



CHAPTER 3

Using the Ease Menu and Niagara SCX Web Interface

Revised: October 9, 2008, OL-17938-01

This chapter includes the following sections:

- [EASE Menu \(LCD Display\)](#), page 3-1
- [Niagara SCX Web Interface](#), page 3-16

EASE Menu (LCD Display)

This section provides details about the LCD menu tree. It is intended to be a complete reference to all levels and functions accessible by using the encoder front panel LCD display.

It is designed to be a visual reference of the LCD screen including the front panel button action to move to the next screen.

This section includes the following topics:

- [Encode Menu](#), page 3-2
- [Access Health Menu](#), page 3-3
- [Setup System Menu](#), page 3-5
- [Export to USB Drive](#), page 3-16
- [Shutdown Cisco Digital Media Encoder 2200](#), page 3-16



Note

This section will use the following graphical icons for the various button actions:

Icon	Description
	Power On
	Access Menu/Return to Previous

Icon	Description
	Enter/Execute Command
	Move Pointer Up/Down
	Start Encoder
	Stop Encoder
	Load Encoder

Encode Menu

This section includes the following topics:

- [Encode Start, page 3-2](#)
- [Encode Stop, page 3-3](#)
- [Encode Status, page 3-3](#)

Encode Start

Encode Stop

<pre> →Encode Access Health Setup System Export Files </pre>		<pre> →AUI Stopped Flash Stopped Mpeg Started Real Stopped </pre>	
<pre> AUI Stopped Flash Stopped →Mpeg Started Real Stopped </pre>		<pre> Mpeg Stopping </pre>	<pre> AUI Stopped Flash Stopped →Mpeg Stopped Real Stopped </pre>

Encode Status

<pre> →Encode Access Health Setup System Export Files </pre>		<pre> →AUI Stopped Flash Stopped Mpeg Stopped Real Stopped </pre>	
<pre> AUI Stopped Flash Stopped →Mpeg Stopped Real Stopped </pre>		<pre> Mpeg Controls a H264MPG C Preset: Not Assigned State: Stopped </pre>	—

Access Health Menu

This section includes the following topics:

- [CPU Status](#), page 3-3
- [Memory Available](#), page 3-4
- [Temperature Status](#), page 3-4

CPU Status

<pre> Encode →Access Health Setup System Export Files </pre>		<pre> →CPU Memory Temperature </pre>	
<pre> CPU in use 48% PRESS ENTER </pre>		<pre> →Encode Access Health Setup System Export Files </pre>	—

Memory Available

Encode →Access Health Setup System Export Files		→CPU Memory Temperature	 
CPU →Memory Temperature		Available Memory Harddrive: 97.09% RAM: 2692.00 Press Enter	
CPU →Memory Temperature		→Encode Access Health Setup System Export Files	—

Temperature Status

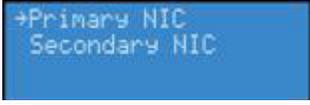
→Encode Access Health Setup System Export Files		→CPU Memory Temperature	  (X 2)
CPU Memory →Temperature		Current Temperature 39.75 C PRESS ENTER	
→CPU Memory Temperature		→Encode Access Health Setup System Export Files	—

Setup System Menu

This section includes the following topics:

- [Network Link Status](#), page 3-5
- [Network MAC Address](#), page 3-6
- [View Network Settings](#), page 3-7
- [Enable DHCP](#), page 3-8
- [Set Static IP Addresses](#), page 3-9
- [Set Gateway Address](#), page 3-11
- [Set Date & Time](#), page 3-12
- [Setting Temperature Alarm](#), page 3-13
- [Factory Restore](#), page 3-14

Network Link Status

Network MAC Address

Encode Access Health →Setup System Export Files		→Network Time & Date Temperature Alarm Factory Restore	
→Primary NIC Secondary NIC		Link Status →MAC Address View Settings Change Settings	
MAC Address 00:00:00:00:00:00 PRESS ENTER		Link Status →MAC Address View Settings Change Settings	
→Encode Access Health Setup System Export Files			

View Network Settings

Encode Access Health →Setup System Export Files		→Network Time & Date Temperature Alarm Factory Restore	
→Primary NIC Secondary NIC		Link Status MAC Address →View Settings Change Settings	
→DHCP On/Off IP Address(s) Subnet Gateway		DHCP Enabled: True PRESS ENTER	
→DHCP On/Off IP Address(s) Subnet Gateway	 	DHCP On/Off →IP Address(s) Subnet Gateway	
IP Address: 000.000.000.000 Press Enter		→DHCP On/Off IP Address(s) Subnet Gateway	 
DHCP On/Off IP Address(s) →Subnet Gateway		Subnet Address: 000.000.000.000 PRESS ENTER	
→DHCP On/Off IP Address(s) Subnet Gateway	 	DHCP On/Off IP Address(s) Subnet →Gateway	

EASE Menu (LCD Display)

<pre>Gateway Address: 000.000.000.000 Press Enter</pre>		<pre>DHCP On/Off IP Address(s) Subnet +Gateway</pre>	
<pre>+Encode Access Health Setup System Export Files</pre>	—	—	—

Enable DHCP

<pre>Encode Access Health +Setup System Export Files</pre>		<pre>+Network Time & Date Temperature Alarm Factory Restore</pre>	
<pre>+Primary NIC Secondary NIC</pre>		<pre>Link Status MAC Address View Settings +Change Settings</pre>	
<pre>+Turn DHCP On IP Address Gateway</pre>		<pre>Confirm Enable DHCP? Yes +No</pre>	
<pre>Confirm Enable DHCP? +Yes No</pre>		<pre>+Turn DHCP On IP Address Gateway</pre>	
<pre>+Encode Access Health Setup System Export Files</pre>	—	—	—

Set Static IP Addresses

<p>Encode Access Health →Setup System Export Files</p>		<p>→Network Time & Date Temperature Alarm Factory Restore</p>	
<p>→Primary NIC Secondary NIC</p>		<p>Link Status MAC Address View Settings →Change Settings</p>	
<p>→Turn DHCP On IP Address Gateway</p>		<p>Turn DHCP On →IP Address Gateway</p>	
<p>IP Address: 00.000.000.000 Press Enter</p>		<p>IP Address: 100.000.000.000 Press Enter</p>	
<p>IP Address: 100.000.000.000 Press Enter</p>	 (X 3)	<p>IP Address: 130.000.000.000 Press Enter</p>	
<p>IP Address: 130.000.000.000 Press Enter</p>	 (X 4)	<p>IP Address: 134.000.000.000 Press Enter</p>	
<p>IP Address: 134.000.000.000 Press Enter</p>	 (X 6)	<p>IP Address: 134.000.000.000 Press Enter</p>	 (X 5)
<p>IP Address: 134.000.000.500 Press Enter</p>		<p>Subnet 00.000.000.000 Press Enter</p>	

EASE Menu (LCD Display)

Subnet 100.000.000.000 Press Enter		Subnet 100.000.000.000 Press Enter	 (X 3)
Subnet 130.000.000.000 Press Enter		Subnet 130.000.000.000 Press Enter	 (X 4)
Subnet 134.000.000.000 Press Enter		Subnet 134.000.000.000 Press Enter	
Turn DHCP On →IP Address Gateway		+Encode Access Health Setup System Export Files	—

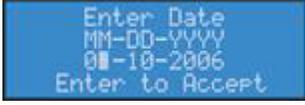
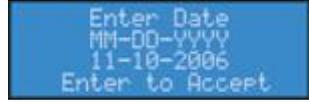
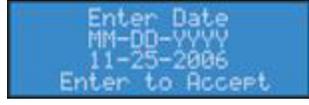
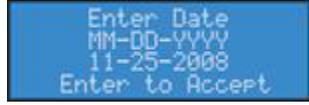
Set Gateway Address

	 (X 2)		
	 (X 1)		
 (X 9)			 (X 2)
		 (X 1)	
	 (X 6)		
 (X 8)			

EASE Menu (LCD Display)

	 (X 1)		
 (X 1)			
		—	—

Set Date & Time

			
			
	 (X 5)		
	 (X 15)		
	 (X 2)		

	 (X 16)		
	 (X 25)		

Setting Temperature Alarm

		 (X 3)	
		 (X 2)	
		 (X 2)	

Factory Restore

	→Encode Access Health Setup System Export Files	 (X 3)	Encode Access Health →Setup System Export Files
	→Network Time & Date Temperature Alarm Factory Restore	 (X 3)	Network Time & Date Temperature Alarm →Factory Restore
	Clear system & load factory settings? 10 min to complete. Yes →No		Clear system & load factory settings? 10 min to complete. →Yes No
	Restore System to factory defaults? Yes →No		Restore System to factory defaults? →Yes No
	All current settings will be erased! Yes →No		All current settings will be erased! →Yes No
	System restore is in progress. DO NOT POWER-OFF SYSTEM! 10 min to complete.	—	—

<10-minute delay>

<p>Welcome to setup: Set time, date, and video format. PRESS ENTER ...</p> <p>188228</p>		<p>Enter Date MM-DD-YYYY 01-10-2006 Enter to Accept</p>	 <p>(X 5)</p>
<p>Enter Date MM-DD-YYYY 11-10-2006 Enter to Accept</p>		<p>Enter Date MM-DD-YYYY 11-1-2006 Enter to Accept</p>	 <p>(X 15)</p>
<p>Enter Date MM-DD-YYYY 11-25-2006 Enter to Accept</p>		<p>Enter Date MM-DD-YYYY 11-25-2006 Enter to Accept</p>	 <p>(X 2)</p>
<p>Enter Date MM-DD-YYYY 11-25-2008 Enter to Accept</p>		<p>Enter Time HH:MM 00:00 Enter to Accept</p>	 <p>(X 16)</p>
<p>Enter Time HH:MM 16:00 Enter to Accept</p> <p>188233</p>		<p>Enter Time HH:MM 16:00 Enter to Accept</p>	 <p>(X 25)</p>
<p>Enter Time HH:MM 16:25 Enter to Accept</p>		<p>Select the video format to use for all encoders. PRESS ENTER ...</p> <p>188234</p>	
<p>+NTSC PAL</p> <p>188235</p>		<p>First time setup is completed. PRESS ENTER</p>	

Export to USB Drive

Encode Access Health Setup System →Export Files		→To USB Drive	
Select Destination	→G:drivername1 I:drivername2		Select source file
→CLOCK.AVI		Please wait Exporting... Do NOT remove device	Success Exporting

Shutdown Cisco Digital Media Encoder 2200

→Encode Access Health Setup System Export Files	  (X 4)	Access Health Setup System Export Files →Shutdown System	
Shutdown System? Yes →No	 	Shutdown System? →Yes No	
ViewCast Corporation Name: CP08360002 Serial: CP08360002 Shutdown Complete	—	—	—

Niagara SCX Web Interface

The Cisco Digital Media Encoder 2200 includes the *Niagara SCX Web Interface*, which allows you to access the advanced system settings. The web interface also provides detailed settings and control over the encoder profiles installed on the encoder. This section details each setting and page of the *Niagara SCX Web Interface*.

