



# *Observer*

## RPM User Guide 7.2

Copyright © 2015, Volicon Inc., All Rights Reserved

### **Warranty and Limitations**

*“The information in this document is subject to change without notice and does not represent a commitment on the part of Volicon Inc.; it’s not a binding contract. Volicon Inc. will not be held responsible for failures or errors in the text of the document. Nor be liable for it to any claim from any third party. Documentation is provided “as is.” All conditions, representations and warranties, expressed or implied, including any implied warranty of merchantability, fitness for a particular purpose or non-infringement, are disclaimed, except to the extent that such disclaimers are held to be legally invalid. This document contains proprietary information belonging to Volicon Inc. Such information is supplied solely for assisting properly authorized users of Volicon Inc. systems. No part of its contents may be used for any other purpose, disclosed to any person or firm. No part or parts of this document shall be copied, used for commercial purposes or passed to any third party for any use, without approval Volicon Inc. The text and graphics are for the purpose of illustration and reference only. The information herein is subject to change without notice”*

## **Document Details**

<b>Document Name:</b>	RPM User Guide 7.2
<b>Part Number</b>	RPM-UG-7.2.B3-011514
<b>Related Software Versions</b>	7.2.36871

## Contents

<b>1</b>	<b>Introduction.....</b>	<b>6</b>
1.1	Purpose and Scope .....	6
1.2	System Overview .....	6
1.3	System Options: the Volicon Input Switch .....	7
1.3.1	Using the Observer's Internal Input Switch .....	8
1.3.2	Using a KRAMER device .....	8
1.4	Conventions Used in the Manual.....	9
1.5	Definition of Key Terms.....	9
1.6	Modes of Operation .....	10
1.6.1	Scanning.....	11
1.6.2	Reviewing .....	11
1.6.3	Manual/Interactive Mode.....	11
<b>2</b>	<b>Initial Connection.....</b>	<b>13</b>
2.1	PC Client Minimum Requirements checklist.....	13
2.2	Installing the Observer Media Player .....	13
2.3	Graphical User Interface (GUI): Initial Login.....	19
2.3.1	Internet Browser Support .....	19
2.3.2	Steps to Log In.....	22
2.3.3	Your initial LogIn Screen .....	22
2.3.4	Installing player cab file .....	23
<b>3</b>	<b>Home Page.....</b>	<b>24</b>
3.1	Streaming .....	24
3.2	Player Display Area .....	25
3.3	Left Menu.....	25
3.4	Dashboard - Encoder/Stream Inputs .....	25
3.5	Favorites .....	26
3.6	Controlling Your Video Stream/Streams .....	28
3.6.1	Volume Controls .....	29

---

3.6.2	Mark to cut clips .....	30
3.6.3	Controlling Display Modes .....	30
3.7	Wall of Monitors Mode.....	32
3.7.1	Entering Wall of Monitors Mode .....	32
3.7.2	Frame Color Alert Notification .....	33
3.7.3	Keyboard Hotkeys .....	36
3.8	RPM Toolbar - Remote Control Bar .....	37
3.9	Status Line - AL, SS and BS .....	56
3.9.1	BS - Black Screen Amount.....	57
3.9.2	SS - Static Screen .....	57
3.9.3	AL - Audio Level .....	58
3.9.4	RPM Script Phase – Current Running Script.....	59
3.9.5	RPM Script Phase – Manual Mode.....	59
3.10	Logging Out.....	60
<b>4</b>	<b>Manual/Interactive Mode .....</b>	<b>61</b>
4.1	Entering Manual Mode .....	61
4.2	Effects of Manual Mode .....	61
4.2.1	Effect on Scanning .....	61
4.2.2	Ability to Switch Inputs in a Single Player Window .....	63
<b>5</b>	<b>Media Clips.....</b>	<b>66</b>
5.1	Bookmarks .....	66
5.2	Playing Your Clips.....	67
5.3	Manipulating Your Clips .....	69
5.3.1	Editing Clips.....	70
5.3.2	E-Mailing Clips .....	79
5.4	Searching Your Clips.....	80
5.4.1	Simple Search.....	81
5.4.2	Advanced Search .....	82
5.4.3	Sort clips .....	84
<b>6</b>	<b>CC Search .....</b>	<b>85</b>

---

6.1	Launching the Search Function .....	85
6.2	Using the Search Function .....	86
6.2.1	Search Function Example .....	87
6.2.2	Search Function Options.....	92
6.3	Export clips.....	93
6.3.1	Bookmark clips.....	93
6.3.2	Export media .....	93
6.3.3	Standard Export Format Types .....	95
6.3.4	Export Stream Options .....	96
6.3.5	Play Exported Clips.....	97
<b>7</b>	<b>Fault Clips .....</b>	<b>98</b>
7.1	Export fault clips .....	98
7.2	Fault Clip Player .....	99
7.3	Report Fault Clips in ASCII.....	100
<b>8</b>	<b>Remote Control .....</b>	<b>102</b>
8.1	Remote Control Bar .....	102
8.1.1	Virtual Remote Control .....	103
1.1.1.1	Virtual Remote Macro Scripting.....	104
<b>9</b>	<b>Scan Frequency .....</b>	<b>105</b>
<b>10</b>	<b>Statistics.....</b>	<b>106</b>
10.1	Fault reports .....	106
10.1.1	Service Fault Report Parameters.....	107
10.1.2	Fault Report Operation .....	108
10.2	Availability Reports .....	110
10.2.1	Service Availability Parameters.....	111
10.3	Availability Computations.....	112
10.3.1	Observer Mode .....	112
10.3.2	RPM Scan Mode.....	112
10.4	Service Availability Status Determined During Scanning .....	112
10.4.1	Service Availability Computation Example .....	113

<b>11</b>	<b>Central Configuration .....</b>	<b>114</b>
<b>12</b>	<b>Front-end Setup.....</b>	<b>115</b>
12.1	User Preferences .....	115
12.2	User Management.....	117
12.3	Alert Notification, Emails and SNMP Notification.....	117
12.4	Scheduled Recording Module .....	117
12.5	Recorded Events.....	117
<b>13</b>	<b>Appendix .....</b>	<b>121</b>
13.1	Player hot keys .....	121
13.2	References .....	122
13.2.1	Loudness monitoring.....	122
13.2.2	Glossary .....	122
13.3	Troubleshooting.....	122
13.4	What NOT to do on the server side.....	122
<b>14</b>	<b>Revision Change History .....</b>	<b>123</b>

# 1 INTRODUCTION

## 1.1 Purpose and Scope

This manual covers how to use the Volicon Observer's Remote Program Monitor (RPM) for common monitoring and logging applications. It assumes that you administrator has set up alerting thresholds, and performed the user administration and general system configuration for your system as covered in the Observer Admin Guide. It also assumes that your administrator has completed the configuration functions related to the RPM, such as specifying the programs/services lineup to monitor, as covered in the RPM Admin Guide.

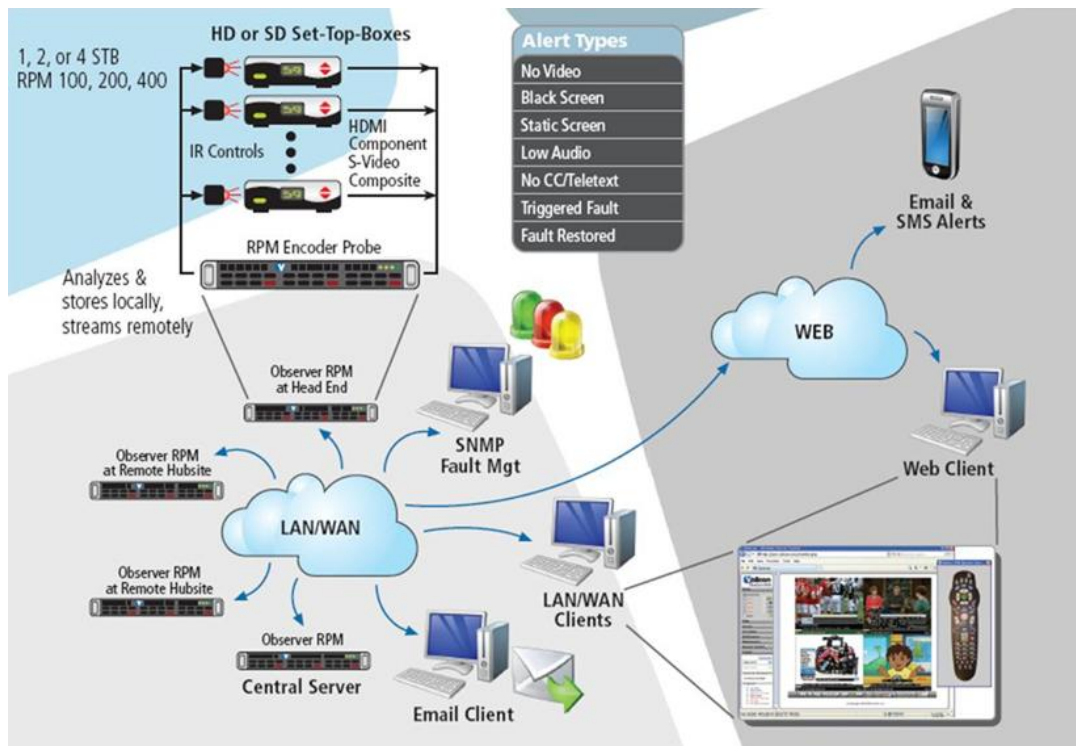
## 1.2 System Overview

The Observer system consists of two levels of servers:

- One or more encoder servers (probes), usually located in remote or unmanned video distribution centers. Each encoder server is capable of monitoring several video inputs simultaneously, and is typically connected to four video sources through its encoders.
- A Central/web server (CS) that functions as the interface between the system and the web client machines (client PCs).

Usually the system administrator configures the web and probe server addresses and functions of the system. These functions include:

- Automated monitoring and diagnosis of multichannel broadcasts
- VOD and Interactive service monitoring
- Media recording of scanned channels
- Manual viewing/diagnostics to tune remote systems



**Figure: System Block Diagram**

Once configured, the RPM constantly records video inputs and monitors channels for various failures. The RPM scans the channels your administrator has configured it to monitor, issuing channel change commands to each Set Top Box (STB), and monitoring all of the available channels on a rotating basis. When the RPM finds faults, it alerts you through email messages and SNMP traps.

You can access the RPM is via a standard Internet connection and control it through your web browser. RPM management is entirely web-based.

### 1.3 System Options: the Volicon Input Switch

By default, one input connects to one encoder in the Volicon ecosystem. However, the Volicon Input Switch allows you to connect multiple inputs to a single encoder.

You have two options for deploying the Volicon Input Switching capability: you can use the Observer's internal switch, or you can connect multiple inputs to a KRAMER device.



### 1.3.1 Using the Observer's Internal Input Switch

The Observer's internal Input Switch capability will support up to two connections to a single capture card. Connect one component to the HDMI input, and the second component to the Component input.

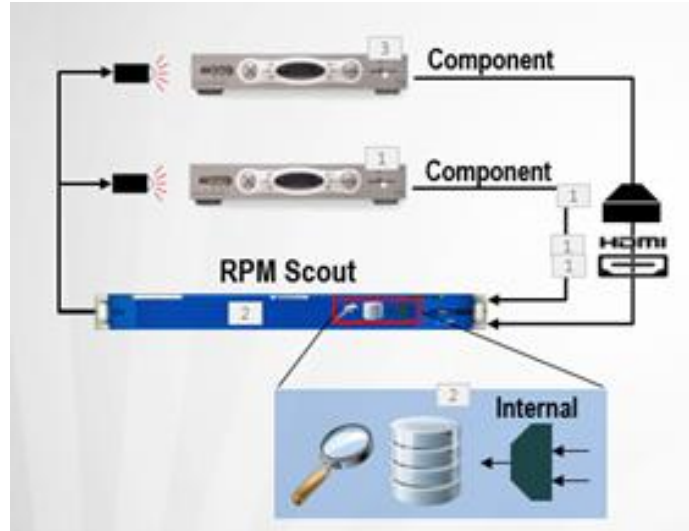


Figure: Internal Input Switch

### 1.3.2 Using a KRAMER device

You can connect up to sixteen components to a single capture card using a Kramer switch. In this deployment, the Kramer device handles the switching.

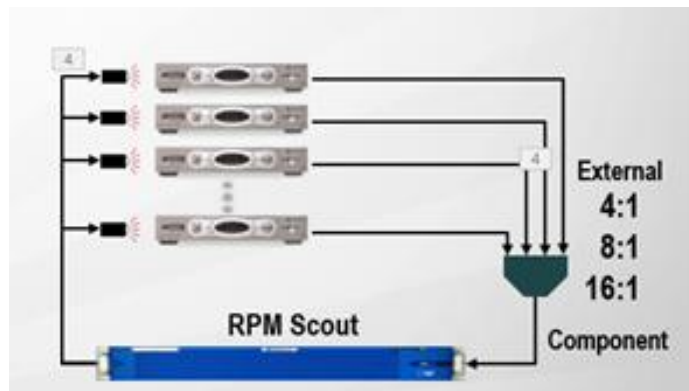


Figure: KRAMER Device Switching

The first input is the default input, and will be the only input you see in automatic mode. You can see the other inputs attached to your Volicon Input Switch only by using manual mode.

For more information about the Volicon Input Switch, please refer to the Volicon Input Switch User Guide V7.2.

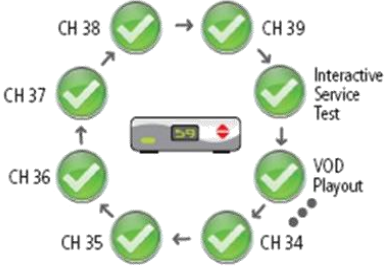
## 1.4 Conventions Used in the Manual

Textual conventions used in this manual are listed in the table below.

Type	Classification
<b>Boldface</b>	Denotes names and labels in the Graphical User Interface (GUI)
<Boldface>	Denotes push buttons and other similar user devices
@Link	Automatic link to other sections in the document, denoted by <b>boldface</b> and the “@” prefix

## 1.5 Definition of Key Terms

Term	Definition
<b>Encoder</b> <b>Encoder/stream</b>	Observer RPM hardware adapter that receives and processes media signals from between one to four set-top boxes. Also called the Encoder/stream.
<b>Encoder-scanner</b>	RPM software module which controls the encoder, STBs, and channel scanning related operations. See “Scan cycle,” below.

<b>Media Fault</b>	The services module defines the limits of normal conditions with thresholds, scripts and schedules for audio, video, closed captioning, interactive services and VOD. A Media Fault is detected when the input signal falls outside of these limits.
<b>Service, channel</b>	The Network's media content type as perceived by the end user. The RPM steps through the lineup of services and converts each service (through bouquet) to a channel number, dialing it then recording and checking the content.
<b>Reviewer</b>	A separate encoder (or different time slot on the same encoder) assigned to verify a media fault on a channel.
<b>Alert</b>	A notification of a media fault by email or SNMP. For enhanced verification functions, confirmation is required from a second encoder or time slot before issuing the alert.
<b>Lineup</b>	A sequence of services associated with the channels of a encoder's-stream.
<b>Scan Cycle</b>	A complete tour of all services/channels in a lineup to check for faults. 

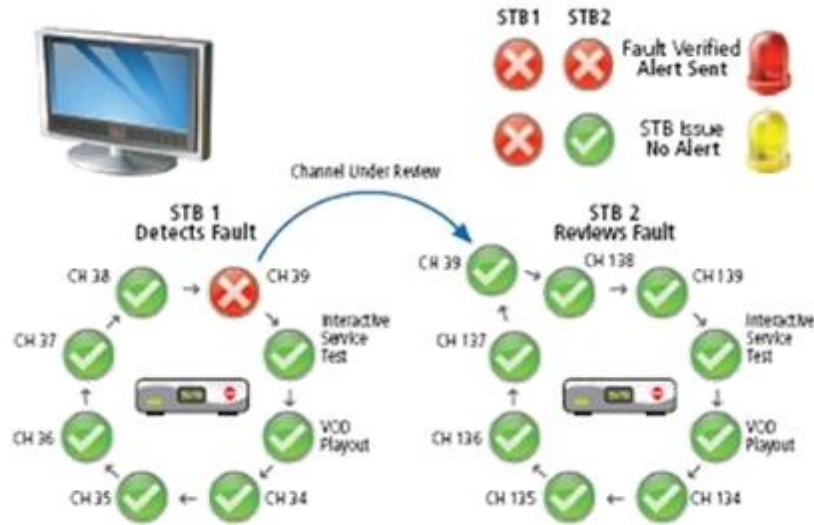
## 1.6 Modes of Operation

Here is a brief outline of the different RPM system modes of operation:

### 1.6.1 Scanning

RPM interacts with STBs to scan/dial multiple broadcaster channels sequentially according to the corresponding channel program type:

- Linear
- On-Demand
- Interactive



**Figure: Scanning and Fault Response Process**

In addition, the RPM monitors the media content of each scanned Service/channel to determine faults and log the content.

### 1.6.2 Reviewing

When the RPM detects a fault, it automatically reviews the fault using a second STB/Encoder stream. This allows the RPM to:

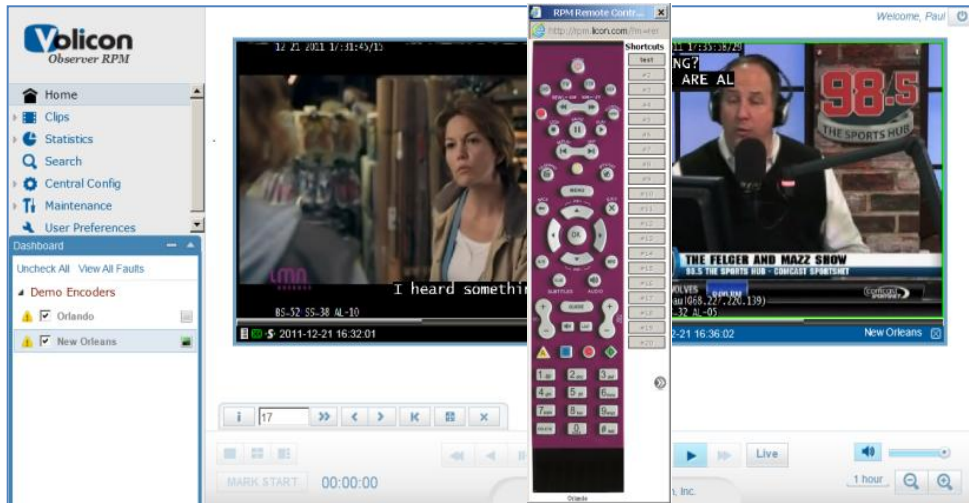
- Dramatically reduce the number of false alerts
- Separate STB faults from Network and Service Faults

### 1.6.3 Manual/Interactive Mode

RPM provides you with three interactive modes:

- Virtual Remote Control
- Menu based Remote Control

- Troubleshooting



**Figure: Virtual Remote Control Interactive Mode**

## 2 INITIAL CONNECTION

### 2.1 PC Client Minimum Requirements checklist

Before you install the Observer Media Player, check that your computer meets or exceeds the PC Client Minimum Requirements, listed below:

- Windows 7, 64 bit OS or above
- 3.5 GB of RAM or greater
- Sound card
- Microsoft Internet Explorer (IE) 8 or above
  - Alternatively, Silverlight support if you are using a non-IE browser
- Windows Media Player 11 or above
- Pentium 4 3.0 GHz or equivalent processor (recommended)
- NVIDIA or ATI video adapter or better
- Minimum of 10 Mbps network connection bandwidth  
(You will need bandwidth greater than or equal to 1.2-1.5x the sum of the bandwidth of the streams you are viewing. For example, to view two 512 Kbps streams smoothly, you will need between 1.2 Mbps and 1.5 Mbps of available bandwidth.)

In addition to the physical requirements listed above, you must also:

- Place the URL or IP address of the Web server in your browser's "**Trusted Sites**" zone
- Be a user with local administrative privileges on your machine, to install the signed ActiveX control

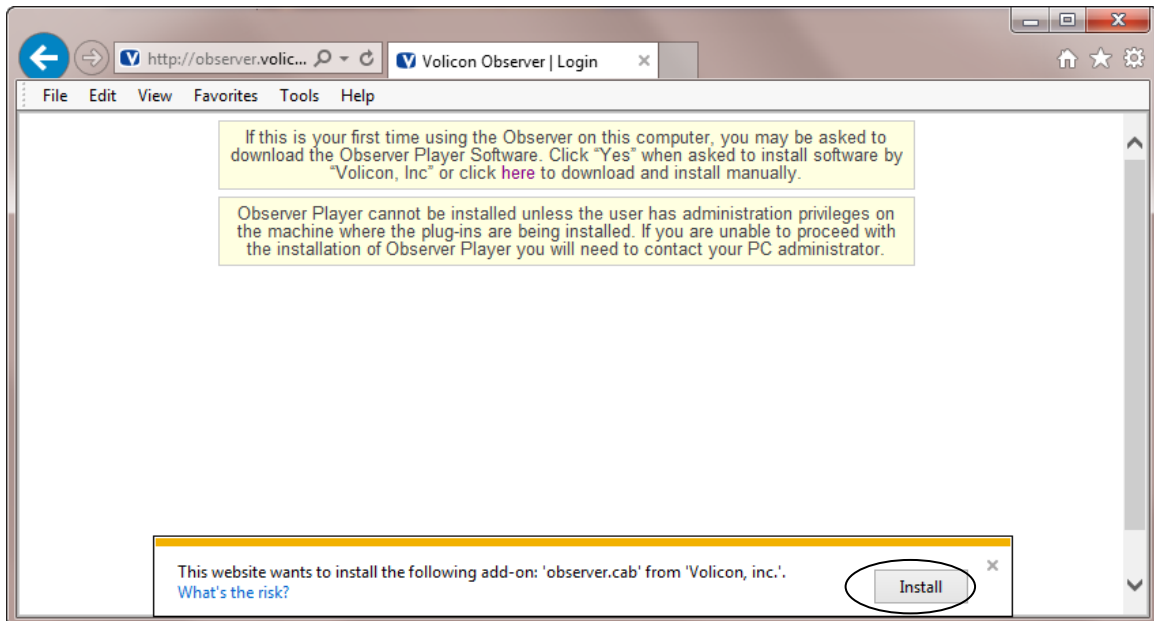
### 2.2 Installing the Observer Media Player

To connect to Volicon Observer for the "first time", launch your Internet Explorer web browser.

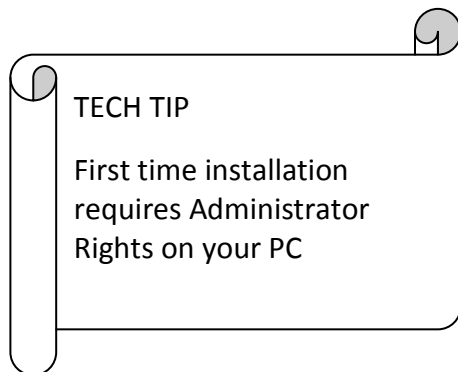
Note: Volicon Observer assumes that you are using IE10. For other browser support, including IE11, see section **@2.3.1** Internet Browser Support

*Internet Browser Support.*

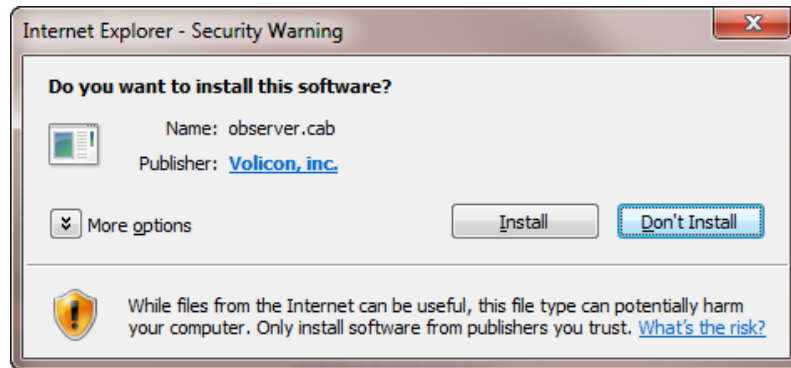
In the address bar, type in the IP address or domain name of the Volicon server provided to you by your Volicon Administrator. In the example below, we are connecting to the Volicon demo server at <http://observer.volicon.com>.



**Figure: Initial Connection**



If your Volicon Administrator has not previously loaded Observer on your PC/laptop, you must have administrative rights, (the ability to install software on your PC) for the initial install of the Observer Media Player software. Any subsequent logins will require only the permissions you currently have on your PC/laptop. The first time you connect to the Observer solution, IE will take approximately 30 seconds to load the Observer Media Player install software. Click **Install** to begin the installation process. IE will continue to calculate and will present you with a Security Warning.



**Figure: Security Warning**

Accept the warning by clicking **Install**. Observer will launch the Observer Media Player Setup Wizard.

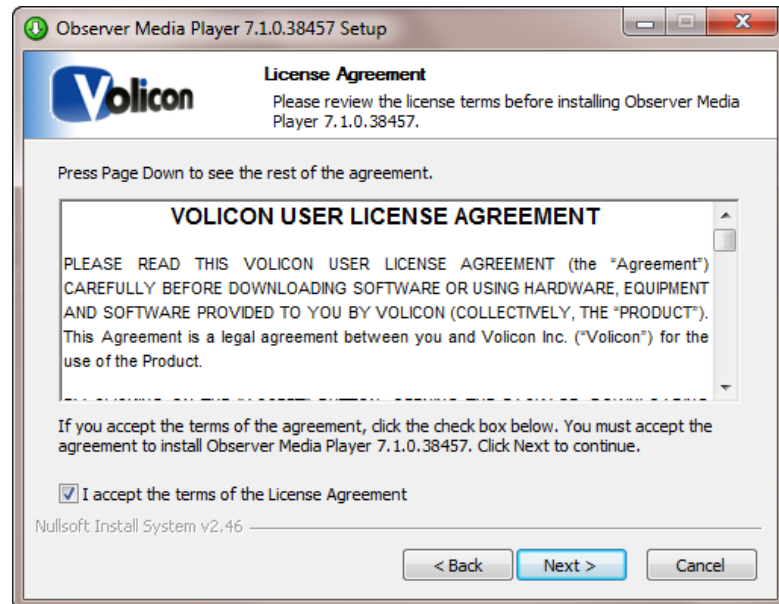


**Figure: Observer Media Player Setup Wizard**

Click **Next** to continue.

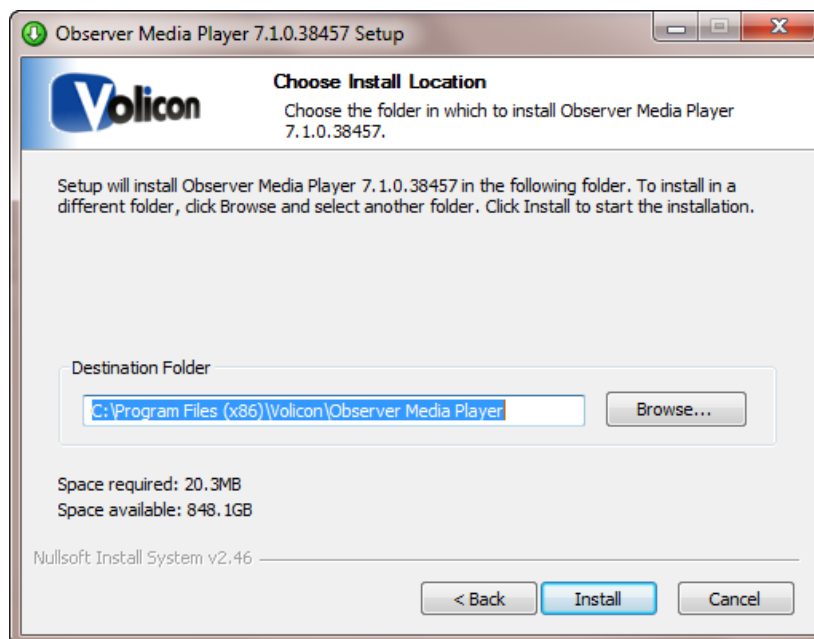
Accept the terms of the License Agreement and click **Next** to continue.





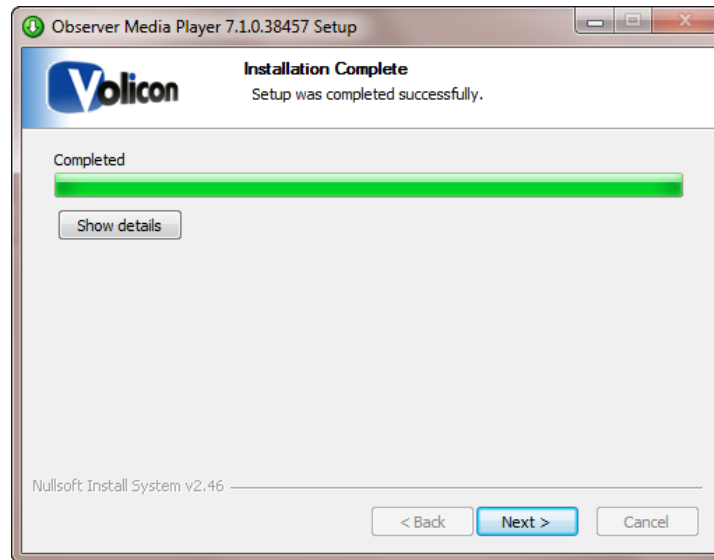
**Figure: License Agreement**

You now have the option of choosing the folder into which Observer will install the Media Player. Unless Volicon Support has instructed you otherwise, accept the default folder by clicking **Install**.

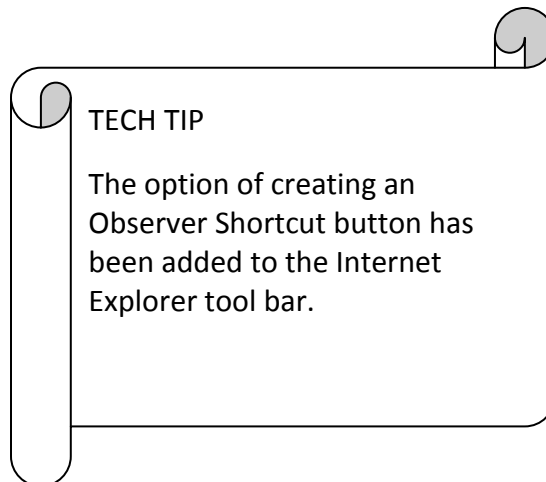


**Figure: Choose Install Location**

Setup will give you a success message. Click **Next**.

