Sensor

Get Ready for Next Generation TV

Issue 78 - February 2009

HIGHLIGHTS

▸ DVB-S.2

▸ The Power of the
  Electronic Couch Potato™
  (ECP)

Danny Wilson to present at BES Expo, India

Danny Wilson is scheduled to speak at the BES (Broadcast Engineering Society) Expo Conference in New Delhi, India.

His presentation, *IPTV and Cable: Different but the Same*, is slated for Day 3 on Wednesday, February 25 at 11am. He will expand on the similarities and differences in both technology and topology between IPTV and Cable, and touch on the business case and service offerings of both.

"Building and sustaining a robust network with a focus on quality management are essential to successful television service delivery. Cable operators are re-engineering their systems to compete with the telcos in terms of building, operating and monitoring the visibility of their network. IPTV operators, at the other end, are constantly striving to draw viewers away from their existing cable and satellite services. It is a fierce race out there as they struggle to keep up with top notch service quality and viewer experience, and maintain profitability," said Danny Wilson.

Wilson is a frequent speaker at IPTV and television conferences in Europe, Asia and North America, and currently serves as Editor for the Performance Monitoring/Quality of Service workgroup of the ITU-T/IPTV-FG.

BES Expo will be held from February 23 to 25 at Pragati Maidan in New Delhi, India.

Ensuring Bandwidth Availability and Up-time
on Expensive Satellite Transponders

Operators moving DVB-S.2 to improve the throughput and efficiency of their satellite transponders need reliable monitoring to help them achieve their goal. To achieve the best power utilization on their satellites, operators need to reach the optimum Signal-to-Noise-Ratio (SNR) for a given power utilization. Be it Ku-band spot beams or C-band wide beams, all satellite transmission has to be reliable, as there is inherently no in-band back-channel to ensure quality.

With the new ASLF series from Pixelmetrix, operators can monitor their transmissions just before they uplink the signal at their headend/transmission centre. The same monitoring solution can also be used to ensure adequate quality and coverage area in the satellite transmission footprint. With an accurate front-end and award-winning transport stream analysis technology, satellite transmissions are in safe hands with the ASLF series and the Pixelmetrix DVStation family.
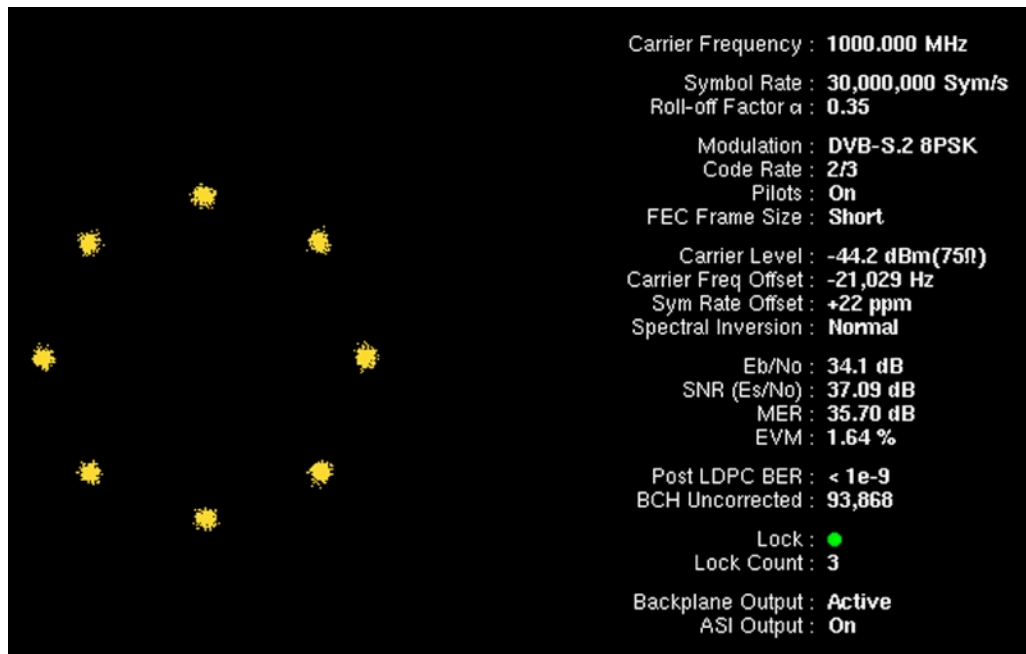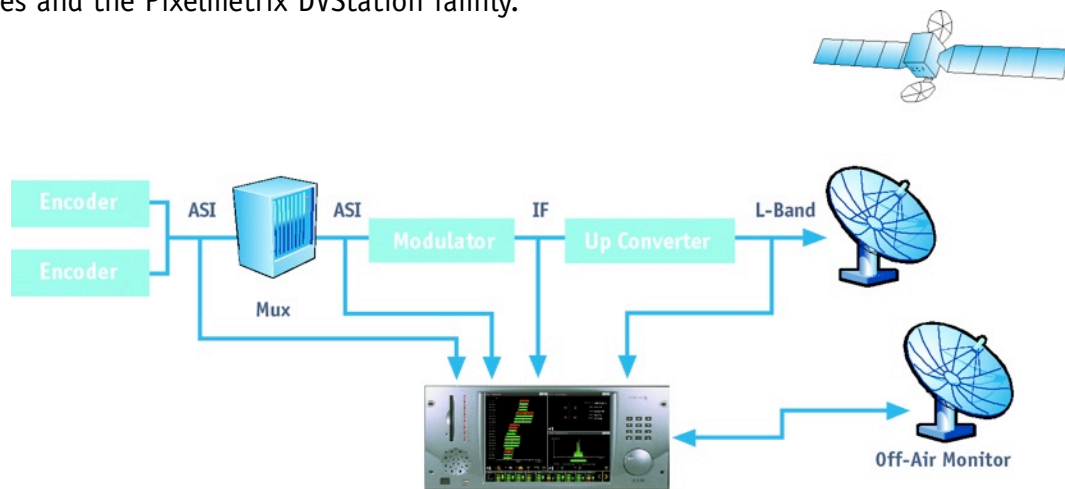
TCL Scripts: The Power of the ECP^{TM}