- [Log In](#), page 3-17
- [Home Page](#), page 3-18

- [All Encoders](#), page 3-19
- [My Cisco Digital Media Encoder 2200](#), page 3-47
- [Cisco Digital Media Encoder 2200 Alerts](#), page 3-51
- [Network Properties](#), page 3-52
- [System Configuration Settings](#), page 3-54
- [View Activity Log](#), page 3-58
- [View Alerts](#), page 3-59
- [The Help, or “i” Button, the Niagara SCX Web Interface, and Their Alert Settings](#), page 3-59

Log In

The *Niagara SCX Web Interface* does not require software and works with any computer that has a current web browser and current operating software for Windows, Macintosh, and Linux machines. The encoder system must either reside on a shared IP network with the computer or can be directly connected to a Windows computer using an Ethernet cable (RJ-45).

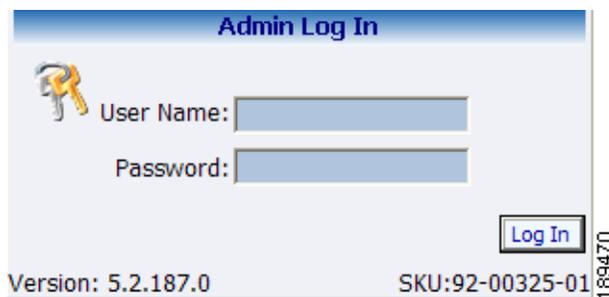
Open the web browser on your computer and access the web interface by typing in the encoder network name. The network name of the encoder is also its serial number and can be obtained from the LCD readout during the power-up process.

The serial number is also located on the right side of the encoder.

Enter the encoder name in the web browser (as shown below) and press **enter**.



You will be prompted with a login screen that requires a user name and password. By default, the user name and password are both **admin**.



Note

If you cannot browse to the encoder by using its machine name, type in the encoder IP address instead. This information is available by accessing the LCD menus on the front panel of encoder.

Home Page

The **Home** page is the first page presented after you log into the *Niagara SCX Web Interface*. From this page, you can access the different pages for configuring, controlling, and monitoring the activities and alerts from the encoder.



Menu Bar

The menu bar at the top of the **Home** page is consistent and available throughout the website.

With the exception of the **Home** and **Log Out** menu options in the menu bar at the top of the **Home** page, the other options in the menu bar have drop-down menus. These drop-down menus appear within **Encoders**, **Configuration**, and **Status**. Each drop-down menu provides a list of additional options available.

Home

The **Home** title is an active link. Clicking this link will direct you to the **Home** page of the website.

Encoders

The **Encoders** drop-down menu provides access to the following web pages that provide the following information:

- **All Encoders:** Lists all of the encoding profiles loaded on the encoder and provides management of those profiles
- **Preset A:** Allows you to assign a loaded encoding profile to the A button on the front panel of the encoder
- **Preset B:** Allows you to assign a loaded encoding profile to the B button on the front panel of the encoder
- **Preset C:** Allows you to assign a loaded encoding profile to the C button on the front panel of the encoder

Configuration

The **Configuration** drop-down menu provides access to the following:

- **My Encoder:** Provides details on the Machine Properties of the encoder, including the Network Name, Serial Number, and all software versions installed

- **Encoder Alerts:** Allows modification of the settings for each application alert that the encoder could generate during normal operations
- **Network Properties:** Provides information on the encoder network properties and addresses for both NIC ports and allows modification to these properties
- **System Configuration:** Allows modification of the system configuration including setup for email alerts from the encoder whenever it encounters an operation error



Status

The **Status** drop-down menu provides access to the following:

- **View Activity Log:** A list of all encoder activities with date and timestamp on each event
- **View Alert:** A list of encoder alerts with date and timestamp on each alert



Log Out

The **Log Out** option executes user log out from the encoder and returns you to the website Log In screen.

All Encoders

The All Encoders web page provides a list of all of the encoder profiles loaded on the encoder. On this page, you can do the following:

- View all of the loaded and available encoder profiles
- Start and Stop each encoder individually
- Access the Editing page for an encoder

- Delete an encoder profile
- Create an encoder profile

Encoders
This page allows you to perform encoder setup and removal.

Auto refresh page [Add Encoder](#)

NiagaraPro Encoders | Total records : 5

Name	Description	Last Status	Streaming	Preset
Edit Del AVI	AVI Encoder Driver	OK	Stopped	
Edit Del Flash	Flash Encoder	OK	Stopped	
Edit Del Mpeg	MPEG4 Encoder Driver	OK	Stopped	
Edit Del Real	Helix Producer Encoder	OK	Stopped	
Edit Del WME	Windows Media Encoder	OK	Stopped	

The **Encoders** list has five titled columns, as follows:

- **Name:** Provides the name of the encoder profile (this name is displayed in the encoder front panel LCD display)
- **Description:** Defines the type of encoder which are AVI, Flash, Helix Producer, and Windows Media
- **Last Status:** Provides the activity of the encoder when the information on this page was last refreshed (for example, Encoder started or Encoder failed to start)
- **Streaming:** Provides a column of buttons that allow you to start or stop an encoder
- **Preset:** Provides information on the *EZStream* button assignment for each encoder (if this field is blank then the encoder is not assigned to a *EZStream* button)

Enabling the **Auto Refresh Page** check box at the top of the page will execute a refresh of this page every 10 seconds. This is useful when you are monitoring the encoder while another user is operating it.

Encoders
This page allows you to perform encoder setup and removal.
Last Updated **9:25:15 PM**

Auto refresh page

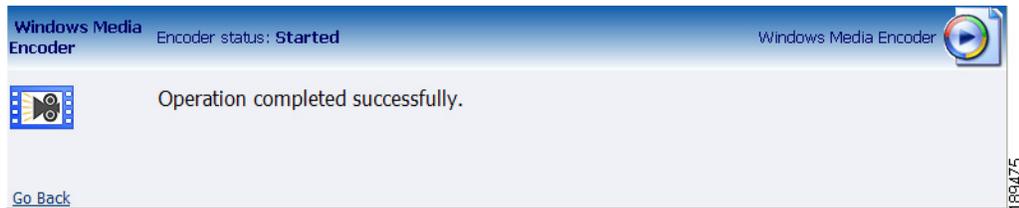
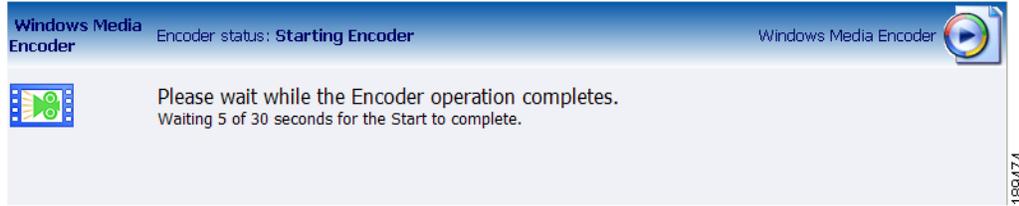
189398

Start Encoder

Press the red **Stream** icon located in the right column of the encoder you wish to start.



The web page will automatically update with messages detailing the encoder start progress.



After the encoder has started successfully, the web page will return to the **All Encoders** page with the encoder status updated to reflect **Started** mode.

Encoders
This page allows you to perform encoder setup and removal.

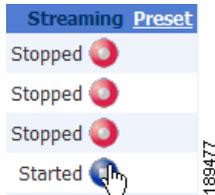
Auto refresh page [Add Encoder](#)

NiagaraPro Encoders | Total records : 5

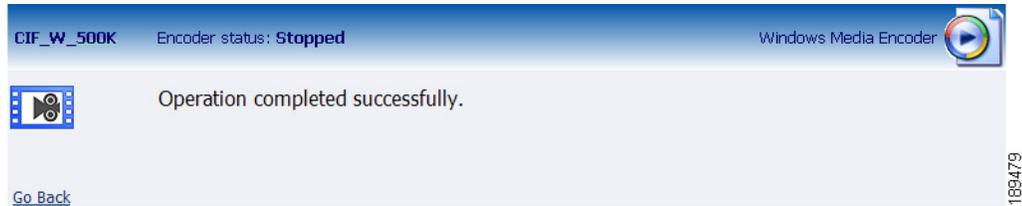
Name	Description	Last Status	Streaming Preset
Edit Del AVI	AVI Encoder Driver	OK	Stopped
Edit Del Flash	Flash Encoder	OK	Stopped
Edit Del Mpeg	MPEG4 Encoder Driver	OK	Stopped
Edit Del Real	Helix Producer Encoder	OK	Stopped
Edit Del WME	Windows Media Encoder	Encoder started	Started

Stop Encoder

Press the blue icon located in the right column of the encoder you wish to stop.



The web page will automatically update with messages detailing the encoder stop progress.



After the encoder has successfully stopped, the web page will return to the **All Encoders** page with the encoder status updated to reflect **Stopped** mode.

Edit Encoder

To edit an encoder, click the **Edit** link in the first column.

Encoders
This page allows you to perform encoder setup and removal.

Auto refresh page [Add Encoder](#)

NiagaraPro Encoders | Total records : 5

Name	Description	Last Status	Streaming	Pre
Edit Del AVI  AVI Encoder Driver	OK	Stopped		
Edit Del Flash  Flash Encoder	OK	Stopped		
Edit Del Mpeg  MPEG4 Encoder Driver	OK	Stopped		
Edit Del Real  Helix Producer Encoder	OK	Stopped		
Edit Del WME  Windows Media Encoder	Stopped	Stopped		

The properties page for that encoder will be displayed.

Video & Audio Settings

The properties page for each encoder type uses the same Video and Audio Settings except for the added color space setting for AVI and MPEG-4.



You enable or disable video and/or audio by clicking the check box next to **Source**: When Source is enabled, the **Source**, **Input**, **Signal**, **Proportions**, **Size**, **Format**, and **Input** fields can be edited.

Source: This field displays a drop-down list of devices available on the encoder. The Cisco Digital Media Encoder 2200 is a two channel encoder, so there are two physical sets of audio and video inputs can be used at any one time. However, you can capture multiple streaming formats and resolutions simultaneously from this one set of video inputs. Video source is seen as multiple inputs denoted by incrementing decimal values. They appear in this manner:

- Osprey 5x0 Video Device 1.1
- Osprey 5x0 Video Device 1.2
- Osprey 5x0 Video Device 1.3
- Osprey 5x0 Video Device 1.4

Set **Input** for both video and audio to match the video and audio inputs on the back of the encoder to which you connected your video and audio source. This would be either Composite, S-Video or SDI for video input and Unbalanced, XLR Balanced, XLR AES/EBU or SDI for audio input.

When you performed the First Start Setup, you determined if your video signal was NTSC or PAL. The **Signal** field adds granularity for regional NTSC, PAL, and SECAM settings. If you are uncertain which setting applies, refer to the owner's manual for the video source that you have connected to the encoder.

The proportion setting uses the term **Standard**, meaning square pixels for a VGA monitor, and **CCIR-601** meaning elongated pixels for a television monitor. Choose the setting that reflects the type of display on which your content will be viewed. For example, if you will be streaming your video on the Internet to be viewed on a computer monitor, select **Standard**. Selecting the incorrect setting can make the streaming video appear distorted.

