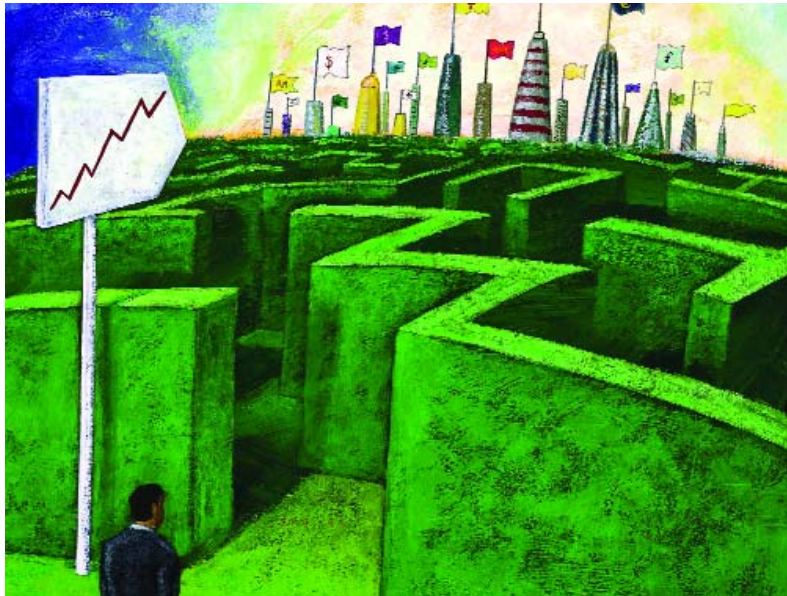


## Meredith Broadcasting Case Study - MassLogger™



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### Overview

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#### *The Challenge*

- *Replace VHS video logging system with a more reliable, higher quality, and cost-effective digital system.*
- *Provide a means for executives in different parts of the country to view a low resolution feed from each station.*

#### *The Solution*

- *Masstech Group MassLogger automated digital confidence recording system, one unit for each station, connected to Meredith Broadcasting's corporate WAN.*

#### *The Benefits*

- *Greater reliability and higher quality video logging compared to the old VHS system, and at a very affordable price.*
- *More storage in a much smaller physical space-a year's worth in 2RU instead of shelves full of VHS tapes, and much lower maintenance costs.*
- *Full-motion and full-color low bit-rate recording, a big step up from time-lapsed VHS recordings.*

Meredith Corporation is one of the leading media and marketing companies in the U.S. with businesses centered on magazine and book publishing, television broadcasting, integrated marketing and interactive media.

Headquartered in Des Moines, Iowa, with major offices in New York City, Chicago, Detroit, San Francisco, and Los Angeles, the company employs more than 2,800 people.

Founded in 1902 by Edwin Thomas Meredith when he began publishing Successful Farming magazine, the company has grown to include such renowned titles as Better Homes and Gardens (started in 1922 as Fruit, Garden and Home), Ladies' Home Journal, American Baby, Country Home, Traditional Home, and WOOD.

In 1948, Meredith entered the television broadcasting business and today owns 13 television stations and one radio station. Combined, the broadcasting group reaches nearly 9 percent of all U.S. television households, with seven of the stations in the top 35 markets. The group currently includes six CBS affiliates, four FOX affiliates, one NBC affiliate, one WB affiliate and one UPN affiliate.



*"There's no real comparison between MassLogger and the VHS system. It's like night and day."*

**Ed Williams**  
Director of Engineering,  
KPTV/KPDX, Portland, OR

- Simple Web browser user interface for real-time and logged archive viewing plus search and retrieval tools. No more time-consuming fast-forwarding through tapes to find the right clip.
- Stored files readily viewable on commonly available Windows Media 9 platform.
- Web browser application configured to access traffic logs and as-run files to enhance already extensive search capabilities.
- For the first time, executives can search, quickly retrieve and view logged archive material for each station, from the convenience of their office computers.
- Instead of one feed with their older makeshift system, now up to four live feeds can be viewed at one time, helping executives keep tabs on each station. And no more need for specialized and dedicated computers.
- Clips (time-stamped or not) can easily be e-mailed, copied to CD-ROM or DVD, or printed to tape for distribution.
- Lower make good costs by proving to advertisers commercials ran as scheduled.

