

signedgeTM
Digital Signage Player

User Guide



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Chapter 1 - Introduction

Overview

The signEdge is the perfect solution for High Definition Plasma and LCD digital signage or kiosk applications. The signEdge provides MPEG 2 and AVC/H.264 high definition and standard definition file playback from solid state storage and IP stream decoding. Whatever your source, it automatically scales the content to match your monitor's capabilities up to a stunning 1080i high definition display. The media can easily be loaded, managed, and scheduled for playout using the onboard, web-based Control Interface.

Applications

- **Retail:** Impress customers with high definition (HD) retail digital signage and point of purchase advertising on Plasma and LCD monitors.
- **Tradeshows and Museums:** Get the detail you need with native HD playback or upscaled standard definition (SD) for kiosks and interactive displays.
- **Private IP Networks:** Stream live content to the signEdge over IP for point-to-point or multicast playout. Fall back to playback of stored content when live stream is off.

Benefits

- **Play AVC/H.264 or MPEG2 HD:** Step up to stunning playback of high definition AVC/H.264 and MPEG-2 media.
- **Automatically Scale SD to HD:** Play both SD and HD content with the same player which automatically sizes video with advanced scalar algorithms to the desired output resolution from 480i up to full HD 1080i.
- **Control Playout:** The signEdge includes a built-in command interface and scheduler that can play a list of files and loop indefinitely, or be triggered from external control systems from the parallel or serial ports.
- **Tune into IPTV Networks:** Tune in and decode IP Multicast HD content with fall back playout of stored content.
- **Synchronize Playback:** Deploy multiple players on the same network and get synchronized playback of your content.
- **Small Size:** signEdge is a powerful multimedia HD player packed in a small package less than 1.5" thick, perfect to attach to the back of an LCD monitor with the optional signSleeve VESA mount.
- **Manage Content:** The included mediaControl application lets you manage your media, play lists and schedules on the player while controlling the playout. With the ability to view log files and real-time playout data, day-to-day operations and troubleshooting is streamlined with mediaControl.

Models Available

- **signEdge0:** digital signage player for IP decode only (no usable storage).
- **signEdge4:** digital signage player with 4GB solid state storage
- **signEdge8:** digital signage player with 8GB solid state storage
- **signEdge80:** digital signage player with 80GB hard drive storage.

What's Included

- signEdge HD Digital Signage Player
- 12 VDC external power supply and power cable (USA) (PN: EXTPS24WATTKIT?)
- webg-based control & configuration software (onboard unit).
- Connection Kit: Ethernet cable and serial 9 pin adapter (PN:TERMINALKIT2)
- Manual (oboard)

Other Options

- **DVI-I/Component:** DVI-I (analog and digital) to Component video cable.
- **DVI-D/DVI-D:** DVI-D to DVI-D digital video cable
- **DVI-I/VGA:** DVI-I (analog and digital) TO VGA cable
- **DVI/HDMI:** DVI digital to HDMI cable (No audio support)
- **DVI-I/RGBHV:** DVI-I (analog and digital) to RGBHV cable
- **edjeShelf w/Hardware:** Holds 3 signEdge units, power supplies and provides cable tie slots (PN: 200-024-1AKIT)

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Electrical Device Compliance Notices

Safety Warnings and Cautions

For your safety and the proper operation of the device:

- This unit must be installed and serviced by suitably qualified personnel only.
- Disconnect all power before servicing the unit.
- Do not expose this device to rain or other moisture. Clean only with a dry cloth.
- If not installed in an equipment rack, install the product securely on a stable surface.
- Install the product in a protected location where no one can step or trip over the supply cord, and where the supply cord will not be damaged.
- If a system is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than the room ambient temperature.
- Consideration should be given to installing the unit in an environment compatible with the maximum recommended ambient temperature of 50 degrees Celsius (122 degrees Fahrenheit).
- Install the unit in a rack so that the amount of airflow required for safe operation is not compromised.
 - ◆ The recommended clearance on the top and sides of the unit is at least ½ " (one half inch/one centimeter).
- Mounting of the unit in a rack should be such that no hazardous condition is achieved due to uneven mechanical loading.
- Use only a grounded electrical outlet when connecting the unit to a power source.
- Reliable earth grounding of rack-mount equipment should be maintained.
 - ◆ Particular attention should be given to supply connection other than direct connections to the branch circuit (e.g., use of power strips).

Lithium Battery Safety Statement



Lithium Battery Safety Statement

**Caution:**

Lithium battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by battery manufacturer. (US)

Attention:

Contient une pile de lithium. Risque d'explosion dans le cas où la pile ne serait pas correctement remplacée. Remplacer uniquement avec une pile semblable ou équivalente au type de pile recommandé par le fabricant. (FR)

Forsigtig:

Indeholder lithiumbatterier. Risiko for eksplosion, hvis batteriet udskiftes forkert. Må kun udskiftes med samme eller tilsvarende type, som anbefalet af fabrikanten. (DK)

Varoitus:

Tämä tuote käyttää laservaloa. Skannerissa on jokin seuraavista tarroista. Lue Huomio-kohta. (FI)

Vorsicht:

Enthält Lithium-Batterie. Bei unsachgemäßem Ersatz besteht Explosionsgefahr. Nur durch gleichen oder vom Hersteller empfohlenen Typ ersetzen. (DE)

Attenzione:

Batteria al litio. Pericolo di esplosione qualora la batteria venga sostituita in maniera scorretta. Sostituire solo con lo stesso tipo o equivalente consigliato per il fabbricante. (IT)

Atenção:

Contém pilha de lítio. Há perigo de explosão no caso de uma substituição incorreta. Substitua somente pelo mesmo tipo, ou equivalente, recomendado pelo fabricante. (PT)

Varning:

Innehåller litiumbatteri. Fara för explosion om batteriet är felaktigt placerat eller av fel typ. Använd endast samma eller motsvarande typ batterier rekommenderade av tillverkaren. (SE)

Advarsel:

Innmontert Lithium batteri. Eksplosjonsfare ved feil montering av batteri. Benytt kun batteri anbefalt av produsent. (NO)

Cuidado:
Pila de litio adentro. Peligro de explosión si la pila se reemplaza incorrectamente.
Reemplace solamente con el mismo tipo o equivalente recomendado por el fabricante.
(ES)

Oppassen:
Bevat Lithium-batterij. Incorrecte plaatsing van batterij kan leiden tot explosiegevaar.
Alleen vervangen door hetzelfde of door fabrikant aanbevolen gelijkwaardig type. (NL)

<p>Προσοχή: Υπάρχει μπαταρία από λίθιο εσωτερικά. Υπάρχει κίνδυνος έκρηξης εάν η μπαταρία αντικατασταθεί με λανθασμένο τρόπο. Αντικαταστήστε μόνο με τον ίδιο ή ισοδύναμο τύπο που συνιστάται από τον κατασκευαστή. (GR)</p>	<p>경고: 본 제품은 레이저 광선을 사용합니다. 다음 라벨 중 하나가 스캐너에 제공됩니다. 주의 사항을 읽어 주십시오. (KR)</p>
<p>警告: この製品はレーザー光線を使用します。 次のラベルのうち1つがスキャナーに貼られています。 注意事項をお読みください。 (JP)</p>	<p>Dikkat: İçinde lityum bataryası bulunur. Bataryanın yanlış deđiştirilmesi patlama tehlikesi yaratır. Ayný sýyla veya tireticinin önerdiđi eđveder tipte deđiştirin. (TR)</p>
<p>警告: 本产品使用激光。 下列一个标签将随扫描仪一道提供。 请阅读“当心”一栏的内容。 (CN)</p>	

Legend:

Chinese	CN	Italian	IT
Danish	DK	Japanese	JP
Dutch	NL	Korean	KR
English	US	Norwegian	NO

Compliance Notices

FCC:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications to this device not expressly approved by Adtec Digital could void the user's authority to operate the equipment.

Industry Canada:

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareillage numérique de la classe B répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

European Union EMC Directive conformance statement

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Adtec Digital cannot accept responsibility for any failure to satisfy the protection requirements resulting from a user modification of the product. This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / EN 55022.

Chapter 2 - Getting Started

Getting Started

Front Panel

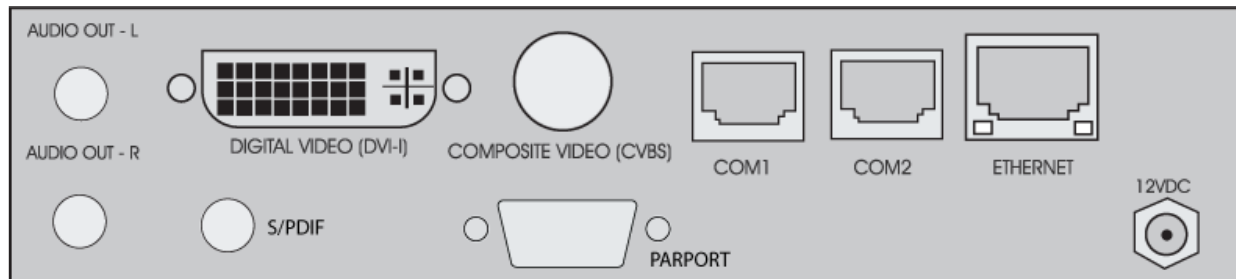
This is the front panel of a signEdge 0 - IP only unit. The front panel on your signEdge unit will vary depending on the capacity of the unit. All units use the same LED lights and functions. The only difference is the color and capacity value on the right side of the panel.



(Larger than actual size: front panel illustration enlarged to show details.)

Name	Description
Power	Green - Power on
Video	Off - No Video Green - video present
Multicast	Green if multicast receiving
Link	Off - no link detected Green - link active
Busy	Off - no traffic Yellow Flashing - traffic

Back Panel



Name	Description
Audio Out - L	Unbalanced analog audio left channel (RCA)
Audio Out - R	Unbalanced analog audio right channel (RCA)
S/PDIF	Digital Audio (RCA): Configurable as Compressed (for 5.1 AC-3 Audio) or Uncompressed (PCM-2)
Digital Video Out	Digital Video Interface (DVI-I); Cables purchased separately
Composite Video	Composite Video (RCA)
Com 1	RS-232 Terminal monitor for communicating with the internal host motherboard for diagnostics.
Com 2	RS-232 Adtec API control and status terminal port.
Ethernet	10/100BaseT Ethernet RJ-45 jack.
Power	12V DC
Parallel Port	Used for input or output control

Networking

Your player should be placed on your local network and will use the default IP address of **192.168.10.48**

Software

Your player comes equipped with an onboard control and configuration application that will run in standard web browsers.