The **Size** field refers to the pixel size of the encoded video. The standard sizes are as follows:

- Full for full screen video
- CIF for video scaled from full size to ¼ size
- QCIF for video scaled from full size to ¼ of CIF size

You can also specify a custom size for your video. This is useful when capturing video to be played on a mobile video device that requires a non-standard size for compatibility.

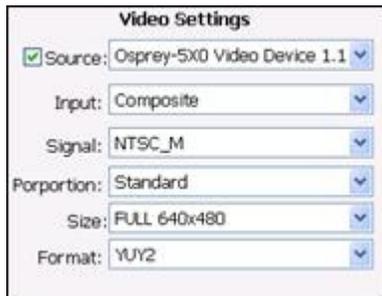
If you select **Custom** from the drop-down menu, two additional fields will appear allowing you to type in the exact size you want the resulting video to be.



Size: CUSTOM
Width: 160 Height: 120

**Note**

If you specify a video size that is not compatible with the color space of your source video, the encoder will automatically correct the size to the closest compatible setting when you click the **Submit** button. The color space format setting is only available in AVI and Flash encoder properties and appears as an additional field under the **Size** setting (see below).



Video Settings

Source: Osprey-5X0 Video Device 1.1

Input: Composite

Signal: NTSC_M

Porportion: Standard

Size: FULL 640x480

Format: YUY2

Now that you have completed all of the Video and Audio settings, you can proceed to the encoder type settings at the bottom of the page. As previously stated, these settings will vary according to the encoder type.

Advanced Streaming Settings

SimulStream and DirectShow Filters

SimulStream filters have two interrelated purposes, as follows:

- They allow applications to enumerate and list video capture and preview pins or streams (each with different settings) as named entries in their video device select lists. The video device driver can be configured to show multiple filters per device. Each filter has one preview pin and one capture pin. Standard applications have the capability to access a particular filter without any custom programming specialized for Osprey devices.
- Each filter has independent settings for cropping, default output size, watermarks, and captions that can be stored between sessions. Compared with the previous “pin-based” method, no requirements are necessary for a particular startup order to associate settings with instantiations.

Please see the **Enable SimulStream** checkbox below.

Advanced Streaming Settings

SimulStream

Enable SimulStream

Enable multiple instances for each filter

Show filters per device.

Deinterlace **Motion Threshold**

Type: Smooth Sharp

Value:

The checkbox next to **Enable SimulStream** at the top of the dialog box, when checked, enables SimulStream to run for the currently selected encoder.

The encoder includes a full SimulStream license installed for each A/V channel, and this checkbox controls full SimulStreaming.



Note

When you change the **Enable SimulStream** status and click **Submit**, you must restart the appliance. If you do not, SimulStream may become partially active, but the capture devices may be incorrectly named, and their pins may be incorrect.

Show filters per device

With this control, you can set the device driver to expose 1 to 10 filters per device for enumeration and selection by encoders. If, for example, 4 filters per device are chosen, device lists in applications will show four entries for the currently chosen device. For device 1, they are designated as 1.1, 1.2, 1.3, and 1.4.



Note

The number of filters you request will not display or work correctly until the system is restarted.



Note

While it is possible to expose and enumerate up to 10 filters per device, the practical number of working filters will be less. The practical number of filters depends on the capability of the appliance, the types of filtering enabled, the types of scaling and color format conversions requested per encoder, and the type of processing being done. If the appliance has multiple capture channels, the number of filters is the total across all channels. In addition, some types of processing, such as deinterlacing and gamma corrections, which are performed once per channel may, in this case, occur multiple times. In summary, an appliance can support 5, 6, or more concurrent filters on one device if the processing per filter is light. However, only 2 or 3 simultaneously running filters can be supported if the processing load inside or outside the driver is particularly heavy.

Deinterlace

The **Deinterlace** field has four drop-down choices. These choices are Off, Auto, Inverse Telecine, and Motion Adaptive, as you can see below.



In further explanation of each choice, please see the following definitions.

- **Off** —Performs no deinterlacing of any kind.
- **Auto**—Applies inverse telecine deinterlacing to all telecine video. Applies motion adaptive deinterlacing to all video that is not telecine. Switches dynamically between the two modes as the content changes. Available for NTSC video only.
- **Inverse Telecine**—Applies inverse telecine deinterlacing to all telecine video. Performs no deinterlacing of video that is not telecine. Available for NTSC video only.
- **Motion Adaptive**—Applies motion adaptive deinterlacing to all video.

Deinterlace settings are applied and stored per-device and are applied to all filters and pins associated with a device.

Motion Adaptive Deinterlace

Motion adaptive deinterlace is an algorithm for deinterlacing pure video (non-telecine) content. It detects which portions of the image are still, and which portions are in motion, and then applies different processing to each scenario.

Telecine and Inverse Telecine

Telecine video is NTSC video which was originally created on film at 24 frames per second. In the telecine conversion process, certain fields are repeated in a regular, recurring sequence. If a telecined sequence is viewed directly on a progressive screen, interlacing artifacts will be visible.

The process called Inverse Telecine is the reverse of Telecine — it drops the redundant fields and reassembles the video in a 24 fps progressive format. Interlacing artifacts are 100% removed. If the video is viewed at 24 fps, you will see the exact timing and sequencing that was on the original film. If the video is viewed at 30 fps, every fifth frame will be repeated. However, there will be no deinterlacing artifacts.

Telecine and inverse telecine only apply to NTSC video. They are not used for PAL and SECAM video. The Auto and Inverse Telecine buttons will be disabled when either PAL or SECAM is selected as the video standard.

Motion Threshold

Motion Threshold adjusts the threshold of difference from spatially- and temporally-related pixels, which are judged to be “motion.” If you enter a higher value, the number of pixels in motion will be greatly reduced. If you enter a lower value, the number of motion pixels greatly increases until the entire screen, more or less, is considered in motion. The recommended default is 16.

Sharp and Smooth Motion

When the **Sharp Motion** radio button is selected, detail in motion areas will be sharper, but at the expense of somewhat jagged diagonal edges.

When the **Smooth Motion** radio button is selected, more loss of detail will occur in motion areas, but edges will be smoother.

Since the eye does not clearly see detail in areas of motion—and edge artifacts are highly intrusive—the **Smooth** algorithm is preferred for most applications. The Smooth algorithm uses a bit more CPU.

Both algorithms treat still areas in the same fashion, and there should be no loss of detail in still areas.

AVI Encoder Settings

AVI is an uncompressed audio and video storage format and therefore has only the ability to save to a file. You can type in a unique name for the generated AVI file and modify the directory path to where the file will be stored. Clicking the **Default Folder** link will insert the path of the default folder for file storage on the encoder. By default, the path is D:\AVFILES\.



Note

We do not recommend that you store files in any other directory on the encoder.

Once you save your file to the encoder's internal hard drive, we recommend that you move it to another external storage device such as a USB drive or a network drive.

After you have input your settings, click the **Submit** button at the bottom of the page to save your changes.



Warning

If you click away to another web page without first clicking **Submit**, your changes will be lost.

Flash Encoder Settings

The Flash encoder settings are similar to the AVI settings for saving the audio and video to a file. To enable streaming to file, ensure the **Output to a File** box is selected. Flash adds some additional frame and bit rate controls. The frame rate changes the frames per second that the video will be encoded. The audio format setting can be used to modify the audio frequency and changes stereo to mono. The bit rate settings pertain to the amount of data per second the audio and video are captured. Decreasing the bit rate for both or either will decrease the playback viewing quality.

The Flash encoder creates a Flash format audio and video file. You can type in a unique name for the Flash file (.flv).

After you have input your settings, click the **Submit** button at the bottom of the page to save your changes.

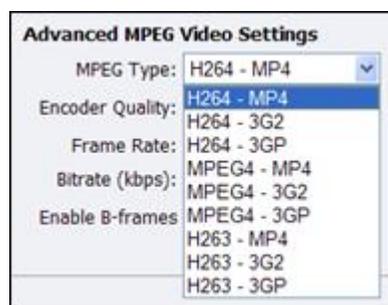


Warning

If you click away to another web page without clicking *Submit*, your changes will be lost.

MPEG-4 Encoder Settings

The encoder software MPEG-4 compression engine provides (1) H.264, MPEG-4, Part 10, (2) MPEG-4, Part 2, and (3) H263 – MP4, Part 2 Baseline encoding functionality. Please see the figure below.



This product provides the capabilities to encode streams for Internet video, mobile phones, set top boxes and create media files for other MPEG-4 compatible devices such as an iPod®.

The *Niagara SCX Web Interface* provides options for basic and advanced settings for the video and audio options of MPEG-4 available with the encoder.

The following figure illustrates the screen you will see after creating an encoder through the *Niagara SCX Web Interface*.

Advanced MPEG Video Settings		Advanced MPEG Audio Settings	
MPEG Type:	H264 - MP4	Audio Format:	44.100 kHz, 16 bit, Ster
Encoder Quality:	Real-time	Audio Type:	Low Complexity
Frame Rate:	29.9700000	Audio Encoder:	AAC
Bitrate (kbps):	768	Bitrate:	128
Enable B-frames	<input type="checkbox"/>		

Streaming Properties		Advanced Streaming Settings	
<input type="checkbox"/> Enable Streaming		<input checked="" type="checkbox"/> Enable SimulStream	
Destination IP:	239.1.1.1	<input checked="" type="checkbox"/> Enable multiple instances for each filter	
Callback IP:	172.16.1.102	Show <input type="text" value="5"/> filters per device.	
Video Port:	5050		
Audio Port:	5052		
Time to Live:	30		
Stream Info:	Stream Info Here		
Stream Title:	Stream0 Server		
SDP File:	capture.sdp		

Streaming to a File		Advanced Streaming Settings	
<input checked="" type="checkbox"/> Save to file			
File Name:	default folder		
	D:\AVFiles\capture.mp4		

Portable Media		Deinterlace		Motion Threshold	
<input type="checkbox"/> Enable Saving		Type:	Motion Adaptive	<input checked="" type="radio"/> Smooth	<input type="radio"/> Sharp
Media Title:	Title			Value:	16

[All Encoders](#) [Delete Encoder](#)

The **Advanced MPEG Video Settings** provide you with the ability to choose the **MPEG Type** required for your output. As set forth in descriptions of the MPEG Types, these include the following:

- **H.264–MP4:** H.264, MPEG-4, Part 10, or AVC (Advanced Video Coding) was designed for very high-data compression while maintain better quality than its predecessor, H.263. It was also created to address a broad range of applications from low bit rate to high bit rate and from low resolution such as cell phones to high resolution such as broadcast. The encoder's H.264 is Baseline Profile.
- **H.264–3G2:** This setting will create an H.264 stream stored in a 3G2 container.
- **H.264–3GP:** This setting will create an H.264 stream stored in a 3GPP container.
- **MPEG4–MP4:** MPEG-4, Part 2, or H.263, is designed for situations where low bit rate and low resolution are mandated by other conditions of the applications, like network bandwidth or device size. Examples of video applications for H.263 are cell phones, some low end video conferencing systems, and surveillance systems. H.263 is important for legacy handheld devices that do not support H.264.



