoCasts to disc • 46
 - items • 59
 - Save As option • 46
 - TitleMotion titles • 135
 - triggers • 197
 - videos in a central location • 163
- scale
 - analog clocks • 91

- graphic overlays • 117, 145, 157
- graphics in crawls • 100
- live video • 116
- video clips • 143
- video streams • 156
- Scale Performance • 75
- Scale Quality • 75
- scan for channels • 115
- schedule
 - display control • 209
 - item playback • 183
 - RTX Ports • 87
- screen saver • 18
- Select Output Device field • 265
- Send to Back option • 52
- separators (digital timers) • 105
- Sequence Playing action • 195
- Sequence Starts trigger • 192
- Sequencer View button • 178, 183
- sequences
 - add items to • 184
 - add page sequences • 179
 - add pages • 179
 - add region sequences • 184
 - Auto Add to Sequence checkbox • 185
 - automatically add items • 59
 - blank items • 185
 - change order of items • 185
 - change order of pages • 180
 - delete • 180, 186
 - delete items • 185
 - delete pages • 180
 - display (item sequences) • 183
 - display (page sequences) • 178
 - finish playback • 187
 - loop • 187
 - page settings • 181
 - play • 180, 185
 - rename • 180, 186
 - set default transition • 181
 - set picons • 119
 - show frames in sequencer • 238
 - skip • 180, 185, 205
 - start time • 181, 186
 - transition softness • 181
 - tuner items in • 116
- serial devices • 171
 - serial to USB converters • 20
 - serial port GPIs • 20
 - add triggers • 234
 - connect • 20
 - serial triggers • 206
- server access account • 23
- Set Expiry window • 45
- Set Head as Windows Desktop checkbox • 265
- set picons • 119
- Shared Media • 163
 - audio files • 169
 - set Shared Media folder • 163
 - settings • 238
- SharedID property • 87
- show all new data at least once • 79
- Show Channel Numbers checkbox • 149
- show displays • 70
- Show Frames in Sequencer checkbox • 238
- show full screen
 - live video • 116
 - video clips • 143, 160, 161
 - video streams • 156
- show leading zeros • 103
- show one character per line • 126
- Show Output list • 268
 - fullscreen • 266, 268
 - windowed • 266, 268
- show page without adornments • 56
- show safe title area • 38
- show seconds • 103
- show time • 103
- shut down application • 262
- simple file sharing • 19
- single head configuration • 262, 266
- single-instance audio output • 270
- size (fonts) • 166
- Size Text to Fit option • 166
- skip sequences • 180, 185
- Slave Only (synchronization) • 227
- sliced video clips • 140
- Small Thumbnails button • 178, 183
- softness • 187, 188
 - sequence transitions • 181
- software GPIs
 - triggers • 235
- software triggers • 192
- Source Type
 - Display Wall File Set • 140
 - Files • 93, 98, 109, 139

- Play From Data Source • 161
- Play From Folder • 160
- sources (displays) • 208
 - with PC remote • 211
- space below headers • 129
- Span Across Both Heads checkbox • 265
- spanning configuration • 263, 267
 - in Configuration Utility • 265
 - video standard • 265
- speed (rolls and crawls) • 187
- Spin Wheels When Idle checkbox • 121
- Split Audio Card option • 270
 - connect before launching • 270
- split audio mode • 270
- Standard mode • 265
 - flash playback • 147
 - fullscreen • 268
 - SWF files • 147
 - windowed • 268
- Start Sequence At field • 181, 186
- Start Tuning button • 115
- still regions • 82
- stills • 82
 - associate audio source • 134
 - external data output • 78
 - Punctuate items • 60, 82
 - TitleMotion • 135
- stop playback • 203
- Store Data Source Files In field • 238
- Store InfoCasts In field • 46
- streaming audio source • 158
- streaming videos • 148
 - Channel Guides • 149
 - codecs supported • 157
 - Windows Media reconnection • 149
- supported video formats • 144, 157
- S-video output • 262
- SWF files • 147
- switch users • 24
- synchronized playback • 174
 - create InfoCast for • 69, 174
 - limitations • 175

