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mediaHUB™ Media Ingest and Prep Station w/mediaControl Application Quick Start Manual



purely digital
create. move. play. save.

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mediaHUB-PRO
mediaHUB-FW

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Chapter 1 - Introduction

Overview

mediaHUB is a realtime standard definition MPEG 2 video, MPEG and Dolby audio encoder. With the ability to capture standard definition video and multiple stereo audio streams in realtime, mediaHUB allows users to view a confidence decode of the video as well as audio track selection while capturing. When capture is completed, mediaHUB provides review, accept and transfer options. Transfers can be made to the local host computer, a remote FTP server and directly to one or many Adtec video servers. mediaHUB includes control of professional VTRs over serial RS-422 or FireWire for accurate selection of acquisition material. Live feeds from satellite or newsroom sources can also be recorded on command by mediaHUB. If you work in a non-linear editor like Final Cut, you can export directly to mediaHUB without rolling tape in real time. Regardless of your source, mediaHUB provides broadcast quality MPEG 2 SD encoding for the best on-air presentation.

Applications

Commercial Insertion: Encode commercials from tape or directly from Final Cut for digital program insertion (DPI) or linear insertion. Review encoded files from any source before they are released to the enterprise.

Video On Demand (VOD): Encode commercials from tape or directly from Final Cut for Video On Demand (VOD) compliant to the Cable Labs ADI specification.

Program Acquisition: Encode long form material from tape or satellite based on time, serial, Ethernet or GPI control.

Multimedia: Create files that provide the best quality playback on any Adtec digital media player or server.

Non-Linear Editing: Use mediaHUB to offload the rendering process in Final Cut for real-time production of your work. Useful when creating content for video servers or DVD content distribution.

Benefits

Ingest with less work: mediaHUB is designed to make the tedious task of media ingest more streamlined and accurate with configurable work profiles that set up parameters with just one click. All you have to do is select your source material, encode and review while mediaHUB transfers the approved file where you want it automatically.

See what you encode: Real-time confidence decode of the ingested material lets you immediately see and hear what you have captured with control to switch audio channels, abort and re-encode right away. After content is encoded, it can also be reviewed as many times as you want before final approval and transfer.

Control with accuracy: mediaHUB can control VTR sources from RS-422 and FireWire for accurate mark in/out of material to ensure that you get what you want.

Get the highest quality MPEG 2 SD: When it comes to the best on-air look, mediaHUB delivers with CableLabs VOD compliant files or ramp up to full frame D1 quality MPEG 2 standard definition video encoded from low bit rates up to 15Mbps with concurrent multiple Dolby Digital 2/0 (AC-3) and mixed MPEG 1 Layer 2 Musicam audio tracks.

Ingest what you need: mediaHUB interoperates with Adtec's commercial insertion enterprise server, adManage. As a content management server, adManage provides mediaHUB with a prioritized list of commercials scheduled for ad insertion. Once the file is encoded and accepted, the adManage database is updated with valuable metadata including actual duration, ingest time, operator and optional expiration date.

Crash record anytime: For live "crash recording" from satellite or newsroom sources, simply press encode, connect a GPI interface or schedule a time and duration with mediaHUB to automate the encode process.

Encode right from Final Cut Pro: If you spend most of your day in Final Cut, you will appreciate the way mediaHUB offloads your work using Print To Video (Pro and Express) for near frame accurate or Edit to Tape (Pro only) frame accurate media acquisition over FireWire.

Create DPI-ready files: Whether you currently splice local content into a digital transport stream or you are planning for DPI in the future, mediaHUB can create files that work in switched SDI, analog ad insertion and DPI ad servers from Adtec or other vendors.

Feature Highlights

Encode Features

- SDI: SDI input video with embedded SMPTE 259M AES-EBU channel 1, 2, 3, 4 audio.
- Analog: Composite or YC video
- Dual Stereo analog audio input.
- Dual Stereo Digital AES-EBU audio input.
- Supports mixed, SDI embedded, Analog, AES-EBU, or Firewire audio inputs.
- Firewire (DV25): Video, audio and VTR control on one Firewire cable.
- Non-Linear Editors (NLE): Final Cut Print To Video via Firewire or SDI, Composite or YC if third party card (Decklink Pro or equivalent) is available.
- VOD Compliant to MD-Sp-VOD-CEP-101-040107 excluding HD.

VTR Control Features

- Frame accurate Sony Protocol compatible RS-422 control.
- FireWire protocol compatible. Note: Some FireWire decks are not frame accurate and may provide +/- 1 to 3 frame accuracy.
- Source control with Play, Stop, FF, RW, Jog, Shuttle, Set In/Out, Goto In/Out and Duration.