Chapter 3 - Using the on-Board Control Interface

Onboard Control Interface Introduction

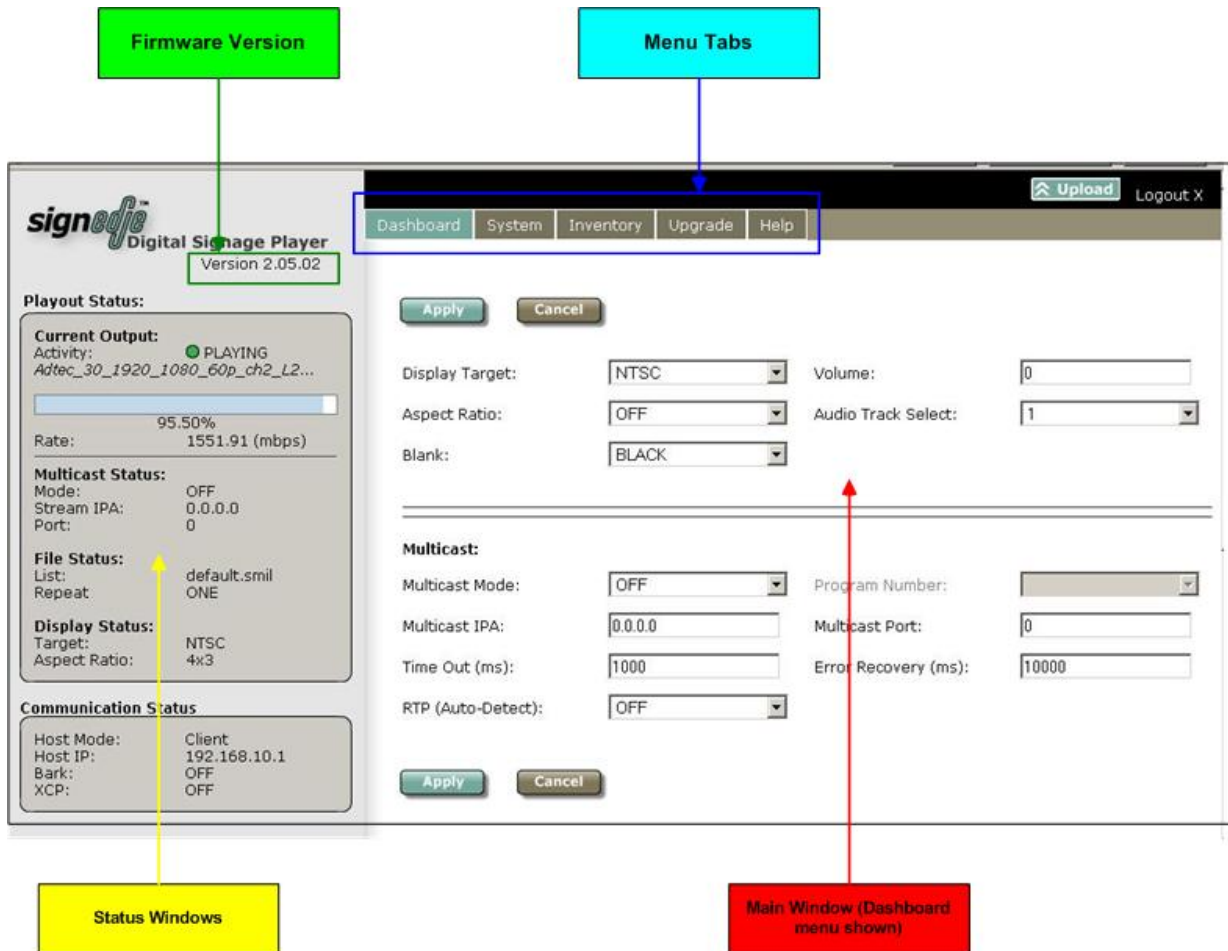
The Adtec signEdge Media Player comes equipped with a web-based command and control Graphical User Interface (GUI). The sections in this chapter will describe how this interface gives you control over your player's operations. * Note to mediaControl Users *

- The latest firmware versions on the Adtec signEdge Media Player will no longer work with the older mediaControl interface software.
 - ◆ mediaControl will not work with firmware versions 2.3.13 and higher.

Control Interface Main Screen

The screen of the Control Interface consists of four main elements, described in this section.

Screenshot:



Screen Elements

Firmware Version: the interface application always references the firmware currently running on the device.

Menu Tabs: the Menu Tabs are used to select various control groups and functions. The Menu Tabs are explained in other chapters in this manual.

Status Windows: the Status Windows are fixed, and display regardless of which menu has been selected. The Status Windows provide an "at-a-glance" look at the Playout and Communications activities of your Adtec signEdge player. These same status results can be received by a telnet session or by a third party controller/monitoring system.

Main Window: the Main Window displays whichever menu has been selected via the Menu Tabs. In the screenshot above, the Dashboard menu of firmware version 2.05.02 is shown.

Firmware Version: you can also determine your firmware version using an API command during a Terminal session. Issue the command `*.SYSD VRN LIST`.

Help Notes

Clicking on the question mark icon, located next to control terms on all the menu tab pages, will bring up pop-up Help Notes with explanatory information regarding that control.

Dashboard Tab

The **Dashboard Tab** is where you will control the playout parameters of your media. There are five sub-tabs accessed from the Dashboard Tab:

- List Builder
- Schedule Builder
- Streaming
- Display
- OSD

List Builder Tab

The List Builder Tab is used to determine and organize the content available to the sigEdge player.

Screenshot :

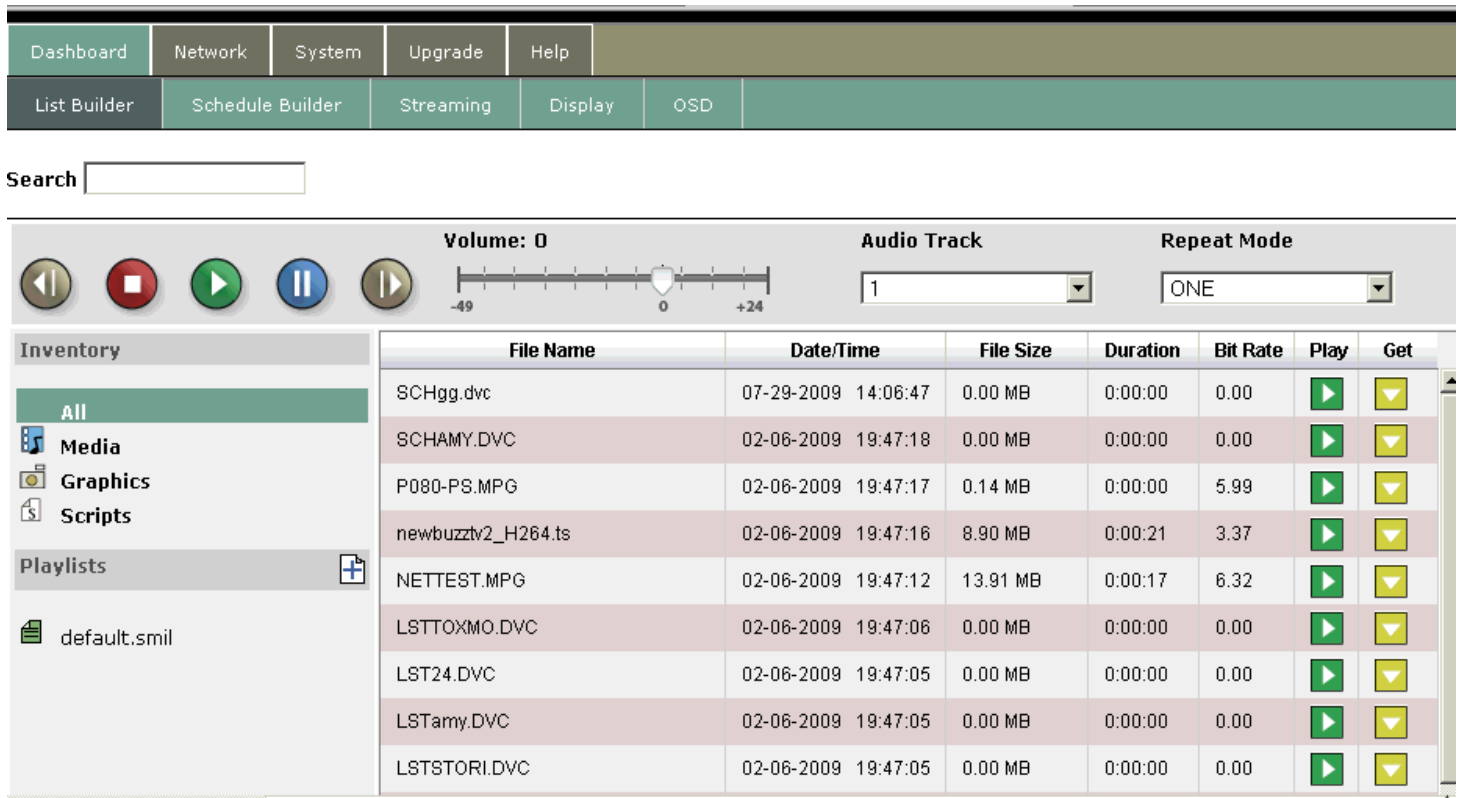


Image reduced for clarity

The *List Builder* screen has four main parts:

- **Virtual VTR controls:** virtual buttons for tape playback, virtual slider control for incremental volume, audio track selector pull-down.
- **Inventory selection:** select between all file types, media files, graphic files, or script files.
- **Playlists:** choose from available user-defined playlists. Playlists are selected by clicking the Playlist name.
- **File window:** data on specific files- size, CODEC, file name, etc. Files can be selected by clicking the file title.

Virtual VTR

The controls on the virtual VTR mimic those found on a standard video playback device. The Volume slider reads out the volume level in decibels for precise control.

For quick reference, the chart below gives the API command for each of the VTR controls.

Graphic	Name	API Command
	Back One Frame	*.ECMD FAV 1 1
	Stop	*.ECMD STP
	Play	*.ECMD PLY
	Pause	*.ECMD PAU
	Forward One Frame	*.ECMD FAV 0 1

Help Notes

Clicking the Question Mark (?) icon next to each control will display a pop-up Help Note giving more information about the control and its options. These Help Notes largely duplicate the information found in this section of the User's Manual.

Schedule Builder Tab

The Schedule Builder tab sets playtimes for content with user-selected Schedule Names for ease-of-reference.

