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- Creating Reports



eye Monitor™

Enterprise Ad Insertion Monitoring
Operations Manual

The screenshot shows the eyeMonitor software interface. The main window displays a data table with multiple columns and rows. The columns represent different time periods, likely days of the week, and the rows represent different data points or metrics. The interface includes a menu bar at the top with options like 'Configuration', 'Reports', 'Advanced', 'Window', and 'Help'. There are also search and refresh buttons. The data table is organized into several sections, each with a header row indicating the date and time range. The data values are numerical and appear to be organized in a grid-like structure.

purely digital
create. move. play. save.

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Chapter 1 - Introduction

Overview

The Adtec eyeMonitor software provides real-time, enterprise-wide system monitoring of commercial ad insertion. Ease of use and convenient single screen monitoring makes eyeMonitor the ideal choice for monitoring multiple headends and channels. Features include a graphical status of all headends and channels with detailed analysis and reporting just a click away. Prioritized alarms and comprehensive reporting streamlines trouble shooting and daily operation data. With convenient single-screen exception monitoring, eyeMonitor allows you to keep an eye on the entire enterprise locally or remotely.

Applications

- **Cable Ad Insertion:** Monitor all ad insertion channels and headends from one screen with highlighted status of all scheduled events.
- **Broadcast Ad Insertion:** eyeMonitor provides master control and status of all ad insertion headends and channels with the flexibility to make last minute schedule changes.
- **Digital Ad Insertion:** Use eyeMonitor with any mix of Duet and DPI ad insertion channels for an integrated view of all analog and digital networks.

Benefits

- **Enterprise Monitoring:** eyeMonitor provides a bird's eye view of all ad insertion channels within multiple headends giving you critical status at a glance.
- **Detailed Reports:** Whether you are troubleshooting or tracking your daily activity, eyeMonitor provides on-screen and print reporting of discrepancies, missing media, daily verifications and ad insertion schedule confirmation.
- **One-Click Analysis:** Click on any scheduled avail to view the details and verification results, including the actual daily verification file.
- **Real Time Functionality:** eyeMonitor provides visible real-time status and highlights exceptions so that corrections can be made quickly and easily.
- **Catch Missing Media:** Each headend in eyeMonitor features a count down timer that displays how much time is left before missing material is needed for air.

Availability

eyeMonitor is provided as an available option to the Adtec Traffic Billing and Gateway Server (TBGS). The eyeMonitor software comes with a site license that can be installed on any network connected computer in the enterprise. It uses ODBC database and Windows mapped drive connectivity to the TBGS Server.

Requirements

Use of this software requires the following:

- LAN connectivity to the Adtec Traffic and Billing Gateway Server with adManage.
- Windows XP: Intel Core Duo or AMD processor at 2 GHz; 1 GB memory
- Minimum Monitor Requirement: 22" monitor, 1280 X 1024 screen resolution. Recommended Monitor Requirement: 30" monitor. 1920 X 1440 screen resolution.
- 32 Bit graphics card.

Options

Option	Description
TBGS - 1RU	<ul style="list-style-type: none"> • 400 Watt power supply • Two Hot Swap SATA hard drives • Software RAID 1 (Mirroring) > 160 GB storage capacity • Dual Gigabit Ethernet NICs • Pentium 4 Intel Server mother board • Intel remote Server management • Windows 2000 Server • ServeU FTP Server • MySQL Database version 4.1.20 • Adtec adManage application • Physical 19" x 1.7" x 25.7" 30 Lbs.
TBGS - 2RU	<ul style="list-style-type: none"> • Dual 550 Watt Hot Swap power supplies • Four Hot Swap SATA hard drives • Hardware RAID 5 > 400 GB storage capacity (1.5 TB max) • Dual Gigabit Ethernet NICs • Pentium 4 Intel Server mother board with 1GB RAM. • Intel remote Server management • Windows 2000 Server • ServeU FTP Server • MySQL Database version 4.1.20 • Adtec adManage application • Physical 19" x 3.4" x 25.7" 35 Lbs.
adManage	<p>The adManage traffic and media management application is at the core of the Adtec enterprise management of commercial insertion systems. The application is optionally available to support Interconnects and provides schedule merging, verification splitting and detailed real time network analysis and alarms. The web based interface of adManage is ideal for local or remote access via any web browser. The SQL database provides rock solid stability and rapid access to real time system data. A full complement of user definable alarms provides notification via e-mail, text messaging, paging as well as visual alarming via the browser.</p>
autoDialer	<p>The autoDialer application provides redundancy for LAN or WAN schedule distribution, verification and log file retrieval from the headends and central office. It can also be used with disconnected headends to manage schedules and verifications.</p>

Chapter 2 - Getting Started

General Instructions

Before installing the eyeMonitor software, make sure that the TBGS is up and running and that you have completed user configuration within the adManage application. The usernames, passwords and user levels assigned in adManage have the same status in eyeMonitor. Please refer to the adManage documentation for adding and managing users.

Installer Instructions

Map a Network Drive - Client PC Installation only

To install eyeMonitor on a client Windows PC (not the TBGS) you will need to be on the same TCP/IP network with accessibility to the TBGS and will need to map a network drive to the TBGS data folder before installing the software.

To map a network drive:

1. Right click Start > Explore.
2. Enter \\IPA in the address field where IPA is the IP address of the TBGS server. (Use the format XXX.XXX.XXX.XXX.)
3. Right click on the shared TBGS folder on the server and select "Map Network Drive" from the drop down menu.
4. Enter a Drive letter. Use one that is available (typically X:\) and select "Reconnect at logon".

You may now run the eyeMonitor software installer. The process for installing the software on the Client PC or the TBGS server is the same .

Installation Options

Insert the eyeMonitor Software CD into your CD Drive. When the installer launches, you will need to select one of the following four options for installation. (Figure 2.1)

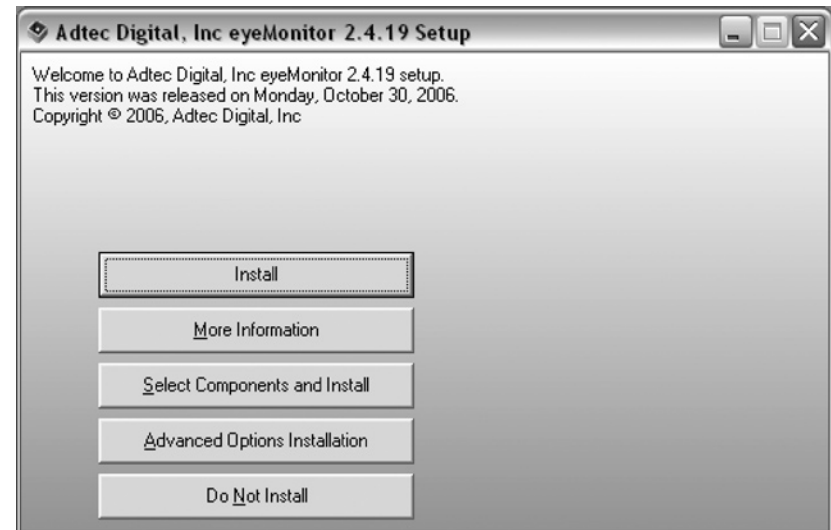


Figure 2.1

Install (recommended) - This option will install eyeMonitor using default settings.

More Information - Provides you with release notes for the current version and the ability to print them.

Select Components and Install - You may select which components of the product you wish to install. You can run this option after an installation has completed to add or remove components.

Advanced Options Installation - Allows you to designate specific folders for the Program Files, Common Files and Start Menu items.

Do Not Install - Closes the install application.

Once you have completed the installation process, you will need launch eyeMonitor and set several configuration values.

Initial Setup

Launch eyeMonitor by double-clicking the icon on the desktop or browse to Start > All Programs > Adtec > eyeMonitor. You will be prompted to complete the Initial Setup.

TBGS

If installing eyeMonitor on the TBGS, you will need to confirm that the Installing on Server check box at the top of the Data Sources pop-up IS checked. This will fill the input boxes with the default Computer Name and Default Path. Click on the Save button to save these settings. (Figure 2.2)

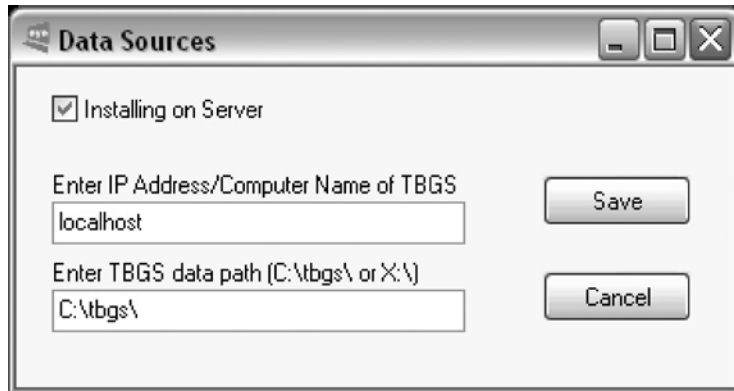


Figure 2.2

You will be asked to restart eyeMonitor for these setting to take effect. Relaunch eyeMonitor and you will be asked to login using your username and password. (Figure 2.3)



Figure 2.3

Client PC

If you are installing eyeMonitor on a Client PC, you will need to make sure that the Installing on Server check box IS NOT checked at the top of the Data Sources pop-up and then enter the correct information for the IP Address/Computer Name and the Data Path for the TBGS. (Figure 2.4)

The IP Address is the address given to the TBGS. Do not include any leading or trailing back slashes when entering the address. See example below. If you do not enter this address correctly, you will not be able to login to the database once you restart the application, but will be prompted with this window again.

The Data Path is the mapped network drive to the TBGS. In the event that you enter the TBGS Data Path incorrectly or you loose connectivity to your mapped network drive, you will receive a message stating that the Data Path does not exist. If this is the case, you will need to confirm that your network drive is correctly mapped and then re-establish the data path connection from within the eyeMonitor application by going to Configure > Data Sources. See Chapter 3 - Configuring eyeMonitor for more detail.

Click on the Save button to save these settings and then relaunch eyeMonitor.

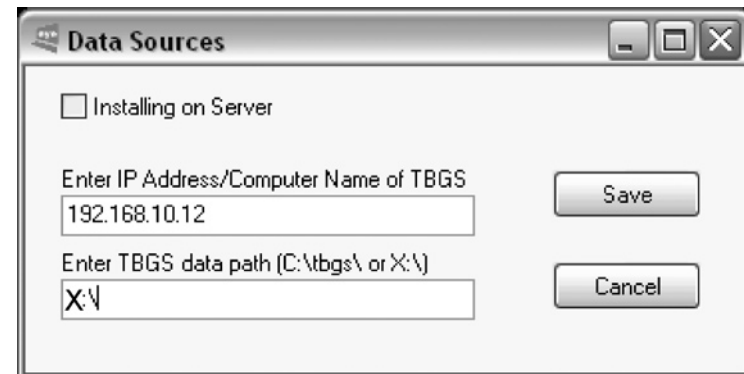


Figure 2.4

If the TBGS data folder is not mapped correctly, you will experience the following issues.

You will be unable to view verification files.
The Encode List Report will show all content as missing.
The Missing Content Report will not show MVL status
You will not be able to access merged schedules for Scheduled Spot Replace.
The Schedule Report will not display schedules status correctly and you will not be able to view schedules.

Users

The usernames and passwords assigned for adManage users are the same username and passwords that they should use within eyeMonitor. On the login screen, you will see that the options for username are generated from adManage and placed in a selection drop down box. As with adManage, there are three levels of access. Below are the permissions granted to each level.

Administrator - Administrators have full access to all functions and configuration variables within eyeMonitor.

Standard - Standard users may make break modifications and replace spots but cannot make configuration changes.

Guest - Guest users have read-only access.

Screen Layout

If this is your first time logging in, notice that eyeMonitor automatically loads all available headends. These headends have been configured and are maintained through the adManage application.

