



Observer

User Manual 7.1

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Document Details

| | |
|----------------------------------|------------------|
| Document Name: | User Manual 7.1 |
| Part Number | RN-7.1.B3-121613 |
| Related Software Versions | 7.1.39589 |

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1 INTRODUCTION

1.1 Purpose

Welcome to the Volicon Observer User Guide. This document will provide the details and instructions necessary to guide you through the configuration and operation of the Volicon Observer platform. It addresses specific Observer functions, including the applied use of media clips; proving FCC compliance advertisement verification, and general media stream management.

1.2 Definitions and acronyms

The following table defines terms and acronyms used in this document:

| | |
|-----------------|--|
| Services | A/V program content with the associated metadata |
| ARL | As Run Logs use customer extracted program schedules |
| CC | Closed Captioning |
| CS | Central Server |
| MH | Media-Hub server also referred to as the Observer Transport Stream (TS) server |
| PLR | Program Loudness Report - loudness values recorded over time |
| Encoder | Observer module that receives and processes media signals |
| Listener | Business logic service module |
| Vchip | Allows the blocking of programs based on their ratings category |
| PSIP | Program/System Information Protocol - TS program schedule for ATSC DTV |
| XDS | Extended Data Services – metadata on NTSC signal |
| PAT | Program Association Table |
| PMT | Program Map Tables – one per program |
| WM | Windows Media protocol |

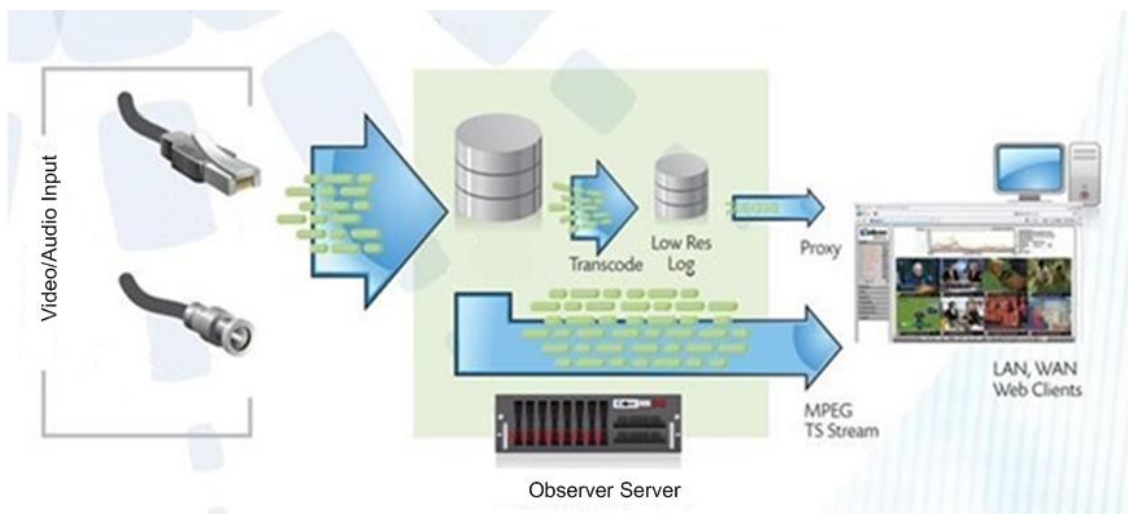
2 VOLICON OBSERVER OVERVIEW

A firm understanding of Volicon Observer will help you with your work flow as you use it. At its core, Observer excels at two functions:

- Logging video content
- Providing you with tools to monitor, manage, and share live or historical video content logged on the Observer solution.

Observer has the ability to log content from multiple video sources in the post production, transmission, delivery, and reception video distribution chain. You can log content at any stage of the video production or delivery process: The amount of content you can log is limited only by your storage space.

It is the only product on the market that logs video content down to the individual frame level, at the same standard frame rate as the source. In addition, Observer allows you to log content from many different input types such as HD/SD-SDI, ASI, IP, DVB-(S, S2, T, T2), 8VSB, Clear QAM, Component, Composite, S-Video, and HDMI. .



The Observer ingests the video and audio. Next it takes the original stream content and transcodes it to a lower resolution and bit rate for storage on the Observer Server, essentially making a copy of the original source also known as a Low Bit Rate Proxy (LBRP). The LBRP is stored locally on the server and then streamed to each end user a individual streams, which allows multiple users to access the same content without adversely affecting other users on the Volicon

solution. There are several reasons for creating a low bit rate proxy of all incoming video content:

1. It allows multiple users to access the Volicon solution simultaneously
2. It minimizes impact on network resources
3. It allows the Observer to store content on each server for much longer periods of time

2.1 Using Your Stored Content

Your stored content serves multiple purposes.

Compliance: In the event that the FCC inquires about any video segment you aired with noncompliance, you can use your stored content to investigate the charge and to either a) prove compliance with FCC regulations; or b) establish precisely which frames of the video were out of compliance.

Customer Complaint Resolution: You can use your stored content for business purposes, especially as a historical record to support resolving customer complaints about whether or not a commercial played during the contractual time frame. Observer's frame-by-frame record allows you to investigate not merely whether or not the commercial played, but whether or not the commercial played in its entirety, and at what specific time it played.

For playing back your broadcast news clips on your website. Observer allows you to bookmark the start and end of each clip you want to display and export the content. You then can post that content to your website. You can use this feature not only for current clips, but for older news clips as well – as far back as you have stored content.

For monitoring what you and your competitors are doing. Observer can pick up any public signal, and not merely the signals you generate.

For assessing the Nielsen Ratings on a particular program or set of programs. Observer can import the Nielsen Ratings and tie them to the video with which they are associated.

2.2 Stored Content Parameters

4.2.1 By default, Volicon Observer stores every frame of transmitted content

- from every active input
- locally on each Observer server
- in the same High Definition/Standard Definition format native to that input.

4.2.2 Customization of Age of Storage

The amount of days each video stream is stored on the Observer system is customized based on preconfigured parameters requested by each customer. Please inquire with your local Volicon administrator about the storage days configured for your specific system.

3 INITIAL CONNECTION

3.1 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

3.2 Installing the Observer Media Player

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

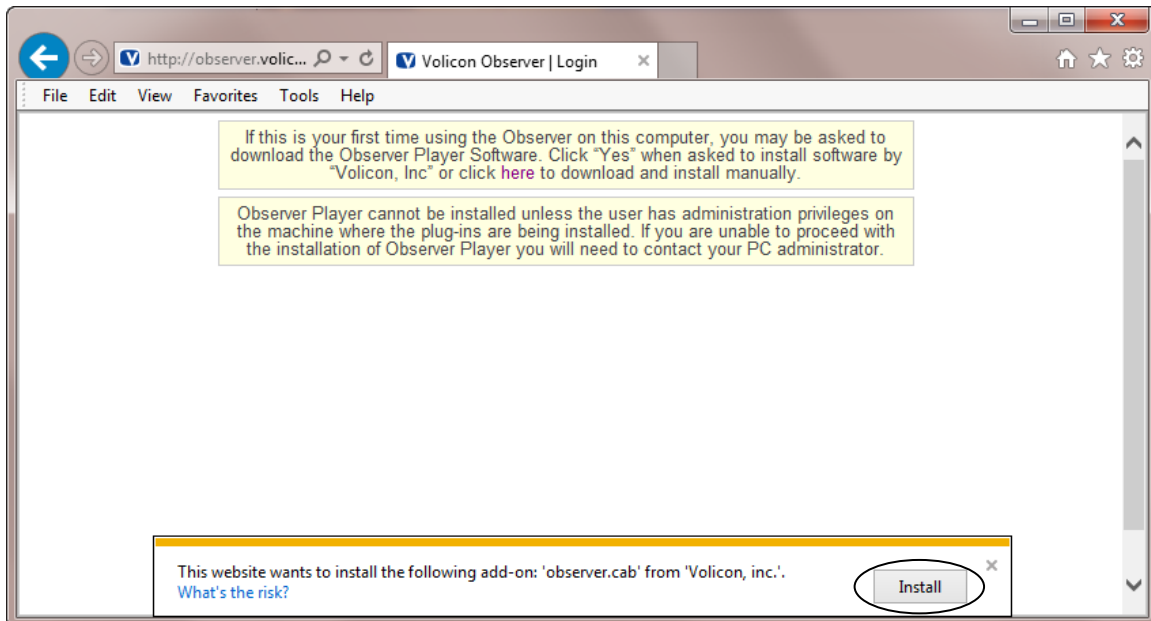
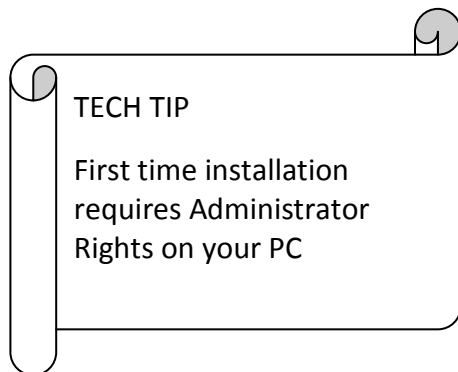


Figure: Initial Connection



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.

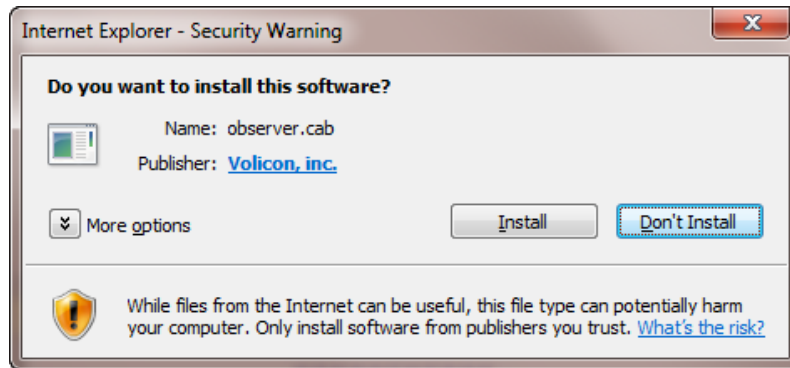


Figure: Security Warning

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

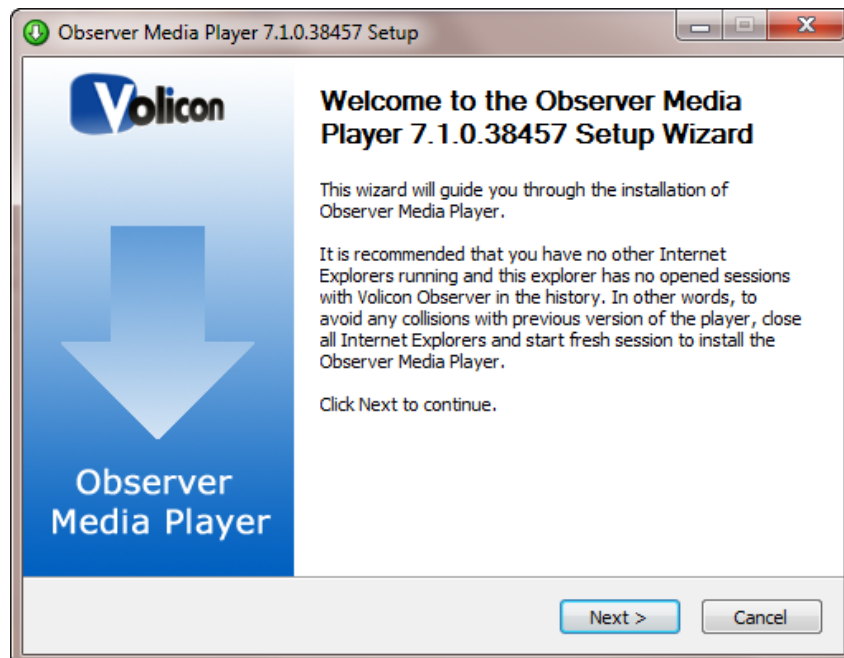


Figure: Observer Media Player Setup Wizard

Click **Next** to continue.

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

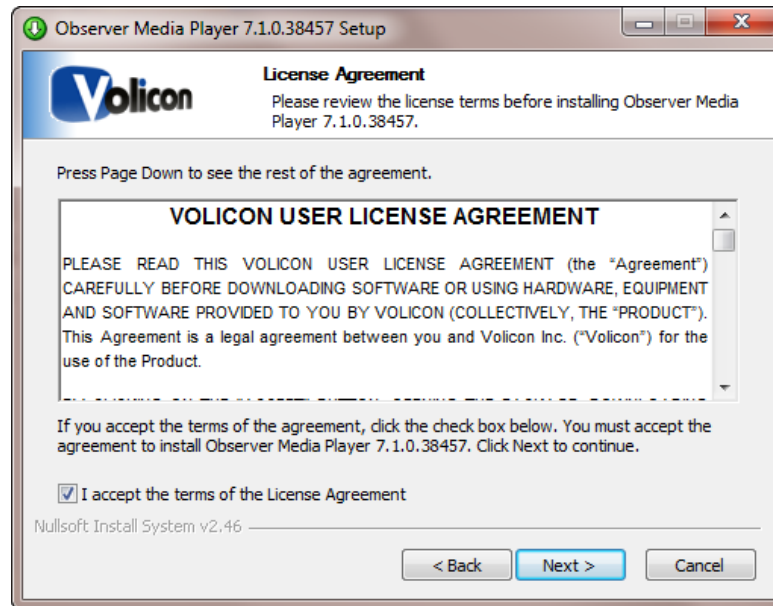


Figure: License Agreement

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**.

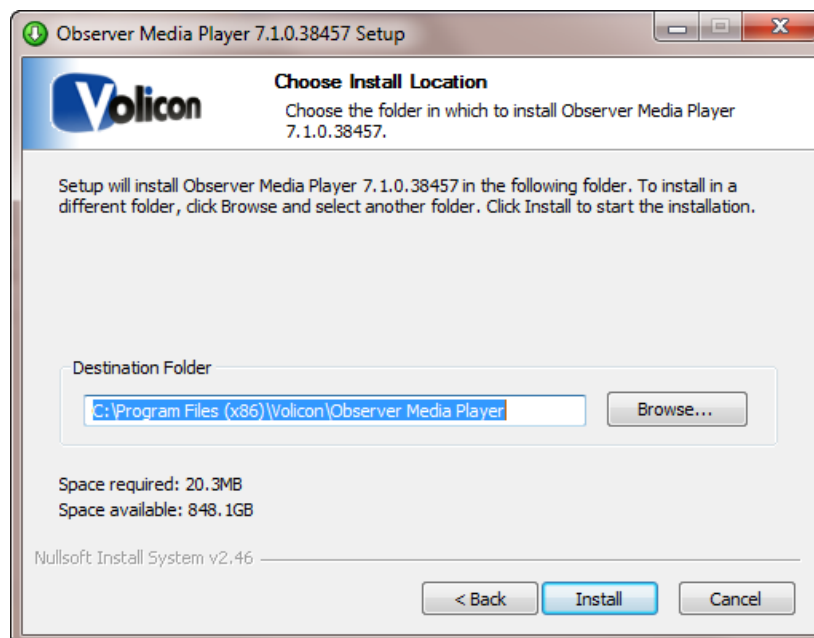


Figure: Choose Install Location

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

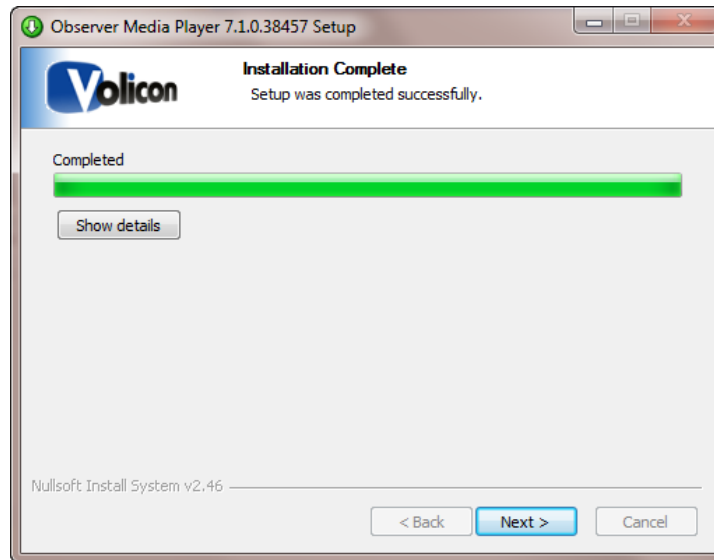


Figure: Installation Complete

TECH TIP

The option of creating an Observer Shortcut button has been added to the Internet Explorer tool bar.

OPTIONAL SETTINGS/SELECTION

Observer will present you with the Optional Settings window.

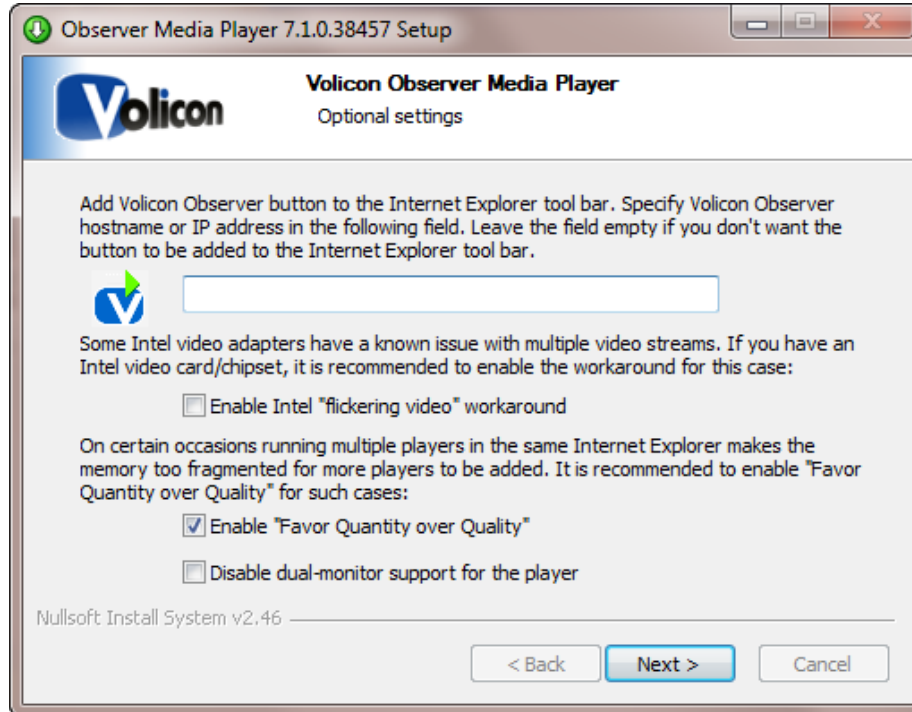


Figure: Optional Settings Window

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 Setting/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.

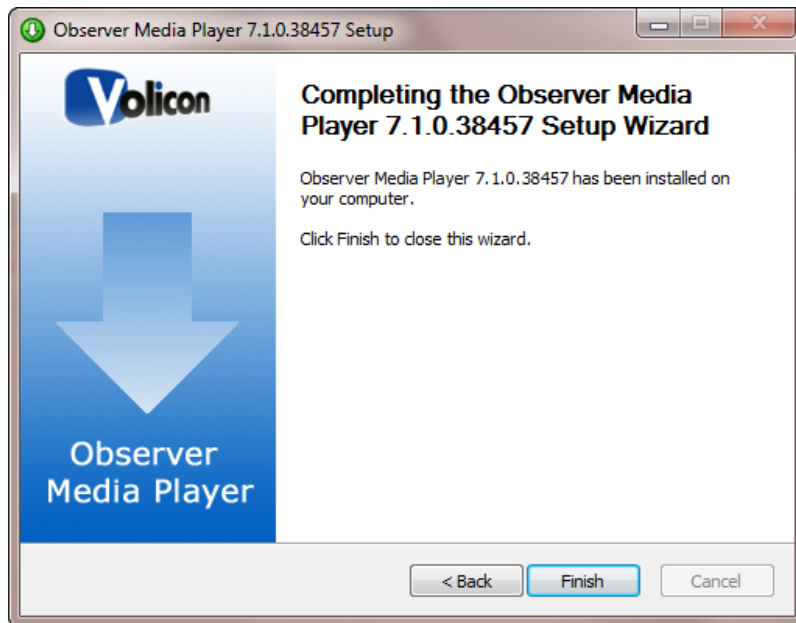


Figure: Completing the Observer Media Setup Wizard Window

Click **Finish** to exit setup.

3.3 Graphical User Interface (GUI): Initial Login

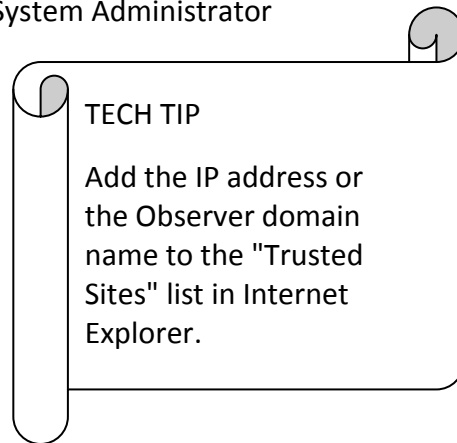
2.3.1 Internet Browser Support

For full functionality, the Observer Media Player currently supports Internet Explorer 32bit versions 8, 9, and 10. Further releases will include support for other Internet Browsers; Firefox, Chrome.

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"

2.3.1 Steps to Log In

1. At the top of your Browser search bar, enter the IP or URL address provided from your Administrator. 2. You will then be Prompted for your log in credentials (Username/Password). This will also be provided to you by your Observer System Administrator



2.3.22.3.2 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.

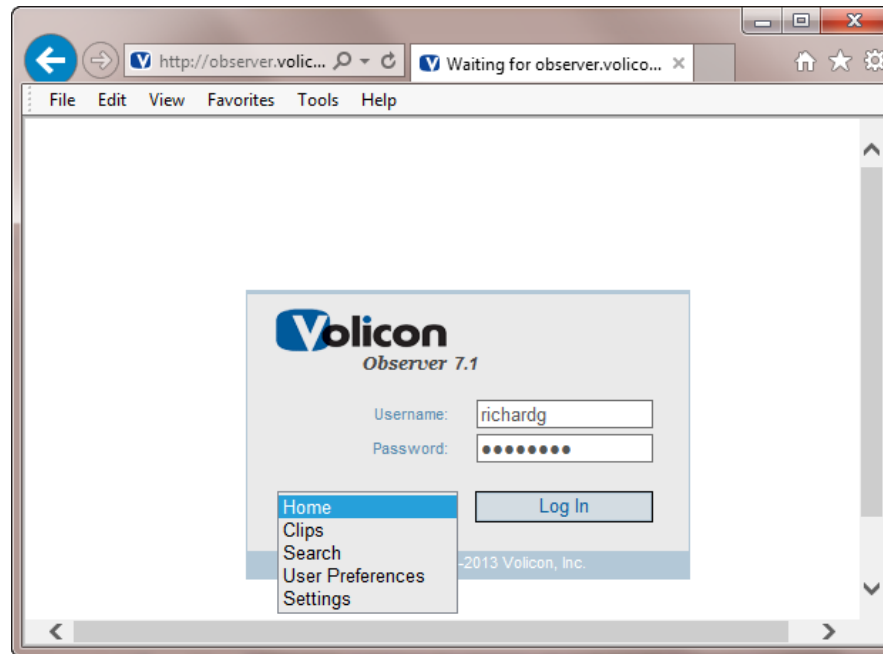


Figure: Initial Login Screen

Click **Login**.

NOTE: YOU MUST SET THE CORRECT TIME ZONE ON YOUR PC/LAPTOP IN ORDER TO DISPLAY VIDEO IN ITS ORIGINAL TIME.

4 THE OBSERVER HOME PAGE

When you log in for the first time, you will see the Volicon Observer home page.

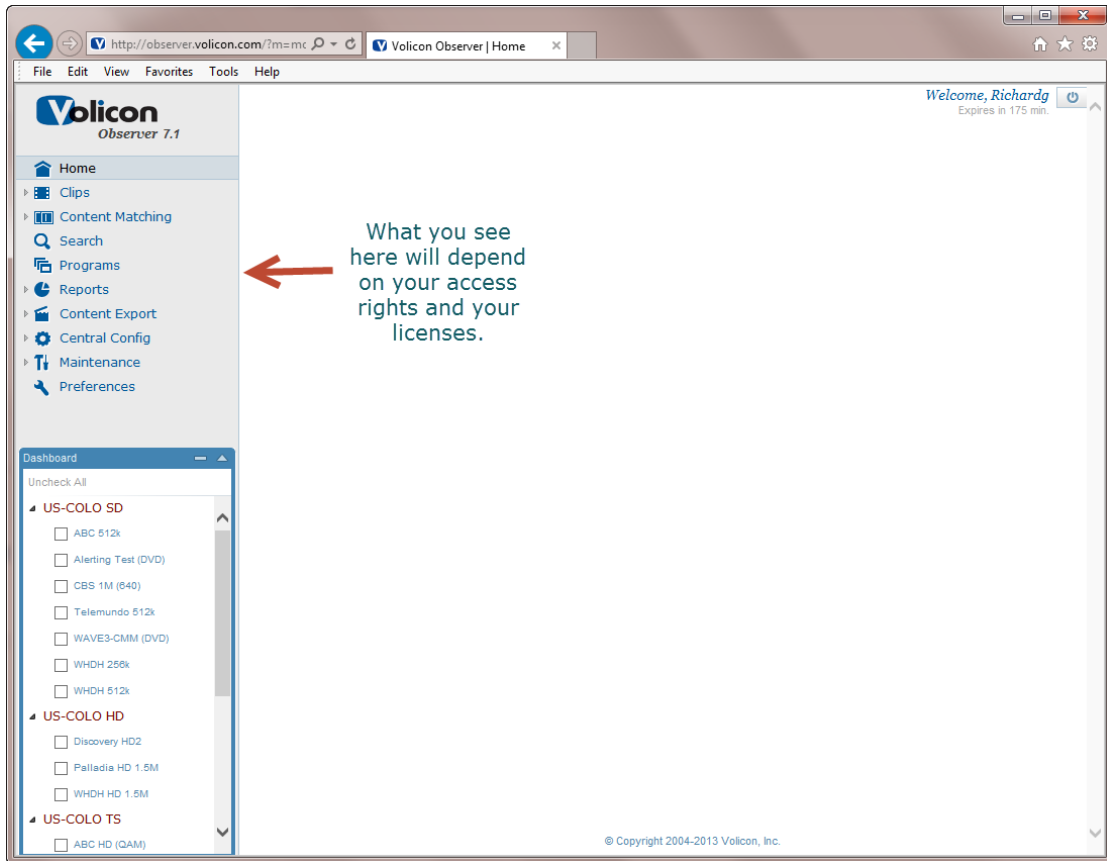
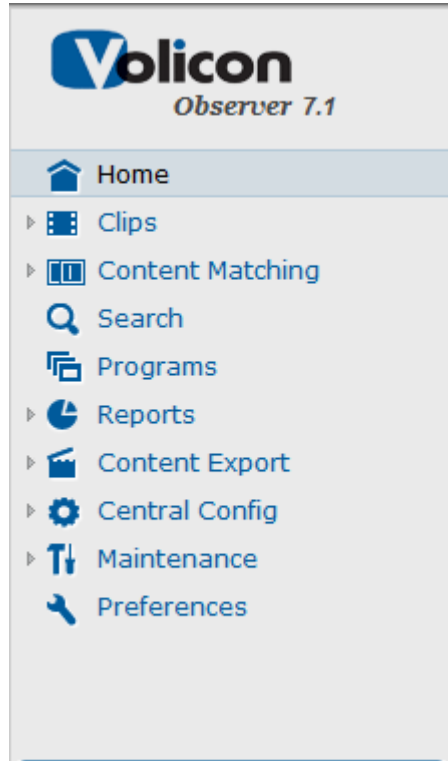


Figure: Observer Home Page

The Home page is divided into three different frames. The frame in the upper left is the menu frame. The frame in the lower left is called the Dashboard. The main frame which consumes most of the space in the Player is the designated display area for Volicon Observer video streams that you select for view and investigation. All streams the user selects to view will be displayed in this frame. All video will be automatically sized and positioned for optimal viewing while still maintaining the original aspect ratio

4.1 3.1 Menu and Feature Options

In the upper left of your screen, note your various menu options.



