



# OBSERVER™

## MULTICHANNEL BROADCAST MONITORING

“Going Tapeless With Volicon's Observer Means More Than Just Getting Rid Of Tape”

Now available in HD



Observer is the award-winning, broadcast monitoring solution for off-air asset monitoring. Deployed in thousands of channels worldwide, Observer incorporates real-time, multi-channel monitoring, streaming, search, retrieval, publishing and archiving. Observer has become the broadcast industry solution of choice for monitoring, logging, and repurposing of off-air content.

The benefits of Observer are far-reaching and positively impact all facets of your broadcast enterprise. News management, executive management, sales, traffic, engineering and other functional areas can all utilize Observer to reduce cost, improve performance, decrease risk, increase competitiveness and generate revenue. Possibly most important, with Observer, your organization will be fully compliant with FCC program archiving regulations.

- View and log multiple video/audio broadcasts
- Monitor transmissions of multiple stations
- Compare your programming to the competition
- Search Closed Caption text in realtime for specific subjects and provide email alerts
- Perform quality assurance on captured media assets
- Analyze and correlate viewer approval ratings information with programming
- Manage your assets with powerful organization, search and retrieval functions
- Import EPG data, as-run log, and custom metadata for workflow integration
- Export and distribute video clips for review and approval, or repurpose assets for outside use
- Respond instantly to viewers, regulatory agencies, and advertisers
- Monitor SD and HD Broadcasts

## MONITOR

Viewing is simple: pick channels to watch from a friendly list of names, have the option of both windowed and full/splitscreen playback modes. With virtually zero wait from click to actual playback, go from half-speed to 10x in either direction – instantly. Responsive, VCR-like controls allow users to feel at home and focus on the task at hand instead of searching for the video they want. Change dates and times for different channels, while still retaining the ability to play them together. Configurable alarms monitor video quality and provide early detection of audio and video issues, allowing quick resolution while minimizing downtime.

## MANAGE

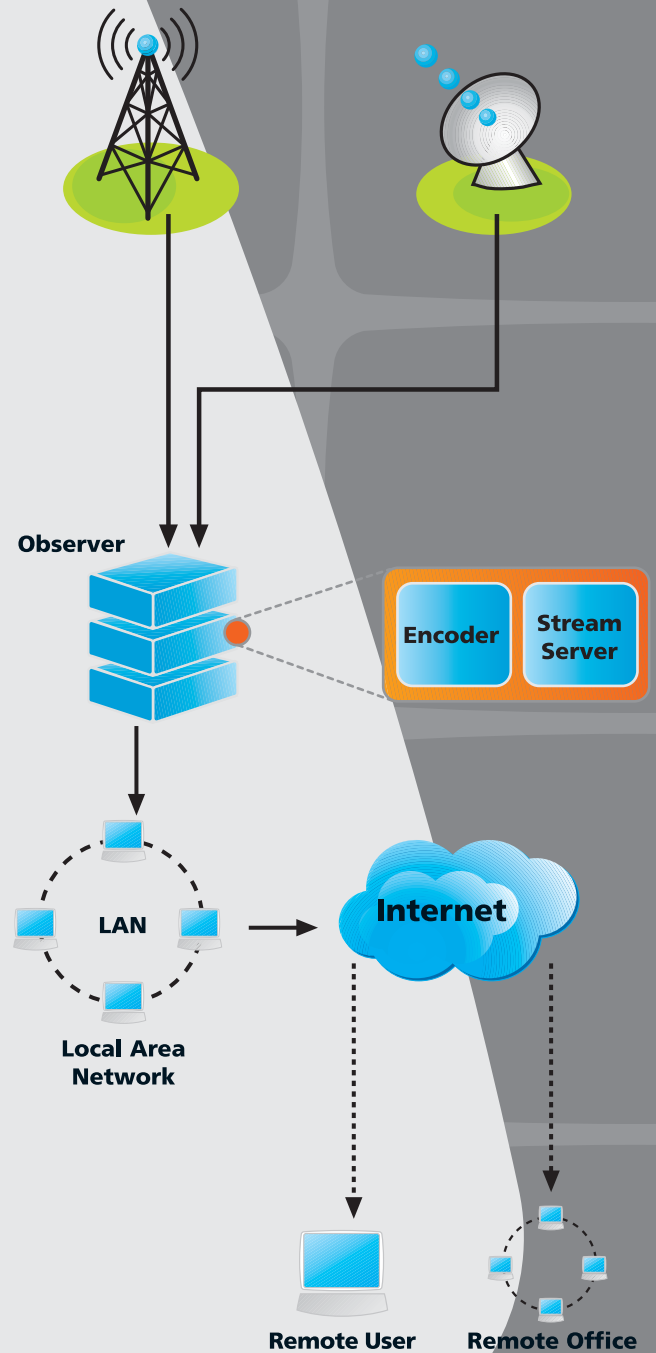
Observer puts the footage you need at your fingertips, converting search time into productive time. Side-by-side comparison of assets or competitor offerings is facilitated by one unified interface. Research groups enjoy viewer approval ratings displayed in synchronization with video, from the same screen, providing insights into your competition and market. Active monitoring of Closed Captions provides notifications of specific subject mentions by email, including transcript and thumbnail "storyboards". Users may also query the Closed Caption database like a search engine, converting video assets into minable, textual databases. Searchable program guides allow you to organize and find video based on standard criteria (footage name, channel, and time). An extensible, XML-based data import system integrates standard EPG (Electronic Program Guide), as-run log, and custom company data to augment the standard program guide, integrating Observer into your workflow while eliminating manual data entry.

