

# CAMERA SPECIFIC FAQ

## Q. What is 3 Perf®?

A. 3 Perf® cameras pull down 3 perforations per frame rather than the conventional 4 perforations per frame.

Some of the advantages of 3 Perf® cameras:

- Uses 25% less film (25% savings in cost of negative film, processing, etc.)
- 33.3% more running/shooting time per magazine (14.81 minutes versus 11.11 minutes per 1000'; 29.62 minutes per 2000')
- 340% larger negative area than 16mm in NTSC
- Only 26% smaller than 4 perf in NTSC
- Ideally suited for 1.85:1/1.78:1 (16x9) format
- Must be used in conjunction with a Digital Intermediate process for theatrical release

## Q. What is Panavision Super 35®?

A. Panavision Super 35® is a format for shooting full aperture, utilizing a greater camera negative area. This format provides the option of releasing a film in any of 3 formats: 70mm, 2x Anamorphic, and 1.85, without cropping any of the sides. The final decision can be made in post-production, as it does require an optical process. Allows the cinematographer to use spherical lenses, while achieving a 2.40:1 finished product.

For more information on shooting Panavision Super 35®, please contact Panavision directly.

## Q. What is Panavision Anamorphic 2.40:1?

A. For more than 40 years, Panavision has stood at the forefront of anamorphic photography. After winning Academy Awards for the patented "Auto Panatar" series of lenses, Panavision continued to develop and improve on its Anamorphic knowledge, designing the "C" and "E" series lenses, culminating in 1990 with the release of the Primo anamorphics. In 1994 Panavision received a Class I Academy Award for the continued development of anamorphic lenses. Thus the phrase "Filmed in Panavision" has become synonymous with anamorphic photography, appearing on over one thousand films.

## Q. What is Time Code?

A. Panavision/Aaton Time Code system is a tool for automatically synchronizing camera negative and the production sound track. Every frame of film is "time stamped" with computer and human readable time code. A small on-set synchronizing clock links the camera time code with the sound recorder time code. In post-production, sound and picture can then be synched automatically without the necessity of slates. Current Panavision productions have voiced a savings on average of up to 8 hours of telecine time per week/episode because of Panavision/Aaton Code.

## Q. What is the aspect ratio for the High-Definition format?

A. The aspect ratio for High-Definition is 16x9 1.78:1.

## Q. What are the differences between Panavision HD lenses and conventional 35mm lenses?

A. Primo Digital™ Lenses were designed specifically for the 2/3" CCD imager to optimize image quality. They are not modified cine lenses. However, Primo Digital™ primes and zoom lenses fully incorporate the optical, mechanical and ergonomic characteristics of our Primo cine lenses with additional features to enhance electronic cinematography.

- High contrast and resolution for maximum sharpness. 2.5 times that of our cine Primo lenses to accommodate the 2/3" imagers.
- Optimized for maximum image quality at fast maximum apertures of T1.6 – 1.9 (f1.45 – 1.75), thus enabling depths of field similar to 35mm cine formats.
- Very low veiling glare, ghosting, lateral color and distortion.
- Dual expanded, calibrated and accurate focus scales.
- Precision back focus adjustment – on all lenses including Digital Primes.
- Internal filter slot – to selectively control colorimetry and resolution/contrast.
- For use with the SMARTLENS™ system, Panavision lenses are available with integral encoders for display of focus, zoom and aperture position.

**Q. What is the difference between INTERLACED and PROGRESSIVE?**

**A.** The 24p HD Electronic Cinematography Camera System is a PROGRESSIVE capture device unlike older video cameras that capture the image in an INTERLACE manner.

- INTERLACE: A video scanning system where the odd numbered lines are scanned separately from the even numbered lines. The odd numbers lines form field one, the even lines make up the second field. The combination of the two comprises one frame.
- PROGRESSIVE: A video system in which all lines comprising a frame are scanned in sequence rather than interlaced.

The interlace mode of capture has inherent motion artifacts and is difficult to transfer to film. The progressive mode of shooting captures the complete resolution at once, at the same point in time; and therefore allows a perfect one-to-one transfer to film.

Panavision High Definition cameras can be operated in either progressive or interlaced modes.

**Q. What is the equivalent ISO rating of the HD camera system?**

**A.** The Panavision HD-900F camera system is rated at a minimum 320 ISO tungsten.