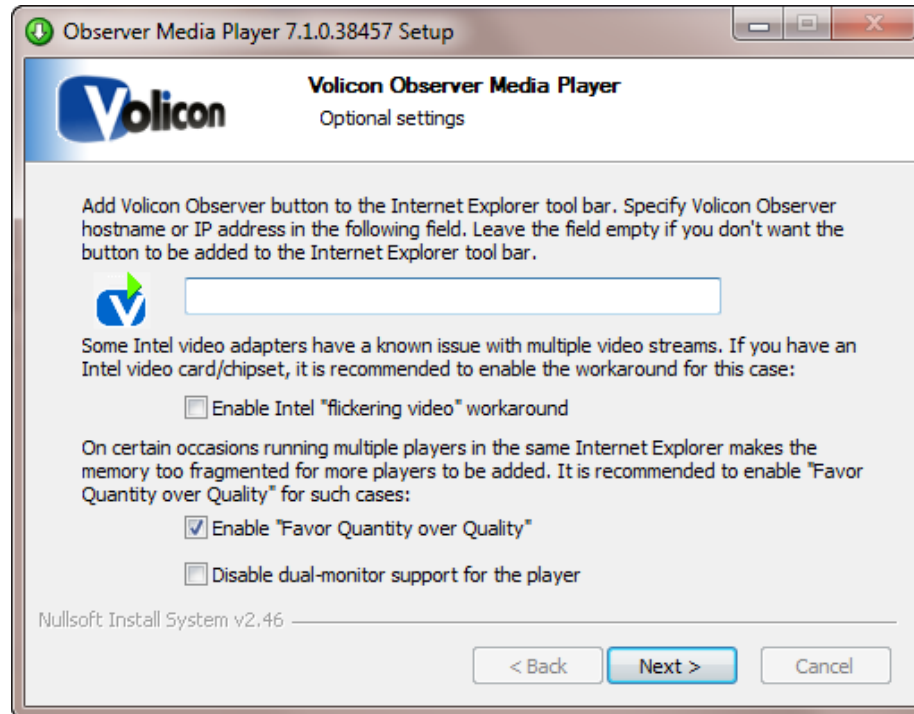


**Figure: Installation Complete**



## OPTIONAL SETTINGS/SELECTION

Observer will present you with the Optional Settings window.



**Figure: Optional Settings Window**

### **Optional Setting/Selection:** Internet Explorer shortcut

If you want to add a quick connect button to your Internet Explorer tool bar, enter the URL or the IP address for your Volicon Observer in the field provided. Leave the field empty if you do not want Observer on your tool bar.

### **Optional Settings/Selection:** Intel video adapter workaround

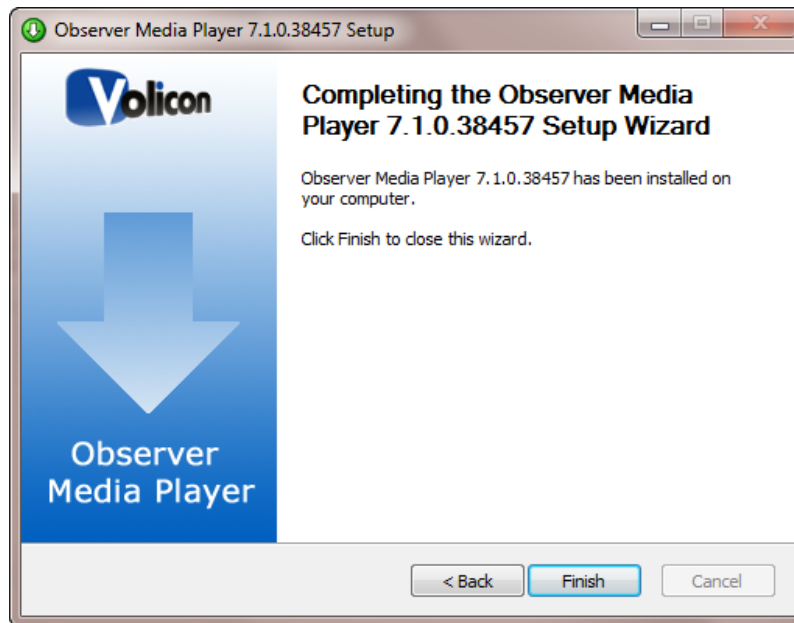
Volicon does recommend that if your computer has an Intel video card, or a video card with an Intel chipset, that you enable the Intel “flickering video” workaround checkbox as a precaution. Enabling the checkbox will not affect the performance of the Intel chip sets that do not have issues with multiple video streams, and will protect you in the event that your chipset is one of those with known issues.

**Optional Settings/Selection:** Favor Quantity over Quality

Volicon also recommends that you check the **Enable “Favor Quantity over Quality”** checkbox for the best experience using Internet Explorer to run multiple players.

Make your choices, and click **Next**.

Observer presents you with the “Completing the Observer Media Player Setup Wizard” window.



*Figure: Completing the Observer Media Setup Wizard Window*

Click **Finish** to exit setup.

## 2.3 Graphical User Interface (GUI): Initial Login

### 2.3.1 Internet Browser Support

#### 2.3.1.1 Internet Explorer Support

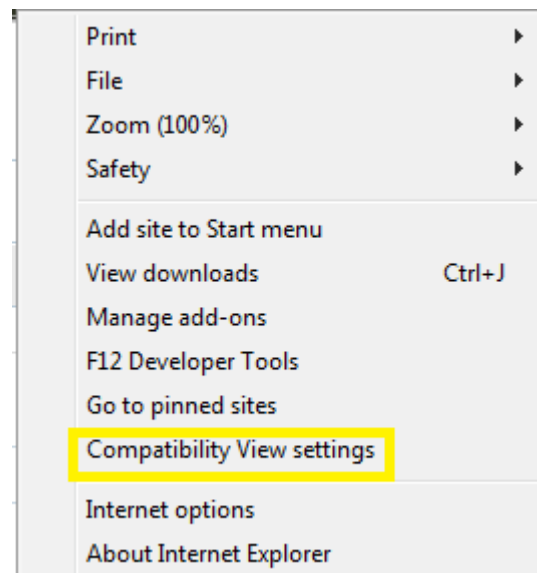
For full functionality, the Observer Media Player currently supports Internet Explorer 8, 9, and 10 in both 32-bit and 64-bit format. When you are using Internet Explorer 10; you must set "compatibility mode". From your browser window select **Tools>Compatibility View**. Set your options to “compatibility view options.”

You must run a specific procedure to use Observer with IE11. To do so:

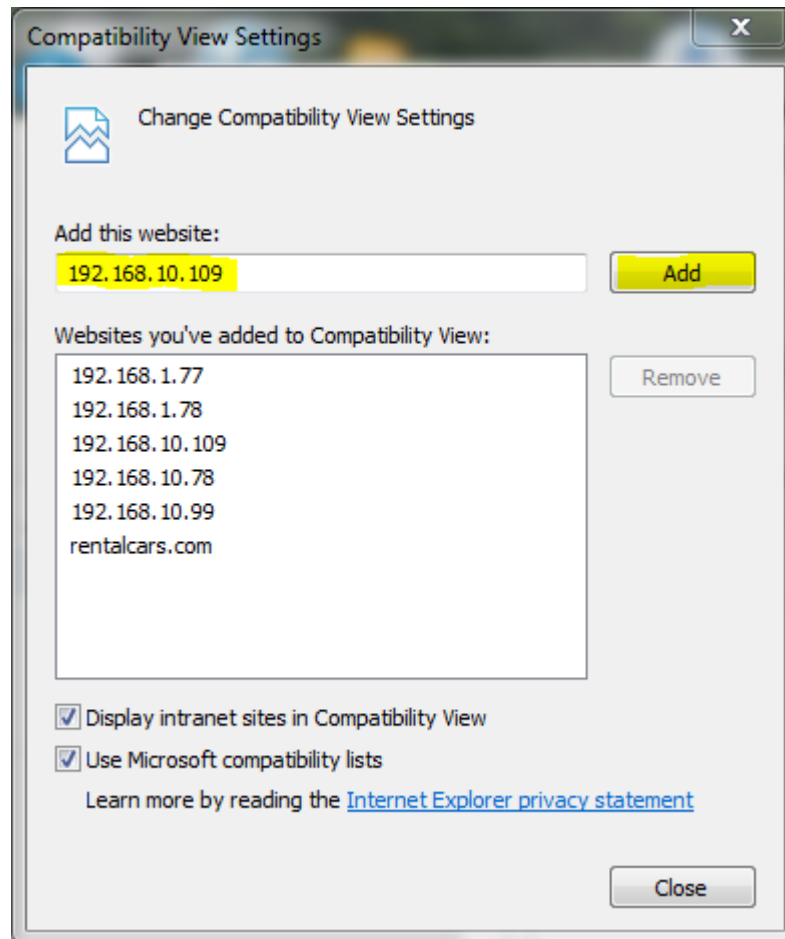
1. Open Internet Explorer. Click on the Tools icon (Alt+X) → Internet Options.  
Make sure that the following window opens:



2. Click on Alt→ Tools→ And then choose “Compatibility View Settings.”



3. Under “Add this website:” insert the client’s IP address and then click on Add.



Compatibility view mode is now enabled.

### 2.3.1.2 Multiple Browser Support using Clientless Mode – Silverlight and Flash Players

The Volicon Observer now supports a clientless mode for use with Chrome, Firefox, and Safari browsers. Clientless mode allows you to avoid installing the Active-X player.

To use clientless mode, you must perform some local php configuration:

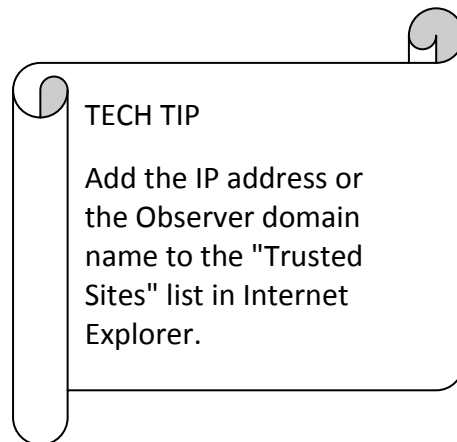
```
define("CLIENTLESS_PLAYER", "FLASH"); // SILVERLIGHT or FLASH (using Flash if undefined )
```

Please read the Clientless configuration documentation for complete details.

<https://pan.volicon.com/trac/attachment/wiki/UsefullGuides/Volicon%20clientless.docx>

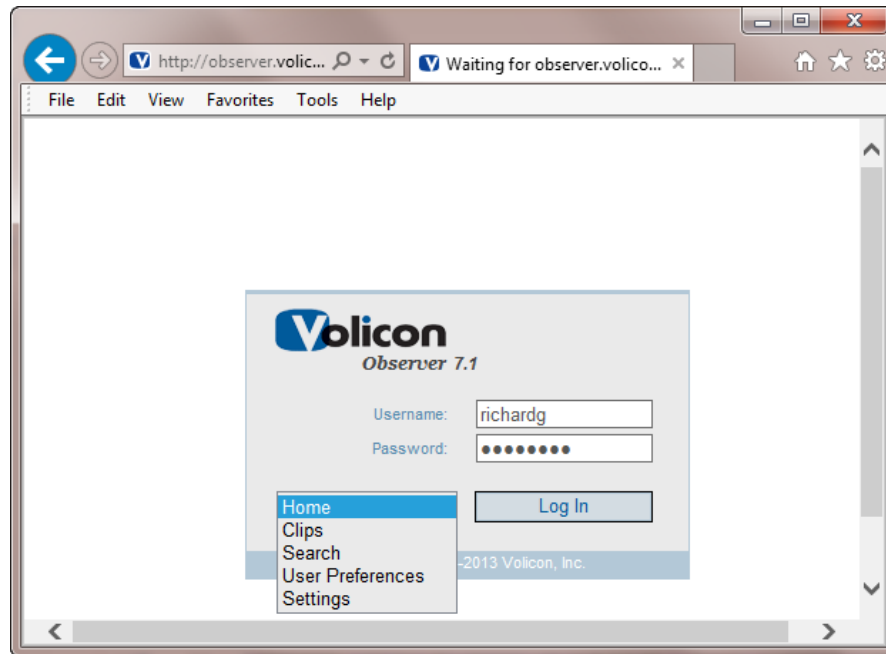
### 2.3.2 Steps to Log In

4. At the top of your Browser search bar, enter the IP or URL address provided from your Administrator.
5. You will then be prompted for your log in credentials (Username/Password). This will also be provided to you by your Observer System Administrator



### 2.3.3 Your initial LogIn Screen

For your initial login, choose **Home**, and enter the Username and Password your administrator provided you and select "Log In" In future logins, you will be able to select your starting screen from the drop-down menu on the left; options include-Home, Clips, Search, User Preferences, and Settings.



**Figure: Initial Login Screen**

Click **Login**.

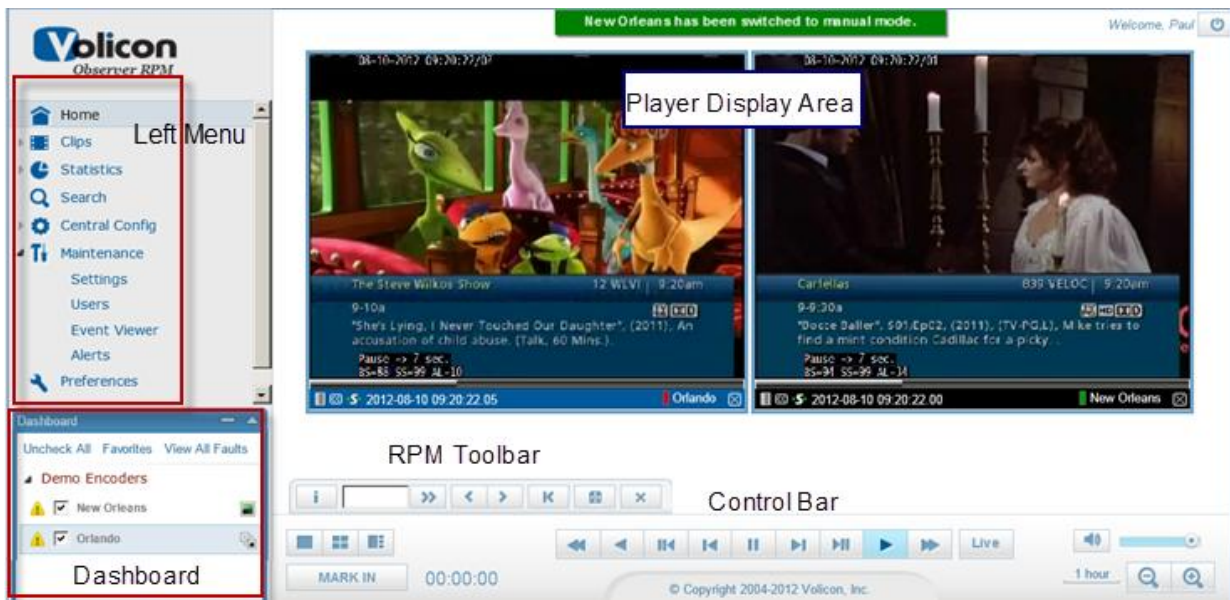
### 2.3.4 Installing player cab file

When a firewall blocks Volicon player download from a Web server or you need to install players on multiple machines, it might be more convenient to use an installation file. You can download a cab file from the Observer Web server: <https://ObserverURLaddress/observer.cab>. Then for the installation to proceed, double click on the installation file and accept all the prompts.



### 3 HOME PAGE

The Home page is the main monitoring interface of the system. Here you select the various channels from the Dashboard to view live broadcasts, play back recorded video and create clips for later review.



**Figure: Observer RPM Home Page**

You may need to define your Favorite channels in order to get them to appear in the Dashboard area. See the “Favorites” section @3.5. for this feature. To enable the favorites feature, See “Favorites” in the Observer Admin Guide.

#### 3.1 Streaming

To view channels, select the streams using checkboxes in the **Dashboard** area of the display, then use the **<Live>** button on the right of the Control-bar for the most recent media. Verify that all the Encoder/streams are working before proceeding to the next step.

If no channels encoder/channels appear, check your “Favorites” configuration. Alternatively, your system may not have the encoders configured. See “Stream Control” in the Observer Admin Guide if this is the case.

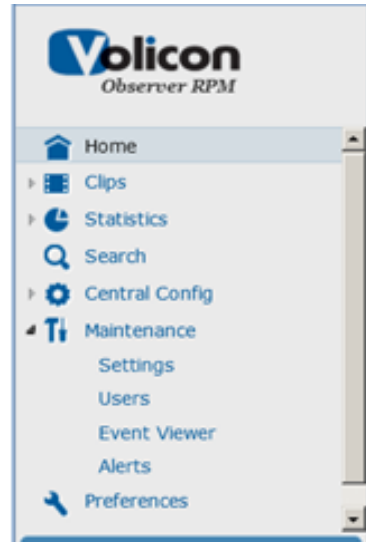
If encoder/streams appear but there is no video in them, it could be that the TCP streaming port is not open. In this case, contact your network administrator.

## 3.2 Player Display Area

RPM will display each channel you select, along with its individual play bar. Click on a channel of interest to select its player.

## 3.3 Left Menu

The Left menu allows for additional functionality such as clip list creation, editing and export. These features are described later in this document.

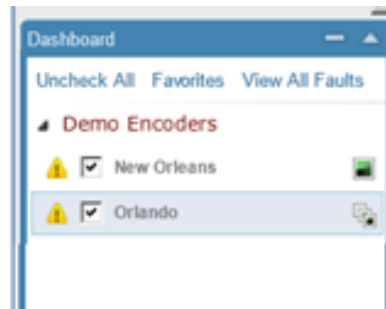


*Figure: Left Menu*

Note that some of these abilities may be restricted by the administrator and thus not available to you.

## 3.4 Dashboard - Encoder/Stream Inputs

The Dashboard provides you with stream checkboxes, **Favorites** and **Uncheck All** icons. Click on a player to listen to its audio and to select it for control with the Control-bar.



*Figure: Dashboard*

The **Uncheck All** icon unchecks all the selected players at one time.

### 3.5 Favorites

In a large system you can use the **Favorites** option in your Dashboard to select the specific encoder-streams you wish to show in your Home page out of the many available in the system. This allows you to manage a large system with ease.

To access your Favorites window, click the **“Favorites”** link in the Dashboard. Note that if you have already selected to play all your encoder streams, the Favorites link might not be visible. In this case, go to Maintenance → Settings to edit your selections. (See the Observer Admin Guide for details.)

The screenshot shows the 'Favorites' window in Volicon Observer RPM 7.1. The window is divided into two main sections: 'Favorites' and 'No Favorites'. Both sections contain a table of stream data with columns for '#', 'Channel Name', 'Encoder', 'Probe', and 'Group'. In the 'Favorites' section, the 'Remove from Favorites' button is circled in red. In the 'No Favorites' section, the 'Add to Favorites' button is circled in red. The interface also includes a search bar, a 'Show/Hide columns' button, and a 'Marked items' counter.

#	Channel Name	Encoder	Probe	Group
12	Atlanta-D9-DTA	Atlanta-D9-DTA	ATLANTA-DEMO	Comcast_Atlanta
10	Atlanta-D9-MotoDXC3400	Atlanta-D9-MotoDXC3400	ATLANTA-DEMO	Comcast_Atlanta
6	COMCAST HD	COMCAST_HD	RPM-DEMO2	Demo Encoders
8	VERIZON HD	VERIZON_HD	RPM-DEMO2	Demo Encoders

#	Channel Name	Encoder	Probe	Group
9	Atlanta-D9-MotoDXC3400	Atlanta-D9-MotoDXC3400	ATLANTA-DEMO	Comcast_Atlanta
11	Atlanta-D9-X1	Atlanta-D9-X1	ATLANTA-DEMO	Comcast_Atlanta
4	COMCAST SD	COMCAST_SD	RPM-DEMO2	Demo Encoders
7	VERIZON SD	VERIZON_SD	RPM-DEMO2	Demo Encoders

**Figure: Favorites Window**

Select the streams you are interested in from the bottom half of the page. (Note: selecting streams also makes the **“Add to Favorites”** icon visible.) Click the **“Add to Favorites”** icon to move the selected Encoder/streams to the top half of the **“Favorites”** page and to redefine the players accordingly in the Home page.

Follow a similar procedure to **“Remove from Favorites.”** Select streams at the top half of the page and click **“Remove from Favorites”** to remove players from the Home page. (Selecting streams at the top of the page makes the **“Add to Favorites”** icon visible.)

Click **Home** in the left menu to return to your home screen and display your chosen streams.

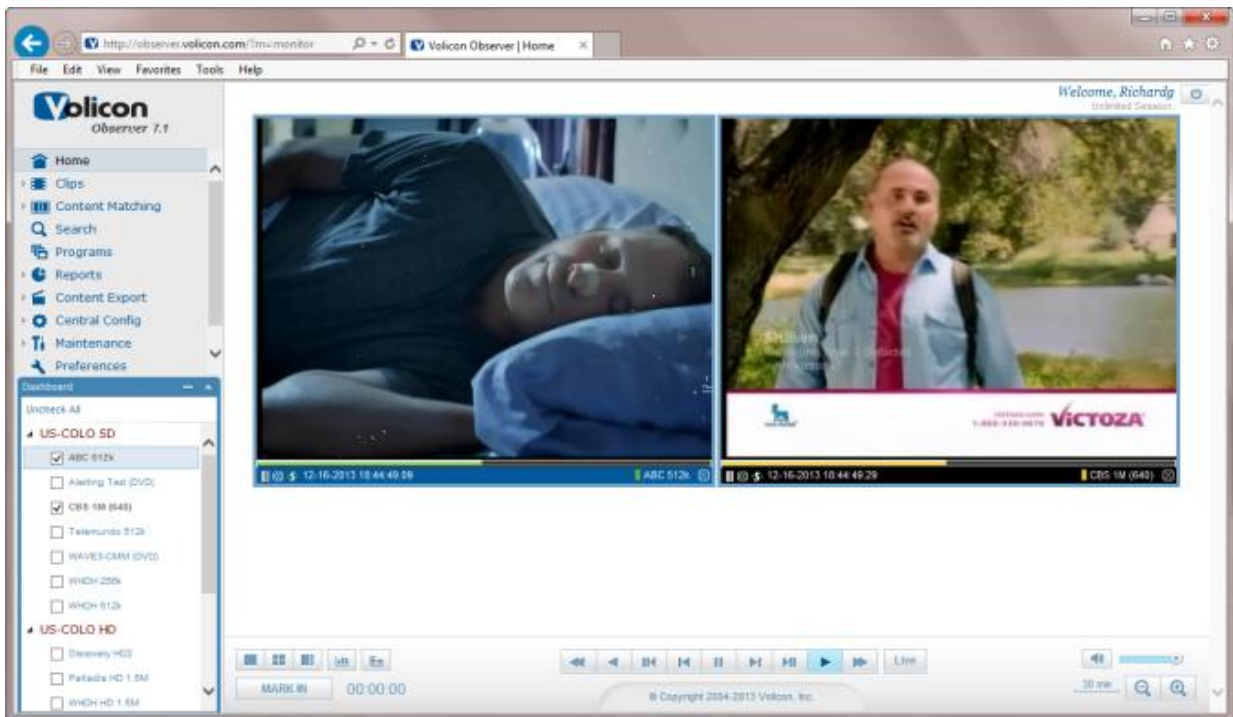
### 3.6 Controlling Your Video Stream/Streams

After you select and video stream(s) for display, a Media Player Bar opens along the bottom of the display frame. The Media Player Bar controls all the Video Stream/streams in your window simultaneously.



**Figure: Media Player Bar**

In the example below, both video streams were paused briefly. Clicking on the **Live** button caused the Observer to simultaneously retrieve the current live content for both streams.



**Figure: Simultaneous Control**

#### TECH TIP

If you use your mouse and "hover" over the control you can see the various search speeds for both directions.

From left to right, the buttons perform the functions below:

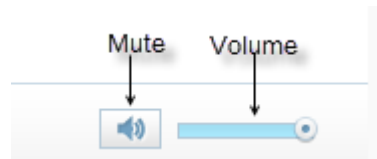
- Fast Rewind – 2x: rewinds at twice the normal frame rate, or (click again for 8x)
- Rewind – 1x: rewinds at normal frame rate
- Slow Rewind – ½x: rewinds at one-half the normal frame rate, Step Backward: steps backward by a single frame
- Pause
- Step Forward: steps forward by a single frame
- Slow Forward – ½x: moves forward at one-half the normal frame rate,
- Play: moves forward at the normal frame rate
- Fast Forward MAX: moves forward at 2x the normal frame rate, (click again for 8x)
- Live: synchs up all the Video Streams in the Player Window with the most recent content. There are two visual ways to ensure you are viewing the most recent content: by border color identification and by Time Identification.

You can also place the mouse cursor inside the video stream window and use the mouse wheel to move frame by frame.

Note: The power of the Volicon RPM platform is in its ability to support many sessions or users simultaneously without affecting other users. For example, **what you do in the Player Window only affects your Player Window. It has no effect on other users.** Observer is the only program of its kind on the market that provides you in this way with the complete freedom to perform your job functions when and as you need to perform them.

### 3.6.1 Volume Controls

Observer provides you with volume controls in the lower right hand corner of your home page. These are the master volume controls, and control the volume to your speakers of whatever stream you are listening to on your home page. Note that if you have multiple video streams open, you will only receive audio from one of the streams. Simply left clicking inside any open video stream will allow you to hear audio for that stream. Also, the bottom border will turn blue while the other open streams will be black (a visual way of identifying where video is coming from).



**Figure: Volume Controls**

You have two volume controls:

- **Mute** mutes and unmutes the audio for your currently selected stream
- **Volume:** adjusts the volume of your audio as you move the slider bar left and right. All the way to the right gives you full volume.

### 3.6.2 Mark to cut clips



While examining media, the **<Mark Start/Mark End>** button allows you to clip sections of interest. Navigate to the desired start time and click the **<Mark Start>**; the button's graphic will change automatically to **<Mark End>**. Then navigate to the desired end-point and click the button again. A dialog box will appear allowing one to specify additional information, e.g., Name, Description... Press the **<OK>** to record the new clip in the Bookmarks area. See the "Export Clips" section for additional details.

### 3.6.3 Controlling Display Modes

Observer allows you to specify the display mode of your Player Window with the Display Mode buttons at the lower left of your window.



**Figure: Display Mode Buttons**

From left to right, these buttons are:

- **Full Screen**, which displays a single video stream across the full screen of your monitor (outside of the IE window in which Observer is running).



*Figure: Full Screen Display Mode*

To exit from Full Screen mode, press the Escape key.

- **Split Screen**, which displays all of your active streams across your full monitor.



*Figure: Split Screen Display Mode*



To exit from Split Screen mode, press the Escape key.

- **Picture in Picture**, which displays the stream with active audio as the main feed, and places all other active feeds inside that picture on the right hand side.



*Figure: Picture in Picture Display Mode*

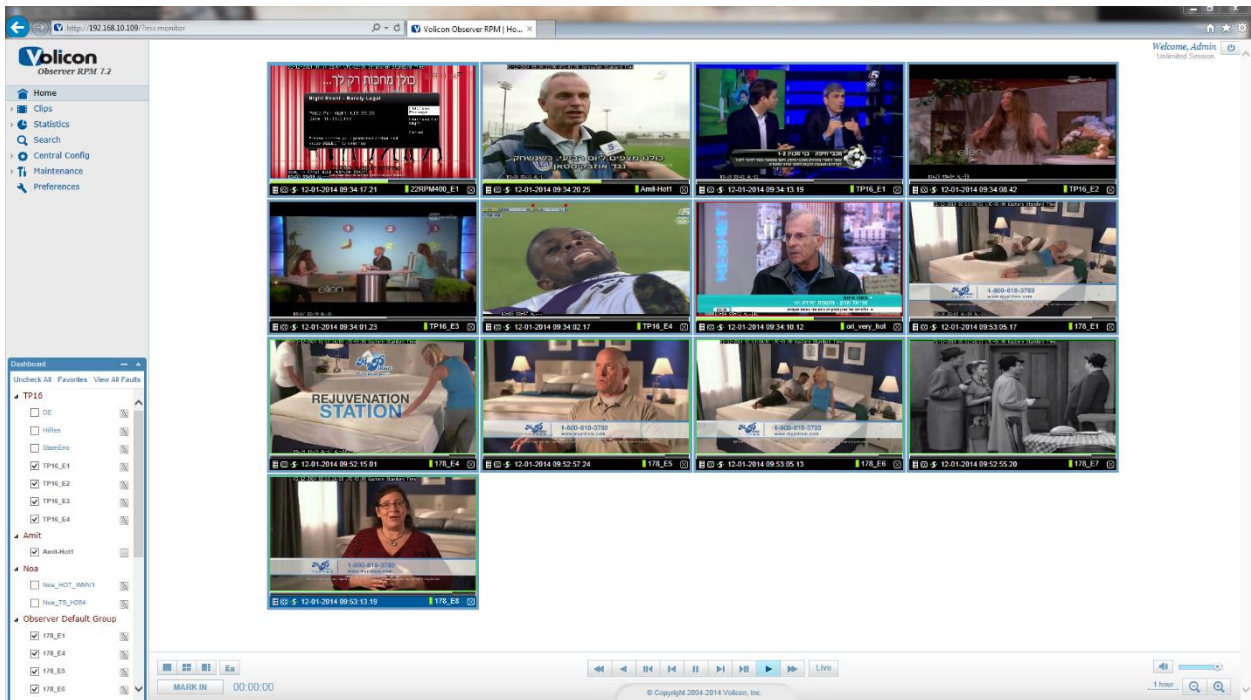
To exit from Picture in Picture mode, press the Escape key.

## 3.7 Wall of Monitors Mode

In older versions of the Observer opening a large number of players simultaneously created high memory consumption. In order to solve this issue, 64 bit player is now supported. 64 bit mode allows you to open large numbers of players simultaneously, without creating any additional memory consumption.

### 3.7.1 Entering Wall of Monitors Mode

In 64 bit mode, it is possible to open multiple players without losing functionality.



**Figure: Wall of Monitors Mode**

In 32 bit mode you must configure an ability to enter multiview with missing functionality.