Screenshot:

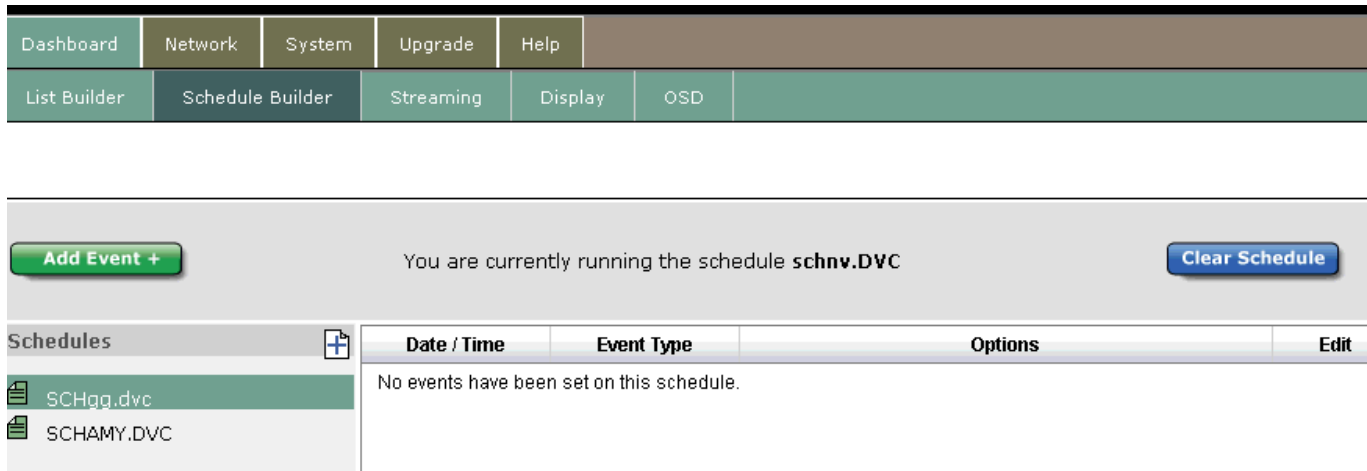


Image reduced for clarity

Add Event

Clicking the "Add Event" button will bring up the following screen:

The "Create New Event" dialog box contains the following fields:

- Weekday: A dropdown menu with a "-" symbol.
- Date: A text input field with a date format mask (e.g., --/--).
- Time: A text input field with a time format mask (e.g., --:--).
- Event Type: A dropdown menu with the text "--Select Event Type--".

Image reduced for clarity

In the fields on this screen, enter the information required to define the event to be scheduled.

Streaming Tab

The Streaming Tab contains controls which determine if the Adtec signEdge player is receiving multicast content, and from where.

Screenshot (reduced for clarity) :

Controls

Control	Function	Options	API Command
Program Number	identifying number for the program or event	text field	*.ECMD PNU
Audio Track	select the audio track to be decoded. The "track" is defined as the first, second, etc. audio track as found in the transport PGM pid (transport streams), or as the n'th audio stream found in a program stream. If this control is set to 0, the unit will look to the Audiostream ID (AUI) or Input Audio Type (IAT) settings to determine which track to decode. If no option is specified, the unit will select and decode the first available audio track.	0 = track select inactive 1 - n = track number	*.DCMD TSN [track]
Multicast Mode	determines if unit is receiving a multicast	Off = 0 Receive = 1	*.ECMD MMO [option]
Multicast Port	designates the multicast send port	text field (hexadecimal)	*.ECMD MSP
Multicast IPA	set the multicast-send Group Internet Protocol Address	text field (hexadecimal)	*.ECMD MSI
Error Recovery (ms)	Sets the timeout value (in milliseconds) for recovery of multicast (or DVB ASI) receive after decoder error condition is detected.	text field: default is 10000 ms range is 33-600000 ms	*.DCMD MER [# of ms]
Time Out (ms)	multicast time out; sets the timeout value in milliseconds for return-to-normal video playback after video multicast packets are no longer detected	text field: default is 300 ms	*.DCMD MTU
RTP (Auto-Detect)	switch feature on or off. When on , the system adapts to the stream received, automatically. When off , if an RTP stream is received, the video component will appear corrupted to the decoder.	Off = 0 On = 1	*.DCMD RAD[option]

Display Tab

The Display tab is used to integrate the signEdge with the video display.

Screenshot (reduced for clarity) :

The screenshot shows a software interface with a top navigation bar containing 'Inventory', 'Streaming', and 'Display' tabs. Below the tabs are two sets of 'Apply' and 'Cancel' buttons. The main section is titled 'Video & Audio' and contains several settings:

- Display Target:** A dropdown menu set to '1080p 59 fps' with a help icon (?) next to it.
- Aspect Ratio:** A dropdown menu set to '4x3' with a help icon (?) next to it.
- Blank Mode:** A dropdown menu set to 'BLACK' with a help icon (?) next to it.
- Start Up Mode:** A dropdown menu set to 'ON' with a help icon (?) next to it.
- SPDIF Mode:** A dropdown menu set to 'UNCOMPRESSED' with a help icon (?) next to it.
- Repeat:** A dropdown menu set to 'ALL' with a help icon (?) next to it.

At the bottom of the settings area, there are two more 'Apply' and 'Cancel' buttons.

Controls

Control	Function	Options	API Command
Display Target	the targeted video resolution; set to match resolution of the intended display, the decoder scales automatically; HDMI is not active when SD resolutions are used	see Supported Video Targets	*.DCMD VID
Aspect Ratio	ratio of horizontal to vertical lines in the decoded image	Off = 0 Auto = 1 4 x 3 = 2 16 x 9 = 3	*.ECMD ARA
Blank Mode	sets the state of the video output whenever a unit's transport is idle or is in transition	No video = 0 Black = 1 Hold = 2	*.DCMD BLK [option]
Start-up Mode	determines whether or not the decoder starts playing immediately after power-up or reset with no intervention. The playback will be from the LIST or individual spots if no LIST is active.	Off = 0 On = 1	*.DCMD STU [on/off]
SPDIF Mode	compressed or uncompressed audio; Sony/Phillips Digital Interconnect Format	No SPDIF output = 0 UNCOMPRESSED: Uncompressed (decoded) stereo PCM on SPDIF = 1 COMPRESSED: Compressed (non-decoded) data on SPDIF = 2 PASSTHROUGH: Compressed data only on SPDIF (no analog audio) = 3	*.DCMD SPM
Repeat	determines how the next spot is located when the current spot finishes playing.	1 ONE Repeat current spot. If a list is loaded, the current spot in the list will recycle. 2 ALL Cycle through the list, or the inventory if there is no list. 3 LAST Play List to the end and repeat only the last clip in the list.	*.DCMD RPT

Help Notes

Clicking the Question Mark (?) icon next to each control will display a pop-up Help Note giving more information about the control and its options. These Help Notes largely duplicate the information found in this section of the User's Manual.

OSD Tab

The controls on this tab govern the use and appearance of On Screen Display graphics and content.

Screenshot:

The screenshot shows the OSD Tab interface. At the top, there is a navigation bar with tabs for 'List Builder', 'Schedule Builder', 'Streaming', 'Display', and 'OSD'. Below the tabs are 'Apply' and 'Cancel' buttons. The main section is titled 'Single OSD: ?' and includes a 'Clear OSD' button. Below this, there are three configuration options: 'Graphic File: ?' with a 'Select Graphic File' dropdown, 'Scaling: ?' with a '100%' dropdown, and 'Position: ?' with a 'Select Position' dropdown. A note below these options states: 'Note: You must specify the correct values every time you make a change as the Scaling and Position drop down boxes do not currently reflect actual configuration.' At the bottom of the configuration section are 'Apply' and 'Cancel' buttons.

Image reduced for clarity

Controls:

Control	Function	Options	API Command
Graphic File	select a file for OSD	Select Graphic File- search for files File list by name	*.DCMD OSD
Scaling	sets scaling and postion of the	Off 100% - 1% in 1% increments	*.DCMD OSD
Position	on-screen placement	Select Position Center Top Right Top Left Bottom Right Bottom Left	*.DCMD OSD

Clear OSD Button: clears an existing (loaded and displayed) OSD file from the display.

System Tab

The System Tab gives you control over the unit's functions and integration into the rest of your networked devices.

Screenshot:

Uptime: ⓘ 0 Days, 0 Hours, 47 Minutes, 37 Seconds

Device Name: ⓘ Power: Power Cycle

Gateway Address: ⓘ

Ethernet Port (eth0)

DHCP : ⓘ

Ethernet Address: ⓘ

Subnet Mask: ⓘ

NTP Address: ⓘ Time Zone: ⓘ

Date: ⓘ Time: ⓘ

Apply Cancel

Image reduced for clarity

Controls:

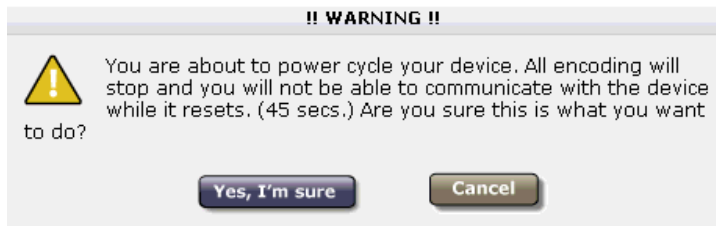
Control	Function	Options	API Command
Uptime	this readout reports the amount of time the unit has been running since the last reset or power-on cycle	none	*.SYSD UPT
Device Name	Device name is the host name for the unit for identification and networking purposes. When a unit is manufactured, it is given a name that combines the product type and the serial number of the unit.	text field	*.SYSD NAME [name]
Gateway Address	the IP assignment of the gateway/router on your network; limited to one address on Adtec devices	text field; valid IP address in form xxx.xxx.xxx.xxx	*.SYSD GIP
DHCP	check box; allows unit to extract it's own IP address, if switched on, from a DHCP server	checked = 1 not checked = 0	*.SYSD DHC
eth0 Ethernet Address	IP address of the unit's Control-Ethernet (eth0) port 10/100mbps	text field; valid IP address in form xxx.xxx.xxx.xxx	*.SYSD IPA
Subnet Mask	Subnet mask address of the unit's Control-Ethernet port (eth0)	text field; valid IP address in form xxx.xxx.xxx.xxx	*.SYSD IPM
NTP Address	IP Address of a Network Time Protocol server	On = 1 Off = 0 used in conjunction with the server's IP address	*.SYSD NIP [state][IPA]
Time Zone	designates the time zone the unit is operating in the offset is in hours from UTC and a Daylight Savings Setting.	text field- will auto-populate from NTP server if NTP enabled	*.SYSD TIZ

	Will auto-populate if unit is networked to an NTP Server.		
Date	sets thje units internal calendar/date function. Visual calendar available for point-and-click date setting.	text field- will auto-populate from NTP server if NTP enabled	*.SYSD TIM
Time	sets the unit's internal time clock Will auto-populate if unit is networked to an NTP Server.	text field- will auto-populate from NTP server if NTP enabled	*.SYSD TIM

Power Cycle

Clicking the **Power Cycle** button performs a complete power-down/power-up cycle on the device. A pop-up warning screen gives you the option of continuing or canceling the action. Cycling the power to the device will stop all encoding; the power-down/power-up cycle takes approximately 45 seconds to complete.

