Sensor

News from Pixelmetrix

DVStation

Issue 9

November 2002

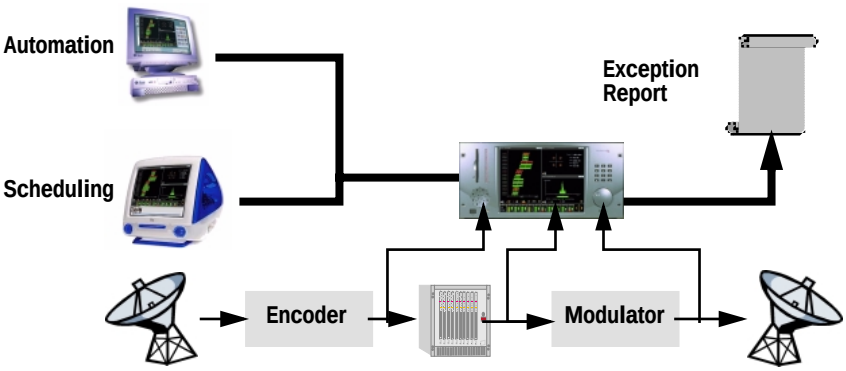
In This Issue

Broadcast Validation

Previous editions of *Sensor* have reported on how DVStation's Automatic On-Air Content Validation feature dynamically monitors the structure and content of the transmission and reports on any discrepancies between your established baseline and the actual broadcast.

Whether you are concerned with loss of a particular service, loss of subtitles, or even an incorrect language code, the OCV feature will alert you of broadcast problems when they happen. The baseline structure can be set once using a convenient *snapshot* function, or saved within a *Profile* and controlled from the built-in DVStation Scheduler.

Aside from built-in control, DVStation's extensive CORBA based API's enable easy integration with other control and automation systems. In that scenario, schedule information for a day or week can be passed to the DVStation from a scheduling system, say, as an XML file. Links to an automation system provide immediate notification of program transitions. With this information, creating integrated exception reports is a short step away.



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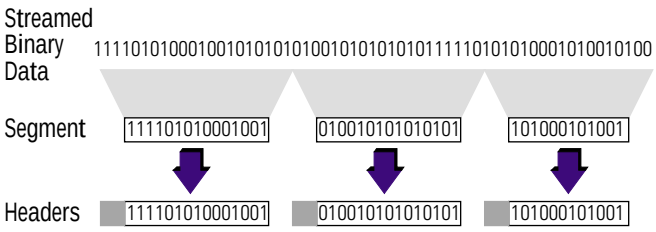
New App Note: Packet Interval

Now available is new Application Note examining the impacts of using packet based networks (like MPEG) on the quality of television broadcasts. These packet networks first digitize and compressed content, and then divide it into either fixed- or variable length packets.



Even thought the MPEG-2 standard utilizes the PCR (*Program Clock Reference)* to ensure video frames can be decoded and delivered to the viewer with a consistent rate of display, PCR, however, is not sufficient to guarantee a reliable and error-free delivery of services to the receiver.

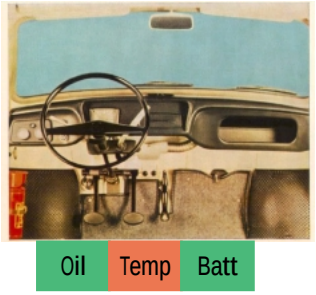
There we explain how a heavily loaded transport stream with 97% occupancy mysteriously suffered from periodic instances of poor picture quality. The cause of the problem was uncovered utilizing a novel technique of evaluating real time *packet interval measurement*. This allows the measurement of how frequently a specific packet arrives.

This specific case study discovered that the periodic picture quality impairments were related to misbehaving traffic patterns which in turn caused short moments of bandwidth starvation in the multiplexer.

To learn more how DVStation's unique alarm and transport capture capability helped track down this real life problem – request a copy of Application Note 106 on Packet Interval Measurements from us today! Simply send an email to **info@pixelmetrix.com** and we'll send it right out.

Pixelmetrix at SMPTE '02

"Progress & Pragmatism" was the theme of the 144th Annual SMPTE Conference held October 23-26 at the Pasadena Convention in California. At the conference, Pixelmetrix CEO Danny Wilson presented *Cooperative Monitoring – Reducing Threats to your Content Integrity*. While MPEG-2 transmission is creating increasingly complex systems, presenting that complex information through *appropriate telemetry* is key to optimizing fault-free operations.
Request your copy today from **info@pixelmetrix.com**.