*Note: by default, the Observer supports up to 12 players simultaneously. You can change this default value in the local.php file by adding the following line:*

```
define ("HARDCODED_PLAYER_LIMIT", <number_here>)
```

In addition, you can change the player's number for entering multi-view by adding the following line to the local.php file:

```
define ("MAX_FULL_CAPABILITY_PLAYERS", <number_here>);
```

### 3.7.2 Frame Color Alert Notification

Volicon developed the frame color alert notification so that when you are in “wall of monitors” mode you will be able to see if any alert appears on one of the encoders.

This feature will color the player frame according to the following table:

**Video - RED**

```
'VIDEO_LOST'  
'VIDEO_BLACK_AUDIO_LOW'  
'VIDEO_BLACK_AUDIO_HIGH'  
'VIDEO_BLACK',  
  
'VIDEO_STATIC_AUDIO_LOW'  
'VIDEO_STATIC_AUDIO_HIGH'  
'VIDEO_STATIC'
```

**Audio - YELLOW**

```
'AUDIO_LOW'  
'AUDIO_HIGH'
```

**Other - BLUE**

```
'SCRIPT_ERROR'  
'DIAL_ERROR'
```

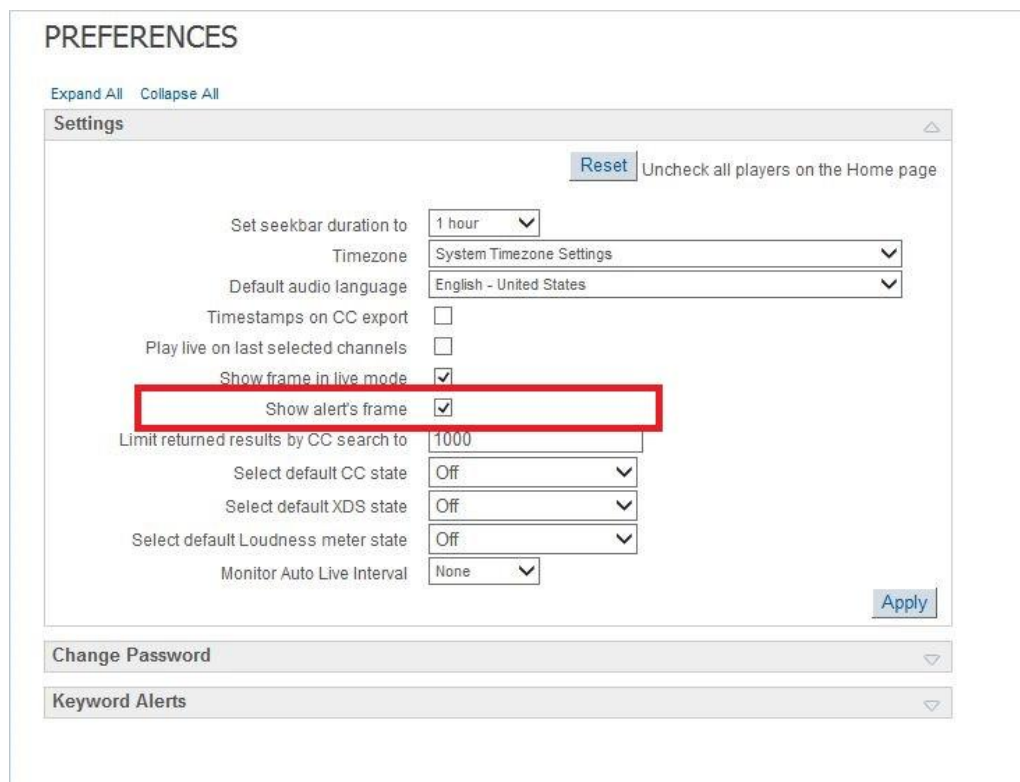
If multiple alarms occur in the same player simultaneously, the Observer has an established priority for which alert determines the frame color. Video alerts take precedence over audio alerts which take precedence over "other" alerts, i.e.:

VIDEO > AUDIO > OTHER.

When you turn on the frame color alerting notification, the player frame color will always reflect the encoder status in live mode. For example, consider the situation in which the encoder observed a script error ten minutes ago, and so the encoder frame has turned BLUE. The encoder frame will remain blue, even if you are observing yesterday's video in the encoder from a period of time in which there was no alert.

### 3.7.2.1 Configuring Frame Color Alert Notification

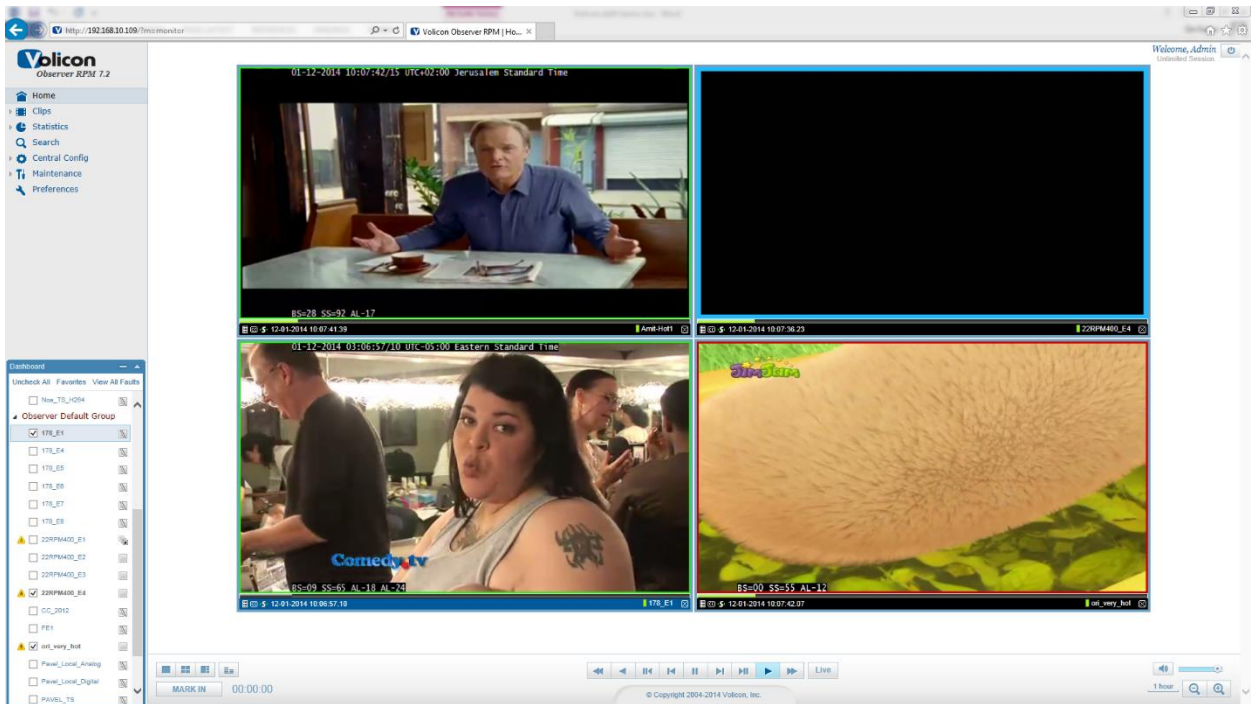
To configure Frame Color Alert Notification, from the left panel click **Preferences**. Click **Settings** in the Preferences window. Click the checkbox beside **Show alert's frame**.



**Figure: Configuring Frame Color Alert Notifications**

Note that this option is only available to you if you are running in 64-bit mode.

The screen capture below is a sample of a video alert. Note the red frame around the lower right-hand encoder.



**Figure: Video Alert**

### 3.7.3 Keyboard Hotkeys

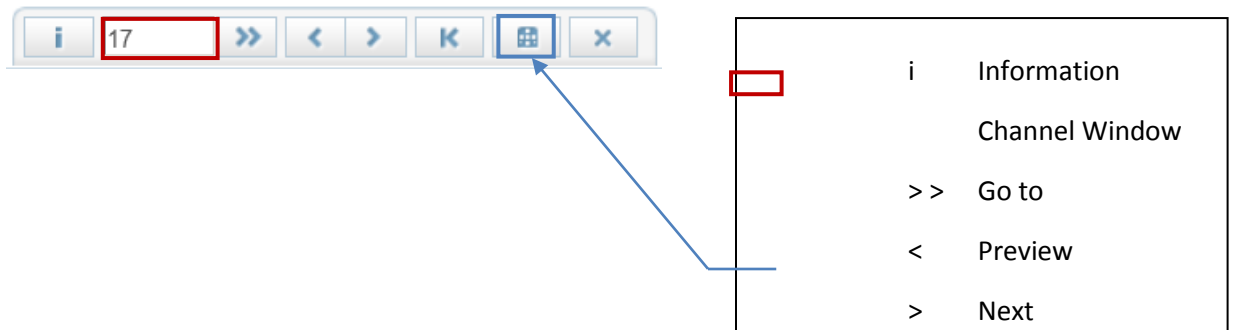
When you have multiple players open simultaneously in your main screen, you may find it easier to control them using keyboard hotkeys. The hotkeys available to you are:

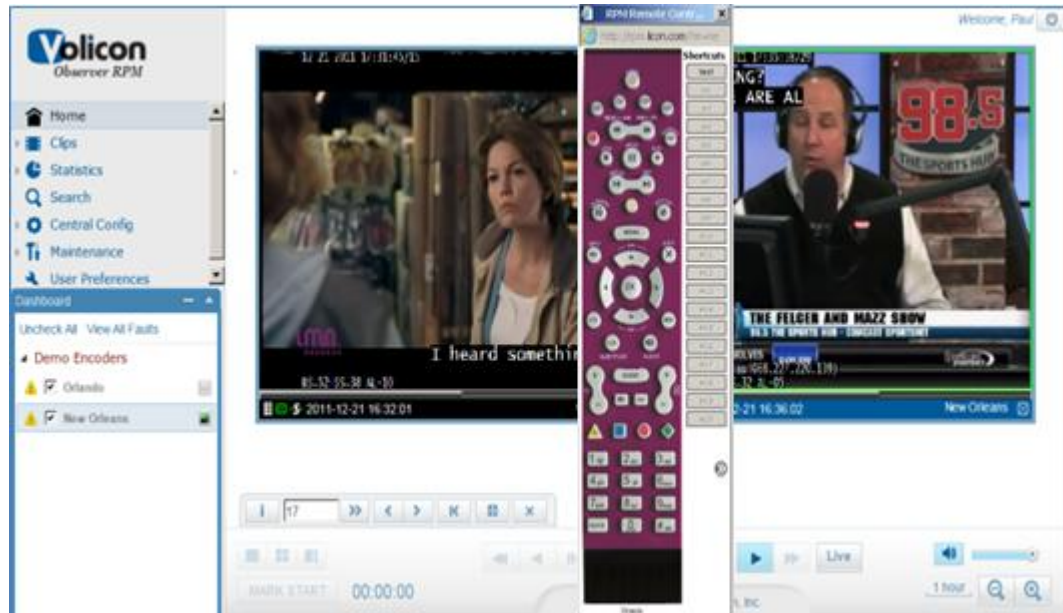
- L-live
- P- Picture in picture
- S- Split screen
- F- Full screen
- M-mute
- D- Switch between main and expanded display
- Z- Fast reverse
- X- Normal reverse
- C- Slow reverse
- <Spacebar>- Pause/play
- V- Slow forward
- B- Normal forward
- N- Fast forward

- M- mute/un-mute
- I- Image snapshot
- <Cursor up/down>- Volume up/down
- mouse scroll up/down- Single frame forward/backward
- <'>- cut clip <mark in/mark out>

### 3.8 RPM Toolbar - Remote Control Bar

Click on the scan icon to place a channel in manual mode. It will cycle through idle, scan and manual mode. The manual mode is marked with the user name.





**Figure: Remote Control**

*See the “Remote Control” section later in the manual for details.*

### 3.8.1.1 Controlling Individual Video Streams

You can control your Video Streams individually by clicking anywhere on the seek bar within the Video Stream itself.



**Figure: Individual Video Stream Control**

The Observer Media Player Seek bar is unlike any seek bar you see in other streaming video applications. The Observer Media Player video feeds do not have a finite end to the video stream like other internet based video streams. Therefore, we cannot count down to the end of currently playing video. Instead the end user can configure the seek bar duration time span displayed on screen. Using the "+" & "-" magnifying glass icon in the lower right hand corner of the Observer Media Player (see the red box, above). You can define the seek bar time span to be anywhere from 1 minute to 10 hours in length in predefined increments. This duration applies to all open streams.

By hovering over the Observer Media Player Seek bar, you can immediately see the time down to the millisecond you wish to navigate to within that time span. Once you click anywhere on the seek bar, the video stream will instantly begin to stream video from that point in time. To return to the most recent content, simply click the live button and all open video streams will begin to stream live content again. Each open window can be individually controlled in the same manner.

Note that in this context "live" means "real time to the Observer." The Observers ingests live video, transcodes it, stores it, and streams it out to you as an end user. This process takes from 6-8 seconds. Thus, the "live" feed will be about 8 seconds behind real time.

#### **Border Color Identification:**



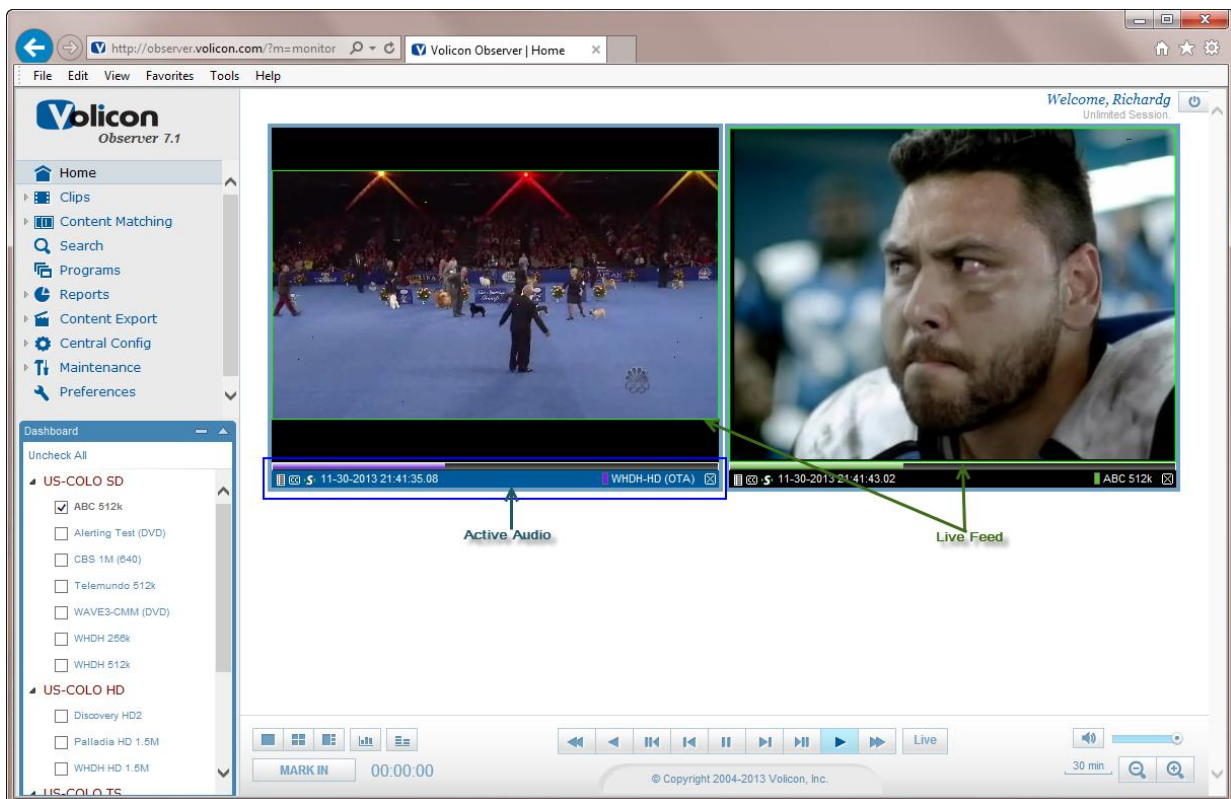
### Green Border

First, Observer Media Player always surrounds a live Video Stream with a thin green border. Anytime you press the "Live" button on the Media Player bar, all open video streams will begin streaming live video and the green border will appear around all open video streams.

The green border disappears when the stream is not in near real time.

### Blue Border

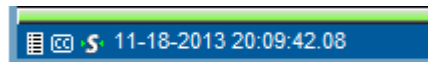
A blue border along the bottom of the feed represents the stream from which you are hearing audio.



**Figure: Video Stream Border Colors**

### Time Identification

The second method is comparing the time displayed on the video stream to the current time on your PC/laptop.



### 3.8.1.2 Video Stream Management Advanced Actions Bar



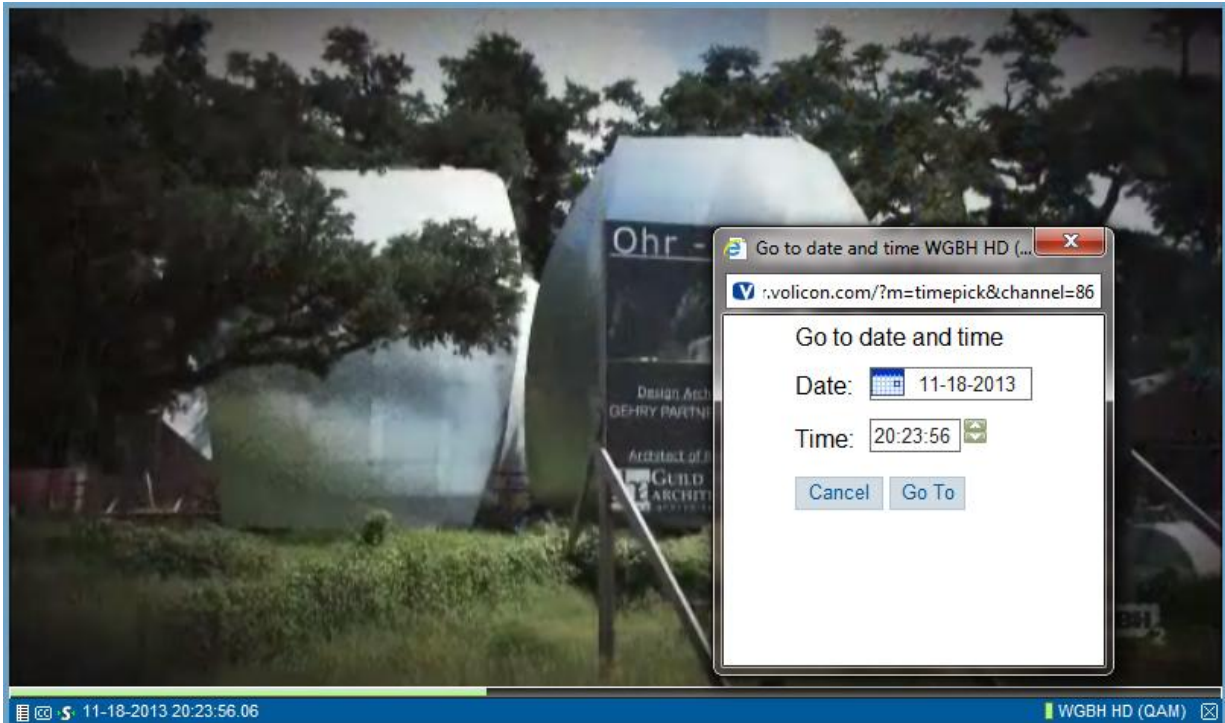
*Figure: Advanced Actions Bar*

Observer provides you with several tools for managing individual Video Streams within the Video Stream window itself. If present and configured by your Volicon Administrator, from right to left these actions are:

- The Calendar Function
- The Synch to Me function
- Closed Captioning
- Advanced Options

### 3.8.1.3 The Calendar Function

Besides using the Media or Seek bars to find specific content, you can navigate any Video Stream to a specific date and time by left clicking on the date/time value in the bottom left of each Video Stream. Observer opens the **Go to date and time** window.



*Figure: Go to date and time Window*

Enter the date you are searching for either by clicking on the calendar icon and choosing the date, or by entering text in the format **MM-DD-YYYY**. Enter the time you are searching for in the 24-hour format **HH:MM:SS** or by clicking the up and down arrows beside the Time field. Click the **Go To** button to move to your chosen date and time. The video stream will instantly begin to stream video from that specific date and time.

**INFO TIP**

Note: you can only view historic video up to the date either when the system was initially installed or back to the time configured for video storage, whichever time comes first.

### 3.8.1.4 Sync to Me

If you have several Video Streams open and need to know what each Video Stream was displaying at a specific date and time, you can move a single Video Stream to that date and time and then click the **Sync to me** button. Observer will set all your open Video Streams to match the date and time of your selected window.

Another method is to open one stream select a date and time to view then open other video streams. You will notice all video streams open to the same time as the original open stream



*Figure: Sync to me Button*

### 3.8.1.5 Closed Captioning

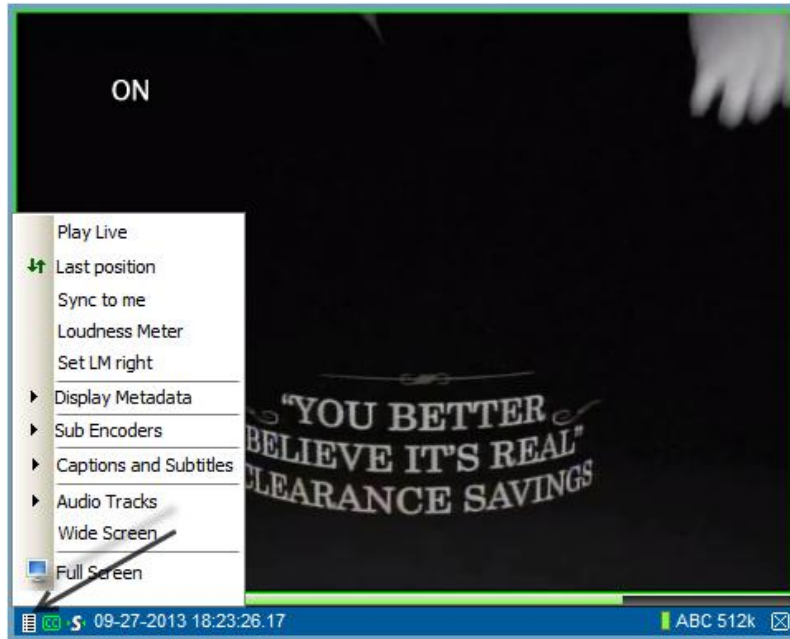
You can turn Closed Captioning/Teletext on or off for individual Video Streams using the **Show/hide CC** button in the lower left portion of the window. The closed captions/teletext is an overlay and not burnt into the video when it is turned on or off. It can be turned on or off by each user without being displayed on any other users stream. Observer always captures the cc/tt data if the admin configures it to do so, which allows you to go to any point in time and view cc/tt. When Observer displays the Closed Caption text, it conforms to SMPTE profile of W3C Time Text Markup Language which preserves the Position, transparency, font, color, and timing of the CEA708 CC data



*Figure: Show/hide CC Button*

### 3.8.1.6 Advanced Actions Button

Each Video Stream also gives you access to an Advanced Actions Button that affects that Video Stream only.



*Figure: Advanced Actions Button*

Left-click on the Advanced Actions Button or right click inside the video stream to open the Advanced Actions Menu. The menu gives you access to a set of commands:

- **Play live:** causes your stream to retrieve the live Video Stream from your selected source.
- **Last position:** Allows you to jump back and forth between two positions on the Video Stream time line. For example, you can be watching a live Video Stream, use the Go To Date and Time window to move to a specific point in the past, and jump back and forth between the two.
- **Sync to me:** Synchronizes the date and time of all your open Video Stream windows to that of the window in which you execute the command.
- **Loudness Meter:** Displays an active loudness meter in the lower left of your Video Stream window.



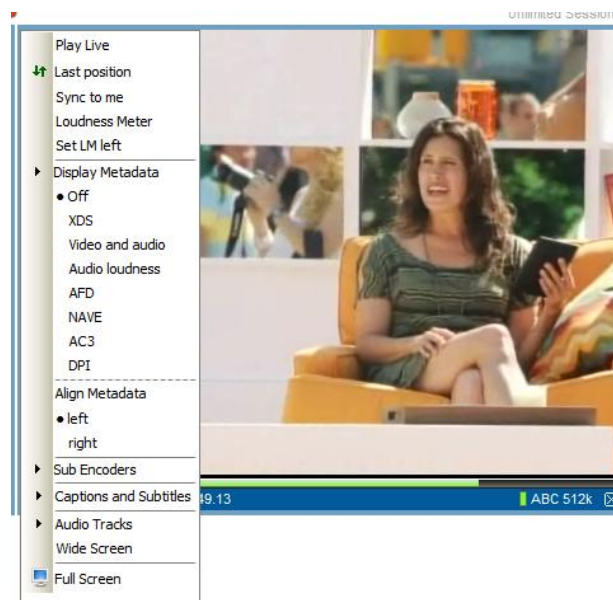
**Figure: Loudness Meter**

- **Set LM right:** Sets the loudness meter to the lower right of your Video Stream window.



*Figure: Set Loudness Meter Right*

- **Display Metadata:** this option expands the menu to give you the option of displaying various metadata as an overlay on top of your Video Stream. This metadata is not burnt into video but is an overlay that can be turned on or off on live or historic data. Not all metadata is available; please check with your Observer administrator to understand which data is being captured.



*Figure: Display Metadata Submenu*



You can choose which set of metadata you wish to display.

**XDS Metadata** If present in the Video Stream, you may display the source, title, and program rating of your Video Stream.



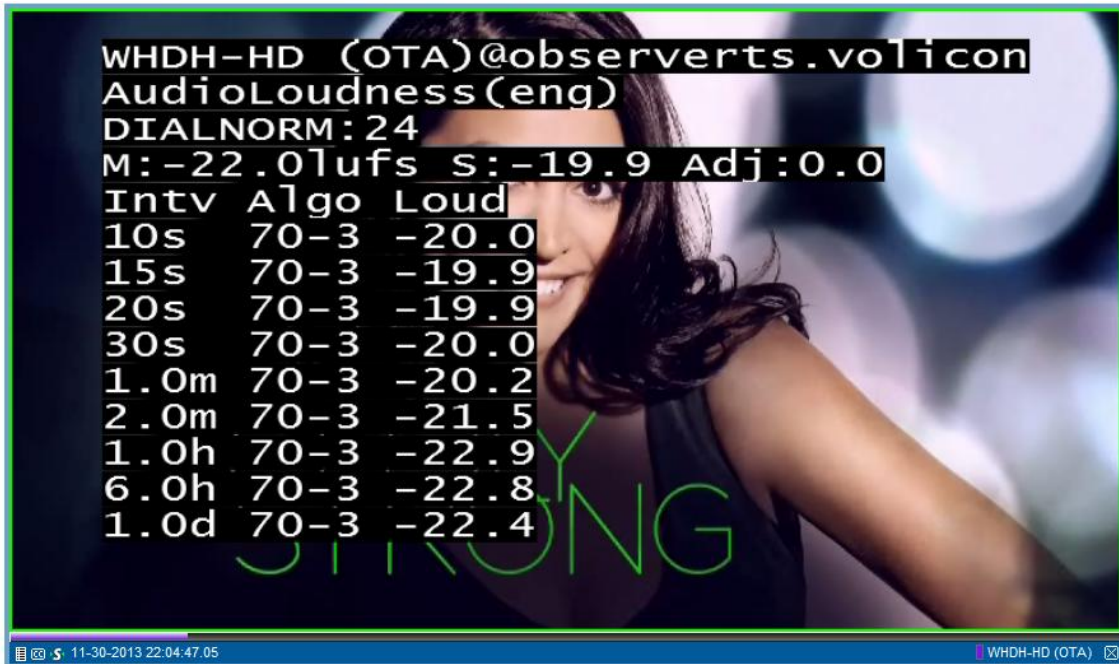
*Figure: XDS Metadata*

**Video and Audio** displays the video codec, the pixel resolution, the bits per second, frames per second, and audio sampling frequency of your Video Stream.



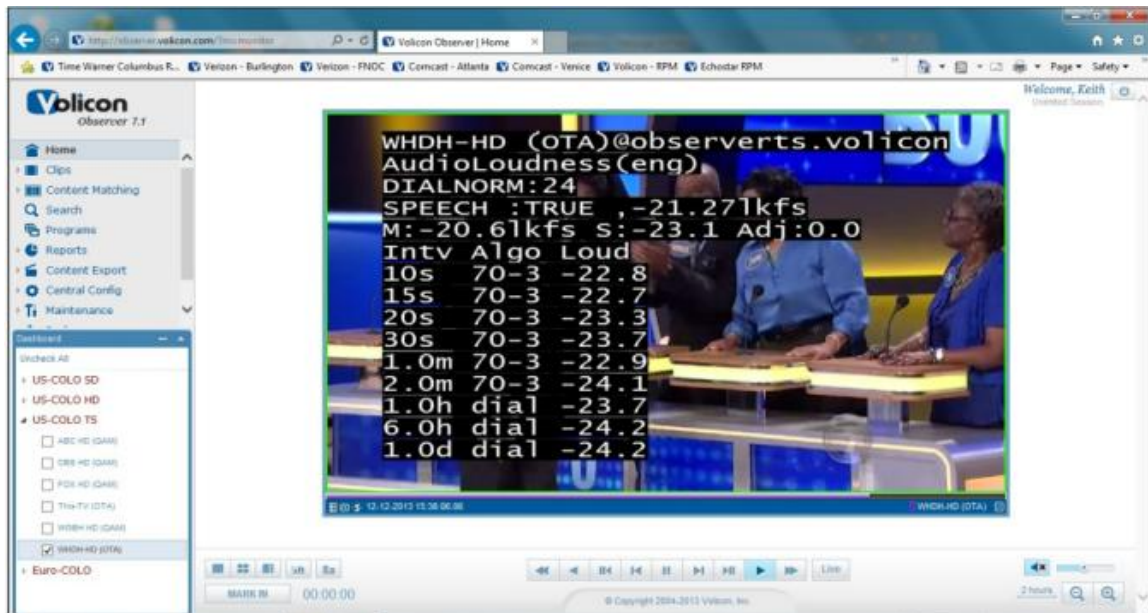
*Figure: Video and Audio Metadata*

**Audio loudness** displays the audio regulatory environment from which the Video Stream originated: in the capture below, English language from the United States.