In the next chapter you will be able to modify how your headend monitor displays data as well as the type of data to display. An overall view of a typical set up would look like the example on the following page, (Figure 2.5). Familiarize yourself with the terms used to describe the screen components as they will be used throughout this document.

Note: When viewing the current day, each channel will center align to the current event. You have the ability to view past and future breaks for the schedule day.

eyeMonitor Screen Layout

Quick Button Bar:

Convenient button bar for the most common actions. Load, Refresh and Close Monitor; Spot Search, Encoding List, Priority Alarm, Current Alarms and LogOut.

Missing Media Countdown: This section of the Quick Button Bar displays how much time you have left before a missing spot is needed for air in the whole enterprise.

Run Rate Percentage:

This percentage rate reflects the percentage of events run without error.

Channels:

Channels may be listed horizontally or vertically. Each channel name is pulled from adManage (channel description)

Headend / Zone:

Each headend / zone has it's own window. The headend /zone name is located at the top

The screenshot shows the eyeMonitor application window with a menu bar (File, Configuration, Reports, Advanced, Window, Tools, Help) and a toolbar with buttons for Load Monitor, Refresh Headend Monitor, Close Monitor, Spot Search, Encoding List, VT280308 00:45:31, Current Alarms, and LogOut. The main area displays three channel monitoring windows:

- Zone 3 SDI--003 for 2006-05-11 VP 260105 04:15:50**: A table with 13 rows and 17 columns. The first column shows run rate percentages (e.g., 99%, 99%, 100%, 99%, 98%).
- GCI--015 for 2006-05-11**: A table with 10 rows and 17 columns. The first column shows run rate percentages (e.g., 99%, 99%, 100%, 99%, 97%, 100%, 99%, 99%, 100%).
- Zone 4--004 for 2006-05-11 VT280308 00:45:33**: A table with 10 rows and 17 columns. The first column shows run rate percentages (e.g., 99%, 99%, 100%, 99%, 97%, 100%, 99%, 99%, 99%).

At the bottom, there is a "Date to Analyze" dropdown menu set to "5/11/2006".

Date to Analyze: Drop down section of the date to analyze. Once you change the date, you will need to Close the Monitor and then Load it again to effect a change of date.

Headend Missing Media Countdown: This section of the headend title bar displays how much time you have left before missing spot is needed for air in the headend.

Figure 2.5

Chapter 3 - Configuring eyeMonitor

You will need administrator access to make changes to the configuration of eyeMonitor.

Setting your Data Source Path:

The Data Path is the mapped network drive to the TBGS and is configured upon initial setup. If you receive the message during setup that TBGS data paths do not exist or you have lost connectivity to your network drive, you will need to re-establish the connection to the drive (see Chapter 2 - Installer Instructions) and then configure your data path correctly before using eyeMonitor. From the Configuration Menu, select Data Sources (Figure 3.1)

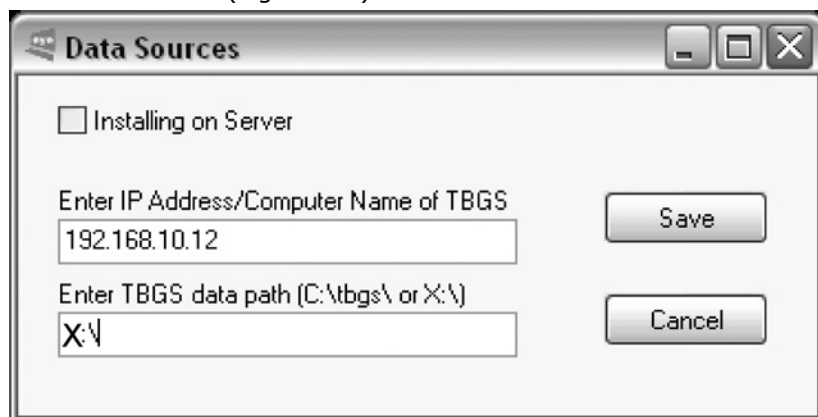


Figure 3.1

Note: When configuring your data source from within the eyeMonitor application, do not edit the IP Address of the TBGS. The fact that you are logged in means that it is valid.

Correct the TBGS data path if needed, and click on the Save button to save these settings. You will need to Logout of eyeMonitor and relaunch for the changes to take effect.

If the TBGS data folder is not mapped correctly, you will experience the following issues.

You will be unable to view verification files.
The Encode List Report will show all content as missing.
The Missing Content Report will not show MVL status
You will not be able to access merged schedules for Scheduled Spot Replace.
The Schedule Report will not display schedules status correctly and you will not be able to view schedules.

Customizing Your Content

Headend Configuration:

To configure your content, begin by selecting the headends you wish to view. From the Configuration Menu, select Headend Configuration (Figure 3.2) The Headend Monitor Configuration panel allows you to set up the headends you would like to display within the monitor.

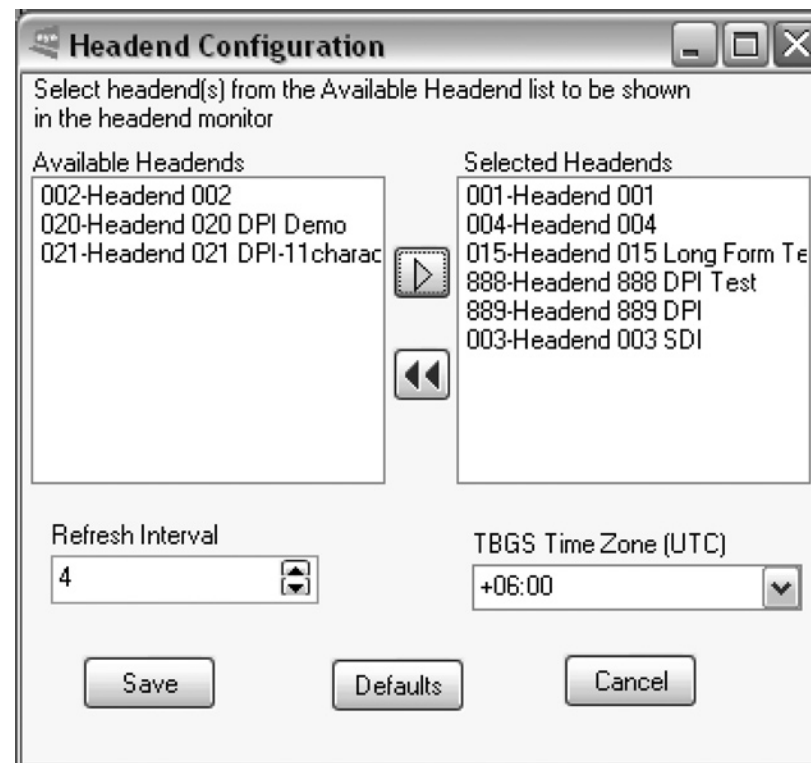


Figure 3.2

Available and Selected Headends:

A two panel configuration screen shows Available Headends on the left and Selected Headends on the right. By default all headends are shown. To customize your headend view, choose those headends you wish to view from the left panel and click on the right arrow button to move them to the Selected Headend(s) list. You may select multiple headends at the same time by holding down the CTRL key. To remove a headend from the monitor, select it from the right panel and click the double red arrow to place it back in the Available Headend panel. **The recommended settings is for all headends to be displayed.**

Refresh Interval:

Select how often in minutes you want the monitor to refresh. This interval is used with the Auto Monitor Refresh function. **The recommended setting is 4 minutes.**

TBGS Time Zone (UTC):

Select the hour interval of the location of the TBGS from UTC time. See Time Conversion Chart.

Local Time Zone**Conversion from UTC**

ADT - Atlantic Daylight	-3 hrs
AST - Atlantic Standard	
EDT - Eastern Daylight	-4 hrs
EST - Eastern Standard	
CDT - Central Daylight	-5 hrs
CST - Central Standard	
MDT - Mountain Daylight	-6 hrs
MST - Mountain Standard	
PDT - Pacific Daylight	-7 hrs
PST - Pacific Standard	
ADT - Alaskan Daylight	-8 hrs
ALA - Alaskan Standard	-9 hrs
HAW - Hawaiian Standard	-10 hrs
Nome, Alaska	-11 hrs
CET - Central European	
FWT - French Winter	
MET - Middle European	
MEWT - Middle European Winter	
SWT - Swedish Winter	+1 hr
EET - Eastern European, USSR Zone 1	+2 hrs
BT - Baghdad, USSR Zone 2	+3 hrs
ZP4 - USSR Zone 3	+4 hrs
ZP5 - USSR Zone 4	+5 hrs
ZP6 - USSR Zone 5	+6 hrs
WAST - West Australian Standard	+7 hrs
CCT - China Coast, USSR Zone 7	+8 hrs
JST - Japan Standard, USSR Zone 8	+9 hrs
EAST - East Australian Standard GST	
Guam Standard, USSR Zone 9	+10 hrs
IDLE - International Date Line	
NZST - New Zealand Standard	
NZT - New Zealand	+12 hrs

Once you have made your changes, save your changes.

To view your configured headends, you will need to close the monitor and then load the monitor. There are two ways to close the monitor. You can select Close Monitor from the File menu or simply click on the Close Monitor button located within the Quick Button Bar. Loading the monitor can also be done via the File Menu or the Quick Button Bar.

Verification Types:

Verification files (.VER) are based on the images of schedule files and include the results of that day's inserts. As each break airs, fails, or expires, the appropriate code for each spot is updated and written to the verification file in the ad inserter and then sent back to the TBGS.

From the Configuration Menu, select the type of verification file you would like data to be pulled from: the Local Verification file, an Interconnect Verification file or the Raw Verification file which is the result of merged Local and Interconnect verifications. **The recommended setting is Raw Verification.**

Monitor Refresh Options:

(Enabled, Disabled) The break information within the monitor can be updated automatically or manually. To turn auto refresh on, select Configure > Monitor Refresh > Enable. Enabling the Refresh option will refresh the content based on the Refresh Interval you have designated in the previous Headend Configuration panel. Disabling the Refresh option will keep the content static unless you refresh the monitor or close and load the eyeMonitor application again. If enabled, eyeMonitor will automatically refresh and align each channel to the current on air event. To manually refresh the monitor, click Refresh Monitor **The recommended setting is Enabled.**

Scheduled Time Format:

(Show Seconds, No Seconds) Selecting Show Seconds will list each break in the grid with the format HH:MM:SS. Selecting No Seconds will prevent the seconds from being displayed in the break. **The recommended setting is No Seconds**

Customizing Your View

To modify how the individual headends are viewed within eyeMonitor, you can use Configuration > Grid Tiling or the Window Settings to arrange them. Another option is to drag, drop and re size the individual headends to your liking. Once you are satisfied with your view, you must save your layout before closing the monitor or your arrangement will be lost. To save the layout, Select Window > Save Layout from the menu. Keep in mind that only administrators can save the layout.

Color Configuration:

The Color Configuration screen (Figure 3.3) defines all of the event codes and their corresponding colors. These colors are used as backgrounds per break on each headend within eyeMonitor to help define status conditions. Consider using the same color configuration at all of your monitor work stations as well as the TBGS to avoid confusion.