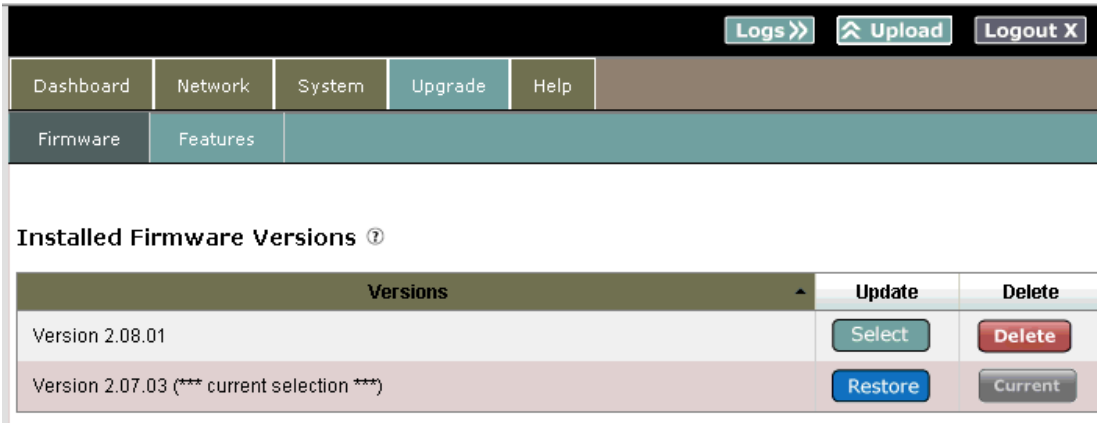
Warning Screen:



Upgrade Tab

The Upgrade Tab is used to easily select and upgrade your unit's firmware from the available versions.

Screenshot (reduced for clarity) :



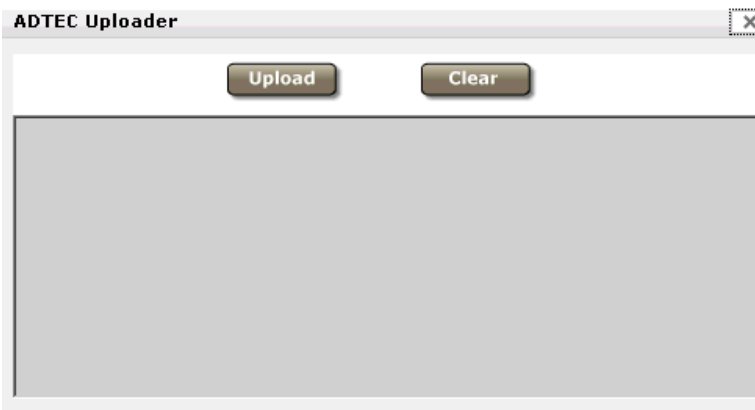
The screenshot shows a web interface with a navigation menu at the top. The menu includes 'Dashboard', 'Network', 'System', 'Upgrade', and 'Help'. Below the menu, there are two tabs: 'Firmware' and 'Features'. The 'Upgrade' tab is active. In the top right corner, there are buttons for 'Logs >>', 'Upload', and 'Logout X'. Below the navigation, the section is titled 'Installed Firmware Versions' with a help icon. A table lists the installed versions:

Versions	Update	Delete
Version 2.08.01	Select	Delete
Version 2.07.03 (***) current selection (***)	Restore	Current

Procedure

Installed Versions are firmware versions that have been installed on your device and can be selected as the current operating version. To select one of these versions, simply click on the **<Select>** button associated with the version. Due to the caching properties of your browser, it is necessary to clear your cache or restart the browser to make sure that the new application pages load.

To upload new firmware versions, click on the **<Upload>** button, then click on the **<Upload>** button on the **"Adtec Uploader"** pop-up that appears:



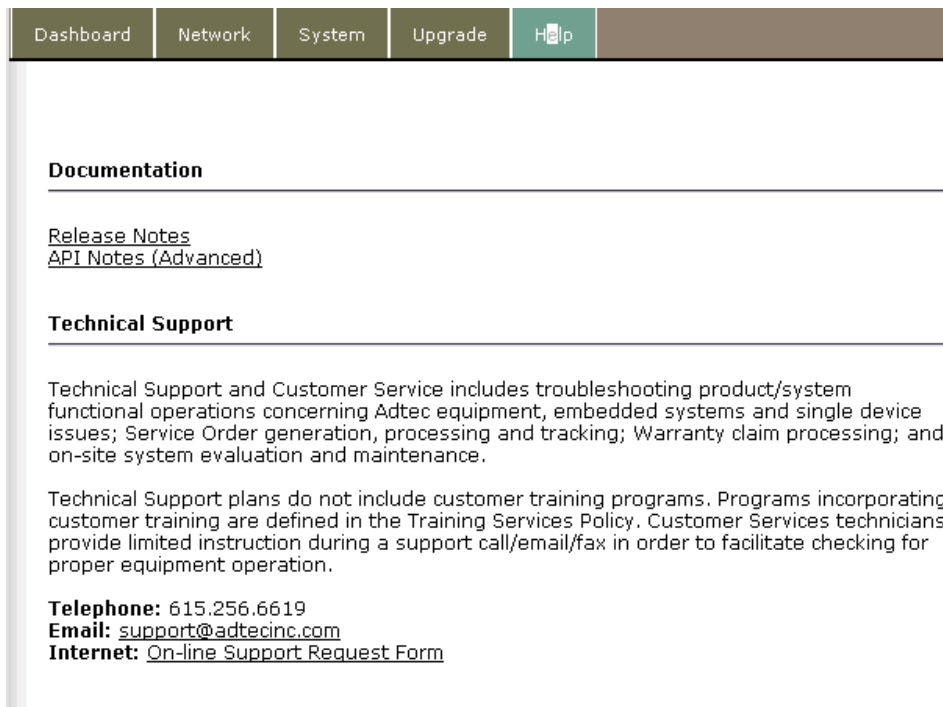
The screenshot shows a pop-up window titled 'ADTEC Uploader'. It has a close button in the top right corner. Below the title bar, there are two buttons: 'Upload' and 'Clear'. The main area of the window is a large, empty gray rectangle.

Upgrading from Older Firmware Versions

If your current version is less than v 2.03.13, you will need to use the FTP manual upgrade procedure to upgrade your unit.

Help Tab

The Help Tab provides another access to Technical Support's contact information, the API Command set, and the latest Release Notes, as well as a link for the this User's Manual stored on the unit.



The screenshot shows a web interface with a top navigation bar containing five tabs: Dashboard, Network, System, Upgrade, and Help. The Help tab is currently selected and highlighted in a darker color. Below the navigation bar, the page content is organized into two main sections: Documentation and Technical Support. The Documentation section includes links for Release Notes and API Notes (Advanced). The Technical Support section contains a paragraph describing the scope of support services, a paragraph about training programs, and contact information for telephone, email, and internet support.

Dashboard Network System Upgrade Help

Documentation

[Release Notes](#)
[API Notes \(Advanced\)](#)

Technical Support

Technical Support and Customer Service includes troubleshooting product/system functional operations concerning Adtec equipment, embedded systems and single device issues; Service Order generation, processing and tracking; Warranty claim processing; and on-site system evaluation and maintenance.

Technical Support plans do not include customer training programs. Programs incorporating customer training are defined in the Training Services Policy. Customer Services technicians provide limited instruction during a support call/email/fax in order to facilitate checking for proper equipment operation.

Telephone: 615.256.6619
Email: support@adtecinc.com
Internet: [On-line Support Request Form](#)

Chapter 4 - How-To Guides

Connecting to the signEdge Digital Signage Player

Before you configure your player, you will need to establish a connection.

The default IP for the signEdge is 192.168.10.48.

Telnet Connection

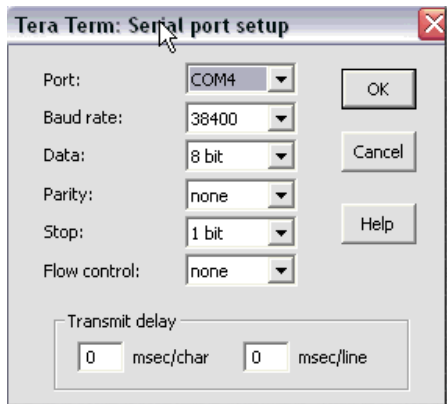
To connect to your signEdge player using a Telnet connection, attach your signEdge to your local network and launch a telnet session. Logon with the username adtec and password none . Once you are connected, you can control and monitor the unit by using the API commands. For a complete list of API commands, point a web browser to the IP Address of your signEdge and view the Adtec API notes.

Serial Connection

To use a serial connection with your signEdge, use the terminal kit included with your purchase. This terminal kit contains a standard ethernet cable and a serial 9 pin adapter, aka (RS232 connector). Plug the ethernet cable into the back of your signEdge using the port labeled COM2. The other end of the ethernet cable should be plugged into the 9 pin adaptor. The adapter should then be connected to your computer via the RS-232 port or with the use of a USB converter cable (not included).

Note: Please note that the use of a USB converter may not always provide connectivity. A setup disk or drivers from the USB convertor manufacturer may be needed. You can also use a serial connection utility such as Teraterm.

Using Teraterm



Control	Setting
PORT	The COM port you select in the application window represents the COM port on your computer that you wish to communicate from. It is not the COM port number from the back of your signEdge.
BAUD RATE	The baud rate for COM 2 is 38,400
DATA BIT	Should be set to 8 BITS
PARITY	Should be set to NONE
STOP BIT	Should be set to 1 BIT
FLOW CONTROL	Should be set to NONE.

Browser-based User Interface

Please note: Adtec's "mediaControl" software is **no longer supported** and will not work **at all** with the newest versions of the signEdge firmware.

To connect using the web interface, first use the Serial or Telnet connection instructions given above to connect to the unit. Use the System and Network tab controls to configure the unit and integrate it into your network.

Connect Using Device Serial Number

If the unit is a brand new unit, you can telnet to the unit using its product-name-serial number. The serial number in this case is the 6- digit number on the back or bottom of most units. For example:telnet signEdge-010CEB.local.

This is effectively the same thing as typing in the IP Address

Setting Up Synchronous Playback

Description

Synchronous playback is a feature of Adtec decoders which allows multiple decoders to synchronize content, provided they are on the same network. One unit is designated as 'master', which is tracked synchronously by units that are designated as 'slaves'. The synchronization is transmitted over an Ethernet connection using broadcast packets.