Menu Options that are displayed in this frame are based upon: a) the features your company has licensed from Volicon; and b) the level of access your administrator has given you.

This guide provides details on each of the specific Menu and Feature Options.

**INFO TIP**

Note that your initial login may be the only time when you see a blank working panel. Observer remembers your working environment when you log out, and recreates it when you log back in.

However, this feature is based on the PC you use and not on your user login: if you log in from a different PC, Observer will remember and present to you the last session that was on that PC. It is also based on Internet Options configured by you or your IT department. If "Delete History on Exit" is checked off in the Internet options of IE, then every time you log out and back in the page will be blank.

5 USING THE VOLICON OBSERVER

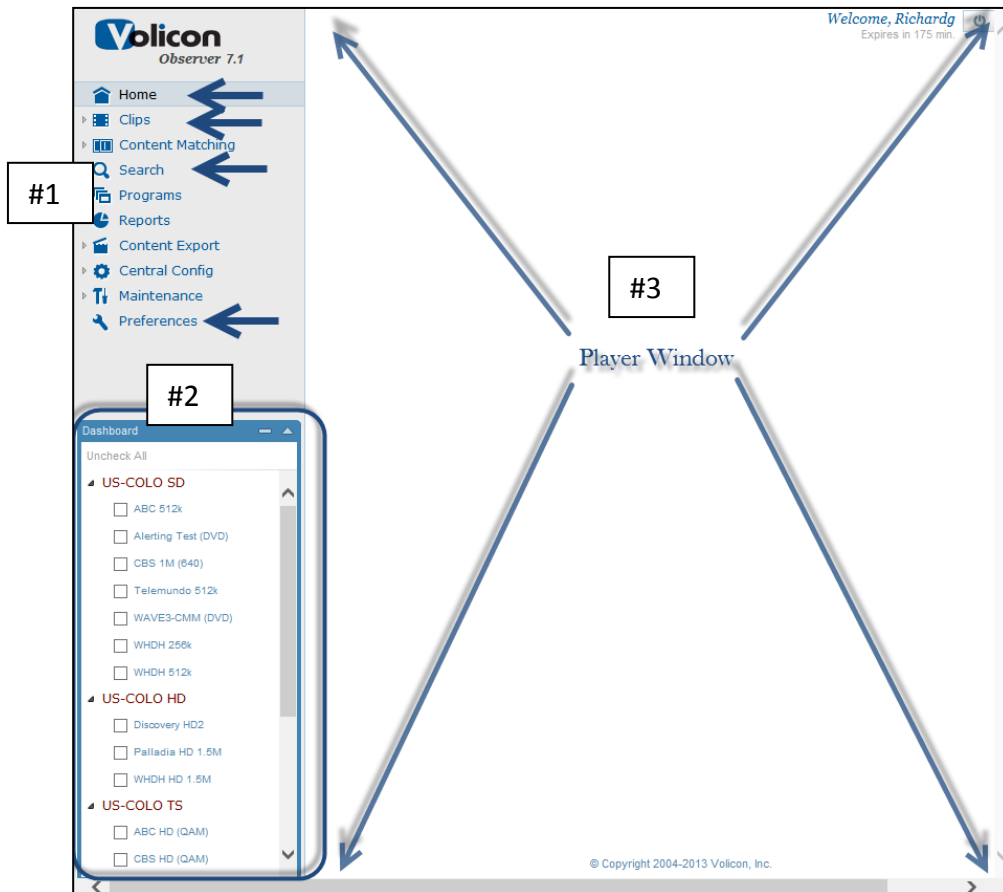


Figure: Volicon Observer Home Page

#1 Menu and Feature buttons; The basic permission set for the Volicon Observer Media Player gives you access to a minimum of four tabs, which comprise the basic user set:

- **Home** brings you to the home page, shown here, from any point in the Observer
- **Clips** gives you access to the Bookmarks window, which allows you to see all the clips created by all the users of this Observer
- **Search** brings you to the Search window, which allows you to search for streams by searching for text contained in the Closed Captions
- **Preferences** allows you to set your preferences for such variables as seek bar duration time, your time zone, and your default audio language

Depending upon the features your organization purchases and the permissions you are given by your administrator, you may also have access to four further tabs:

- The **Content Matching Module (CMM)** from Volicon is for organizations that need to measure or be notified automatically when certain A/V assets are broadcast. The notifications are based on audio samples created by end users which are matched against monitored video streams, keeping tabs on their competitors, brands, and exclusive content. Content Matching allows you to look at your Stamps (small portions of video streams that you identify), Detections (occurrences of the identified portion), and Backlog.
- **Programs** allows you to organize video recording based on program name, channel name and time. Programs and the As Run Log integrate with an existing automation system. Users can look up logged content according to program name, media ID, or other data from the as-run log. Automatic importation of common as-run logs simplifies finding content for ad verification and compliance purposes.
- **Reports** gives you access to the Programs Loudness report, which integrates audio loudness and your As Run logs for this reporting. This integration allows you to easily perform loudness tasks such as monitoring and compliance verification. By adding BS-1770-2, EBU R128 and ATSC A/85 compliant loudness monitoring into the Observer logger, operators now have unparalleled loudness management tools that combine frame accurate loudness measurement, A/V recording of content, integration with automation/ad system As-Run-Logs (ARLs), loudness reporting, and graphing and alarming.
- **Content Export** allows you to save a portion of a video stream to your computer. The Content Export Module allows you to manually export content or to automate the exporting, transcoding, and/or archiving of content logged by the Observer. The content can then be permanently stored to local or networked storage

If you are an administrator, this portion of the Observer home page will contain two further tabs:

- **Central Config**, which gives you access to the Encoders screen, which lists all the probes and encoders you have configured
- **Maintenance**, which allows you to manage your users and alerts

#2 The Dashboard, in the lower left-hand corner of your window, lists all the video stream(s) to which you have access or have been allowed access to by the local Observer administrator

#3 The Player Window, which initially shows up as a large white space, is the frame where video is displayed after selecting channels from the dashboard section. When you view video in the Player Window, Observer automatically displays that video in the correct aspect. Any subsequent video streams you open will automatically adjust and resize within the Observer Media Player window while always maintaining to correct aspect ratio

5.1 Using the Player Window

The Dashboard displays all the Video Streams available to you. To display a Video Stream in the Player Window click the checkbox(es) by the Video Stream names you wish to display. Observer will display your Video Streams in the player window.

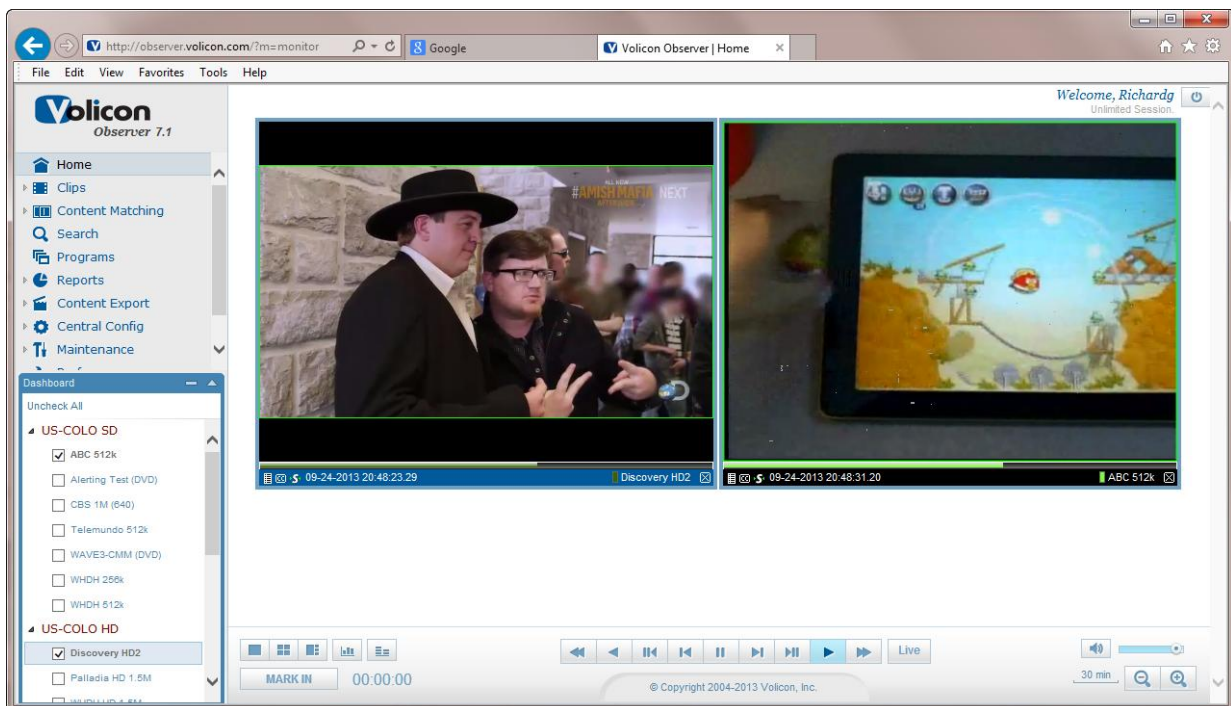


Figure: Player Window

Each window will display the date and time of the Video Stream you are observing at the bottom of the Video Stream window. You can also close the stream using the 'X' in the bottom right hand corner of each video stream.

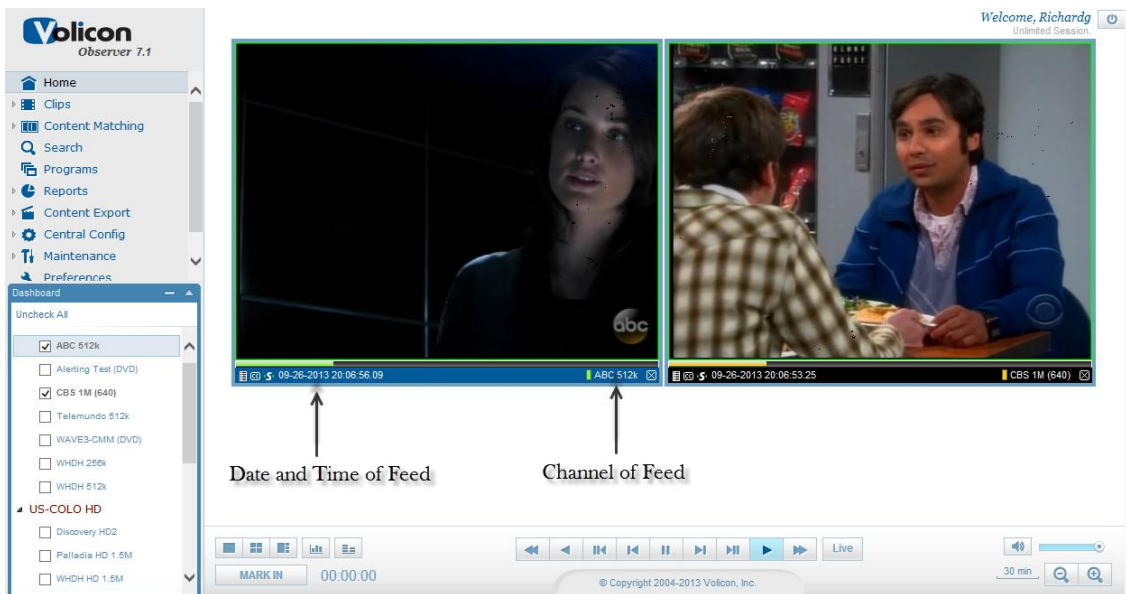


Figure: Individual Name of Stream

5.1.1 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(s) 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.

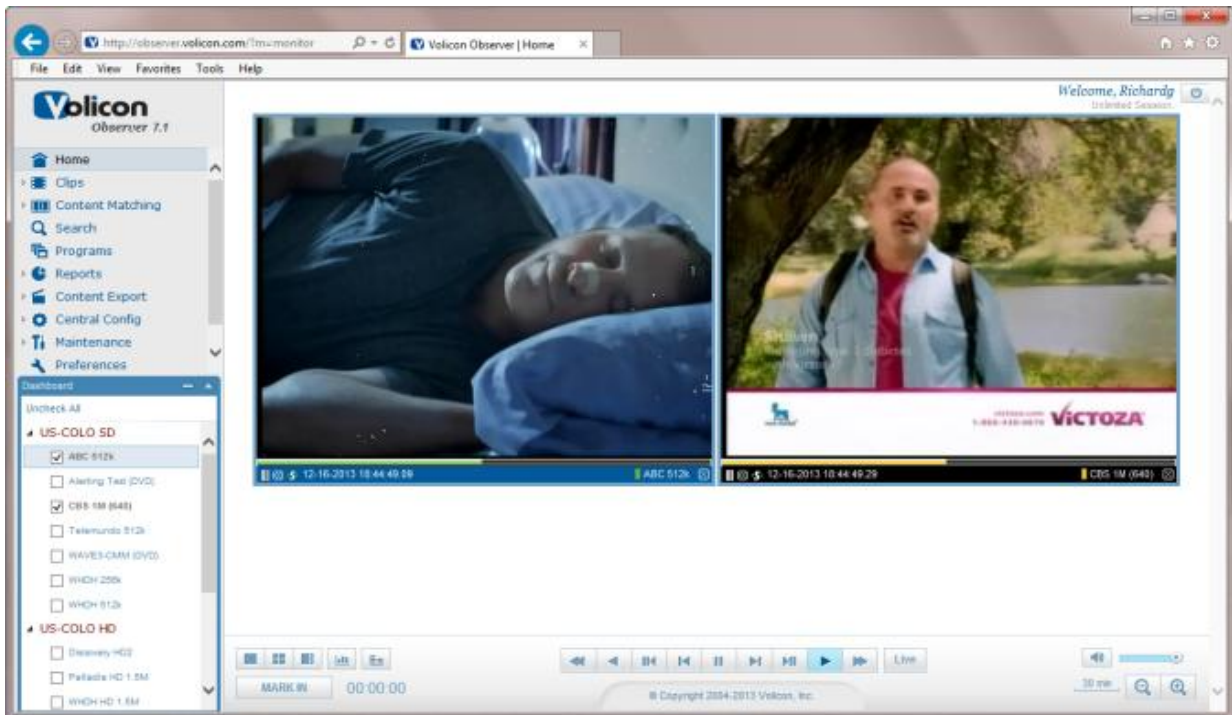


Figure: Simultaneous Control

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 Observer 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.

5.1.1.1 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).

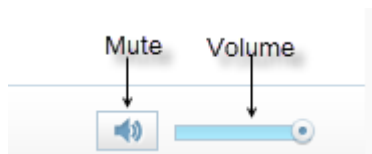


Figure: Volume Controls

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.

5.1.1.2 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 Observer 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.

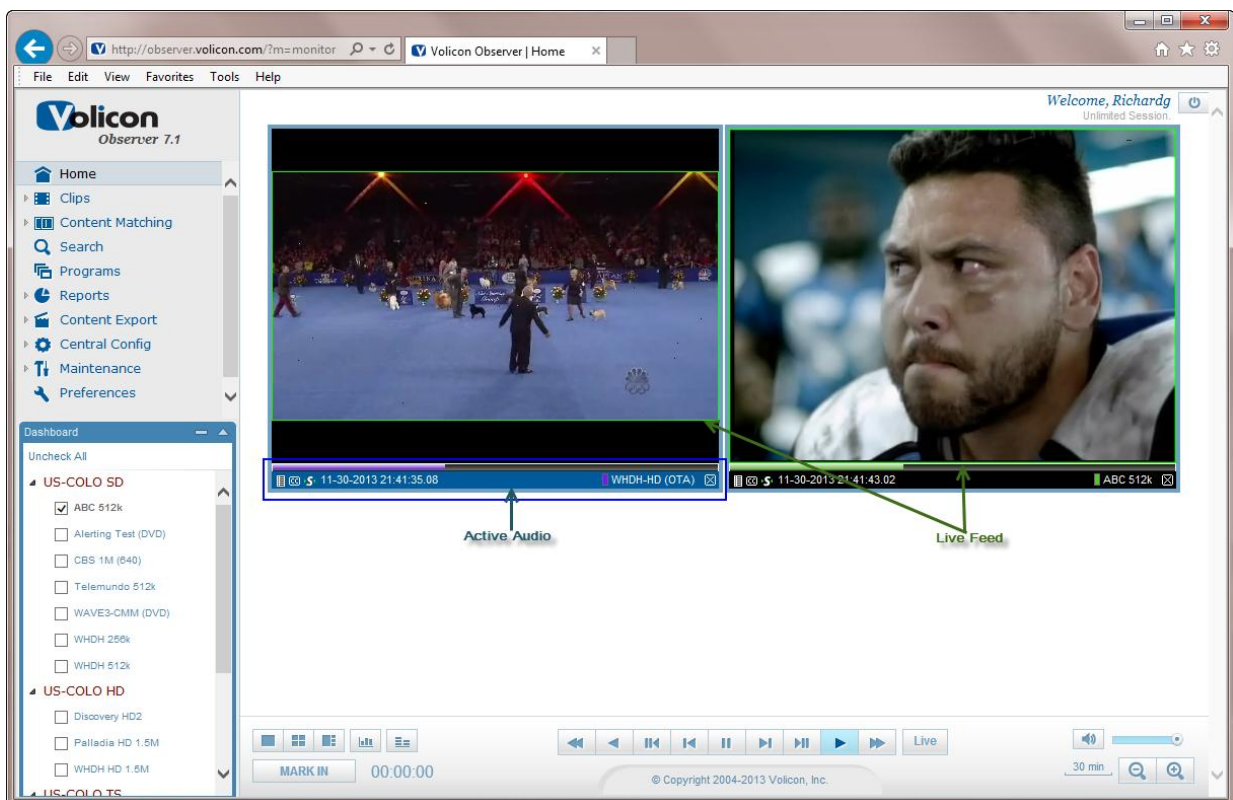
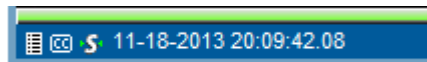
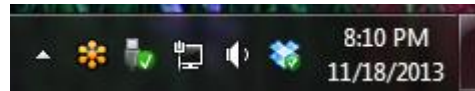


Figure: Video Stream Border Colors

Time Identification

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



5.1.1.3 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

5.1.1.4 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.

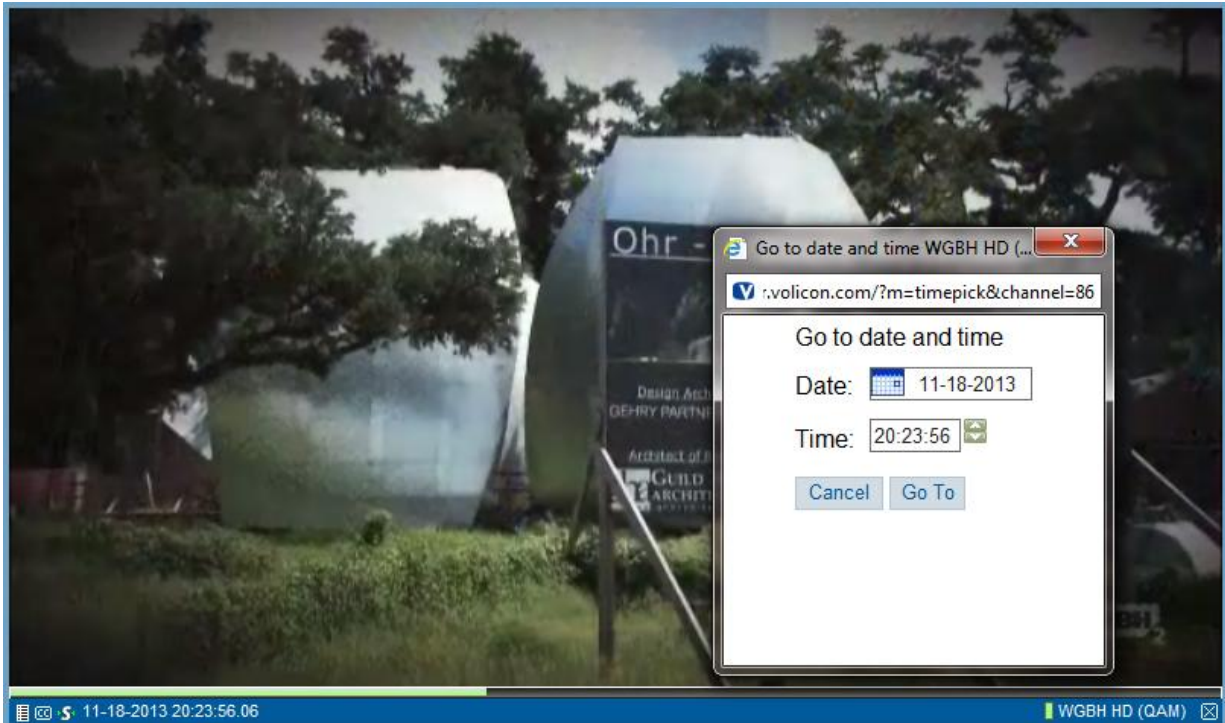


Figure: Go to date and time Window

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.

5.1.1.5 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

5.1.1.6 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

5.1.1.7 Advanced Actions Button

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

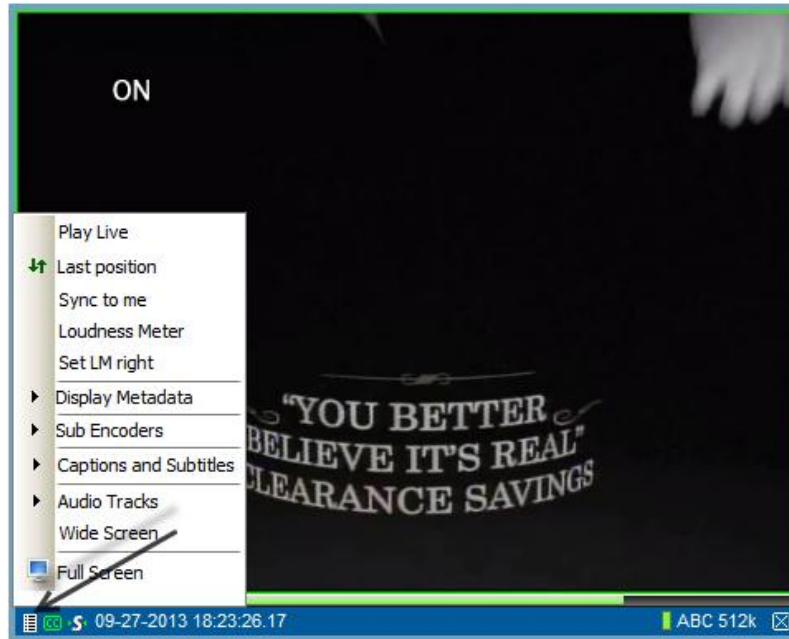


Figure: Advanced Actions Button

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.

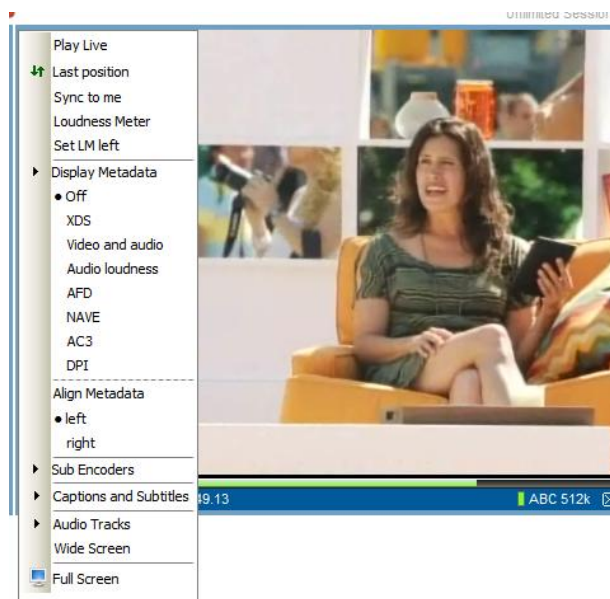


Figure: Display Metadata Submenu

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.

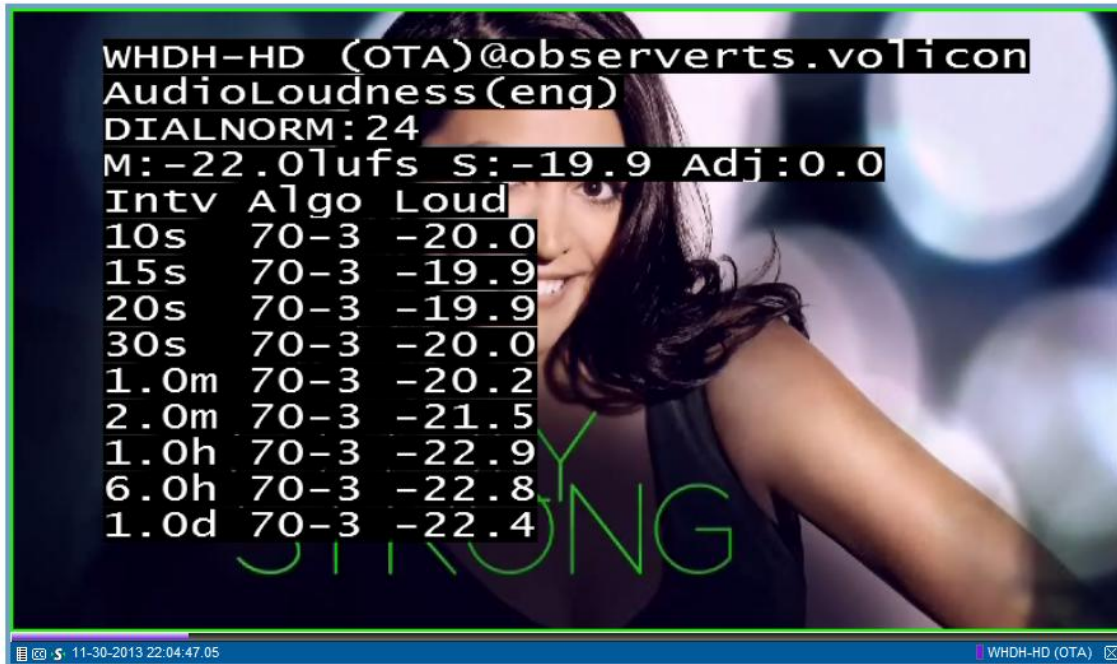


Figure: Audio Loudness Metadata

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.

