# Application Note – AN116



**DVStation Online Demo - Revision A** 

Monitoring content, MPEG TS, and RF has become a significant challenge given today's network dispersed over such a wide geographic area. The Pixelmetrix 21-port DVStation, with the highest port density in the industry, and DVStation-Remote, ideal for remote deployments with a few signals in many places, were both designed for seemless access from multiple remote locations.



For real time demonstrations of this capability, Pixelmetrix has provided public internet access to a DVStation monitoring a real world broadcast.

This application note describes how to access that on line demonstration.

### On Line Demo

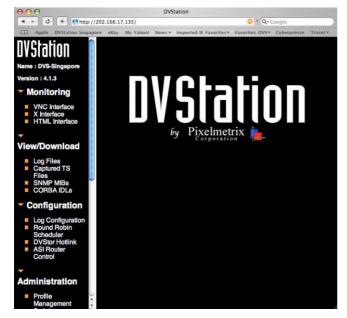
To provide real time, on line demonstrations to our customers, we have connected a DVStation-Remote to the public internet. The machine, located in Singapore, provides real time monitoring of the DVB-T *TVMobile* terrestrial service in Singapore as well as an L-Band satellite feed.

There are two possible frequencies on the DVB-T service: the TVMobile application on Ch 37 and a single DVB-T bouquet on Ch 29. (Note that the unit may be occasionally unavailable as it is also used by our R&D team for testing)

#### How to access?

Simple! The unit is online on the public internet and accessible from any web browser pointed to: http://dvs.pixmet.com.

After connecting, you will see the main DVStation control web page:



The left hand side shows the various menu options while the topmost one, *Monitoring*, provides several types of viewing:

• **VNC Interface** (Virtual Network Computing) – allows any web browser with java support or a dedicated client application to access full remote operation while using minimal IP network bandwidth.

Typically ISDN speeds (64 kbps) are enough for basic operation. VNC also supports *shared sessions* where two users at different terminals see the same windows and share the mouse and controls. Excellent for remote troubleshooting! More information about VNC at: http://www.uk.research.att.com/vnc/

- **X** Interface standard X-Windows type terminal emulation. Can be accessed by any X-Window application, however does take more LAN bandwidth.
- **HTML Interface** simple browser overview of the DVStations. Used for 33.3 kbps or lower modem access applications where bandwidth is limited. Information screens have an adjustable refresh rate.

| The HTML | interface | is | shown | below: |  |
|----------|-----------|----|-------|--------|--|
| The HTML | interface | İS | shown | below: |  |

| 4                      | × + Ohttp://202.16  | 5.17.135/cgi-bin/D | vRemoteSumma          | ry.cgi?refreshTimer=5             | & Google                | _     |
|------------------------|---|--------------------|-----------------------|-----------------------------------|-------------------------|-------|
|                        | pple DVStation Singapore eB   | ay My Yahoo! Ne    | ews <b>v</b> Imported | IE Favorites ¥ Favorit            | tes OS9 + Cyberpresse T | ravel |
| 2003-09-               | 09 23:37:15   |                    |                       | n                                 | Vetation                |       |
| Refresh ti             | mer (sec) : 5   |                    |                       | L                                 | VStation                |       |
| Master El              | TR290 Log Di  | splay              |                       | 6                                 | Pixelmetrix 🙀           |       |
| egend                  | chan29 (1)  |                    |                       |                                   |                         |       |
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| hysical                |   |                    |                       |                                   |                         |       |
|                        |   |                    |                       |                                   |                         |       |
|                        | ETR290  |                    |                       |                                   |                         |       |
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| PAT                    |   | AT 🔍 Unref PID 🗢 S |                       |                                   |                         |       |
| PMT                    | PID   | ● EIT ● F          | IST                   |                                   |                         |       |
|                        |   |                    |                       |                                   |                         |       |
|                        | TS Summary  |                    |                       | chan29 Packet Int                 |                         |       |
| letwork r              |   | TVMobile Ne        |                       | PID :                             | 0x0000                  |       |
| letwork I              | the second se | 0x3211 (128        | 17)                   | Packet Interval :                 | 97.728 ms               |       |
|                        | stream ID :   | 0x0001 (1)         |                       | Standard deviation :              | 8.863 ms                |       |
|                        | nber of services :  | 3                  |                       |                                   |                         | _     |
|                        | of running services :   | 3                  |                       | chan29 PCR Meas                   | urement                 |       |
|                        | of monitored PIDs :   | 20                 |                       | PID :                             | 0x0021                  |       |
| Total Ban              |   | 4.9765M            |                       | PCR Offset :                      | 0 ppm                   |       |
| Stuffing P             | ID (0x1FFF) Bandwidth :   | 454.07k (9.15      | %)                    | Standard deviation :              | 0 ns                    |       |
|                        |   |                    |                       | Cumou Coviason.                   | VIII                    |       |
|                        | h by service  | Bandwidth by       | PID                   | chan29 COFDM M                    |                         |       |
|                        | Bandwidth by Service  |                    |                       |                                   |                         |       |
| Service                |   |                    | Bandwidth             | Lock :                            |                         |       |
| VMobile                |   |                    | 3.6129M               | TPS Match :                       | •                       |       |
| PTVMobi                | ile [3]   |                    | 760.30k               | Signal Bandwidth :                | 8 MHz                   |       |
| Tone [5]               |   | 69.39k             |                       | Frequency :                       | 602.000 MHz             |       |
|                        |   |                    |                       | Mode :                            | 2K                      |       |
|                        |   |                    |                       | Modulation                        | QPSK                    |       |
|                        |   |                    |                       | Hierarchy                         | None                    |       |
|                        |   |                    |                       |                                   |                         |       |
|                        |   |                    |                       | Demod Priority :<br>Hi CodeBate : | -                       |       |