T

- Table Quick Editor • 128
- tables • 128
 - auto size rows on playback • 129
 - data tags • 76

- external data output • 78
 - link to external data • 128
 - replicate tables • 129
- Temperature Probe Quick Editor • 131
- temperature probes • 131
 - DGH configuration • 258
- temperature regions • 87
- templates • 136
 - Channel Guides • 154
 - format with templates • 168
- test output settings • 273
- text • 166
 - alignment • 166
 - position • 166
 - see also font • 238
 - size to fit • 166
 - wrap text • 166
- text files • 221
 - create • 217
- Text Only button • 178, 183
- thumbnails
 - animations • 94
 - Item Library • 60
- Time to Live number • 227, 228
- timecode • 239
- timers • 105
- Title Quick Editor • 133
- TitleMotion • 135
 - Channel Guide styles • 154
 - edit titles • 136
 - format with templates • 168
- titles • 133
 - associate audio source • 134
 - external data output • 78
 - format with templates • 168
 - link to external data • 134
 - TitleMotion • 135
- To Left (crawl option) • 187
- To Right (crawl option) • 187
- toggle display on/off • 208
- touchscreens • 268
 - Region Touched • 194
 - triggers • 194
- tracking • 166
- transitions
 - external data output • 80
 - item default • 187
 - items • 188

- onscreen update • 79
- page transitions • 182
- set sequence transitions • 181
- synchronization limitations • 175
- transparency. See opacity • 91
- triggers • 20, 191
 - DVE regions • 52
 - multicast triggers • 236
 - software • 192, 235
 - toggle display on/off • 208
 - USB • 192
 - when channel is chosen • 149
- trim video clips • 143
- tune digital tuners • 115
- tuners • 115
- TV monitors • 262
- TV Out configuration • 262, 265
- TV tuners • 115
- TXT files • 217, 221

U

- UDP • 148
- UDP Multicast (odometer) • 121
- underline • 166
- update images when source changes • 111
- URL modifiers • 149
- URL query tag • 238
- USB dongles • 21
- USB triggers • 192
 - add triggers • 235
- Use Channel Guide radio button • 149
- Use First Entry From Database option • 129
- Use Passive FTP checkbox • 255
- users • 24
 - log in • 24
 - switch • 24

V

- vertical text • 126
- VGA Aspect Ratio • 239
- video cards
 - configure hardware • 264
- Video Clip Quick Editor • 139
- video devices • 114
 - tuners • 115
- video items • 84
- video standard • 266
 - limits • 266

- resolution • 266
- rotated output • 265
- spanning configuration • 265
- Video Stream Quick Editor • 148
- video streams • 148
 - closed captioning • 53, 157
- videos
 - add display wall video files • 140
 - add from video devices • 114
 - add video files • 139
 - audio • 146, 158
 - Channel Guides • 149
 - closed captioning • 53, 145
 - codecs supported • 144
 - Display Wall File Sets • 140
 - in and out points • 143
 - in display walls • 69
 - Live Video Quick Editor • 114
 - Punctuate items • 60
 - store in a central location • 163
 - streaming • 148
 - trim • 143
- view logs • 88
- virtual audio cards • 270
- volume • 169, 208
 - with PC remote • 211

W

- windowed (Show Output list) • 266, 268
- Windows Automatic Updates • 17
- windows desktop (output) • 265
- Windows Media reconnection • 149
- Windows remote desktop • 21, 35
- Windows Time service (disable) • 227
- Windows Vista and Windows 7 • 16
 - switch users • 24
- Windows XP • 16
- word wrap • 166
- workspace
 - Item window • 58
- wrap text • 166

X

- XD-200 • 265
 - install • 20
- XLS files • 221

Z

- z-order • 55

