

## Putting HDTV to *The Test*

"It is my opinion that the best use of this new format is as an alternative medium to film, not one that simply tries to mimic it."



A story about a group of convicts who have won a lottery to get out of jail early, *The Test* (aka *The Last Chance Saloon*) is a short drama that marked Toronto DOP D. Gregor Hagey's debut behind the lens of a high-definition video camera. Here is his perspective on his first foray into the brave new world of HDTV.

**By D. Gregor Hagey**

**W**hen I was hired to shoot *The Test*, it had already been decided among director Jayson Clute, co-director/writer Roy Clute and producer Warren Clute to work in the HDTV format. The brothers hoped to save money on film and transfer costs. They also found the prospect of working in a new and largely unexplored medium exciting, and I, too, was intrigued by the latest video format.

The Sony HDW-700A (modified) camera was rented from David J. Woods Productions, who offered amazing customer support. My first assistant, Mark Nener, and I spent a day testing the camera to familiarize ourselves with it.

At first glance, the HDCAM looked like a Digital Betacam commonly seen with ENG crews. The tapes are the same size

as the standard Betacam format. They come in 20- and 30-minute lengths. The layout of the VTR and camera is similar to other Betacams, but that's where the similarity ends.

Once you point the lens at a subject and look at the monitor you won't believe what you see. The image is incredible!

Our viewing monitors included a Sony nine-inch production monitor and a Panasonic 3050 30-inch monitor, with a waveform monitor to evaluate the video levels. The clarity and cleanliness and detail captured is far beyond anything seen in the NTSC format. From a medium shot of our test subject, individual blood vessels could be seen in the eyes. The 1080 interlaced lines of quality video showed every detail of reality.

The real fun started when David Woods and product

development manager Jasper Vrakking took us through the "paint" menus. Here you can control the gamma, video level, knee, matrix, detail and shutter. The detail menu offers incredible control over the image. You can affect the overall detail (with eight different variables), and select a specific hue of colour and only affect *its* detail. This menu is called "skin detail" and serves the function of smoothing out an actor's face. This setting should be reset, if the colour temperature of the lighting changes, to find the actor's proper hue again.

I set it to the lead actress's skin tone and turned it all the way down. I found turning the overall detail down slightly was more pleasing to the eyes, too.

My goal for the shoot was to use only what was built internally into the camera to electronically soften the image or effect the colour and contrast. The gamma, video level, and matrix menus offered a video colourist's control over the image. Your imagination is the only limit here. I decided to go with a fairly straight look, only tweaking some of the colour response to affect the cast's wardrobe. A later tape-to-tape correction will give the final finesse to the image.

I should mention that the interface for the menu system is inadequate. It consisted of a small knob you rotate to move the cursor and push in to select; which did not allow one to maximize or easily access the camera's capabilities. Another problem we encountered was that the camera had to be turned off in order to get back to the main menu page.

The operation menu was also useful. Here you can select what gets displayed in the viewfinder, allowing you to turn off extraneous information from the viewfinder. The viewfinding system itself was a bit of a disappointment though. It was a small black-and-white image that was useful only in checking focus and composition. It was impossible to judge lighting and exposure by it. As a result I needed to consult the 30-inch monitor and the waveform monitor to properly judge colour and contrast.

I had determined an ASA of 200 for



**DOP Gregor Hagey prepares for a shot at *The Last Chance Saloon***



**DIRECTOR Jayson Clute on the set of *The Test***



**A SCENE from *The Test***

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the camera at 0db gain so I could set key light levels quickly with my light meter. It was a simple matter of shooting a grey card and setting the aperture so the waveform measured 55 IRE. I still

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had to refer to the monitor to judge fill and backlight levels.

HDTV sees into the shadows with unbelievable detail. There were many features that could not be seen in the nine-inch monitor that showed up on the 30-inch. What you see is what you get, so it was essential to have a large monitor to judge the image. It became very important to check the shadow areas on the big screen to get an accurate representation of the final image. This slowed the lighting process down slightly.