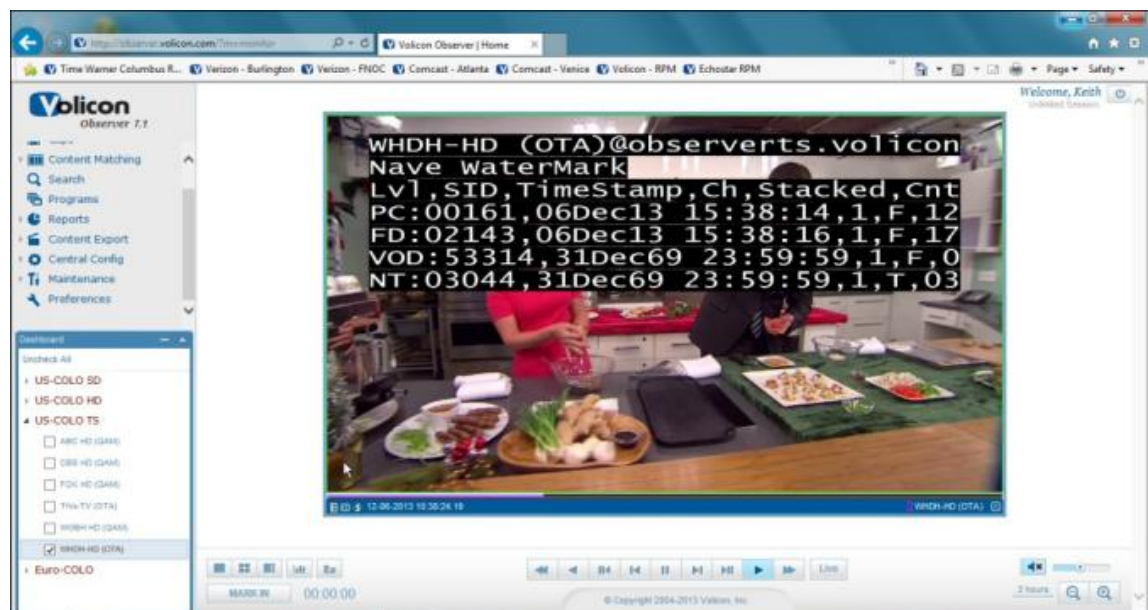
*Figure: Audio Loudness Metadata*

**AFD (Active Format Description)** is a standard set of codes for television or set-top-box decoders. AFD displays that metadata on your Video Stream. The AFD information instructs the Observer as to what specific format is being sent, either 4:3 or 16:9. Since programs can vary in format in a given stream, the Observer will use the AFD to adjust the format dynamically for display.



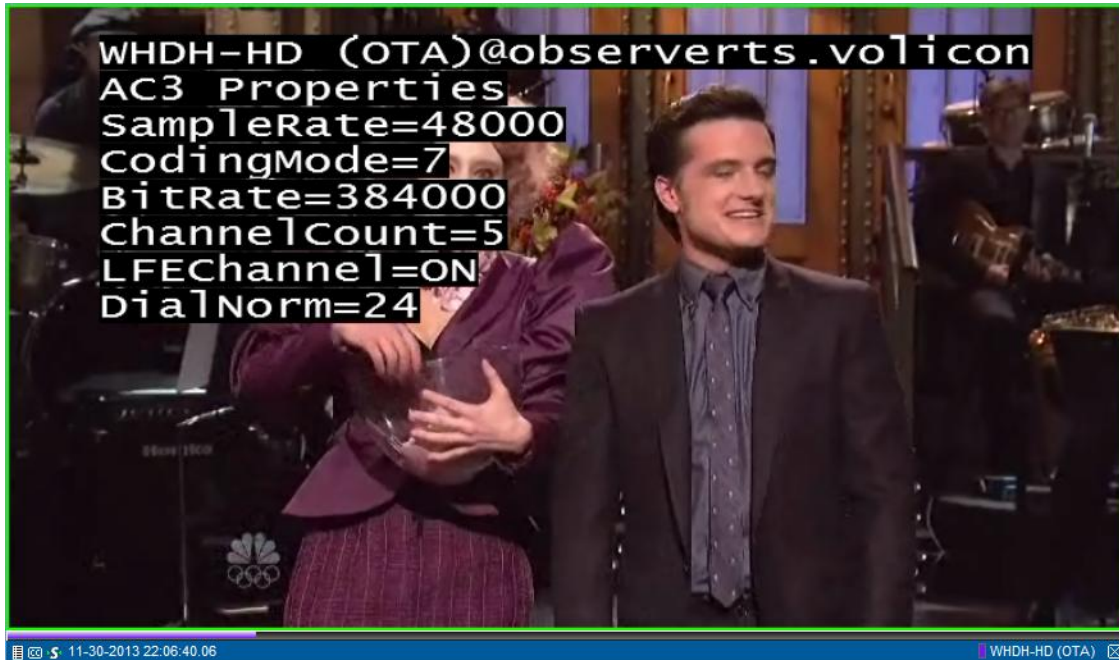
**Figure: AFD Metadata**

**NAVE (Nielsen Audio Video Encoder)** is a Nielsen encoder that adds data to audio and/or video to track the distribution of content through a variety of local and national distribution systems. If the Video Stream you are watching carries a NAVE watermark, choosing this option will display that metadata.



**Figure: NAVE Watermark Metadata**

**AC3** is the technical name for Dolby Digital Audio Compression. It has been standardized by the Advanced Television Systems Committee (ATSC), and is used for the efficient encoding of surround sound. If your Video Stream is carrying AC3 information to create surround sound, choosing AC3 will display that metadata.



*Figure: AC3 Metadata*

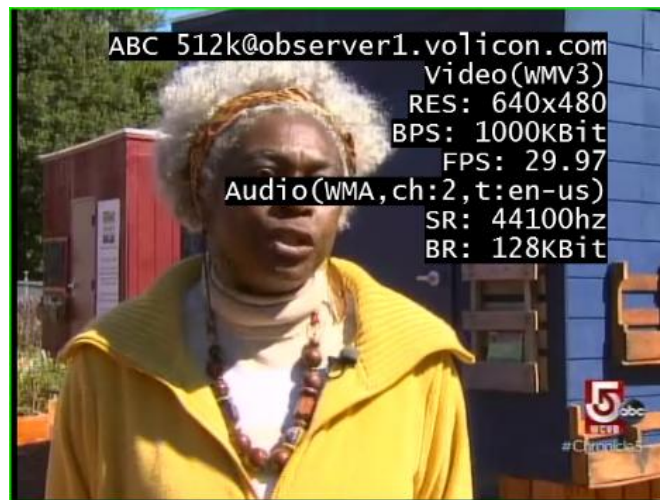
**DPI** or **Digital Program Insertion** allows cable headends and broadcast affiliates to insert locally-generated commercials and short programs into remotely distributed regional programs before they are delivered to home users. If your Video Stream is displaying locally generated programming, you can see its parameters by observing the DPI metadata.

**Align Metadata** allows you to push your metadata display either to the left:



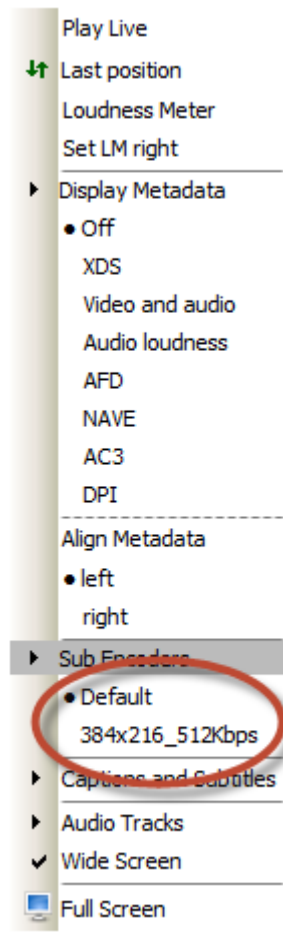
*Figure: Align Metadata Left*

Or to the right:



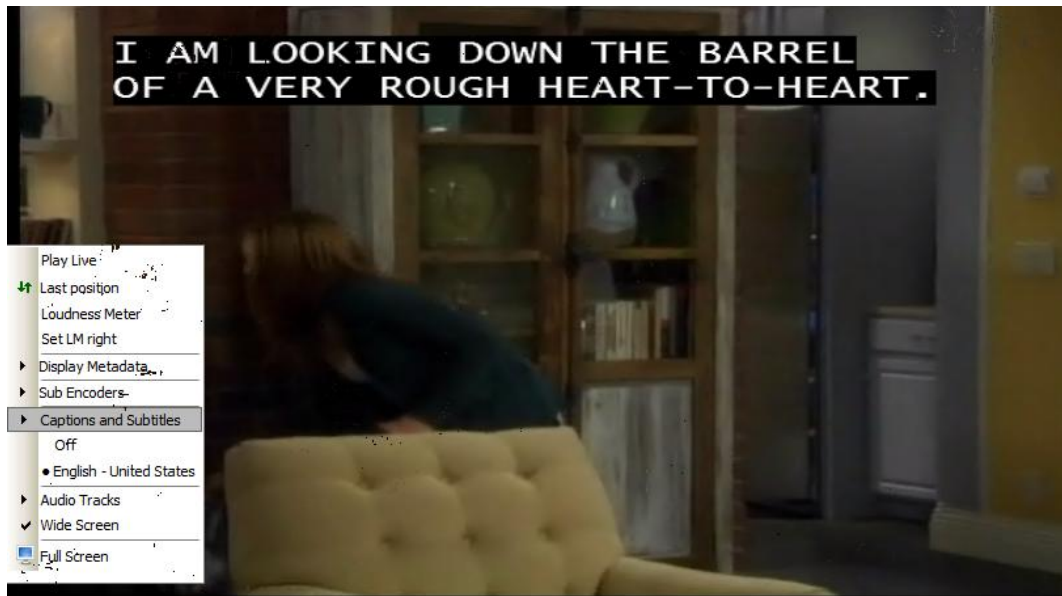
*Figure: Align Metadata Right*

- **Sub Encoders:** displays the available sub encoders in your Video Stream. Sub encoders, if they are available allow you to view the video stream in something other than the default pixel size and data rate. This will always be in a lower bit rate and usually in a lower resolution. Sub encoders are intended for bandwidth constrained networks (WiFi, Mobile, etc).



*Figure: Sub Encoders*

- **Captions and Subtitles:** displays the available closed caption options in your Video Stream, and allows you to turn them on or off. This option provides the same function as clicking the CC button on the Advanced Video Options bar. If available, allows the user to select DVB subtitle(s) by language



*Figure: Captions and Subtitles*

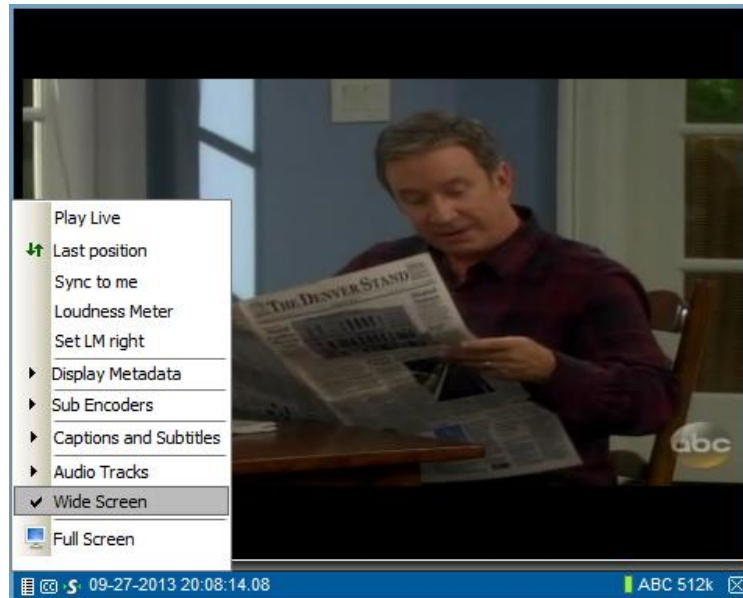
- **Audio Tracks:** displays the audio tracks available on your chosen Video Stream. Your administrator configures which tracks are available on your chose stream with the Audio Profile Manager (see the Observer Admin Guide for details).



*Figure: Audio Tracks*



- **Wide Screen:** lets you view your Video Stream in wide screen format, regardless of the format of the Video Stream.

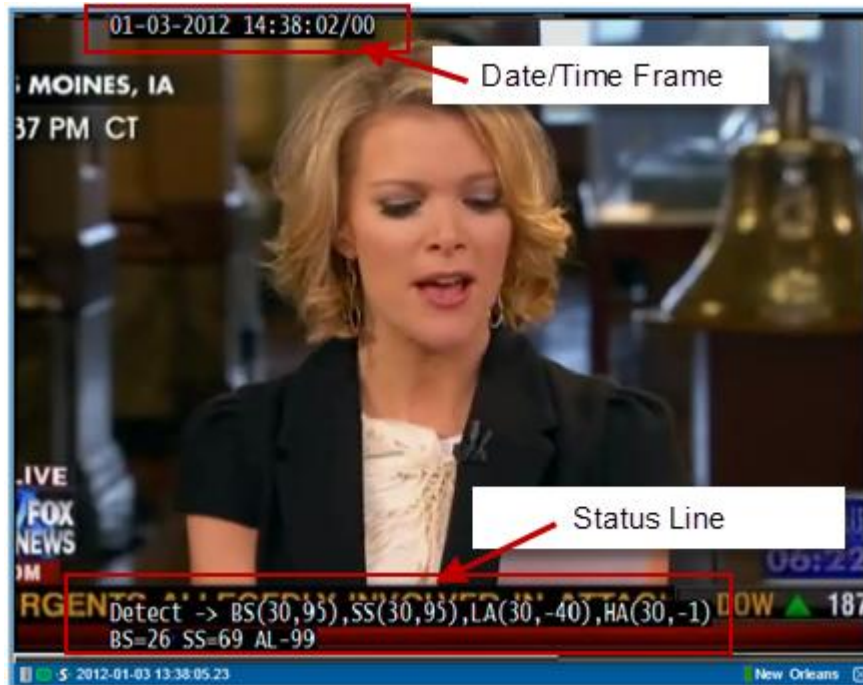


*Figure: Wide Screen*

- **Full Screen:** lets you see your Video Stream in full screen format. In full screen format, press **ESC** to return to your Volicon RPM window.

### 3.9 Status Line - AL, SS and BS

The status line displays the video and audio measurements recorded for every channel. These can also be examined later through playback.

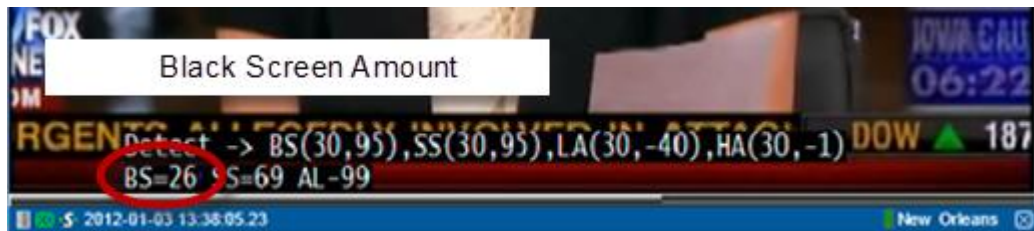


**Figure: Status Line**

In addition it displays the RPM script phases, see below.

### 3.9.1 BS - Black Screen Amount

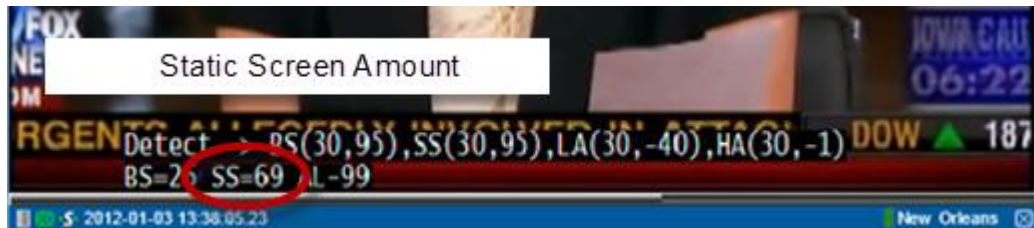
Black Screen Amount (BS) shows the percentage of black pixels in the display.



**Figure: Black Screen Amount**

### 3.9.2 SS - Static Screen

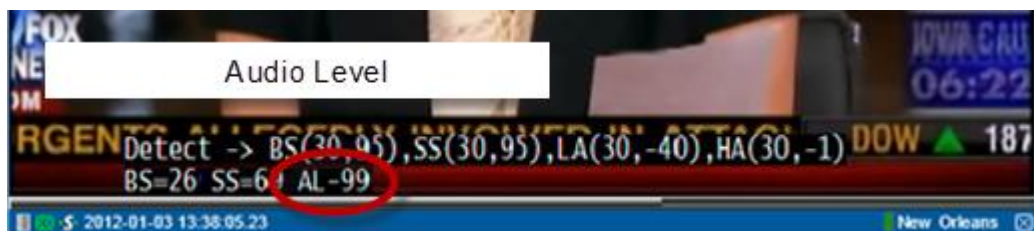
Static Screen (SS) shows the percentage of static scenery in the display.



*Figure: Static Screen Amount*

### 3.9.3 AL - Audio Level

Audio Level (AL) provides the received signal as measured in dB (Decibels). The default threshold for Low Audio Alert is -40 dB; with an amplitude range from -54 to 0 dB.



*Figure: Audio Level*

#### 3.9.3.1 HA – Low/High Audio Level

The default thresholds are -40 dB for Low Audio (LA, audio going below the threshold) and -1 dB for High Audio (HA, audio exceeding the threshold).

### 3.9.4 RPM Script Phase – Current Running Script

For each channel the RPM goes through several script phases such as the dialing of digits, delay for the STB to respond and the “Detect” phase which compares media characteristics with your configured thresholds:

The table below lists all of the RPM script phases, and explains how to read the results.

Detect → BS(30,95), SS(30,95), LA(30,-40), HA(30,-1)		
<b>BS(30,95)</b>	30 sec	Period of black screen measurement
	95%	Percent of black screen pixels in the display
<b>SS(30,95)</b>	30 sec	Period of static screen measurement
	95%	Percent of static screen pixels in the display
<b>LA(30,-40)</b>	30 sec	Period of Audio Low measurement
	-40	Audio threshold in dB
<b>HA(30,-1)</b>	30 sec	Period of Audio High measurement
	-1	Audio threshold in dB

### 3.9.5 RPM Script Phase – Manual Mode

When you are in manual mode (explained in the next section), the RPM displays the word “Manual” along with your user name and the IP address of your client PC on the status line.



*Figure: Manual Mode RPM Script Phase Display*

### 3.10 Logging Out

When you complete your work session, log out in order to save system resources.

To log out of the Observer, click the Log Out button in the upper right hand corner of the home page.



*Figure: Log Out Button*

## 4 MANUAL/INTERACTIVE MODE

### 4.1 Entering Manual Mode

Manual mode allows you to manually access any channel or service on the Encoder/STB.

Click on a scanning icon to enter manual mode.



*Figure: Entering Manual Mode*

### 4.2 Effects of Manual Mode

#### 4.2.1 Effect on Scanning

Automatic scanning through lineup is paused temporarily during this time. This affects:

- Video history for that specific time period
- Anyone viewing that specific live stream

Manual mode will pause the encoder from scanning through the lineup and will pause triggered recording. Interactive Scripts stop running when you enter manual mode.



When you enter manual mode, the RPM displays a message confirming that you have change your scanning mode. The Scan Icon also changes to indicate manual mode.



**Figure: Manual Mode Indicators**

In addition, the Remote Control Bar opens. Note that access to Remote Control is permissions based and is set up by the administrator.

## 4.2.2 Ability to Switch Inputs in a Single Player Window

### 4.2.2.1 Input Switching in Internet Explorer

If you have configured Input Switching, either using the internal input switch or an external Kramer device, when you enter manual mode you gain the option of switching between inputs in a single player window. To do so, right click on the bottom of your player window on the player stream bar.



**Figure: Input Options Drop-Down List**

The Observer will display an input options drop-down list. To view an input other than the default, simply click your input choice.



#### 4.2.2.2 Displaying Input Metadata

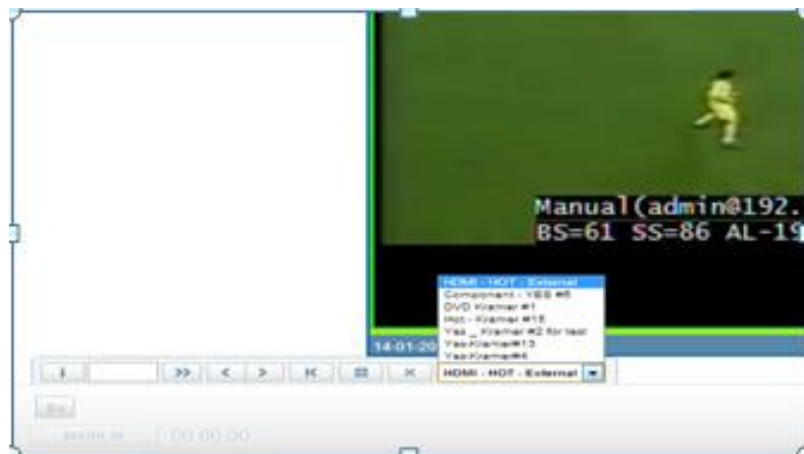
You can display the input's metadata on the player by right-clicking on the player window and choosing **Display metadata>Input**.

*Figure: Displaying Input Metadata*



#### 4.2.2.3 Input Switching in Clientless Browsers (Chrome, Firefox and Safari)

If you are using a clientless browser, the input drop-down list is located inside the manual mode display itself.



*Figure: Input Switching in Clientless Browsers*

#### 4.2.2.4 General Notes on Input Switching

You can expect the following behavior from your input switch:

- Opening the remote control pop up should show the correct remote according to the input's STB configuration.
- If a remote control timeout event occurs the input will return to 1<sup>st</sup> default input.
- You can only use Lineup/Reviewer on the 1<sup>st</sup> input.

## 5 MEDIA CLIPS

### 5.1 Bookmarks

Clipped video from live or recorded media is stored in the Bookmarks page. To access your clips, from the left-hand menu click on **Clips>Bookmarks**.

The screenshot shows the Volicon Observer RPM 7.1 interface. The left-hand menu is visible, with 'Bookmarks' highlighted. The main content area is titled 'CLIPS / BOOKMARKS' and displays a table of clips. The table has the following columns: Actions, ID, Name, Description, Trk, and Created by. The table contains 18 rows of clip data.

Actions	ID	Name	Description	Trk	Created by
<input type="checkbox"/>	97768	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	43	Scanner
<input type="checkbox"/>	97766	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97764	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97763	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97759	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner
<input type="checkbox"/>	97730	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner
<input type="checkbox"/>	97729	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	51	Scanner
<input type="checkbox"/>	97728	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97726	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner
<input type="checkbox"/>	97724	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97722	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner
<input type="checkbox"/>	97721	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97718	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner
<input type="checkbox"/>	97717	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97715	CNBC World (106) - VERIZON_	Video normal, audio normal on service CN	52	Scanner
<input type="checkbox"/>	97712	Comcast IS Demo - COMCAST_	Video normal, audio normal on service Co	1	Scanner

Figure: Accessing Clips

## 5.2 Playing Your Clips

To play a clip, from the Clips/Bookmarks window, mouse over the clip you want to play to highlight it.

CLIPS / BOOKMARKS Welcome, Richardg  
Expires in 178 min.

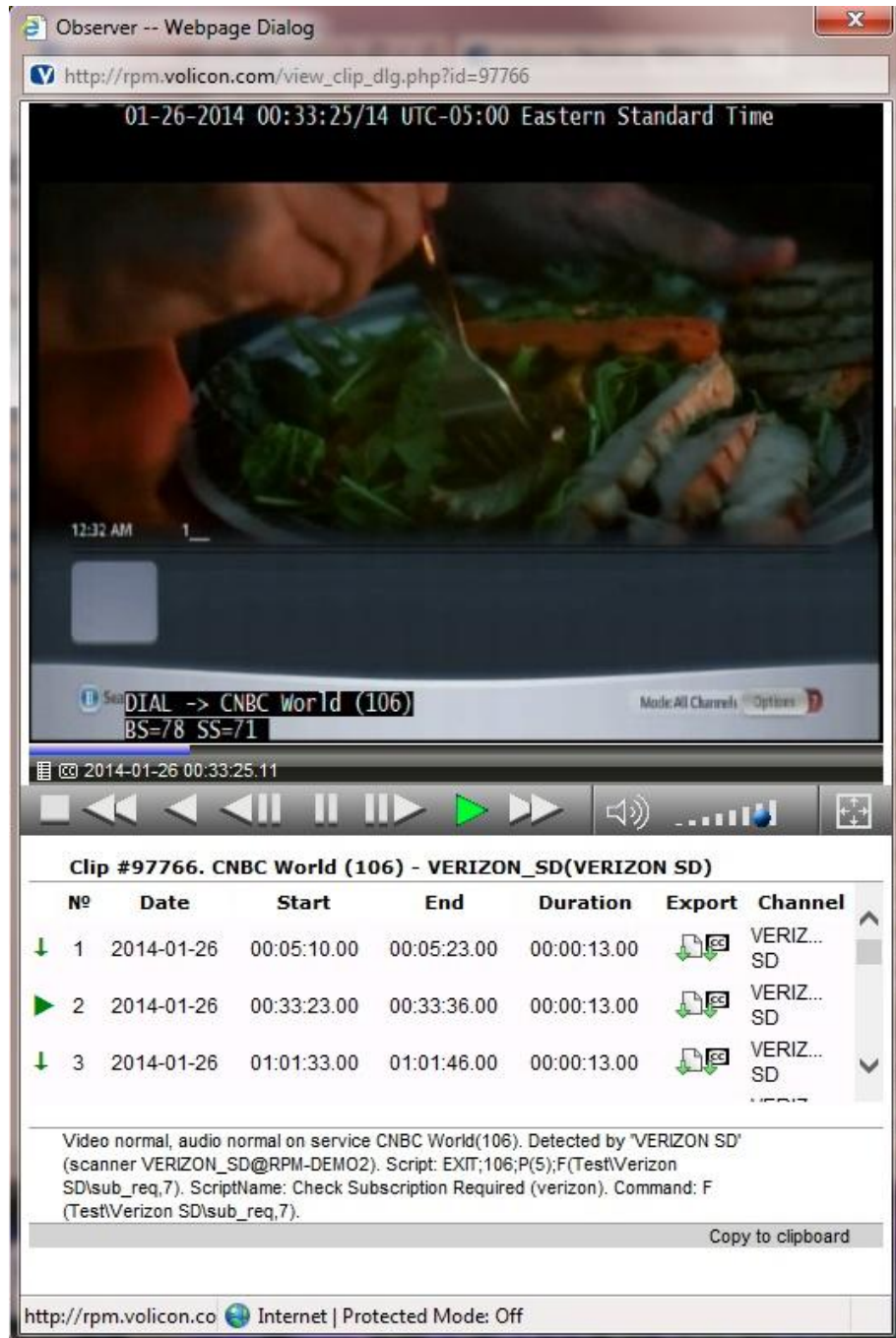
Time range:  Search  Search

Create Clip  Show/Hide columns

<input type="checkbox"/>	Actions	ID	Name	Description	Trk	Created by	Created	Modi
<input type="checkbox"/>		864549	Clip showing 1 week ago		3	AndrewS	11-19-2013 12:45:18	11-19-2013
<input type="checkbox"/>		864447	Loud commercial - Alex and An		1	AndrewS	11-19-2013 09:22:40	11-19-2013
<input type="checkbox"/>		860314	CCW Test Loud commercial - Alex and Ani		1	DemoEH1	11-14-2013 15:33:19	11-14-2013
<input type="checkbox"/>		860254	WHDH violator		1	AndrewS	11-14-2013 14:21:56	11-14-2013
<input type="checkbox"/>		859412	WHYY Test Clip	Julian [hjw,erkhjfoaeigfenk	1	DemoEH1	11-13-2013 15:04:08	11-13-2013
<input type="checkbox"/>		859374	Discovery HD2_2013_11_13_1	CCW test Clip	1	DemoEH1	11-13-2013 14:15:26	11-13-2013
<input type="checkbox"/>		854551	sa1234		1	Anant1	11-07-2013 23:03:08	11-07-2013
<input type="checkbox"/>		854240	WHDH-HD (OTA)_2013_11_07_	helicopter hurricane	1	AndrewS	11-07-2013 11:43:16	11-07-2013
<input type="checkbox"/>		854119	Obama Medal of Honor award		1	AndrewS	11-07-2013 07:13:07	11-07-2013
<input type="checkbox"/>		853495	RIO SUL		1	VS	11-06-2013 12:16:11	11-06-2013
<input type="checkbox"/>		853372	APARECIDA		1	VS	11-06-2013 07:31:51	11-06-2013
<input type="checkbox"/>		829223	Volicon is the best!	Coke Commercial	1	kenn	10-04-2013 18:04:01	10-04-2013
<input type="checkbox"/>		818948	Ashley Test Clip HBO	Game Show Sai Shaking hands	1	ashley	09-19-2013 15:13:21	09-19-2013

Figure: Highlighting a Clip

Click on the clip. Observer will open a new window and launch the clip.



**Figure: Clip Window**

The clip window contains tools to allow you to control your playback experience, including a player bar, volume controls, and full screen mode. The informational

window below the clip tells you the clip number, the clip name, the date, starting time, ending time, and channel of the clip.

It also provides you with two options for exporting the clip:

- Export
- Export Closed Captions

## 5.3 Manipulating Your Clips

Observer gives you multiple options for manipulating your clips, all of which are accessible to you in the **Actions** column.