Decode Features

- Composite video and analog audio decode.
- Real time confidence decode during encode with abort.
- Decode playback of encoded file.
- Monitor video from composite or S-Video (YC).
- Select audio track 1 or 2 to quality control both audio tracks.

Availability

MEDIAHUB: Media ingest and prep station w/RS422 control, preview decode, MPEG & Dolby stereo audio w/300GB IDE drive.

MEDIAHUB-FW: Media ingest and prep station w/RS422 control, FireWire in, preview decode, SDI, MPEG & Dolby stereo audio, w/300GB IDE drive.

MEDIAHUB-PRO: Media ingest and prep station w/RS422 deck control, preview decode, SDI, MPEG & Dolby stereo audio w/300GB IDE drive.

What's Included

mediaHUB: Media Ingest & Prep Station

mediaControl Application control & configuration software

Connection Kit: Ethernet cable and serial 9 pin adapter (PN: TERMINALKIT1)

Audio: Five euro audio removable screw terminal (RST)connectors

Audio/video cable: AV break out cable with S-Video, SPDIF, Composite video BNC pigtails (PN: Media Cable) BNC Composite Video, RCA S/PDIF Audio), power cord, Ethernet cable, serial adapter

Manual (CAT-014-H-2.0)

System Requirements

mediaHUB configuration and control application requires one of the following:

Windows XP and 2000 or Linux computer: Intel or AMD 32 bit processor at 2 GHz; 512MB memory; 1024x768 32 Bit color capable graphics card; TCP/IP compatible computer network.

Macintosh OS-X (10.2 or greater) computer: G4 32 bit processor at 1 GHz, G5 64 bit processor (any); 512MB memory; 1024x768 32 Bit color capable graphics card; TCP/IP compatible computer network.