Note By default, the encoder's H.263 uses Simple Profile unless you select the **Enable B Frames** option. If B frames are enabled, then the resulting stream will be Advanced Simple Profile.

- **MPEG4-3G2:** This setting will create an H.263 stream stored in a 3G2 container.
- **MPEG4-3GP:** 3GP is a multimedia container format defined by the Third Generation Partnership Project (3GPP) for use on 3G mobile phones. It stores video streams such as MPEG-4 or H.264 and audio streams such as AMR or AAC. This setting will create an H.263 stream stored in a 3GPP container. There are two defined standards for this format:
 - 3GPP for GSM based mobile phones
 - 3GPP2 for CDMA based mobile phones
- **H263-MP4:** MPEG-4, Part 2, or H.263, is designed for situations where low bit rate and low resolution are mandated by other conditions of the applications, like network bandwidth or device size. Examples of video applications for H.263 are cell phones, some low end video conferencing systems, and surveillance systems. H.263 is important for legacy handheld devices that do not support H.264.



Note By default, the encoder's H.263 uses Simple Profile unless you select the **Enable B Frames** option. If B frames are enabled, then the resulting stream will be Advanced Simple Profile.

- **H263-3G2:** This setting will create an H.263 stream stored in a 3G2 container.
- **H263-3GP:** This setting will create an H.263 stream stored in a 3GPP container.



Note The **Encoder Quality** setting is currently not active and will not affect the results of the encoding stream or file.



Note Some players, such as Quicktime® player, are not compatible with streams that include B frames. If your resulting stream has quality issues on playback, try disabling B frames to ensure compatibility with most players.

The Advanced MPEG Audio Settings, provide you with several Audio Formats, Audio Types, Audio Encoders, and Bitrates from which to choose. These choices include several options as to audio sampling, and whether the audio is to be encoded monophonically (mono) or stereo.

Advanced MPEG Audio Settings

Audio Format: 44.100 kHz, 16 bit, Stereo

Audio Type: Low Complexity

Audio Encoder: AAC

Bitrate: 8

Advanced MPEG Audio Settings

Audio Format: 44.100 kHz, 16 bit, Stereo

Audio Type: 11.025 kHz, 8 bit, Mono
11.025 kHz, 8 bit, Stereo

Audio Encoder: 11.025 kHz, 16 bit, Mono
11.025 kHz, 16 bit, Stereo

Bitrate: 22.050 kHz, 8 bit, Mono
22.050 kHz, 8 bit, Stereo
22.050 kHz, 16 bit, Mono
22.050 kHz, 16 bit, Stereo
33.075 kHz, 8 bit, Mono
33.075 kHz, 8 bit, Stereo
33.075 kHz, 16 bit, Mono
33.075 kHz, 16 bit, Stereo
44.100 kHz, 8 bit, Mono
44.100 kHz, 8 bit, Stereo
44.100 kHz, 16 bit, Mono
44.100 kHz, 16 bit, Stereo
16.000 kHz, 8 bit, Mono
16.000 kHz, 16 bit, Mono
48.000 kHz, 8 bit, Mono
48.000 kHz, 8 bit, Stereo
48.000 kHz, 16 bit, Mono
48.000 kHz, 16 bit, Stereo

The **Audio Type** setting is only related to AAC Encoding. If you select **AMR** in the **Audio Encoder** field, this setting is not used. The Audio Type field provides you with a drop-down box, which includes the following two choices:

- **Main:** This format is the same as Low Complexity, but adds backward prediction.
- **Low Complexity (LC):** The simplest and most widely used and support AAC audio format.



Note

Depending on the player on which the resulting stream will be heard, either choice will use a specific set of tools to encode the audio stream. You should make your choice based on the requirement of the playback software or device. The most widely supported format is LC profile.

The **Audio Encoder** settings provides you with a drop-down box, which includes the following three choices:

- **AAC (Advanced Audio Coding):** A standardized, lossy compression and encoding scheme for digital audio. AAC achieves better audio quality than MP3 and has been named a standard by the Motion Picture Experts Group (MPEG)
- **AMR-NB (Adaptive Multi-Rate Narrow-Band – 8 kHz):** An audio data compression scheme optimized for speech coding. AMR was adopted as the standard narrowband speech codec by 3GPP and is widely used in GSM.
- **AMR-WB (Adaptive Multi-Rate Wide-Band – 16 kHz):** An audio data compression scheme optimized for speech coding. AMR was adopted as the standard wideband speech codec by 3GPP and is widely used in GSM.



Note When you select **AMR Encoder** for audio, the audio will automatically be encoded using 8 kHz mono for playback on cell phones. When you select **AMR-WB** for audio, you must change the Audio Format to be 16 kHz, 16 bit, mono, for playback on cell phones.

The **Audio Bitrate** drop-down box provides you with several choices, ranging from 8 to 320.

The web interface for the encoder includes options for **Streaming Properties** and **Advanced Streaming Properties**. As to the broadcast type you choose, you have the option to check the **Enable Streaming** box. Please see the [“Real Encoder Settings \(Helix\)”](#) section on page 3-34 for a more detailed description of enabling pull. Another option provides you with the abilities to **Save to Portable Media** and provide a **Media Title**.

Under the **Advanced Streaming Settings** feature, you have the options to output to a file while streaming or output only to a file. You must type in a unique name and location for this file.

Check the **Save to file** box if you would like to save the encoded content to a file. Enter a file destination in the field provided. By default, this folder is set to D:\AVFiles\.

Check the **Save to Portable Media** box if you would like to save the stream from portable media to a file.



Note Remember the file name is referenced to the encoder system not to the system that is running SCX Explorer.

When SCX Manager and SCX Explorer are not on the same computer, always start your browse for files at My Network Places and work down or enter the entire file pathname beginning with the system name (for example, \\fileservers\c\videos). If you simply enter a file name, you may inadvertently browse your local computer when the media file resides on the remote computer.

To stream your MPEG-4 content, select **Enable Streaming**. Set the appropriate streaming properties.

Streaming Properties

Enable Streaming

Destination IP:

Callback IP:

Video Port:

Audio Port:

Time to Live:

Stream Info:

Stream Title:

SDP File:

**Note**

The default settings will enable multicast streaming. If this is not desired, change the IP address for Group to the IP address of the server to which you want to stream from the encoder.

The save **SDP File** field will require a name and destination path for the resulting SDP file created when the stream is started. If you are streaming to a Helix[®], a Quicktime, or a Darwin server, refer to its respective documentation or online message boards for setup details specific for the individual streaming server.

**Note**

You can stream point-to-point by selecting a share destination directory for the saved SDP file. Remember to disable multicasting by entering in the IP address of the PC to which you want to stream.

For example, if you want another PC to view the stream, save the SDP file to a share folder on the local drive. The other PC can open the SDP file and the stream can be played in a Quicktime or other MPEG-4 compatible streaming player. Since MPEG-4 encoding can be CPU intensive, it is not recommend that you view the stream on the same system as the encoder unless you have a very powerful system (dual-core processors or better). Doing so may overtax the host CPU which will cause video quality degradation and encode session failure.

After you have input your settings, click the **Submit** button at the bottom of the page to save your settings.

**Warning**

If you click away to another web page without clicking Submit, your changes will be lost.

Real Encoder Settings (Helix)

Real (Helix) is both a storage format and a streaming format. In addition to the ability to output to a file, the Real Encoder can stream to a Helix Server. The settings for the Real Encoder include the ability to adjust parameters for connecting and streaming to the server.

Broadcast Method: There are several different broadcast types for streaming Real format video to a Helix Server. They are as follows:

- **Push, Account-Based Login (Helix Server):** Account-based, push broadcasting allows you to send a stream to Helix Server version 9 or later. In this method, the encoder maintains a monitoring connection to Helix Server. This connection allows it to pass a user name and password to authenticate access to the server. Helix Server uses this connection to send statistics about the broadcast stream back to the encoder.
- **Push, Password-Only Login (Helix Server):** Unlike account-based broadcasting, password-only broadcasting does not establish a monitoring connection. Therefore, this type of broadcasting requires less network overhead, but receives no feedback from Helix Server. This broadcast method allows you to send a live stream to Helix Server version 9 or later. However, you must set up the server as a receiver in a splitting arrangement. Please refer to Helix Server documentation for details.

- **Push, Multicast (Helix Server):** In a multicast, the encoder can deliver the same broadcast stream to any number of Helix Servers without increasing its outgoing bandwidth. The Helix Servers will need to be pre-configured for a multicast from the encoder. Refer to your Helix Server documentation for details.
- **Pull (Helix Server):** In pull broadcasting, the encoder begins to generate broadcast packets as soon as you start the encoding. However, it does not deliver the broadcast stream until Helix Server requests the stream, which occurs when the first RealPlayer® user requests the broadcast. In that way, Pull broadcasting saves bandwidth between the encoder and Helix Server when no one is viewing the broadcast. This broadcast method allows you to send a stream to Helix Server version 9 or later.
- **Legacy Push (8.x, 7.x, G2):** The legacy push method is similar to the account-based push method. However, the legacy push does not use a monitoring connection to provide server feedback and statistics and is not as robust a broadcast method as an account-based push. Use this broadcasting method only when sending a broadcast stream to a server that predates Helix Server version 9, such as RealSystem Server G2, 7, or 8.

Transport Protocol: When you use a push broadcast method, you specify whether to use UDP or TCP upon delivering the broadcast stream to Helix Server. UDP is the preferred protocol due to the lower network overhead. But you may want to use TCP when delivering the broadcast over a lossy environment.

For the **Server Address** field, enter the IP address or DNS name of the Helix Server used for the broadcast, such as 207.188.7.176 or helixserver.example.com.

For the **Port/Port Range** field, specify the HTTP port on Helix Server. The default value is port 80, which is the server's default HTTP port. If multicasting, indicate the range of ports on the Helix Server receivers where the broadcast packets will be sent. The encoder and Helix Server negotiate the actual ports to use once the broadcast begins. The default range is from 30001 to 30020.

If using a Multicast Address, enter the multicast address for the broadcast stream in the **Multicast Address** field. The Multicast Address must be in the range 224.0.0.0 to 239.255.255.255.

The **Listen Address** field is the IP address of your machine where Helix Producer will listen for resend requests from the server.

The listen address sets the IP address that Helix Mobile Producer Live uses to listen for packet resend requests from Helix Server. For the listen address, you can use one of the following possible values:

- **Automatic:** This is the safest setting, and will work with most firewall configurations
- **System IP:** The IP address of the machine
- **System IP 2:** The second IP of the machine is multi-homed
- An IP address typed in by the user

If your Helix Mobile Producer Live machine has multiple IP addresses, enter the IP address that Helix Mobile Producer Live should use for communications from Helix Server. If you are broadcasting through a firewall performing network address translation (NAT), set the listen address to the IP address of the firewall or the value 0.0.0.0. The 0.0.0.0 value tells Helix Server to allow a Helix Mobile Producer Live connection from any IP address. The connection still requires the valid password, however.

In the **Stream Name** field, enter a name for the broadcast stream. This name resembles a clip name and should use the appropriate extension, either .rm for a constant bit rate stream or .rmvb for a variable bit rate stream. This name appears in the broadcast URL.