### CLIPS / BOOKMARKS

Welcome, Richard  
Expires in 177 mi

Time range:

Search Text:

Create Clip

	Actions	ID	Name	Description	Trk	Created by	Created	Modified
<input type="checkbox"/>		832420	ABC 512k_Weight_Watchers_C	Demo Clip for User Guide	1	richardg	10-09-2013 14:31:47	10-09-2013 14:31:47
<input type="checkbox"/>		829300	Volicon User Manual Demonstr	All occurrences of S.H.I.E.L.D during 20:5	1	richardg	10-04-2013 20:51:21	10-04-2013 20:51:21
<input type="checkbox"/>		829223	Volicon is the best!	Coke Commercial	4	kenrn	10-04-2013 18:04:01	10-04-2013 18:04:01
<input type="checkbox"/>		822603	ABC 512k 09-24-2013 20:53:05		1	andyc	09-24-2013 20:53:48	09-24-2013 20:53:48
<input type="checkbox"/>		821829	abram	Teste na minha sala	1	VS	09-23-2013 17:43:48	09-23-2013 17:43:48
<input type="checkbox"/>		821784	demohd3 teste/2013 08:28:30-1		1	VS	09-23-2013 16:08:31	09-23-2013 16:08:31
<input type="checkbox"/>		818948	Ashley Test Clip HBO	Game Show Sal Shaking hands	1	ashley	09-19-2013 15:13:21	09-19-2013 15:13:21
<input type="checkbox"/>		798168	World Cup Clip	Coke	1	kenrn	08-20-2013 17:24:00	08-20-2013 17:24:00
<input type="checkbox"/>		794390	demohd3 240(15/08/2013 07:28	Gb	1	DemoGB1	08-15-2013 07:29:40	08-15-2013 07:28:30

Figure: Actions Column

Two of these actions are particularly important: **Edit** and **E-Mail**.

### CLIPS / BOOKMARKS

Welcome, Richard  
Expires in 177 mi

Time range:

Search Text:

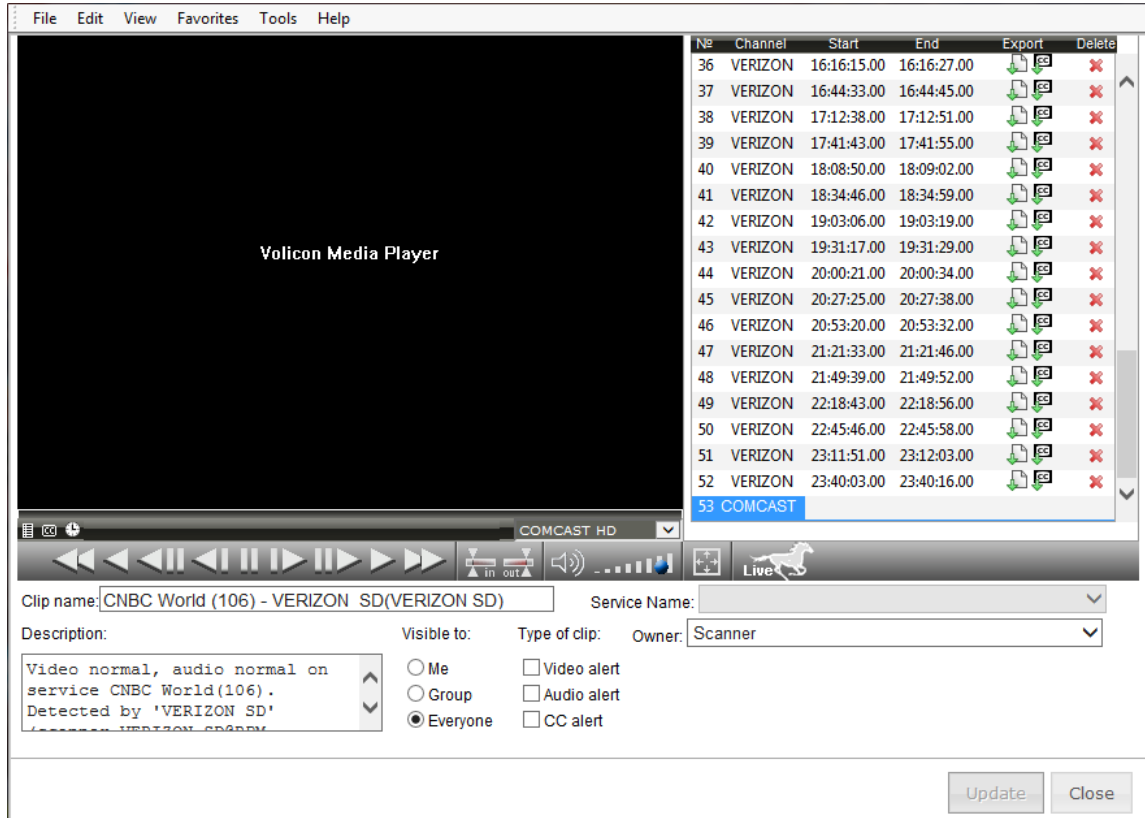
Create

	Actions	ID	Name	Description	Trk	Created by	Created	Modified
<input type="checkbox"/>		832420	ABC 512k_Weight_Watchers_C	Demo Clip for User Guide	1	richardg	10-09-2013 14:31:47	10-09-2013 14:31:47
<input type="checkbox"/>		829300	Volicon User Manual Demonstr	All occurrences of S.H.I.E.L.D during 20:5	1	richardg	10-04-2013 20:51:21	10-04-2013 20:51:21
<input type="checkbox"/>		829223	Volicon is the best!	Coke Commercial	4	kenrn	10-04-2013 18:04:01	10-04-2013 18:04:01
<input type="checkbox"/>		822603	ABC 512k 09-24-2013 20:53:05		1	andyc	09-24-2013 20:53:48	09-24-2013 20:53:48
<input type="checkbox"/>		821829	abram	Teste na minha sala	1	VS	09-23-2013 17:43:48	09-23-2013 17:43:48
<input type="checkbox"/>		821784	demohd3 teste/2013 08:28:30-1		1	VS	09-23-2013 16:08:31	09-23-2013 16:08:31
<input type="checkbox"/>		818948	Ashley Test Clip HBO	Game Show Sal Shaking hands	1	ashley	09-19-2013 15:13:21	09-19-2013 15:13:21
<input type="checkbox"/>		798168	World Cup Clip	Coke	1	kenrn	08-20-2013 17:24:00	08-20-2013 17:24:00
<input type="checkbox"/>		794390	demohd3 240(15/08/2013 07:28	Gb	1	DemoGB1	08-15-2013 07:29:40	08-15-2013 07:28:30

Figure: Important Actions

### 5.3.1 Editing Clips

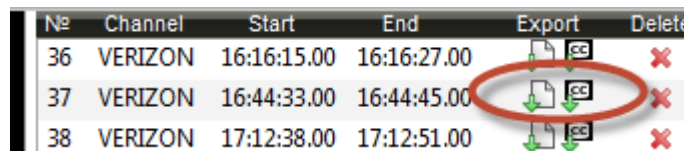
Clicking the **Edit** icon opens your clip in the **Edit Clip** window.



**Figure: Edit Clip Window**

From here you can view the clip, use the Mark In and Mark Out tools to define a subset of the clip, and edit the clip name and description.

You can also export the content of your clip in two different ways:



**Figure: Export Options**

- Export
- Export Closed Captions

### 5.3.1.1 Exporting Your Clip

To export the clip itself, click the **Export Clip** icon in the Export column of the Edit Clip window.

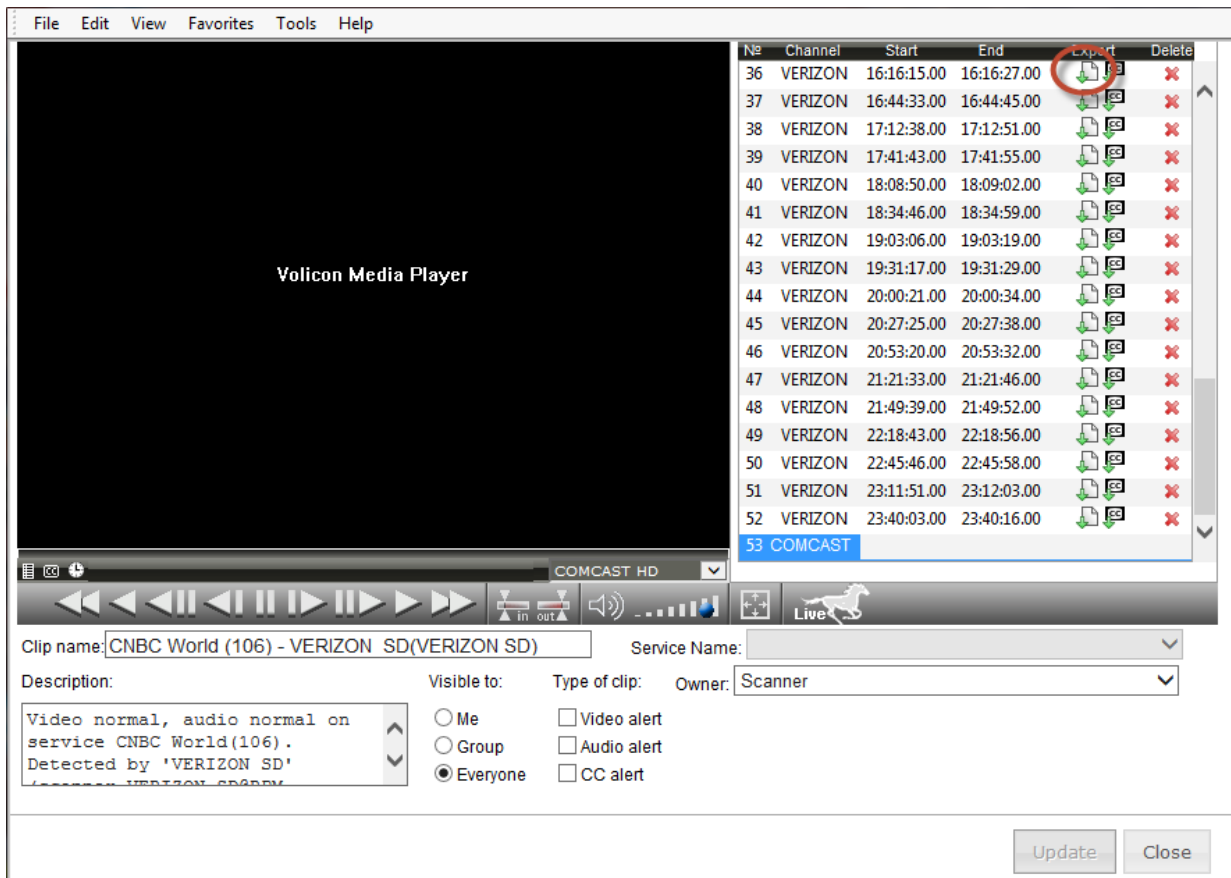
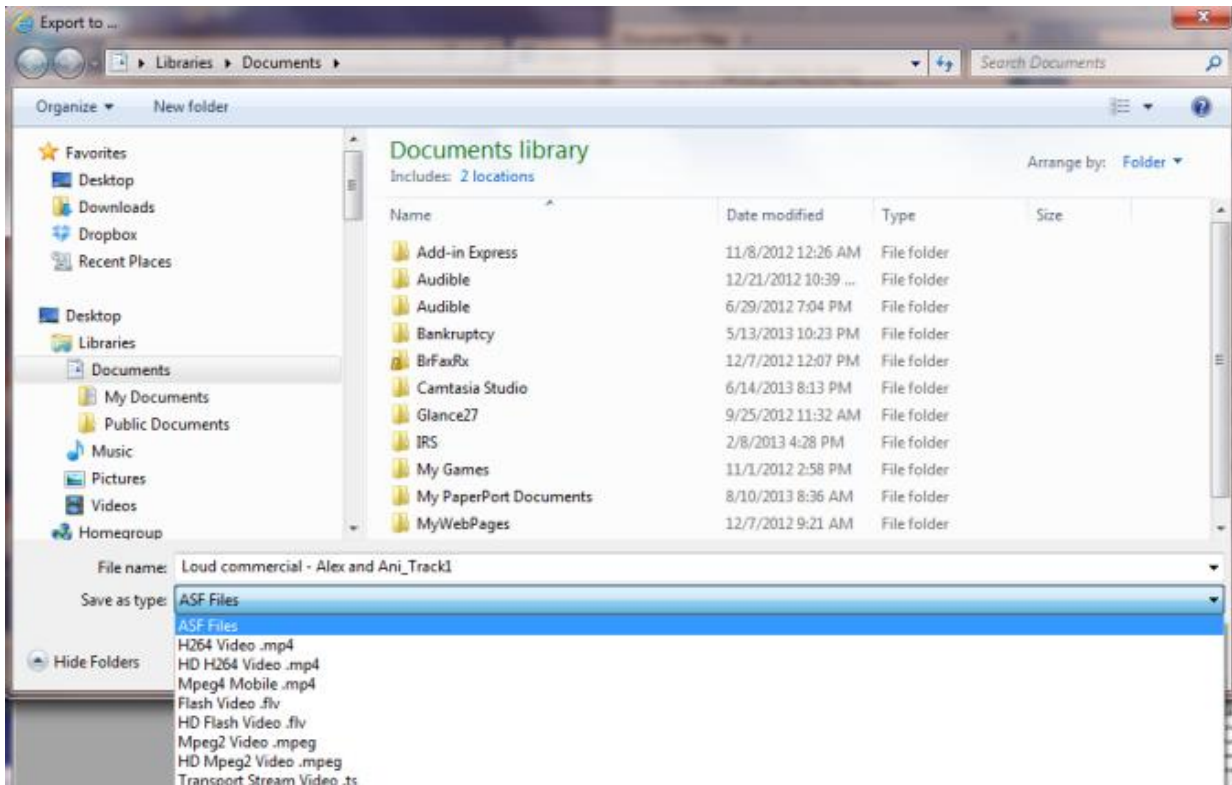


Figure: Export Clip Icon

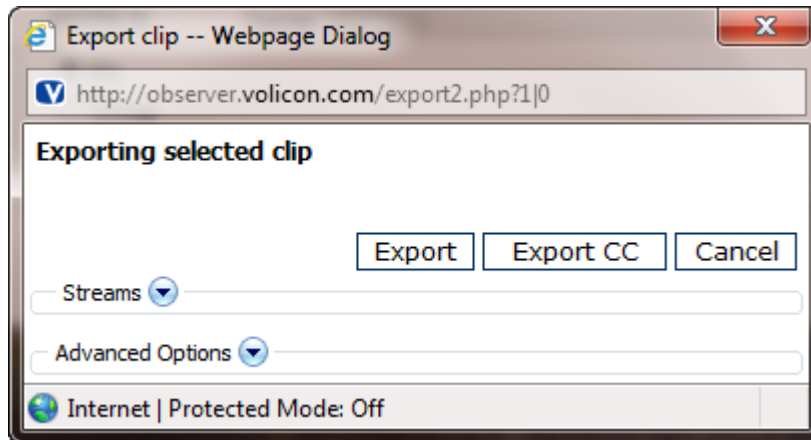


The `-export_to` window opens. Volicon automatically creates a default name using the channel name, date and time, but you can edit the name to something more meaningful to the end user. Name your clip, choose the format under Save as Type and the location in which you want to save your clip on your PC/laptop. This clip will not be stored in the Observer; it is a physical copy of the content. Click **Save**.



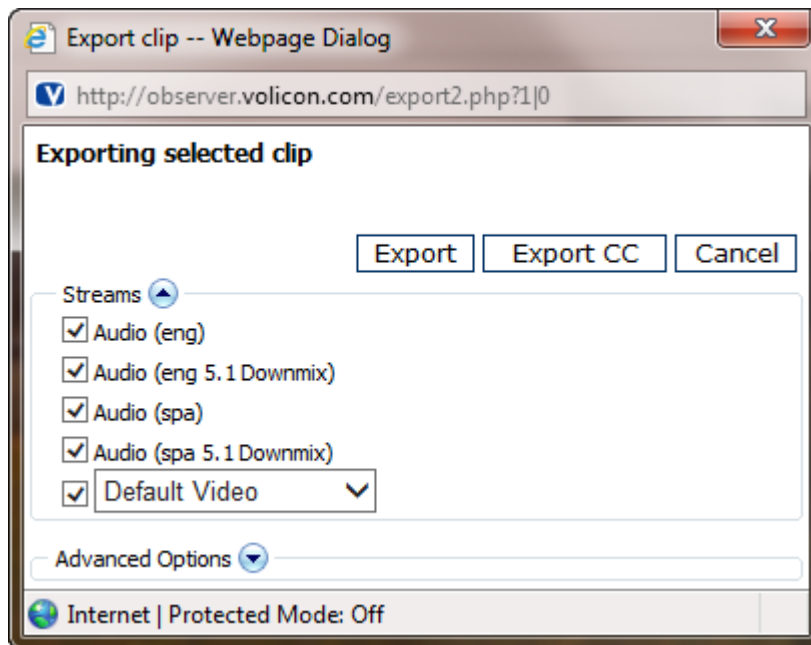
*Figure: -export\_to Window*

Observer will open the Export clip—Webpage Dialog box.



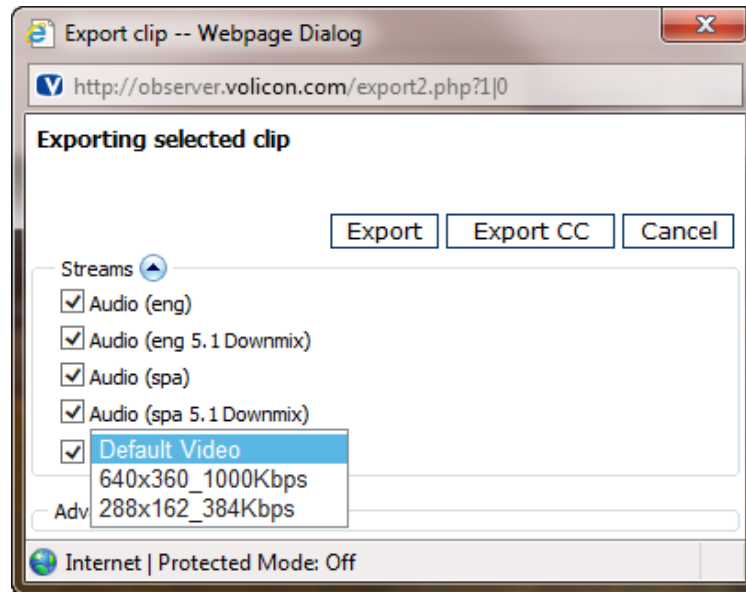
*Figure: Export Clip Webpage Dialog Box*

This dialog box gives you several options for your export. From the **Streams** drop-down menu, you can choose which audio languages to include, if more than one audio language is present.



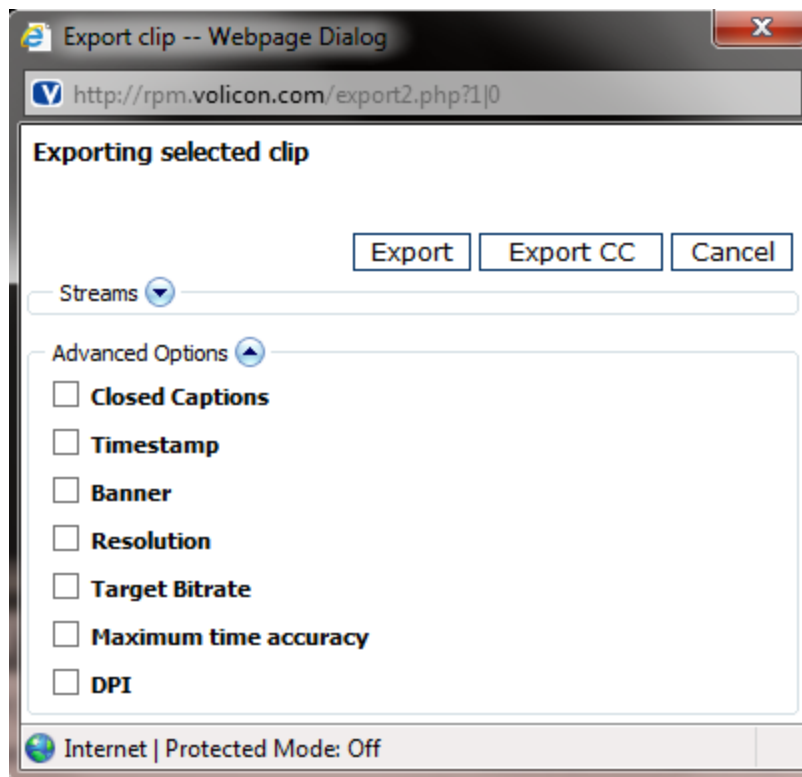
*Figure: Streams Drop-Down Menu*

The Streams drop-down menu also gives you access to the **Default Video** dropdown menu, which allows you to choose the resolution at which you export your clip.



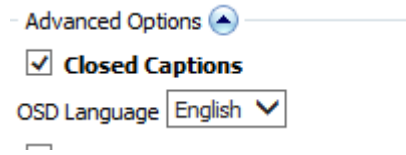
*Figure: Default Video Drop-Down Menu*

The **Advanced Options** drop down menu opens nine options for what you include in your export.



*Figure: Advanced Options Drop-Down Menu*

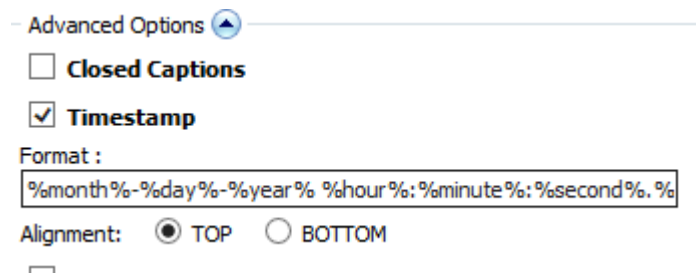
- **Closed Captions:** Closed Captions allows you to choose the On Screen Display (OSD) language you want to export, if there is more than one option available.



*Figure: Closed Caption Options*

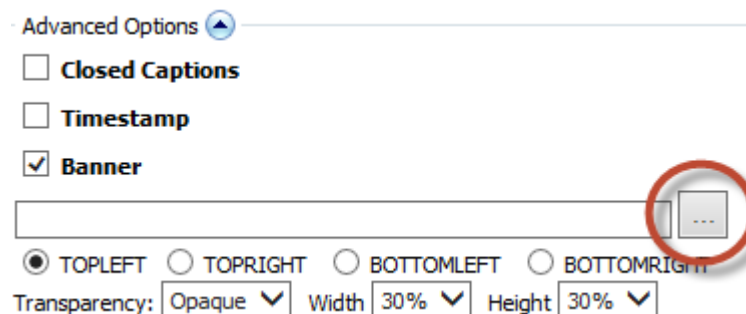
- **Timestamp** allows you to specify the format for the timestamp used in the export. The default is Month/Day/Year/Hour/Minute/Second/Frame. Change the order of the variables if you wish the time stamp to display in another order.

Timestamp also allows you to specify where you want the timestamp to appear in your export – at the top or at the bottom.



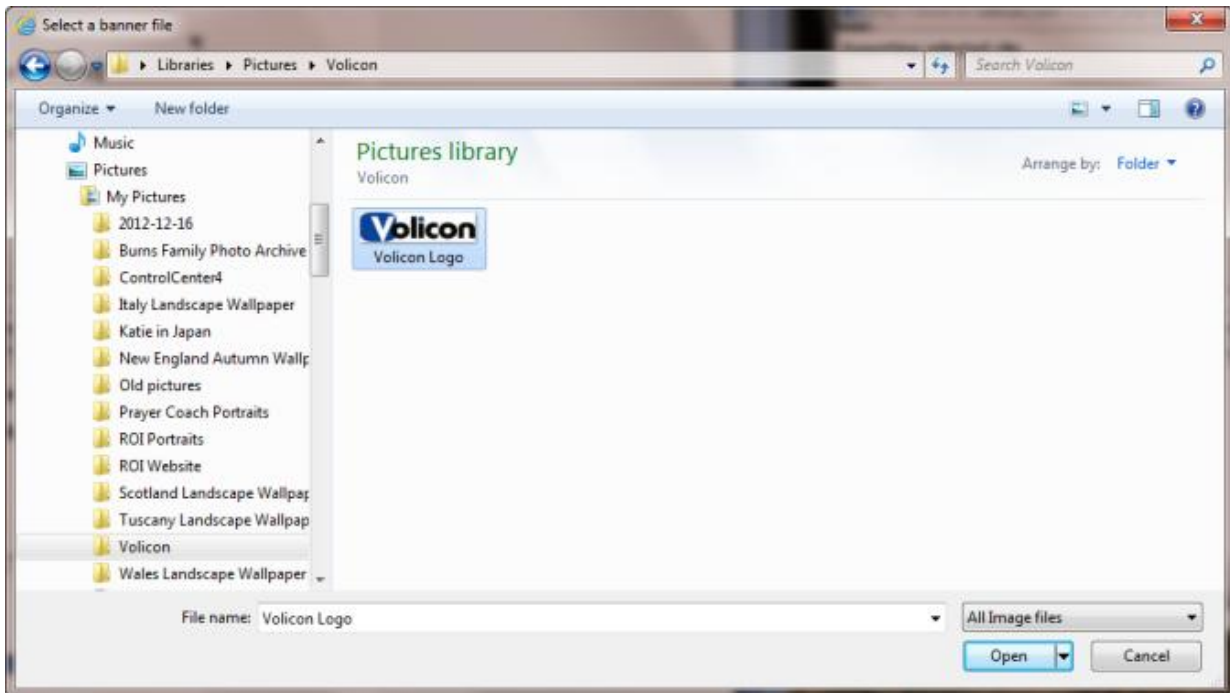
*Figure: Timestamp Options*

- **Banner** allows you to choose a GIF or BMP file and incorporate it into your export as a banner. To do so, click on the File icon to the right of the field.



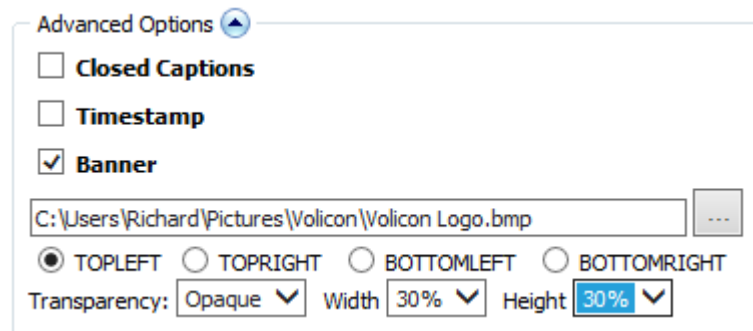
*Figure: Banner*

Observer will open the **Select a banner file** window. Navigate to the image you wish to use, and click **Open**.



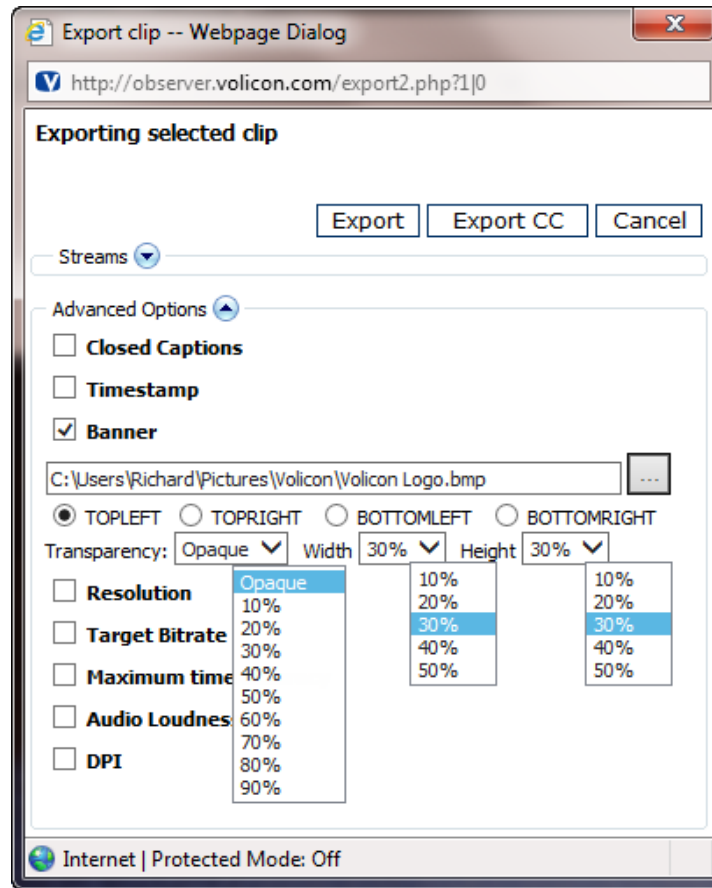
*Figure: Select a banner file Window*

Observer populates the Banner field with the file you have chosen.



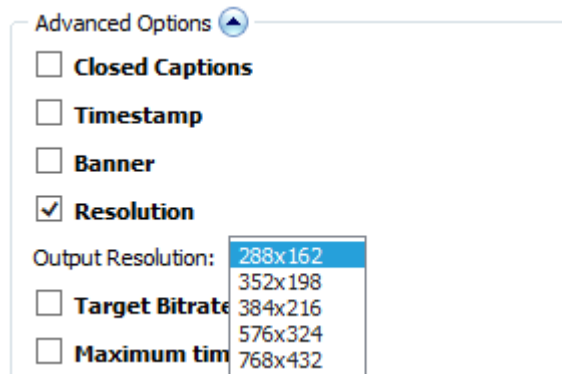
*Figure: Populate Banner Field*

Choose whether you want the image displayed at the Top Left, Top Right, Bottom Left, or Bottom Right of your export. You may also choose your **Transparency**, the percentage of **Width** of the export you want the banner to occupy, and the percentage of **Height** of the export you want the banner to occupy.



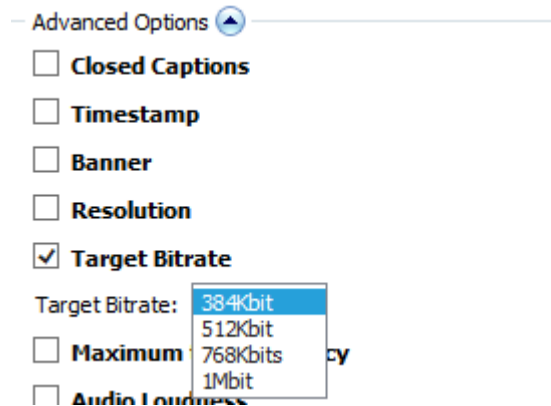
*Figure: Banner Options*

- **Resolution** gives you the option of choosing the Output Resolution, in pixels, of your export. Make your choice from the Output Resolution drop-down menu.