Front Panel Diagram

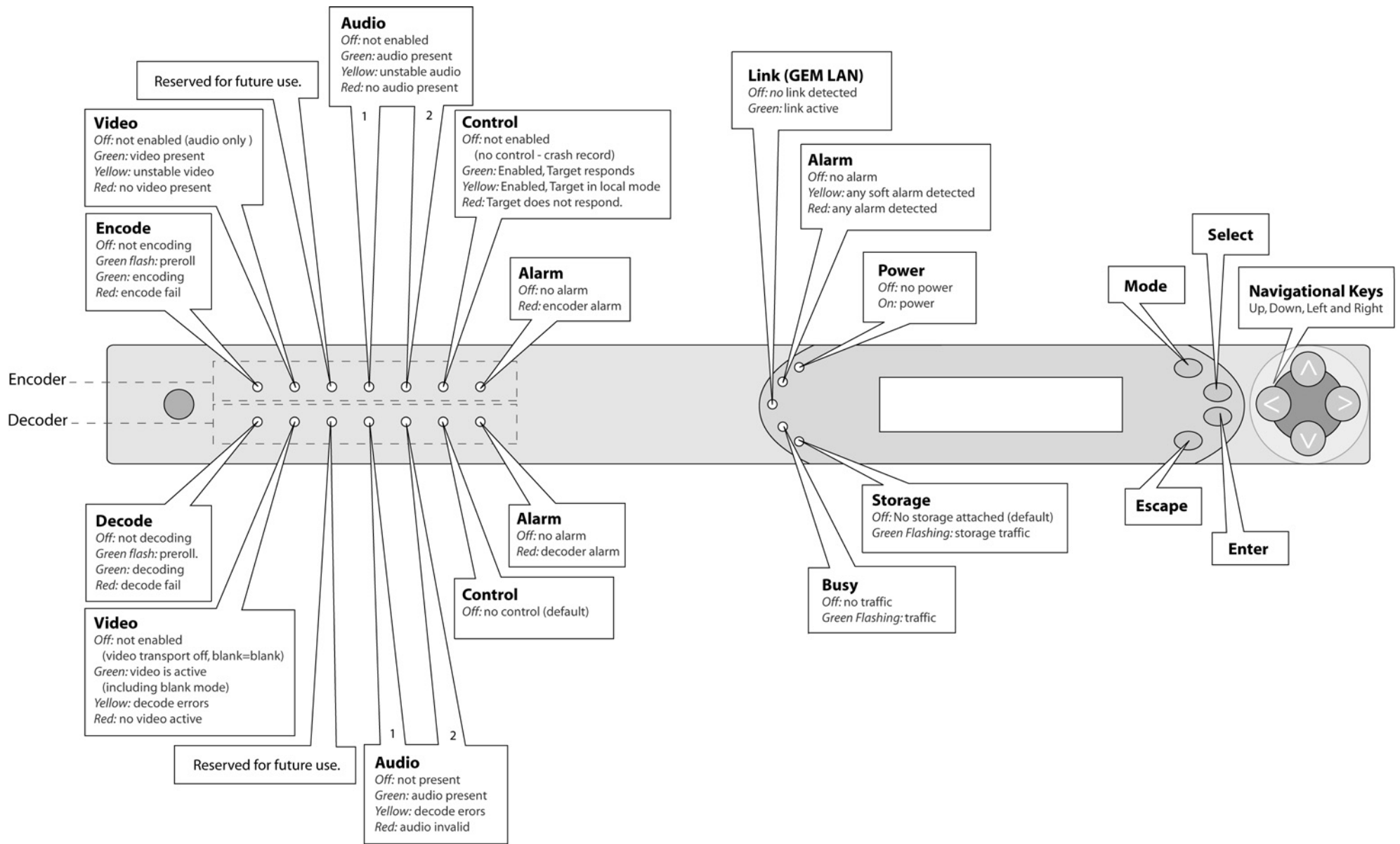


Figure 1.1

Back Panel Diagram

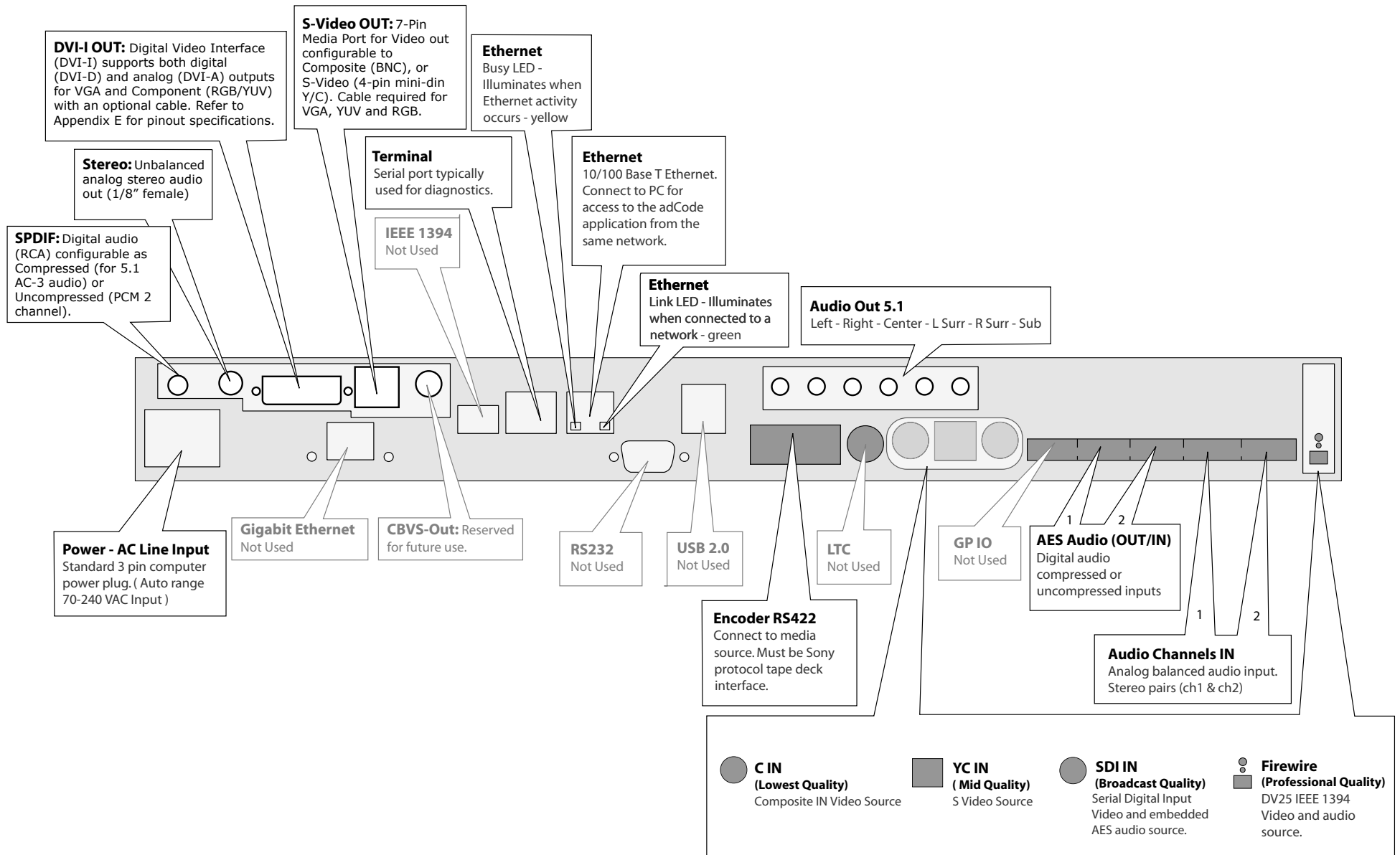


Figure 1.2

Chapter 2 - Installation and Setup

This chapter covers the setup of the mediaHUB Server and installation of the mediaControl Application.