## VNC Client Access

Given a reasonable amount of bandwidth, the VNC interface clearly provides the best performance at the lowest bandwidth.

Both the VNC and X-Window interface are launched from the main web page as described previously. In either case, a password is required for access.

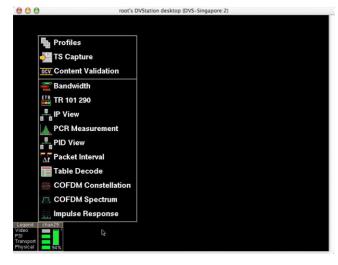
| $\Theta \Theta \Theta$ |                    |        | D           | VStation      | VNC: New Session               |           |
|------------------------|--------------------|--------|-------------|---------------|--------------------------------|-----------|
| <u>م</u>               | + Shttp://202      | .166.1 | 7.135/remot | e/vnc_bro     | owser_shared.shtml             |           |
| C Apple D              | WStation Singapore | eBay   | My Yahoo!   | News <b>v</b> | Imported IE Favorites <b>v</b> | Favorites |
| 'DVS-Singapo           | re' (192.168.15.15 | 0) [SH | ARED]       |               |                                |           |
| Disconnect             | Options Clipb      |        |             | Alt-Del       | )                              |           |
| Passwo                 | rd:                |        | ОК          |               |                                |           |

Once launched, the full functionality of the DVStation is accessible in real time. For example:



#### **Measurement Access**

To access specific measurements, click on the corresponding *Port Status Bar* to bring up the measurement menu specific to that input port:



#### **Modifying Parameters**

By default, users logged in remotely have *read only* access to the measurements. That is, no parameter, frequencies, or error thresholds, etc. can be set of modified without first entering an password.

That setting can be changed under the *Security* section of the main system menu as shown below:

| 000  | root's DVStation desktop (DVS-Singapore:2) |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
| Demo Mode  |  |
| O Playback   |  |
| Cheduler Scheduler   |  |
| 🕌 Log Display  |  |
| TR 101 290 Master  |  |
| 🔒 Security 🔉   |  |
| Configuration  |  |
| 🕛 Exit   |  |
| Legend chan29<br>Video<br>PSI<br>Transport<br>Physical 94% |  |
|  |  |

## DVStation

Monitoring content, MPEG TS, and RF within an easy-to-use and integrated environment, the system has the highest port density in the industry. Ideal in environments with *many signals in one place* – such as satellite uplink centers, DTH operators, or cable head ends.



## **DVStation-Remote**

Ideal for remote deployments with *a few signals in many places*, the system consists of a 1U



control unit and up to four interface adaptors. Remote diagnostics can be conducted simultaneously from several locations, or alternatively staff can access telemetry directly by attaching a standard keyboard and CRT.

## For More Information

To learn more about the DVStation, request a demo, or learn how Pixelmetrix might help you optimize video network integrity, contact us today!

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