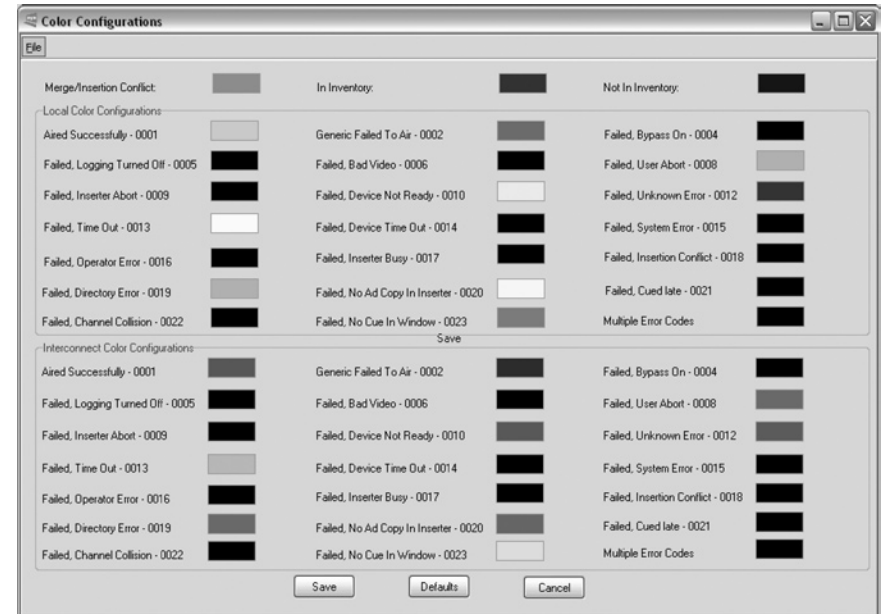


Figure 3.3

Note: When selecting your colors, keep in mind that the text within each break is set to black so selecting lighter colors as condition backgrounds will provide the most readable text.

To change a color for a specific event or condition, select Color Configuration from the Configuration menu. Locate the condition you wish to set the color for and click on it's corresponding color box. A color selector will appear. Select your preference and click OK.

Once you have completed your color choices, click on Save to save and close the configuration window. To restore your color selections to their default settings, you will need to click on the "Defaults" button and then the Save button. For a full explanation of the events listed on the Color Configuration screen see Appendix E , Verification Status Codes.

Scrolling Options:

When viewing eyeMonitor, you can select whether or not you wish to view each headend panel as an individual scrolling window or if you want the ability to scroll all headend panels at once. To set your preference, go to Configuration > Scrolling Options and select Individual Scroll or Scroll All.

Grid Tiling Options:

Grid Tiling allows you to select either horizontal or vertical tiling of headends within the monitor window. Horizontal Tiling will stack the headends one on top of another. Vertical will place them in a row side-by-side.

Channel Tiling:

Select the preferred orientation of the channels within each headend. Horizontal will list the channels vertically in the left-most column, and the break content for that channel a horizontal row. Vertical will list the channels horizontally across-the-top and the break content of each channel in a vertical column.

Note: The typical setup is for Grid Tiling to be set to Horizontal and Channel Tiling to Horizontal. This setup allows you to see more breaks at one time. (Figure 2.5)

Chapter 4 - Using eyeMonitor

eyeMonitor displays multiple headends and the schedule and verification content of those headends for a 24 hour period (CCMS Schedule Period).

Monitoring Headends & Spots

The headend grids within the Monitor display the breaks for each headend for the date designated in the Date to Analyze field at the bottom of the monitor screen. When eyeMonitor was configured, the background colors for each of these breaks was set based upon their current condition. In addition to this stand-out feature, a countdown timer to the next missing spot is displayed in the headend header bar. Among these alarms, the most time-crucial alarm is then placed in the quick buttons section of the monitor.

A missing media countdown timer for all headends is displayed in the quick buttons section and can be clicked on for more details.

Break Detail:

While in the headend grid, double click on any break to get the details of the break. (Figure 4.1) shows the Break Detail Window.

The following information is provided within the Break Detail Window. See Appendix D for more information.

Schedule Time: T&Bs approximation of the time of day when the event will occur (formatted - HH:MM:SS)

Window Start Time: Time of day to begin window of opportunity for event to occur (formatted - HH:MM)

Window Duration: Length of window of opportunity for event to occur (formatted - HH:MM)

Window End Time: The ending of the window of opportunity for the event to occur (formatted - HH:MM)

Position in Window: Break sequence number within window of opportunity for event to occur.

The break detail grid has the following columns:

Position: Position sequence number for event within a break.

Spot ID: T&Bs spot identification code used by adManage as the commercial file name.

Client: Advertiser's name as identified in Traffic and Billing Schedule.

Spot Title: Name of Spot as identified in Traffic and Billing Schedule.

Scheduled Length: Scheduled event length (formatted - HH:MM:SS)

Scheduled/Fill: Identifies the spot as either being scheduled contractually or used as filler in order to complete a commercial break.

Tag: The channel-headend (cchhh) tag used by adManage for unmerging verifications into local and interconnect destinations.

Status Code: Completion status code. See Appendix E for Status Code details

Verified Time: Time of the actual insert or if an insert failed then the word FAILED will be shown.

View Verification File - This button will open a new window with the native VER file. These .VER files follow the format outlined in Appendix F.

Note: You must have a valid mapped network drive to the TBGS to view the actual verification file.

132 86% - Break View of Verification: 51102003.VER Break # 1

Scheduled Time: 00:01:00 Window Start Time: 00:00 Window Duration: 00:03 Window End Time: 00:03 Position in Window: 001 Verification File

Position	Spot ID	Client	Spot Title	Schedule Length	Scheduled/Fill	Tag	Status Code	Verified Time
Pos 001	000VP230304	Friendly's Ice Cream	Flying High	00:00:30	Sch.	02003	0001 Successful Air	00:01:03
Pos 002	000VP260105	Mercedes-Benz	Spot #5	00:00:30	Sch.	02003	0020 No AdCopy	FAILED
Pos 003	000VP230306	LMDA-Orlando	Animals	00:00:30	Sch.	02003	0001 Successful Air	00:01:34
Pos 004	000VT280307	SEBC JDAA	Teens Drinkin	00:00:30	Sch.	02003	0001 Successful Air	00:02:04
Pos 005	000VT380315	Universal Orlando	Outback	00:01:00	Sch.	02003	0001 Successful Air	00:02:34

Figure 4.1

Right Click Menu Options:

While your cursor is placed within any headend/zone grid, you have several options available from the right-click menu. (Figure 4.2)

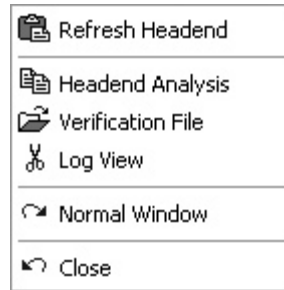


Figure 4.2

Refresh Headend: Refreshes the break information for the specified headends and moves the view to the current event.

Headend Analysis: The headend analysis screen (Figure 4.3) gives you a quick summary of events per headend. It displays the totals for key headend events as well as channel specific events. The events detailed in this report are:

Headend	Total Inserts	Total Generic Fails	Total No Ad Copy	Total No Cue	Total Unknown	Total Headend Events	Headend Run Rate
Headend 004	3700	24	0	0	0	3724	91%

Channel	Inserts	Generic Fails	No Ad Copy	No Cue	Unknown Error	Total Events	Run Rate
03-143	131	0	0	0	0	133	98%
04-144	131	0	0	0	0	133	98%
05-145	131	0	0	0	0	133	98%
06-146	131	0	0	0	0	133	98%
07-147	131	0	0	0	0	133	98%
08-148	131	0	0	0	0	133	98%
09-149	131	0	0	0	0	133	98%
10-150	131	0	0	0	0	133	98%
11-151	131	0	0	0	0	133	98%
12-152	131	0	0	0	0	133	98%
13-153	131	0	0	0	0	133	98%
14-154	131	0	0	0	0	133	98%

Figure 4.3

Channel: A list of channels within the selected headend.

Inserts: The number of successful inserts that have occurred in the current 24 hour period.

Generic Fails: The number of scheduled event which failed.

No Ad Copy: The total of inserts that failed because there was no ad copy available. Causes include material not copied into the MVL. The material is not inserted because of a communication error. The material is on the headend purge list.

No Cue: The number of failed inserts due to an undetected cue tone within the service window.

Unknown Errors: Total of undetermined event errors.

Event Totals: The number of events that have occurred within the 24 hour period.

Run Rate: The percentage of successful inserts to possible inserts.

Verification File: The Verification File option on the Right Click menu in the headend will pull up that verification file. (Figure 4.4)

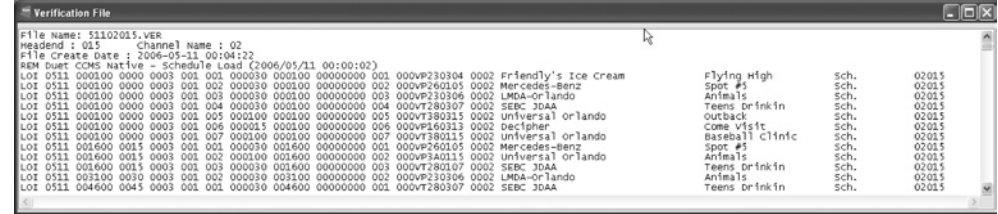


Figure 4.4

Refer to Appendix D: CCMS Schedule and Verification Format for content descriptions and Appendix E: Verification Status Codes.

Note: You must have a valid mapped network drive to the TBGS to view the actual verification file.

Log View: Duet ad inserters FTP filtered log files back to the Traffic and Billing Gateway Server. These log files or .LFR extension text files display the following content per channel.

Note: You have the ability to turn logging off within each Duet Ad Inserter. If it has been turned off, then there will be no content in the Log View window.

Log Code	Date	Time	Message	File Name
004250	06/05/11	00:00:02	CCMS_SCH_LOAD	51111015.SCH
004246	06/05/11	00:00:05		
004160	06/05/11	00:01:00		
001000	06/05/11	00:01:00	00	00
001004	06/05/11	00:01:00	00	00
004129	06/05/11	00:01:00	VP261000	
004129	06/05/11	00:01:00	VT380315	
004129	06/05/11	00:01:00	VP160313	
004246	06/05/11	00:01:03		
004177	06/05/11	00:01:03		
001000	06/05/11	00:01:04	00	00
002000	06/05/11	00:01:34	00	00
004128	06/05/11	00:01:34	VP230304	
002000	06/05/11	00:02:04	00	18
004128	06/05/11	00:02:04	VP230306	
002000	06/05/11	00:02:34	00	10
004128	06/05/11	00:02:34	VT280307	
002001	06/05/11	00:03:37	00	06
004128	06/05/11	00:03:37	VT380115	
004195	06/05/11	00:03:37		
004160	06/05/11	00:06:00		
004148	06/05/11	00:06:00		

Figure 4.5

Log Code: Refer to Appendix F - Duet Log Trace Messages for a complete list of error codes.

Date: Date when the logged event occurred.

Time: Time when the logged event occurred.

Message: The log message

File Name: The associated filename for the log message.

Normal Window: Normal window allows you to restore any maximized window to it's previously saved position.

Close: Closes the headend.

Spot Search

You can launch a Spot Search from the Quick Button bar at the top of the Monitor or select File > Spot Search. Within this window you can either search for the history of a specific spot (previous 14 days) or it's scheduled status (future 14 days). To generate a spot search report, first select whether you are looking for the history of a spot or it's future schedule. Then select the spot ID from the drop down menu. This drop down menu contains all of the spots located in the MVL.

The data is sorted by the Tag ID number in ascending order. The columns are:

Spot Length: The length of the spot (Formatted as HH:MM:SS)

Scheduled Date: The date the spot is scheduled if you are viewing Scheduled or the date the spot ran if you are viewing the spot history.

Advertiser's Name: The name of the advertiser

Advertiser's Spot Name: The advertiser's description of the spot.

Tag: The tag is the Channel-Headend (CCHHH) where the spot is scheduled.

Expiration Date: If the ad is scheduled to expire, this lists the expiration date. (Formatted YYYY-MM-DD)

First Air Time: The first air time is the first time in the schedule day that the spot played.

Occurrences: The number of times the spot was a part of the schedule or history depending upon your search criteria.