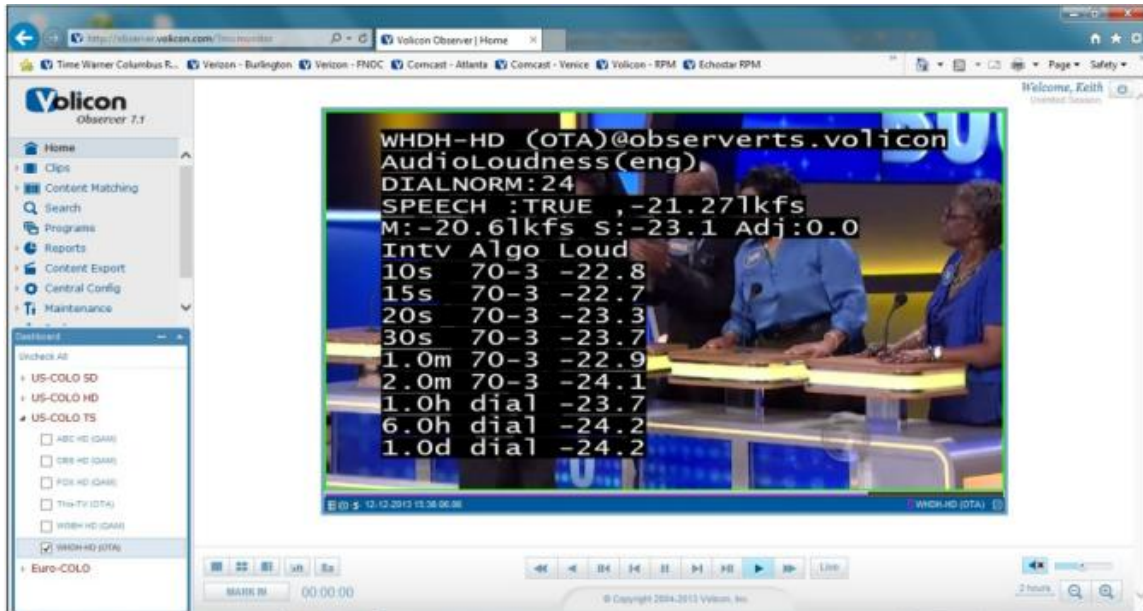


Figure: AFD Metadata

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.

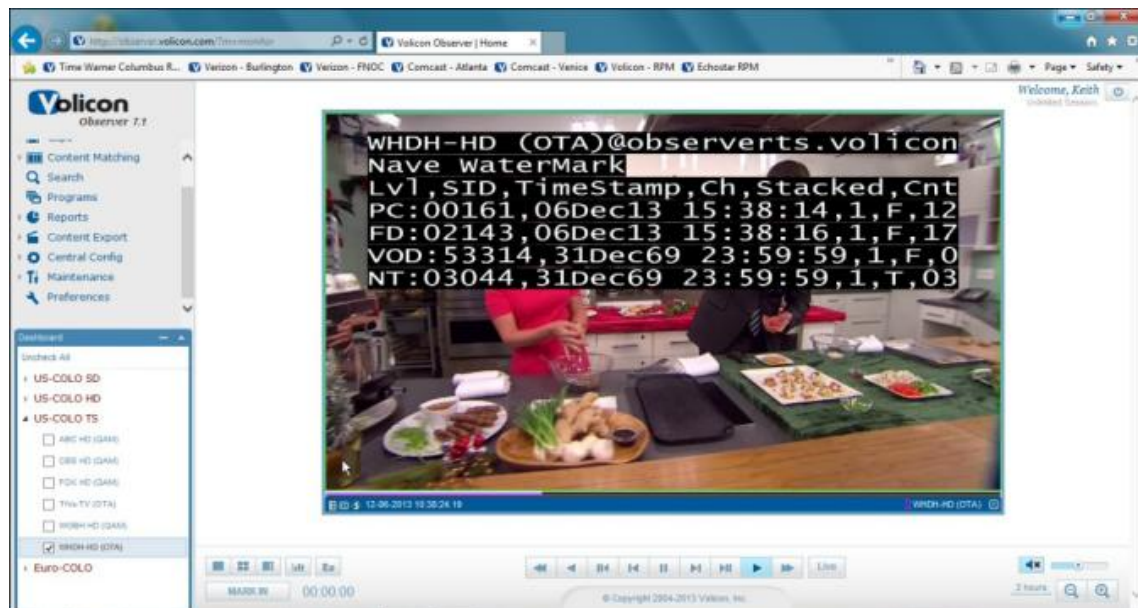


Figure: NAVE Watermark Metadata

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.

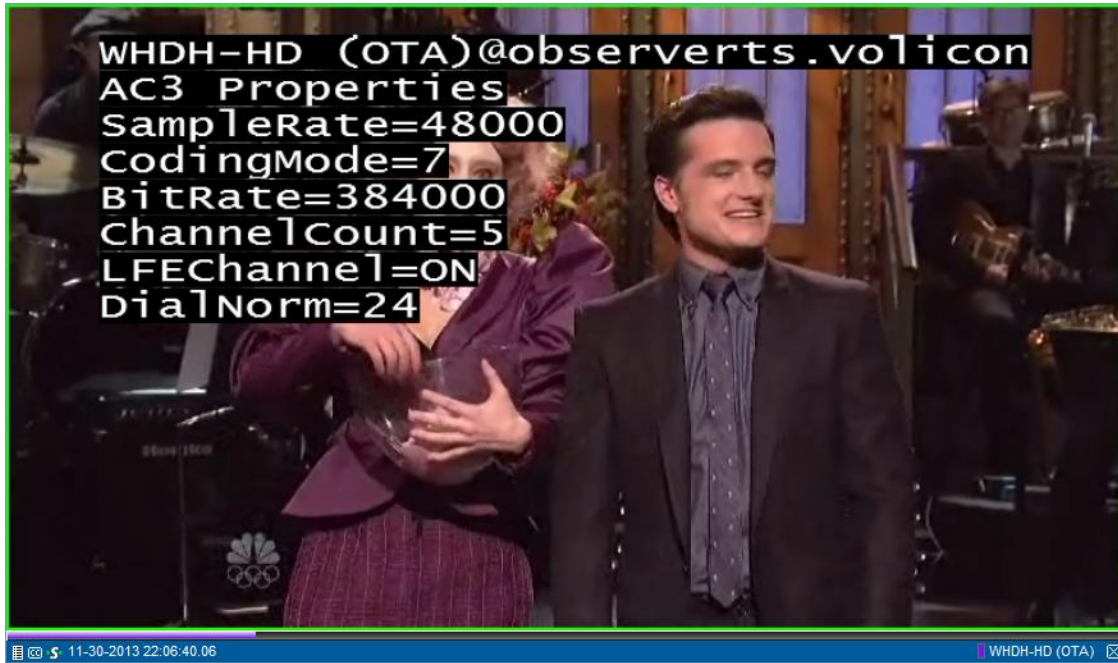


Figure: AC3 Metadata

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:

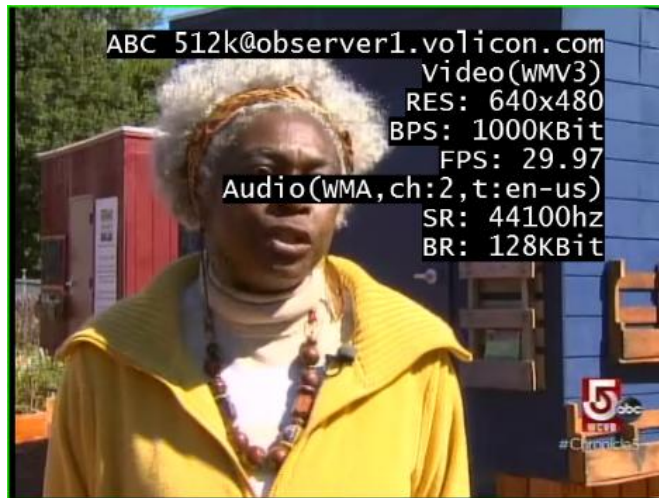


Figure: Align Metadata Right

- **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).

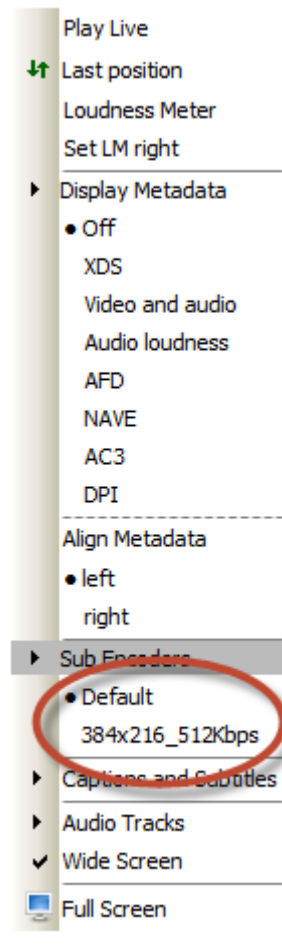


Figure: Sub Encoders

- **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

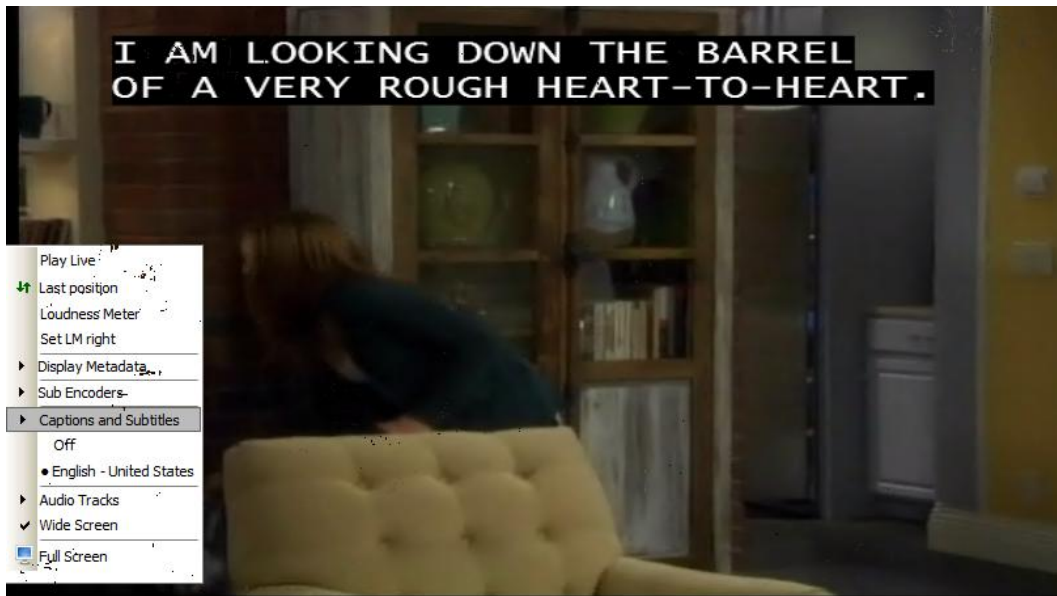


Figure: Captions and Subtitles

- **Audio Tracks:** displays the audio tracks available on your chosen Video Stream.



Figure: Audio Tracks

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

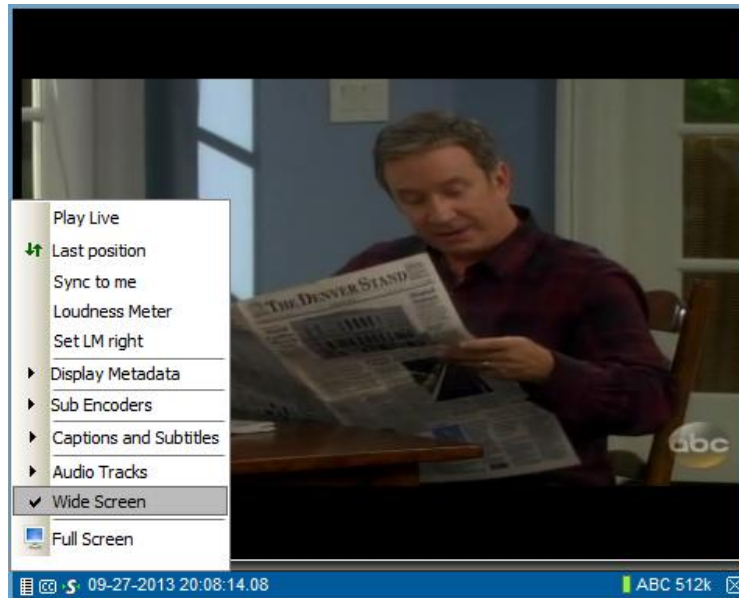


Figure: Wide Screen

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

5.1.2 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

Fromm 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.

5.1.3 Controlling Graphing

The Observer home page provides you with two graphing icons in the lower left corner of your window.



Figure: Graphing Icons

From left to right these icons are the:

- **Ratings** icon
- **Display Graph** icon

5.1.3.1 The Ratings Icon

The Ratings icon opens the Ratings graph at the top of your player window. The Ratings graph is based on an optional feature that integrates consumer program ratings. By importing viewer approval ratings data into Observer, users can easily view multiple channels of content with a synchronized ratings graph. Navigate to points of interest by clicking on one of several supported chart types, including demographic breakdowns, and gain a better understanding of the content's effectiveness. Ratings type may include Nielsen, Arbitron, TAM, or others.

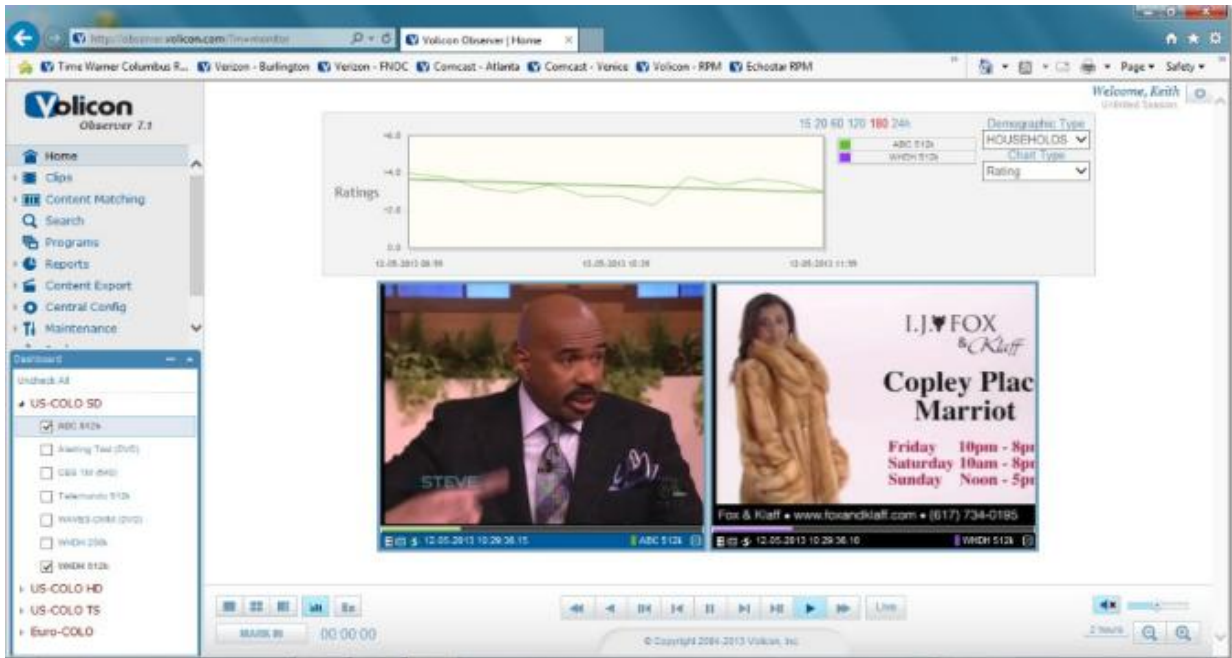


Figure: Ratings Graph

The graph provides you with four controls that allow you to drill down to obtain the information you need:

- **History Setting** lets you specify how much of the recent Ratings information you wish to include in the graph.

15 20 60 120 180 24h

Figure: History Setting

You may view ratings for the past 15 minutes, 20 minutes, 60 minutes, 120 minutes, 180 minutes, or 24 hours.

- The **Demographic Type** drop box allows you to view the ratings for the demographic group you are particularly interested in.

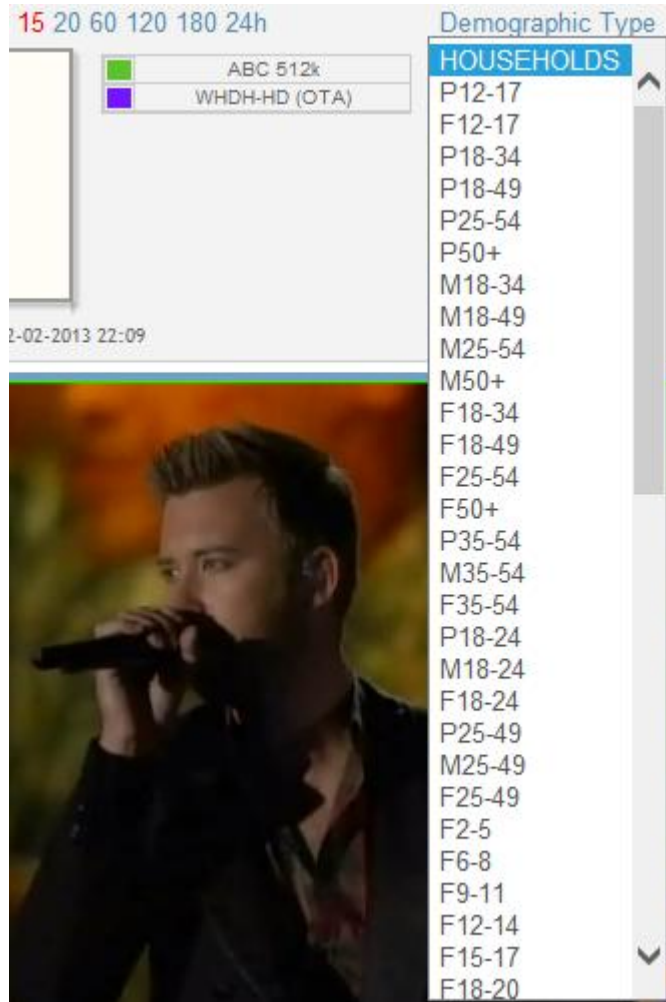


Figure: Demographic Type

- **Chart Type** allows you to specify whether you wish to look at current ratings, gain or loss in ratings, or cumulative ratings.

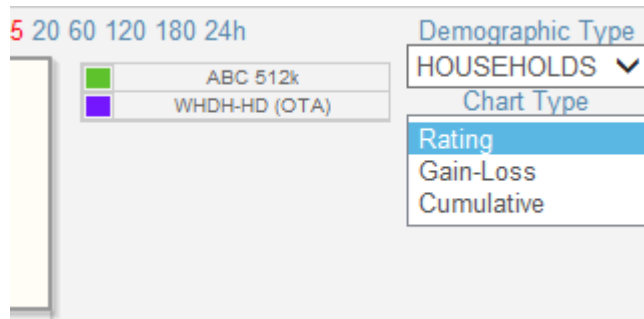


Figure: Chart Type

- The **Seek Bar** allows you to view exactly what was playing at a given point of interest in the Ratings graph.

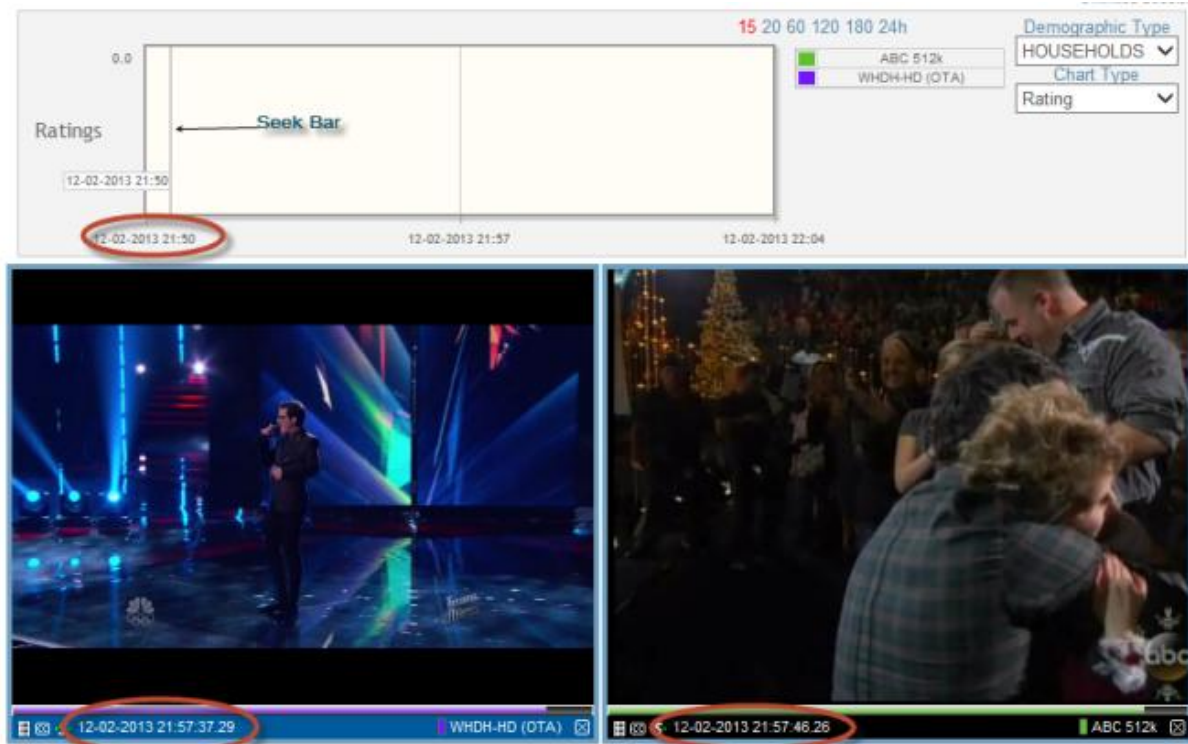


Figure: Seek Bar

Moving the seek bar to a particular time in the Ratings Graph automatically retrieves the video streams that were playing at that moment. The graph is also interactive. Clicking anywhere in the graph will automatically navigate all open video streams to that specific time.

5.1.4 Display Graph

The **Display Graph** button in the lower left of your window gives you access to loudness and DPI information. To open the graph, click the **<Display Graph>** button.



Figure: Display Graph Button

The Display Graph window opens. On the left hand side of the window, click the drop-down box under Active Channels to choose the channel for which you wish to display information.

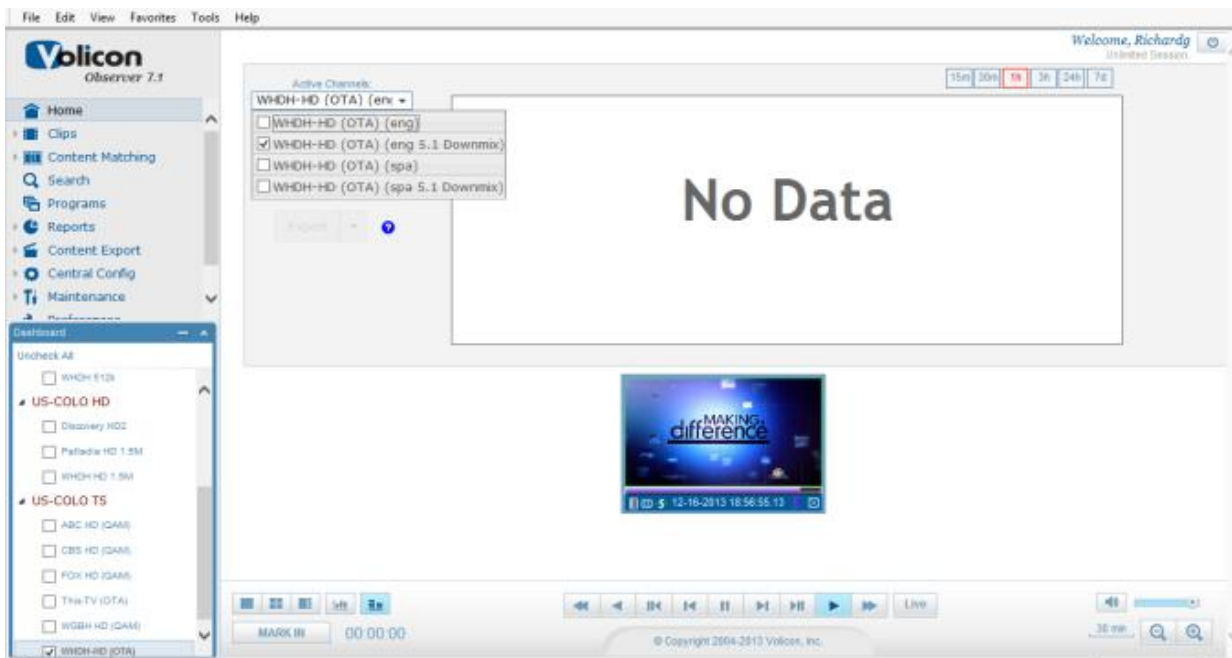


Figure: Active Channels Drop-Down Box

Choose your Category List, your Measurement Type, and the Measurement Level. The graph will populate with your information.



Figure: Display Graph

The granularity of your graph is determined by the time frame you choose in the upper right hand corner of your screen.



Figure: Time Frame

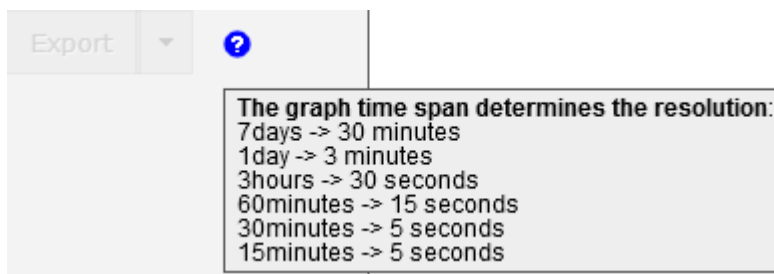


Figure: Help Button for Display Graph

The longer the time span you display in the graph, the less granular the information is. Specifically:

- 7 days gives you measurements in 30 minute segments
- 1 day gives you measurements in 3 minute segments
- 3 hours gives you measurements in 30 second segments
- 60 minutes gives you measurements in 15 second segments
- 30 minutes gives you measurements in 5 second segments

- 15 minutes gives you measurements in 5 second segments

5.1.5 Logging Out

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

6 CLIPS

Volicon Observer allows you to identify portions of your video streams, called “clips”, and stores those identifications in the **Clips>Bookmarks** folder for your future use.