Setting up the mediaHUB Server

The mediaHUB server should be installed into a one-rack unit 19" rack slot. Power should be applied to the unit and configured with a valid IP address via the front panel. Powering on and off the mediaHUB server is simply done by plugging or unplugging the unit. There is no on/off switch or button.

To set the IP address:

- Press the "Mode" button
- Enter the IP address of the Server using the "Select" and arrow buttons.
 - * Make sure that the mediaHUB server is on the same network as the control application computer.
- Press "Enter"
- Power down unit

With the power disconnected, connect the appropriate cables for your setup. Refer to the diagrams on the previous pages for port information. Once your cables are connected, apply power to the unit. Confirm that the IP address is correct on your unit and that the Link LED on the front of the unit is lit before launching the mediaControl application.

Note: Multiple input sources may be connected at the same time. For example, you can connect a VTR via the RS422 at the same time that you have a live feed source connected via FireWire.

mediaControl Application Installation

For Windows: The mediaControl software can be installed on Windows XP and 2000 machines. Refer to the system requirements in Chapter 1 for additional information. Insert the installation CD into your computer. The install program will automatically launch. If it does not, locate the CD drive via "My Computer" and double-click the mediaControl Installer icon. The wizard will walk you through the installation process. After installation, the icon for the application can be found on the desktop and in the start menu in the Adtec > mediaControl folder.

For MAC: The mediaControl software can be installed on MAC OSX (10.2 or greater). Refer to the system requirements in Chapter 1 for additional information. Insert the installation CD into your computer. When the CD appears on the Desktop, double-click on the icon and then on the mediaControl Installer icon. The wizard will take you through the installation process. After installation, the launch icon for the application can be found on the dock and in the Applications/Adtec/bin/ folder.

Getting Started

Launch the mediaControl application. On the following page is an overview of the mediaControl application (Figure 2.1). Take a few minutes to review the layout as terms defined there will be used through out the manual.