The **Path (optional)** field specifies a virtual path, which can be used for archiving or splitting on Helix Server. Use a simple name followed by a forward slash, such as news/.

In the **User Name** and **Password** fields, enter the User Name and Password defined in each Helix Server receiver definition. The broadcast connection fails if the value is incorrect.

Frame Rate, or frame frequency, is the measurement of the frequency (rate) at which an imaging device produces unique consecutive images called frames. The term applies equally well to computer graphics, video cameras, film cameras, and motion capture systems. Frame rate is most often expressed in frames per second (fps), or simply hertz (Hz).

The next series of fields activate the Real Encoder's filters to improve video and audio quality. These filter settings will depend upon the type of content you are streaming and your subjective preference. It is recommended you experiment with these settings and view their results on a test capture.

Video Quality: Normal Motion Video
 Audio Content: Voice Only
 Video Noise Filter: Off
 De-Interlace filter
 Inverse Telecine

Advanced Streaming Settings

Audience Selection Enable SureStream

100% Quality Download (VBR) 5M Download (VBR)
 128k Dual ISDN 5M Multichannel (VBR)
 12k Substream for 28k Dial-up 5M Surround Stereo (VBR)
 150k LAN 64k Single ISDN
 16k Substream for 28k Dial-up 70% Quality Download (VBR)
 1M Download (VBR) 750k Download (VBR)

[Select all](#) [Unselect all](#)

The Cisco Digital Media Encoder 2200 features integrated de-interlacing and inverse telecine filters that automatically apply when needed. This allows the encoder to perform at maximum efficiency.

**Note**

We recommend that you employ the deinterlace and the inverse telecine filters under either **Streaming Properties** or under **Advanced Streaming Properties/Deinterlace**, but not both since applying filters multiple times can produce undesirable results and consume additional system resources.

Enable SureStream™: SureStream allows you to encode the broadcast stream for multiple audiences. However, each primary stream or substream you choose increases the processor load during encoding and adds to the outgoing bandwidth requirements. For example, with SureStream enabled, you can choose the 128k Dual ISDN and the 64k Single ISDN audiences. In addition, with SureStream enabled, the encoding might require twice as much processing power.

Regardless of whether or not you enable SureStream, you must choose at least one **Audience Selection** for your stream.

You can also choose to output to a file while streaming or output only to a file. Type in a unique name for the file.

**Note**

If you use the same name as a current file, the current file will be overwritten.

Streaming to a file

Save to file
 File Name: default folder
 D:\AVFiles\capture.rm

After you have input your settings, click the **Submit** button at the bottom of the page to save your changes.



Warning

If you click away to another web page without first clicking *Submit*, your changes will be lost.

Windows Media Encoder Settings

Windows Media is both a storage format and a streaming format. Besides the ability to output to a file, the Windows Media encoder can stream to a Windows Media Server. The settings for Windows Media encoder include the ability to set parameters for connecting and streaming to the server.

First, select a **Windows Media Capture Profile** from the drop-down menu.



Note

Some Windows Media Capture Profiles have pre-defined video resolutions and input selections. When you select a Windows Media Capture Profile, verify that your current video and audio settings have not been modified. If they have been modified, simply change these settings back to their previous settings, and click the **Submit** button.

When streaming audio and video, there are two methods of delivery, as follows:

- **Pull:** Using this method, the encoder begins to generate broadcast packets as soon as you start the encoding. However, it does not deliver the broadcast stream until Windows Media Server requests the stream. This method does not provide a secure connection to the server and should only be used if the encoder and server reside within the same network firewall.
- **Push:** Using this method, the encoder maintains a secure connection to Windows Media Server. This connection allows the encoder to pass a user name and password to authenticate access to the server.

To enable clients to pull the stream from Cisco Digital Media Encoder 2200, you set up a session and begin broadcasting directly from the encoder. Clients (Windows Media servers or players) can connect to the stream at any time by using the following URL format:

- http://IP_address:port (for Internet connections)
- http://encoding_computer_name:port (for LAN connections)

By default, the encoder supports up to 50 direct connections during a broadcast.

**Note**

The greater the number of direct connections to the encoder, the more system resources are required. We do not recommend having players connect directly to Cisco Digital Media Encoder 2200. Streaming servers should connect to the encoder and, in turn, players should connect to the servers.

Select the **Enable Pull** check box. Then, enter a port number that will be used by the server to pull the stream from the encoder.

**Note**

Be sure to enter a port number that is not already assigned to another encoder. If two encoders attempt to use the same port number, one or both encoders will fail to start.

Select **Enable Push** and enter a port number that is not assigned to another encoder. Then, enter the server name or IP address, Alias (optional), user name, and password.

You can also choose to output to file at the same time you are streaming to a server. However, you can set the server to archive the file and streaming, allowing the encoder to reserve its system resources for encoding. Refer to the Windows Media Server documentation for details.

If you check **Index the file**, viewers will be able to direct access any point within the Windows Media® file using the Windows Media player. **Indexing is also required for editing the Windows Media file using Microsoft Windows Media Utilities.**

After you have input your settings, click the **Submit** button at the bottom of the page to save your changes.

**Warning**

If you click away to another web page without first clicking Submit, your changes will be lost.

Niagara SCX Web Interface will then display the All Encoders list.

Encoders
This page allows you to perform encoder setup and removal.

Auto refresh page [Add Encoder](#)

NiagaraPro Encoders | Total records : 5

Name	Description	Last Status	Streaming Preset
Edit Del AVI  AVI Encoder Driver	OK	Stopped 	
Edit Del Flash  Flash Encoder	OK	Stopped 	
Edit Del Mpeg  MPEG4 Encoder Driver	OK	Stopped 	
Edit Del Real  Helix Producer Encoder	OK	Stopped 	
Edit Del WME  Windows Media Encoder	Stopped	Stopped 	

Digital Rights Management (DRM) for Windows Media

You can protect your content by using a technology called Digital Rights Management (DRM). Niagara SCX allows you to encrypt your content with DRM technology while you are encoding. You can apply DRM while encoding to a file and when broadcasting a stream. Users will be required to obtain a license to play the content. This license contains the key to unlock the content and the rights that govern its use.



Note

Licenses are issued by a third-party license provider, so you must set up an account with a third-party license provider to protect your content.

Niagara SCX automatically detects any available DRM profiles imported on the encoding system. If there are no DRM profiles installed, the DRM functions in Niagara SCX are disabled. In order to enable the DRM function in Niagara SCX, you must do the following:

1. Set up an account with a third-party license provider, and create a DRM profile.
2. Import the DRM profile by using the Windows Media Encoder application included with Niagara Streaming Systems or available as a free download from Microsoft Corporation (<http://www.microsoft.com>).
3. Restart the encoding system on which Niagara SCX is installed, allowing the software to auto-detect and enable its DRM functions.

Importing a DRM Profile

If you have not already done so, set up an account with a licensed provider and create a DRM profile. Once the DRM profile is created, you must use Windows Media Encoder to import the profile on the encoding system.

Windows Media Encoder is included in Niagara Streaming Systems that have Niagara SCX version 5.0 or later installed. To access the desktop of the encoder, use Windows Remote Desktop Connection on a computer that resides on the same network.



Note

When connecting to an encoder by using a **Remote Desktop Connection**, it is extremely important that you set the **Local Resources** to **Leave at remote computer** before connecting to the system.

To set this appropriately, open **Remote Desktop Connection**.

Click the **Options** button so the settings tabs are viewable. Click the **Local Resources** tab. Under the Remote computer sound setting, change the drop-down selection to the **Leave at remote computer** option.



You may then enter the **user name** and **password** to access the encoder. The password for connecting to the encoder by using remote desktop is **password** and the user name depends upon the software running on the encoder:

Release	User Name
5.2.184.0 and earlier	gostream
later than 5.2.184.0	niagara

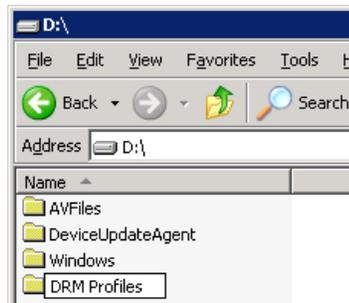


Note

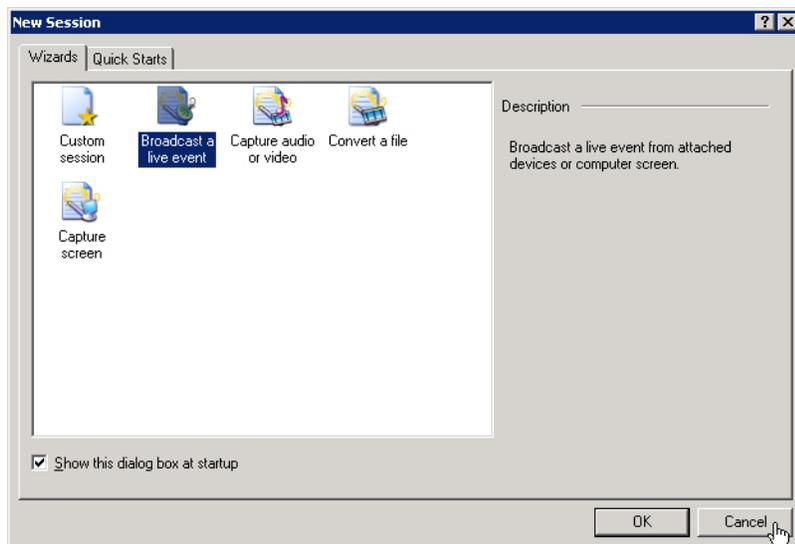
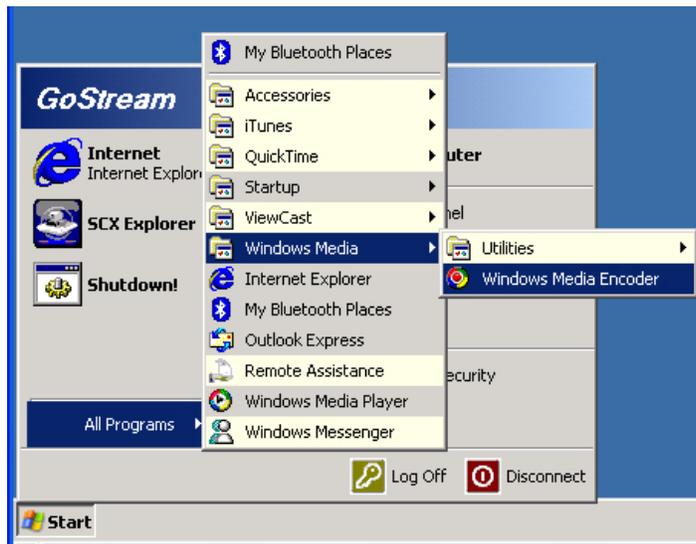
When exiting from Remote Desktop Connection, **DO NOT LOG OUT**. Instead, **DISCONNECT** from the encoder. This allows its internal programs to continue running.

Next, complete the following steps:

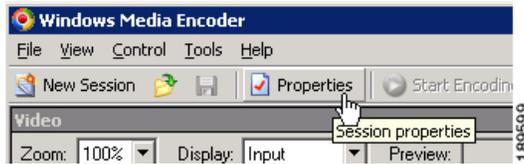
- Copy the DRM profiles to a protected location on the encoding system to ensure they will not be accidentally removed or erased. We recommend that you create a new directory on the D: drive on the encoder, and use this directory to store your DRM profiles.