The term “clip” can be misleading, as it implies that when you create a clip you are choosing content, cutting it out of the stream (or perhaps making a copy of it), and storing it somewhere else. Observer does **not** use this process for clip generation.

Instead, Observer creates a “clip” by inserting bookmarks at the start and at the end of your chosen content. It stores those bookmarks along with the streams themselves in your main storage folder. When you call up a clip, Observer uses those bookmarks to rapidly search your stored content to play the stream you are looking for.

This process provides you with two benefits. First, of course, is rapid retrieval of content you have identified and clipped. Second, because the clips are actually bookmarks inserted in the main stream, you can create as many clips as you like without consuming any of your storage space. Clips are stored on the Observer for the same amount of days the video is stored. For example, if content is logged on the Observer for 90 days, clips will be stored for 90 days. You create a clip from logged content. The clip will be saved on the system based on the origination of when the video was logged, not from when the clip was created.

Third - allows you to save metadata along with segments of video

Fourth allows you to export a copy of content from the Observer to you PC/laptop

6.1 Creating Clips

Observer allows you to search manually for the content you wish to bookmark. You can create individual clips by marking individual video streams. You can also create multiple clips at once by opening multiple streams. For example, if you mark in and out with four streams open, Observer will create four clips at the same time.

Consider a circumstance in which a customer wishes assurance that their commercial did, in fact, play last night during the 11:00 pm hour on the ABC affiliate. Start by calling up the ABC Video Stream.

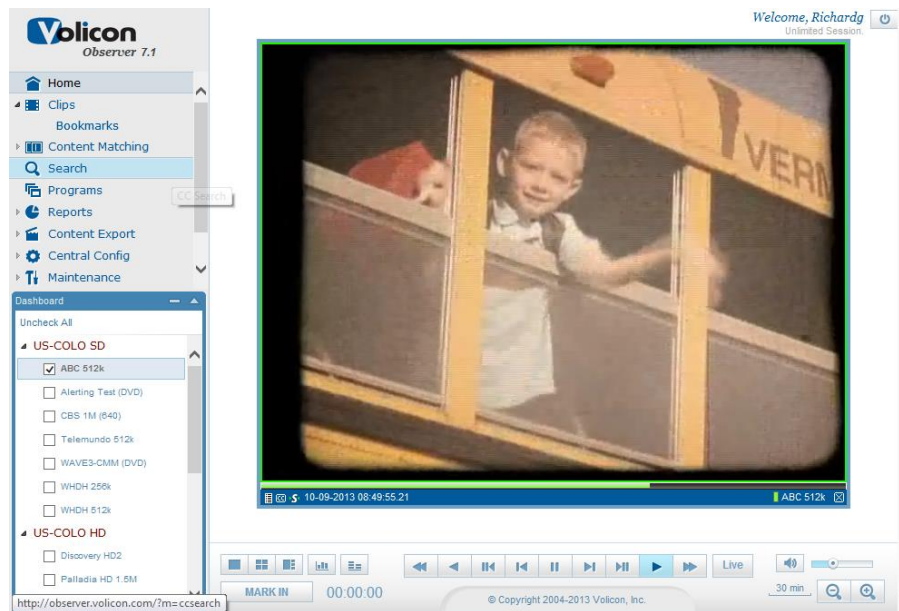


Figure: ABC Video Stream

Click on the timeline to bring up the **Go to date and time** menu.

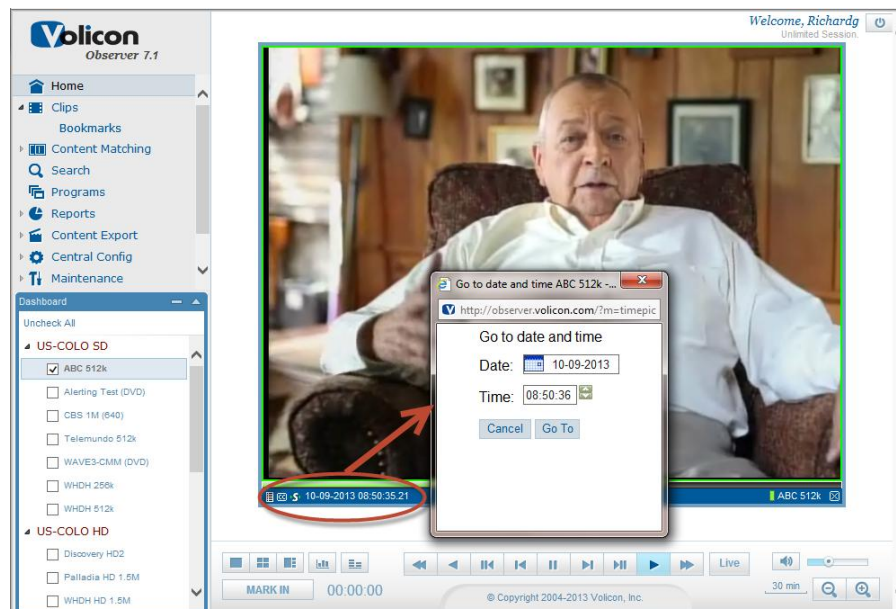


Figure: Launching the Go to date and time Window

In the Date and Time window, enter the time that the commercial was supposed to have played.

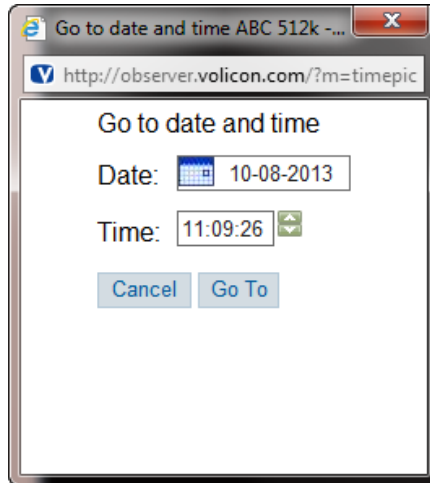


Figure: Go to date and time Window

Use the play bar at the bottom of your screen to locate the exact time the commercial began to play. The **Step Forward** and **Step Backward** buttons or the mouse wheel allow(s) you to advance and rewind the content on an individual frame-by-frame basis.

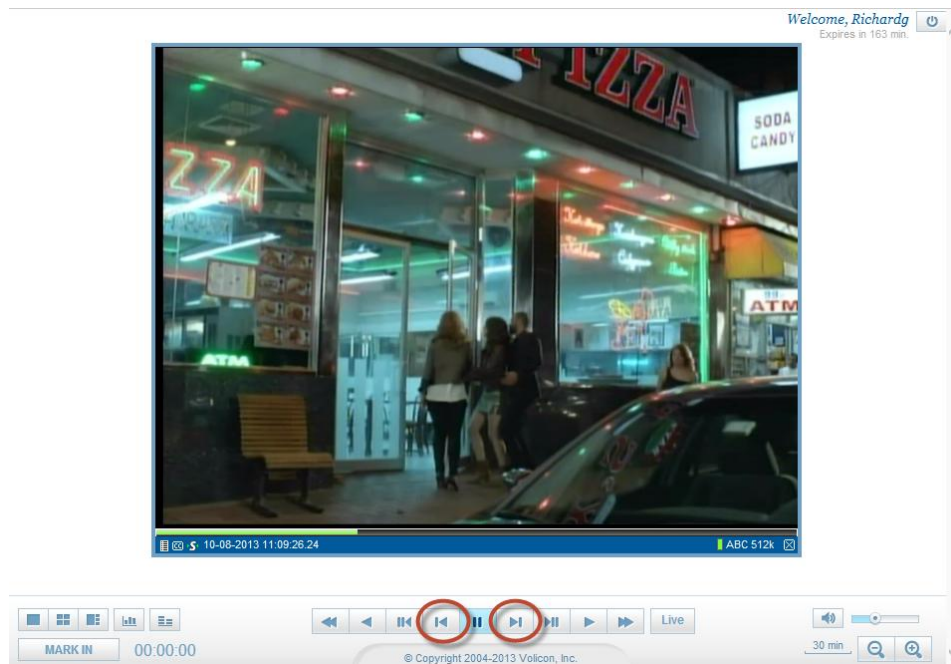


Figure: Step Backward and Step Forward Buttons

Once you have located the beginning of your commercial, **Step Backward** one frame to view the black frame that signals the beginning of the commercial.

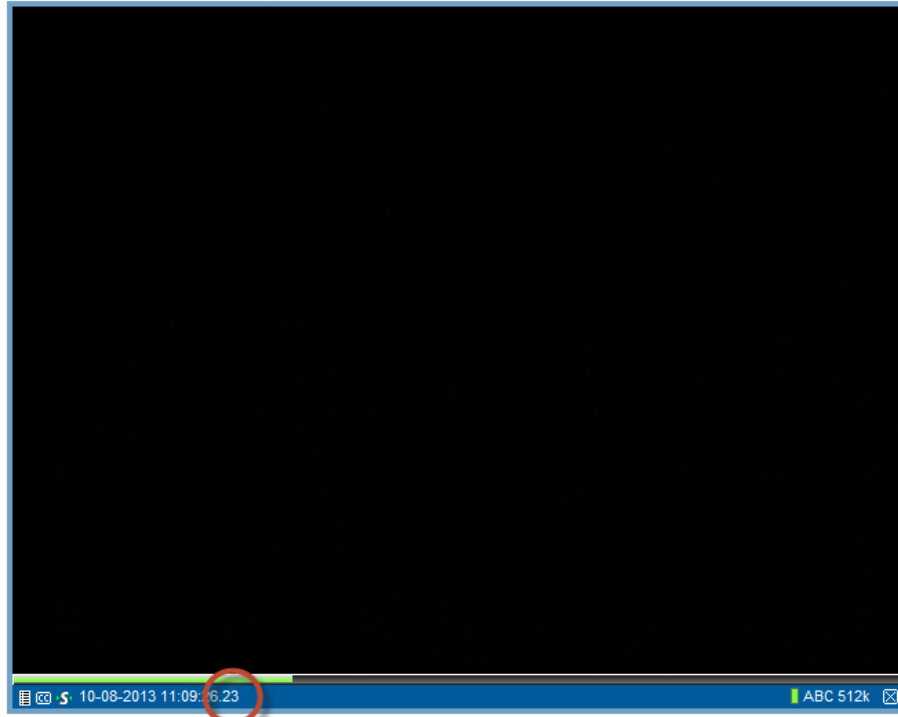


Figure: Beginning of Commercial

Note that Observer allows you to search by individual frames in order to mark your content; the last value in the Time field indicates which frame you are viewing.

To start your clip, click the **Mark In** button.

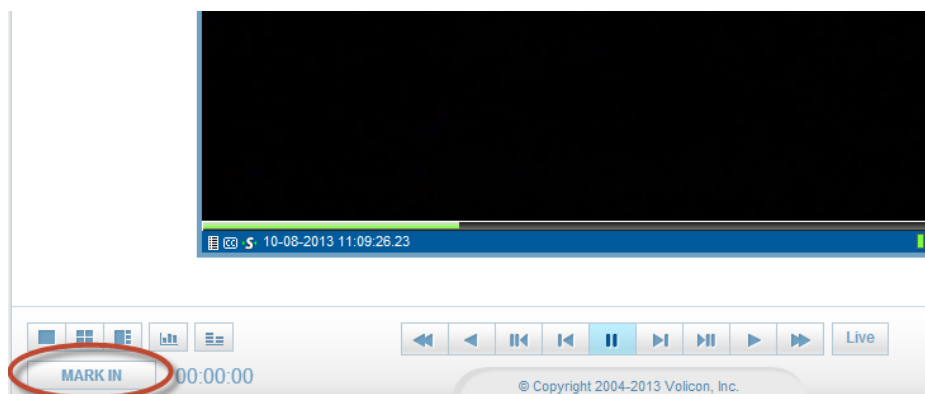


Figure: Mark In Button

Note the timer beside the <Mark In> button, and that the <Mark In> button automatically changes to <Mark Out.>. As you move forward through the stream, the timer will tell you how many seconds, minutes, and hours of video have passed since you marked the clip in.



Figure: Mark In/Out Timer

Play the Video Stream forward until you reach the end of the commercial. Alternatively, you can Fast Forward, use the seek bar, or directly enter the time the commercial ends using the time and date function to reach the end of the commercial. Use the Step Forward and Step Backward buttons to isolate the black frame that indicates the end of the commercial.

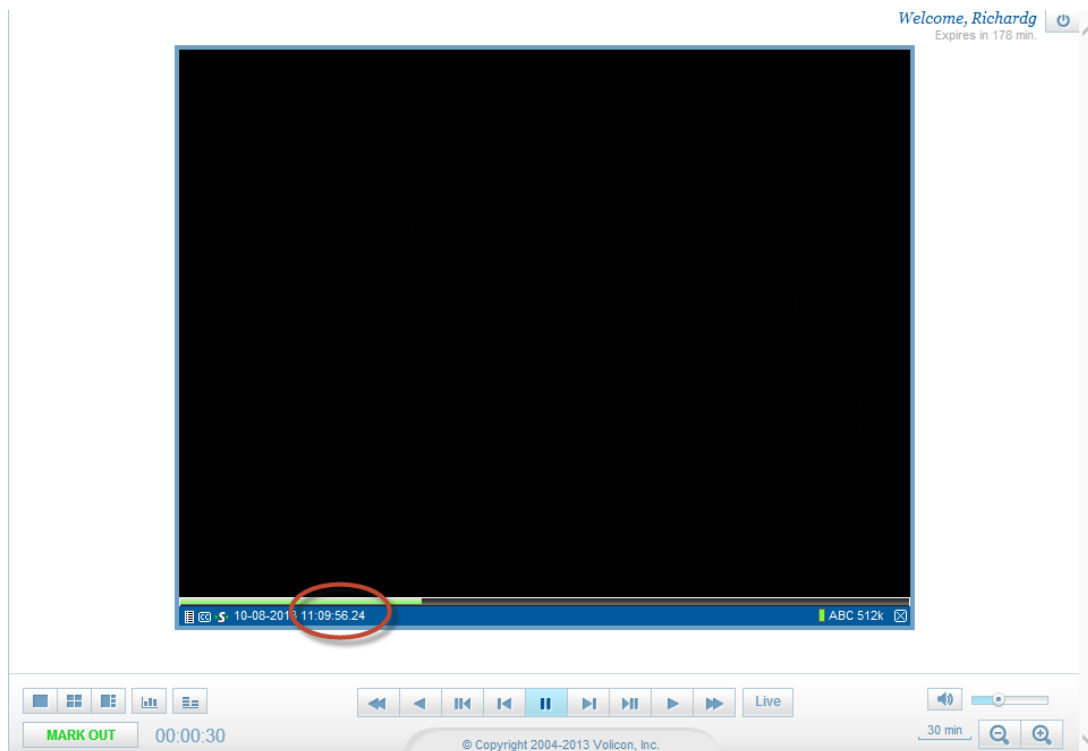


Figure: End of Commercial

Click the **Mark Out** button to indicate the end of your selection.

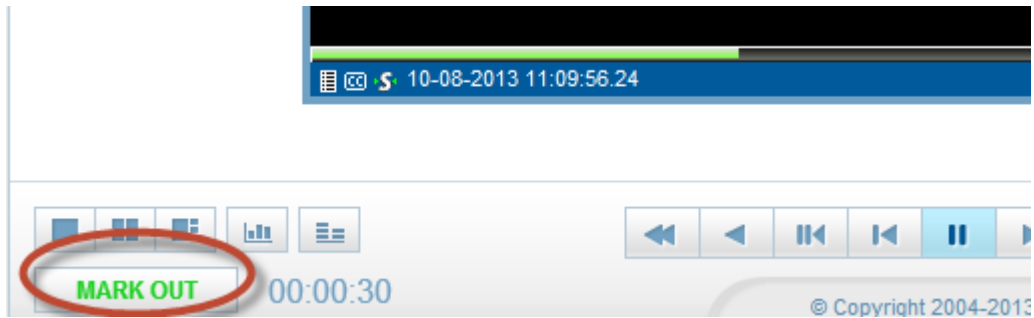


Figure: Mark Out Button

Notice that in this example, the clip is 30 seconds long.

Observer opens the **Clip Creation – Webpage Dialog** window.

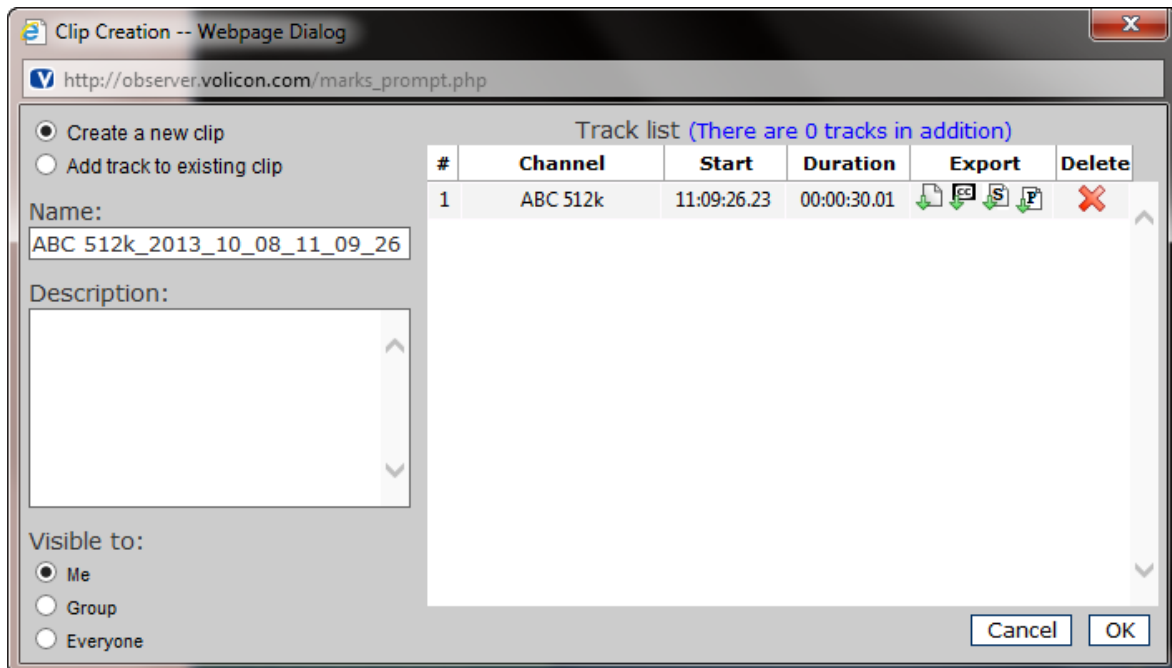


Figure: Clip Creation – Webpage Dialog Window

From here you can define the parameters of your clip. Specifically, you can:

- Choose whether to create a new clip, or add this track to an existing clip, by choosing the appropriate radio button in the upper left of the window. For example, you might wish to create a clip that includes every instance of an advertiser’s commercials during prime time. To do so, you would find the first instance, create that clip, and then add the subsequent commercial

tracks to that existing clip. This will not "splice" the clips together, but merely group them together for easy retrieval.

- Name your clip. Observer provides a default name that indicates the Source channel, date, and time of the clip.
- Create a description of the clip. The information you enter in the Description field will appear in the Clips>Bookmarks folder where the clip will be stored. There is no limit on the amount of metadata you can store with the clip. All the metadata entered is searchable on the Observer system.
- Decide who the clip will be visible to. Your options are:
 - Me: this clip will only appear in the Bookmarks tab viewable by you and any authorized admin of the Volicon solution.
 - Group: this clip will appear in the Bookmarks tab viewable by everyone in your similar user group and any authorized admin of the Volicon solution.
 - Everyone: this clip will appear in the Bookmarks viewable by everyone with access to your Volicon server.

Name your clip, give it a description, and click **OK**.

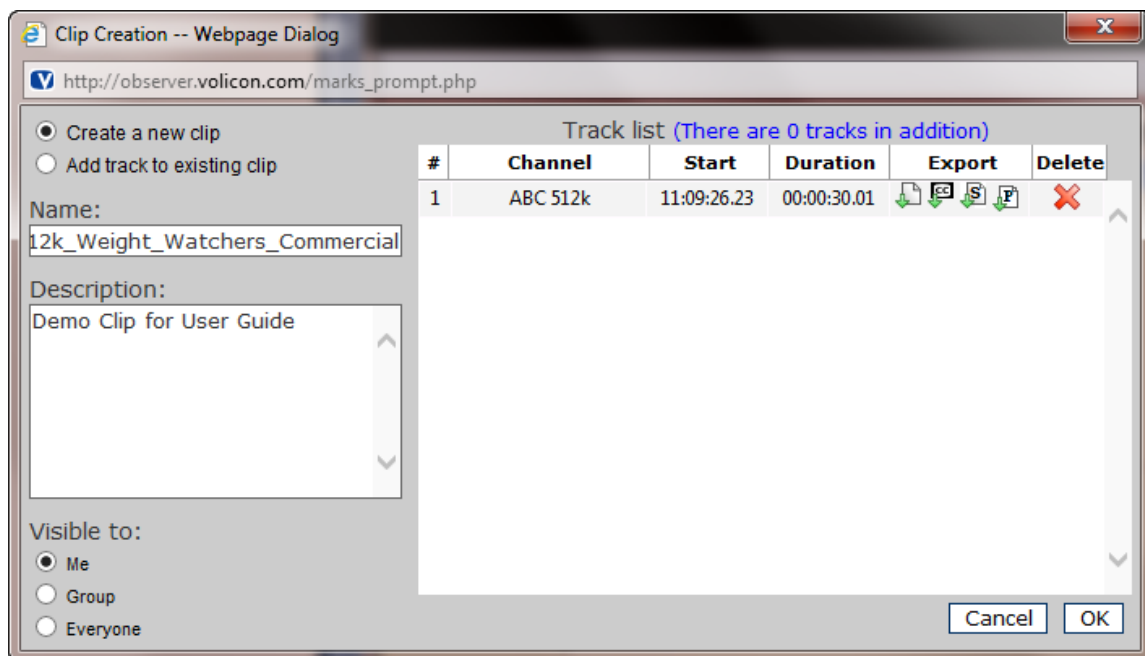


Figure: Saving the Clip

Your new clip appears in your Bookmark tab under Clips.

| Actions | ID | Name | Description | Trk | Created by | Created | Modified |
|--|--------|-------------------------------|--|-----|------------|---------------------|---------------------|
| <input type="checkbox"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <input type="checkbox"/> | 829300 | Volicon User Manual Demonstra | 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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <input type="checkbox"/> | 818948 | Ashley Test Clip HBO | Game Show Sai Shaking hands | 1 | ashley | 09-19-2013 15:13:21 | 09-19-2013 15:13:21 |
| <input type="checkbox"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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: New Clip Appears in Bookmarks

6.2 Accessing Your Clips

To access your clips, from the left-hand menu, click on **Clips>Bookmarks**.

| Actions | ID | Name | Description | Trk | Created by | Created | Modified |
|--|--------|-------------------------------|--|-----|------------|---------------------|---------------------|
| <input type="checkbox"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <input type="checkbox"/> | 829300 | Volicon User Manual Demonstra | 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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <input type="checkbox"/> | 818948 | Ashley Test Clip HBO | Game Show Sai Shaking hands | 1 | ashley | 09-19-2013 15:13:21 | 09-19-2013 15:13:21 |
| <input type="checkbox"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <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: Accessing Clips

6.3 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 175 min.

Time range:

Search Text:

| <input type="checkbox"/> | Actions | ID | Name | Description | Trk | Created by | Created | Modif |
|--------------------------|---------|--------|---|------------------------------|-----|------------|---------------------|------------|
| <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 | Julien [h]w,er[h]jfoaeigfenk | 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 | aa1234 | | 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 SJUL | | 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 | kenrn | 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.

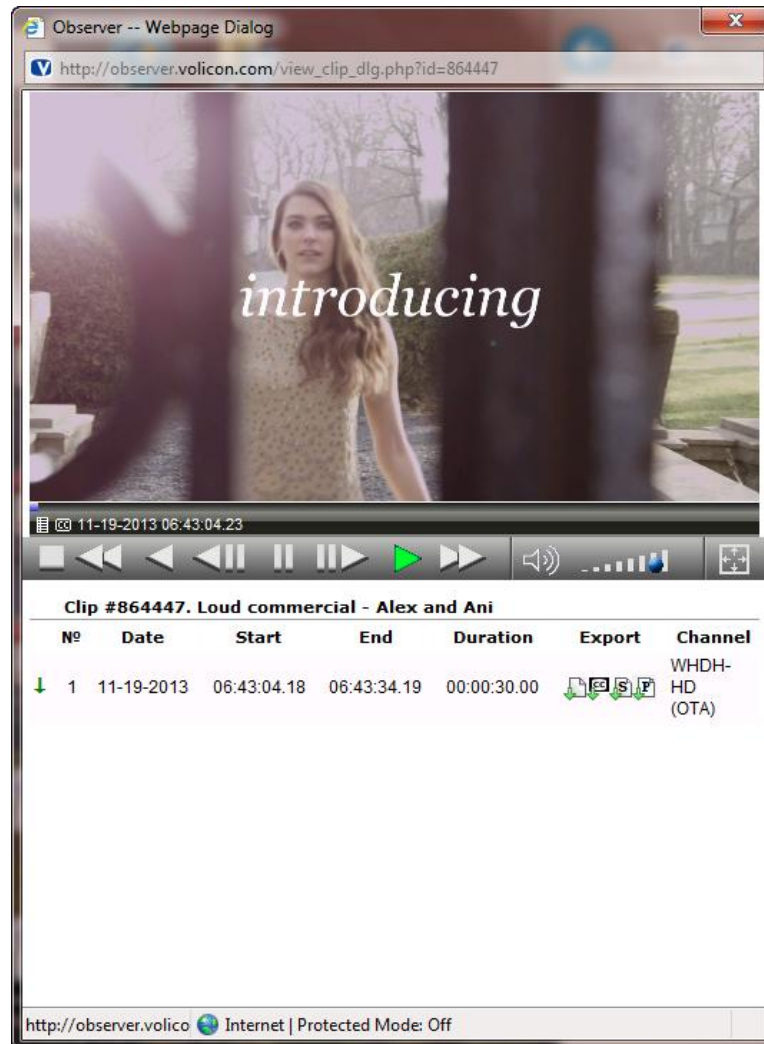


Figure: Clip Window

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 four options for exporting the clip:

- Export
- Export Closed Captions
- Create Stamp
- Content Export Publish

6.4 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 More




























| <input type="checkbox"/> | 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 Sai 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 Clip More




























| <input type="checkbox"/> | 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 Sai 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

6.4.1 Editing Clips

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

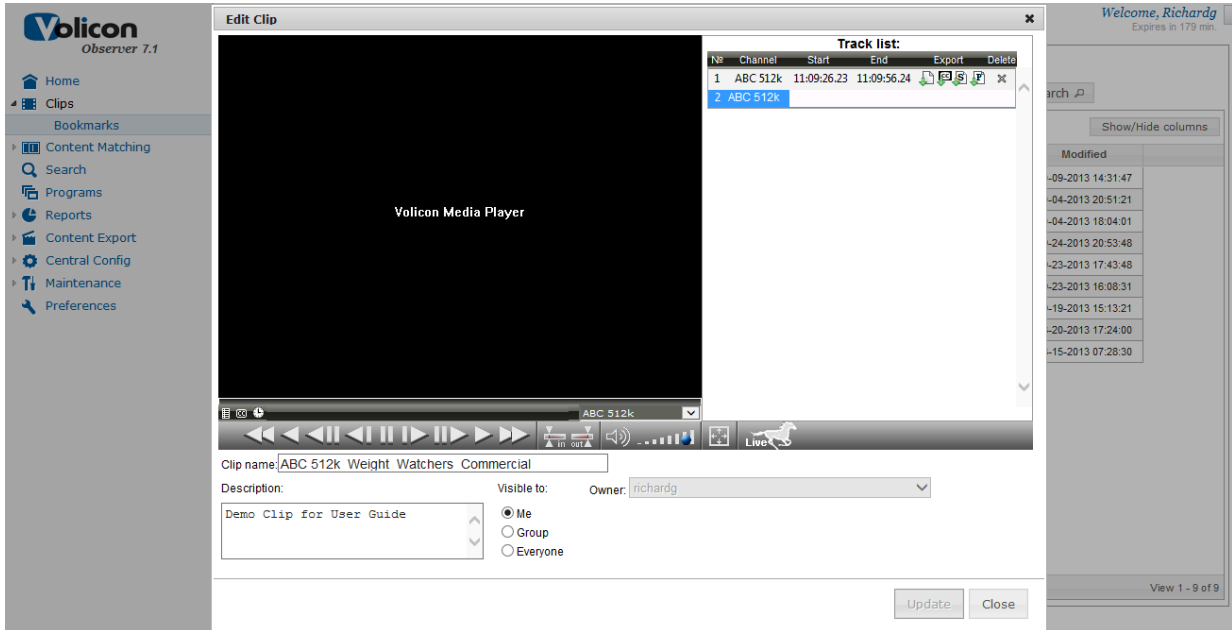


Figure: Edit Clip Window

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.