## Video Logging-Existing Tape-based System No Longer Meets Needs

Each of the Meredith Broadcast Group TV stations creates video logs of everything that is aired during the entire broadcast day. Logs provide a means for advertising verification, meeting government requirements and maintaining an historical archive.

Before the group purchased the Masstech Group MassLogger automated digital confidence recording system, the stations used half-inch security-type time-lapse VHS machines.

These machines had some distinct disadvantages. They were unreliable and required manual intervention. To record a whole day's worth of programming on a single six-hour tape, they recorded at only 10 frames per second resulting in images that were jumpy and of poor quality. Storing six months to a year's worth of these tapes took up valuable space, and finding and retrieving the right tape and the right segment on a tape was a time consuming task. Playing back these tapes required yet another specialty security VCR, as the video would appear to run in fast action on a regular VHS machine. And when clients were shown or received copies of their as-run commercials dubbed from the logged tapes, they were less than satisfied with the quality.

At the same time, group executives, who are located all around the country, wanted a way to "look over the shoulder" of each station, to see how they were performing, and to critique news, ad placements, and overall appearance. To accomplish this task, the group's

engineers rigged up a system using video conferencing software, the company's WAN, as well as dedicated computers for each executive (often three or more per station or executive office). This allowed the executives to watch the feed from each station, but one at a time and in real-time only. There was no way to access the archived video logs on their computers.

Clearly a better solution was called for, and Joe Snelson, VP and Director of Engineering, for Meredith Broadcast Group, found it in MassLogger.

## Enter MassLogger with a Wealth of Features

MassLogger is a 2 RU box that provides 24/7 digital recording and storage of broadcast content, and makes it accessible via a standard Web browser.

MassLogger runs on a high-performance and highly reliable platform to provide the necessary system robustness. It generates low bit-rate content in real time from up to four incoming audio/video streams. As content is captured, MassLogger can burn-in station identifications as well as timecode/date information for visual identification. Files are formatted so they can be readily viewed on Windows Media 9.

In the Meredith implementation, MassLogger stores content on its internal hard drives and is connected to the company's WAN to make these files available to designated users. In addition to capturing and storing incoming audio/video content, MassLogger provides a live, low bit-rate stream of the incoming content. As content is captured, it is immediately available for viewing with a Web browser.

*"MassLogger is a big jump over tapes. It's so much quicker, and you can search the archives and not be limited to viewing in real time."*

**Jack Smith,**  
Director of Engineering KVVU-TV,  
Las Vegas, NV

A huge advantage of the MassLogger is that there is no client software to deploy. Users simply "point" their web browsers to the MassLogger server, and then within the browser, MassLogger presents the complete user interface.

MassLogger's real strength and value to Meredith Broadcasting is that provides users the ability to easily search and quickly retrieve the archived logged material. MassLogger can also import automation or traffic as-run logs. In the Meredith implementation, MassLogger is configured to access traffic and as-run logs from the Wide Orbit traffic system, used by all the Meredith stations, from a designated location on the network.

This gives Meredith executives a great deal of flexibility in performing quick and intelligent searches, such as by a particular commercial selected from the as-run log, or by a particular channel, date or time using the calendar user interface. There's no longer any time-consuming fast-forwarding of the old VHS tapes to find the segments of interest.

And MassLogger even allows the clips to be sent to someone else via e-mail or copied to CD-ROM or DVD, where they can be viewed on Windows Media 9, or printed to videotape.

For real-time viewing, the executives can now view up to four selected channels at once, depending on their computer's capabilities and configuration.

And the best part is they can perform all of this—the searching, retrieval, viewing, clip extraction—on their regular office computers. No longer do they need specialized dedicated computers for these tasks.

### MassLogger Installed at Meredith Broadcasting—Two Examples

Good examples of how MassLogger is implemented at Meredith Broadcasting are found in stations from two of the cities that Meredith serves—in Las Vegas, KVVU-TV (Fox), and the duopoly (the only one in the group) in Portland, Oregon, KPTV-TV (Fox) and KPDX-TV (UPN).

Each station logs its NTSC channel and associated stereo audio. Since MassLogger is outfitted with two sets of inputs, the Portland stations currently use one MassLogger for both stations, although Ed Williams, Director of Engineering, KPTV/KPDX said he's considering purchasing one more so each station can have its own box.

In Portland, MassLogger is fed from the off-air demods which provide a good representation of the signal actually being aired. KVVU-TV takes its off-air feed from a tuner in a VHS machine.