How to Use this feature

Using Telnet and API Commands

Step	Action
1	For the unit serving as the Master, issue: *.DCMD STC 100 * CF SAVE
2	For the unit(s) serving as Slaves, issue: *.DCMD STC 1 (1 Slave) or X0 for multiple units (X = 1-9) * CF SAVE

Operations

All Slave units REPEAT Mode will automatically follow the REPEAT setting of the Master Unit. All Units (Master and all Slave Units) **must** have a LIST (even if it's only one clip). All Units (Master and all Slave Units) **must** have the same quantity of clips in their lists. All Clips at the same position within the list (Master and all Slave Units) **must** be same length.

CLIP#	MASTER	SLAVE #1	SLAVE #2-X
#1	30 sec	30 sec	30 sec
#2	10 sec	10 sec	10 sec
#3	1 hour	1 hour	1 hour
#4	10 min	10 min	10 min

In conjunction with Display Matrix:

Step	Action
1	Create your content. When creating content for synchronous playback to be used with the Display Matrix, you should be aware of your overall display area. (ex. 2X2, 3X3 or 4X4) . You should use the dimensions of the overall piece. If each display is 1920 by 1080 and your overall display is 2 by 2, then the size of your content would be 3840 by 2160. This will allow you to use the same piece of content on all four of your screens. Keep in mind that your final content needs to be included in an MPEG 2 Transport Stream.
2	Once you have your content, upload it to the units and create a list.
3	Select one of the units to act as the master and set the other three units as slaves. To do this with the Adtec's mediaControl User Interface : 1. connect to the unit. 2. select the Decoder tab. 3. find the drop-down box for " STC Beacon " and select " Master ". 4. repeat this process to create the three Slave units, selecting " Slave ". To do this via Telnet : 1. log into the unit. 2. use the * STC command to configure the unit. 3. See the API documentation provided by pointing a browser to the IPA of the unit for more details.
4	Set up the Display Matrix to utilize specific sections of the screen. See the API notes on the * DMX command for additional details.

The overall result is that you have created one piece of content that can be spread proportionally on a video wall.

Note: Video Files **must** contain an audio track, even if it is empty, for proper synchronization.

Using Graphic Follows Audio

Description

Graphic Follows Audio or GFA is a feature of the firmware and requires no configuration. It allows for the display of a specific On-Screen-Display (OSD) Graphic to coincide at the same time and duration as a specified audio file. The OSD graphic will display in the center of the screen at full resolution automatically.

How to Use this feature:

Step	Action
1	Create your audio file using the audio specifications referenced below as a guideline.
2	Create your graphic with your display target resolution in mind.
3	Name your audio and graphic file the same name. [ex. myfilename.mp3 , myfilename.png]
4	Load both into your unit and create a list for your audio file (s). When the list plays and the system prepares to play the audio file, it will look for a corresponding OSD. If one is found, it will display it. When the audio file ends, the OSD will be removed.

Audio Standards Guide

Audio Standard	Bit Rate	Sample Rate(s) KHz	Notes
Dolby Digital AC-3	up to 640kbps	32 44.1 48	Downmix to 2 channel Dolby Pro Logic
MPEG 1 MPEG 2 Layer I, II and III (MP3) 2.0	up to: 448kbps (Layer I) 384kbps (Layer II) 320kbps (Layer III)	16 22.05 24 32 44.1 48	Single channel, dual channel, joint stereo and stereo modes
AAC-LC MPEG-2 MPEG-4	max 384kbps	7.35 8 11.025 12 16 22.05 24, 32, 44.1 48	

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FTP Mirror Mode

In Mirror Mode, an Adtec device can be configured to mirror content, via FTP, from an FTP server. Adtec devices that support Mirror Mode can be set to perform one of three roles in a Mirror Mode configuration:

Mode	Role
Client	unit is serving as a traditional network client- mirroring is off
MirrorList	MirrorList mode puts the device in 'list' mirroring mode. Only specified content within a text based list will be downloaded. The list is referred to as the MLF or MirrorListFile. An MVL file extension is now required for the MLF. MirrorList is useful for units with smaller storage capacity. They will only download content within the MLF file
MirrorClient	MirrorClient mode puts the device in 'total' mirroring mode. It will download all content hosted on an FTP server with the given credentials to it's /hd0/media/ folder, including SHD, SMIL, and DVC files.

Configurations

MirrorClient

MirrorClient configurations are:

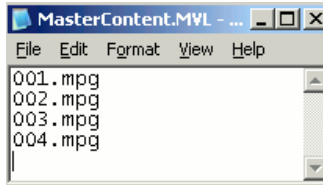
Name	Specification	API Command
HostMode	The FTP mode of the unit, client/mirrorclient/mirrorlist	*.sysd hom mirrorclient
HostIPAddress	The FTP Server to mirror content from	*.sysd hip x.x.x.x (where x.x.x.x is the IP address of the external server)
HostTimer	Time in seconds to wait until next server login	*.sysd hot xxx [where xxx is time in seconds, default = 600 (10 minutes)]
ClientUsernamePassword	Username and Password to login to FTP Server	*.sysd cpw username,password
FTPClientPASV	Changes between Active and Passive Mode, Passive Default	*.sysd fpa passive
FTPTimeOut	Maximum time in seconds that the FTP Client waits for a response from remote system, default = 4 seconds	*.sysd fto 4
FTPDataTimeOut	Maximum time that client waits on inactivity from remote system during file transfer, default = 45 seconds.	*.sysd fdo 45
DoNotReplaceMpeg	This allows the mirroring mode to not replace content even if it already exists on the unit and the date on the server is newer; default = no. NO will replace items when the time/date stamp is different on the server.	*.sysd dnr no

MirrorList

All MirrorClient configurations are valid for !MirrorList, with one additional configuration being available:

Name	Specifications	API Command
MirrorListFile	A file that lists all content that needs to be downloaded from Host IP Address.	*.sysd mlf MasterContent.MVL

A basic MirrorList looks similar to this:



Execution Logic

FTP Download logic follows this progression:

1. Host Timer Expires.
2. Login to FTP Server.
3. Perform directory listing with date/time stamp of files.
4. Check against MirrorListFile and hard drive.
5. If file **does not** exist on hard drive, download.
6. If file **does** exist on hard drive, check time/date of both files- if time different and DNR = NO, the download.
7. Delete specific files in delete section if found.

API Commands Used in Mirror Mode

To view detailed descriptions of Adtec API commands, point a web browser to the IP address of your device. Once logged in, click on the **<Adtec API>** link located on the Help tab.

The basic command set used in Mirroring:

- HOSTTIMER
- HOSTIPADDRESS
- MIRRORLISTFILE
- CLTUSERPASSWORD
- FTPTIMEOUT
- FTPDATATIMEOUT
- DONOTREPLACEMPEG
- FTPCLIENTPASV

Notes:

- In MirrorList mode, the MIRRORLISTFILE is always downloaded first.
- A change to a mirror mode (MirrorList or MirrorClient) will change configuration, but mirroring will wait until HOSTTIMER expires before executing the desired hostmode.
- On newer generation Adtec products, "client" mode still allows the FTP server to run (this is different from legacy Adtec products such as edge1013).
- Because mirroring is performed based on date/time, Adtec Digital recommends keeping all third party encoders, servers, and Adtec units synchronized to a time server.
 - ◆ Synchronized time helps with management of content and basic content troubleshooting.
- A drive space management system is based on HOSTMODE that will detect when there is about 200MB of free space and remove files until there is 300MB of free space.
 - ◆ In **MirrorList** mode, files not in the list, but present on the system will be deleted to meet 300MB.
 - ◆ In **MirrorClient** mode, the oldest files found on the system will be removed to meet 300MB.
 - ◆ Drive space is not checked in Client Mode.
- MVL Files recognize the #UNITS_NAMED directive as in DVC files, as well as #MVL_DELETE_FILES_ON.

Using an NTP Server

Network Time Protocol (NTP) is used to synchronize the system clocks of networked devices to Universal Time through the use of a timestamp packet sent through the UDP port 123 transport layer. NTP features an integral jitter buffer which aids in ensuring continuous video and audio playout.

- Synching your Adtec device to an NTP server can provide:
 - ◆ Scheduled Events trigger at the proper time.
 - ◆ Logging is logged with the proper date/time stamp which provides easier troubleshooting/viewing of logs
- Adtec Digital recommends that the unit's time be the same for STC setups.
 - ◆ Generally, STC doesn't use the system time clock; instead, it uses the STC Time Stamp Index of the MPEG file.

Set-up an NTP Server

If you will be doing scheduled playback of content, it is highly recommended to configure for an NTP network time server as follows:

Step	Action
1	Press the <Mode> button until SYSTEM MENU is displayed on the LCD screen, then press <Select>.
2	Press the <Down> arrow until NTP MENU is displayed on the LCD screen, then press <Select>.
3	Press the <Down> arrow until NTP Server IPA is displayed on the LCD screen.
4	Enter the IP address of the NTP server using the <Select> and arrow buttons, then press <Enter> to save. Note: Entering 0.0.0.0 as the IPA will cause the server to synchronize with its own time.

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Guide To Using DVC Files

Definition

DVC files are user-created control or script files; most often resident on the Adtec device's hard drive. **API Commands**

The "RUN" API command is used to execute DVC files. The **RUN** command uses the command handler SYSD and has five options and six executable arguments available.

Command Format:

*.SYSD RUN [option code] [argument]

Options:

Code	Function
D	Debug output
I	do not initialize; relevant to "LST" and "SCH" files only
F	do not finalize; relevant to "LST" and "SCH" files only
M	Add using multiples; relevant to "LST" files only
C	always evaluate initialize directive; used for wildcard UNITS_NAMED mode

Arguments:

Note: in the table below, "xxxx" is the filename being executed.

Text	Function
filename	placeholders and wildcards valid
CMDxxxx.DVC	lists a series of commands which execute sequentially as if typed at the command prompt manually
SCHxxxx.DVC	lists "rules" which have the general form of <time> <command>. When the current time satisfies a rule in the schedule, the command is executed.
LSTxxxx.DVC	lists video file names which the player plays sequentially
PARxxxx.DVC	maps certain commands to be executed when certain pins on the parallel port are active
any smil filename	

CMDxxxx.DVC Files - Usage Notes

Description

- A CMD DVC file is a Notepad file stored on an ADTEC unit's hard drive that contains a list of control commands.
- These commands can be RUN from any interrupt, Schedule, Parallel Port, Terminal, or External Controller.