Spot Length	Scheduled Date	Advertiser Name	Advertiser Spo...	Tag	Expiration Date	First Air Time	Occurrences
00:01:00	2006-05-09	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-10	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-11	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-12	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-13	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-14	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-15	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-16	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-17	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-18	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-19	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-20	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-21	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-22	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-23	Universal Orlando	Outback	01001	1899-12-30	00:01:00	11
00:01:00	2006-05-09	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-10	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-11	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-12	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-13	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-14	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-15	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-16	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-17	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-18	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-19	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-20	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-21	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-22	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-23	Universal Orlando	Outback	02001	1899-12-30	00:01:00	11
00:01:00	2006-05-09	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-10	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-11	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-12	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-13	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-14	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11
00:01:00	2006-05-15	Universal Orlando	Outback	03001	1899-12-30	00:01:00	11

Figure 4.6

Advanced Features

Scheduled Spot Replace: As an advanced feature, you may replace a scheduled spot with a different one within the schedule. (Figure 4.7) This is mostly useful when needing an immediate solution for a MISSING spot. It should not be used under normal operating procedures where schedule changes are handled by the Traffic system.

NOTE: Scheduled Spot Replace will replace all of a selected scheduled spot with the replacement spot. This process may not be reversed without recreating local or interconnect schedules.

This is a manual process which modifies changes the schedule in the merged schedule folder of the TBGS. That schedule will be sent to the Duet during the next schedule transfer.

The frequent use of spot replace will cause eyeMonitor and it's the alarm run rate report to report success rates higher than your traffic and billing's run rate report.

Under normal operation, schedules should be changed in your traffic and billing software in order to have accurate scheduling and verification processes.

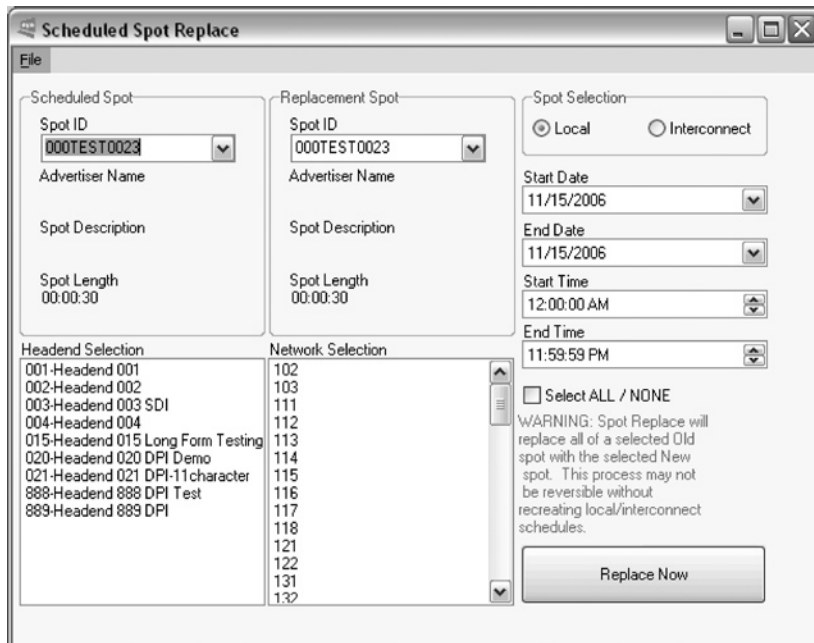


Figure 4.7

To replace a spot, select the name of the spot you wish to replace in the Scheduled Spot section. The available spot names are generated from the database and placed in a drop down menu. Once you have selected the spot, the metadata for that spot will be shown for confirmation purposes.

Now select the replacement spot from it's drop down menu list and double check the metadata to confirm you have selected the correct file.

In the section below, choose which headend(s) and/or channel(s) you want to make a replacement on. If you want to make the change for all headends and channels, check the Select All/None check box and all will be highlighted. The Spot Selection section of this screen allows you to narrow the criteria for the replacement. If you want to limit the replacement to a specific date and time range, you can make those selections prior to the replacement. The spot selection of Local or Interconnect will list the scheduled spots originating from one of those schedule sources. Clicking on the Replace Now button will make the replacement and then close the Schedule Spot Replace dialog box.

Tools

Launch autoDialer:

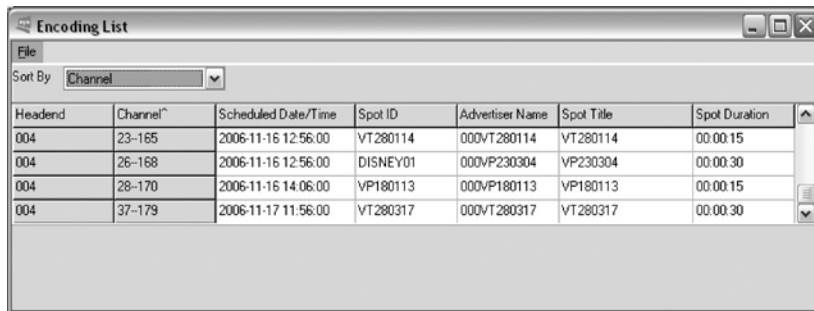
The Launch autoDialer menu option will start the autoDialer application.

Chapter 5 - Creating Reports

When generating reports, keep in mind that the report data reflects all headends, not only the ones you have designated as part of your monitor view.

Encode List

The encode list report (Figure 5.1) shows a list of spots that have been scheduled but do not exist yet within the Master Video Library on the TBGS. Once these file have been encoded, they should be saved in the MasterVideoLibray folder of the TBGS.

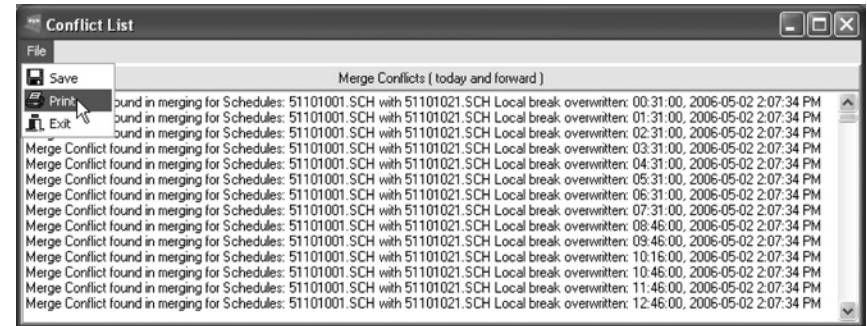


Headend	Channel	Scheduled Date/Time	Spot ID	Advertiser Name	Spot Title	Spot Duration
004	23-165	2006-11-16 12:56:00	VT280114	000VT280114	VT280114	00:00:15
004	26-168	2006-11-16 12:56:00	DISNEY01	000VP230304	VP230304	00:00:30
004	28-170	2006-11-16 14:06:00	VP180113	000VP180113	VP180113	00:00:15
004	37-179	2006-11-17 11:56:00	VT280317	000VT280317	VT280317	00:00:30

Figure 5.1

Conflict List

The conflict list report (Figure 5.2) shows a list of all merge conflicts between local and interconnect schedules. When configuring your headends within adManage, you were able to select which set of schedules takes precedence. This list shows the which file was overridden and the date and time it occurred. This list can be printed by selecting Print from the File Menu.



File	Merge Conflicts (today and forward)
Print	bund in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 00:31:00, 2006-05-02 2:07:34 PM
Print	bund in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 01:31:00, 2006-05-02 2:07:34 PM
Print	bund in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 02:31:00, 2006-05-02 2:07:34 PM
Print	bund in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 03:31:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 04:31:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 05:31:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 06:31:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 07:31:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 08:46:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 09:46:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 10:16:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 10:46:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 11:46:00, 2006-05-02 2:07:34 PM
Print	Merge Conflict found in merging for Schedules: 51101001.SCH with 51101021.SCH Local break overwritten: 12:46:00, 2006-05-02 2:07:34 PM

Figure 5.2

Missing Content

The missing content report (Figure 5.3) shows a list of content which is scheduled but not located on the ad inserters.

Channel	Scheduled Date/Time	Spot ID	Advertiser Name	Advertiser Spot Name	In MVL
004	27-169	2006-05-11 15:36:00	VP230320.MPG	Bank Of America Flying High	Yes
004	27-169	2006-05-11 15:46:00	VP2A0101.MPG	Decipher Outback	Yes
004	27-169	2006-05-11 16:16:00	VP1F0113.MEG		
004	27-169	2006-05-11 17:31:00	VT280109.MPG	Decipher Spot #5	Yes
004	27-169	2006-05-11 18:16:00	VT180313.MPG	Dodge DAA SUVs	Yes
004	27-169	2006-05-11 21:01:00	VT280319.MPG	Dodge DAA Come Fly	Yes
004	27-169	2006-05-11 21:16:00	VT280121	Taco Bell Outback	Yes
004	27-169	2006-05-11 22:46:00	VT280310.MPG	Decipher Spot #5	Yes
002	01-121	2006-05-11 23:31:00	VP130313.MPG	Bank Of America Flying High	Yes
002	02-122	2006-05-11 23:31:00	VP130313.MPG	Decipher Spot #5	Yes

Figure 5.3

By default, this list is sorted by Schedule Date and Time so that the most time-critical information is at the top of the list. The list can be sorted by any of its categories by making that selection in the drop down box at the top of the screen. This reports tells you the Headend, Channel, Scheduled Date and Time, Spot ID, Advertisers Name, Advertisers Spot Name and whether or not the Spot is in the MVL. Any content which is defined as NOT being in the MVL will also appear on the Encoding List.

This list can be printed by selecting Print from the File Menu.

Current Alarms

The current alarms report (Figure 5.4) shows a list of operations alarms which have not been acknowledged. This list includes notification of all alarms assigned to the logged in user as configured in adManage. Alarms can include Missing Local Schedules, Missing Interconnect Schedules, Missing Merged Schedules, Missing RDY Files, Connection Errors, etc..

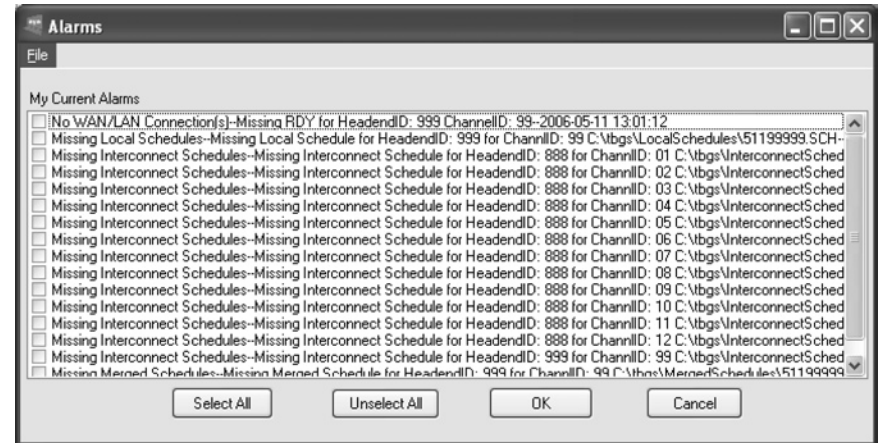


Figure 5.4

As each of these alarms is handled, you can remove them from the Current Alarms report by checking the checkbox next to it. The next time the report is run, the checked items will not appear.

Schedule Report

The schedule report (Figure 5.5) shows whether or not the schedules for your ad inserters have been properly loaded. The report can be expanded to show up to a 14 day period. To change the date range, select the dates from the drop down boxes and click on the refresh button.

Channel	2006-03-06	
01	MISSING MERGED	
001	02	MISSING MERGED
001	03	MISSING MERGED
001	04	MISSING MERGED
001	05	MISSING MERGED
001	06	MISSING MERGED
001	07	MISSING MERGED
001	08	MISSING MERGED
002	01	MISSING MERGED
002	02	MISSING MERGED
003	01	MISSING MERGED
003	02	MISSING MERGED

Figure 5.5

There are three possible messages that will appear.

Missing Merged - This message means that the schedule is not in the MergedSchedules Folder on the TBGS. Possible causes of this is that the original Local or Interconnect schedules have not been produced by the Traffic system or that there is a technical issue with the adManage merger service.

MC Date - Time Stamp - The .SCH file is located on the inserters but there were Merge Conflicts. To view the individual .SCH files for each channel, you can double click on the date/time stamp and the .SCH file will open in a new window. The top of the window will outline the Merge Conflicts that occurred.