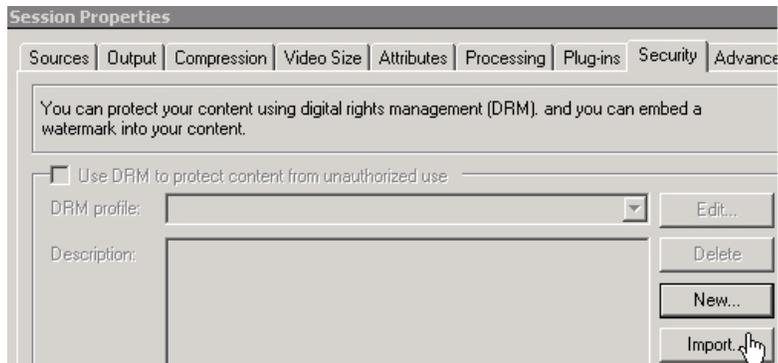
- Start the Windows Media Encoder application on the encoder. When the New Session Wizard appears, click the **Cancel** button.



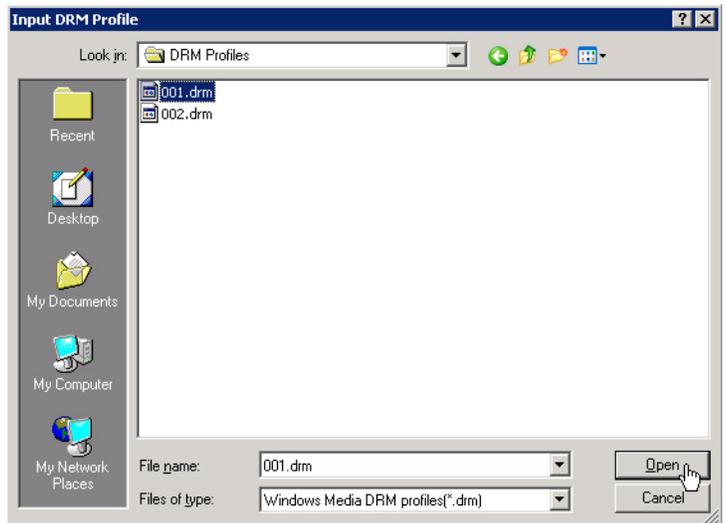
Click the **Properties** button under the top menu bar.



- Click the **Security** tab.



- Click the **Import** button, and browse to the location of the DRM profiles on the system's hard drive. Select the DRM profile you wish to import, and click the **Open** option.



- Repeat this process for each DRM profile you wish to import.
- Exit from the Windows Media Encoder application when finished. If you are asked if you want to save your encoding session, select the **No** option.

- Disconnect Remote Desktop Connection from the encoder. Do not log out.



- Restart the encoder.

Setting a DRM Profile in the Web Interface

To set the DRM Profile by using the encoder's *Niagara SCX Web Interface*, complete the following steps:

- Start Niagara SCX either locally on the encoding system or on a remote PC from which you control your encoding system.
- Either add or edit an existing Windows Media Encoder from the **All Encoders** page.
- To enable DRM, select the **Enable** check box, and select the DRM profile you wish to apply from the **DRM Settings** drop-down menu.



Note

When you enable DRM, Niagara SCX will automatically change the **Windows Media Capture Profile** setting to a DRM-compatible **Windows Media 9** setting. You might need to adjust this setting after you enable DRM.

After you have input your settings, click the **Submit** button at the bottom of the page to save your changes.



Warning

If you click away to another web page without first clicking *Submit*, your changes will be lost.

Niagara SCX Web Interface will then display the **All Encoders** list.

Encoders
This page allows you to perform encoder setup and removal.

Auto refresh page [Add Encoder](#)

GoStream Encoders | Total records : 5

Name	Description	Last Status	Streaming	Preset
Edit Del AVI Encoder	AVI Encoder Driver	OK	Stopped	
Edit Del Flash Encoder	Flash Encoder	OK	Stopped	
Edit Del MPEG Encoder	MPEG4 Encoder Driver	OK	Stopped	
Edit Del Real Producer Encoder	Helix Producer Encoder	OK	Stopped	
Edit Del Windows Media Encoder	Windows Media Encoder	OK	Stopped	

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Delete an Existing Encoder

To delete an existing encoder listed, click the **Del** link next to the name of the encoder you wish to remove. The encoder profile with its settings will be immediately removed from the encoder.

Edit Del Flash	Flash
Edit Del Mpeg	MPEG
Edit Del Real	Helix
Edit Del WME	Wind

Alternatively, you can click the **Edit** link to view the encoder profile, verify that it is the encoder that you wish to remove.

Then, click the **Delete Encoder** link at the bottom of the page once you have verified that it is the encoder you want to delete.

[All Encoders](#) [Delete Encoder](#)



Note

You cannot restore a deleted encoder. You must recreate the encoder by using the **Add Encoder** link at the top right-hand corner of the **All Encoders** page.

Create an Encoder

By default, the Cisco Digital Media Encoder 2200 has encoding profiles loaded and ready for use. You can create a new encoder for your custom streaming requirements.

Click the **Add Encoder** link in the upper right corner of the screen.

Add Encoder
Streaming Preset
Stopped
Stopped

On the next screen, select the encoder type from the drop-down menu. There are four different types of encoders installed in the Cisco Digital Media Encoder 2200:

- **AVI:** An uncompressed audio and video file format
- **Flash:** An audio and video and streaming file format typically embedded in Flash-authored interactive content
- **MPEG-4:** An audio and video file and streaming format
- **RealVideo:** An audio and video file and streaming format
- **Windows Media:** An audio and video file and streaming format

After you have made your selection, give the encoder a unique name. Keep in mind that only the first 11 characters of the encoder can be displayed on the encoder's LCD display. Click the **Add Encoder** button when finished.

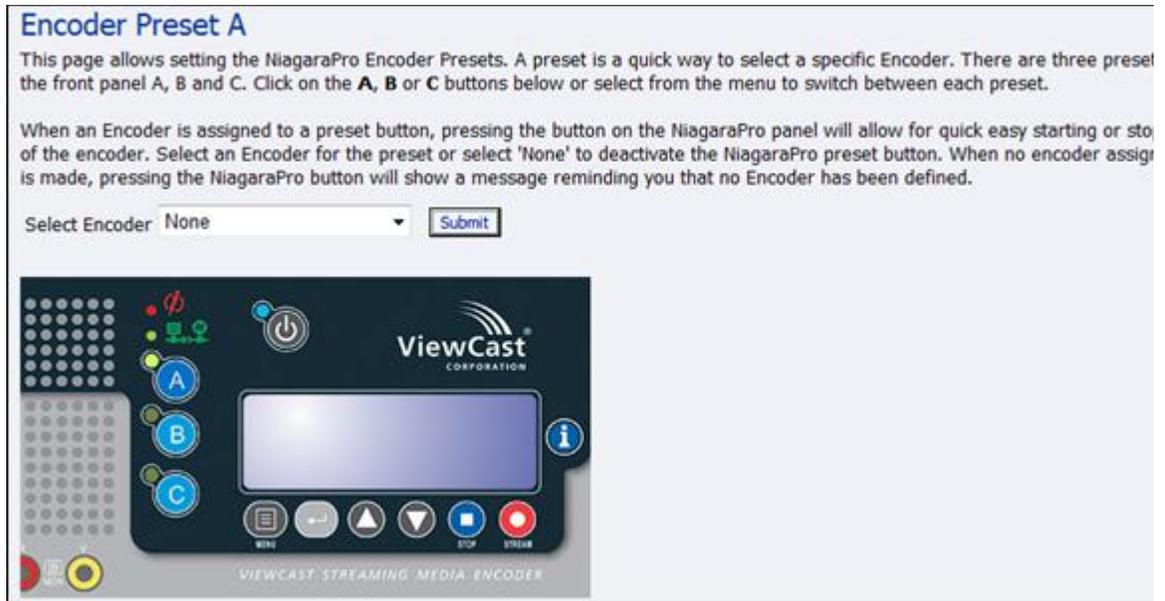
You then return to the **All Encoders** page. The new encoder you created is added to the encoder list. You can then edit that encoder by clicking the **Edit** link next to the encoder name. Read the [“Edit Encoder” section on page 3-22](#) for information on how to edit the encoder you just created.

Name	Description	Last Status	Streaming	Preset
Edit Del AVI	AVI Encoder Driver	OK	Stopped	
Edit Del Flash	Flash Encoder	OK	Stopped	
Edit Del Mpeg	MPEG4 Encoder Driver	OK	Stopped	
Edit Del Real	Helix Producer Encoder	OK	Stopped	
Edit Del WM Encoder	Windows Media Encoder	OK	Stopped	
Edit Del WME	Windows Media Encoder	OK	Stopped	

Encoder Preset (A, B, & C)

The Cisco Digital Media Encoder 2200 provides one-button streaming via the *EZStream* buttons located on the front panel of the encoder. By default, these buttons are not assigned to an encoder. The *Niagara SCX Web Interface* is used to configure each button to a specific encoder. The controls to configure these buttons are located in the *Encoder Preset A*, *Encoder Preset B*, and *Encoder Preset C* pages.

When you access the *Encoder Preset A* page, you are presented with the configuration option for the *EZStream A* button. On this page is a graphic representation of the front panel of the encoder. The *A* button is highlighted on this graphic, which sets forth that you are actively assigning an encoder to this corresponding *EZStream* button.



This page presents a **Select Encoder** field and a link at the bottom of the page to view the **View All Encoders** page. If an encoder has been assigned to the Preset, then you will also be presented with an **Edit** link next to the **View All Encoders** link.

Select Encoder

The **Select Encoder** field provides a drop-down menu, which presents the complete list of all encoders available on the Cisco Digital Media Encoder 2200.

To assign an encoder select an encoder from the list, and click the **Submit** button.

The web page will update the *Preset A EZStream* button and provide a message reporting *Encoder Preset: A updated successfully*.

By clicking on the **B** and **C** buttons on the encoder graphic, you can assign encoders to those *EZStream* buttons in the same way.

**Note**

It is not possible to assign the same encoder to two *EZStream* buttons simultaneously. If an encoder is already assigned to a button and you assign it to another button, the encoder will remove the association to the previous button in favor of the most current request.

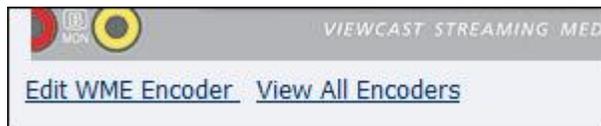
View All Encoders

After assigning encoders to the **A**, **B**, and **C** buttons, the **Preset** column on the **All Encoders** page is updated to reflect these changes. To view these changes, click the **All Encoders** link at the bottom of the page.



Edit Preset Encoder Profile

After assigning encoders to the *EZStream* buttons, you can access the encoder editing page by clicking the **Edit** button at the bottom of the **Preset** page.