MassLogger is equipped with the largest amount of storage currently available—four 310 Gbyte drives. The stations configured MassLogger for a bit-rate of 144 kbit/s, which provides decent quality picture and at the same time keeping the bandwidth at a reasonable level to not clog the computer network. This combination of bit-rate and hard disk space affords KVVU-TV with its single channel about 385 days of storage. Since the Portland stations currently share one box, they each have about six months of storage.

The files themselves are set to be 20 minutes long, but even with file segmentation, there is no gap in playout.

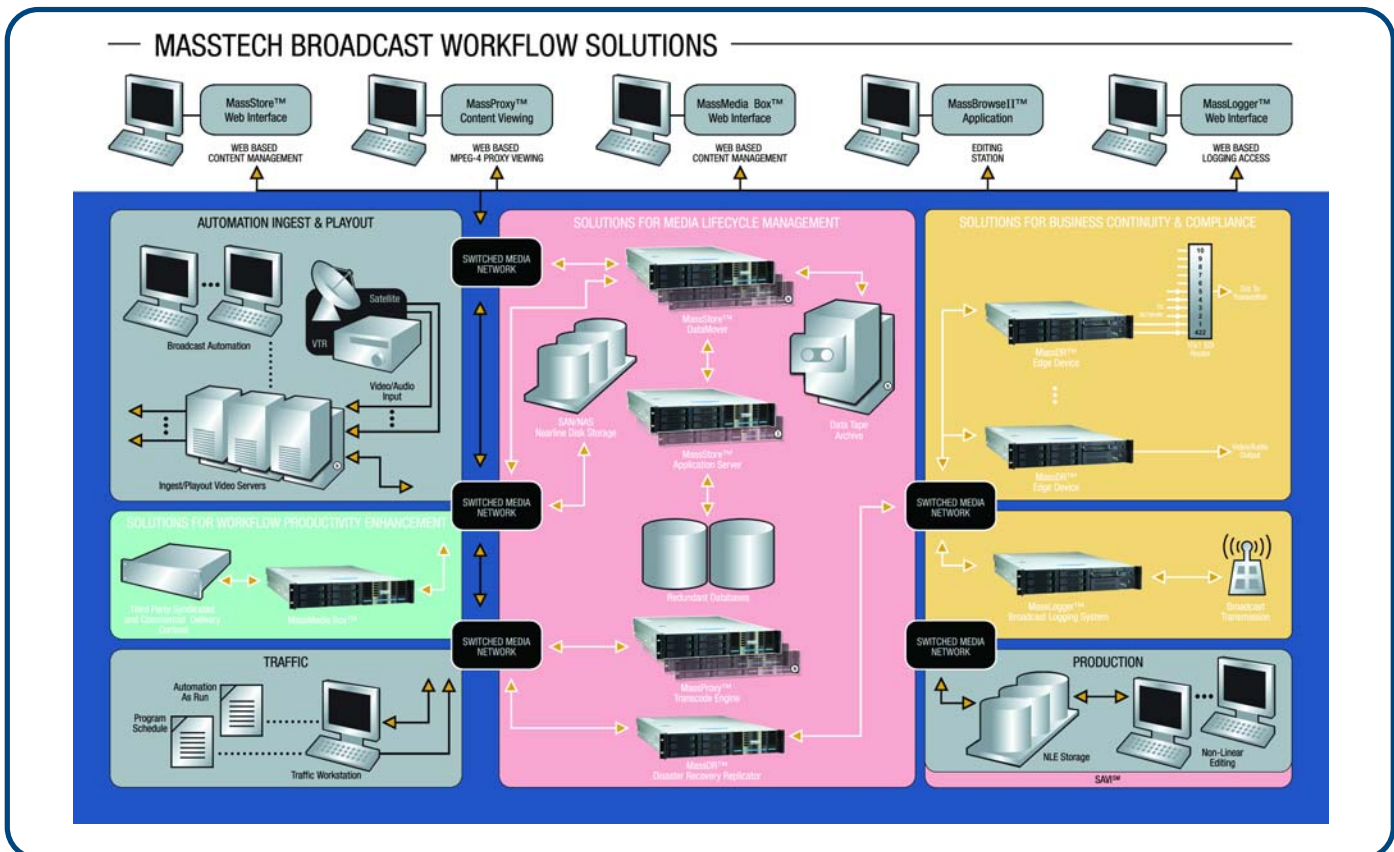
MassLogger is installed behind a firewall on the company's WAN, and each unit is assigned its own IP address. Most stations in the group have a full T1 line to company headquarters in Des Moines. Anyone on the network with the MassLogger Web application and a knowledge of the boxes' IP addresses can log into any station's MassLogger for real-time or archive viewing. But to prevent bottlenecks caused by high network traffic, the IP addresses are only