Date Time Stamp - The .SCH file with that time date stamp is located on the inserters and there were no conflicts. To view the individual .SCH files for each channel, you can double click on the date/time stamp and the .SCH file will open in a new window.

Missing - The schedule is missing from the ad inserter. The possible cause could be a network communication error between the TBGS and the Duet/DPI.

This list can be printed by selecting Print from the File Menu.

Verification Report

The verification report (Figure 5.6) shows whether or not the verification files for each ad inserters has been properly relayed back to the TBGS. The report can be expanded to show up to a 14 day period. To change the date range, select the dates from the drop down boxes and click on the refresh button.

Headend	Channel	2006-11-13	2006-11-14	2006-11-15	2006-11-16
001	01-111	MISSING	COMPLETE	COMPLETE	PARTIAL
001	02-112	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	03-113	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	04-114	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	05-115	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	06-116	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	07-117	COMPLETE	COMPLETE	COMPLETE	PARTIAL
001	08-118	COMPLETE	COMPLETE	COMPLETE	PARTIAL
002	01-121	COMPLETE	COMPLETE	COMPLETE	PARTIAL
002	02-122	COMPLETE	COMPLETE	COMPLETE	PARTIAL
003	01-131	COMPLETE	COMPLETE	COMPLETE	PARTIAL
003	02-132	COMPLETE	COMPLETE	COMPLETE	PARTIAL
003	03-133	COMPLETE	COMPLETE	COMPLETE	PARTIAL
003	04-134	COMPLETE	COMPLETE	COMPLETE	PARTIAL

Figure 5.6

There are three possible messages that will appear

Missing - The verification file is missing from the TBGS. Possible causes for this could be a network communication error or a problem with the ad inserter.

Partial - The verification file is partially complete. This message occurs on the current day when the full day of verification status codes have not been updated. If a partial verification is shown from a previous day, the ad inserter did not return the final verification for the day. Possible causes could be a network communication error or a problem with the ad inserter.

Complete - The verification files is complete with all of the verification status codes updated for the day.

The verification reports can be printed by selecting Print from the File Menu.

Discrepancy Report

The discrepancy report (Figure 5.7) shows all events except for those that played successfully so you can quickly identify issues that are preventing the ads from playing correctly. The report can be sorted by headend or channel and can be narrowed via specific headend and start and end dates. This report can be printed by clicking on File > Print.

Headerid	Channel	Scheduled Date	Scheduled Time	Window Start Time	Window Duration	Break Number	Position	Length	Spot Id	Status Code	Advertiser Name	Notes
003	01	0510	23:46:00	23:45	00:03	001	004	00:00:15	000V/P160313	0020	Decipher	Come Visit
003	01	0510	23:31:00	23:30	00:03	001	002	00:00:15	000V/P130313	0020	Decipher	Spot #5
003	01	0511	23:46:00	23:45	00:03	001	004	00:00:15	000V/P160313	0002	Decipher	Come Visit
003	01	0511	23:46:00	23:45	00:03	001	003	00:01:00	000V/T380315	0002	Universal Orlando	Outback
003	01	0511	23:46:00	23:45	00:03	001	002	00:00:30	000V/T280118	0002	Bank Of America	Baseball Clinic
003	01	0511	23:46:00	23:45	00:03	001	001	00:00:30	000V/P2F0317	0002	Bank Of America	Teens Drinkin
003	01	0511	23:31:00	23:30	00:03	001	004	00:00:30	000V/T280301	0002	Taco Bell	Spot #5
003	01	0511	23:31:00	23:30	00:03	001	003	00:00:30	000V/P240103	0002	Popeyes	Spot #5
003	01	0511	23:31:00	23:30	00:03	001	002	00:00:15	000V/P130313	0002	Decipher	Spot #5
003	01	0511	23:31:00	23:30	00:03	001	001	00:00:15	000V/P180113	0002	Decipher	Spot #5
003	01	0511	23:16:00	23:15	00:03	001	002	00:00:30	000V/T280314	0002	Dodge Orlando	Outback

Figure 5.7

For each unsuccessful event, the report displays the Headend, Channel, Schedule Date, Scheduled Time, Window Start Time, Window Duration, Break Number, Position, Length, Spot ID, Status Code, Advertiser Name and Notes.

Appendix

- A - Contacting Customer Support
- B - TBGS/adManage Technical Reference
- C - Ad Insertion Enterprise Solution
- C1 - Traffic & Billing Central
- C2 - Connected Headend
- C3 - Satellite Serviced Headend
- C4 - Disconnected Headend
- D - CCMS Schedule Format
- E - Verification Status Codes
- F - Duet Status Codes
- G - Standard Operating Procedures

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. Please check the adtec website for a current list of Adtec 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**TBGS/adManage Technical Reference****TBGS-1 Hardware Features**

- Rack mount 1 RU chassis
- 400 Watt power supply
- Hot Swap SATA hard drives
- Software RAID 1 (Mirroring)
> 160 GB storage capacity
- Dual Gigabit Ethernet NICs
- Intel Server mother board
- Intel remote Server management
- Windows 2000 Server
- FTP Server
- SQL Database
- Adtec AdManage application
- Physical 19" x 1.7" x 25.7" 30 Lbs.

TBGS-2 Hardware Features

- Rack mount 2 RU chassis
- 550 Watt Hot Swap power supplies
- Hot Swap SATA hard drives
- Hardware RAID 5
> 400 GB storage capacity (1.5 TB max)
- Dual Gigabit Ethernet NICs
- Intel Server mother board
- Intel remote Server management
- Windows 2000 Server
- FTP Server
- SQL Database
- Adtec AdManage application
- Physical 19" x 3.4" x 25.7" 35 Lbs.

Features and specifications are subject to change without written notice.

Ad Insertion Enterprise Solution

1 - adManage/TBGS

At the core of the adVantage solution is the TBGS traffic and billing gateway server and the adManage software application. This is the gateway that invisibly coordinates the complex flow of media and data across the enterprise. adManage streamlines the process of getting the right ads, schedules and verifications to the right places at the right times, resulting in high customer satisfaction levels and increased revenues. The powerful server architecture and SQL database offers rapid access to current data via the browser interface supporting customized alarms with notification via paging, email or text messaging.

2 - Traffic and Billing

adManage merges local and interconnect schedules to create a master insertion schedule for each channel at each headend. After commercials are played, adManage creates and sends separate verification files to local and interconnect traffic and billing systems facilitating seamless media and data management across your enterprise.

3 - eyeMonitor

The eyeMonitor interface graphically displays the status of all headends and channels in the enterprise on a single screen. It provides visibly better real time status and highlights exceptions so that corrections can be easily made.

4 - autoDialer

The autoDialer application provides a back channel for schedule distribution and verification retrieval over a simple phone line. This feature is essential for disconnected remote headends and adds redundancy in networked headends, all for the price of a phone call.

5 - adCode

New media is ingested and prepared by adCode and sent to adManage for storage and distribution to the headends. Sources can be tapes, DVDs or over FireWire™ from nonlinear editors. The architecture of adCode supports Cable Labs VOD and SCTE encoding standards, an important aspect that future proofs your investment. Use adCode to seamlessly bridge the transition from analog and SDI digital insertion to DPI. adCode prepares the highest quality DPI ready media in the industry. Compatibility with other ad insertion systems is standard innovation at Adtec.

Headends

In an ad insertion enterprise, there are likely to be several different types of headends with varying levels of connectivity available. From networked LAN/WAN to satellite to disconnected remote, adManage can work with them all. Flexibly better by design.

6 - Networked Headend

A networked headend has an existing broadband LAN/WAN connection, such as a T1 line or cable modem. adManage uses this connection to send ads and schedules and receive verifications and status monitoring. Ad insertion is performed by Adtec's scalable single-channel Duet or Duet-SDI. Since each Duet is a single-channel modular unit that is totally self-contained, the system is fault tolerant by design. Media distribution within the headend is invisibly performed via multicast techniques making it available to all inserters all the time.

7 - Disconnected Remote Headend

What can you do when a headend is so small or remote that it has no economical network connection and satellite is not an option? Media can be ingested by adCode and burned onto a CD or DVD and sent to the headend where the disk is simply placed into a Duet-DVD unit. The Duet-DVD automatically makes all the ads available to every unit at the headend. At the remote headend, adManage performs schedule distribution, status monitoring and verification retrieval over standard phone lines (PTSN) via dial-up modem through autoDialer.

8 - Optional Satellite Serviced Headend

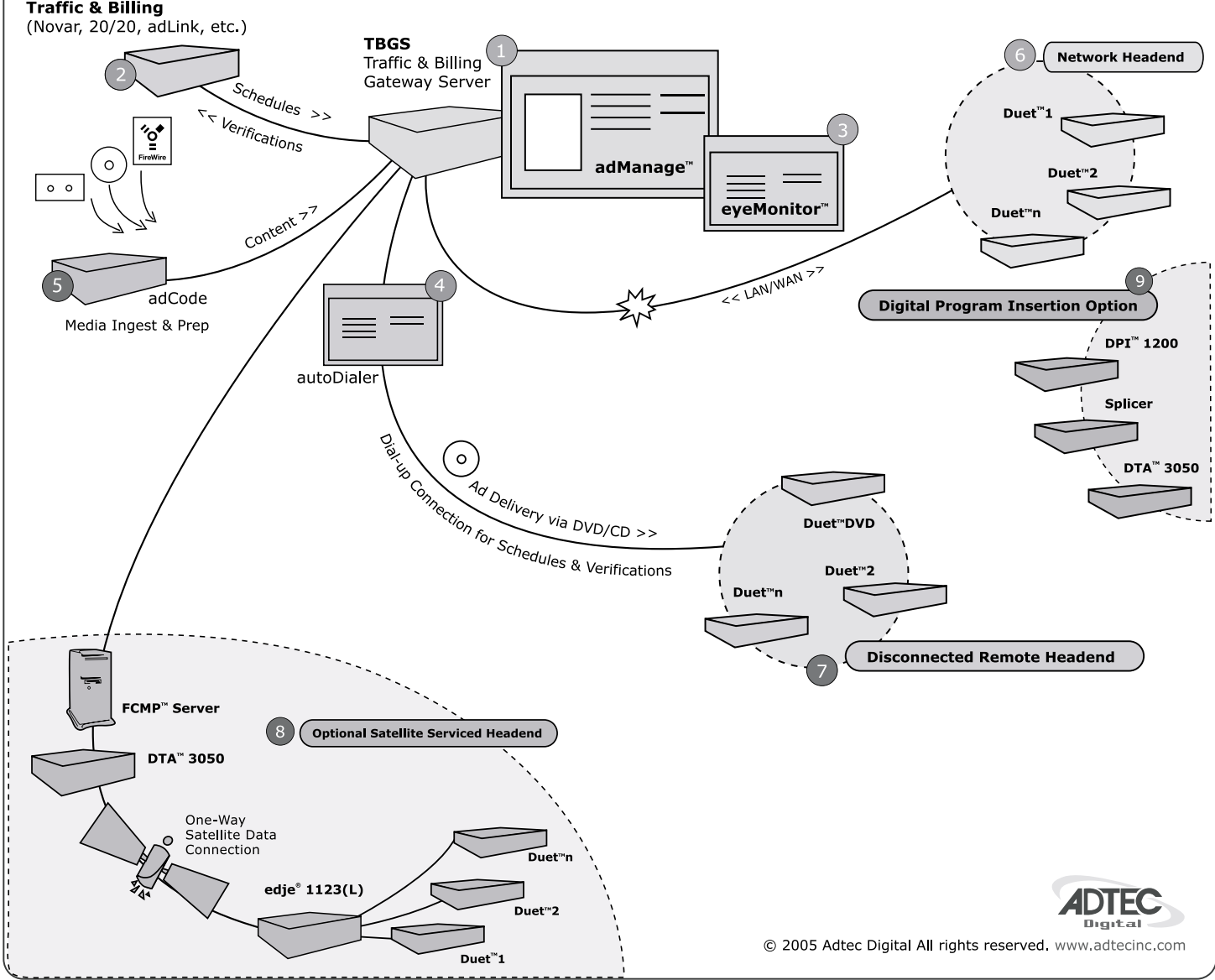
In headends without a network connection, media and data distribution can easily be achieved via satellite. Here's how it works. At the central office, adManage sends the media and schedules to Adtec's FCMP server which prepares the data by adding forward error correction then multicasting it to the Adtec DTA-3050 multiplexer for encapsulation and encrypting prior to the multicast uplink. At each satellite headend, an Adtec edge-1123 with built-in satellite data receiver unscrambles and distributes the media to the Duet, Duet-SDI or DPI-1200 units. At the satellite headend, adManage performs schedule distribution, status monitoring and verification retrieval over a simple phone line with a dial-up modem through autoDialer.