## MOVE/MONETIZE

Observer facilitates video distribution throughout your organization without utilizing precious broadcast infrastructure or saturating network resources. Shareable clip lists allow users to collaborate and view specific video without using additional storage. Assets are easily exported and repurposed: both footage and textual data can be saved to files for outside use. Provide clips for review, analysis, and approval. The demands of internal and external clients such as advertisers, viewers, and government agencies are easily met: verify broadcast of advertising spots, instantly respond to FCC compliance requests, and export to other media systems for post-production, asset-management, transcoding, and content delivery networks. Observer provides convenient pathways for dissemination of captured assets to other distribution channels and for revenue generation.

# OBSERVER™

## System Architecture



# OBSERVER™ Product Use Case Studies

## Media Monitoring

Quickly search and retrieve content from numerous sources using Observer's advanced closed caption indexing capabilities. Set keyword alerts and receive proactive notifications when specific words appear in monitored content. Perform advanced queries to find content according to caption text. Utilize Observer's scheduled recording capability to automatically capture only the content you need.

**The City of Dallas** uses Observer in its Office of Cultural Affairs and has replaced an old, labor intensive tape-based workflow. "It used to take our public information officers half their days to search, edit, and deliver important news stories to the City Manager," explains Bennie Wilcox, Cable TV Systems Manager for the City of Dallas. "Now the whole process takes about an hour. Each day the Observer eliminates four to six hours of searching videotape." The Observer's user-friendly interface and powerful feature set has been embraced by a whole new group of users within the City of Dallas. Wilcox adds that "the uncomplicated Volicon system makes it so easy to capture and organize video content that even our interns are experts!"

## Eliminate Tape

Whether you are logging for regulatory compliance, internal governance or other applications, Observer reliably stores content and makes it available to any authorized user on your network or via the Internet. Reclaim space consumed by tape archives and access captured content quickly without lengthy searches. Respond quickly to proof of performance requests from both internal and external clients.

**WTOG-TV** in Tampa, FL uses Observer to simplify its archiving. "Use of the Volicon Observer has allowed our station to automate our on-air logging operation," says Bob Sink, Assistant Chief Engineer at WTOG TV. "An entire wall of recorded tape logs has been replaced by a user-friendly tool that is immediately available to all station departments. The system has been online for almost a year without any downtime or maintenance issues. I had been looking for a server-based system that would free my master control operators from the daily chore of changing three eight-hour logger tapes for both our NTSC and digital stations. The Observer made it all possible."