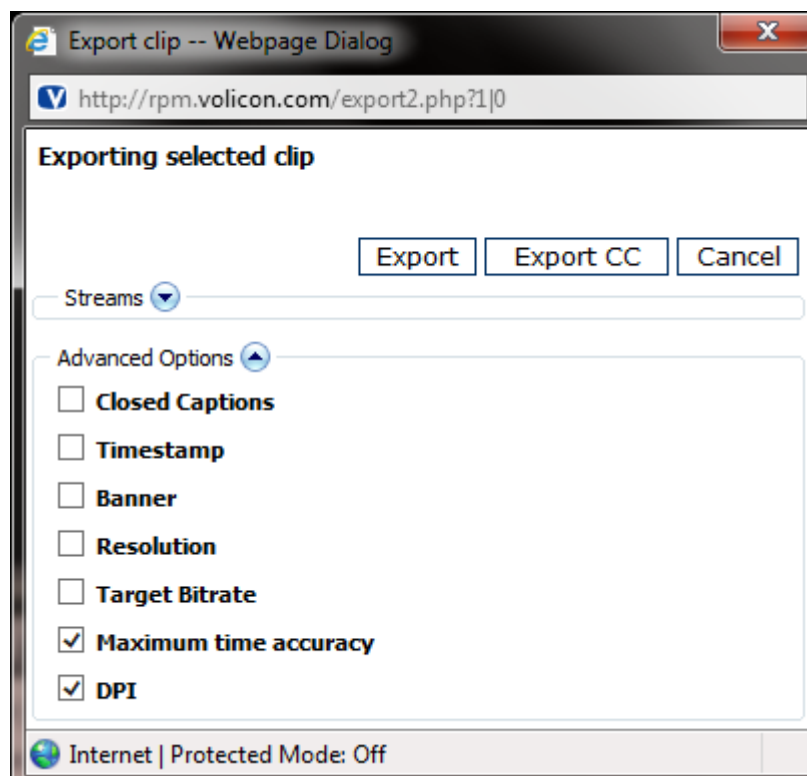
*Figure: Resolution Options*

- **Target Bitrate** allows you to specify the bitrate you want your exported clip to run at. Make your choice from the Target Bitrate drop-down menu.



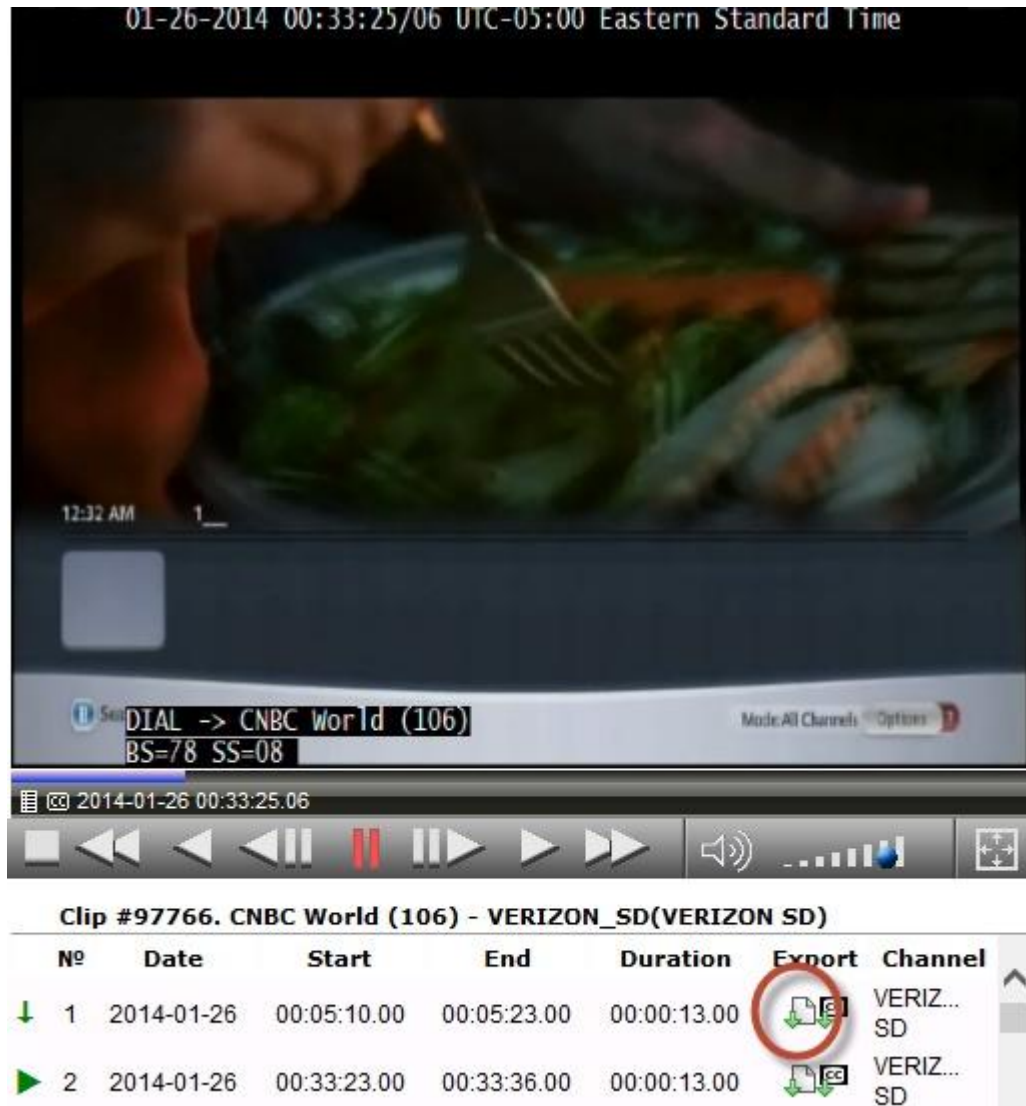
*Figure: Target Bitrate*

- You may also choose whether to export your clip with **Maximum time accuracy**, and **DPI** information.



*Figure: Additional Options*

You can also start the export process from Export column of the Clip Player window.



*Figure: Export Button in Clip Player Window*

### 5.3.2 E-Mailing Clips

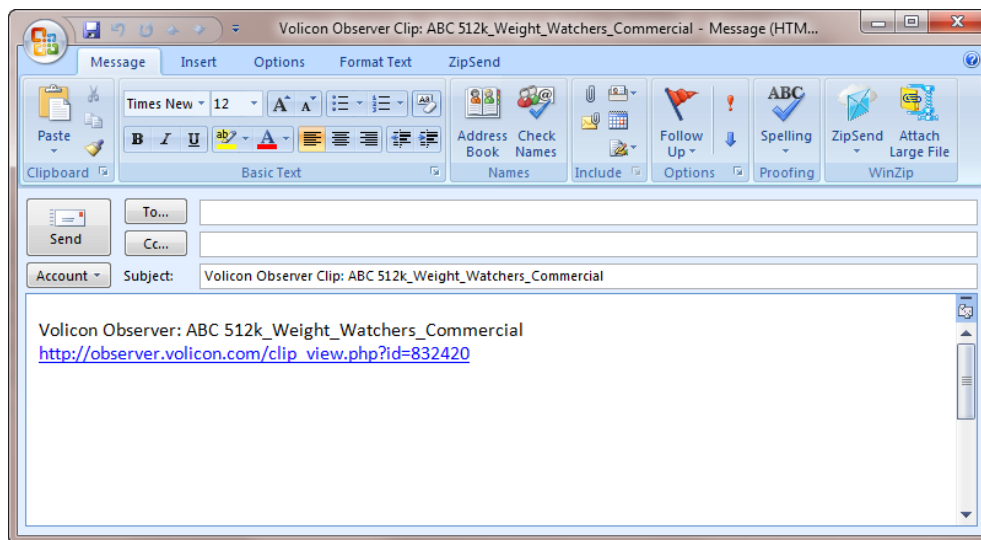
The email function allows you to email a link to the clip only to other users on the Volicon solution. It does not email a physical file, only a hyperlink to an existing clip in the bookmarks section. To e-mail your clip, click on the **e-mail icon** in the Actions column.



<input type="checkbox"/>	Actions	ID	Name	Description
<input type="checkbox"/>		832420	ABC 512k_Weight_Watchers_C	Demo Clip for User Guide
<input type="checkbox"/>		829300	Volicon User Manual Demonstra	All occurrences of S.H.I.E.

**Figure: E-Mailing Clips**

Observer will open your default e-mail client and create an email with the name of the clip in the Subject line, and a hyper-link to the clip in the body of the e-mail. The only thing the user needs to do is add a recipient's email address in the "To:" field.



**Figure: E-Mail Window**

## 5.4 Searching Your Clips

Over time, the Bookmarks folder will expand to include many pages of clips, which can make finding a particular clip difficult. Observer RPM allows you to search for a clip either by ID, name, description or a combination of parameters

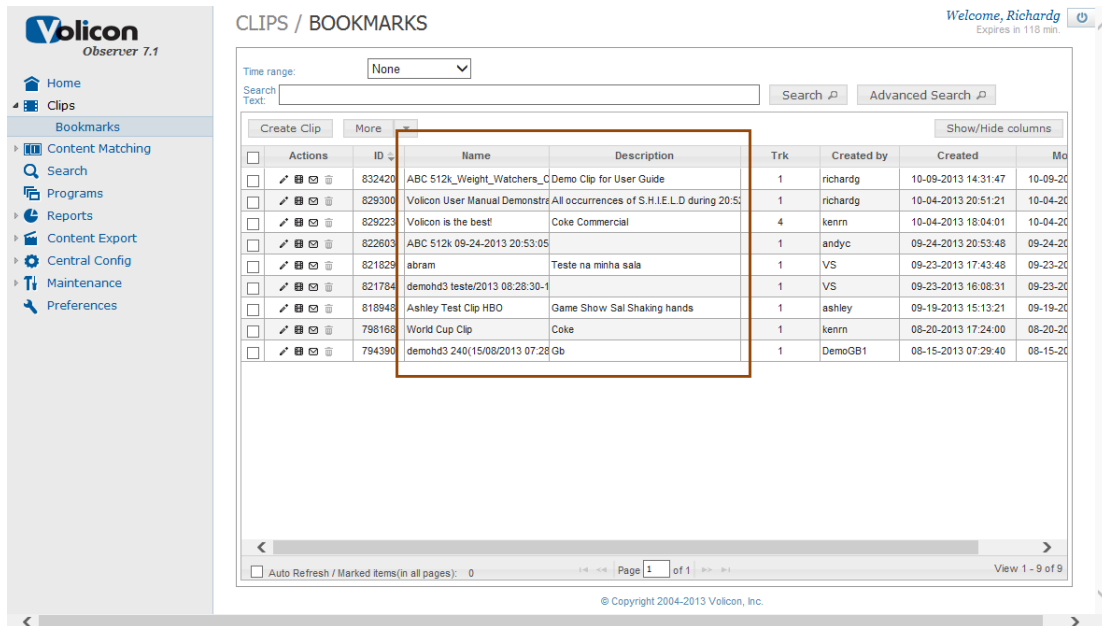


Figure: Searchable Fields in Bookmarks

### 5.4.1 Simple Search

For a simple search of the Name and Description fields, enter the term you are searching for in the **Search Text** field and click **Search**.

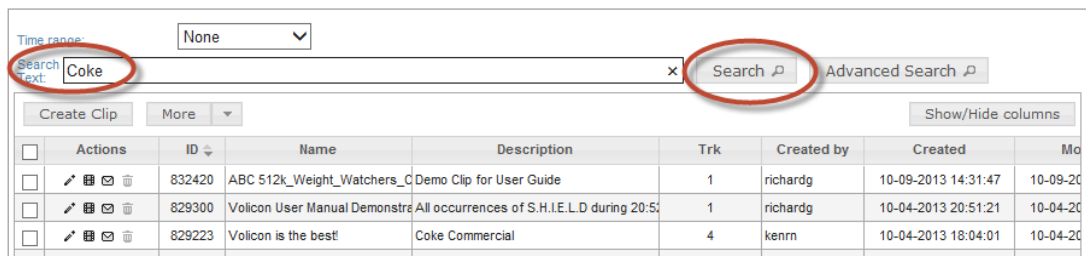


Figure: Simple Search

Observer returns a list of all the clips that have your search term in either the Name or Description fields.

## CLIPS / BOOKMARKS

 Welcome, Richardg  
Expires in 129 min.

Time range:

Search Text:

<input type="checkbox"/>	Actions	ID	Name	Description	Trk	Created by	Created	Mo
<input type="checkbox"/>		829223	Volicon is the best!	Coke Commercial	4	kenrn	10-04-2013 18:04:01	10-04-20
<input type="checkbox"/>		798168	World Cup Clip	Coke	1	kenrn	08-20-2013 17:24:00	08-20-20

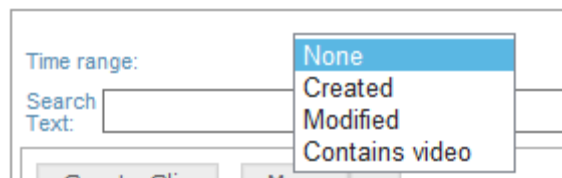
**Figure: Simple Search Results**

## 5.4.2 Advanced Search

Observer gives you two tools for narrowing the results of your search: the **Time range** field and the **Advanced Search** option.

### 5.4.2.1 The Time Range Field

Use the **Time range** to narrow your search by date and time. The drop-down menu provides you with four options:



**Figure: Time Range Search Options**

- None (the default)
- Created: search by time range of when the clip was created
- Modified: search by time range of when the clip was modified
- Video: search by time range of whether the clip contains video

Choosing any option other than “None” opens up the Search Calendar.

## CLIPS / BOOKMARKS

Time range:  From:  To:

Search Text:

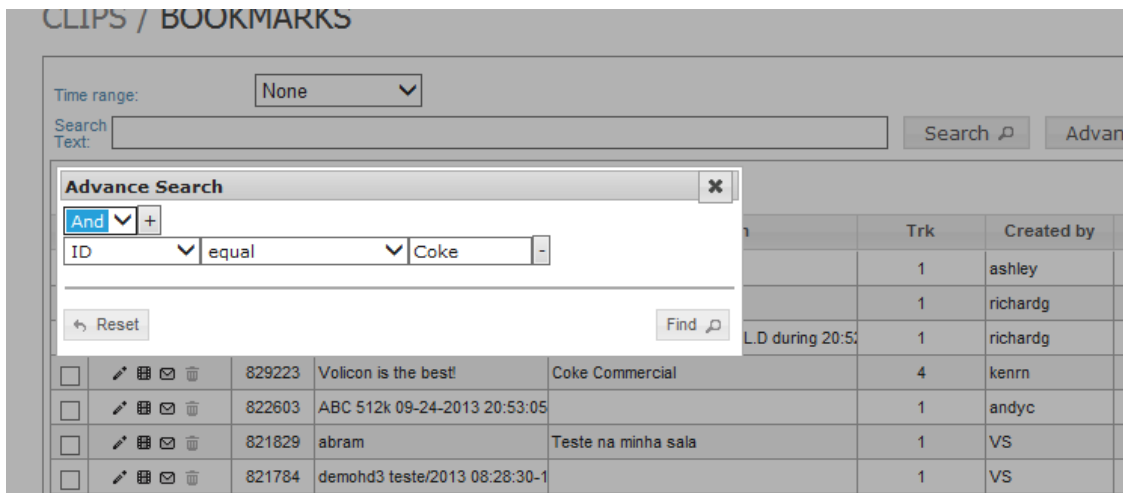
<input type="checkbox"/>	Actions	ID	Name	Description	Trk	Created by
<input type="checkbox"/>		829070	HBO Test Clip	New Center E ABC	4	gabry

**Figure: Search Calendar**

Set the start point and end point of the period you wish to search, and click **Search**.

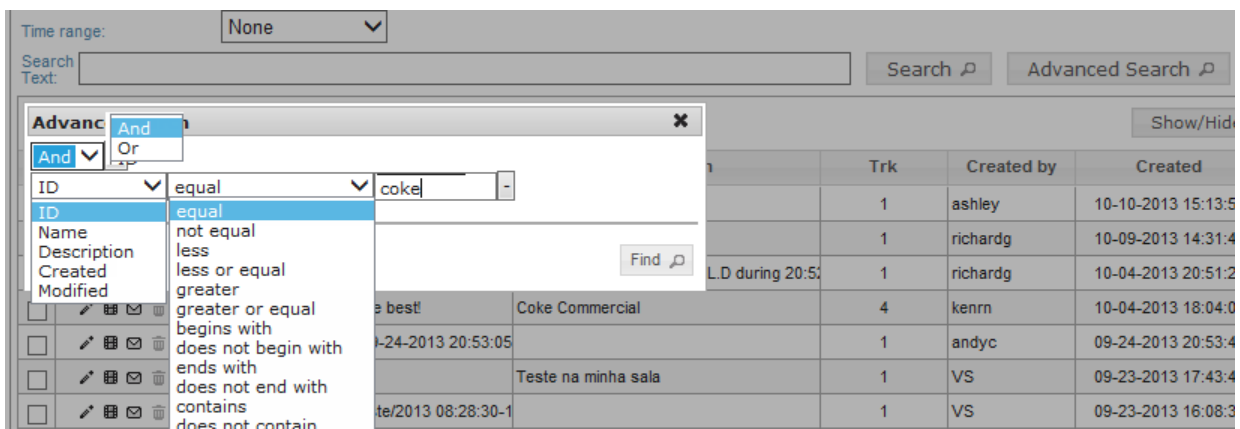
### 5.4.2.2 The Advanced Search Field

You can further refine your search by clicking the **Advanced Search** button to open the Advanced Search window.



**Figure: Advanced Search Window**

The Advanced Search window gives you three drop-down menus you can use to quickly narrow in on the results you want.



**Figure: Advanced Search Drop-Down Menus**

Those fields are the:

- **Boolean Operator Field.** This field allows you to use multiple search terms using Boolean logic. If you combine two search terms with a Boolean AND (for example, if you search for Coke AND Pepsi), Observer will return a clip only if it contains both terms. A Boolean OR search, on the other hand, will pull up every clip in which either term is mentioned.
- **Column Definition Field.** This field allows you to search for terms in a specific column.
- **Variable Field.** This field allows you to search for clips that bear a specific relationship to the search term.

### 5.4.3 Sort clips

Video clip lists can be sorted in ascending or descending order by clicking on *column parameters*:

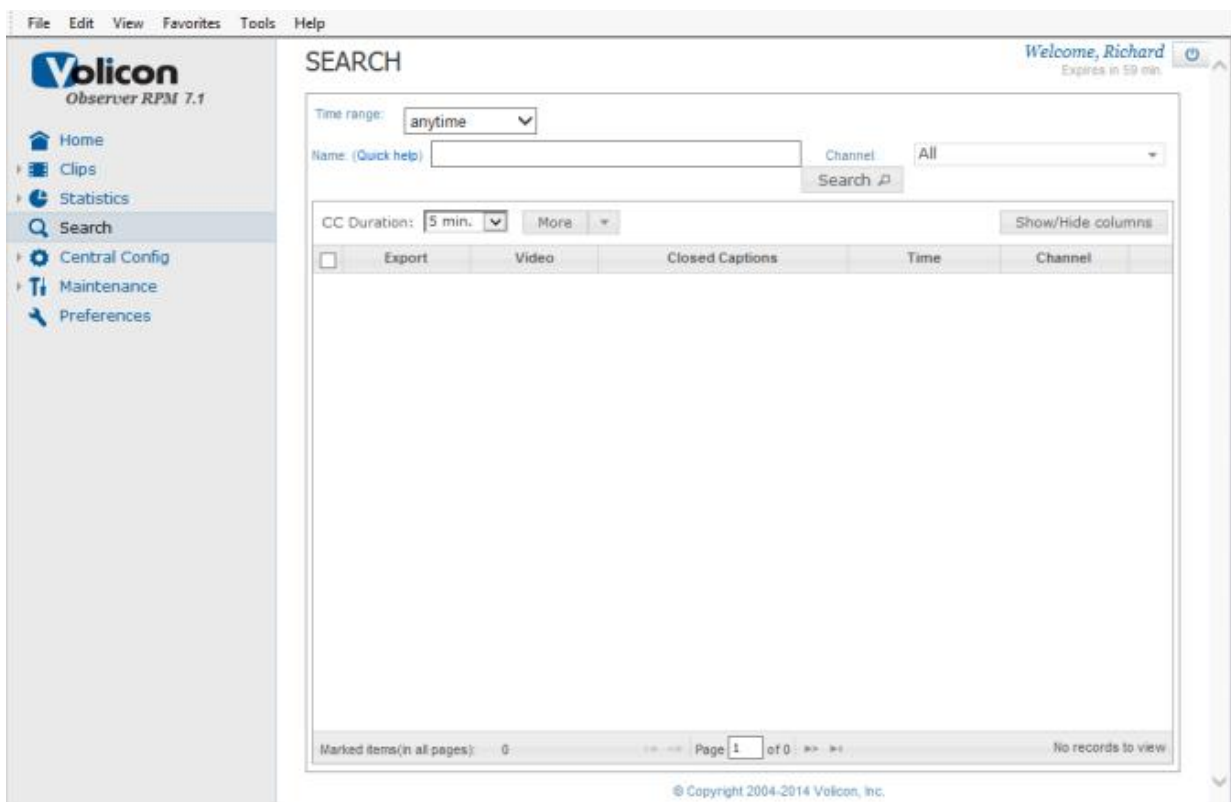
- **ID:** Clip's unique identification number
- **Name:** Clip Name
- **Description:** Clip's description
- **Trk:** Media Track
- **Created by:** User name
- **Created:** Time created
- **Modified:** Time modified

## 6 CC SEARCH

If configured by the Volicon administrator, the Observer will store closed captioning content in a separate database. This allows you to search for any word spoken on streams where the Observer is capturing CC/TT. . The search function references the Closed Caption metadata attached to your stored content and displays the text along with the video associated with the CC/TT metadata. So as long as CC/TT database storage is enabled, you have the ability to search Closed Caption text .

### 6.1 Launching the Search Function

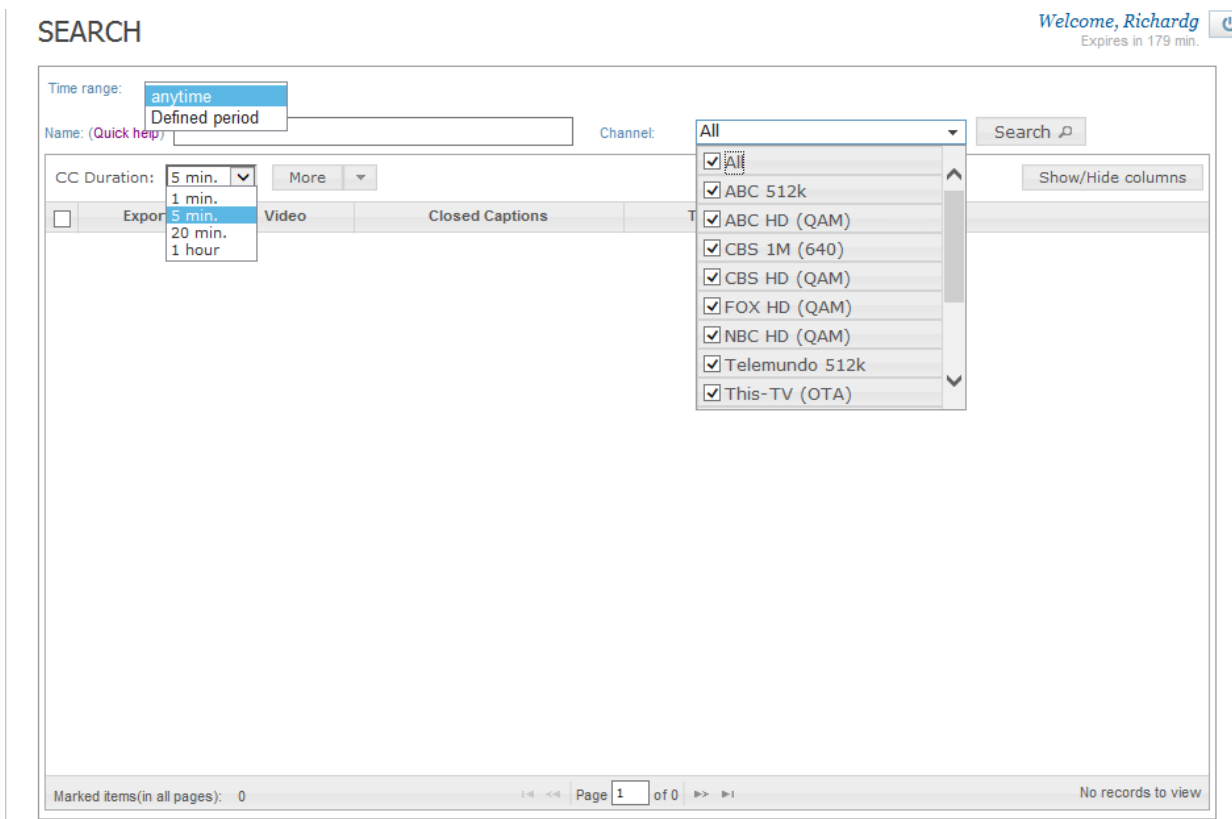
To launch the Search function, click **Search** in the left-hand menu.



**Figure: Launching the Search Function**

## 6.2 Using the Search Function

The Search function allows you to configure three different parameters. Use these to narrow in your search on the Video Stream you are looking for.



**Figure: Search Parameter Drop-Down Menus**

Those three search parameters are:

- Time range. You can search for your term across a defined time period, or across all of your stored content.
- CC Duration. When the Search function finds your search term, it will return not only the Closed Caption that contains your term, but a portion of the surrounding video as well. Use this drop-down box to determine how much of the surrounding video you want to see following the search word.
- Channel. The Channel drop-down menu allows you to specify the channel or channels on which you wish to search.

## 6.2.1 Search Function Example

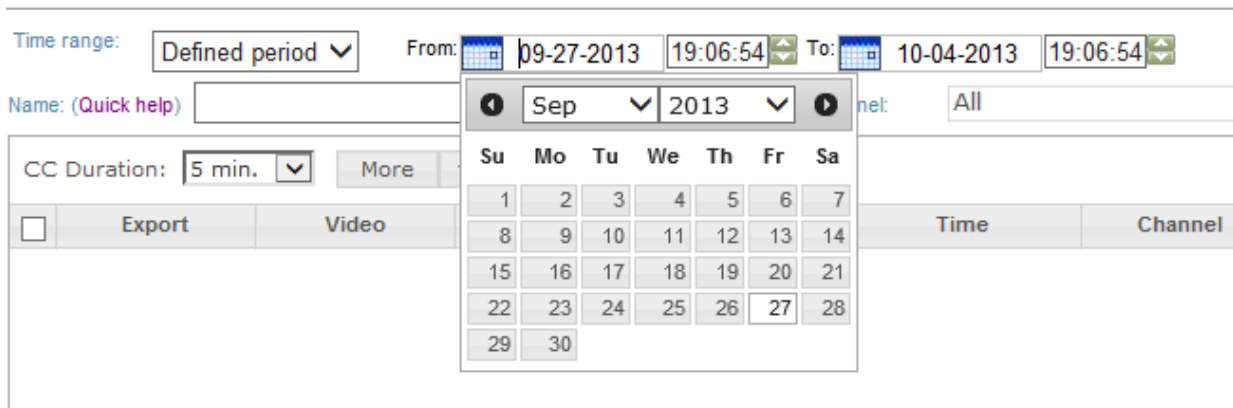
As an example, say that you want to search for the premier of the Agents of Shield television show. Begin by clicking **Search**, and in the Time Range menu, choose **Defined Period**. Observer defaults to presenting you the period from one week ago to your current date and time.



Time range: Defined period From: 09-27-2013 18:48:36 To: 10-04-2013 18:48:36

*Figure: Default Defined Period Search Duration*

Alter the search duration if you need to by clicking on the calendar icons in the **From:** and **To:** fields.



Time range: Defined period From: 09-27-2013 19:06:54 To: 10-04-2013 19:06:54

Name: (Quick help)  Channel: All

CC Duration: 5 min. More

Export Video

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Time Channel

*Figure: Setting the Search Duration Period*



Enter your search term, in this case, **Shield**, and select your channels. For this example, we are searching **All** channels with a five minute CC Duration. Click **Search** to see your results.

SEARCH Welcome, Richardg Expires in 179 min.

Time range: Defined period From: 09-27-2013 19:11:39 To: 10-04-2013 19:11:39

Name: (Quick help) Shield Channel: All Search

CC Duration: 5 min. More Show/Hide columns

<input type="checkbox"/>	Export	Video	Closed Captions	Time	Channel
<input type="checkbox"/>			SO WHAT'S COMING UP ON THE SHOW?.	10-04-2013 13:52:34	ABC 512k
<input type="checkbox"/>			WILL GO WITH <b>SHIELD</b> . A GROWN MAN C	10-02-2013 13:56:33	This-TV (OTA)
<input type="checkbox"/>			BY A MAGNETIC <b>SHIELD</b> . A LOT OF THE F	10-02-2013 12:45:56	WHDH 512k
<input type="checkbox"/>			BY A MAGNETIC <b>SHIELD</b> . A LOT OF THE F	10-02-2013 12:45:56	WHDH 256k
<input type="checkbox"/>			BY A MAGNETIC <b>SHIELD</b> . A LOT OF THE F	10-02-2013 12:45:54	WHDH HD 1.5M
<input type="checkbox"/>			BY A MAGNETIC <b>SHIELD</b> . A LOT OF THE F	10-02-2013 12:45:55	WHDH-HD (OTA)
<input type="checkbox"/>			<b>SHIELD</b> PROTECTING THE EARTH AND SO	10-02-2013 09:45:49	WHDH 256k

Marked items(in all pages): 0 Page 1 of 6 View 1 - 15 of 81

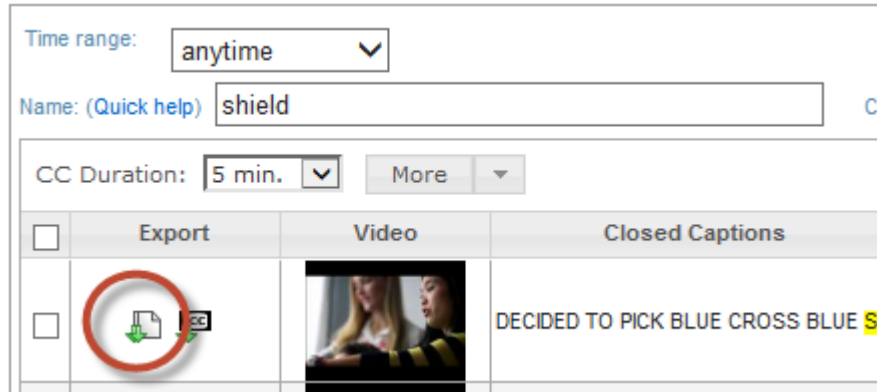
**Figure: Search Results**

Observer returns all the instances of your search term within your chosen parameters, beginning with the most recent occurrence and listing them in order from newest to oldest. The duration of the clip will be dependent on the time span you defined above. The default is 5 minutes.