My Cisco Digital Media Encoder 2200

To link to the My Cisco Digital Media Encoder 2200 page, go to **Configuration** on the menu at the top of the web page, and click on **My Niagara Pro II** from the drop-down list.

The **My Cisco Digital Media Encoder 2200** page provides details on software versions, network name, serial number, and hard drive configurations. Most of the data on this page is for informational purposes and cannot be altered. However, the following two fields allow modifications:

- Computer Name
- Admin password

The screenshot displays the 'Machine Properties' page in the Niagara SCX Web Interface. The page has a blue header with navigation tabs: Home, Encoders, Configuration, Status, and Log Out. The main content area is titled 'Machine Properties' and contains several sections:

- Computer Name:** CP08360002 (highlighted in a blue box) with a link 'Click to change name'.
- Windows Version:** 5.1.2600.131072
- Service Pack:** Service Pack 2
- Reboot Now:** A link to reboot the system.
- NiagaraPro Properties:**
 - User Name:** admin
 - Serial Number:** CP08360002 (highlighted in a blue box)
- Fixed Hard Drive:**
 - C:\: 2,037.00 MB free out of 3,092.00 MB
 - D:\: 232,120.00 MB free out of 232,448.00 MB
 - E:\: 17.00 MB free out of 195.00 MB
 - F:\: 1,421.00 MB free out of 2,729.00 MB
- Memory:** 2,617.00 MB bytes free out of
- Software Versions:**
 - Web 5.2.187.0
 - SKU#: 92-00353-01
- Software Update History:** A list of updates with columns for Date, Version, and Description.

Date	Version	Description
8/21/2008 2:42:10 PM	FCN 01	Allows the filename to be lowercase letters.
8/21/2008 2:42:11 PM	FCN 02	Enables alternate method for encoding to Windows Media. (Default is disabled)
8/21/2008 2:42:12 PM	FCN 03	Adds link to DRM information to the desktop.
8/21/2008 2:42:13 PM	FCN 04	Enable Real username/Password. Sets default path for files.
8/21/2008 2:42:13 PM	FCN 05	This update does not apply to embedded systems - ignored.
8/21/2008 2:42:14 PM	FCN 06	Adds Wide Screen capture size for PAL (512x288) to the Flash encoder.
8/21/2008 2:42:15 PM	FCN 07	Enable Real username/Password
8/21/2008 2:42:16 PM	FCN 08	Corrects problem with password authentication with Akamai and LimeLight.
8/21/2008 2:42:17 PM	FCN 09	Allows scripts to be written into files created by the Real Networks encoder.
8/21/2008 2:42:18 PM	FCN 10	Fixes fast display of Closed Caption for WME encoding and updates the Mpeg encoding engine.

A note at the bottom states: 'Note: Changing the computer name will require the system to be rebooted after submitted.'

Computer Name

The **Computer Name** field contains the current network name for the encoder. This is the same name that you typed into a web browser to access the *Niagara SCX Web Interface*. You can change the Computer Name by clicking the **Click to change name** link next to this field.

Computer Name:	GP074802	Click to change name
Windows Version:	5.1.2600.131072	
Service Pack:	Service Pack 2	
	Reboot Now	

The screen will refresh and now the **Computer Name** field is an editable text field. Type in a new name for the encoder.

Then, click the **Submit** button at the bottom of the page.

The page will refresh and you will be prompted to reboot the encoder. Your changes will not take effect until the system is restarted.

Click the **Reboot Now** link to restart the system and apply the Computer Name change.

Machine Properties
 Confirm Rebooting the system. [Click to Reboot Now](#)

While the encoder is restarting, the following message will appear in the web interface.

The Web service is currently not available. Please wait for the service to be restarted and returned to normal service. This page will automatically refresh.

In Progress... **System Reboot**

Tuesday, December 04, 2007 4:55:08 PM



Note

The restart process takes approximately two minutes to complete.

When encoder has restarted, you will be returned to the Login screen.



Note

If you close your web browser and later want to log into the *Niagara SCX Web Interface*, you will need to use the new computer name you created to access the encoder.

Cisco Digital Media Encoder 2200 Properties

The encoder **Properties** section has two fields: User Name and Serial Number. Only the **User Name** field allows modification, which changes the User Password from the factory default.

- [Changing the Login Password from the Factory Default, page 3-50](#)
- [Restoring the Login Password to the Factory Default, page 3-51](#)

Changing the Login Password from the Factory Default

Click the **admin** link in the User Name field. You will be presented with a new screen that allows you to change your login password for the *Niagara SCX Web Interface*.

NiagaraPro Properties:	
User Name:	admin
Serial Number:	CP08360002


Note

You cannot change the User Name for the *Niagara SCX Web Interface*.

Type in your current password in the **Password** field and then type in the new password in both the **New Password** and **Confirm New Password** fields.


Note

The *Niagara SCX Web Interface* password is case sensitive.

Then, click the **Change Password** button. You will then be presented with the following results:


Note

You will need to log back into the web interface with your new password.

Restoring the Login Password to the Factory Default

If you have forgotten or lost your password, you can restore the default password by running the **Restore Factory Defaults** option. For more information, see the “[Restore Cisco Digital Media Encoder 2200 Factory Defaults](#)” section on page 3-55.

Cisco Digital Media Encoder 2200 Alerts

The Cisco Digital Media Encoder 2200 Alerts page can be viewed by navigating to the **Configuration** link at the top of the web page and clicking on **Alerts** link.

The following is a representation of a page that allows you to control how the encoder handles application alerts that may occur during streaming or other operations. Cisco Digital Media Encoder 2200 can optionally send an email to multiple recipients should an alarm present itself. The alarm light on the front panel of the encoder automatically lights when there is an alarm.

Alerts
This page allows you to control how NiagaraPro handles application alerts that may occur during streaming or normal operations. NiagaraPro can optionally send a single email or close a hardware contact on the dual dock for each condition selected below.
Warning!!! Email Configuration is incomplete. Click to see the NiagaraPro [Email address](#).

NiagaraPro Alerts | records : 9

	Send Email	Light Alarm	Close Contact	Displayed Text	Description
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exception	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Encoder Error	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Undefined	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encoder Started	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encoder Stopped	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SCX Service Stopped	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SCX Service Started	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Warning	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	High Temperature!	

Email Alert

You can optionally send an email alert to specific email address in the event of an application alarm. Checking **Send Email** will enable this feature. You must specify the email address to which an alert will be sent, along with your email server user name, password, and server name. For more information about configuring Cisco Digital Media Encoder 2200 to send email alerts, see the “[System Configuration Settings](#)” section on page 3-54.

Alarm Light

Checking the **Light Alarm** box will instruct the encoder to light the front panel alarm light should an alert become necessary.

Edit Alert Settings

To edit the settings for each alert listed, click the **Edit** link in the row of the alert you want to modify. Note that at this juncture, you will be presented with two alternatives: to either update the alarm or cancel the alarm.

Should you decide to update, once you have made your modifications to the alert settings, click the **Update** link to enter your settings and return to the encoder Alerts list.

NiagaraPro Alerts records : 9					
	Send Email	Light Alarm	Close Contact	Displayed Text	Description
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exception	
Update Cancel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Encoder Error	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Undefined	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encoder Started	
Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encoder Stopped	
Edit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SCX Service Stopped	

Network Properties

The Network Properties page can be viewed by navigating to the **Configuration** link at the top of the web page and clicking on Network Properties.

The **Network Properties** page provides detailed information on the encoder's current network settings for the Network Interface Card (NIC).

(TCP/IP) Network Properties

Network Card(s)	Primary NIC ▼
Description:	Broadcom NetXtreme Gigabit Ethernet
<input checked="" type="radio"/> Obtain an IP address automatically <input type="radio"/> Use the following IP information	
IP Address:	172.16.1.181
Subnet Mask:	255.255.255.0
Default Gateway:	172.16.1.251
Preferred DNS Server:	172.16.1.3
Alternate DNS Server:	172.16.2.8
Advanced Settings on	CP08360002
MAC Address:	00:E0:81:4C:38:FA
Primary WINS Server:	172.16.1.4
Secondary WINS Server:	0.0.0.0
Active Network Link:	

Network Card(s)

Cisco Digital Media Encoder 2200 has two 1,000 megabit network connections. To view the current properties for each card, select the card you wish to view from the drop-down menu in the **Network Card(s)** field.

Advanced Settings (Network)

Advanced Settings provides the encoder network name, MAC Address and server IP address settings.

Advanced Settings on	CP08360002
MAC Address:	00:E0:81:4C:38:FA
Primary WINS Server:	172.16.1.4
Secondary WINS Server:	0.0.0.0
Active Network Link:	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

The encoder network name is a link. If you click this link, you will be directed to the **My Encoder** page. From this page you can change the encoders' network name. For more information, see the [“Computer Name”](#) section on page 2-45.

The **Active Network Link** field uses two icons to indicate whether the network interface card selected has a network connected.

Table 3-1 Network Link Icons and Descriptions

Icon	Description
	The network link is detected.
	The network link is not detected.

System Configuration Settings

The **System Configuration Settings** page allows you to modify your encoder default system settings. You can configure email settings so that Cisco Digital Media Encoder 2200 can send an email to predefined email addresses whenever the encoder encounters an alert condition. You can also customize the information that the encoder displays on its front panel when the system is idle.

This page also provides the ability to restore your encoder to its original factory disk image, returning all of the system settings to their original state. Using the **Restore Factory Defaults** option will remove all custom settings and takes approximately 10 minutes to complete.

This page allows you to modify your NiagaraPro default system settings.

Enter a valid email settings to have NiagaraPro send emails for [alert conditions](#). Optionally select the information to show on the NiagaraPro display when NiagaraPro is idle. You can customize the idle screen text or use the default settings. [Restore NiagaraPro Factory Defaults](#)

System Configuration Settings

Email Settings:

Send Emails To:

Email From:

Subject:

SMTP (Mail) Settings:

User Name:

Password:

SMTP Host: [Save and Send Test Email](#)

Idle Screen Information:

Cycle this information in the display when NiagaraPro is idle.

Active IP Computer Name CPU
 Memory Hard Drive Temperature

Idle screen text: Line 1
Note: Each line in the display is 20 characters.
 Line 2
 Line 3
 Line 4

*Default AV Folder:

High Temperature Alert: degrees Celsius. (view [Alert Configuration](#))

Restore Cisco Digital Media Encoder 2200 Factory Defaults

Click the **Restore Factory Defaults** link to start the process.

This page allows you to modify your NiagaraPro default system settings.

Enter a valid email settings to have NiagaraPro send emails for [alert conditions](#). Optionally select the information to show on the NiagaraPro display when NiagaraPro is idle. You can customize the idle screen text or use the default settings. [Restore NiagaraPro Factory Defaults](#)

System Configuration Settings

The following screen gives details of the process that you are about to execute and allows you the opportunity to cancel the process.

Restore Factory Defaults

Restore to factory Defaults allows the rebuilding of the NiagaraPro primary disk drive (C:) to be set to the original system defaults. This reconfigures the system and all files on the primary disk will be removed and the factory image reinstalled.

This option should only be selected if you are experiencing significant difficulties with your system or you wish to return to the factory defaults. Selecting this process will stop all running programs and take approximately 10 minutes to complete.