mediaControl Application

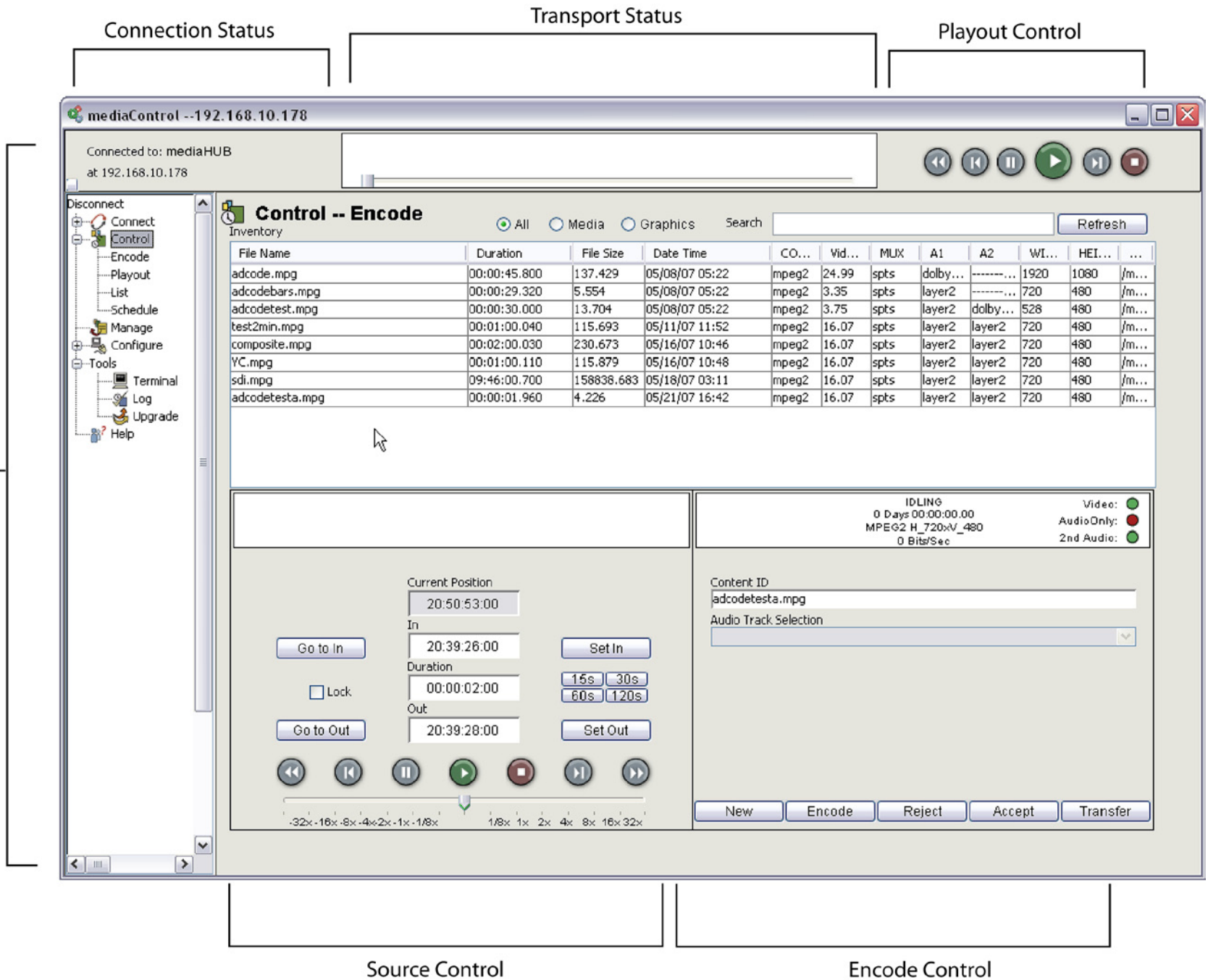


Figure 2.1

Chapter 3 - Configuring mediaHUB

Connections

To connect to your mediaHUB server, launch the mediaControl application. By default, mediaControl attempts to establish the last connection prior to shutdown. Since this is the first time you are launching the application, click on the cancel button when it makes this attempt. Once the application has launched, click on 'Connect' in the navigation panel. You will be able to create a connection from this screen. Each connection you create with mediaControl maintains its own preferences and settings.



To create a new Connection, click on the New button.

Enter a Description for this connection. This is typically a simple name for the server. It is best to limit this name to 15 characters so that it is easy to manage in the navigation window. (ex. mediaHUB 1)

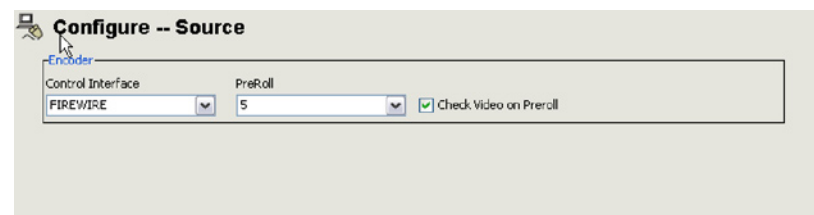
Enter the IP address of the mediaHUB server in the IP Address input box and click the Save button.

To connect to the server, click on the Connect button on this screen or double click on the connection description in the navigation panel. When you are connected, you will see the words CONNECTED TO [Description] appear in the top left section of the screen.

Source

Sources can be any Sony protocol tape deck, a DV-25 firewire source or a live feed such as satellite or a newsroom source.

To configure your source, click on the Source link in the navigation panel.



Control Interface: Select the type of source input you will be using.

None: should be selected if you are recording from a live feed (crash recording) or have no control of input.

VTR: should be selected when connecting a Sony protocol tape deck via the encoder RS422 on the back of the mediaHUB server.

FireWire: should be selected when your source is a VTR connected via FireWire on the DV-25 port on the back of the mediaHUB server.

FireWire NLE: Should be selected if using mediaHUB with a Non Linear Editor.

Note: To have source control over the VTR via the mediaControl application, your VTR control switch must be set to Remote.

PreRoll: Select the number of seconds to pass before encoding begins. This enables the source tape deck to become stable prior to encoding.

Select your preferences and click on the Save button. Once you have a correctly connected source, you will see its status noted in the Source Status on the Encode panel of the application.

Application

Using mediaHUB in conjunction with adManage will streamline your encode process for files to be distributed via adManage. When properly configured, mediaHUB will query adManage and provide a prioritized list of files that are scheduled for ad insertion. When the file is encoded and accepted, the adManage database is updated with valuable metadata including actual duration, ingest time, operator and optional expiration data.

To configure mediaHUB to work with adManage you will need to modify your ODBC settings as well as your mediaControl application settings. Refer to Appendix C for help with setting up ODBC first. When that is complete, click on the Application link in the navigation window.

Duration Button 1	Duration Button 2	Duration Button 3	Duration Button 4
Label	Label	Label	Label
15s	30s	60s	120s
Duration	Duration	Duration	Duration
00:00:15:00	00:00:30:00	00:01:00:00	00:02:00:00

In the adManage Data Source input box, you need to enter the name of your Data Source as outlined in the ODBC settings as the DSN Name. Checking the following checkboxes enables these items while unchecking them turns them off.

Note: Enabling adManage prior to correctly configuring the ODBC settings will keep the application from launching correctly.