*"The quality is not bad for low bit-rate. The files are full color and full motion; you can read all the text and see all the action. It's a huge improvement over VHS, and you can sit in the office on a computer to view the clips."*

Ed Williams,  
Director of Engineering, KPTV/KPDX,  
Portland, OR

given out to designated executives, and rules were established for use.

Ed Williams from Portland and Jack Smith, Director of Engineering at KVVU-TV reported that MassLogger was easy to install and configure. Initially they discovered some issues with maintaining accu-



rate timing, but that was easily resolved by downloading and installing on MassLogger the NISTime public domain software from the U.S. National Institute of Standards and Technology (NIST). This program, which runs in the background on MassLogger, queries the NIST time server at regular intervals to synchronize the internal clock of the unit. KVVU-TV resets their clock every 12 hours, which creates accurate timing to within a quarter of a second.

As good as MassLogger is, KVVU-TV is taking the concept to the next level. Each year they plan to copy the MassLogger files from the unit itself to an inexpensive external 300 Gbyte drive via a USB adapter, to create a long-term archive. When that's done, the old files on MassLogger can be deleted, leaving room for the next batch of logging.

An external hard drive takes up much less space than a full year of VHS tapes, and a user can easily connect these archive drives to a local computer and browse the previous years' files, with all of the MassLogger Web browser's full capability. At this point, the station expects to archive three years worth of logged files.

The Portland stations have their MassLogger configured to continuously record, automatically recording over the oldest material when the box fills up.

## Benefits

With MassLogger, the stations in the Meredith Broadcast Group were able to totally replace their VHS tape-based loggers and achieve more reliable and cost-effective video logging with higher quality. The 2RU box takes up much less shelf space than six months' or a year's worth of stored VHS tapes.

Even though the files are low bit-rate, the images are full-motion and full-color with a quality that is a vast improvement over those

provided by the time-lapsed VHS system. Quality is so good that text within the images can easily be read.

At the same time, MassLogger provides station executives with features and functions they never dreamed they could have. They use MassLogger browsing every day, for both live and archived feeds. From their office computers, they keep tabs on each station, and they are thrilled that they are no longer limited to viewing real-time feeds, as they were with their old system.

With MassLogger, news executives easily compare news broadcasts from station to station, and use the information to improve the quality of the newscasts.

Ad sales executives love MassLogger to keep tabs on commercials, verifying that the right commercial aired at the correct time, and that no technical glitches occurred.

MassLogger and its time-stamped feature has saved many make goods by proving to the advertisers that their commercials did indeed run as scheduled.

Engineering executives use MassLogger to locate and troubleshoot technical problems and train staff.

The MassLogger clip extraction feature is a hit with Meredith. With constant requests for dubs, especially from advertisers, MassLogger saves time and money by providing an easy, quick, and economical way of providing this service. The recipients of these dubs appreciate the convenience of being able to view these higher quality clips from their own computers.

And for the company accountants, MassLogger provides all these features and benefits at a reasonable price. Not only did it make technical sense, but economic sense for the group to sign on to MassLogger.



## Meredith Broadcast Group Stations

- WGCL-TV (CBS) Atlanta, GA
- KPHO-TV (CBS) Phoenix, AZ
- KPDX-TV (UPN) Portland, OR
- KPTV-TV (FOX) Portland, OR
- WFSB-TV (CBS) Hartford-New Haven, CT
- WSMV-TV (NBC) Nashville, TN
- KCTV (CBS) Kansas City, MO
- KSMO (WB) Kansas City, MO (Joint Sales Agreement)
- WHNS-TV (FOX) Greenville, SC
- KVVU-TV (FOX) Las Vegas, NV
- WNEM-TV (CBS) Flint-Saginaw, MI
- WNEM-AM Flint-Saginaw, MI
- WFLI-TV (WB) Chattanooga, TN
- WSHM-TV (CBS) Springfield, MA
- KFXO-LP (FOX) Bend, OR

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