Depending upon your permissions, you can also export the content of your clip in as many as four different ways:

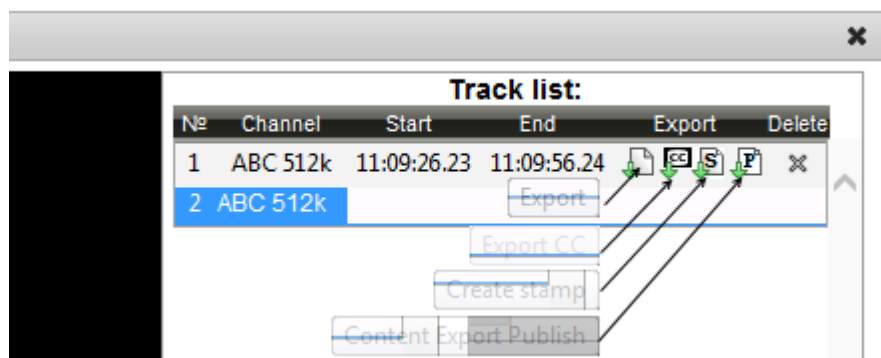


Figure: Export Options

- Export
- Export Closed Captions
- Create Stamp
- Content Export Publish

6.4.1.1 Exporting Your Clip

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

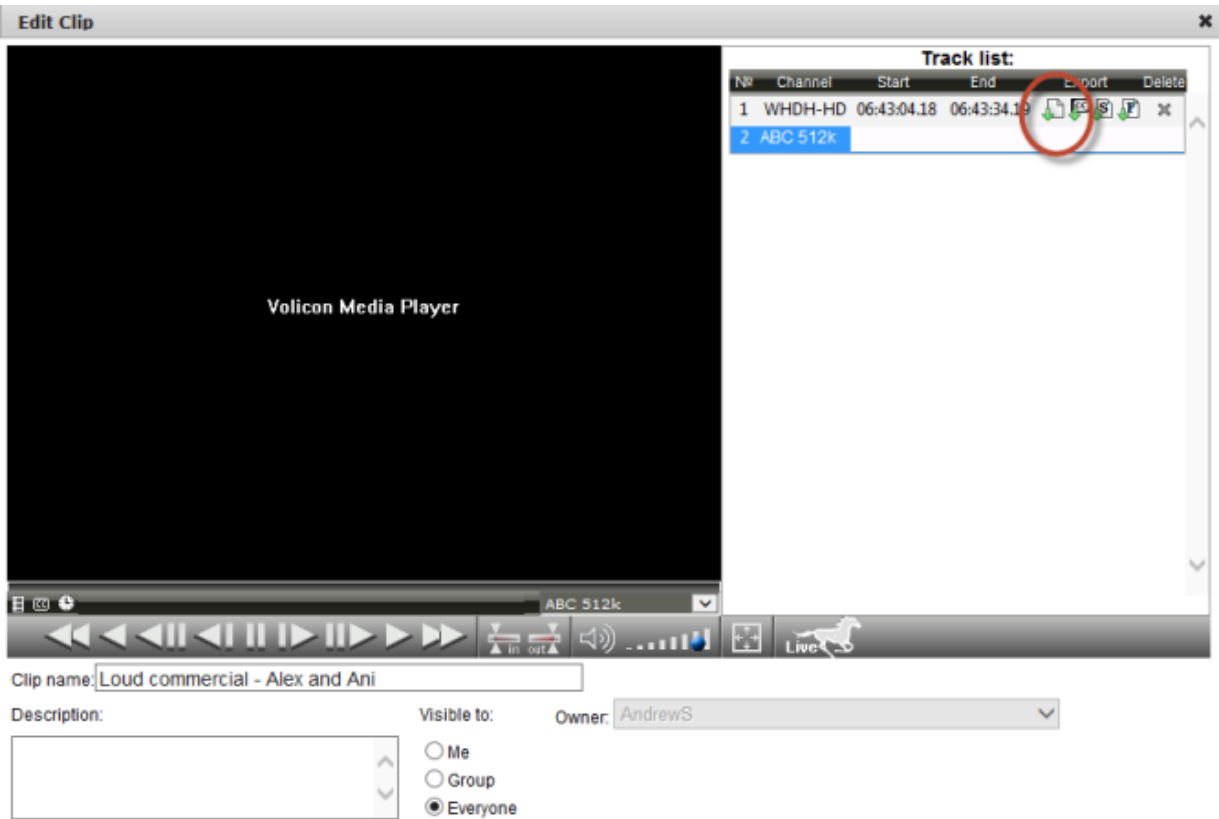


Figure: Export Clip Icon

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**.

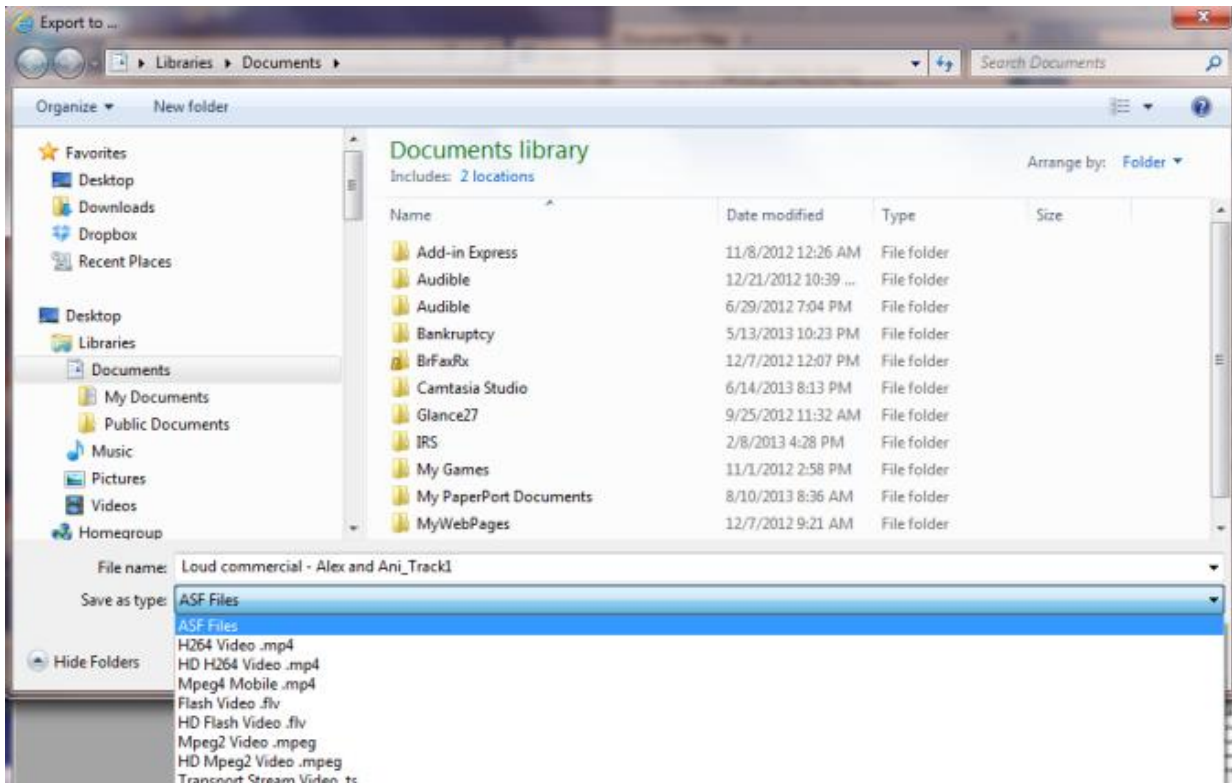


Figure: -export_to Window

Observer will open the Export clip—Webpage Dialog box.

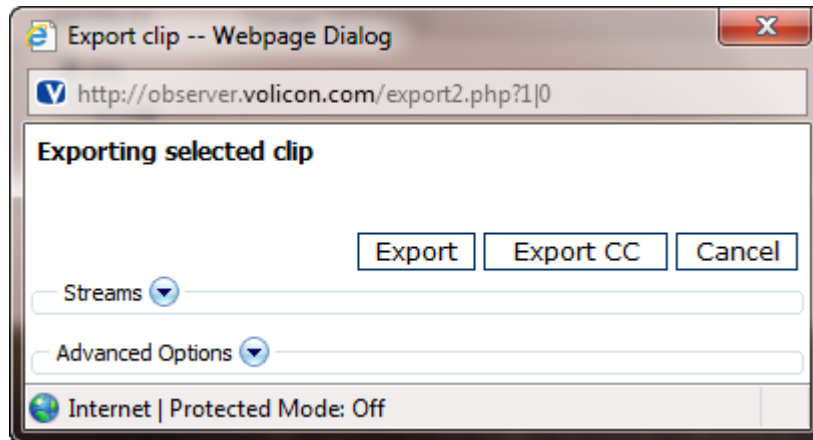


Figure: Export Clip Webpage Dialog Box

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.

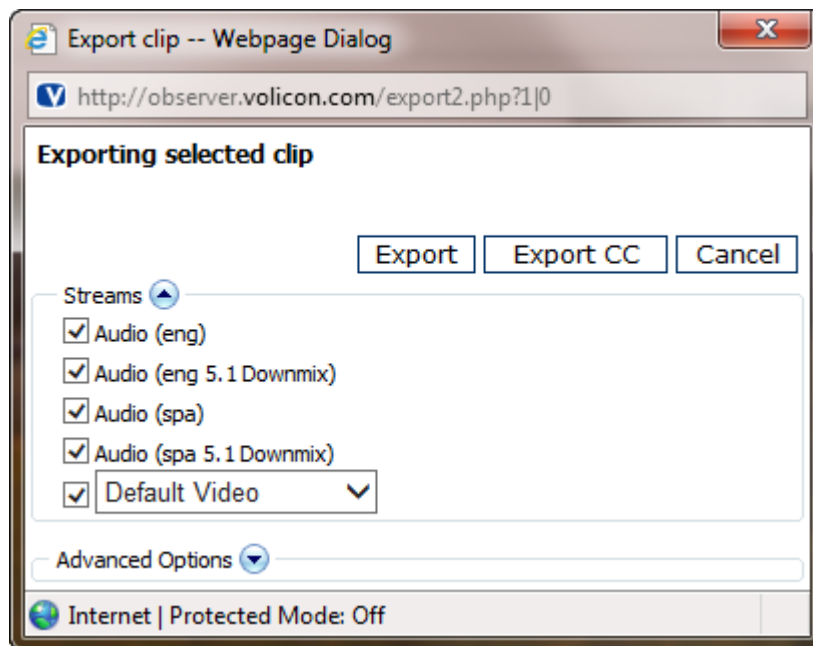


Figure: Streams Drop-Down Menu

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.

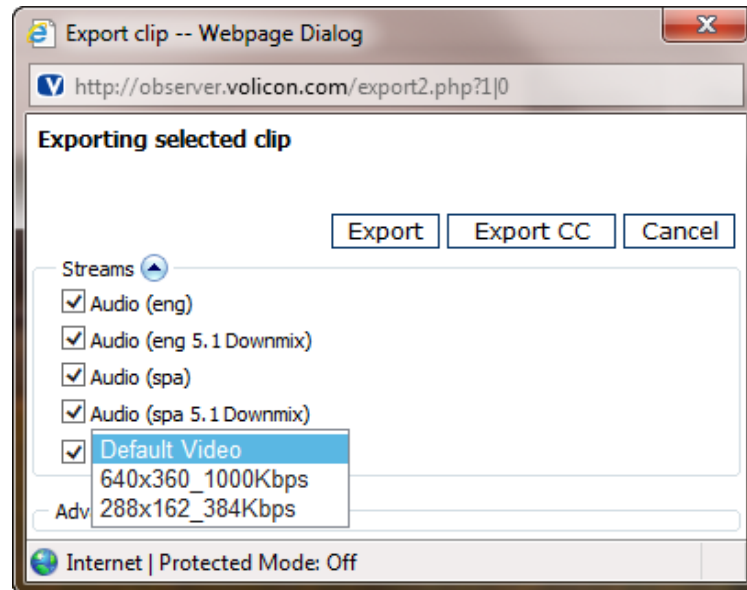


Figure: Default Video Drop-Down Menu

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

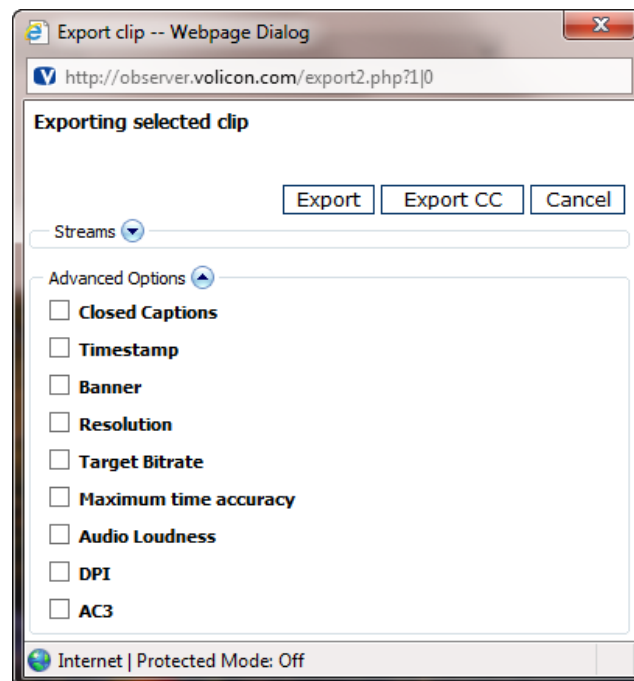


Figure: Advanced Options Drop-Down Menu

- **Close 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.

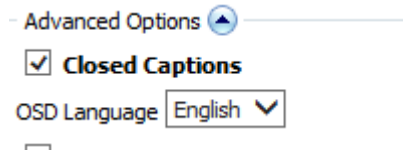


Figure: Closed Caption Options

- **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.

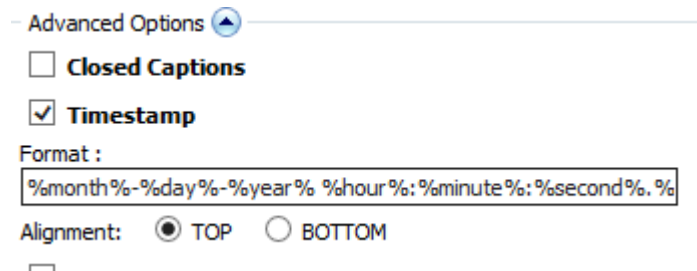


Figure: Timestamp Options

- **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.

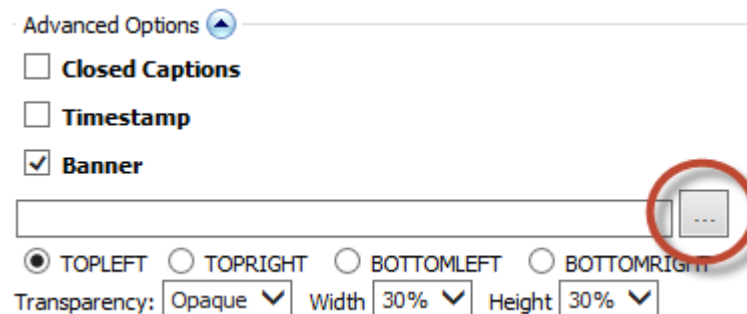


Figure: Banner

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

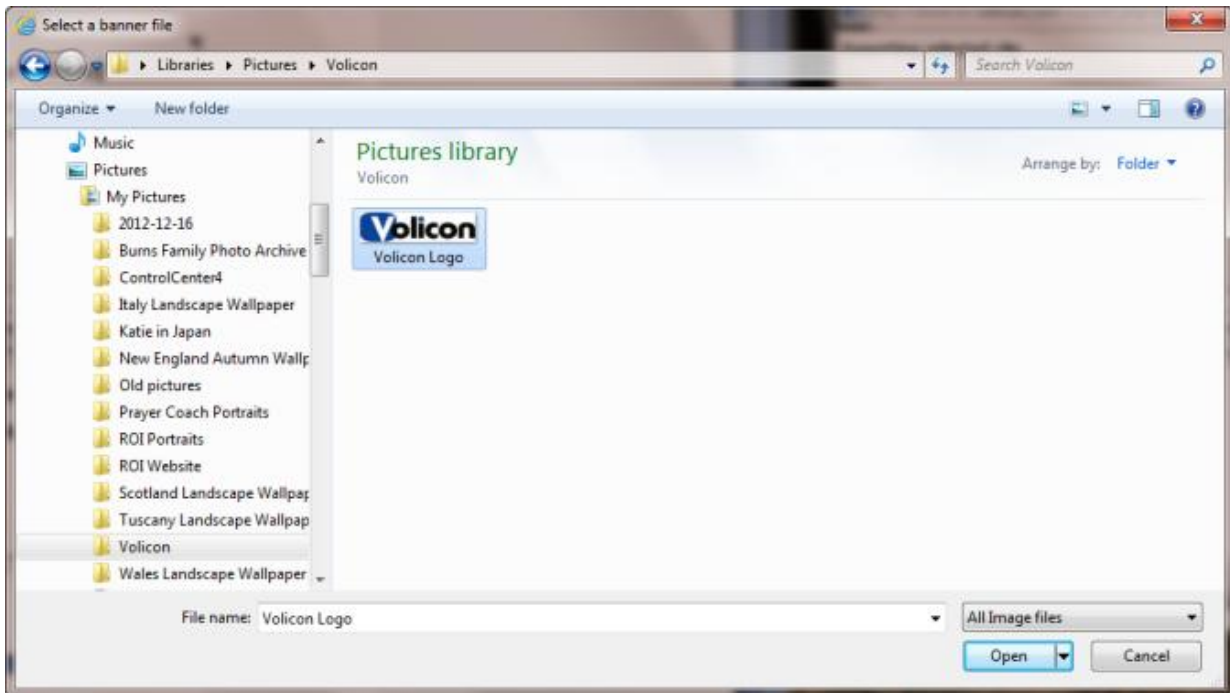


Figure: Select a banner file Window

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

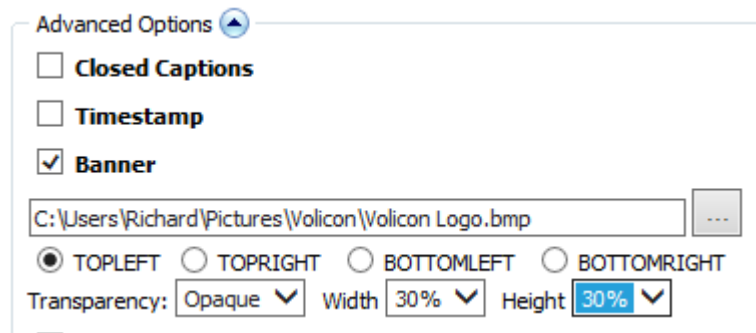


Figure: Populate Banner Field

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.

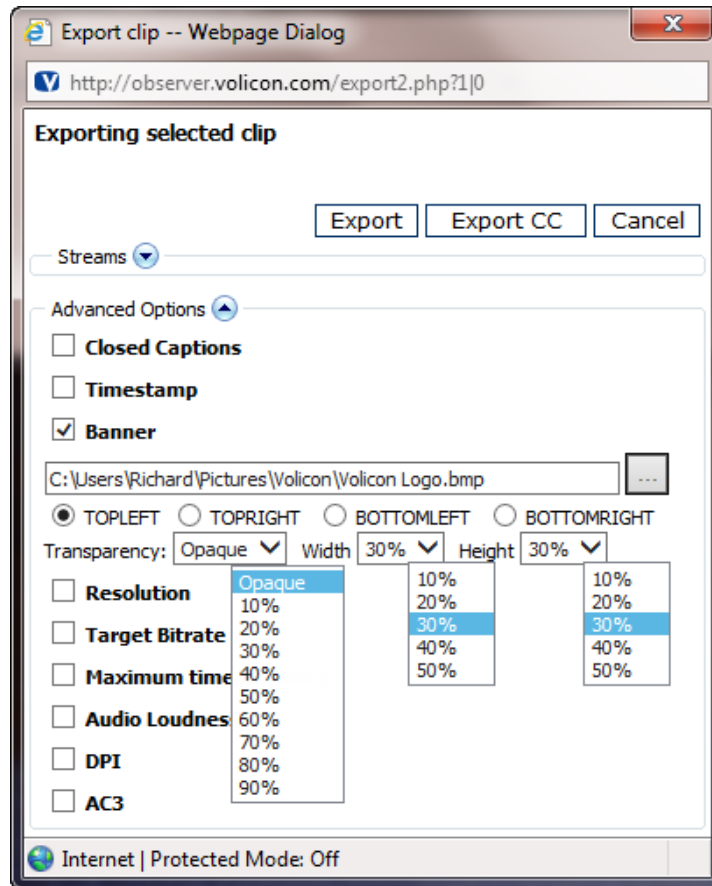


Figure: Banner Options

- **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.

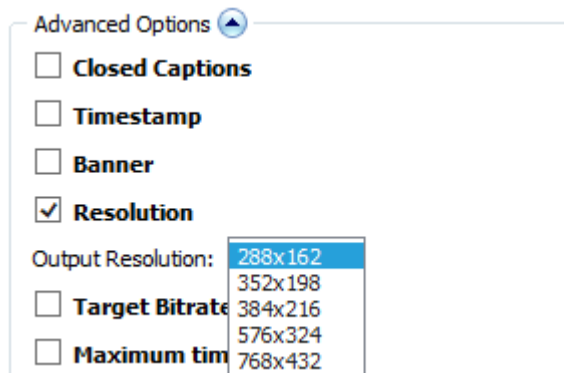


Figure: Resolution Options

- **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.

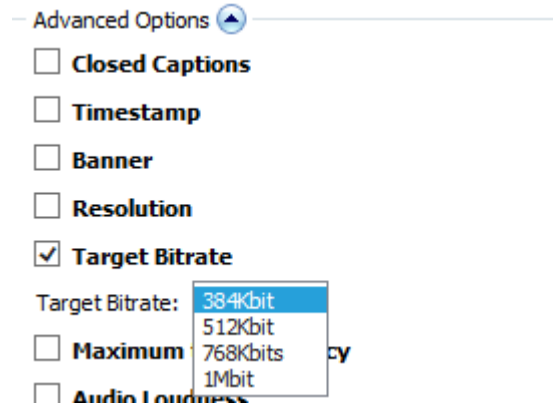


Figure: Target Bitrate

- You may also choose whether to export your clip with **Maximum time accuracy**, **Audio Loudness**, **DPI** and **AC3** information.

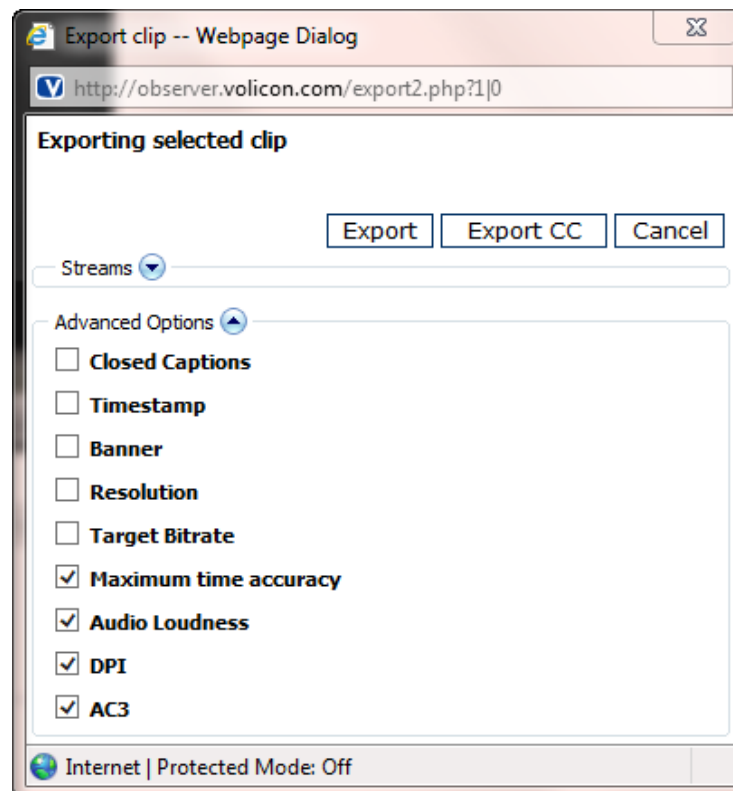


Figure: Additional Options

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

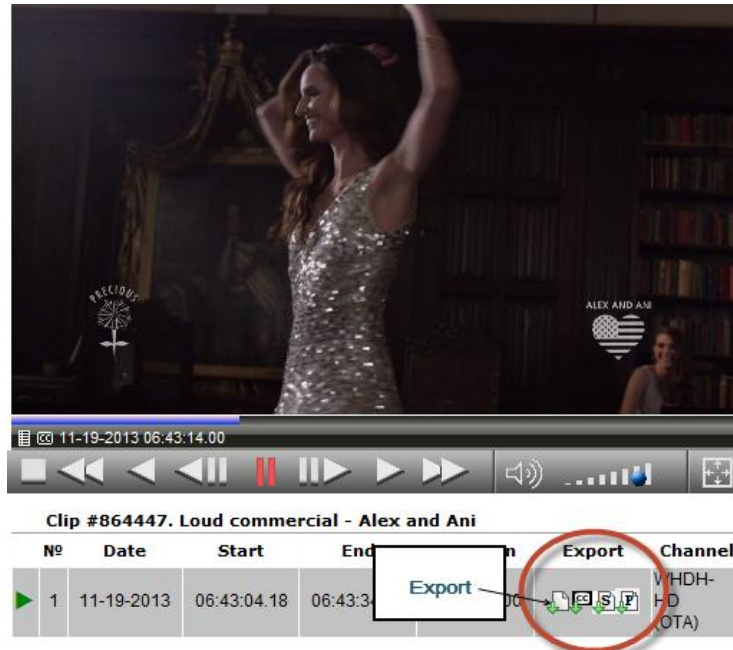


Figure: Export Button in Clip Player Window

6.4.1.2 Exporting the Closed Caption Text of a Clip

To export only the Closed Caption of a clip to a text file, in the Export column click the **CC** icon.