## Validate Signal Integrity

Proactively respond to signal discrepancies, such as loss of video, loss of audio, black/static screen, loss of closed captions and compression artifacts sometimes also referred to as macroblocking (requires a separately purchased QoE module). Monitor the quality of incoming and outgoing content with automated alerts via e-mail and SNMP. Better understand and easily diagnose signal discrepancies by viewing each problem in context – before, during and after every event. Verify that downstream carriers of your content are delivering your signal intact.

**Discovery Networks Latin America** uses Observer to perform quality assurance and signal monitoring for 32 channels of content broadcast in English, Spanish, and Portuguese. "In addition to replacing our traditional analog tape based system, the Observer system offers us powerful new capabilities helping to streamline our network operations and ensure signal quality," says Lisa Hyams, Senior Vice President of Operations with DNLA. "Now we have the ability to instantly retrieve and e-mail requested video clips as proof of advertising to our clients, as well as remotely monitor our broadcasts live over the Internet. Features such as multiple signal monitoring capability, bilingual audio program recording (in English/Spanish or English/Portuguese), and an e-mail alert system that indicates signal disruption are tremendous benefits for DNLA.

## Capture Locally, Monitor Globally

View, organize, and repurpose live and archived content from any Observer system in your network, regardless of its location. Observer captures content from any source. Outlying stations and transmitters can be monitored from a several location such as a NOC, hub or even from an engineer's roaming laptop.

**Raycom** station group monitors 30 geographically dispersed stations with the centralized monitoring configuration to evaluate broadcast elements ranging from on-air talent to corporate image and use of graphics. "Observer gives us powerful new tools for improving our business at both the group and station level," said Dave Folsom, vice president of technology and CTO at Raycom. "We use the Central Observer Monitoring system to provide station group executives and consultants with immediate and comprehensive access to all of Raycom's broadcast stations. The Observer solution has been a perfect fit for us, both in function and budget."

# OBSERVER™ Product Use Case Studies

## Verify Aired Advertising

With support for many popular automation systems, Observer makes it easy to find and export aired ads with optional timecode and logo overlay. Observer can automatically import as-run logs on a daily basis, providing users with a searchable, sortable list of content. Utilize Observer's caption indexing tool to prove product mentions and sponsorships that are not broadcast as independent media segments. Reduce the proof-of-advertising process to a brief series of mouseclicks.

**FOX Speed Channel** uses Observer to solve a unique ad verification challenge. Due to the nature of its programming, sponsored elements and product mentions are preferred over traditional ads. FOX Speed Channel's old proof of performance workflow required staff to manually scan through taped broadcasts, listening for sponsored elements. After installing Observer, staff members were able to quickly identify sponsored elements using the closed caption search tool and then export the mentions as standard, universally playable video clips, which are sent via e-mail to advertisers. "The Volicon Observer allows us to access sponsored program elements quickly, convert them into video clips, and transport them digitally to anywhere in the world," says Kevin Annison, Vice President of Business Development and Operations for FOX Speed Channel. "Overall, it's an extremely useful tool for helping us maintain the high level of quality and performance we require at FOX Speed channel."

## Compliance Monitoring

Observer's carrier-class reliability and redundant storage systems ensure that every second broadcasted is captured, time stamped, and securely maintained. Easy search, retrieval and publishing of media enables pain-free compliance with regulatory agencies. Lost or damaged videotape no longer means unnecessary exposure to legal or financial risk.

**KAB** a station serving Japan's Kumamoto region, selected Observer to help it deal with Japan's legal retention requirements. "The passage of new Japanese laws governing broadcasting required that we upgrade the monitoring capabilities so that we could record and save all of our on-air broadcast content for three months," explains Akihiro Shiraishi, Technical Officer in charge of transmission at KAB. "We selected the Volicon Observer system over competing systems largely because it's a very cost effective solution. Unlike competing systems, the Observer provides simple functionality in an affordable and easy-to manage system. We spend much less time and effort on our monitoring operations. The advantage we gained was well worth the investment."

## Understand the Competition

By supporting a wide range of add-on data such as viewer approval ratings, as-run logs, closed-caption text, and media "fingerprint analysis", Observer helps you gain insight into your competitor's content. Leverage the multichannel display with synchronized viewer approval ratings to better understand the popularity of your content. Import as-run log and electronic program guide (EPG) information to easily access monitored content. Identify airings of specific ads on competitor's stations using Volicon's audio and video matching engine.