HDTV didn't handle highlights quite as well as the shadows. Contrasty images presented some troubles to the camera. If a point on the image was over 90 IRE and surrounded by darkness, a horizontal band of light would appear in the shadow areas beside it. *The Last Chance Saloon* set contained backlit beer signs on dark walls which caused this problem. They had to be dimmed or sprayed with “tips and streaks” to correct.

Another problem with comet tails presented itself from bright moving objects over a dark background. If a subject over 60 IRE moved in front of a dark background, a ghost image would trail behind faintly in the shadow areas.

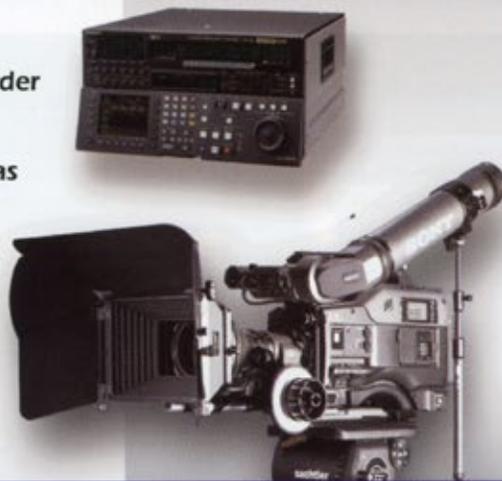
Another disappointment with the camera are the lenses that are available. We used a Canon 5.2-52 and 7.5-150mm. They are not designed for feature film work and had a few problems.

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The focus increments were very close together, making it impossible for the focus puller to rely on them. Focus had to be checked by eye on the viewfinder and marked on the barrel. Also, the image breathed a lot when changing focus. In addition, there was an exposure change when using wide apertures at the end of the zoom. We were shooting at f-2 and we could only zoom into a 42mm on the 10-1 zoom and a 110mm on the 20-1 zoom before a stop of light was lost. The focus puller also didn't like the fact that there is a built-in back focus adjustment on the lens. Although it's easy to adjust, it presented one more thing to be checked on a regular basis.

The camera crew seemed to adapt to the HDTV format well. Changing timecode, recording bars, setting up the waveform and large HDTV monitor, and baby-sitting the umbilical cord that attached us to the monitors and sound department all became part of their jobs. It was important to make note of the the menu selections, as one would with continuity notes, in case the camera erased them (which it did the first day). It would be great if the memory chips could store all information on them but they don't. Some information is stored on the removable chip and some is stored inside the camera's internal memory. You can't create a look with one camera, store it and take it home to put into another camera later.

HDTV did give us less down time for magazine changes than a film camera. The 40-minute tapes became key to the success of some long dialogue scenes between the two leads. We could just let the camera keep rolling if the director wanted to restart the scene without cutting. It helped keep the energy and focus with the actors. At one point we rolled for 30 minutes straight!

The waveform monitor also made it effortless to light a green-screen shot. The waveform monitor quickly identified any unevenness of light on the green screen.

Overall I was happy to have shot with the HDW-700A and look forward to working on a project that can allow for a deeper exploration of its "paint" menu. I anticipate the need for Sony to

design a body for feature film work with better interfaces, a colour viewfinder, and compatibility with Arriflex or Panavision lenses and accessories (and get rid of the built-in star filter!).

It should be noted, however, that it doesn't look like film. Its image quality may rival it, but you would have to add a "film look" in post to pull off the illusion. Director Jayson Clute and I intend to tinker with this and ultimately go to 35mm release print.

It is my opinion that the best use of this new format is as an alternative medium to film, not one that simply tries to mimic it. Its future could be that of a medium that exploits its attributes of undisputed immediacy and in-your-face realistic images. And we have already seen the huge potential market for such projects. Once HDTV "handycams" become a reality, there's no telling how many potential *Blair Witch Projects* we may have on our hands. ●



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