9 - Digital Program Insertion Option

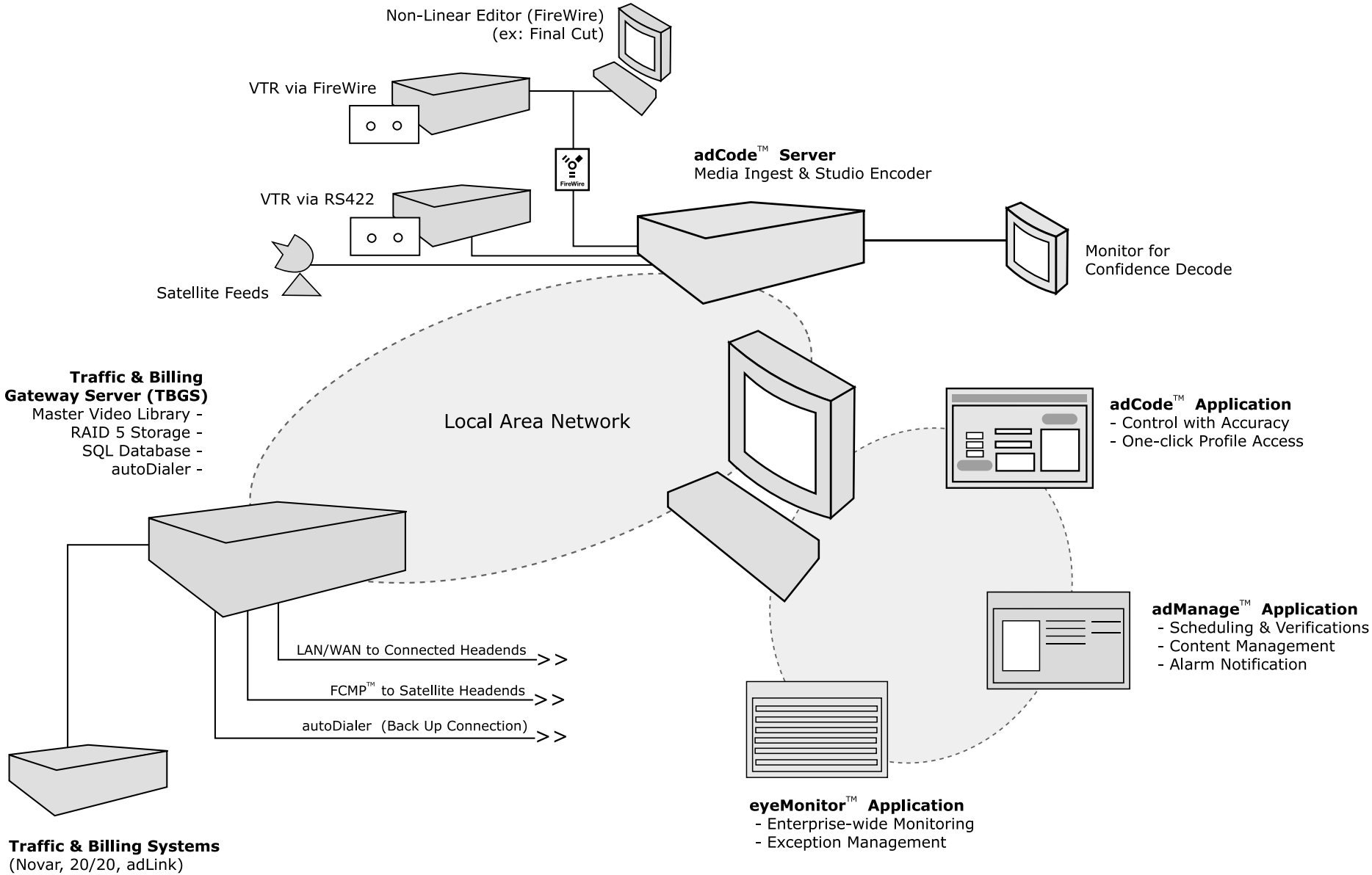
Adtec's DPI-1200 digital-into-transport (DIT) ad server takes the place of up to twelve Duets. Designed for the all-digital headend, the DPI-1200 will deliver seamless splicing effortlessly in concert with Duets in your analog systems. The DPI-1200 can deliver up to twelve programs to the ad splicer. adManage transparently delivers media and schedules and retrieves verifications and status monitoring in the DPI environment just as in any other type of headend.

adVantage

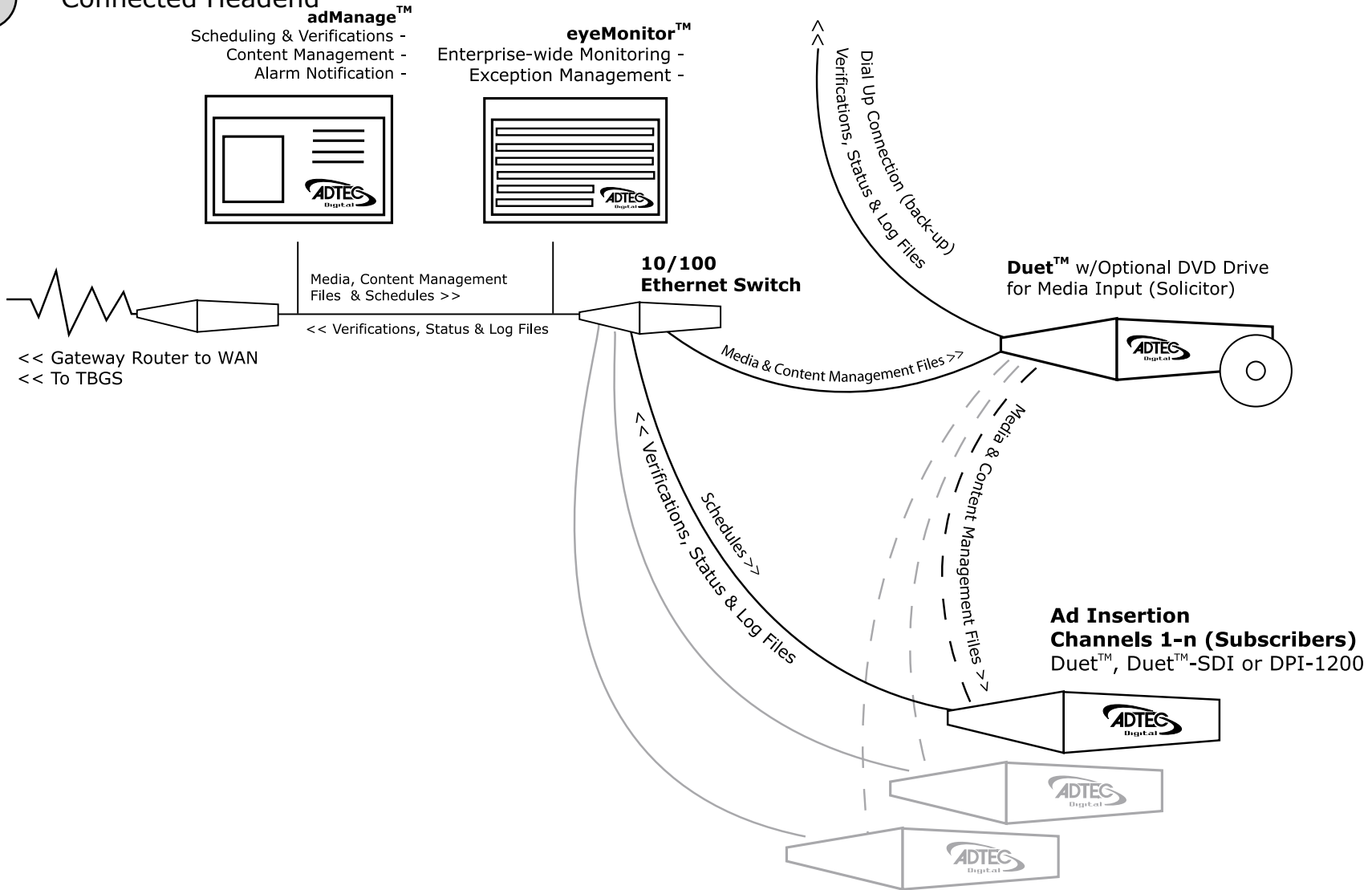
Enterprise Ad Insertion Solution



Traffic and Billing Central



Connected Headend

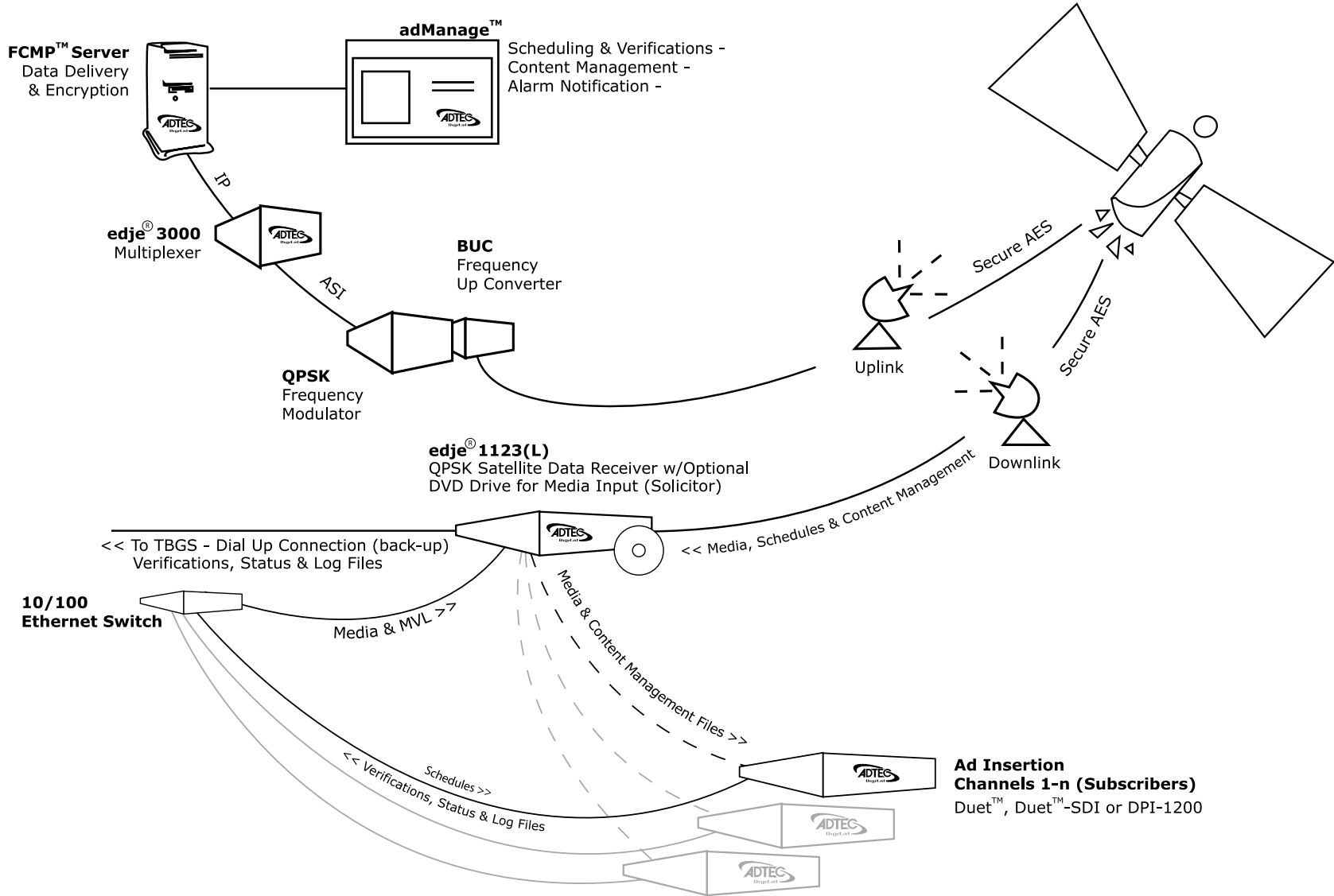


Adtec supports network connected headends through a LAN/WAN for delivery of media and commercial insertion schedules and central monitoring of status, verifications and content management. To minimize network traffic of large media files, the commercials and content

management directives are retrieved once by the headend solicitor over FTP and then passed on locally to the other commercial inserter subscribers using an Ethernet Multicast Transfer (EMT). Each commercial inserter is responsible for retrieving insertion

schedules and providing status, verifications and content management by FTP back to adManage.