If your search returns more than one page of results, use the **Page** box at the bottom of the screen to page through your returns.

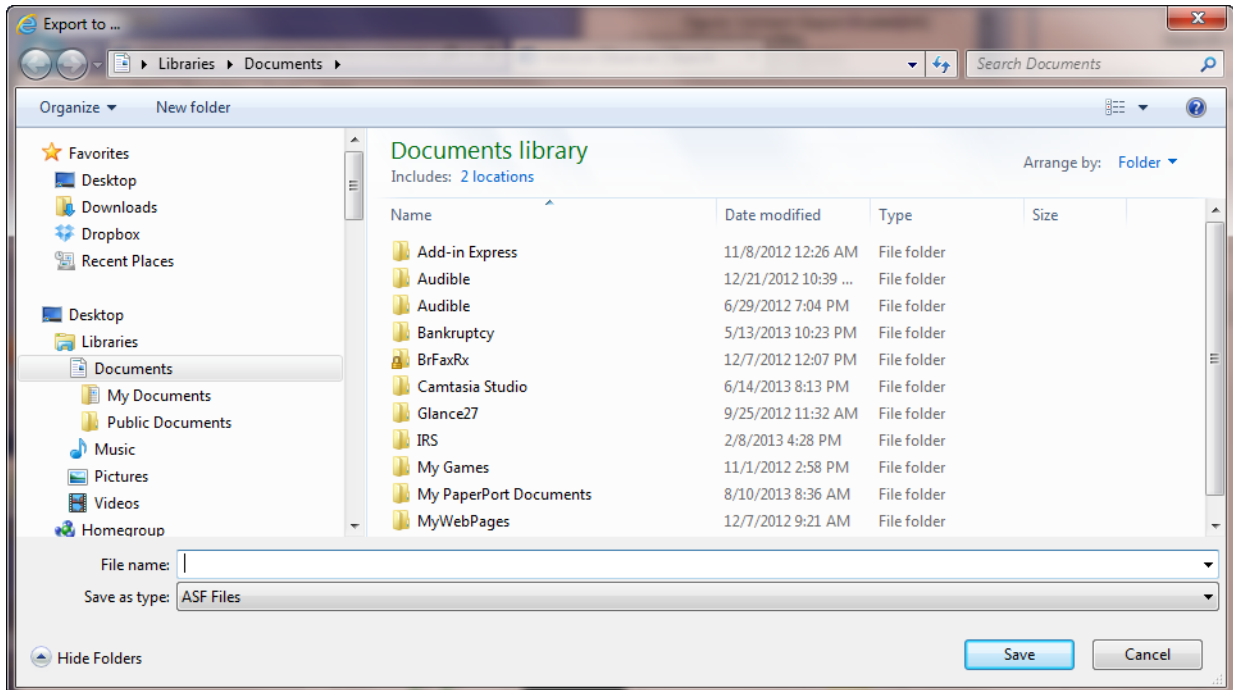
The Export column provides you with two functions:

- **Export** allows you to save the clip to your desktop.



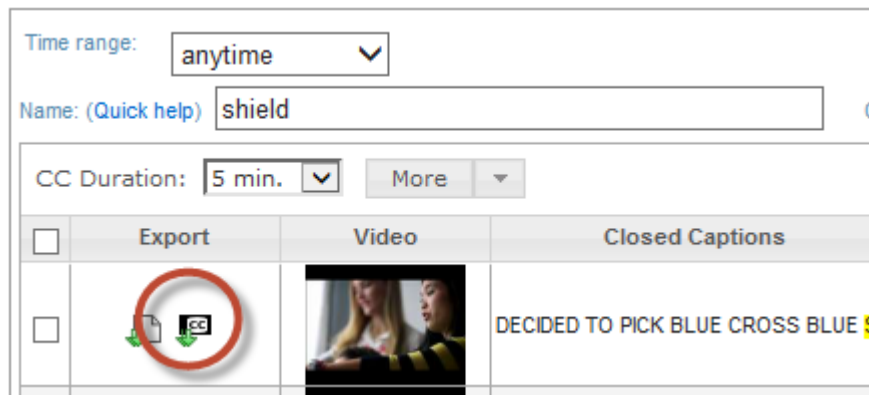
**Figure: Export Icon**

Clicking the Export icon opens the **Export to...** window.



**Figure: Export to... Window**

- The **Export CC** icon allows you to export the Closed Caption text of your clip.



**Figure: Export CC Icon**

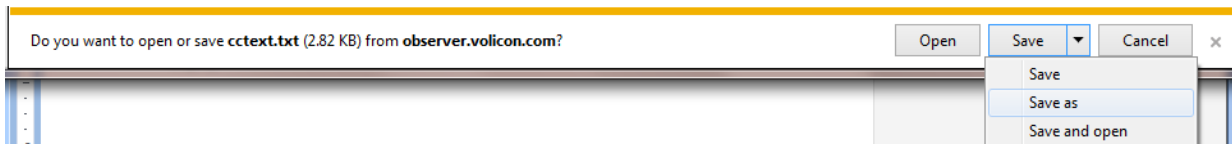
When you click on the Export CC icon, Observer opens a query window at the bottom of your screen, asking whether you want to open or save your Closed Caption text.



**Figure: Closed Caption Query Window**

Choose Open to open the CC text in a Notepad window.

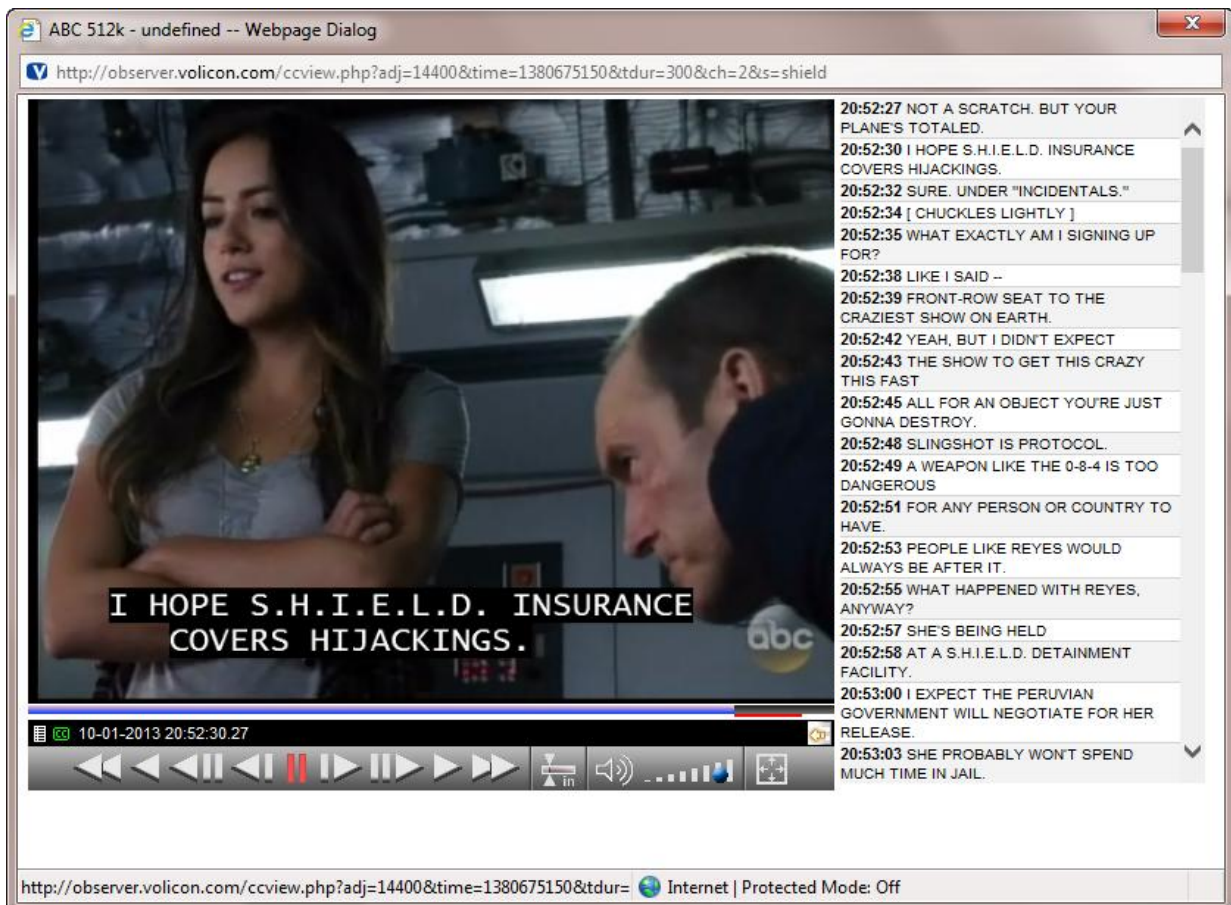
The **Save** button has a drop-down menu with three options: Save, Save As and Save and Open.



**Figure: Save Button Drop-Down Menu**

- **Save** downloads the CC text into your Downloads folder with a file name of cctext.
- **Save as** opens your Downloads folder window and gives you the chance to rename the file.
- **Save and open** saves the file in your Downloads folder with a file name of cctext, and opens the CC text in a Notepad window.

When you find the occurrence of your search term you are searching for and **double-click** on it, Observer opens up a Webpage Dialog window to display the clip.



**Figure: Webpage Dialog Window**

The Dialog window gives you several tools for utilizing the results of your search:

- The list of time stamps in the right-hand column gives you the exact times the text was spoken in the video. All texts are hyperlinks – by clicking on any text the video will navigate to the exact moment in the video when the text was spoken.

The video overlays the CC/TT in the stream.

- The Player Bar allows you to rewind the clip at 2x, 1x, ½x, and to step backward frame by frame; to pause, to step forward your clip frame by frame, and to run the clip forward at ½x, 1x, and 2x.
- The Volume buttons allow you to change the volume of or to mute the audio of your results.

- The Full Screen button allows you to view your results in full screen mode; Esc returns you to your Webpage Dialog window.
- The Closed Caption panel on the right allows you to navigate to any CC panel in your search results by clicking on the panel of your choice.

## 6.2.2 Search Function Options

In addition to allowing you to search on a specific word, Observer allows you to search using phrases, wildcards, and Boolean operators. Consult the table below for details.

Query	Example	Notes
single term	document	Searches for documents that contain "document" term in the default field
phrase	"important document"	Searches for documents that contain the phrase "important document" in the default field.
wildcard search	doc?ment	Single-character wildcard search. It will match "document" and "dociment" but not "docooment".
	document*	Multi-character wildcard search. It will match "document" and "documentation".
fuzzy search	document~	Search based on similar spelling.
	document~0.9	Search based on similar spelling. 0.9 is the required similarity (default: 0.5)
proximity search	"important document"~5	Find words of a phrase that are not next to each other. Maximum distance in this example is 5 words.
relevance	important^4 document	Set boost factor of the term "important" to 4. Default boost factor is 1.

	"important document"^4 "search engine"	You can set boost factor for phrases too.
OR operator	important document	"OR" is the default operator.
	important OR document	The default field must contain either "important" or "document".
AND operator	important AND document	The default field must contain both words.
+ operator	important +document	The default field must contain "document" and may contain "important".
NOT/- operator	-important document	The default field must contain "document" but not "important".
grouping	(important OR office) AND document	Use parentheses for expression grouping.

## 6.3 Export clips

Mark clips of live or recorded media (Home page) with the **<Mark Start/Mark End>** button.



### 6.3.1 Bookmark clips

After clipping video click **<OK>** (figure below) to send the clip to the **Clips → Bookmarks** page.

### 6.3.2 Export media

To “Export Video”, “Create stamp” or to publish through “Content Export”, click on the corresponding icon:

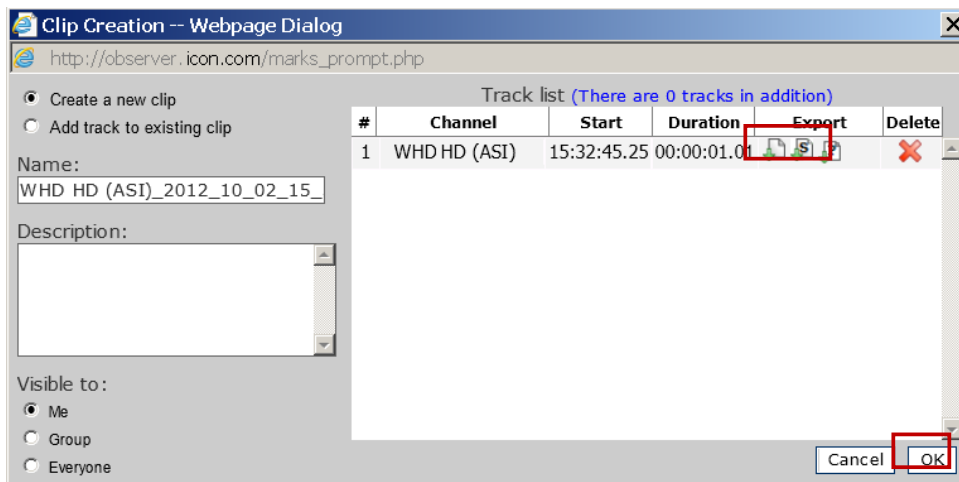
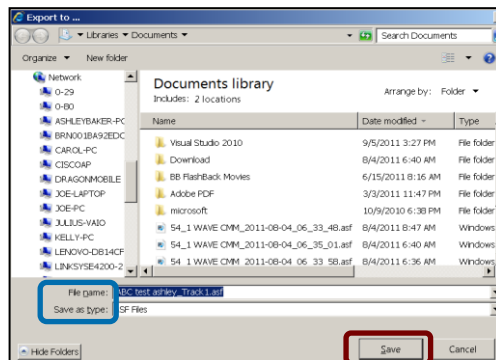


Figure: Clip Export

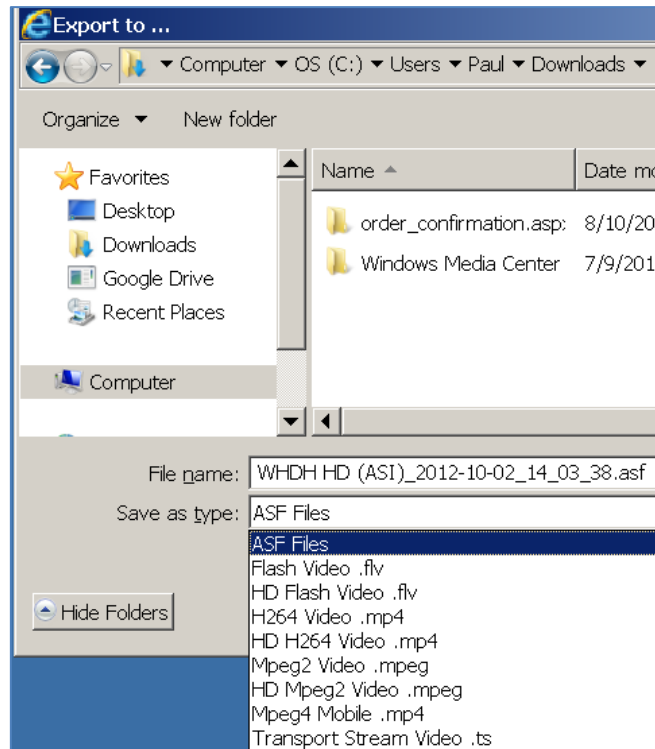
After clicking the “Export Video” icon the “Export to” popup window will appear.



- Select directory and provide “File name”
- “Save as type” to client PC or to network directory
- Press the <Save> button

### 6.3.3 Standard Export Format Types

Note there various export formats to select from including full transport stream after selecting the **“Save as type”**:



- ASF file (Advanced Streaming Format)
- Flash Video .flv
- HD Flash Video .flv
- H254 Video .mp4
- HD H254 Video .mp4
- MPEG2 Video .mpeg
- HD MPEG2 Video .mpeg
- MPEG4 Mobile .mp4
- Transport Stream Video .ts

Type transport stream stores data TS bit rate (optional module).

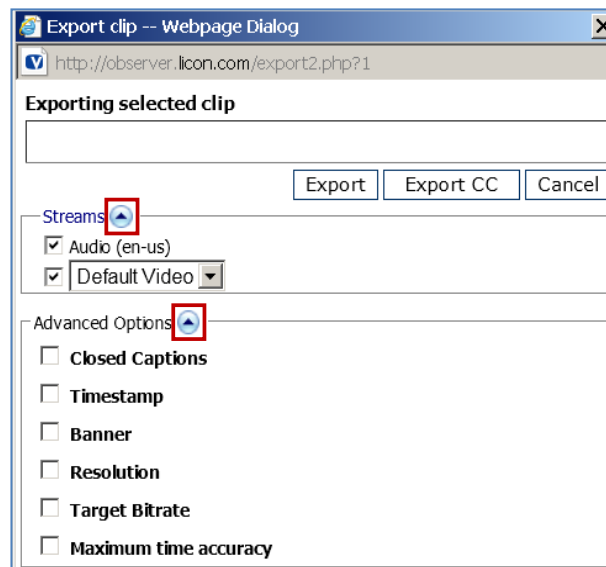


## 6.3.4 Export Stream Options

During export select one or more of the following with the dropdown icons:

### 6.3.4.1 Stream Options

- Audio
- Default Video



### 6.3.4.2 Advanced Options

The **Advanced Options** when selected up to the **Maximum time accuracy** are burned into the video.

- Closed Captions
- Timestamp
- Banner
- Resolution
- Target Bitrate
- Maximum time accuracy

The **Maximum time accuracy** option insures that the recorded media is frame accurate.

### **6.3.5 Play Exported Clips**

To play the exported clip on a client PC, standard media players (Windows Media, VLC...) can be used.

## 7 FAULT CLIPS

Whenever the Observer detects a fault in a media stream, it generates a fault clip. You can use the fault clip to review a problem and see exactly what occurred, because the clip was recorded at the time of the occurrence.

To access your fault clips, go to: **Clips → Fault Clips**

The screenshot shows the 'CLIPS / FAULT CLIPS' page in the Volicon Observer interface. The page has a sidebar on the left with navigation options: Home, Clips, Bookmarks, Fault Clips (highlighted), Gpi Clips, Content Matching, Search, Programs, Content Export, Central Config, Maintenance, and Preferences. The main content area is titled 'CLIPS / FAULT CLIPS' and includes a 'Welcome' message in the top right. Below the title, there are filter options: 'Show alerting clips:' with checkboxes for Recoveries, Video, Audio, Equipment, and Metadata. A 'Time range:' dropdown is set to 'None'. There is a 'Search Text:' input field with 'Search' and 'Advance Search' buttons. Below these are 'Create Clip', 'Delete Selected', and 'More' buttons, along with a 'Show/Hide columns' button. The main part of the page is a table with the following data:

	Actions	ID	Name	Description	Trk	Service	Probe	Encoder	Modified
<input type="checkbox"/>		651657	AUDIO LOW	Low audio level on channel Aler	1		DEMO-8CH	Alerting Test (DVD)	01-30-2013 06:06:54
<input type="checkbox"/>		643801	AUDIO LOW	Low audio level on channel Disc	1		DEMO-4HD	Discover HD	01-18-2013 19:55:07
<input type="checkbox"/>		651656	VIDEO STATIC	Static screen on channel Alertin	1		DEMO-8CH	Alerting Test (DVD)	01-30-2013 06:06:21
<input type="checkbox"/>		590750	TEST	Test email delivery. Channel: TI	1		DEMO-4HD	WHD HD 1.5M	01-14-2013 14:15:47

**Figure: Fault clips**

The fault clips page shares several features with the Bookmarks page, such as the **Action icons** and **Advanced search**. See the “Bookmarks” section @5.1 for information on these features.

The “Quality of Experience” package needs to be available for fault clips to appear. Fault clips are configured in the backend.

### 7.1 Export fault clips

To export your fault clips use the process in the “Export clips” section @6.3 above.

## 7.2 Fault Clip Player

To play a fault clip, from “Fault Clips” click on a clip to open the fault clip player. Each fault clip might have several tracks, comprised of faults of the same type. The player uses DVD type player controls.



**Figure: Fault Clip Player**

The player provides you with a clip fault description just below the player controls. The description includes the information below:

- Fault name/description
- Track number (**No**)/Clip ID

- List of fault clip tracks
- Date and duration fields
- Export icons
  - Media
  - CC – Closed captions
- Channel – Service name

Click on a track to play that occurrence of the fault on the service.

A script description follows the list of tracks.

### 7.3 Report Fault Clips in ASCII

The screenshot shows the Volicon Observer interface for managing clips. The main area displays a table of clips with the following data:

Trk	Service	Probe	Encoder	Mo
1		DEMO-4HD	Discovery HD	01-18-20
1		DEMO-4HD	WHDH HD 1.5M	01-14-20

The 'More' dropdown menu is open, showing options: Merge, Add to Basket, Add to Basket and Publish, Clear All, and Export. The 'Export' option is highlighted with a red box, and the 'csv' radio button is selected.

- **<Report>** button lists Fault clips in text or CSV
- System will prompt for a folder on your client PC to download the report
- Excel spreadsheet will display clip parameters in separate columns:

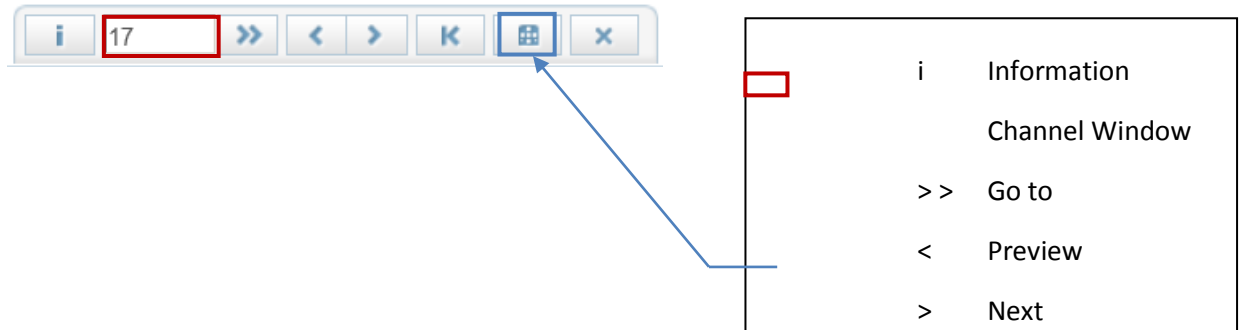
The system will prompt for a folder on your client machine to download the report. Opening the report with a spreadsheet application will display clip parameters organized in separate columns.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	This report contain all tracks of all clips included in the clip list from which it is generated. Due to that, it will have a higher item count.																
2																	
3	Clip-ID	Encoder	Service	DialCode	Group	Detect date and tim	Duration	Mark Start time	Mark End time	Type	Error	Certainty	fLink	Short descripr	ClipNotes		
4	181126	DEMOHD1		46		10/4/2011 0:38	25293	10/4/2011 4:38	10/21/2011 11:39	65540	4		http://obse	VIDEO-LOST	1193.	No video signal on channel PalladiHD 1.5M. Detected by scanner '\DEMOHD1\' (probe DEMO-4HD). Action: Encoder-	
5	199630	AB5		58		10/9/2011 5:18	90	10/29/2011 9:18	10/29/2011 21:20	1E+05	10	99	http://obse	VIDEO-BLACK	Action: Encoder-80401.	Black screen on channel Test alert loop (DVD). Detected by scanner '\AB5\' (probe DEMO-OBSERVER). Certainty: 99%.	

**Figure: CSV File of Fault Clips**

## 8 REMOTE CONTROL

### 8.1 Remote Control Bar



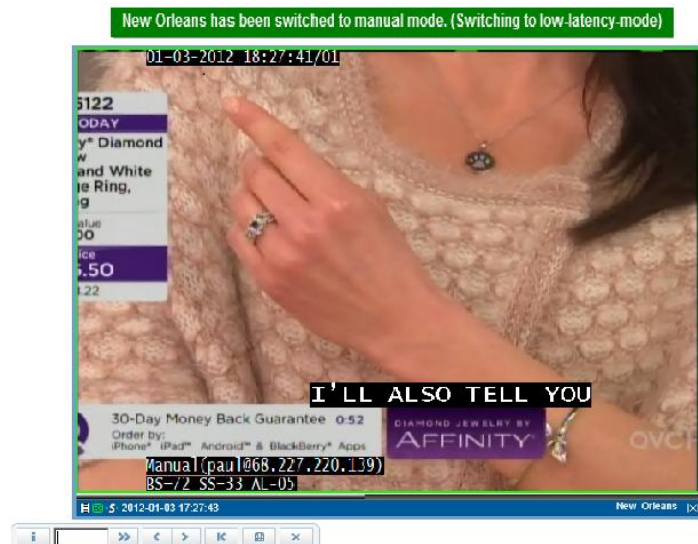
Select an encoder to control the corresponding STB.

Go to Live mode for the most recent media (Control-bar).

Control STB using Remote Control Bar icons or the Virtual R/C.

Place channel numbers or simple scripts in 'Channel Window' then click the 'Go to' '>>' icon or **<Enter> key** - A quick way to dial channels or test simple scripts.

Note the IR message above the active player display.



**Info** Command STB to display a Banner (without dialing a Channel)

**Power Off/On** command usually brings STB in/out of standby mode

**Review/Next** Up/Down channel similar to the way a real Remote Control functions. (STB IR codes are configured with the IR Trainer, see the RPM Admin Guide)

**Last channel** Returns STB to the previous channel tuned to. E.g. if tuned to channel 20, and then tuned to channel 10, clicking “Last” would return STB to channel 20

### 8.1.1 Virtual Remote Control

Click the Virtual R/C icon - R/C graphic will appear.



The virtual remote allows you to create Macros/Scripts for repeated or often used functions. Expand the virtual R/C window by clicking the double arrows on the bottom right.



Virtual R/C buttons

- Note IR message above the active player

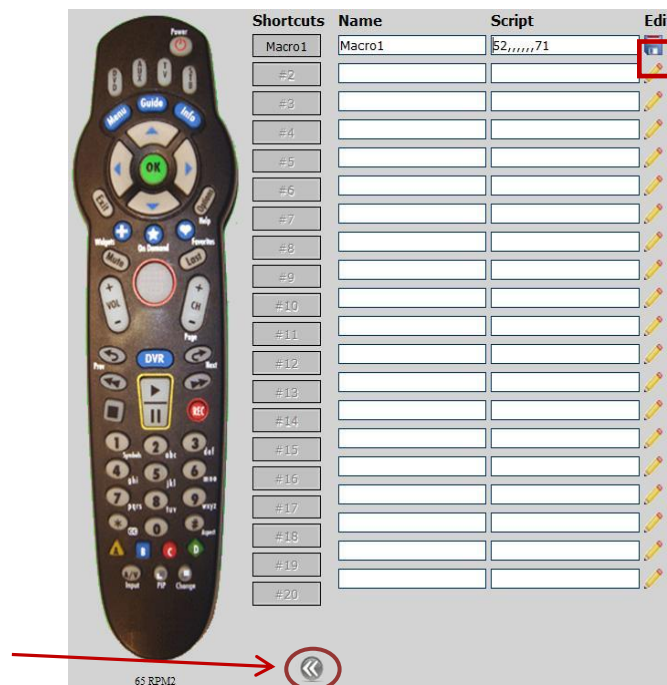


- There is a 4-6s delay once hitting the R/C button that allows buffers to handle network issues

Experiment pressing different R/C buttons

### 1.1.1. Virtual Remote Macro Scripting

R/C Macro Commands - Click the expansion icon below **Shortcuts** to start macro scripting



Click the Edit/Create script

Name Macro in the Name, field see Macro1

Write script in the Script field. For example 52,,,,,,71 to dial CH 52, delay (commas) then CH 71

Script can also use R/C Key Names and Pause command PX (X in seconds)

Save script to complete the macro

Reduce the Editing Window when done

## 9 SCAN FREQUENCY

The RPM estimates daily how often are the different probes, group of probes and encoders are utilized per day. From the left menu select: **Central Configuration** → **Scan Frequency**

Service Name	Predicted Service Visits Per Day
AM	0
AM HD	0
AM [American Movie] HD	82.8
AXTV	0
AmLife TV	37.5
An Planet	109.5
An Planet HD	190.3
At Max	0
At Max HD	0
BEHD	107.5
BY Television	37.5

Then select:

- Groups (of probes)
- Probes
- Encoders
- Average Scan time - Estimated average scan time for the selected encoders

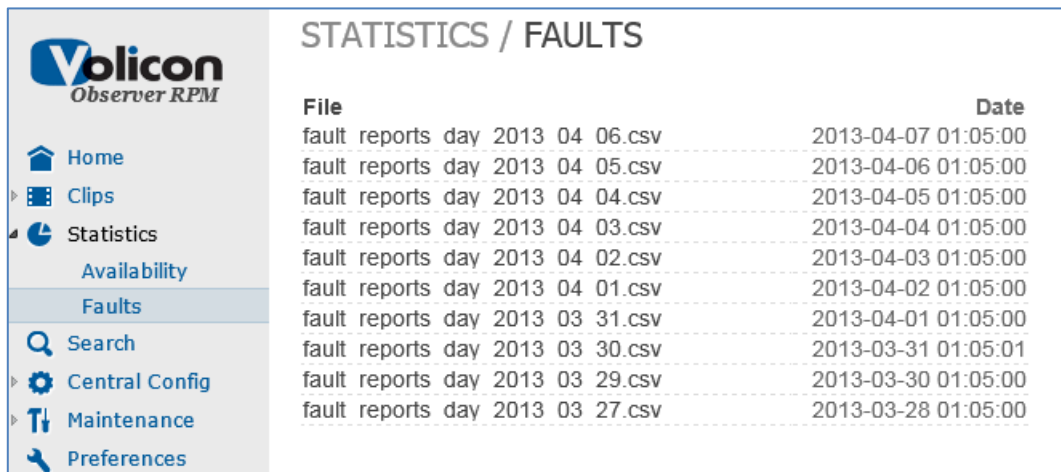
Estimate the “**Average Scan time**” for the selected probes and encoders in seconds (or leave the default value) then press the **<View>** button.