Simple System, Simple Telemetry

Complex System, Complex Telemetry?

Not Necessarily!

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Pixelmetrix at SATIS '02

At the SATIS '02 show in Paris, held Oct 22-24, Pixelmetrix joined Miranda in featuring advanced monitoring solutions for tomorrow's network. Joining the comprehensive telemetry from DVStation with Miranda's advanced *Kaleido* visualization system.

Part of the *Glass Cockpit* strategy, the system integrates visual inspection of broadcast video with technical analysis and alarm reporting of RF, MPEG Transport Stream, and Picture Quality parameters.

Integrating seamlessly into the Miranda *Glass Cockpit* paradigm, the system makes it easy for operators managing hundreds of programs to quickly identify and rectify problems before they jeopardize overall service quality or customer satisfaction.

The system combines technical analysis of transmission parameters (modulation, transport stream, and picture quality) with visual monitoring of video signals in a user-configurable grouping onto a variety of display devices.

Errors identified by the DVStation are flagged in real-time beside the affected program on the integrated monitor display as a red alarm. Simply clicking on the alarm button brings detailed information about the alarm — allowing action to be quickly taken.

Live Video Display

Available in our latest software update is the new **Live Video Display** feature.

The new feature – available to all new and current DVStation users – decodes a user-selectable program within a transport stream and shows full motion video within the DVStation GUI.

Furthermore, the selected program name & number are also stored within the DVStation *profile* mechanism. That means making a rotating round-robin display of video programs on different PID's is as easy as loading specific profiles into the scheduler and setting the times to display!

The feature is supported on both the 21-port DVStation and the DVStation-Remote on its local display. Video display is possible with any DVStation family module containing embedded transport stream functionality – namely TSP, QPSK, COFDM, and ATM.

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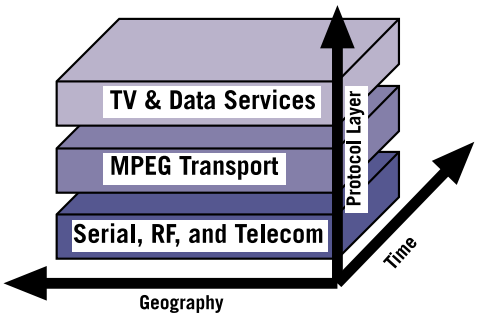
Pixelmetrix Around the World

Catch Pixelmetrix speaking and exhibiting in some of these upcoming events:

- Nov 6-8 Asia-Pacific Satellite Communication & Broadcasting Conference, Seoul, S. Korea
- Nov 11 SMPTE, Presentation to the Atlanta Chapter, 6:30 pm
- Nov 20-22 InterBEE '02, Tokyo Japan — Booth 8306

About DVStation

Pixelmetrix has focused on creating a single self-contained monitoring station that can analyze thousands of parameters within hundreds of digital television signals. Through the use of plug-in modules and parallel processing, we monitor all these parameters in real time, simultaneously and continuously. Whether monitoring for compliance of an RF carrier, MPEG transport stream, picture quality, or program content, we've targeted our development efforts to insure the quality of the signal, the integrity of the program service and the delivery of essential technical information to the right people in a timely and meaningful manner.



The DVStation Remote is a smaller version of the flagship DVStation. Consisting of one to four book-sized Pod modules and a single 1U rack-mounted Remote Controller, the DVStation Pod-Remote system is operated through a LAN or dial up telephone, allowing database or user access from a personal computer.

Available for immediate delivery, the DVStation Remote was designed for either the smaller facility that might not need the full 21-module capability of the DVStation, or a complex digital network that requires simple single source monitoring at multiple locations. In either application, the DVStation Pod-Remote provides the same level of in-depth signal monitoring and analysis as the full DVStation at a more affordable price.

Also at IBC, Pixelmetrix demonstrated its new DVStation Pod, a low-cost tool to analyze and troubleshoot digital broadcast signals. Light and so portable it easily slips into a tool case, DVStation Pod borrows most of the advanced features of the full DVStation including its extraordinary user-friendly interface, on-board transport stream capture, internal playback and analysis, and error and measurement logging.

Contact us today to learn how DVStation can help with your specialized requirements!

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