Enable adManage: Allows mediaHUB to talk to adManage

Enable adManage Security: Requires users of mediaControl to login using their adManage username and password before being able to access mediaHUB.

Enable adManage Updates: Enables mediaHUB to make database updates in adManage for Meta Data (Advertiser Name, Description, Duration, etc.)

Enable adManage Encoding List: Turns on a query of adManage for files that need to be encoded and lists them in Encode List window of the mediaControl Encode Panel.

The duration markers located in the Source tab of the mediaControl application main panel can be customized from this screen as well. For each button, modify the duration and title to reflect your needs. Click on the Save button to save your changes.

From the mediaControl application main panel, you will be able to view the following information for each file within the Encode List. Some of these fields can be changed and can be saved back into adManage. All of this information is pulled from the traffic schedules of the adManage content management server.

Content ID: The name of the file to be encoded or the name of already encoded files. adManage requires that the Content ID be no more than 8 characters in length with no spaces.

Advertiser/Program: The name of the advertiser or program.

Description: A brief description of the encoded file or spot.

Expiration Date: Defines when this file can expire. This date is used by the adManage Content Expiration Service to help maximize the use of available disk space on each ad inserter.

Never Expire: Check this box if you do not want this file to expire.

Encoded Date/Time: The date and time stamp when the file is encoded.

Schedule Date/Time: This denotes when the file is scheduled for play.

Scheduled Channel/Headend: This shows which channel and headend the file is scheduled for next.

Operator: This is a meta data field to assist in keeping track of work flow.

Transfers

The final configuration that needs to be made before you can encode a file involves the file transfer parameters. After you have encoded a file, you will be asked to accept or reject the file. The mediaControl application looks to the file transfer configuration to know how to treat the newly encoded file. Click on the Configure > Transfer link in the navigation panel. On this screen you can setup multiple transfer options.

On Accept: Select what you want done with the file once it has been reviewed and accepted.

Leave: This option will save the file to the mediaHUB server only.

Copy: This option will save the file on the server and transfer a copy of the file to a location you can designate.

Move: This option will transfer the file from mediaHUB to the location you designate leaving no copy on the mediaHUB server.

If you select to Copy or Move the encoded file, you will need to designate a transfer method and path.

Transfer Method: The current method of transfer is FTP from mediaHUB to your client computer. Additional options may become available in future releases.

Source IP Address: This is the IP address of the mediaHUB Server.

Source Port: This is the port of the mediaHUB server used for FTP.

Server Username: The FTP username.

Sever Password: The FTP password.

Local Media Path: This path is the location on your control computer where files will be saved.

Server Media Path: This field denotes the path to which files should be saved on the mediaHUB server.

Chapter 4 - Encoding Files

Quick Encode Instructions

Once the connection and source have been configured correctly, you are ready to encode a file. There are three basic steps to encoding the file: Make a connection, set up your source, encode the file and review it. Recording from a VTR and Crash Recording vary and are described separately.

VTR Source Encode

Make a Connection - Step 1

- Connect to the mediaHUB server
- Confirm that your mediaHUB Server reports back as CONNECTED.

Set up your Source - Step 2

Prior to encoding a file, you will be using the main panel of the application to verify and control your source.

- Confirm that the Interface, Mode, Cassette, Activity, Video, Audio Only and 2nd Video settings under Status correctly reflect the type of encode you wish to make.
- Position the VTR to the start point of the material using the shuttle controls and click on the Set IN button.
- Set your encode duration. You can enter it manually or use the quick duration buttons (15s, 30s, 60s or 120s). This will automatically fill the OUT input box.

Encode - Step 3

- Enter a name for the file you wish to encode in the Content ID input box in the Encde Control panel. Some Adtec products require files names of up to 8 characters, but mediaHUB can support up to 32 characters in the content ID. Do not include the file extension as mediaHUB automatically appends the file name with the proper extension. The Content ID is all that is required to encode a file.
- Click the ENCODE button. The status of the encode is shown in the top of the tab. The activity status, the length of the encode, the encoding parameters and the bits per second of the encode is shown.

Review - Step 4

- While the file is being encoded, you have the ability to abort the encode by clicking on the Reject button within the Encode Control Panel at any time.
- To view a confidence decode, you will need to have a monitor set up specifically for the decoded file to play through and it should be connected

to the YC or C Out decoder port and the Audio 1 Out port if audio is present. Unless you have the decode delay turned off, the decode will automatically begin playback. Use the controls at the top of the screen to control the playback.

- If the file is as you intended, you can accept the file by clicking on the Accept button. Accepting the file will save the file for you. The location of the saved file depends on the Transfer setting previously configured.
- If it is not as intended, then click the Reject button and start the process again beginning with Step 2.