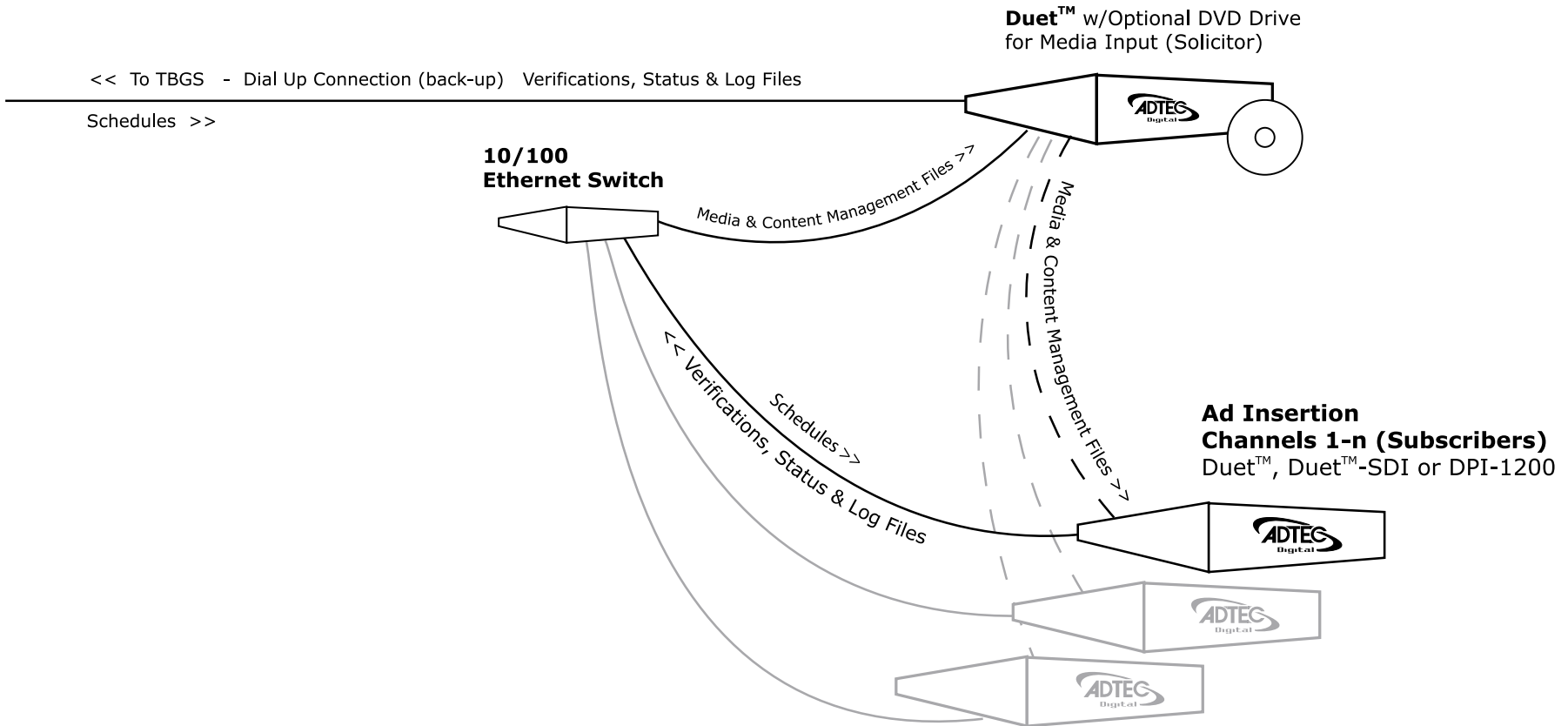
Satellite Serviced Headend



Adtec supports remote headends through satellite delivery of media and commercial insertion schedules using the File and Command Multicast Protocol (FCMP) system. Commercials and schedules are sent by adManage to the FCMP server and then to the

DTA-3050 multiplexer for data encapsulation and secure AES encryption. The modulated data can be directed to one or more downlink facilities for receipt by the edje 1123(L) and use by the Duet or DPI commercial insertion servers. Central

monitoring of status, verifications and content management can be provided through a dialup connection back to adManage.



A headend with just telephone access is supported by the Adtec enterprise solution. Scheduling and central monitoring of status, verifications and content management is done through a dialup connection back to adManage.

New commercials can be loaded into the headend solicitor DVD drive which are automatically passed on locally to the other commercial inserter subscribers using an efficient Ethernet Multicast Transfer (EMT).

D

CCMS Schedule Format

A schedule file exists for each channel of insertion. The file name will always be eight characters in length plus the three character extension of SCH.

MDDCCHHH.SCH

M -
Represents month of intended airing.
Range 1 - C Ex. 1 = January, C = December
Hexadecimal format

DD -
Represents day of month of intended airing
Range 01-31 Ex. 05

CC -
Numeric identifier or Channel ID
Range 01-99

HHH -
Numeric identifier or Headend ID
Range 001- 099

The records within the SCH file follow the following format. Each record is terminated by a carriage return and line feed. Each record will all be at least 77 bytes in length. The fields of each record are determined by its byte position. Each field is separated by a space character. All times are formatted in military time.

The record format is as follows :

Field #	Field Name	Bytes	Description
1	Event Type	1-3	Type of event defined by record (LOI, REM,END, NUL)
2	Scheduled Date	5-8	T&Bs approximation of the date when the event will occur (formatted - MMDD)
3	Scheduled Time	10-15	T&Bs approximation of the time of day when the event will occur (formatted - HHMMSS)

Field #	Field Name	Bytes	Description
4	Window Start Time	17-20	Time of day to begin window of opportunity for event to occur (formatted - HHMM)
5	Window Duration Time	22-25	Length of window of opportunity for event to occur (formatted - HHMM)
6	Break Number Within Window	27-29	Break sequence number within window of opportunity for event to occur
7	Position Number Within Break	30-33	Position sequence number for event within break
8	Scheduled Length	35-40	Scheduled event length (formatted - HHMMSS)
9	Actual Aired Time	42-47	Actual aired time of day used in VER file. (Formatted HHMMSS)
10	Actual Aired Length	49-56	Actual aired length used in VER file (formatted - HHMMSSCC)
11	Actual Aired Position Within Break	58-60	Actual sequential position number that event occurred in. Used in VER file
12	Spot Identification	62-72	T&Bs spot identification code used by adManage as the commercial file name. See Headend>File Name Length configuration on how this spot ID is converted into a file name.
13	Status Code	74-77	Completion status Code used in VER file.(See Appendix E for definition of Status Codes)
14	Advertiser Name	79-110	Advertiser's name as identified in T&B.
15	Advertiser Spot Name	112-131	Advertiser's Spot Name as identified in T&B
16	Scheduled/Fill	133-136	Identifies the spot as either being scheduled contractually or used as filler in order to complete a commercial break.
17	Traffic System Reserved	138-143	Reserved for use by the Traffic System
18	User Defined	145-NNN	For use in tracking other data. adManage uses this field in Merged schedules to identify the event line as a local or interconnect event.

E

Verification Status Codes

Status Code	Definition	Possible Cause
0001	Aired Successfully	
0002	Generic Failed to Air	The scheduled event was not run by the Duet. All events are marked with a 0002 at the beginning of the broadcast day. As the event is run by the Duet, the status code is changed to an actual error code.
0004	Failed, Bypass On	
0006	Failed, Bad Video	The video stalled during playback. The actual air time will be updated. 1. File read errors occur during playback from a bad file or hard drive problem. Try replacing the video file. 2. The VERIFYERRORLMT threshold of decode errors was exceeded. Try to re-encode the file. See the Duet manual for details.
0008	Failed, User Abort	The active insert was aborted by operator intervention.
0010	Failed, Device Not Ready	Possible hard drive issue. The hard drive may not be partitioned.
0012	Failed, Unknown Error	If any stall conditions occur during playback, the spot will not be verified, even if the system was able to continue after the stall condition. The actual played length will be updated in the VER file for partial verifications.
0013	Failed, Time Out	The break was closed before all spots could be aired.
0015	Failed, System Error	Possible hardware failure.
0020	Failed, No Ad Copy in Inserter	The commercial inserter did not have the scheduled ad copy to play. Causes include: - Material not copied into adManage MasterVideoLibrary. - The material is not in the inserter because of a communication error. - The material is on the headend PURGE list (see Content Management Purge).

Status Code	Definition	Possible Cause
0023	Failed, No Cue in Window	No cue was received in the scheduled window. See the Duet manual chapter on Cue Methods for more information.

F

Duet Log Trace Messages

- 0 - No Trace Message
- 1 - Raw Log Message
- 2 - Log Comment
- 3 - Trace Log Banner

Transport Log Messages (1000 Series)

- 1000 - PLAY
- 1001 - TOP SPOT
- 1002 - NEXT SPOT
- 1003 - PREVIOUS SPOT
- 1004 - PAUSE SPOT
- 1005 - SLOW SHUTTLE SPOT
- 1006 - INDEX TO TIMECODE
- 1007 - REWIND TO BEGINNING OF SPOT
- 1008 - CUE SPOT
- 1009 - PLAY SPOT
- 1010 - MULTICAST RECEIVE ON
- 1011 - MULTICAST RECEIVE OFF
- 1012 - MULTICAST RECEIVE RST

Transition Log Messages (2000 Series)

- 2000 - TRACE_MSG_TRANSITION_PLAY
- 2001 - TRACE_MSG_TRANSITION_STOP

FCMP Log Messages (3000 Series)

- 3000 - Receive file opened
- 3001 - Partial receive file opened
- 3002 - Replacement file opened
- 3003 - Partial replacement file opened
- 3004 - Receive file closed as complete
- 3005 - Receive file closed as partial
- 3006 - Replacement file renamed
- 3007 - End normally (received end message)
- 3008 - End abort (received end message with abort)
- 3009 - End due to error (something wrong, file not erased)
- 3010 - Abort due to error (file i/o error or something wrong, file erased)
- 3011 - Receive process timed out
- 3012 - System command received and processed
- 3013 - System command sent
- 3014 - Error running report, probably not enough RAM
- 3015 - Unknown condition or error
- 3016 - FEC queue is full

Scheduling Log Messages (4000 Series)