Form

CMDxxxx.DVC

- NAME Structure
 - ◆ CMD – File name MUST start with CMD
 - ◆ xxxxx – user-definable name, limited to a maximum of 5 characters
 - ◆ .DVC - File MUST end with a ".DVC"
- FILE FORMAT
 - ◆ CMD1 | CMD2 | CMD3

File Protocol Rules

- Use all capital letters within the file and in the file name.
 - ◆ Files can be created in Notepad, saved, and then imported to an ADTEC unit using the FTP applet.
- A command is placed into the CMDxxxx.DVC file on the first line of the file.
 - ◆ At the end of all command lines you **must** hit the **<Enter>** Key, leaving the cursor on the line below the last command line.
- Multiple commands are placed into the CMDxxxx.DVC file in a continuous line.
 - ◆ A pipe character **must** separate each command.
 - ◆ To place the pipe, hold the shift key and hit the **<backslash>** key.
 - ◇ A pipe looks like a vertical line (|).
- The maximum number of commands is limited not by number of commands but by characters in a single line.
 - ◆ The maximum number of characters allowed in a single line of commands is 1000.
 - ◆ The 1000 max character number includes spaces and pipes.
 - ◇ Spaces at the beginning and end of a command are not required, but will make it easier to read and edit a file.
- A file saved to an Adtec unit's hard drive must be "RUN" for it to be loaded into volatile memory and perform its tasks.
 - ◆ The tasks in the file will start as soon as the interrupt trigger is sent.
 - ◆ **Example:** "RUN CMD0001" **<Enter>**
 - ◇ In this example, the first command in CMD0001 will start when the **<Enter>** key is pressed.
- If the file name is CMDAUTO.DVC it will run automatically when the unit is powered up.
- At this time, you cannot nest a RUN command within a CMDxxxx.DVC file.]

SCHxxxx.DVC Files - Usage Notes

Description

- An SCH DVC file is a Notepad file stored on an ADTEC unit's hard drive that contains a list of times followed by a command.
 - ◆ The time can be a day of week, month, day, year, hour, minute, second.
 - ◇ Any of these can be wild carded.
- Commands associated with specific times will be executed when the Adtec unit's internal clock hits the desired time in the command line.

Form

SCHxxxx.DVC

- NAME Structure
 - ◆ SCH – File name MUST start with SCH
 - ◆ xxxxx – user definable name, limited to a maximum of 5 characters
 - ◆ .DVC - File MUST end with a ".DVC"
- FILE FORMAT
 - ◆ DAY, DATE, TIME, COMMAND

File Protocol Rules

- Files can be created in Notepad, saved, and then imported to an ADTEC unit using the FTP applet.
- Events are placed into the SCHxxxx.DVC file one time per line.
 - ◆ After the each event hit the **<Return>** key.
 - ◆ After the last event you **must** hit the **<Enter>** key, leaving the cursor on the line below the last event.
- Multiple commands are placed into the SCHxxxx.DVC file in a continuous line.
 - ◆ A pipe character **must** separate each command.
 - ◆ To place the pipe, hold the shift key and hit the backslash key.
 - ◇ A pipe looks like a vertical line (|).
- The day abbreviations are MO, TU, WE, TH, FR, SA, and SU.
 - ◆ "--" can be used as a wild card.
 - ◇ You can wild card any part of the DAY, DATE, TIME.
 - ◆ **Example:** MO -- -- -- 09 00 00 PLAY
 - ◇ **Result:** every Monday at 9 AM, the unit will start to PLAY
- If you name the file SCHAUTO.DVC it will run automatically when the unit is powered up.

Shadow Files

- A shadow file is a command file which is synchronized to the playback of a particular video file.
 - ◆ It has a similar form to a schedule with a <STC> <command>, where STC is the "system time clock".
 - ◆ When a video reaches a certain point, the script executes the command in the shadow file.

Example: half of a second into the file, we want to display a graphic in the lower left corner of the screen, and a half second, before the end of the video, we want to hide the graphic. A shadow file lets you accomplish this.

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Video Connector Compatibility

Reference

With the wide variety of display targets supported by modern video decoders, and the multitude of video monitors that can be used, it can be challenging to match a display target to compatible type of video input connector. Adtec Digital has created this reference to make it easier to match video monitors and their input connectors to compatible display target settings in our products, in order to get the best performance out of your Adtec Digital device.




Here are some common rules regarding the matching of your video input connector with the display targets it supports:



- Video display targets must be selected based on the **monitor type** that will display them. In this reference, we list out the display targets specific to televisions and PC monitors.
- Display targets must **also** be matched to the **connector type**.
- DVI connections support both television standards and PC monitor standards.
 - ◆ If you are using a DVI connector, match the display target to the monitor type.
- Newer LCD and plasma monitors may support both television standards and PC monitor standards.
 - ◆ If you are using an LCD or plasma monitor, match the display target to the connection type.
 - ◇ Use PC monitor standard display targets for VGA connections
 - ◇ Use TV standard display targets for other connections.
- If you are using a converter/adaptor cable (for example converting HDMI to DVI), the connector to consider is the one that plugs into the monitor- that connector must determine the display target used.

Television Standards

If you are connecting your device to a television or monitor that supports television standards, you should use one of the following connections and display targets.

Compatible Connections

Connector on Adtec Device	Connector on Display	Signal	Colorspace	Image	Notes
Composite (BNC or RCA)	Composite (BNC or RCA)	analog	YCrCb		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the Adtec Device.
7 - PIN Media Port (Soloist 4111 Only)	1. Composite (BNC) 2. S/Video - 4 PIN 3. SPDIF Audio	analog	YCrCb		Provides video on either BNC or S-Video. For audio, use SPDIF or a separate unbalanced audio cable.
DVI Single Link	Component (RGB)	analog	RGB		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the Adtec Device.

DVI Single Link	DVI	digital	YCrCb or RGB		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the Adtec Device.
DVI Single Link	HDMI	digital	YCrCb or RGB		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the Adtec Device.
HDMI (Soloist HD Pro, mediaHUB HD Pro and mediaHUB-HD 422 Only)	HDMI	digital	YCrCb or RGB		Provides audio and video



Display Targets

NTSC	NTSC-J	PAL	PAL-M	720P24	720P50			
720P59	720P60	1080P24	1080I50	1080I59	1080I60	1080P50	1080P59	1080P60

PC Monitor Standards

If you are connecting your device to a PC Monitor or to a monitor that supports PC Graphic Standards, you should use one of the following Connections and display targets.

Compatible Connections

Connector on Adtec Device	Connector on Display	Signal	Colorspace	Image	Notes
DVI Single Link	VGA (DB15)	analog	RGB		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the Adtec Device.
DVI Single Link	DVI	digital or analog	RGB		Provides only video. For audio, use separate SPDIF, RCA (l/r) or unbalanced audio cable depending on the

Display Targets (Video Configurations)

VESA800X600X75	VESA1280X768X85	
VESA640X350X85	VESA800X600X85	VESA1280X960X60
VESA640X400X85	VESA848X480X60	VESA1280X960X85
VESA640X480X60	VESA1024X768X43	VESA1280X1024X60
VESA640X480X72	VESA1024X768X60	VESA1280X1024X75
VESA640X480X75	VESA1024X768X70	VESA1280X1024X85
VESA640X480X85	VESA1024X768X75	VESA1360X768X60
VESA720X400X60	VESA1024X768X85	VESA1400X1050X60
VESA800X600X56	VESA1152X864X75	VESA1400X1050X75
VESA800X600X60	VESA1280X768X60	VESA1600X1200X60
VESA800X600X72	VESA1280X768X75	VESA1920X1200X60
XGA1080i50*	XGA1080i60*	

* **Note:** XGA 1080i 50 and XGA1080i60 are "custom" display targets and are not recognized within the industry. They are also only available on firmware builds 2.02.10 and up on specific Adtec products- the signEdge, edge4111, Soloist HD Pro, and the Soloist4111.

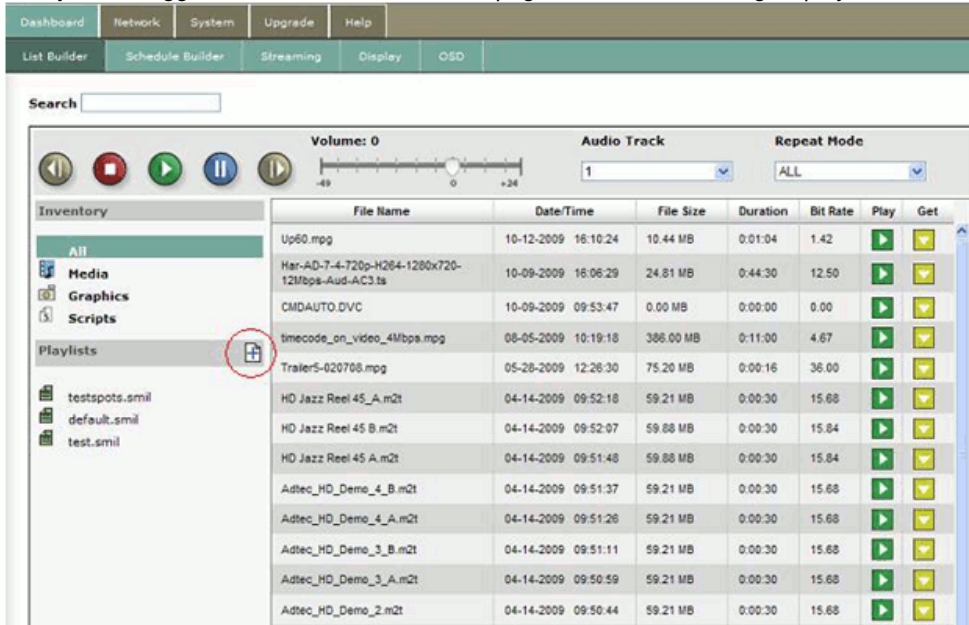
Troubleshooting Guide

Issue	Cause
The video displays but appears shaded in magenta or green.	The colorspace of the selected display target does not match the monitor and/or connection type used. Either switch your video display target or switch your connector.
No video is displayed or the monitor reports that it has 'no sync' or 'out of range'	Possibility 1: The wrong input is selected on your monitor. Possibility 2: A display target has been chosen that is not supported by your monitor.
The video is displayed but does not fill the entire screen, there may be black bars on the top and bottom or on the sides	Possibility 1: The view mode of the monitor is set incorrectly (full-screen, stretch, dot-for-dot, through, etc.) Possibility 2: The monitor input being used is expecting a different resolution (aspect ratio) than the selected display target is providing

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List Creation Using Adtec's Web GUI

Once you are logged into the Web GUI, the list page will be the first thing displayed. It will look something like this:

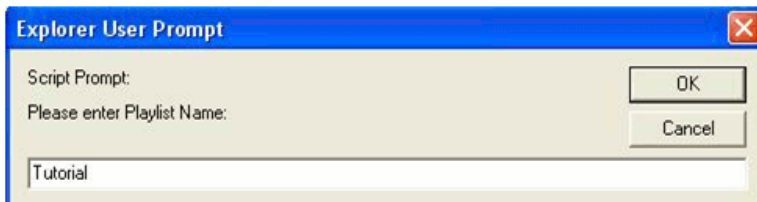


Click the "+" next to Playlists circled in red in the picture. You may get a popup that looks like this:



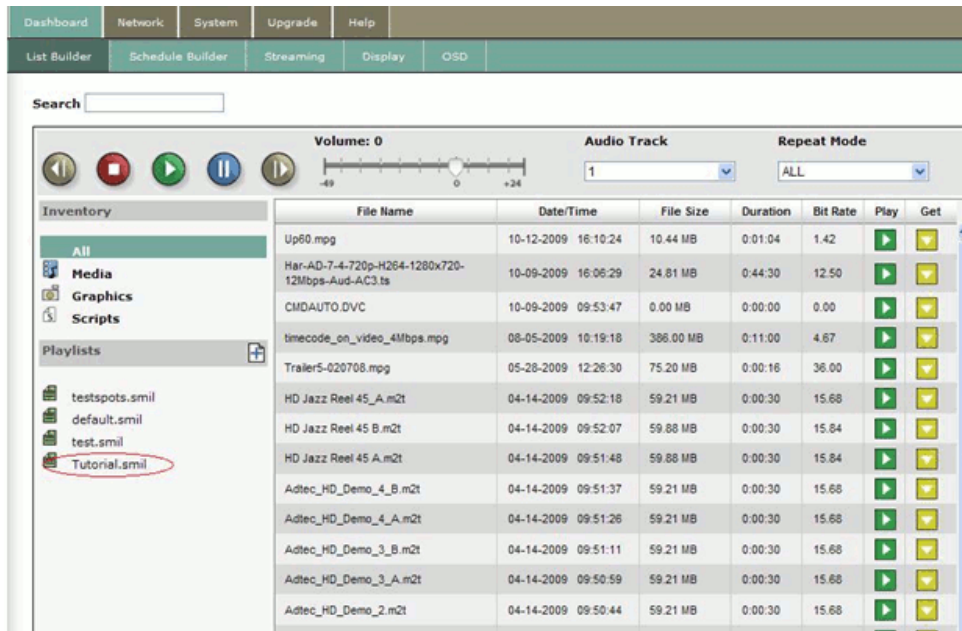
If so, simply click it, and select **"Temporarily Allow Scripted Windows"**.

If you received the previous popup, click the "+" again. You will see this window:

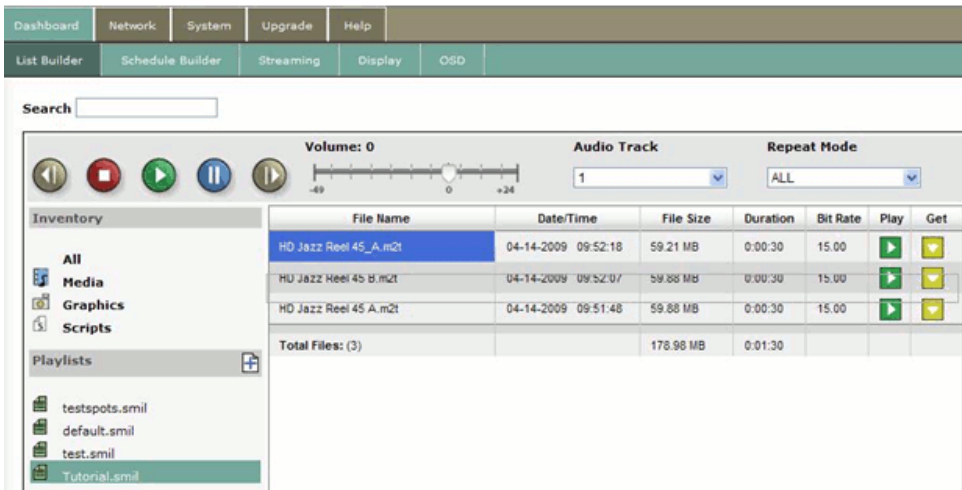


This is the name of your list. Input a name and click **<OK>**. In this example we are using 'Tutorial' as our list name.

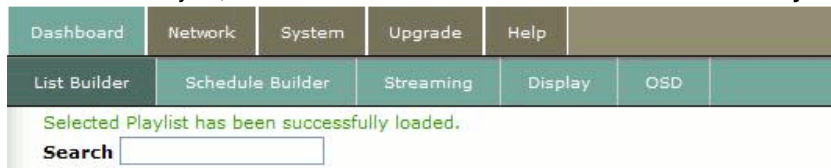
You will now see your list added to the roster under **"Playlists"**:



Now, drag the individual Video files that you would like to be in this list from the File Inventory (on the right) onto the new playlist. They will automatically be added to the Playlist and the list will automatically save. Once you are finished adding video files to your Playlist, click the list name and verify that the video files have been added correctly. If you need to change the playback order, simply drag the file to the appropriate place in the list:



When you are satisfied with the Playlist, double-click on its name. You will see **“Selected Playlist has been successfully**



loaded” at the top.

Also on the left side, you will see the playlist’s name to the right of the List under “Playback Settings”:

Playout Status:

Current Output:
Activity: ● PLAYING
HD Jazz Reel 45 B.m2t

82.44%

Rate: 0 (mbps)

Multicast Settings:
Mode: OFF
Stream IPA: 239.192.150.3
Port: 2000

Playback Settings:
List: Tutorial.smil
Repeat: ALL

Display:
Target: NTSC
Aspect Ratio: 4x3

*To Play *

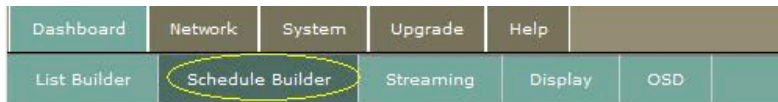
Click the "Stop" Button, and then the "Play" Button. Your Playlist should now be playing. If you need to delete the list, or remove any of the videos from the list, simply drag either the Playlist or the video file to the garbage can icon at the bottom of the screen. It will not delete the video permanently, only remove it from the Playlist.



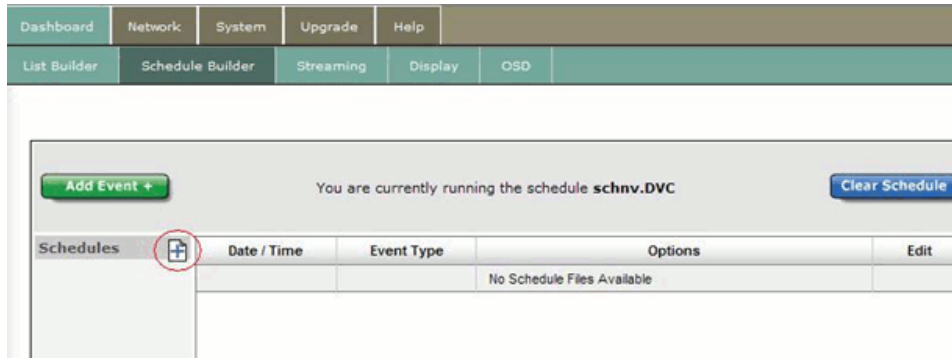
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Schedule Creation Using Adtec's Web GUI

Once you are logged into the Web GUI, select the **Schedule Builder** tab circled here:



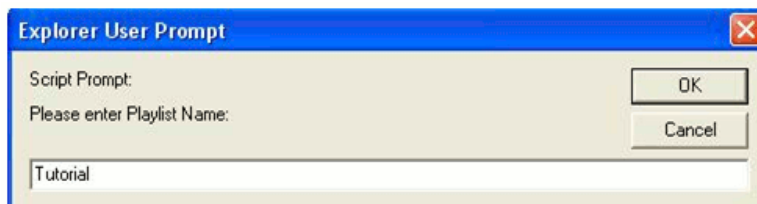
The page will look like this:



Click the "+" next to Schedules, circled in red in the image above. You may get a popup that looks like this:

This website is using a scripted window to ask you for information. If you trust this website, click here to allow scripted windows...

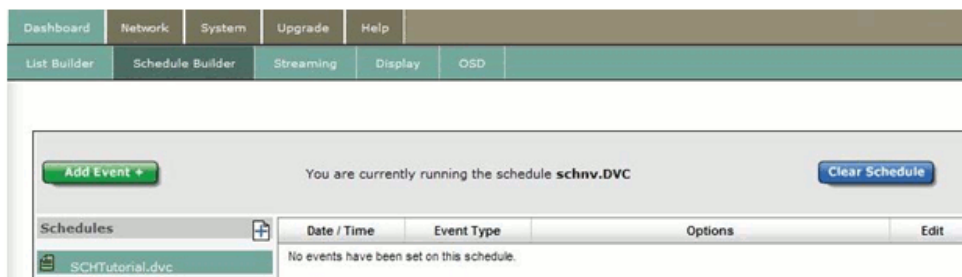
If so, simply click it and select "Temporarily Allow Scripted Windows". If you received the previous popup, click the "+" again. You will see this window:



This is the name of your schedule.

Input a name and click OK. In this example we are using 'Tutorial'.

You will now see your schedule under Schedules with a SCH in front of the name:



Now click the green "Add Event+" button.

This window will display:

* Define the Event*

- **Day:** enter the Weekday you want the event to happen on.
 - ◆ If the event is to occur every day, leave as – (dash)
- **Time:** enter the Time that you would like the event to happen at in the format "hours:minutes:seconds" (HH:MM:SS).
- **Date:** for an event to occur on a specific calendar date, enter it in the Date box (month/day/year).

For wildcards use -- (double dash).

Examples:

- For something happening at half past the hour every hour use time --:30:00
- For something happening every hour on the hour use --:00:00

Event Type	Definition
Custom	Enter a custom command found in the Adtec API command set
Playlist	Start a list playing
Playspot	Play a single video
Multicast Receive	Start receiving an IP stream at a particular multicast IP and Port
Stop Decoder	Stop what is playing
Multicast Off	Stop receiving an IP stream
Clear Schedule	Clear the Schedule

Once you have created your event click Apply. It will add a new line to your Schedule:

Continue Adding Events until your Schedule is completed.

If you need to delete an event simply drag it to the Garbage Can at the bottom of the page:



Appendix

Contacting Customer Support

Adtec Digital's Support Services

Technical Support and Customer Service includes troubleshooting product/system functional operations concerning Adtec equipment, embedded systems and single device issues; Service Order generation, processing and tracking; Warranty claim processing; and on-site system evaluation and maintenance. Technical Support plans do not include customer training programs. Programs incorporating customer training are defined in the Training Services Policy. Customer Services technicians provide limited instruction during a support call/email/fax in order to facilitate checking for proper equipment operation.