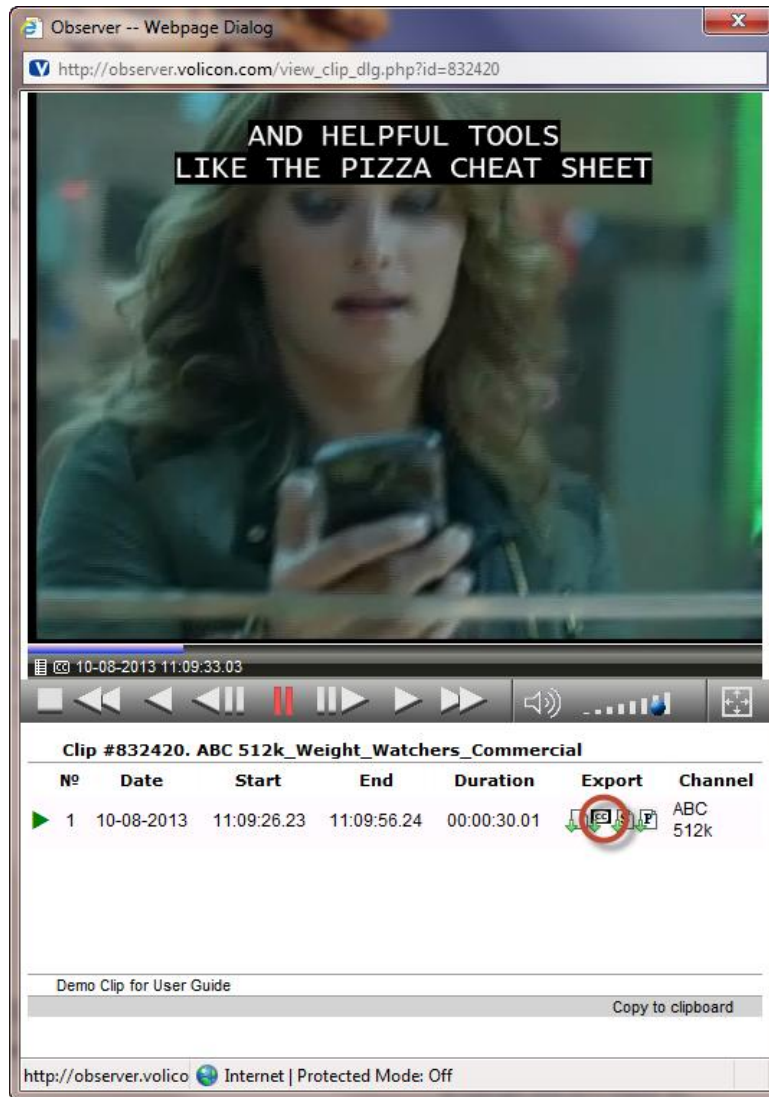


Figure: Export CC Icon

Observer gives you the option to open the file, save the file, save the file as, or save and open the file.

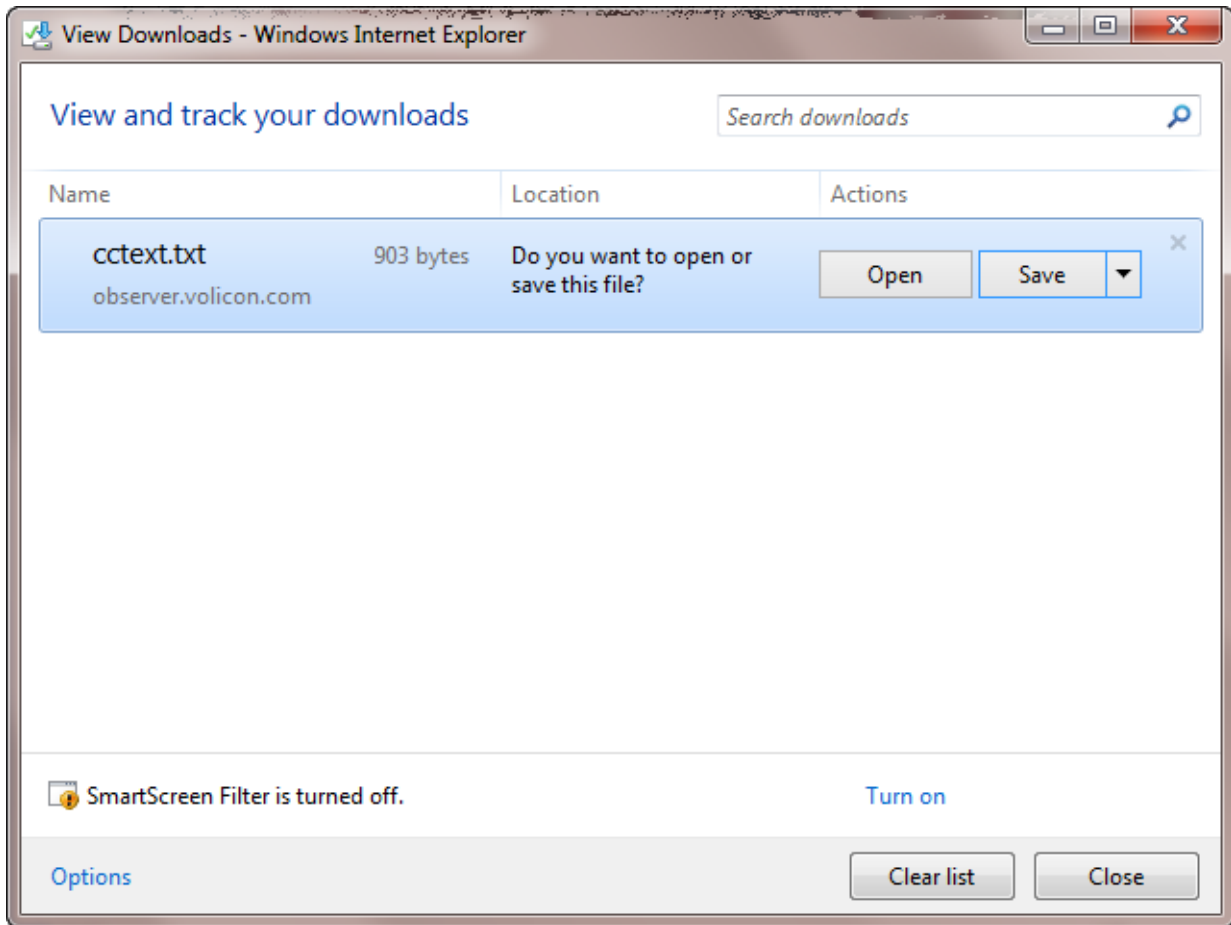


Figure: Export Management Options

These options function as described below:

- **Open** opens the CC text of your clip in Notepad.

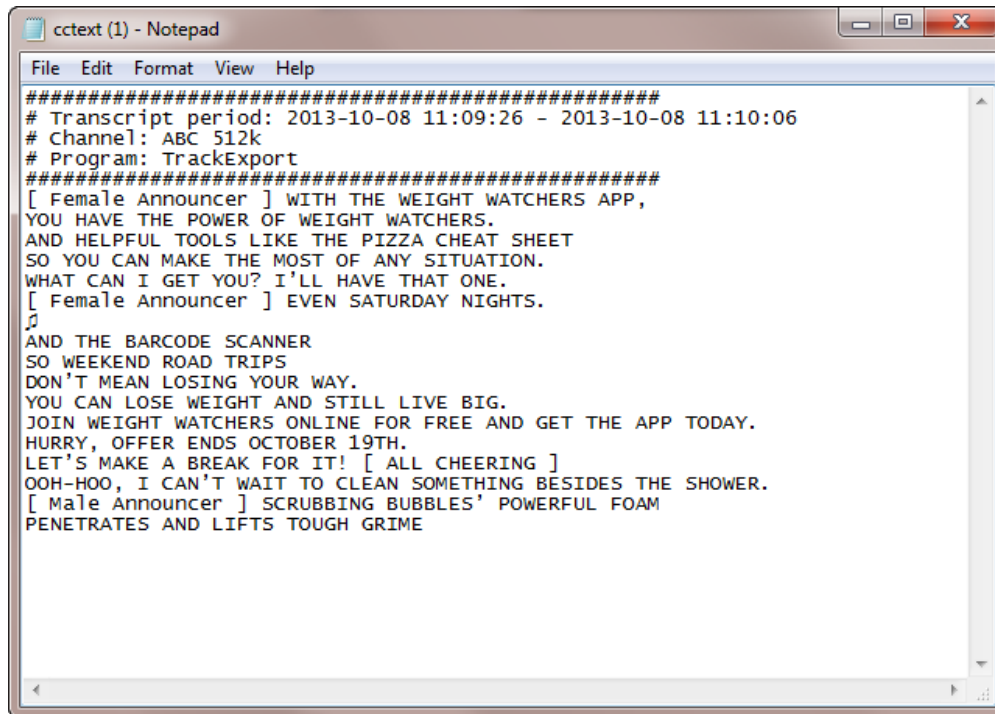


Figure: Open CC Text

- **Save** places a Notepad file of your CC content in the Downloads folder of your computer with a file name of “cctext”.
- **Save as** opens the dialog window that allows you to rename the file and save it in the location of your choice.

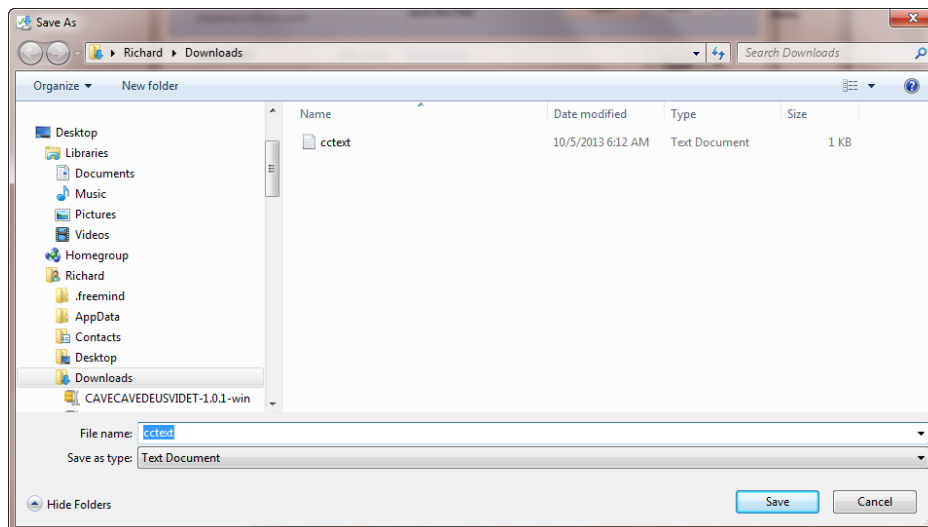


Figure: Save As Dialog Box

- **Save and open** saves the CC text as a Notepad file in your Downloads folder and opens the file in Notepad.

6.4.1.3 Creating a Stamp of Your Clip

Observer provides you with a Content Matching Module (if purchased) that offers two functions:

- Monitoring live streams for specific content and logging when they occur
- Searching your stream history (called the “backlog”) for specific content and logging when it occurred

The Content Matching Module Identifies when specific content is aired by matching audio stamps or samples to logged content. Track aired instances of specific commercials and programs on competitor’s broadcasts, and verify that required content was properly aired. Positive matches generate a video clip entry in the fingerprint log, and can issue alerts to a set list of users.

How it Works

The Content Matching Module (CMM) uses advanced audio fingerprint stamp techniques to monitor both audio and audio visual content for matches in the Observer content database. To begin the matching process, the operator first creates content clips from the Volicon Observer archive. The CMM then analyzes the audio track of the selected clips and creates a fingerprint stamp specific to each clip. The fingerprinting algorithm accommodates normal distortions or differences in volume and can identify whether some or all content has been broadcast.

The CMM stores all the stamps from the clips the user is interested in monitoring. After selecting which clips to scan for, the CMM will then automatically inspect all the monitored content for the select audio stamp and can measure when the content appears as a broadcast asset. The user is then able to access a clip created on the Observer with a remotely viewable clip of the identified content to play back for verification. Alternatively, the user can also select to scan the archived content and measure when the clip was present historically.

All of the user management, web access, content ingest and alerting mechanisms with the CMM remain with the Observer system to allow for easy installation and operation.

To execute the CMM function, choose or create a clip that contains the content you wish to search for. Then, from the Export column of your clip, click **Create Stamp**. This will create an audio fingerprint of your clip.

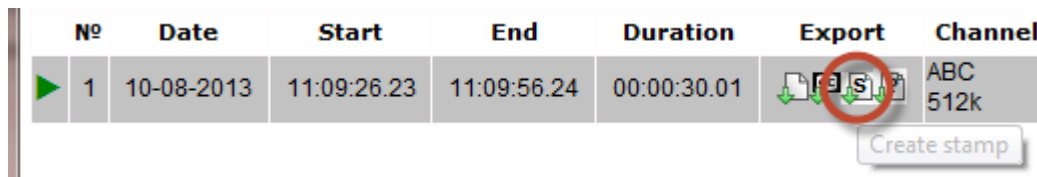


Figure: Create Stamp

Observer opens the Create Stamp dialog box.

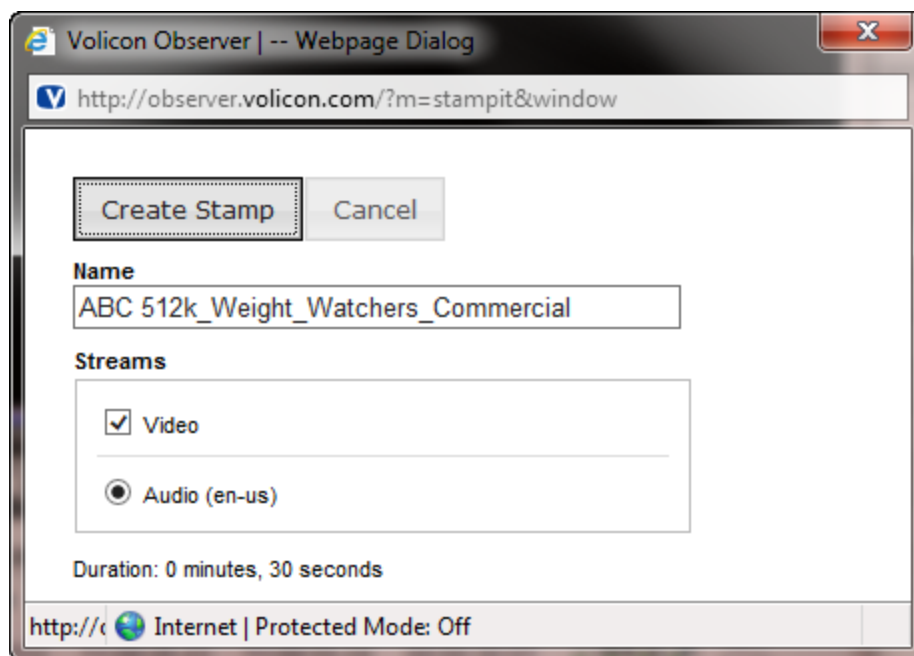


Figure: Create Stamp Dialog Box

Click **Create Stamp**. Observer will report on its progress, and notify you when it has finished.

If you have content export privileges, clicking **Content Export Publish** will place the clip in the basket for content export.

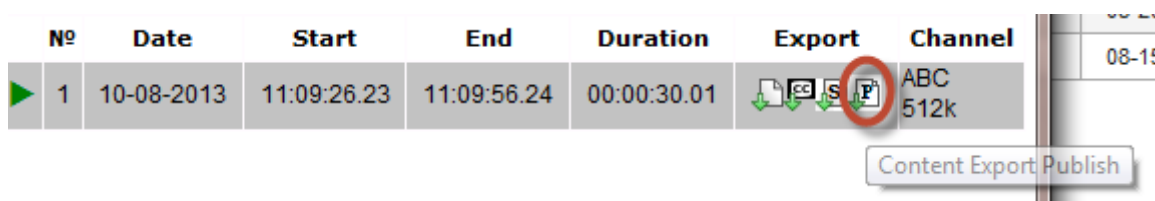


Figure: Content Export Publish

6.4.2 Previewing Clips

To preview a clip, click the Preview button in the Actions column.



Figure: Preview Button

Observer will open a small preview window you can use to verify that this is the clip you want.

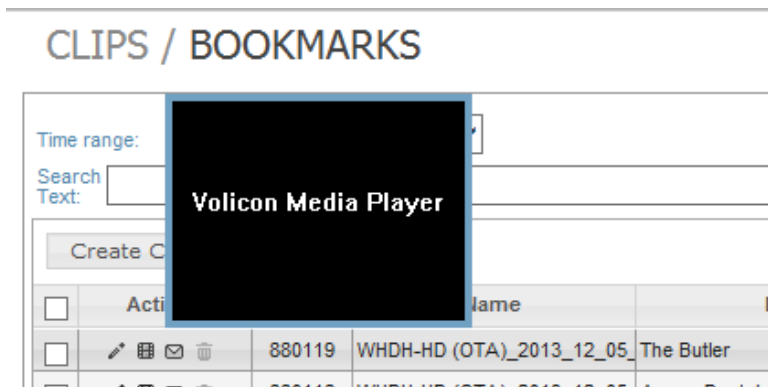


Figure: Preview Window

6.4.3 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.

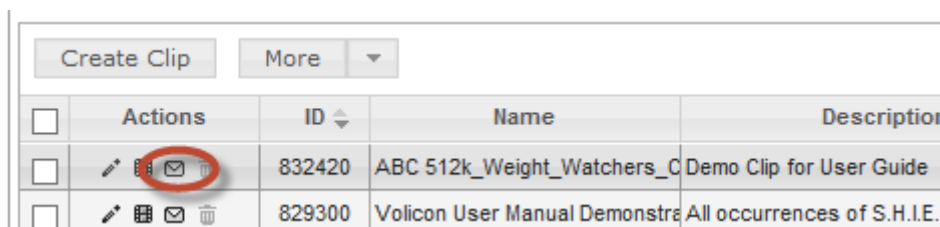


Figure: E-Mailing Clips

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.

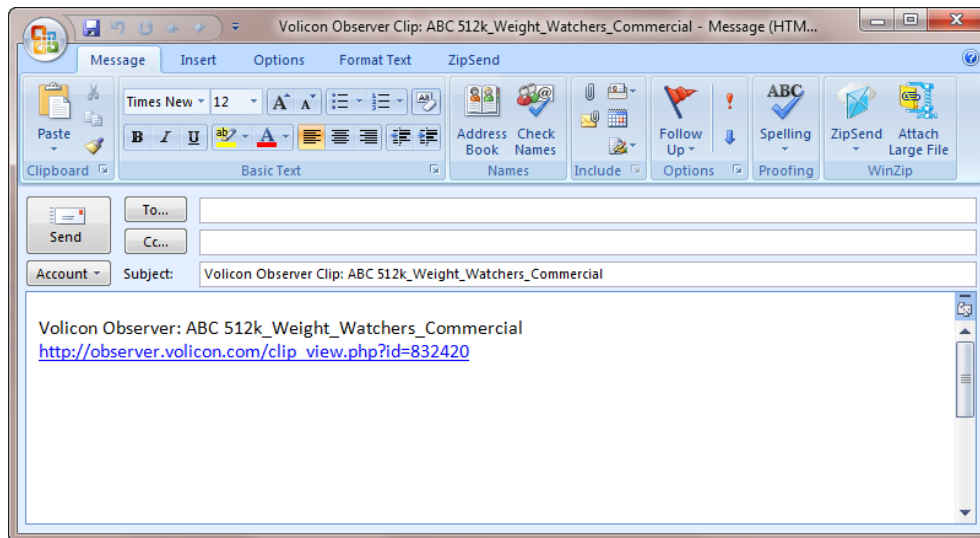


Figure: E-Mail Window

6.4.4 Deleting Clips

To delete a clip, click the Delete icon in the Actions column.



Figure: Delete Icon

6.5 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 allows you to search for a clip either by ID, name, description or a combination of parameters

The screenshot shows the Volicon Observer 7.1 interface. On the left is a navigation menu with options like Home, Clips, Bookmarks, Content Matching, Search, Programs, Reports, Content Export, Central Config, Maintenance, and Preferences. The main area is titled 'CLIPS / BOOKMARKS' and features a search bar with the text 'Coke'. Below the search bar is a table of clips. A red box highlights the 'Name' and 'Description' columns of the table. The table has columns for Actions, ID, Name, Description, Trk, Created by, Created, and Mo. The first few rows of the table are:

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

Figure: Searchable Fields in Bookmarks

6.5.1 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**.

This close-up screenshot shows the search interface. The 'Search Text' field contains the word 'Coke'. The 'Search' button is highlighted with a red circle. The table below shows the results of the search, with the 'Name' and 'Description' columns highlighted in red.

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

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

6.5.2 Advanced Search

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

6.5.2.1 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"/> | | 822070 | HBO Test Clip | New Center 5 ABC | 4 | ackley |

Figure: Search Calendar

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

6.5.2.2 The Advanced Search Field

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

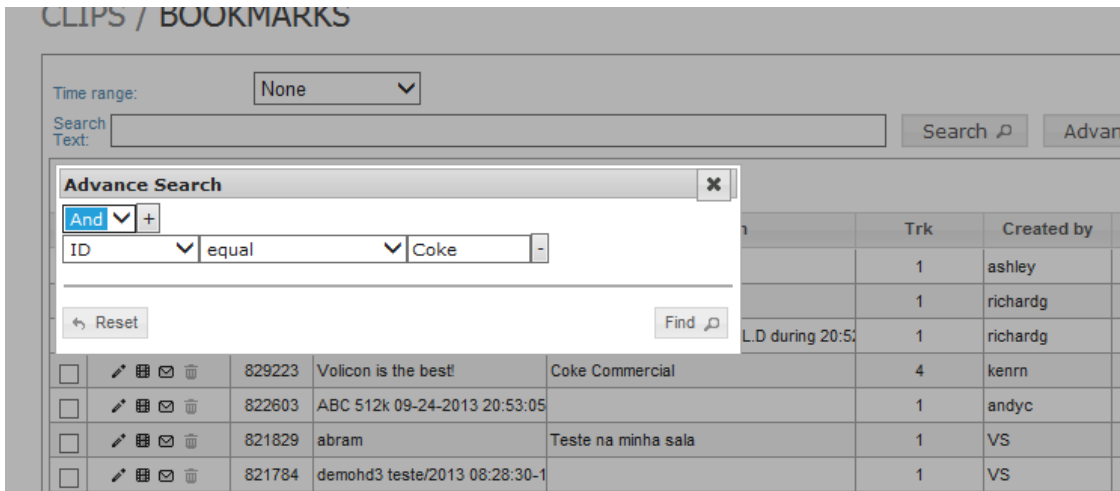


Figure: Advanced Search Window

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

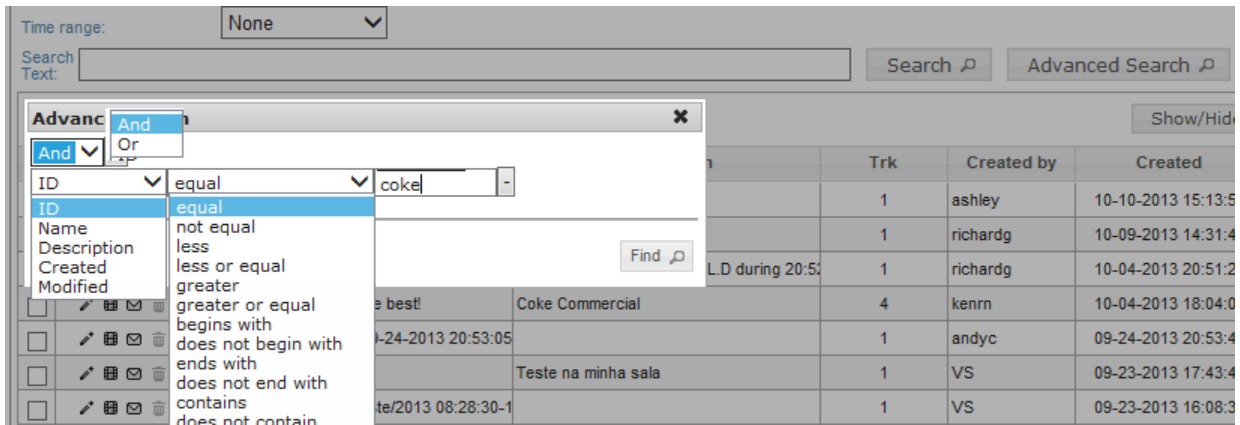


Figure: Advanced Search Drop-Down Menus

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.

7 USING THE SEARCH FUNCTION

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 .