The ECP is a flexible test robot capable of executing arbitrary user-written test scripts. Test scripts are written in the commonly used TCL language (pronounced as 'tickle'). The ECP is no ordinary monitoring probe - the power lies in YOUR hand. Scripts make the ECP work for YOU.

The possibilities are limitless. A test script decides the sequence in which channels are scanned, tests to perform on a channel, the logic of alarm generation and the sequence of steps to perform if a channel is found in error.

The scripting framework completely empowers the user to make the ECP function and react exactly in accordance with the monitoring requirements at that location. All ECPs in the network can be configured with different test scripts using the ECP Consolidator, and work according to the monitoring needs of that particular location - only HD channels need to be monitored or channels have to be scanned in the shortest time, or stay tuned to a particular channel and test continuously for Video Freeze.

A Test Script can:
- ✓ change channel sequence (random or sequential)
- ✓ omit a channel
- ✓ omit a test
- ✓ perform tests on a channel in parallel or sequential order
- ✓ press common remote control buttons
- ✓ reverse the logic of alarm detection (eg application in detection in CA verification)
- ✓ user-defined actions on problem detections (eg can keep tuned to the problem channel for 200 secs and not scan to the next channel immediately)
- ✓ change threshold values for specific tests

The complete solution comes prepackaged with sample test scripts all using the extensive library of ECP specific TCL functions. The test scripts available in the ECP can scan the channels sequentially or in a random order. The scripts demonstrate the capability of the ECP to perform tests on channels in parallel or in a serial fashion.

With every software release, we are continually adding new TCL commands to the solution to enable users to derive optimum competence and efficiency from the platform.
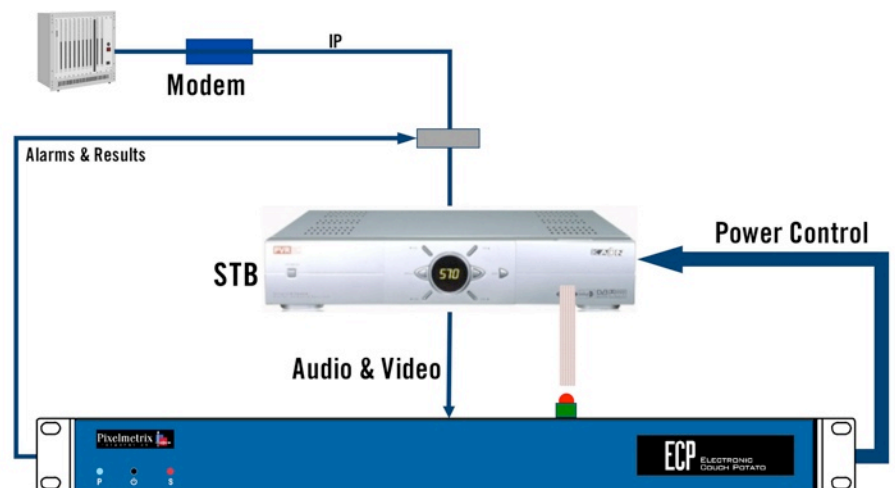
DVStation
DVStor
DVShift

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, it can monitor all these parameters real-time, simultaneously and continuously. Whether it is monitoring for compliance of an RF carrier, MPEG transport stream, picture quality or program content, development efforts are targeted at assuring the quality of the signal, integrity of the program service and delivery of essential technical information to the right people, in a timely and meaningful manner.

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

The DVStation-Pod is a low-cost tool that can analyze and troubleshoot digital broadcast signals. Lightweight and portable, it easily slips into a tool case. DVStation-Pod borrows most of the advanced features of the DVStation, including its extraordinary user-friendly interface, on-board transport stream capture, internal playback and analysis, as well as error and measurement logging.

The DVStation-IP³ offers a one-stop monitoring engine for IP and Transport Stream Analysis, detailed service visualization and IP Headend Output verification for IPTV networks. It provides, on all services, MPEG-2 and H.264 main profile thumbnails, Media Delivery Index (MDI) which allows packet loss and jitter measurements as well as video presence, freeze or blackout displays.

The DVStation-Mini provides a compact and cost-effective way for terrestrial, cable and satellite operators to maintain visibility of network quality and performance. It offers comprehensive TS monitoring and is optimized for remote site deployment.

TS Time Shift

This unique product is ideal for delayed re-broadcast across time zones and provides stable, user-programmable delays from seconds to days.

DVShift is a great improvement over the conventional approach of utilizing separate audio/video delay equipment which simply does not work with the advent of multi-channel audio, multiple subtitles or closed captioning, and especially so with multimedia content such as MHP.

TS Recording & Playback

The DVStor system provides real-time recording and playback of MPEG transport streams over a pair of ASI interfaces.

Capable of recording more than three days of MPEG-2 transport stream, the full integration with our DVStation Preventive Monitoring platform means past alarms and errors can be fully investigated and analyzed.