Telephone and Email Support

- **Telephone:** 615-256-6619 ext. 166
- **Email:** support@adtecinc.com
- **Internet:** www.adtecinc.com/supportrequest/

Adtec Digital offers telephone, email and fax support, warranty and service related inquiries during normal business hours: 9:00am to 5:00pm Central Standard Time (CST), Monday through Friday, holidays excepted. Support Requests can also be submitted on-line.

All inquiries will be processed in the order in which they are received and by the criteria outlined in the Call Response Order. Inquiries and inquiry responses made after 5:00 PM (CST) weekdays, Saturday, Sunday or on an Adtec-recognized holiday will be processed the next business day in the order received.

Callers on hold and returned calls will be prioritized by the following criteria:

- Priority-24 Subscription Customers
- Standard-Priority Subscription Customers
- All customers that have purchased Installation & Training, within 90 days of the installation
- Adtec Certified Operators (ACO)
- Limited Level Support, Warranty & Service Requests
- Multi-device system installations that have purchased Installation & Training from Adtec
- Distributors
- System Integrators
- Multi-device systems
- Single device users

Information needed for Support

To help expedite the troubleshooting process, please be prepared to provide the following information to the support representative:

- **Product(s) affected:** please provide a list of the Adtec Products involved including the Revision Number for each affected product.
- **Description of the Problem:** please include a detailed description of the problem. Include the approximate time and day the problem occurred, the spot ID of the material being inserted and what the operator reported about the incident. It is also helpful to note any recent changes to the system. More information is always better than too little information.
- **Your Contact Data:** please include contact information so we can reach you to discuss how to fix the problem, additional troubleshooting steps that are required or to gather more complete information regarding the problem. Please include your facility name (or call letters), your name, title, email address, telephone number, hours of work, and other contact persons if you are not available.

Advanced Support Plans

In addition to our basic Inquiry Response Policy, Adtec offers two advanced levels of priority inquiry support: **Standard-Priority** and **Priority-24**. The Standard-Priority & Priority-24 plans provide guaranteed* response times with the Priority-24 plan offering after hours and holiday support. Standard-Priority support is included with the Adtec Certified Operator (ACO) training. Contact Adtec Sales to upgrade your current support plan.

Standard-Priority Support Plan Description

Customers can improve upon our normal call processing times and can expedite inquiry support responses through our subscription Standard-Priority service plan. Under this plan all telephone inquiries are guaranteed* a telephone response of no more than 4 hours after they are received (within the designated hours of operation). Telephone inquiries received by 4:00 PM (CST) on weekdays- excluding Adtec holidays- are guaranteed a same-day telephone response. However, inquiry responses may be made after hours until 8:00 PM (CST). Email and fax inquiries are limited in scope to normal business hours, excluding holidays. Standard-Priority customers are entitled to a 10% discount on site visit and training charges after the initial system/product installation and training. Standard-Priority customers also receive a 3-day turnaround time guarantee* on warranty and non-warranty repairs on Adtec manufactured equipment, excluding Studio Encoders.

Priority - 24 Support Plan (24 Hour) Description

In addition to our Standard-Support plan, after hours, weekend and holiday support is available with the **Priority-24** support plan. This plan is a subscription only service available for service inquiries 24 hours a day, 7 days a week. All telephone inquiries are guaranteed* a telephone response time of no more than 2 hours. Email and fax inquiries are limited in scope to normal business hours, excluding holidays. Calls after 5:00 PM will be forwarded to a Customer Services representative on call. **Priority-24** customers are entitled to a 25% discount on site visit and training charges, after the initial system/product installation and training. **Priority-24** customers also receive a 1- day turnaround time guarantee* on warranty and non-warranty repairs on Adtec-manufactured equipment, **excluding** Studio Encoders.

Plan Comparisons

Feature/ Plan Name	Priority-24	Standard Priority	Limited
Hours	24 Hours/Day; 7 Days/Week	9:00 AM – 5:00 PM, (U.S. Central Standard Time), Excludes Weekends & Holidays	
Call Response Time	Same day- 2 hours (1st in order of call list)	Same Day: 4 Hours (2nd in order of call list)	48 Hours
Discounted Site Visits	25%	10%	None
Discounted Training	25%	10%	None
Repair Service	Guaranteed* 1 Day Turnaround	3 Day Turnaround	None

* A one-month free service extension will be awarded if Adtec fails to meet its service guarantee.

Technical Specifications

Video

- Video Outputs: One decode configurable to DVI-I or Composite (BNC). Cable required for VGA, YUV, HDMI, RGBHV and RGB.
- Error concealment and de-blocking filter.
- Video aspect format: 4x3 or 16x9
- Back to back frame accurate playback from same output port.

Standard Definition (SD) Decode

- MPEG 2 SD MP@ML (max 15Mbps) Full D1. NTSC, PAL B, G.
- MPEG 4.2 ASP@L5, Full D1. Rectangular shape video decoding up to 1280X720p30 resolution, support for B Pictures, data partitioning and error resiliency. No global motion compensation.
- MPEG 4.10 (AVC/H.264) BP@L3, MP@L3 and L3.1 (max 5Mbps) up to 720X480 or 720X576 resolution, including FMO and ASO.

High Definition (HD) Decode

- MPEG - 2 MP@HL (max 25Mbps) up to 1920X1080i60 or 1280X720p60 resolution.
- MPEG - 4.10 (AVC/H.264) HP@L4.0 and L4.1 (max 15Mbps) up to 1920X1080i60 [1], 1920X1080i50 AVC HD or 1280X720p60, 1280X720p50 resolution.

Audio

- Audio Outputs: S/PDIF digital audio (RCA female), Analog stereo audio (L/R RCA).
- Dolby Digital AC-3: Bit rates up to 640kbps. Sample rates of 32, 44.1 and 48KHz. Downmix to 2 channel Dolby Pro Logic.
- MPEG 1 and MPEG 2 Layer I, II and III (MP3) 2.0: Bit rates up to 448kbps (Layer I), 384kbps (Layer II) or 320kbps (Layer III). Sample rates of 16, 22.05, 24, 32, 44.1 and 48KHz. Single channel, dual channel, joint stereo and stereo modes.
- AAC-LC MPEG-2 and MPEG-4:(max 384kbps) Sample rates of 7.35, 8, 11.025, 12, 16, 22.05, 24, 32, 44.1 and 48KHz.

Communications and Control

- Ethernet 10/100 (RJ-45) Half Duplex, Full Duplex, Auto Negotiate
- Ethernet Protocols: Telnet and XCP Adtec command API, FTP, HTTP, SNMP (MIBII).
- Serial Communications: 2-RS232 (38400-115,200K, 8, 1 N)
- Embedded Automation: List, Loop, Schedule and Logging.

Front Panel

- Status LEDs: Power, Video, Multicast, Link and Busy

signEdge Digital Signage Player

- Adtec optimized POSIX compliant embedded Linux 2.6 kernel
- Power: 12 VDC
- Kensington Security Slot (K-Slot)
- Environmental: 0 to 120 Degrees Fahrenheit, Less than 70% RH, Non-Condensing

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Recommended Encoding Specifications

Introduction to Encoding

When creating content for the Soloist 4111, Soloist HD Pro, signEdge, and edge 4111HD, you need so ensure that your encoding parameters match the **decoder** for best results.

MPEG 2 Encoding

When creating MPEG2 files, it is recommended to use the following parameters:

Multiplex Type:

- MPEG2 Transport Stream

Transport Stream composition:

1. The file should start with a transport sync byte (0x47) and should maintain packet alignment throughout the entire duration.
2. There should be a minimal amount of fill packets at the start of the file.
3. The first non-fill packet should be the PAT packet.
4. The next non-fill packet should be the PMT packet(s).
5. The next non-fill packet should be the first video stream packet.
6. The first video stream packet should contain the following
 - ◆ Adaptation indicator marking the presence of a PCR.
 - ◆ The adaptation flag field should have the discontinuity indicator set.
 - ◆ Valid PES header with PTS and DTS.
 - ◆ Valid video sequence header and GOP header.
7. Use the following recommended PID values:

PID	Value
PMT	0x1e0 (480dec)
PCR	0x1e1 (481dec, must reference video PID)
Video	0x1e1 (481dec)
Audio1	0x1e2 (482dec)
Audio2	0x1e3 (483dec)

Audio:

- 192Mbps AC-3 or MPEG Layer 2

HD Content:

- Resolution: up to 1920x1080 (1080i60 or 1080i50)
- Bit Rate: 25Mbps constant bit rate (CBR).

SD Content:

- Resolution: 720x480 NTSC or 720x576 PAL
- Bit Rate: 8Mbps constant bit rate (CBR).

Note: content should be padded with a couple of black frames, front and back, for improved visual transitions between clips.

MPEG 4.10/AVC/H.264 Encoding

- H.264, MPEG-4 Part 10, or AVC, for Advanced Video Coding, is a digital video codec standard which is noted for achieving very high data compression.
 - ◆ The **ITU-T H.264** standard and the **ISO/IEC MPEG-4 Part 10** standard (formally, ISO/IEC 14496-10) are technically identical.

When creating AVC files, it is recommended to use the following parameters:

Multiplex Type:

- MPEG2 Transport Stream

Transport Stream composition:

1. The file should start with a transport sync byte (0x47) and should maintain packet alignment throughout the entire duration.
2. There should be a minimal amount of fill packets at the start of the file.
3. The first non-fill packet should be the PAT packet.
4. The next non-fill packet should be the PMT packet(s).
5. The next non-fill packet should be the first video stream packet.
6. The first video stream packet should contain the following:
 - ◆ Adaptation indicator marking the presence of a PCR.
 - ◆ The adaptation flag field should have the discontinuity indicator set.
 - ◆ Valid PES header with PTS and DTS.
 - ◆ Valid video sequence header and GOP header.
7. Use the following recommended PID values:

PID	Value
PMT	0x1e0 (480dec)
PCR	0x1e1 (481dec, must reference video PID)
Video	0x1e1 (481dec)
Audio1	0x1e2 (482dec)
Audio2	0x1e3 (483dec)

Audio:

- 192Mbps AC-3 or MPEG Layer 2

HD Content:

- **Resolution:** High Profile up to 1280x720 (720p50 or 720p60. note that 1080i60 is not supported)
- **Bit Rate:** 12Mbps constant bit rate (CBR).

SD Content:

- **Resolution:** Main Profile up to 720x480 NTSC or 720x576 PAL
- **Bit Rate:** 5Mbps constant bit rate (CBR).

Note: content should be padded with a couple of black frames, front and back, for improved visual transitions between clips.

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