Live Feed Encode

Connect - Step 1

- Connect to the mediaHUB server.
- Confirm that your mediaHUB Server reports back as CONNECTED.

Source - Step 2

Prior to encoding a file, you will be using the main panel of the application to verify and control your source.

- Confirm that the Interface setting reads as NONE :Schedule encode mode.
- The current time will be displayed in the Current Position input box.
- Enter the time you wish to start your encode into the In input box.
- Set your encode duration. You can enter it manually or use the quick duration buttons (15s, 30s, 60s or 120s). This will automatically fill the OUT input box.

Encode - Step 3

- Verify the status information at the top of the Panel.
- Enter a name for the file you wish to encode in the Content ID input box. Some Adtec products require files names of up to 8 characters, but MediaHUB can support up to 32 characters in the content ID. Do not include the file extension as mediaHUB automatically appends the file name with the proper extension. The Content ID is all that is required to encode a file.
- Click the ENCODE button. This will schedule your encode to occur at the time designated. A popup box will appear letting you know that the encode has been scheduled. You can only schedule one encode at a time.
- Once the file begins encoding, the status of the encode is shown in the top of the panel. The activity status, the length of the encode, the encoding parameters and the bits per second of the encode is shown. When the file has completed encoding, you may review it before accepting or rejecting it.

Review - Step 4

- While the file is being encoded, you have the ability to abort the encode by clicking on the Reject button within the Review tab at any time.
- To view a confidence decode, you will need to have a monitor set up specifically for the decoded file to play through and it should be connected to the YC or C Out decoder port and the Audio 1 Out port if audio is present. Unless you have the decode delay turned off, the decode will automatically begin playback. Within the Review tab, you have standard VTR controls to manage the file.
- If the file is as you intended, you can accept the file by clicking on the Accept button. Accepting the file will save the file for you. The location of the saved file depends on the File Transfer setting previously configured.
- If it is not as intended, then click the Reject button and start the process again beginning with Step 2.

Appendix

- A - Contacting Customer Support
- B - mediaHUB Technical Reference
- C - Configuring ODBC

A - Contacting Customer 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 and Email Support

Telephone: 615.256.6619

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 (9:00 AM to 5:00PM Central Standard Time CST, Monday thru Friday, except holidays. 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.

SUPPORT PLAN	PRIORITY -24	STANDARD-PRIORITY	LIMITED
Hours	24 Hours/Day 7 Days/Week	*9 AM – 5 PM (CST), Excluding Weekends & Holidays**	9 AM – 5 PM (CST) Excluding Weekends & Holidays
Call Response Time: Guaranty*	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: Guaranty*	1 Day Turnaround	3 Day Turnaround	None

One month free service extension will be awarded if Adtec fails to meet its service guarantee.

Standard-Priority Support Plan

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 guaranty* on warranty and non-warranty repairs on Adtec manufactured equipment, excluding Studio Encoders.

Priority - 24 Support Plan (24 Hour)

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 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 guaranty* on warranty and non-warranty repairs on Adtec manufactured equipment, excluding Studio Encoders.

B - mediaHUB Technical Reference

Video Inputs

- Composite (BNC)
- S-Video (4 Pin Mini-Din YC) analog to digital conversion 9 bit with scaling Horizontal and Vertical 16 tap filters.
- (Option) SDI input video with embedded SMPTE 259M AES-EBU audio on BNC.
- (Option) Firewire: DV25 with PCM audio and control on Mini-Firewire connector.

Video Outputs

- One decode configurable to DVI-I, S-Video (4 Pin Mini-Din YC), Composite (BNC).
- Cable required for VGA, YUV, HDMI, RGBHV and RGB.

VBI Support

- Line 21-Closed Captioning DVS053 Rev 6
- V-Chip DVS157
- Teletext: NABTS-DVS053 Rev 6 and PAL
- Neilson Source Identification (SID) DVS053
- Automated Measurement of Lineups (AMOL) DVS053

Video Encoding and Decoding

- MPEG 1 SD 1 Profile: SIF ISO 11172-2
- MPEG 2 SD 2 Profile: Adaptive Field Frame (AFF) ISO13818 MP@ML
- MPEG 2 SD Profile: AFF ISO13818 422P@ML (encode only option)
- Encoder Filters: Temporal; Spatial Vertically and Horizontally Temporal and Horizontal Spatial can be concurrent
- Chroma filtering and full scaling
- Video bit rates: MPEG 2 SD 300K-15 Mbs
- Video bit rates: MPEG 1 SIF 300K-5 Mbs
- Multiplexing Formats: Program (MPEG 1) and Transport (MPEG 2)
- MPEG Program Specific Information (PSI) Table Compliance: PAT, PMT; All PIDs user definable
- DVB Service Information (SI) Table Compliance: SDT, NIT; All PIDs user definable
- SCTE 35 Splice Point injection

