

High Definition Fact Sheet

By: B. Sean Fairburn SOC 08/21/01

In an effort to aid production companies in making wise educated decisions I have compiled a fact sheet to share the truth and dispel some myths related to shooting High Definition 24P for Features and Television shows.

- 1) Shoot "23.98P" not "24P" Reason is you will have difficulty Downconverting and keeping Sound in sync.
- 2) You don't need to offline in HD. Downconvert your footage to DigiBeta or Beta SP and offline conventionally.
- 3) Running time of HD Tape is 50 minutes @ 23.98 even though the box will say 40 minutes (40 & 22 minute tapes are available for field use)
- 4) Average Cost of 1 HD Tape is \$80.00 comes in Case of 10.
- 5) Record the Master Sound on the HD Tape in addition to external recording devices (which should be running at 29.97 NDF)
- 6) By shooting this way will save money by skipping Timing and Syncing of dailies. This Step is replaced with Downconverting.
- 7) Editing of dissolves, CGI, Slow motion effects and titling can all be done in the final HD Online session to create Final HD Master.
- 8) HD Camera Packages will be more expensive to rent than Film packages. Savings is in HD Tape vs. Rolls of Film purchase Processing and Transfer. 1 HD tape=5,000 ft of film run time.
- 9) Transfer from HD to film only your final edited show. This step may cost around \$60K for an entire feature.
- 10) Money Savings is in the Production medium and Post not in Personnel.

MYTH: You need less Crew to shoot HD.

FACT: The same number of crew in every department is necessary to do the level of quality you expect. Only the Camera Department has a loss of the Loader but the necessary gain of an HD Engineer at a pay rate between "A" Camera Operator and the DP.

MYTH: You need fewer Lights to shoot HD.

FACT: I generally rate the HD Camera at 320 ASA for best performance and I need just as much light as if I was shooting 320 ASA Film. The same number of lights and type as in film.

The fact is the script and style of show will dictate largely whether it should be shot on Film or HD. HD is cheaper on the front end because of tape cost and more expensive on the back end during Film Out. You must weigh the options and make the best decision for your show. Shows with lots of VFX, tight budgets and schedules are good candidates.

I hope this helps shed some light on High Definition Acquisition.

Feel free to contact me if you have any specific questions.

B. Sean Fairburn SOC

HD Cinematographer & Consultant

Local 600

818•621•3912

RoleModel@earthlink.net

For the Directors of Photography

- 1) HD exposes like color reversal (Slide film rather than negative)
- 2) HD has less latitude than film I call it 4.5 Under and 1.5 Over.
- 3) HD has much more bottom end in the blacks than top end in the highlights, better to under expose rather than over expose.
- 4) You can get in essence Timed dailies in Camera which I have found gives you More range than had you done nothing to the image. "Best way to get to a good image is to start with one".
- 5) You can do a Digital color correction session after the picture is locked then again after it gets "Filmed out" transferred to Negative before it gets printed. Take every opportunity given.
- 6) HD is Tungsten base so ND and Color correction filters are built into the camera and are ND.6 ND1.2 ND2.4, also an 85B+81B.
- 7) Electronic Shutter set to ON @ 1/48th is equal to a 180° shutter. Shutter OFF increases blur in motion equal to 24 FPS @ 1/24th.
- 8) Like any new Film stock Test it to determine how your lighting style looks with this medium if adjustments should be made.
- 9) Insure your 1st AC's and operators know how to properly set the Back Focus or your images will be soft.
- 10) Shoot Record run Timecode even if you do multiple cameras. Cameras do not need to match TC for post to sync it up. It creates more problems than it's worth to shoot Free running TC.

For the Sound Department

- 1) Record Master sound on the HD Camera this will create a permanent synced source of CD quality sound for Downconverts and Offline. Also Always record sound separately
- 2) Be aware that to hear the sound coming from the HD Deck that you need a 5 pin XLR for discrete Ch-1 and Ch-2 return.
- 3) Whatever you chose to record on Nagra, DAT, DA88 or DEVA. Use 29.97 NDF (Non Drop Frame)
- 4) Use of a Timecode slate is helpful with TC being YOURS not cameras TC. In addition have 2nd AC's Clap the sticks as always.
- 5) Also very helpful is feeding your TC into an available channel of Audio on the Camera with a Deneke Brain. Its wireless and provides a permanent source of sync for the external sound recording device.

Resources Providing HD Services (not all inclusive)

HD Camera Rental houses

- 1) Plus-8- Video John Koster @ 800•645•6480
- 2) Panavision Bob Harvey @ 818•316•1000
- 3) Bexel John Keesee or Michael Lai @ 818•841•5052
- 4) Fletcher Chicago Kevin O'Conner @ 800•635•3824
- 5) Wexler Video Paul Frocchi @ 818•846•9381
- 6) Film/Video Equipment Services Co @ 800•776•8616
- 7)-Clairmont Camera Denny Clairmont @ 818•761•4440

HD Probe Lenses

- 1) Innovision Optics @ 310•394•5510

HD Tape stock & Expendables

- 1) FilmTools.com Stan McClain @ 818•845•8066

HD Downconverts & HD Online

- 1) APS American Production Services
Marianne Nassour @ 818•769•1776
- 2) Laser Pacific Sharon Nichols @ 323•462•6266
- 3) Complete Post Brad Powell @ 323•467•1244
- 4) The Post Group @ 323•462•2300

HD Transfer to Film "Film Out"

- 1) E-Film David Hays @ 323•463•7041