

## Technologies Explained

### CMOS

Canon's CMOS technology is one of the company's key competitive advantages, with noise reduction circuitry at each pixel site delivering virtually noise-free images. In comparison with CCD technology, the lower power consumption characteristics of Canon's CMOS sensors also contribute to longer battery life.

Signal conversion in Canon's CMOS sensors is handled by individual amplifiers at each pixel site. Unnecessary charge transfer operations are avoided, vastly speeding up the process of getting signal to the image processor. Noise generation is reduced, power consumption is limited and faster frame rate potential is increased.

### EOS Integrated Cleaning System

The EOS Integrated Cleaning System combats sensor dust in three important ways: Reduce, Repel and Remove.

1. Reduce - Internal camera mechanisms are designed to minimise dust generation. The redesigned body cap prevents dust generation through wear on the cap itself.
2. Repel - Anti-static technologies are applied to the low-pass filter covering the front of the sensor so as not to attract dust.
3. Remove - A Self-Cleaning Sensor Unit uses hi-frequency vibrations to shake dust from the infrared filter for a period of approximately one second after each start up. For instant shooting after power up, this feature is disabled immediately the shutter release is depressed.

Canon has also developed an internal Dust Delete Data system, which can map the position of visible dust on the sensor. This can then be deleted automatically after the shoot with the latest Digital Photo Professional software.

### Picture Style

Picture Style pre-sets simplify in-camera control over image qualities. Picture Style pre-sets can be likened to different film types – each one offering a different colour response. Within each selectable pre-set, photographers have control over sharpness, contrast, colour tone and saturation. The camera's factory default configuration is set to deliver immediately-usable JPEG images without need for

additional menu settings. Picture Style presets applied to a RAW image can be revised with Canon's Digital Photo Professional software.

The six pre-sets include:

- Standard – for crisp, vivid images that don't require post-processing
- Portrait – optimises colour tone and saturation and weakens sharpening to achieve attractive skin tones
- Landscape – for punchier greens and blues with stronger sharpening to give a crisp edge to mountain, tree and building outlines
- Neutral – ideal for post-processing
- Faithful – adjusts colour to match the subject colour when shot under a colour temperature of 5200K
- Monochrome – for black and white shooting with a range of filter effects (yellow, orange, red and green) and toning effects (sepia, blue, purple and green).

The User Defined Picture Style can be used to store up to three customised pre-sets, or any of the pre-sets available for download from Canon's web site at [www.canon.co.jp/Imaging/picturestyle/file/index.html](http://www.canon.co.jp/Imaging/picturestyle/file/index.html).

## Software

### **Digital Photo Professional Software**

Digital Photo Professional software provides high speed, high quality processing of lossless RAW images. Processing with Digital Photo Professional allows real-time display and immediate application of image adjustments, giving control over RAW image variables such as white balance, dynamic range, exposure compensation and colour tone. Images can be recorded in camera with sRGB or Adobe RGB colour space. Digital Photo Professional supports sRGB, Adobe RGB, ColorMatch RGB, Apple RGB and Wide Gamut RGB colour spaces.

ICC (International Colour Consortium) profiles can be attached to TIFF or JPEG images when converted from RAW. This allows faithful reproduction of colours in software applications that support ICC profiles, such as Adobe Photoshop. For improved efficiency, a set of image adjustments can be saved as a recipe and applied.

### **EOS Utility**

The latest version of EOS Utility provides essential support for Live View remote shooting, camera configuration and image transfers. Tightly integrated with Digital Photo Professional, EOS Utility can be configured to monitor 'hot' folders, automatically renaming and moving incoming images to a structured file system.