**CBS News** in New York City uses Observer to monitor the broadcasts of its local and national news competitors. "The Observer enables CBS News to look at what our competitors are doing at any given moment, a major benefit for us," says Frank Governale, Vice President of Operations at CBS News. "As events go on the air, we can actually see who broke the story first, right down to the second. We needed a system that would allow us to quickly search on-air events for content and also provide for multiple-user access within the station. The Observer meets all of these needs."

## Repurpose Content With Ease

Leverage Observer's digital video archive to ease the transition of content to the web and other outlets. Quickly extract broadcast content for direct sale to local government, institutions, corporations, and private individuals. Transcode and provide content for the growing mobile market without wasting personnel and resources on digitizing requested content from tape.

**FOX News Channel** adopted Volicon Observer for logging and monitoring purposes, however, the FOXNews.com staff quickly discovered many additional benefits of Observer. Instead of requesting content from the broadcast group, FOXNews.com can now quickly search, retrieve, clip and publish media directly from Observer at the lowest possible cost. Using Observer, the company has tripled the number of clips they create and post on FOXNews.com on a daily basis.

# OBSERVER™ Modules

## Content Matching

Identify when specific content is aired. 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.

## Scheduled Recording

Enhance the monitoring capabilities of Observer. By controlling a tuning device such as a Set Top Box, Observer can be set to monitor only relevant media sources according to a fully customizable schedule.

## Ratings Import

Understand the popularity of aired content. 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.

## Quality of Experience

Detect the presence of macroblocking degradation in the logged broadcast. Monitor retransmission by 3rd parties and verify that the signal arrived intact and pristine to viewers' televisions.

## Quality Control

Analyze logged content continuously for a variety of signal faults. Includes detection of video loss, black screen, static screen, audio loss, and missing captions. With flexible, individually-settable alert thresholds, notifications are delivered via e-mail or SNMP traps.

## Content Verification

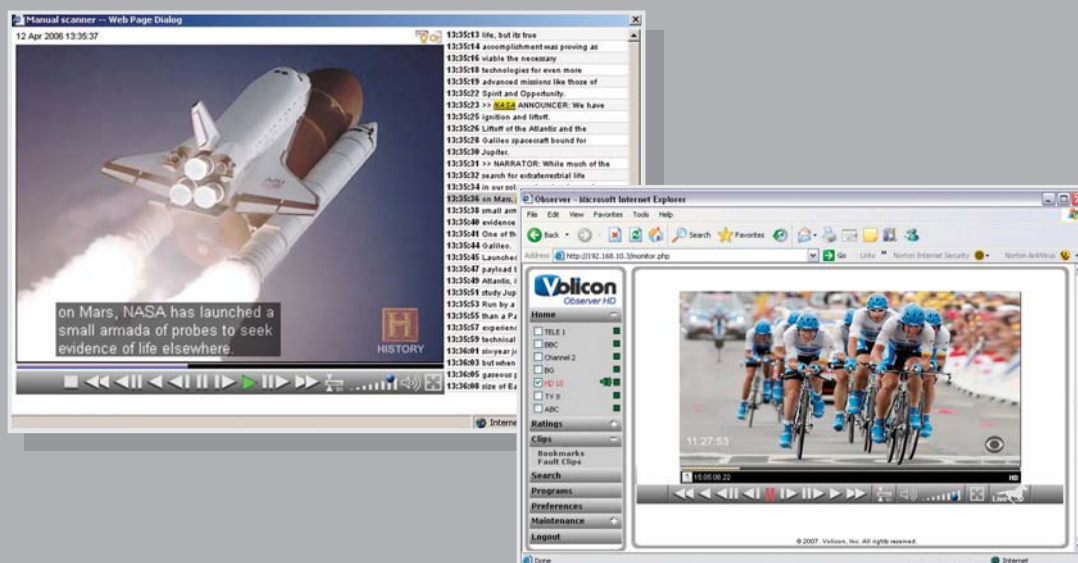
Integrate with an existing automation system. Users can look up logged content according to program name, media ID, or other data from the as-run log. Automatic importation of common as-run logs or EPG data formats simplifies finding content for ad verification and compliance purposes.