Do not power off or interrupt the system restore once started. A message on the NiagaraPro LCD display will be left on the screen while the restoring executes and removed when finished. All services will automatically restart and allow you to set your personal settings with the menu or with this Web site when completed.

Continue with restoring the entire system back to Factory Defaults ?

Yes [Restore my system](#) back to the factory defaults or No, take me back to the [Home Page](#)

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Note

Restore Factory Defaults rebuilds the encoder primary disk drive (C:) with the original system image. All custom settings and any files saved to drive C: will be lost. This process cannot be reversed. However, you can manually re-enter your custom settings once the encoder restore process is completed.



Note

The default directory for saving your audio and video files is D:\AV Files\. When using the **Restore Factory Defaults** option, only drive C: is re-imaged. All files and folders on drive D: are preserved. To ensure your personal files are not removed, always use the default directory – drive D – for storage of personal files.

Email Settings

If you are unfamiliar with setting up an SMTP email account for sending email, please contact your network administrator for assistance.

To configure encoder **Email Settings**, you will need to enter the following information:

- The address to which to send the email (separate multiple email address with a comma)
- A valid email address from which the email comes
- A subject line for your email alert—required
- The SMTP (mail server) settings
 - User name for server access
 - Password (if required)
 - The name of the SMTP server

Email Settings:	
Send Emails To:	<input type="text"/>
Email From:	<input type="text"/>
Subject:	<input type="text" value="System Status Report on CP08360002"/>
SMTP (Mail) Settings:	
User Name:	<input type="text"/>
Password:	<input type="text"/>
SMTP Host:	<input type="text"/> Save and Send Test Email



Note For security purposes, the password for your account will not be displayed once it has been entered into the settings. However, although this field appears blank after you click the **Submit** button, the password information has been retained.



Note If you change any information in this dialogue box, you will need to re-enter your SMTP password before clicking the **Submit** button. Not doing so will overwrite the previously entered password with a blank entry.

Once you have entered the information above, click the **Submit** button to save your changes.

You can test your settings by clicking the **Save and Send Test Email** link. The resulting page will report if the email was successfully sent or there was a send failure.

Idle Screen Information

This section allows you to modify the information that is displayed in the encoder LCD display on its front panel.

Check the boxes next to the information you wish to be displayed. This information is cycled as the LCD display alternates between status information and encoder information.

At the top of the LCD idle screen is the default message **System is Ready**. You can customize this message.

Idle Screen Information:

Cycle this information in the display when GoStream is idle.

Active IP Computer Name CPU
 Memory Hard Drive Temperature

Idle screen text:
 Note: Each line in the display is 20 characters.

GoStream is Ready Line 1
 _____ Line 2
 _____ Line 3
 _____ Line 4

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Once you have entered the information above, click the **Submit** button to save your changes.

Default Directory Setting



Note We strongly recommend that you do not alter the default directory setting unless you understand the risk of saving your files to a directory not located on drive D. If you save your files to another drive on the encoder, these files could be deleted if you use the **Restore Factory Defaults** feature.



Note Only drive D on the encoder has available storage to save your files.



Note Drives C, E, and F are used strictly for encoder operational programs. Any modifications to these drives can permanently damage your system and void your warranty.

The Default AV Folder is the directory that the encoder stores AV files created whenever you select the **Save to File** option in an encoder profile. Refer to the **Save to File** option under the [AVI Encoder Settings](#), [Flash Encoder Settings](#), [MPEG-4 Encoder Settings](#), [Real Encoder Settings \(Helix\)](#), and [Windows Media Encoder Settings](#) sections for information about setting an encoder profile to create an AV file.

High Temperature Alert

The Alert Configuration links to the Alerts page. For information about Alerts, refer to the [“Cisco Digital Media Encoder 2200 Alerts”](#) section on page 3-51.

You can enable an alert if the encoder reaches a predefined maximum temperature level. To set the level, select from the **High Temperature Alert** drop-down menu.

View Activity Log

The **Activity Log** records all operational activity, such as general activities that include starting an encoder or stopping an encoder. The **Activity Log** includes activities that generate warnings and errors.

You can view these activities by filters showing only the **General** activities, the **Warning** activities or the **Error** activities.

Click the **Clear Activity Log** button to remove all entries.



Note

Once an activity has been cleared from the log, it cannot be retrieved.

Activity Log			
View Activity Types: <input type="text" value="Show All"/>			
Created	Type	Description	
9/4/2008 3:19:55 PM	General	NiagaraProWebUser connected from Machine CP08360002	
9/3/2008 4:12:32 PM	General	EncodersWebService connected from Machine CP08360002	
9/3/2008 4:11:57 PM	General	Before input date	
9/3/2008 4:11:28 PM	General	USER_CP08360002 connected from Machine CP08360002	
9/3/2008 4:11:08 PM	General	Performing first run setup wizard.	
9/3/2008 4:11:06 PM	General	Initializing Niagara Communicator Success	
9/3/2008 4:11:05 PM	General	Success restarting Niagara SCX Service	
9/3/2008 4:11:05 PM	General	First Run did experience complete.	
9/3/2008 4:11:05 PM	General	Starting Niagara Communicator	
9/3/2008 4:11:02 PM	 Warning	Attempting to restart Niagara SCX Service	
9/3/2008 4:11:01 PM	General	Success installing encoder profiles for video format selection	

View Alerts

All alerts defined on the encoder Alerts page are logged on the View Alerts page when those alerts occur. Once a user has cleared an alert by using the **Help** or **i** button on the front panel of the encoder, the alert is cleared from the **View Alerts** log page.

Alerts | No NiagaraPro alerts at this time.

Alternatively, the Cisco Digital Media Encoder 2200 system informs you of an alert when the Alarm Indicator Light on the front panel of the system turns red. When this occurs, to determine what the alert is, you must press the **Help** or **i** button, which will cycle the alert occurring.

For more information, see the “[The Help, or “i” Button, the Niagara SCX Web Interface, and Their Alert Settings](#)” section on page 3-59.

The Help, or “i” Button, the Niagara SCX Web Interface, and Their Alert Settings

The **Help** button, or “**i**” button, on the front panel of the encoder allows you to view the alerts currently occurring in the Cisco Digital Media Encoder 2200. Directly below is a diagram of the **Help** or “**i**” button, which is located on the front panel of the encoder. The **Help** or “**i**” button allows you to view alerts of many types that can occur on the encoder based on the types of alerts you request of the system to notify you.



Note

An alert is not necessarily an indication of a fault occurring. You might want to be made aware of changes in the system, which have nothing to do with errors that could occur on a Cisco Digital Media Encoder 2200. For example, you might want a notification set to signal you as to when an encoder has started or when as to when an encoder has stopped.

To view alerts occurring, you have a choice to view the alerts through use of the encoder or the **Niagara SCX Web Interface**. If you use the web interface, the following is the first page of the **Niagara SCX Web Interface** you will see to **View Alerts**.



Any alerts will appear on the *Niagara SCX Web Interface*, as follows:

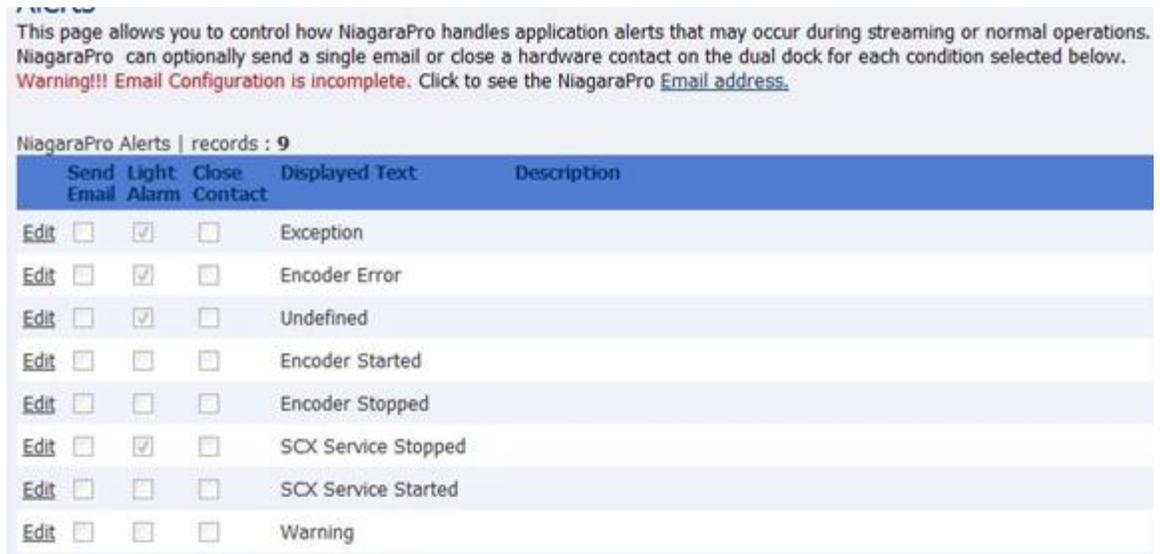


Alerts will be available for viewing on the *Niagara SCX Web Interface* until you clear them by clicking on the **Clear Alerts** button.

To see any alerts, you must have previously set the system to notify you of the alerts by choosing **NiagaraPro Alerts**.



This will bring you to the following screen. To set the alerts for which you want to be notified, you must click a notification method next to the type of alert. You can be notified of alerts, such as the ones indicated below, i.e., exceptions, encoder errors, encoders started, encoders stopped, alarm tests, SCX service stopped, SCX service started, and high temperature alerts, in addition to other alerts you set yourself.



To set your System Configuration Settings as to how you want to receive your alerts, please see the figure below. Click on **System Configuration**.



See your Network Administrator to set your email configurations if you decide to receive email alerts.

This page allows you to modify your NiagaraPro default system settings.

Enter a valid email settings to have NiagaraPro send emails for [alert conditions](#). Optionally select the information to show on the Niagara display when NiagaraPro is idle. You can customize the idle screen text or use the default settings. [Restore NiagaraPro Factory Default](#)

System Configuration Settings

Email Settings:

Send Emails To:

Email From:

Subject:

SMTP (Mail) Settings:

User Name:

Password:

SMTP Host: [Save and Send Test Email](#)

Idle Screen Information:

Cycle this information in the display when NiagaraPro is idle.

Active IP Computer Name CPU

Memory Hard Drive Temperature

Idle screen text: Line 1
Note: Each line in the display is 20 characters.

Line 2

Line 3

Line 4

***Default AV Folder:**

High Temperature Alert: degrees Celsius. (view [Alert Configuration](#))

Alternatively, the Cisco Digital Media Encoder 2200 informs you of an alert when the **Alarm Indicator Light** on the front panel of the system turns red. When this occurs on the encoder system, to determine what the alerts are, you must press the **Help**, or “*i*” button, which will cycle the alerts occurring. The following screen showing an alert might look as follows:

```
ALERT
ENCODER: @CIF_WM_50K
PRESS ENTER ...
```

Alerts will cycle the information in the display when the encoder is idle until all alerts have been identified, then the screen will return to its normal system cycling, and the alerts will not be shown again on the encoder.