Video Resolutions

- Per Macro Block (16x16) Note: Non-standard Vertical resolutions may adversely effect STB decoders, PC decoders have more flexibility when scaling.
- Horizontal NTSC examples: 720x480 (Full D1 NTSC), 544x480, 528x480, 512x480, 496x480, 480x480, 352x480 (Half D1 NTSC).
- Vertical NTSC example: 720x 464
- Horizontal and Vertical example: 528x464 etc.
- PAL resolutions examples: 720x576 (FullID1 PAL), 720x560, 544x544 etc

Audio Inputs

- Analog Audio 1 Stereo Balanced (5 Pin Removable Screw Terminal)
- Analog Audio 2 Stereo (SAP) Balanced (5 Pin Removable Screw Terminal)
- User level control on Analog inputs
- AES-1 digital audio (PCM or uncompressed) for Dolby AC-3 channel 1,2 encoding (5 Pin RST - 110 Ohm).
- AES-2 digital audio (PCM or uncompressed) for Dolby AC-3 channel 3,4 encoding (5 Pin RST - 110 Ohm).
- SDI embedded with video per SMPTE 272M A, B, C, (BNC)
- Digital PCM audio via Firewire

- Audio inputs can be mixed, one Analog, one AES-EBU, or One AES-EBU and one SDI etc.
- ### Audio Outputs
- encoder module has AES (110 Ohm) out of compressed bit stream or PCM audio during encode (does not work after encode)
 - decoder module simultaneous S/PDIF digital audio (RCA female) and unbalanced analog stereo audio (L/R RCA female). Digital audio PCM at 16, 20 and 24 bps up to 5.1 channels compressed.
 - decoder module (3.5 mm) selectable between audio tracks 1 and 2 decode.
 - decoder module fixed unity analog audio level output

Audio Encoding and Decoding

- Dolby Digital 2/0 or 1/0 (AC-3) encoding from analog, SDI embedded audio or AES input.
- MPEG 1 Layer 1 Profile: ISO11172-3
- MPEG 1 Layer 2 Profile: ISO13818-3
- Audio Delay: Adjustable PTS delay up to 700 milliseconds
- 24 Bit A-D Conversion
- Audio Sampling: 16, 22.05, 24, 32, 44.1 and 48 KHz
- MPEG 2 Audio Bit Rate: 64-384 Kbs
- Dolby Digital AC-3 Bit Rate: 64-640 Kbs

mediaHUB Server

- Adtec optimized POSIX compliant embedded Linux 2.6 kernel
- 300 GB internal storage.
- Power: 70-240 VAC 50-60Hz and 65 Watts (20 Watts typical) of power.
- Size: 1RU rack mount chassis. 19" width, 1.75" height, 16" depth (48.26cm X 4.45cm X 40.64cm)
- Weight: 14 lbs (6.35kg)
- Environmental: Active cooling (Fans), 0 to 90 Degrees Fahrenheit, Less than 70% RH, Non-Condensing

Communications

- 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)
- Samba, NAS and FTP file mounts or transfers
- Automatically copy files from mediaHUB server to client PC using FTP.

Front Panel

- Keypad: Mode, Select, Enter, Escape, Up, Down, Left, Right
- Blue Translucent LCD (20 character by 2 row)
- Host Status LEDs Power, Alarm, Link, Busy, Storage.
- Encode Status LEDs: Encode Active, Video Present, LTC Active, Audio 1 & 2, Control, Alarm.
- Decode Status LEDs: Decode Active, Video Present, LTC Active, Audio 1 & 2, Control, Alarm.

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C - Configuring ODBC

The ODBC settings for your computer must be set up to allow for adManage and mediaHUB to communicate.

ODBC installation and configuration for Windows 2000 or XP MySQL Driver:

1. Click on the Start button , and then click Control Panel. Double-click Administrative Tools, and then double-click Data Sources (ODBC).
2. On the User DSN tab, click the Add button.
3. Scroll to and highlight MySQL. See driver installation instructions below if the MySQL driver is not listed. Click the Finish button.
4. On the following screen, modify the following:

Windows DSN name:	gatewaysource
MySQL host (name or IP):	IP address of your TBGS server
MySQL database name:	gateway
User:	gatewaywebuser
Password:	adtec

Click OK to close that panel and Ok again to close the Data Source panel. You will need to restart your computer.

Driver Installation:

If the MySQL driver is not included in the driver list, you will need to install the driver. ODBC Drivers for Windows XP or 2000 can be found on the mediaHUB Installation CD in the Drivers folder.

You will need to install the driver in the ODBC folder located in the C:\Program Files\Common Files\ folder on your computer. Restart your computer and begin again with Step 1.

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