7.1 Launching the Search Function

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

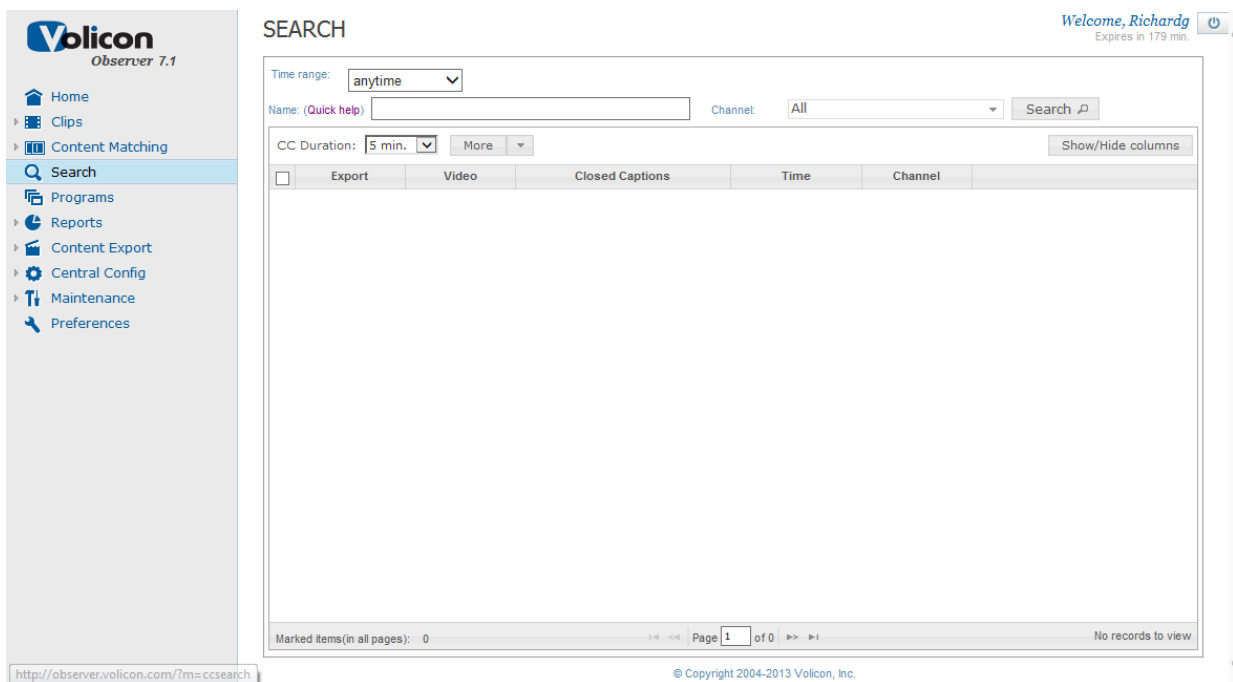


Figure: Launching the Search Function

7.2 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.

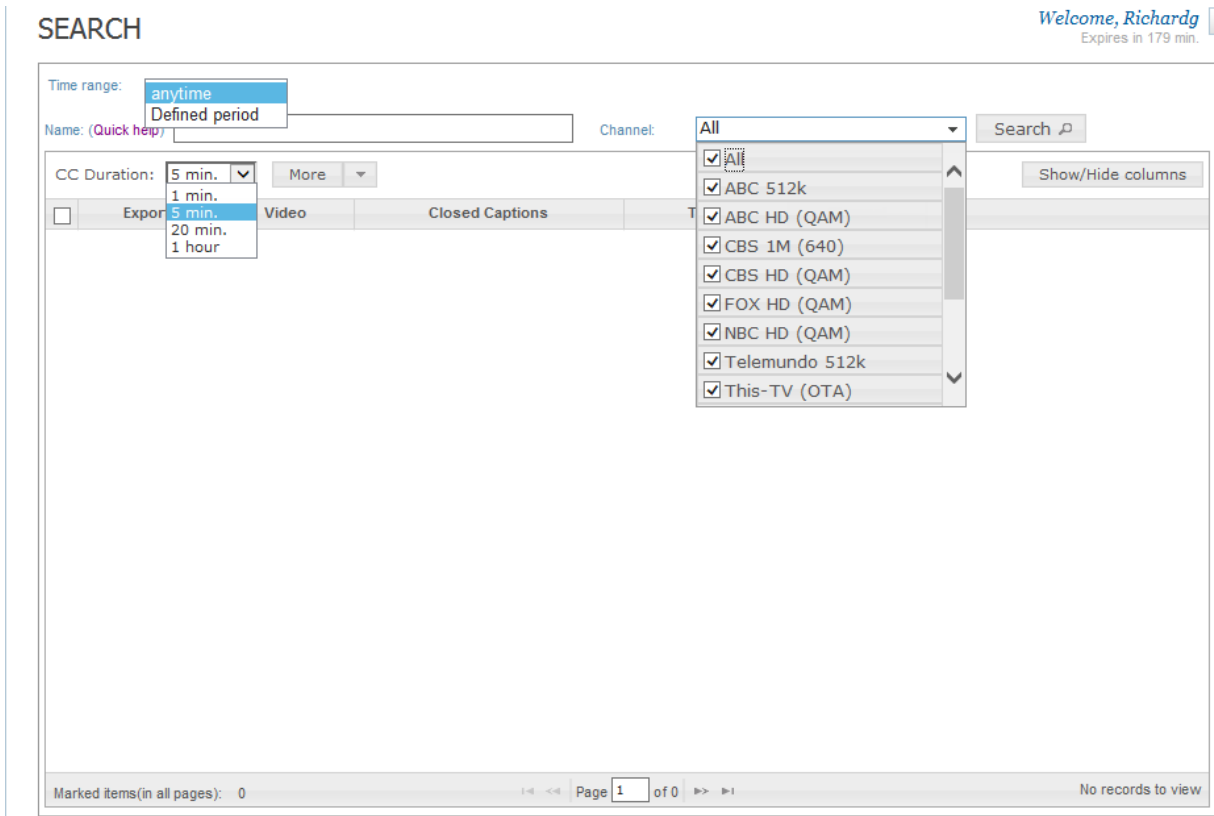


Figure: Search Parameter Drop-Down Menus

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.

7.2.1 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: To:

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: To:

Name:

CC Duration: 5 min. More

| 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 | | | | | |

Export Video 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: 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 SHIELD . A GROWN MAN C | 10-02-2013 13:56:33 | This-TV (OTA) |
| <input type="checkbox"/> | | | BY A MAGNETIC SHIELD . A LOT OF THE F | 10-02-2013 12:45:56 | WHDH 512k |
| <input type="checkbox"/> | | | BY A MAGNETIC SHIELD . A LOT OF THE F | 10-02-2013 12:45:56 | WHDH 256k |
| <input type="checkbox"/> | | | BY A MAGNETIC SHIELD . A LOT OF THE F | 10-02-2013 12:45:54 | WHDH HD 1.5M |
| <input type="checkbox"/> | | | BY A MAGNETIC SHIELD . A LOT OF THE F | 10-02-2013 12:45:55 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | | SHIELD 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.

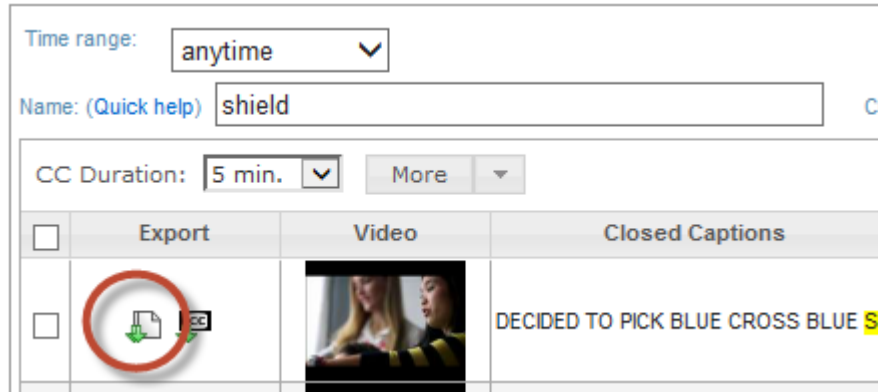


Figure: Export Icon

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

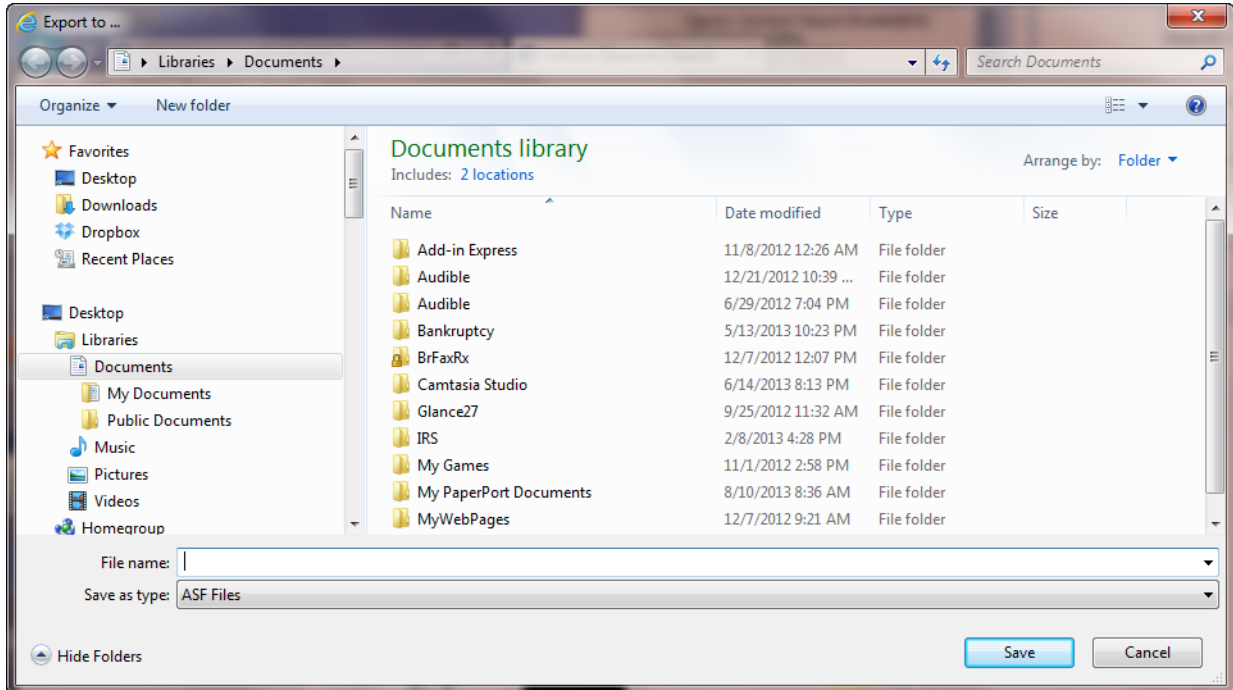


Figure: Export to... Window

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

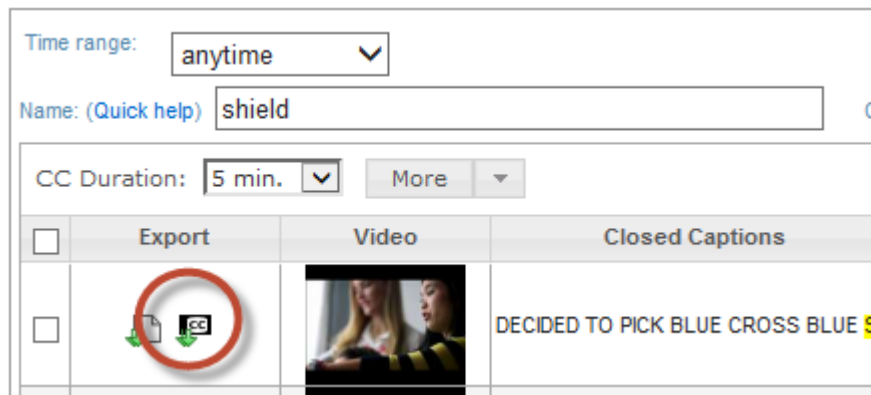


Figure: Export CC Icon

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.

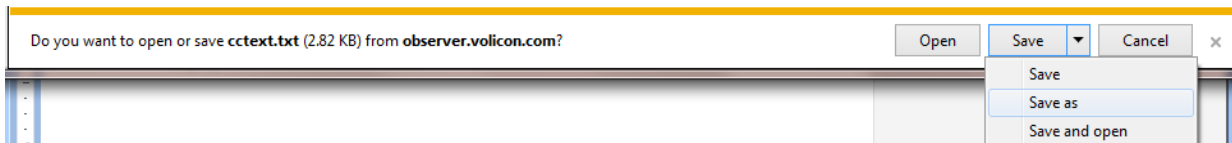


Figure: Save Button Drop-Down Menu

- **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.

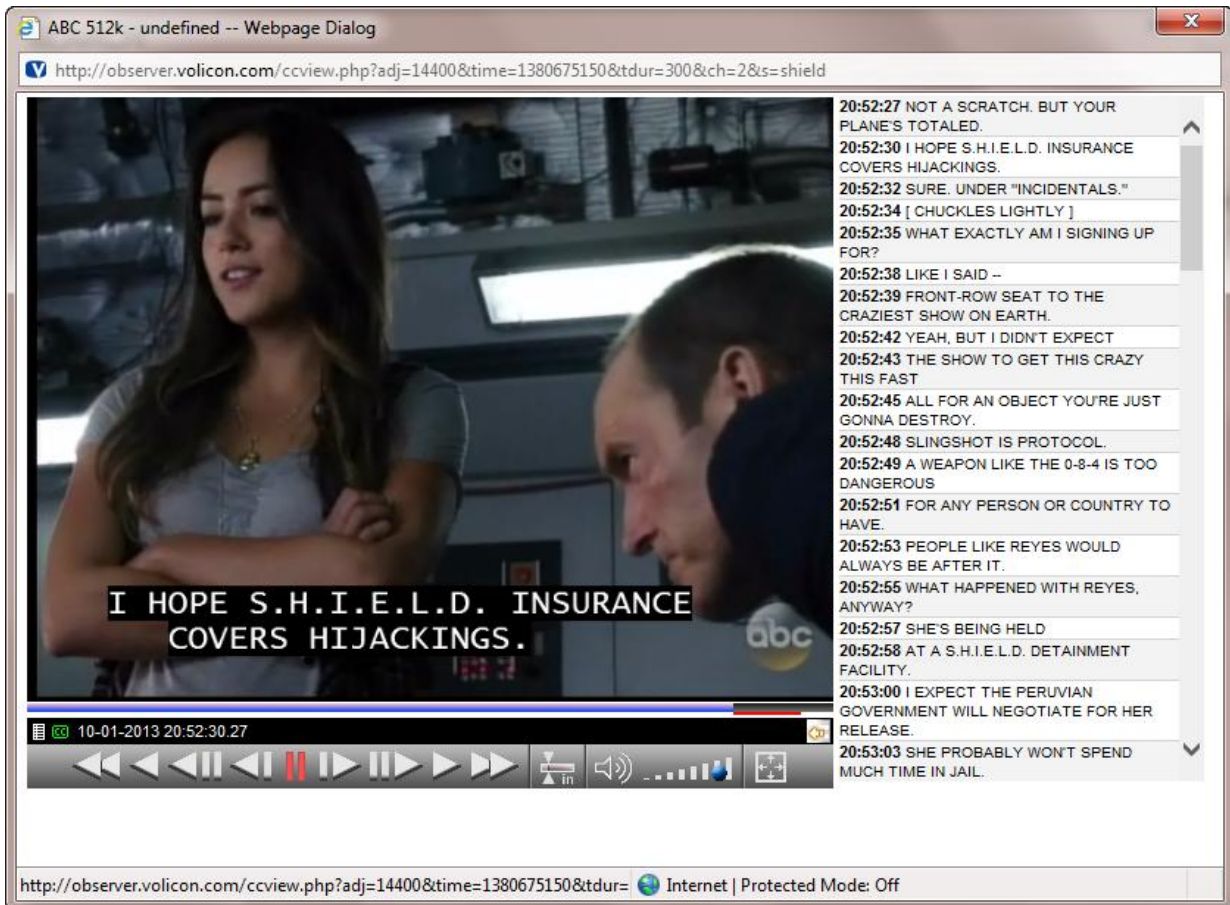


Figure: Webpage Dialog Window

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.

7.2.2 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. |

8 PROGRAMS

Up until this release, searching for content on the Observer platform has all been based on date and time. With the integration with As Run logs, the Observer Media Player now lets you search for content based on Program Name, media ID, or other data from the as-run log. Automatic importation of common as-run logs simplifies finding content for ad verification and compliance purposes. The Programs screen allows you to organize video recording based on program name, channel name and time. . If your organization has purchased the Programs module, and you have been given access to it by your administrator, you can use this screen to manually set up programs for the Observer. You can also use “As-run files” integration to skip manual data entry.

8.1 Searching for Programs

The Programs screen allows you to search for video footage based on the name of the program, rather than by time.

Select **Programs** from the left menu to reach the Programs screen.

The screenshot shows the Volicon Observer 7.1 interface. On the left is a navigation menu with 'Programs' highlighted. The main content area is titled 'PROGRAMS' and features a search interface with a 'Time range' dropdown set to 'anytime', a 'Name' input field, and a 'Channel' dropdown set to 'Any channel'. Below the search fields are 'Add Program' and 'More' buttons, and a 'Show/Hide columns' link. The main part of the screen is a table with the following columns: Actions, Export, Program Name, Defects, Start Time, End Time, Duration, and Channel. The table contains 20 rows of program data, all from the 'WHDH-HD (OTA)' channel. The bottom of the screen shows 'Marked items (in all pages): 0', 'Page 1 of 1,396', and 'View 1 - 50 of 69,896'.

| Actions | Export | Program Name | Defects | Start Time | End Time | Duration | Channel |
|--------------------------|--------|------------------------------------|---------|------------------------|------------------------|----------|---------------|
| <input type="checkbox"/> | | DLHC1104H DEBORAH HEART AND AM | 0 | 12-05-2013 04:58:17.22 | 12-05-2013 04:58:27.23 | 00:00:10 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | ACTION NEWS AT 4:30A Segment 4 | 0 | 12-05-2013 04:58:04.83 | 12-05-2013 04:58:17.23 | 00:02:13 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | WPIV MAINLINE OUT WPIV-TV WPIV PUE | 0 | 12-05-2013 04:55:48.24 | 12-05-2013 04:56:04.62 | 00:00:16 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | TYFT2035H TRI STATE TOYOTA 227918 | 0 | 12-05-2013 04:55:18.24 | 12-05-2013 04:55:48.26 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | QAMR3521 AMERICA'S BEST CO ABC A | 0 | 12-05-2013 04:54:48.21 | 12-05-2013 04:55:18.23 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | DGCC77741H COMCAST NORTH CEN 22 | 0 | 12-05-2013 04:54:18.21 | 12-05-2013 04:54:48.24 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | FPYP488060H FORD DEALERS ADVE C | 0 | 12-05-2013 04:53:48.18 | 12-05-2013 04:54:18.20 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | GMA THURSDAY/TODAY GMA TOO THU C | 0 | 12-05-2013 04:53:33.15 | 12-05-2013 04:53:48.18 | 00:00:15 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | ACTION NEWS AT 4:30A Segment 3 | 0 | 12-05-2013 04:49:01.60 | 12-05-2013 04:53:17 | 00:04:32 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | CELTIC HERITAGE F WPIV-TV WPIV PUB | 0 | 12-05-2013 04:48:59.27 | 12-05-2013 04:49:09.28 | 00:00:10 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | MCAA889512T MCDONALD'S CORPOR I | 0 | 12-05-2013 04:48:35.27 | 12-05-2013 04:48:59.28 | 00:00:15 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | CONCO889JUNE12 CONCELLI SPRINGF | 0 | 12-05-2013 04:48:05.27 | 12-05-2013 04:48:35.28 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | SIMC6740H ST MARY MEDICAL C NEUR | 0 | 12-05-2013 04:47:35.24 | 12-05-2013 04:48:05.26 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | MCED2158952410A MENY'S MEDICAL E D | 0 | 12-05-2013 04:47:05.27 | 12-05-2013 04:47:35.26 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | VAPU883500B AMERICAN PUBLIC U 232 | 0 | 12-05-2013 04:46:35.26 | 12-05-2013 04:47:05.26 | 00:00:30 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | MCJM868511T MCDONALD'S CORPOR M | 0 | 12-05-2013 04:46:20.24 | 12-05-2013 04:46:35.26 | 00:00:15 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | ACTION NEWS AT 4:30A Segment 2 | 0 | 12-05-2013 04:41:38.24 | 12-05-2013 04:46:20.23 | 00:04:50 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | 122396PHISKC15 PHILADELPHIA UNIO S | 0 | 12-05-2013 04:41:15.24 | 12-05-2013 04:41:39.24 | 00:00:15 | WHDH-HD (OTA) |
| <input type="checkbox"/> | | 11USR816PCKTH PHIL CYBERKNFE C 22 | 0 | 12-05-2013 04:40:45.21 | 12-05-2013 04:41:15.23 | 00:00:30 | WHDH-HD (OTA) |

Figure: Programs

By default, Observer presents you with all of your available programming. To search for a particular stream by name, enter the name of the program in the **Name** field.

| <input type="checkbox"/> | Actions | Export | Program Name | Defects | Start Time | End Time | Duration |
|--------------------------|---------|--------|--------------------------------|---------|------------------------|------------------------|----------|
| <input type="checkbox"/> | | | DLHC1104H DEBORAH HEART AND AM | 0 | 12-05-2013 04:58:17.22 | 12-05-2013 04:58:27.23 | 00:00:10 |
| <input type="checkbox"/> | | | ACTION NEWS AT 4:30ASequence 4 | 0 | 12-05-2013 04:56:04.03 | 12-05-2013 04:58:17.23 | 00:02:13 |

Figure: Name Field

The **Time range** field provides you a drop-down box with two options: “anytime” and “Defined period”. Choosing “Defined period” opens the calendar search function, which lets you set the starting and ending dates and times for your search period.

Time range: **anytime** (dropdown menu open showing 'Defined period')
From: 11-28-2013 19:34:02 To: 12-05-2013 19:34:02
Name: news
Channel: Any channel

Figure: Defined Period Search

The **Channel** field provides you a drop-down box that allows you to filter your search by channel.

PROGRAMS

Time range: Defined period From: 11-28-2013 19:34:02 To: 12-05-2013 19:34:02

Name: Channel: Any channel

| <input type="checkbox"/> | Actions | Export | Program | Start Time | |
|--------------------------|---------|--------|-----------------|-----------------|--------|
| <input type="checkbox"/> | | | ACTION NEWS AT | 013 04:56:04.03 | 12-05- |
| <input type="checkbox"/> | | | ACTION NEWS AT | 013 04:49:01.00 | 12-05- |
| <input type="checkbox"/> | | | ACTION NEWS AT | 013 04:41:30.24 | 12-05- |
| <input type="checkbox"/> | | | ACTION NEWS AT | 013 04:30:00.00 | 12-05- |
| <input type="checkbox"/> | | | LIVE LOCAL NEWS | 013 04:26:54.00 | 12-05- |
| <input type="checkbox"/> | | | ABC WORLD NEWS | 013 03:46:38.05 | 12-05- |
| <input type="checkbox"/> | | | ABC WORLD NEWS | 013 03:30:00.08 | 12-05- |
| <input type="checkbox"/> | | | ABC WORLD NEWS | 013 03:19:03.15 | 12-05- |

Figure: Filtering by Channel

Clicking the **Advanced Search** button opens the Advance Search window.

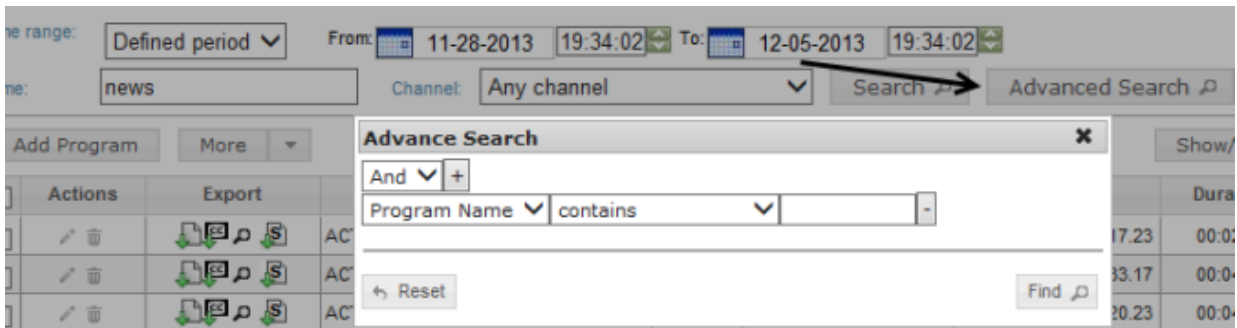


Figure: Advance Search Window

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

Figure: Advance Search Drop-Down Menus

Those fields are the:

- **Boolean Operator** field. This field allows you search for multiple program names using Boolean logic. To include more than one program name in your search, click on the “+” button beside the logic field. This will add another line to the Advance Search window.

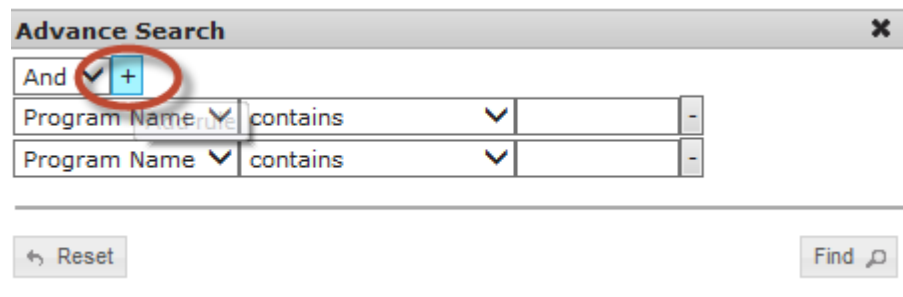


Figure: Multiple Search Lines

You can use either a Boolean AND or a Boolean OR in your Program Name search.

- **Contains** field. The drop-down menu beside the Contains field gives you six options for searching on a specific component of the program name:
 - Contains
 - Does not contain
 - Beings with

- Does not begin with
- Ends with
- Does not end with

Figure: Contains Field

8.2 Exporting Programs

Once you have found the program you are looking for, you have four options for exporting it.

- Clicking the **Export** button opens the Export to... window.

