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Frequently Asked Questions

Are HD electronic viewfinders good enough?

I have heard that the electronic viewfinders are not good enough to accurately focus the picture, so how do you focus in the field without using a large monitor?

I too have heard rumours that focussing is difficult with the monochrome viewfinder but this is rubbish! The resolution of both the optics and also the camera is significantly higher than that of Digi Beta, so more care does need to be given when focussing particularly when the contrast of pictures is low – increasing the peaking control in the viewfinder will correct this and I can assure you that you will be able to focus with the viewfinder just as well as using a large monitor!

How do I achieve the narrow depth of field of 35mm using HD?

Because the negative of 35mm is 2.2 times the size of a 2/3" CCD, you need to work at a larger iris on HD than 35mm to achieve an equivalently narrow DoF. You can achieve this by either using less light or introducing ND in front of the lens – this will mean that you will increase the iris to correctly expose the picture and in doing so the DoF will be reduced. Use a Kelly Calculator to work out what iris you need to achieve the desired DoF and experiment with your light levels and/or ND until this iris level correctly exposes the picture.

You can use a Prime lens to help with a narrow DoF as they are faster than zoom lenses (Zeiss and Canon Primes are T1.5 compared with T2.1 for Canon cine-style zooms gaining about a stop).

Alternatively, you can fit Pro 35 attachments to HD camcorders to fit 35mm lenses and which have an identical DoF as if shooting on film. However some disadvantages include losing around 2 stops of aperture and images being prone to flare. Many DoFs do not favour using these lenses preferring to work with lenses designed for HD.

Using the highest quality lenses is critical to achieving any look – Prime lenses are the best lenses to use of all as they work at their best at the widest and the narrowest (unlike zooms which are a compromise), though zoom lenses have improved greatly since Canon's first generation HD lenses – (steer clear of the HJ 18 x 8 and HJ 9 x 5.2 which are not nearly as good as the second generation Canon zooms).

Primes have a significant cost premium and your Producer may decide that the additional cost is not warranted – Consider the size of the screen that your programme will be displayed on and then decide accordingly. For a dramatic film look, you may want to achieve a very narrow depth of field and this may require you to work at a very large iris which may push the lenses to their limit – do a test shoot with zooms and primes and then decide which are most appropriate for your shoot and budget – remember that zooms are much more portable and also more flexible in shooting and if you have a fast shooting schedule, this may be a further consideration.

Sometimes, DPs use 1 x zoom and a set of Primes for maximum flexibility but more often than not, the budget ultimately determines what is possible and what is not!

I usually use a ¼ Black Promist when shooting Digi Beta, what would you recommend when shooting HD?

¼ Black Promist is generally a bit too much for HD – DPs usually use 1/8th as the preferred combination of softening the images by just the right amount – but make sure that you have a test shoot prior to the start of the production and ensure that you view your recorded pictures on a large monitor (usually 24") to ensure that you have achieved the look that you desire.