## 10 STATISTICS

The statistics module keeps track of service availability and faults occurring on a daily basis.

### 10.1 Fault reports

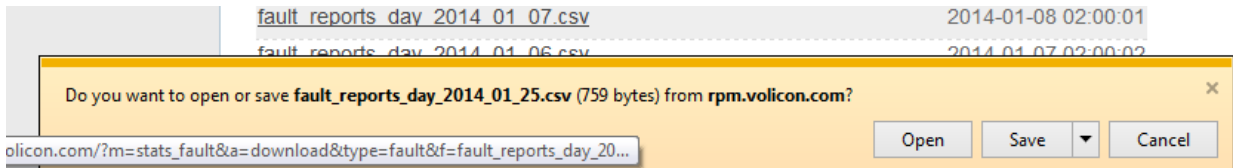
Fault reports capture service faults and their related parameters over a 24 hour period. “Fault Report Operation” section @10.1.2 describes its operation. The parameters are saved in a tabulated format. To access your fault reports, from the left-hand menu click **Statistics** → **Faults**



File	Date
fault reports day 2013 04 06.csv	2013-04-07 01:05:00
fault reports day 2013 04 05.csv	2013-04-06 01:05:00
fault reports day 2013 04 04.csv	2013-04-05 01:05:00
fault reports day 2013 04 03.csv	2013-04-04 01:05:00
fault reports day 2013 04 02.csv	2013-04-03 01:05:00
fault reports day 2013 04 01.csv	2013-04-02 01:05:00
fault reports day 2013 03 31.csv	2013-04-01 01:05:00
fault reports day 2013 03 30.csv	2013-03-31 01:05:01
fault reports day 2013 03 29.csv	2013-03-30 01:05:00
fault reports day 2013 03 27.csv	2013-03-28 01:05:00

**Figure: Fault Reports**

Click on one of the reports to open it for viewing or right click to save the file on your machine or to a network drive. When saving, designate a folder to save the report (in \*.csv format).



**Figure: Open or Save Option**

The details of the various fields are described in the next section.

### 10.1.1 Service Fault Report Parameters

You can open the report in a spreadsheet program and use its tools for analysis.

	A	B	C	D	E	F	G	H	I
1	clip_ID	Name	Description	Detected	marks_number	Probe	Service	Encoder	Script_ID
2	3313	VIDEO STATIC	Static screen on service Nick Too(228). Detected by 'CCAST SD' (scanner COMCAST_SD@RPM-DEMO2). Reviewed by 'CCAST SD' (scanner @RPM-DEMO2). Certainty: 98%. Script: EXIT,228;P(5);D(BS(30,95),SS(30,95));. ScriptName: System Linear Script. Command: D(BS(30,95),SS(30,95)).	4/5/2013 3:59	2	RPM-DEM	Nick Too	COMCAST	1
3	3310	VIDEO STATIC	Static screen on service Educational Channel(8). Detected by 'CCAST SD' (scanner COMCAST_SD@RPM-DEMO2). Reviewed by 'CCAST SD' (scanner @RPM-DEMO2). Certainty: 99%. Script: EXIT,8;P(5);D(BS(30,95),SS(30,95));. ScriptName: System Linear Script. Command: D(BS(30,95),SS(30,95)).	4/5/2013 2:18	2	RPM-DEM	Educational	COMCAST	1

**Figure: Fault Report CSV**

Fault reports for services are composed of fault clips and related parameters. These parameters include the **clip\_ID**, fault **name**, **description**, the time the fault was **detected**, **Marks number**, **Probe**, **Service**, **Encoder** and **Script ID** – See the table below for definitions of the parameters detected and assigned by the RPM during a service scan cycle:

Term	Definition
<b>Lipid</b>	Integer value referring to an RPM fault clip uniquely. The Lipid can be used in the <a href="http://&lt;CS_IP&gt;/view_clip_dlg.php?id=&lt;Clip_ID&gt;">http://&lt;CS_IP&gt;/view_clip_dlg.php?id=&lt;Clip_ID&gt;</a> URL to access the fault clip directly from an Internet Explorer such as: http://rpm.cableco.com/view_clip_dlg.php?id=1312965
<b>Name</b>	Name of the fault such as "Audio Low"
<b>Description</b>	Fault additional details: service channel number (e.g., 22), encoder display name (e.g., Orlando), audio level and script details
<b>Detected</b>	Date and time of the fault detection
<b>Marks number</b>	Number of tracks in a fault clip, see "Trk" field in "Fault Clips" section @7. After detecting the first fault on a service (broadcast channel), a fault clip is cut as the first media track. Follow up faults of same type detected on the service will add additional tracks to the fault clip. Track numbers are listed under the "No" field header in the clip player.
<b>Probe</b>	Probe server
<b>Service</b>	A broadcast service also referred to as a broadcast channel. When an encoder is set to manual mode, during fault the Service field will be NULL_STRING
<b>Encoder</b>	Module which analyzes video and media data
<b>Script ID</b>	Integer value identifying a script uniquely

*Table: Service Fault Report Parameters*

### 10.1.2 Fault Report Operation

Fault reports for services capture fault clips recorded daily and their parameters. The following faults are recorded when enabled in the RPM:

### 10.1.2.1 Media faults

This is only a brief description (see Observer Admin Guide for details).

- **Audio Low** : Incoming audio stays below the low level threshold, for details see “Media faults with examples” section, RPM Guide Addendum
- **Audio High**: Incoming audio stays above the high level threshold
- **Video Lost**: Video frame loss is detected and persists over the duration threshold
- **Video Black**: Video stays above the black screen and over the duration thresholds
- **Video Static**: Video static is detected and persists over the duration threshold
- **Closed Captions**: Used for both for closed captions and teletext missing indications

Media faults must be enabled on the probe and in the scripts (Central Config → Scripts) to be detected during scanning (see Observer RPM Admin Guide for configuration details).

### 10.1.2.2 Equipment and link errors

Equipment and link errors, when detected, are included in the Fault reports:

- **STB fault**: Detecting Declared after detecting three or more faulted services of the same type
- **Equipment error**: Related to probe server inter services error
- **Encoder stopped**: Encoder module processing a media stream has stopped
- **Service stopped**: Encoder service (operating system routine) has stopped
- **Dial error**: Digit dialing errors detected with a custom script written using the Interactive Services (optional module)
- **Script error**: This fault can be the result of:
  - System detected syntax error in the script
  - Script failure due to an IR problem

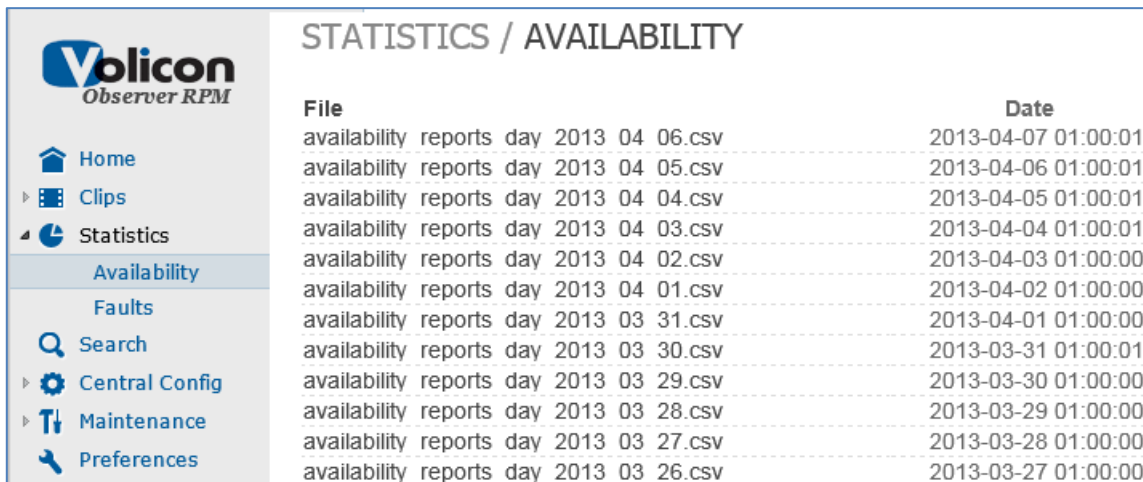
### 10.1.2.3 Other faults

The following faults, when detected, are included in the Fault reports:

- **GPI fault**: Triggered by any media fault to provide an electrical alert to external hardware
- **NAVE TS fault**: A watermark is received with an older timestamp than what was defined

## 10.2 Availability Reports

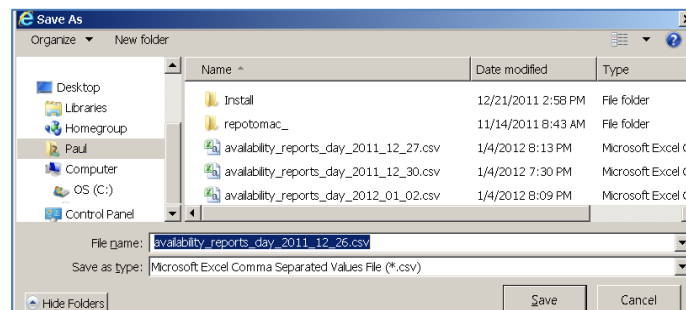
Service availability reports are recorded daily and measure both duration and the percentage of time during which each service is available in a 24 hour period, see the “Availability Computations” section @10.3 below for details. The evaluated parameters are tabulated and are accessible from the web frontend menu: **Statistics → Availability reports**



File	Date
availability reports day 2013 04 06.csv	2013-04-07 01:00:01
availability reports day 2013 04 05.csv	2013-04-06 01:00:01
availability reports day 2013 04 04.csv	2013-04-05 01:00:01
availability reports day 2013 04 03.csv	2013-04-04 01:00:01
availability reports day 2013 04 02.csv	2013-04-03 01:00:00
availability reports day 2013 04 01.csv	2013-04-02 01:00:00
availability reports day 2013 03 31.csv	2013-04-01 01:00:00
availability reports day 2013 03 30.csv	2013-03-31 01:00:01
availability reports day 2013 03 29.csv	2013-03-30 01:00:00
availability reports day 2013 03 28.csv	2013-03-29 01:00:00
availability reports day 2013 03 27.csv	2013-03-28 01:00:00
availability reports day 2013 03 26.csv	2013-03-27 01:00:00

**Figure: Availability Reports**

Click on one of the reports to open it for viewing or right click to save the file on your machine or to a network drive. When saving, designate a folder to save the report (in \*.csv format).



You can then open the report in a spreadsheet program.

	A	B	C	D	E	F	G	H	I
1	<b>Service Availability Report</b>								
2	<b>Report Start</b>	<b>Report End</b>	<b>Report Duration</b>						
3	3/27/2013 0:00	3/27/2013 23:59							
4	<b>Group</b>	<b>Probe</b>	<b>Encoder</b>	<b>Service</b>	<b>Fault Count</b>	<b>Total Count</b>	<b>Availability</b>	<b>Uptime</b>	<b>Downtime</b>
5	Demo Encoders	RPM-DEMO2	CCAST SD	24 Ghanta	4	0	98.80%	0:00:00	0:00:00
6	Demo Encoders	RPM-DEMO2	CCAST SD	9X	4	0	96.40%	0:00:00	0:00:00
7	Demo Encoders	RPM-DEMO2	CCAST SD	9XM	89	0	98.81%	0:00:00	0:00:00
8	Demo Encoders	RPM-DEMO2	CCAST SD	A&F	2	0	87.50%	0:00:00	0:00:00
9	Demo Encoders	RPM-DEMO2	CCAST SD	A&F Lifest	0	0	Not scanned	0:00:00	0:00:00

**Figure: Availability Report CSV**

The details of the various fields are described in the next table.

### 10.2.1 Service Availability Parameters

When RPM is monitoring the **Downtime** and **Uptime** parameters, it computes **Availability** and **Fault\_Count** for each **Service** running on an **Encoder**, **Probe**, or **Group** (of probe servers):

Term	Definition
<b>Report Start, Report End, Report Duration</b>	Start and end date and time of the report and the period over which the parameters of the report were collected
<b>Group</b>	Name for the group (of servers) to which this probe belongs
<b>Probe</b>	Probe server
<b>Encoder</b>	Module which analyzes video and media data
<b>Service</b>	A broadcast service also referred to as a channel
<b>Downtime</b>	Duration the service was not operating during the reporting period
<b>Uptime</b>	Duration the service was operating during the reporting period



<b>Availability</b>	Percentage of time a service is available in a 24 hour period => $\text{Uptime} / \text{Report Duration} \times 100$
<b>Fault_Count</b>	Number of faults for a service per Report Duration, 24 hours
<b>Total_Count</b>	Number of times the channel was dialed during the 24 hour period

*Table: Service Availability Parameters*

## 10.3 Availability Computations

### 10.3.1 Observer Mode

The Availability and Fault reports are only available in the RPM scan mode.

### 10.3.2 RPM Scan Mode

A service state is monitored while the service is scanned; then in between scans (while the RPM is scanning other services on the same encoder) its state is preserved (as available or faulty). The time duration for availability is calculated by summing the spans in between service visits - see the next section for details.

## 10.4 Service Availability Status Determined During Scanning

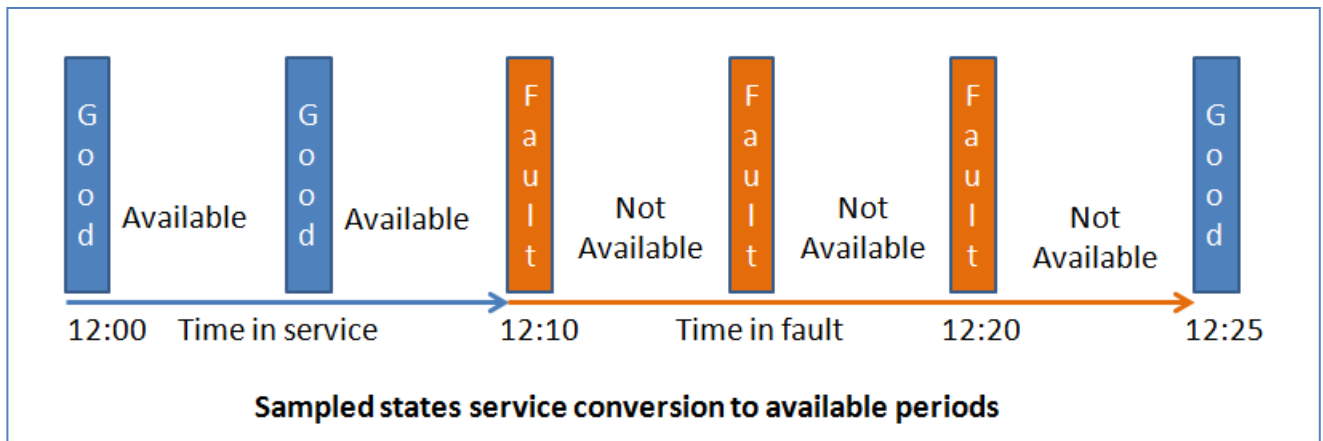
During a scan cycle, multiple services are monitored to detect the fault status and availability of each service. An encoder samples a particular service periodically as illustrated by the blue and orange columns in the next figure.

Service faults and equipment and link errors such as video lost, STB fault, encoder stopped, and service stopped determine the service state of the availability computations during sampling. See “Media faults” and “Equipment and link errors” of section “Fault Report Operation” @10.1.2 for details.

In between scans (while the RPM scans other services on the same encoder), the availability of a service is assumed to persist during the whole scan cycle until the

beginning of the next scan cycle. Therefore the availability duration for one scan cycle starts at its beginning and ends at the beginning of the next scan cycle for the monitored service. RPM sums up the availability durations of the service for the whole day to determine the service’s daily availability.

### 10.4.1 Service Availability Computation Example



*Fig: Service Availability for Sampled States*

In figure above a service is monitored during scanning (of multiple services) to detect if it is good or faulty. Then the scan results are converted to a service availability computation as follows:

- Service availability status begins from the beginning of the first monitored good scan up to the beginning of a first faulty scan as illustrated by the blue timeline above
- The “Not Available” service status begins at the beginning of the first faulty scan and continues to the beginning of a first good state as illustrated by the orange timeline above

If a service is free of faults – i.e., “Good” at 12:00 PM and at 12:05 PM but goes faulty at 12:10 PM, then it is considered to be available for two scan cycles: 12:10 – 12:00 => 10 minutes as illustrated in figure above. If the faulty service at 12:10 is followed by other faulty service scans at 12:15 and 12:20, but recovers after 3 service visits at 12:25 PM, then the overall downtime would be 12:25 – 12:10 => 15 minutes.

## 11 CENTRAL CONFIGURATION

The RPM system management has been centralized to ease system configuration, lineup maintenance, network stream debugging, software updates and to facilitate large scale deployments.

## 12 FRONT-END SETUP

### 12.1 User Preferences

In User Preferences from the Left menu, you can configure the Seek-bar scale, change the login password and additional parameters as shown below:

**USER PREFERENCES**

Expand All Collapse All

**Settings**

Reset Uncheck all players on the Home page

Set seekbar duration to 30 min

Timezone System Timezone Settings

Default audio language English - United States

Timestamps on CC export

Play live on last selected channels

Show frame in live mode

Limit returned results by CC search to 1000

Select default CC state Remember last state

Select default XDS state Remember last state

Select default Loudness meter state Remember last state

Apply

**Change Password**

Old password:

New password:

Confirm new password:

Submit

**Keyword Alerts**

<input type="checkbox"/>	Enabled	Name	Subject	Email	Delete	Edit
No records found						

Add alert

**Figure: User Preferences Window**

Preference Option	Definition
Seek-bar duration	Seek-bar duration time in minutes
Time zone	Specifies user player display and clip date/time. <b>System Time zone Settings</b> – sourced from user’s Web client machine time zone (default). For the Observer Pro (Silverlight) the default is the only time zone setting available – change through Web client machine time zone
Default audio language	Configured for the encoder servers in audio profile
Timestamp on CC export	Enables timestamps on CC being exported
Play live last selected channels	Play-live on channels selected last time just before logout rather than continue playing from when last left off
Show frame in live mode	Enable frame control in live mode
Limited results of CC search	Limit the maximum number of clips from CC searches
Select default CC state	CC “On”, “Off” or “Remember last state “
Select default XDS state	XDS “On”, “Off” or “Remember last state “
Select default Loudness meter state	Loudness “On”, “Off” or “Remember last state “
Change Password	Ability to change your login password
Observer Theme	Background, color and display schemes
Keyword Alerts	Enable alerts of CC for configured keywords “Enable”, “Disable” or “Delete”
Use slider players control	Checkbox (Check/Uncheck)

## 12.2 User Management

See the Observer Admin Guide.

## 12.3 Alert Notification, Emails and SNMP Notification

See the Observer Admin Guide.

## 12.4 Scheduled Recording Module

This is an optional module:

- Channel/service recording specified periods
- Channel/service and verification during the scheduled periods
- Dwelling on a stream (instead of scanning) for an extended period

## 12.5 Recorded Events

To enter this page select Central Config → Scheduled Recording

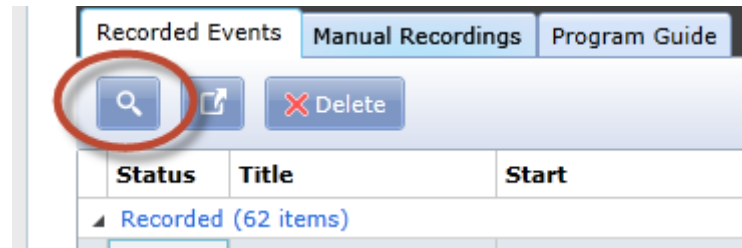
- Click on an event line below to view your event details. The **Event Details** window will appear at the right of the display.

The screenshot shows the 'CENTRAL CONFIG / SCHEDULES' page in the Volicon Observer RPM 7.1 interface. The page is divided into several sections:

- Left Sidebar:** Contains navigation links for Home, Clips, Statistics, Search, Central Config (selected), Encoders, Schedules (selected), Scripts, Lineups, Bouquets, Services, Scan Frequency, SW Updates, Triggered Rec., STB, Tasks manager, Maintenance, and Preferences.
- Main Content Area:**
  - At the top, there are tabs for 'Recorded Events', 'Manual Recordings', and 'Program Guide'.
  - Below the tabs is a search bar and a 'Delete' button.
  - A table displays a list of recorded events. The table has columns for Status (with a green checkmark icon), Title, Start (date and time), Duration, and Over (with an 'An' icon).
  - The table shows 14 rows of event data, including titles like 'New Event', 'Test eventnt', 'Event from RCMt', 'Jay Leno', 'NBC', 'charter test', 'CNN HD', 'LONG RECORD TEST', 'SECOND LONG EVENT', 'Superbowl', and 'event for ...t'.
- Right Panel:**
  - Contains a 'New Event' button and a 'Parameters' section.
  - The 'Parameters' section lists details for the selected event: Type: Manual Event, Encoder: COMCAST HD, Service: (blank), Start: 10/18/2012 3:54:00 PM, End: 10/18/2012 5:05:00 PM, Category: None, User: Andrews, and Comments: (blank).
  - An 'Edit' button is located at the bottom of the right panel.

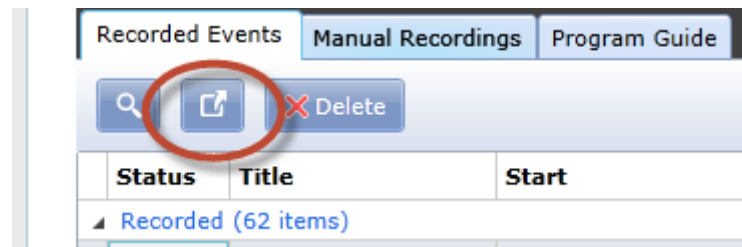
Figure: Schedules

Use the **Search** icon to search for events.



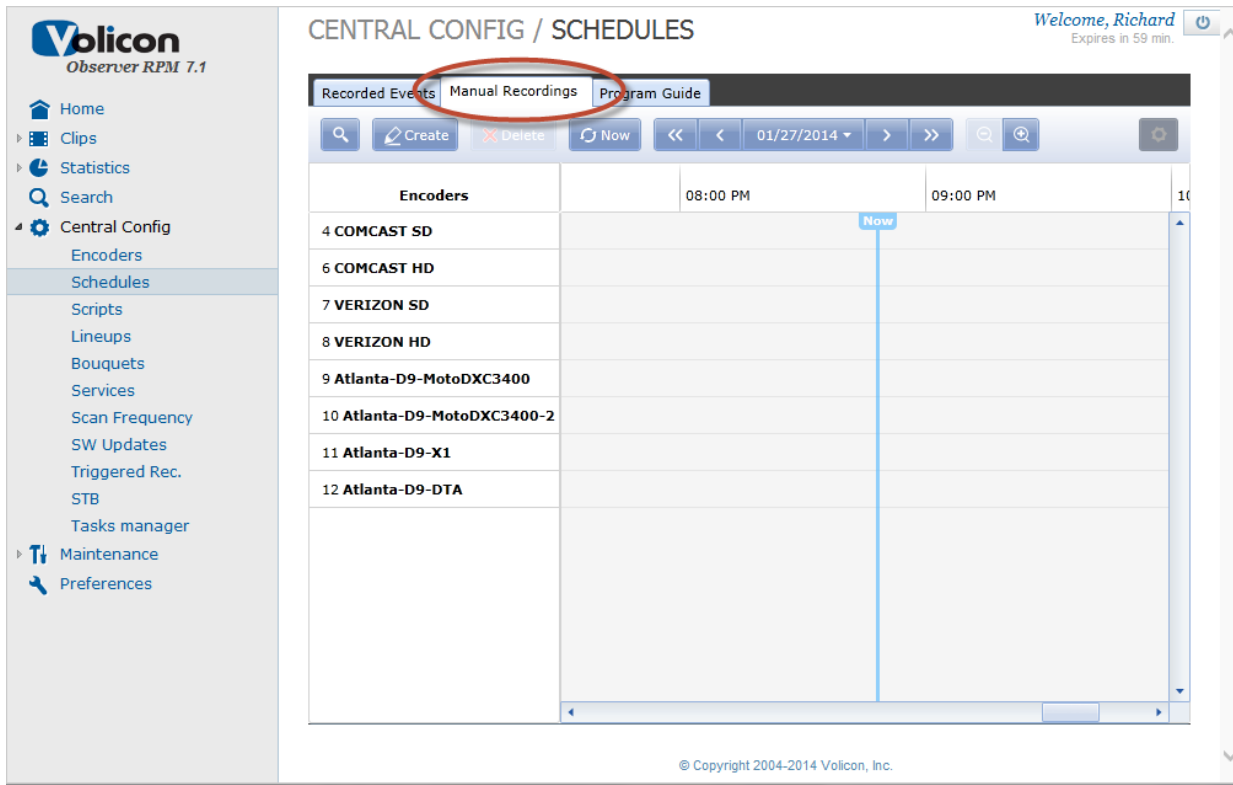
*Figure: Search Icon*

Use the Export icon to export the list of all the events.



*Figure: Export Icon*

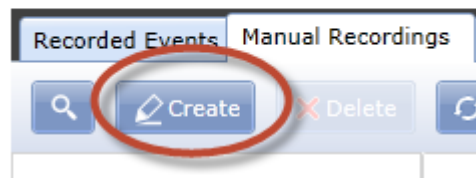
To schedule your recording events, click on the **Manual Recordings** tab.



**Figure: Manual Recordings Tab**

Click **Create** to open your Event Details window.

## CENTRAL CONFIG / SCH



**Figure: Create Button**



Welcome, Richard Expires in 59 min.

CENTRAL CONFIG / SCHEDULES

Recorded Events Manual Recordings Program Guide

01/27/2014

Encoders	08:00 PM
4 COMCAST SD	
6 COMCAST HD	
7 VERIZON SD	
8 VERIZON HD	
9 Atlanta-D9-MotoDXC3400	
10 Atlanta-D9-MotoDXC3400-2	
11 Atlanta-D9-X1	
12 Atlanta-D9-DTA	

» Event Details

New Event

Parameters

Encoder:

Services:

Start: 1/27/2014 9:00 PM

End: 1/27/2014 9:30 PM

Category:  None

User: Richard

Comments:

**Figure: Even Details Window**

Select you Parameters:

- Encoder/stream
- Service - Channel dialed in an Encoder/stream
- Start and End - Time
- Category

Then press the <Save> button to schedule the recording event.

## 13 APPENDIX

### 13.1 Player hot keys

In addition to the Control-bar, you can use keyboard single key strokes to control the player functions conveniently, as detailed in the table below.

Hot key buttons	Multi- player screen (Normal mode)/6.0 Test results	Full-screen mode/6.0 Test results
<b>L – Live playback</b>	L	L
<b>F – Full-screen for active window</b>	F	F or ESC returns screen to normal player mode
<b>D - Switch between main and extended display (in Full-screen mode)</b>	N/A	D
<b>S – Split-screen</b>	S	F or ESC returns screen to normal player mode
<b>P – PIP (picture in picture)</b>	P	F or ESC returns screen to normal player mode
<b>Z – Fast reverse</b>	Z	Z
<b>X – Normal reverse</b>	X	X
<b>C – Slow reverse</b>	C	C
<b>&lt;Spacebar&gt; - Pause/Un-pause Play</b>	<Spacebar>	<Spacebar>
<b>V – Slow forward</b>	V	V
<b>B – Normal Forward</b>	B	B
<b>N – Fast Forward</b>	N	N
<b>I – Image snapshot</b>	I	
<b>&lt;Cursor up/down&gt; - Volume up/down (audio)</b>	<Cursor up/down>	<Cursor up/down>
<b>M - Mute/un-mute (audio)</b>	M (first press Mute on Control bar)	M (first press Mute on Control bar)
<b>&lt;Ctrl + Mouse scroll up/down&gt; – Single frame forward/backward</b>	<Mouse scroll up/down> and <Cntr + mouse scroll up/down>	<Cntr + mouse scroll up/down>
<b>&lt;'&gt; Single quote– Cut clip &lt;start/end&gt;</b>	<'>	
<b>L – Live playback</b>	L	L

## 13.2 References

### 13.2.1 Loudness monitoring

See the “Observer User Manual”.

### 13.2.2 Glossary

<b>Electronic Program Guide (EPG)</b>	softcopy of TV listings with the associated metadata for display
<b>Event</b>	association of video channel, specific start date/time, duration and recurrence for scheduling system to record video content; or for clip generation
<b>Observer</b>	Volicon’s broadcast video monitoring solution

## 13.3 Troubleshooting

Most troubleshooting and repairs are performed by systems administrators - see the Observer Admin Guide for details.

## 13.4 What NOT to do on the server side

- **Do not** run the Web client application on a server machine.
- **Do not** load/execute any additional applications on the server.
- **Do not** install Anti-virus until you contact Volicon Support.

## 14 REVISION CHANGE HISTORY

- 070111 Scheduled recording module; Remote control
- 071911 Add pre-recorded media source to Create Clips
- 102611 Upgrade to tab stops; move scheduled recording and R/C to the appendix
- 111611 Dashboard; update popup menu, media clips section
- 011112 Upgrade to 6.0, Status line, Remote Control, Export, Statistics reports
- 011212 Conventions; Service/channel definition
- 032612 Rename document
- 032812 Front page footer update
- 052112 Statistics module, availability and fault reports access and computations
- 061212 Updated Fault and Availability reports
  - 062412 Minor – font fix
  - 072212 NAVE modified in "Other faults"
- 092712 6.1 changes; edit Favorites and Availability Computation
- 100312 Updated export video including the TS format
  - 012913 Combine Observer user manual 6.2 updates with the RPM user manual
  - 020513 Observer player installation and playback; Sections rearrangement
  - 040913 Upgrade for release 7.0 QB2
  - 041013 Minor edits