- 4128 - Insert message type (only 1 network)
- 4129 - CCMS mode only - indicates missing spot in playlist
- 4130 - Indicates error in insert
- 4131 - Indicates that insert ran shorter than expected
- 4132 - Indicates that decode errors exceeded preset threshold
- 4133 - Indicates that the insert timed out
- 4144 - Miss BREAK SPOT in prior break
- 4145 - Miss NO OPEN NETSET
- 4156 - Miss NO NETSET TRIGGER
- 4147 - Miss INSERT by no network video present
- 4148 - Miss INSERT by No Break
- 4149 - Miss INSERT by No Spots
- 4150 - Miss TRANSPORT WOULD NOT START
- 4151 - Miss DUET BOARD NOT PRESENT
- 4160 - Launch message type
- 4160 - Launch INSERT by Time
- 4161 - Launch INSERT by Tone
- 4162 - Launch INSERT by GPI
- 4163 - Launch INSERT by Keypad
- 4164 - Launch INSERT by Terminal
- 4176 - Route message type
- 4176 - Route Satellite
- 4177 - Route Insert
- 4187 - Route Auxillary
- 4179 - Route Off
- 4192 - End INSERT by Time
- 4193 - End INSERT by Tone
- 4194 - End INSERT by GPI
- 4195 - End INSERT by Spot
- 4196 - End INSERT by Avail
- 4197 - End INSERT by Video Loss
- 4198 - End INSERT by Keypad
- 4199 - End INSERT by Terminal
- 4208 - Partial Tones EXT
- 4209 - Partial Tones CBD
- 4224 - Duet reset
- 4240 - Reset message type
- 4240 - Power Up
- 4241 - Soft Reset
- 4242 - Net Sets in NV file updated
- 4243 - Break Sets in NV file updated
- 4244 - Net Sets in NV file updated
- 4245 - Net Sets in NV file updated
- 4246 - Break Sets in NV file updated
- 4247 - Net Sets in NV file updated
- 4248 - Save the CCMS VER file

4249 - Load the CCMS VER file
4250 - Load the CCMS SCH file
4251 - CCSM Sch not fully loaded, buffer not big enough
4252 - CCSM Ver not fully loaded, buffer not big enough

5000 Series

5000 - FTP Server Get
5001 - FTP Server Put
5002 - FTP Client Get
5003 - FTP Client Put
5004 - FTP Send Command longterm failure
5010 - FTP CCMS mirror started by timer
5011 - FTP CCMS mirror started by command
5012 - FTP CCMS mirror done
5013 - FTP CCMS mirror done - no connection
5014 - FTP CCMS mirror done - no HIP configured
5015 - FTP CCMS mirror HIP comm longterm failure

6000 Series

6000 - Telnet Connected
6001 - Telnet Disconnected
6002 - Telnet Bad Username/Password
6003 - Telnet Connection Timed Out

7000 Series

7000, - EMT Subscription received
7001 - EMT Subscription received
7002 - EMT Subscribed
7003 - EMT File sent
7004 - EMT File received
7005 - EMT turned ON
7006 - EMT turned OFF

8000 Series

8000 - Issued Lan chip reset and kickstart
8001 - Netstats reset was issued
8002 - LanKickStart was issued
8003 - LanMux received bad message
8004 - TASK_Lan destructed
8900 - Relay reset, pings failed to find it

10000 Series

10000 - Rom upgrade successful (IFP, or Rom DVC file)
10001 - Rom upgrade failed (IFP, or Rom DVC file)
10002 - Rom upgradematch failed (IFP, or Rom DVC file)
10100 - ParPin6 status change
10109 - (all possible argsPARPIN6 entries)

11000 Series

11000 - ScanDisc OK
11001 - ScanDisc No Drive/Disc
11002 - ScanDisc Read Error
11003 - ScanDisc Write Error
11004 - ScanDisc Unit Error
11005 - ScanDisc Volume Error
11006 - ScanDisc Directory Error
11007 - ScanDisc Deleted a Crosslinked File
11008 - ScanDisc Deleted a Bad FAT Chain File
11009 - ScanDisc Freed up FAT
11010 - ScanDisc had problem scanning and bailed

12000 Series

12000 - File System Powered Up
12001 - File System Reset
12003 - No File
12004 - Read Error
12005 - Buffer Stalled
12006 - No GOP found in video buffer from Play Entry
12007 - Alternate Entry is a mismatch to Play Entry
12008 - No GOP found in Alternate Entry File
12009 - No File
12010 - Read Error
12011 - Buffer Stalled
12012 - No File
12013 - Read Error
12014 - No File
12015 - Read Error
12016 - Write Error
12017 - File is read only
12018 - Drive/disc missing
12019 - Drive/disc empty
12020 - Drive/disc loaded
12021 - Drive/disc removed
12022 - Drive/disc inserted
12023 - No File
12024 - Not Open
12025 - Continue Copy/Move
12026 - No Copy/Move streams, no more messages accepted
12027 - No Source File
12028 - No Destination File
12029 - File is read locked, max number of streams hit
12030 - File is write locked
12031 - Resize Error
12032 - Read Error
12033 - Write Error

12034 - Cancelled
12035 - No Drive/Disc
12036 - Read Error
12037 - Write Error
12038 - File already exists
12039 - Disc is full
12040 - No File
12041 - Read Error
12042 - Write Error
12043 - File or drive is read only
12044 - File is read locked, max number of streams hit
12045 - File is write locked
12046 - No File
12047 - No Filename to create
12048 - No File could be created
12049 - Resize failed
12050 - File is read only
12051 - File is read locked, max number of streams hit
12052 - File is write locked
12053 - File is already open
12054 - No File
12055 - Not Open
12056 - Read size greater than buffer size
12057 - Not Read Stream
12058 - Read Error occurred
12059 - EOF reached
12060 - No File
12061 - Read Error
12062 - No File
12063 - Read Error
12064 - Write Error
12065 - File is read only
12066 - No File
12067 - Read Error
12068 - Write Error
12069 - File is read only
12070 - Disc is full
12071 - File is corrupted
12072 - No File
12073 - Read Error
12074 - Write Error
12075 - No File
12076 - Read Error
12077 - Write Error
12078 - File is read only
12079 - No File
12080 - Read Error

12081 - Write Error
12082 - No File
12083 - Not Open
12084 - Write size greater than buffer size
12085 - Not Write Stream
12086 - Write Error occurred
12087 - Disc is Full
12088 - No directory entry found
12089 - Write to LBA was not successful
12090 - Read from LBA was not successful
12091 - File is read locked but open for write
12092 - File is read locked but open for write
12093 - File is read locked but open for write
12094 - File is read locked but open for write
12095 - Error in Transport file parse or copy

14000 Series

14000 - FEC Decode start
14001 - FEC Decode complete and ok
14002 - FEC Type is Turbo NonInterleaved
14003 - FEC Type is Turbo Interleaved
14004 - FEC Type is ReedSolomon NonInterleaved
14005 - FEC Type is ReedSolomon Interleaved
14006 - FEC bad PPR Header
14007 - FEC File corrupt, too many lost packets
14008 - FEC detected singular matrix
14009 - FEC File not found
14010 - FEC File read error
14011 - FEC File write error
14012 - FEC File open error
14013 - FEC File disc full
14014 - FEC File create fail
14015 - FEC File read size error (not multiple of N*BlockSize)
14016 - FEC File resize error
14017 - FEC File bad filename
14018 - FEC Unique File error
14019 - FEC File register error
14020 - FEC Stop
14021 - FEC Kill
14022 - TASK_Fec queue is full
14023 - FEC File rename error

15000 Series

15000 - CMDVIRT Index procedure
15001 - TRACE_MSG_CMDVIRT_INDEX_FAILED
16000 Series
16000 - Tuner in locked state

16001 - Tuner Task constructor done
16002 - Tuner in unlocked state
16003 - Tuner in unlocked state
16004 - Tuner in unlocked state
16005 - Tuner in unlocked state
16006 - Tuner in unlocked state
16007 - Tuner in unlocked state
16008 - Tuner in unlocked state
16009 - Tuner in unlocked state
16010 - Tuner in unlocked state
16011 - Tuner in unlocked state
16012 - Tuner in unlocked state
16013 - Tuner transitioned to unlocked state
16099 - Max # of trace messages for this unlocked state

17000 Series

17000 - XCP System command received and processed
17001 - XCP System command sent

18000 Series

18000 - Real Time Clock updated successfully(formatted in TASK_Clock)
18001 - Real Time Clock update failed (formatted in TASK_Clock)

19000 Series

19000 - IO stream operation timed out (OPEN,CLOSE,SEEK,READ,WRITE)

20000 Series

20000 - Multicast Insert: Start Cue Received
20001 - Multicast Insert: Start Cue Received, ignored transports off
20002 - Multicast Insert: Start Cue Received, ignored transports off
20003 - Multicast Insert: Stop Cue Received
20004 - Multicast Insert: Stop Cue Received, ignored extended window active
20005 - Multicast Insert: Stop Cue Received, ignored, insert not active
20100 - Multicast Insert: Schedule loaded
20101 - Multicast Insert: Schedule load failed
20102 - Multicast Insert: Schedule cleared

CCMS Trace Messages

FTP_CCMS_NO_COM - Mirroring fails to connect to the gateway.
FTP_CCMS_NO_HIP - System does not have a gateway configured.
FTP_CCMS_RESET - System has failed to connect with the gateway for three consecutive mirror sessions. This condition also forces a reset of the entire LAN system (Same as: NTS RESET).
FTP_SNDCMD_RESET - System has failed to send an FTP command to the gateway for ten consecutive attempts. This condition also forces a reset of the entire LAN system (Same as: NTS RESET).

4130 - File Read Error
4131 - Play Stalled Error
4132 - Decode Errors
4208 - LOGID_EXTTONES
4209 - LOGID_CBDTONES
4129 - LOGID_INSERTNOSPOT

G

Standard Operating Procedures

Daily (Before T&B Verification)

1. Use eyeMonitor's Verification Report to confirm that all verifications have been returned since the last billing cycle (marked Complete). Determine if there are any missing or partial verifications that will need to be retrieved since the last time you verified. If verifications are missing or partial, correct the issue or use autoDialer to get the final verification from the ad inserter.
2. Review Alarms assigned to you for corrective action.

Daily (All Day)

3. Use eyeMonitor's Discrepancy Report to determine if there are any outstanding error or cue issues that indicate insertion failures. Implement corrective action for discrepancies.
4. Use eyeMonitor's Headend Monitoring Zones to get a real time status of all channels in each headend. To evaluate a run rate for a particular headend, select any cell within that headend and right click to navigate to Headend Analysis.
5. Use the eyeMonitor Encode List Report (or the adCode encode list) and encode all missing ad content.

Daily (After Schedules Are Created)

6. Use eyeMonitor's Schedule Report to confirm that all new schedules are loaded in the ad inserters.. Verify the time/date stamp of the schedule for modified schedules.
7. Use the eyeMonitor Missing Content Report (or the adManage Content Management > Missing) to determine if there are any spots missing or not encoded for the schedules that are created. Correct any missing content problems.

Weekly

1. Use eyeMonitor's Discrepancy Report to determine if there are any outstanding error or cue issues for the system as well as any patterns on missed insertions
2. Use the eyeMonitor's and adManage's Run Rate percentage Alarms and Reports to determine if any maintenance or adjustments need to be made to improve overall performance.
3. Use adManage's Content Management>Evergreen section to protect any spots that you do not want to be deleted. This will protect the spot from any type of deletion in adManage.
4. Verify that schedules and content are loaded for the weekend.

Monthly

1. Use adManage's Content Management > Drive Status and Purge Functions to maintain inserter drive health and efficiency.
2. Use adManage's Content Management > System MVL to maintain the Gateway Server's drives and file maintenance.
3. Use adManage to setup Alarms for your users. You can assign any alarm created to any user that has been setup.

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Corporate Headquarters & Domestic Sales USA
408 Russell Street
Nashville, TN 37206 USA
Tel.615.256.6619 Fax.615.256.6593
sales@adtecinc.com

International Sales
2231-3 Corporate Square Blvd.
Jacksonville, FL 32216-1921 USA
Tel. 904.394.0389 Fax. 904.421.0684
intlsales@adtecinc.com

Technical Support
Tel.615.256.6619 Fax.615.256.6593
www.adtecinc.com/support
support@adtecinc.com