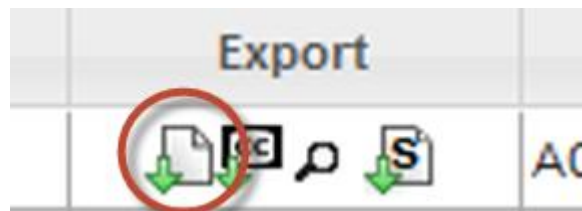


Figure: Export Button

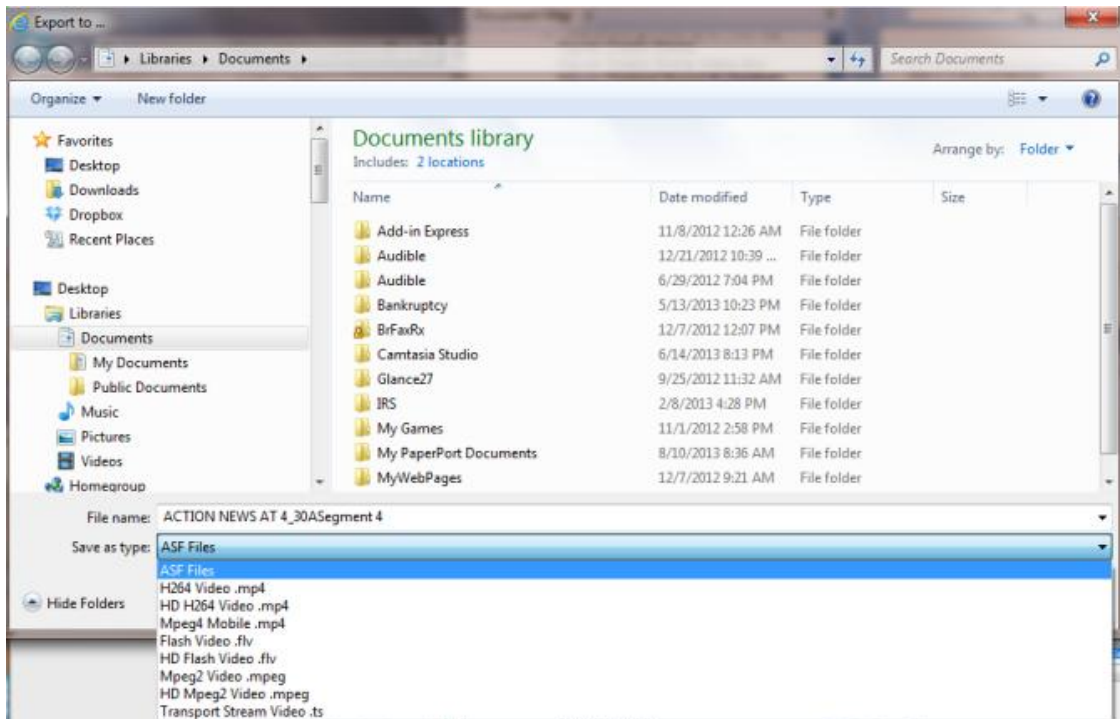


Figure: Export to... Window

Choose the location on your computer that you want to save the program, the type of file you want to save as, and click **Save**.

- **Export CC** allows you to export the Closed Caption text of the program.

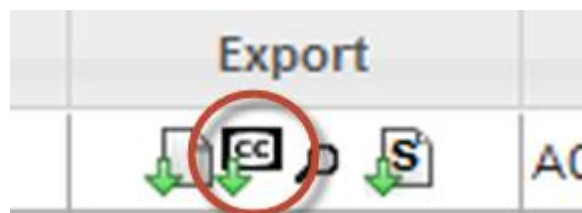


Figure: Export CC Button

Clicking the Export CC button opens a dialog box at the bottom of your window.

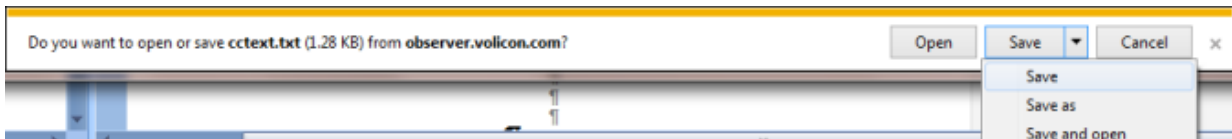


Figure: Export CC Dialog Box

- **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.
- The **Search in CC** button opens the Search in CC window.

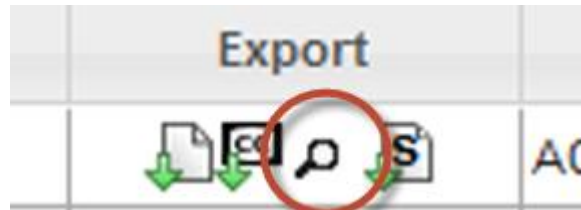


Figure: Search in CC Button

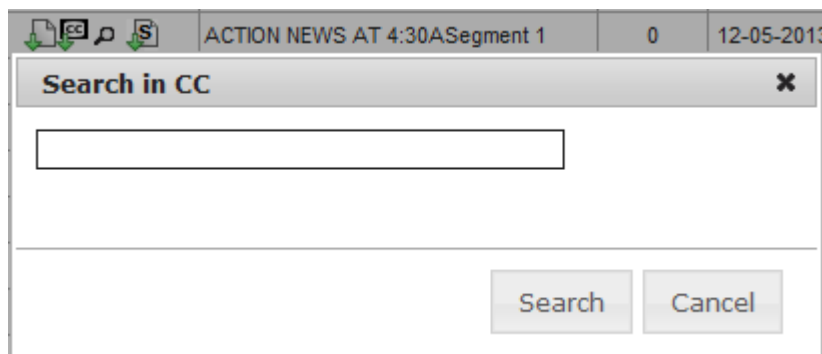


Figure: Search in CC Window

- The **Create Stamp** button allows you to create a stamp of the program.

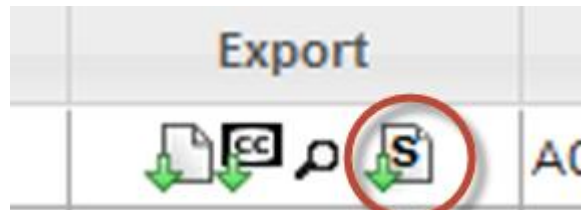


Figure: Create Stamp Button

8.3 Adding Programs

To add a program to the Observer, click the **Add Program** button. The Add Program window will open.

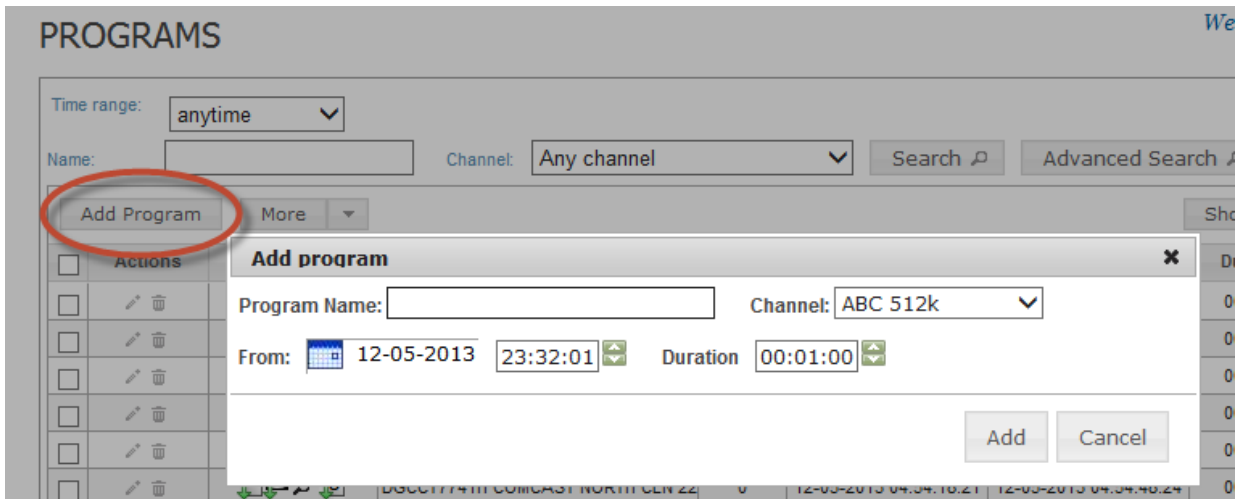


Figure: Add Program Window

Enter the name of the program and choose the channel the program runs on from the **Channel** drop-down menu. Specify the date, start time, and duration of the program and click **Add**.

9 LOUDNESS

The FCC has established regulations for swearing, the loudness of commercials, and Closed Captioning. Observer allows you to search your stored content specifically for loudness violations with the “Programs loudness” Report. This guide gives you details on how to use the Report in a later section, but note a screen capture of the report, below.

The screenshot displays the Volicon Observer 7.1 interface. The main window is titled "REPORTS / PROGRAMS LOUDNESS". The left sidebar contains navigation options: Home, Clips, Content Matching, Search, Programs, Reports (selected), Programs loudness (highlighted), Content Export, Central Config, Maintenance, and Preferences. The main content area shows search filters: Channel (WHDH-HD (OTA)), Reference (Long IPL), Value (1440), and Date (Defined period, 09-21-2013 13:25:56 to 09-22-2013 13:25:56). Below the filters is a table with columns: Channel Name, Loudness, Ave. DialNorm, Adjustment, Gating, Short form, and Long form. The table lists programs with zero violations. At the bottom, it shows "Page 1 of 9" and "View 1 - 50 of 447".

| Channel Name | Loudness | Ave. DialNorm | Adjustment | Gating | Short form | Long form |
|---------------|----------|---------------|------------|-----------|------------|----------------|
| WHDH-HD (OTA) | Pre | | 0 | ATSC 2013 | BS-1770-3 | DI + BS-1770-3 |

| Program Name | Violations | Start Time | Duration | short/long form |
|-------------------------------------|------------|------------------------|----------|-----------------|
| DLHC1104H DEBORAH HEART AND AM C | 0 | 09-22-2013 04:58:17.22 | 00:00:10 | short |
| ACTION NEWS AT 4:30ASegment 4 | 0 | 09-22-2013 04:56:04.03 | 00:02:13 | long |
| WPVI MAINLINE OUT WPVI-TV WPVI PUBL | 0 | 09-22-2013 04:55:48.24 | 00:00:16 | short |
| TYFT2039H TRI STATE TOYOTA 227918 | 0 | 09-22-2013 04:55:18.24 | 00:00:30 | short |
| QAMR3521 AMERICA'S BEST CO ABC JU | 0 | 09-22-2013 04:54:48.21 | 00:00:30 | short |
| DGCT7741H COMCAST NORTH CEN 227 | 0 | 09-22-2013 04:54:18.21 | 00:00:30 | short |
| FPYF0489000H FORD DEALERS ADVE Q | 0 | 09-22-2013 04:53:48.18 | 00:00:30 | short |
| GMA THURSDAY/TODA GMA TOD THU D | 0 | 09-22-2013 04:53:33.15 | 00:00:15 | short |
| ACTION NEWS AT 4:30ASegment 3 | 0 | 09-22-2013 04:49:01.00 | 00:04:32 | long |
| CELTIC HERITAGE F WPVI-TV WPVI PUBL | 0 | 09-22-2013 04:48:50.27 | 00:00:10 | short |
| MCAA080512T MCDONALD'S CORPOR M | 0 | 09-22-2013 04:48:35.27 | 00:00:15 | short |
| CONCOMBOJUNE12 CONICELLI SPRING F | 0 | 09-22-2013 04:48:05.27 | 00:00:30 | short |
| SMMC6740H ST MARY MEDICAL C NEURC | 0 | 09-22-2013 04:47:35.24 | 00:00:30 | short |
| MCED2159952410A MEN'S MEDICAL E.D. | 0 | 09-22-2013 04:47:05.27 | 00:00:30 | short |
| VAPU0035000 AMERICAN PUBLIC U 2325 | 0 | 09-22-2013 04:46:35.26 | 00:00:30 | short |
| MCJM068511T MCDONALD'S CORPOR MC | 0 | 09-22-2013 04:46:20.24 | 00:00:15 | short |

Figure: Programs Loudness Report

Observer makes your search easier by highlighting a violating segment in red.

10 PREFERENCES

As a user, you have the ability to configure your preferences for how the Volicon Observer interacts with you. To do so, click **Preferences** in the left-hand menu.

PREFERENCES

Welcome, Richardg
Expires in 176 min.

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 Off

Select default XDS state Off

Select default Loudness meter state Off

Monitor Auto Live Interval None

Apply

Change Password

Old password:

New password:

Confirm new password:

Submit

Keyword Alerts

Add alert Select action...

| <input type="checkbox"/> | Name | Subject | Email | Enabled | Actions |
|--------------------------|------|---------|-------|---------|---------|
| | | | | | |

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Figure: Preferences

The window presents you with three working panes: **Settings**, **Change Password**, and **Keyword Alerts**.

10.1 Settings

From the Settings working pane you can configure your:

- Seekbar duration. The default is 30 minutes; you can set the duration from 1 minute to 10 hours.
- Timezone **All end users must set the correct time zone on their PC/Laptop in order to display video in its original time** This is very important and is used to properly display video playback time to the end user.
- Default Audio Language
- Whether to put timestamps on your Closed Caption exports by default
- Whether to play live on the last channels you had selected when you log into the Observer
- Whether to show the green frame around the Video Stream to indicate that you are viewing in live mode
- Limit on the number of results a CC search returns
- Default Closed Caption state
- Default XDS Metadata state
- Default Loudness meter state
- Monitor Auto Live Interval, in a range from 1 minute to 10 hours

10.2 Change Password

Use the **Change Password** field to manage your password for access to the Observer.

10.3 Keyword Alerts

Volicon Observer's powerful search algorithms allow you to offer nearly-instantaneous keyword alerts to your customers. You can configure Observer to monitor broadcasts for appearances of a customer's business name, product, or personnel, or any other keyword of interest. Keyword alerts allow your customers to track how they are being portrayed in the media, and provide you with the opportunity for enhanced revenue. This only works if CC/TT is enabled AND stored in a database. The keywords alerts are based on the CC/TT metadata captured.

To configure a keyword alert, click the **Add alert** button.

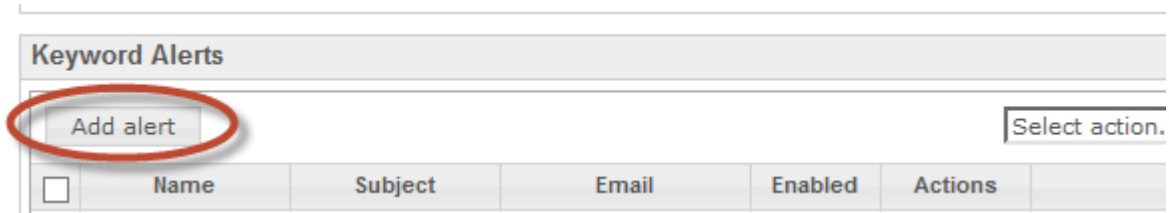
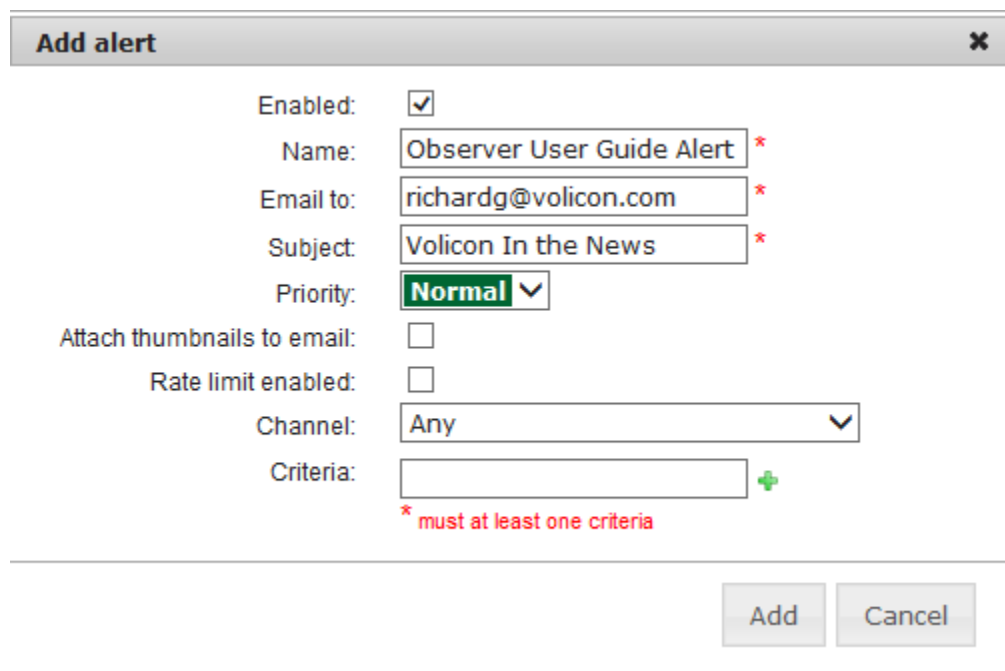


Figure: Add Alert Button

Observer opens the **Add alert** window. Enter a **Name** for the alert, an **Email** address to send the alert to, and the **Subject** line for the emails.



The "Add alert" dialog window contains the following fields and controls:

- Enabled:
- Name: *
- Email to: *
- Subject: *
- Priority: ▾
- Attach thumbnails to email:
- Rate limit enabled:
- Channel: ▾
- Criteria: +

* must at least one criteria

Buttons: Add, Cancel

Figure: Add Alert Window

Set the priority level for the emails in the **Priority** drop-down menu.

The screenshot shows the 'Add alert' dialog box with the following fields and values:

- Enabled:
- Name: Observer User Guide Alert *
- Email to: richardg@volicon.com *
- Subject: Volicon In the News *
- Priority: Normal (with a dropdown menu open showing options: Low, Normal, High)
- Attach thumbnails to email:
- Rate limit enabled:
- Channel: Any
- Criteria: (empty field with a plus icon)

* must at least one criteria

Buttons: Add, Cancel

Figure: Priority Drop-Down Menu

Observer can optionally capture thumbnails of the video Video Stream and include them in the email alert. To enable this option, click the **Attach thumbnails to email** checkbox, and use the drop-down menu to specify how many thumbnails to include in each alert. Observer will capture these thumbnails in five-second intervals.

The screenshot shows the 'Add alert' dialog box with the following fields and values:

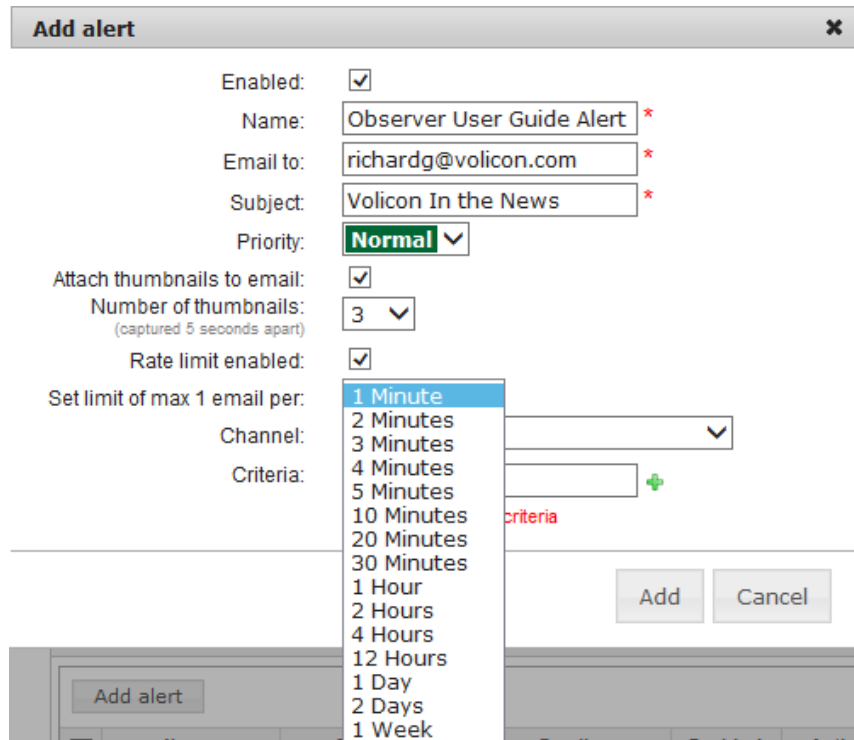
- Enabled:
- Name: Observer User Guide Alert *
- Email to: richardg@volicon.com *
- Subject: Volicon In the News *
- Priority: Normal
- Attach thumbnails to email:
- Number of thumbnails: 3 (with a dropdown menu open showing options: 1, 2, 3, 4, 5, 10, 15, 20)
- Rate limit enabled:
- Channel: Any
- Criteria: (empty field with a plus icon)

* must at least one criteria

Buttons: Add, Cancel

Figure: Attaching Thumbnails to the Alert

Optionally, you can set a limit on how often Observer sends this particular alert. To do so, check the **Rate limit enabled** checkbox, and use the drop-down menu to set a maximum limit of one email per given time period.



The screenshot shows the 'Add alert' dialog box with the following fields and settings:

- Enabled:
- Name: Observer User Guide Alert *
- Email to: richardg@volicon.com *
- Subject: Volicon In the News *
- Priority: Normal
- Attach thumbnails to email:
- Number of thumbnails: 3 (captured 5 seconds apart)
- Rate limit enabled:
- Set limit of max 1 email per: 1 Minute (selected)
- Channel: [dropdown]
- Criteria: [input field with a green plus icon]

Buttons: Add, Cancel

Figure: Setting a Rate Limit on Alerts

Choose the channels you want to monitor. You can specify a single channel, or you can specify all channels by choosing **Any**.

The screenshot shows the 'Add alert' dialog box with the following fields and values:

- Enabled:
- Name: Observer User Guide Alert *
- Email to: richardg@volicon.com *
- Subject: Volicon In the News *
- Priority: Normal
- Attach thumbnails to email:
- Number of thumbnails: 3 (captured 5 seconds apart)
- Rate limit enabled:
- Set limit of max 1 email per: 1 Minute
- Channel: Any (dropdown menu is open showing options: ABC 512k, ABC HD (QAM), Alerting Test (DVD), CBS 1M (640), CBS HD (QAM), Discovery HD2, EuroColo_A1, EuroColo_A2, EuroColo_H264A)
- Criteria: (empty)

Buttons: Cancel

Figure: Specifying a Channel to Monitor

Finally, specify the term or terms you are looking for. You can add criteria by clicking the green plus sign to the right of the **Criteria** field.

The screenshot shows the 'Add alert' dialog box with the following fields and values:

- Enabled:
- Name: Observer User Guide Alert *
- Email to: richardg@volicon.com *
- Subject: Volicon In the News *
- Priority: Normal
- Attach thumbnails to email:
- Number of thumbnails: 3 (captured 5 seconds apart)
- Rate limit enabled:
- Set limit of max 1 email per: 1 Minute
- Channel: Any
- Criteria: Volicon ✕
✕ +

* must at least one criteria

Buttons: Add, Cancel

Figure: Criteria Field

Click **Add**, and Observer adds the alert to your alerts spreadsheet.

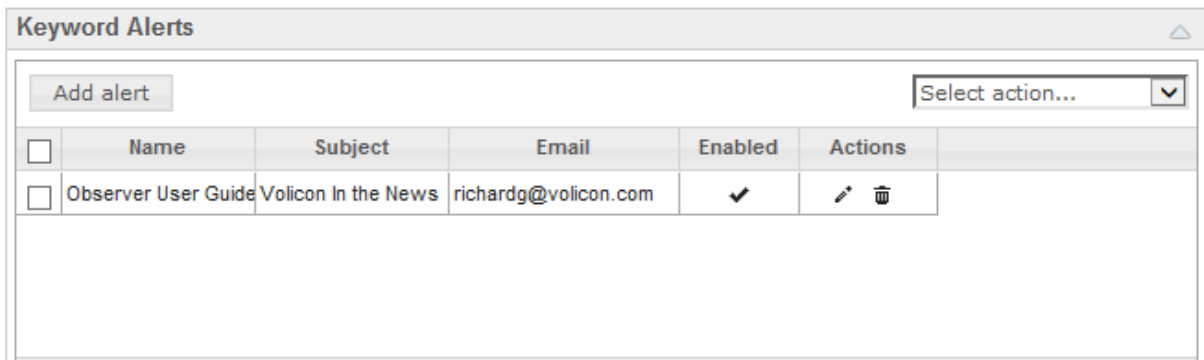


Figure: Alerts Spreadsheet

When you create an alert, it is enabled by default. To disable an alert, but retain it for future use, click its **checkbox** and open the **Select action** drop-down menu.

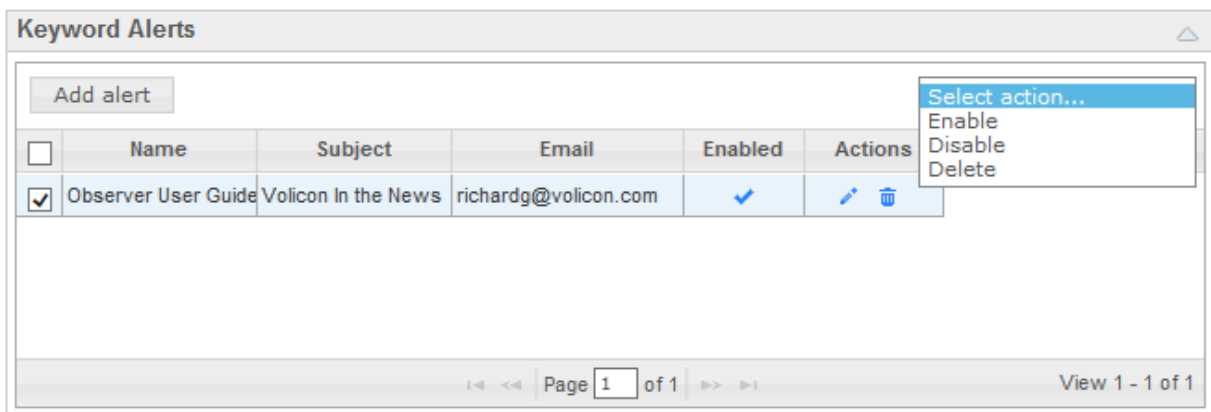


Figure: Select Action Menu

From here you can enable, disable, or delete the alert.

11 APPENDIX

11.1 Revision history

11.1.1 Observer releases

| Version | Build number | Date | Description |
|---------|--------------|----------|--|
| 7.0 QB1 | 7.0.35351 | 02/11/13 | New features: PLR, Mobile, Bug fixes |
| 7.0 QB2 | 7.0.36068 | 04/01/13 | City Time Zone |
| 7.0 QB3 | 7.0.36871 | 05/02/13 | FE Architecture, new PHP version, bug fixes, enhancements, IE10 in compatibility view (see the release notes for more details) |
| 7.1 | 7.1.39589 | | Ability to search for content by program |

11.1.2 Revision change history

| Date | Description |
|----------|---|
| 5/14/13 | 7.0 QB3 Initial release, revision history |
| 6/14/13 | Updated enhancements |
| 06/25/13 | Remove internal references... related section; add lineup display sync issues |
| 12/16/13 | Update User Guide to Release 7.1. Revamp User Guide to target end users. |

About Volicon

Volicon's Enterprise Media Intelligence Platform streams live and logged video, complemented by valuable metadata, to any device at any time. With this innovative solution, media companies can leverage video, audio, and data for critical applications in areas ranging from engineering to the executive suite.

Providing a window on content delivered via satellite, cable, or over-the-air signal, as well as Internet-based over-the-top (OTT) services, the Enterprise Media Intelligence Platform offers portals tailored to the many different departments at broadcasting facilities. Volicon's Enterprise Media Intelligence Platform provides functionality appropriate not only for engineering and operations, but also for production and promotions, new media, news, sales and traffic, media relations, and executive and legal departments.

The Enterprise Media Intelligence Platform supports applications including compliance logging, content archiving, content repurposing for new media outlets, competitive analysis, producer and talent evaluation, ad verification and media sales, and executive review of content. Streams may be viewed singly or side by side on desktop and laptop computers, tablets and smartphones, multiviewers, and television monitors (via multicast).

Volicon's patented Virtual Media Network (VMN), which supports both Observer systems and the Enterprise Media Intelligence Platform, comprises a multichannel video streaming engine, interactive search, content analytics, and service monitoring and alarm capabilities.