## Search Engine

Find content according to key words and phrases spoken in the broadcast. Observer supports extraction and indexing of the textual content accompanying many broadcasts in Closed Caption and Teletext formats. Keep key personnel up-to-date by setting e-mail alerts for key words and phrases in the broadcast.

## Content Export

Repurpose content from Observer, on demand or by a schedule. Back up logged content to network disk or recordable data DVD and gain a simple, effective, and reliable archiving solution. Export content in batch for use outside Observer, including ad verification, corporate website, and legal compliance.



# Observer Technical Specifications

Feature		Edge		Enterprise			
Model		1CH	2CH	1CH	2CH	4CH	8CH
Video Inputs <sup>1</sup>		1 / 2		1	2	4	8
Chassis Type	Analog	Short 1U		1U/3U	1U/3U	1U/3U	3RU
	SDI	-		1U/3U	3U	3U	-
	HD	-		1U/3U	3U	-	-
Redundant Power		-		✓	✓	✓	✓
IPMI Watchdog		-		✓	✓	✓	✓
Redundant Storage		-		RAID-5 + Hot Spare	RAID-5 + Hot Spare	RAID-5 + Hot Spare	RAID-5 + Hot Spare
Standard Storage <sup>2</sup> (Days)	Analog	30		60	30	30	30
	SDI	-		60	30	30	-
	HD	-		60	30	-	-
Maximum Storage <sup>3</sup>		-		1 Year	1 Year	180 Days	90 Days
Quality Control Module		Option		Option	Option	Option	Option
Content Verification Module		Option		Option	Option	Option	Option
Content Export Module		Option		Option	Option	Option	Option
Search Engine Module		Option		Option	Option	Option	Option
Quality of Experience Module		Option		Option	Option	Option	-
Content Matching Module		-		Option	Option	Option	Option
Scheduled Recording Module		-		Option	Option	Option	Option
Ratings Import Module		-		Option	Option	Option	Option
Central Server		Option		Option	Option	Option	Option
Simultaneous Users <sup>4</sup>		Unlimited		Unlimited	Unlimited	Unlimited	Unlimited
Network Ports		Single Gig-E		Dual Gig-E	Dual Gig-E	Dual Gig-E	Dual Gig-E

**Notes:** 1: Analog inputs include 2-channel (stereo) audio. SDI/HD-SDI inputs support up to 8 channels of embedded audio.

2: Specified storage assumes VHS-like quality settings (512kbit/s SD, 1.0Mbit/s HD)

3: External storage is available to double capacity

4: Units are shipped standard with 5 users, contact your local sales rep for additional users

- Audio expansion available for certain configurations contact your local sales rep for details
- PC client requirements, Windows XP, Internet Explorer 7, Windows Media Player 11

## Chassis Physical Specifications

		Edge (Short 1U)	Enterprise (1U)	Enterprise (3U)	Central Server (1U)
Dimensions	Height	1.7" (43mm)	1.7" (43mm)	5.2" (132mm)	1.7" (43mm)
	Weight	16.8" (426mm)	17.2" (437mm)	17.7" (450mm)	17.2" (437mm)
	Depth	14" (356mm)	27" (686mm)	25.5" (648mm)	27" (686mm)
Chassis Weight		20lbs (9kg)	55lbs (25kg)	85lbs (38.5kg)	55lbs (25kg)
Power Supplies		1	2	3	2
Power Requirements		260W	700W	760W	700W
AC Voltage		100-240VAC	100-240VAC	100-240VAC	100-240VAC
		50-60Hz	50-60Hz	50-60Hz	50-60Hz
		4A Max	10A / 4A	14A / 7A	10A / 4A



Volicon, Inc. 111 South Bedford St. Burlington, MA 01803

Tel: +1 781 221 7400 Fax: +1 781 221 7407

Web: www.volicon.com

E-mail: info@volicon.com

Specifications subject to change without notice.

Copyright ©2008 Volicon, Inc. Volicon Observer is a trademark of Volicon, Inc. All other trademarks are property of their respective owners.