

NEWS  
IN BRIEF**Christie projects native 3-chip high def**

Christie has introduced what it claims to be the world's first 3-chip DLP high definition projectors with native 1920x1080 resolution, offering the same 10-bit image processing that is at the heart of Christie digital projectors. Brightness levels range from 5,000 to 12,000 ANSI lumens and 1,500-2,000:1 full field contrast ratio. The new HD series models are also available with colour-corrected optics, known as the Kc models. Designed for the rigours of rental/staging, post production, broadcasting and houses of worship, all five models feature built-in edge-blending, two HD input channels capable of up to 4:4:4 signals, digital black level adjustment and DMX 512 communication capabilities.  
[www.christiedigital.com](http://www.christiedigital.com).

**Matrox ships MXO**

A new DVI-to-audio/video output adapter for the Mac, Matrox MXO takes the DVI output from a Mac computer or laptop and converts it to broadcast-quality video. Users can preview Apple Final Cut Pro projects or the output of other QuickTime-based applications such as Apple Soundtrack Pro and Motion, as well as Adobe After Effects as they will actually appear on television and record them frame accurately to tape. Matrox MXO can also be used to provide a flicker-free video output of the computer desktop with any application, allowing the user to record and display Keynote and PowerPoint presentations, web browser sessions, and software application training.  
[www.matrox.com](http://www.matrox.com)

# Viper takes Summer Wine

The Thomson Viper Filmstream has replaced from Sony's HDW-750 to shoot venerable sitcom *Last of the Summer Wine* – the first UK series to be shot with the system.

**Adrian Pennington** talked to the Director of Photography on set



The Viper captures raw 4:2:2 files at 1080P 25fps to a Sony SRW1 HDCAM SR deck using a set of six Zeiss Digi Primes

## Digital EFP

This summer the cocaine cowboys of Michael Mann's feature film version of *Miami Vice* will provide another high profile showcase for Thomson's Viper Filmstream. Mann's previous film *Collateral* (2004) was the first feature to acquire on the format, and although its been used consistently (and uncredited) for pick-up shots on several features since, David Fincher's serial killer opus *Zodiac*, currently in production, is touted as the first film to shoot with the Viper (two of them) and use an all digital workflow.

Proving it's not just the preserve of Hollywood blockbusters,

the Viper is also getting a decent turn around the town of Holmfirth, West Yorkshire, home of evergreen BBC sitcom *Last of the Summer Wine* (*LOTSW*). It's the first UK series to be shot with the system.

"We recognise this isn't as high tech as its use would be on, say [BBC drama] *Hustle*, but precisely because it's a well-loved classic series we can emphasise the workflow benefits," says camera operator Dan Mulligan. "If we can prove the Viper's workflow on a long running show with a traditional sized budget we can demonstrate that you don't have to be at the cutting edge of feature film capture to get involved with cutting edge technology."

**"Black and white viewfinders are better for focusing because colour viewfinders don't respond quickly enough to motion. Colour viewfinders are not perfect but I can't think how they can be made better" – Dan Mulligan**

Mulligan owns Rogue Element Films which supplied all equipment and advised DoP Pat O'Shea and director Alan J W Bell on the Viper's application for the 28th series of the comedy classic. Mulligan performed the same role for *LOTSW*'s previous series, which was the first to move from 16mm to HD. He had been shooting a behind-the-scenes documentary of the production

and approached the director with a view to shooting HD.

"There was no inherent reason to change from 16mm but I asked them to look at my HD demo reels and understand the workflow advantages which HD gave them — and it was obvious to them that that was the way the world was headed."

### Viper versus the 750

Production of the 27th series, shot on the Sony HDW-750 was a success, but Mulligan had already begun to research the digital negative concept and before last Christmas opted to purchase the £65,000 Viper body. He approached Bell once more, demonstrated the camera and some sample grades over a two week period in February and gained the team's trust to deploy it for this year's four month shoot of 11 30-minute episodes.

"I asked them, 'if I bought the kit would they be happy to use it?', and they said they were," recalls Mulligan. "There's always

a tipping point with formats and you can either start a trend or react to it. A lot of HD owner-operators are too scared to plump for new formats if the work isn't there, which I can understand. But conversely if you don't have the kit no-one will hire you."

"By hiring someone who knows the way the camera functions it softens the blow of new formats for the production," he adds. "There was no point in using the Viper if it wasn't right for the production. But I felt it fitted my approach to cinematography and that that approach was right for this production."

Although he says the Viper offers the same workflow efficiencies as the HDW-750 in terms of quicker set-up times and affording instant reactions to what has been shot to, Mulligan found that grading with the Sony format left something to be desired.

"It didn't lift the blacks as much as I liked and it tended to crush the highlights," he explains. "Any system that compresses in-camera would do the same. With

the 750p you get a sharp look and the amount of detail is great. But it's too edgy for drama. The backgrounds to buildings start to look like CG.

"The digital negative system on the other hand gives you a film aesthetic which holds the highlights and rolls into the blacks gracefully." Thomson's dubs it Dynamic Pixel Management — a fancy term for the way the chip interprets the picture information into data.

"The Viper still has its own visual footprint," he adds. "It's clean and crisp with a little grain

and it's more filmic in response. Essentially you're operating a digital workflow in a film capture mode. You don't have to tinker with 72 sub menus to achieve a look because the default Filmstream setting will always be best.

"The skill of the DoP can be concentrated on focus, framing and exposure. The Viper buys you that comfort blanket that what you're seeing is what you're getting because you don't have to worry if you've set the gamma curves correctly or if the highlights are clipped."



Hardware set-up: HDCAM SR deck with 17-inch HD monitor for raw log output — which can be switched to give a colour-corrected video look

The production is capturing raw 4:2:2 files at 1080P 25fps to a Sony SRW1 HDCAM SR deck using a set of six Zeiss Digi Primes. A 17-inch HD screen monitors the raw log output — which can be switched to give a colour-corrected video look. Daily rushes are then reviewed at the end of each day using an Apple 23-inch monitor and applying daylight look up tables (LUT) to see the HDStream Log images colour corrected.

Because the Viper captures information straight to the chip, bypassing all in-camera processing, "whether you output to disc or tape that's a pure unprocessed chip which buys you an extra stop and a half of exposure range," claims Mulligan. "You're not converting to colour temperature, gamma correction or highlight control. The DoP has exposure control straight from the lens. With more exposure latitude, and more picture data captured to the system, it gives you the ability to hold light levels."

Footage is recorded to HDcam SR which acts as the master tape, and downconverted via SDI to DVcam for editing on Avid Media Composer in-house at the BBC. "DVcam preserves the timecode and digital audio tracks so that editing can begin immediately," he says. The



DoP Dan Mulligan on set: "The Viper buys you the comfort blanket that what you're seeing is what you're getting because you don't have to worry if you've set the gamma curves correctly or if the highlights are clipped"

finished programme is conformed back to HDcam DR for dubbing.

With around three quarters of *LOTSW* shot outdoors (interiors shot at Pinewood studios) Mulligan says he advised the production to light as they would for film. "Even if we open the lens up at 6pm it will hold the balance and not lose any colour information," he says. "It handles blacks a lot better than a Panasonic or Sony camera to give clean, crisp night-time shots."

For Mulligan the Viper's Achilles heel is the viewfinder — a problem he finds with all HD bodies. "Black and white viewfinders are better for focusing because colour viewfinders don't respond quickly enough to motion. But colour viewfinders will always be an issue. They're not perfect but I can't think how they can be made better."

The series, followed by a Christmas special, will begin broadcast in the autumn.