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PowerShot

Professional Camcorders

Canon

PROFESSIONAL PRODUCTS 2010

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The Complete Professional Digital Imaging Solution

Photography has always been about more than capturing images, and that's more true today than ever before. Professional photographers are, by necessity, digital imaging experts, and the tools of the trade have become at once more capable and complex. It is telling, then, that professional photographers continue to depend on Canon EOS more than any other digital imaging system. The EOS System gives pros what's needed to deliver results, not just for image capture but also for every critical step in the production process, right through to output. EOS SLR cameras continue to push the technology envelope, enabling not only still, but now also full HD video capture with awe-inspiring image quality and astonishing versatility. The superb range of EF lenses, sophisticated Speedlite flashes and a comprehensive array of system accessories empower and inspire the professional with such advanced capabilities as wireless connectivity and secure data handling. High-performance compact cameras, video cameras, professional printers, image projectors, workflow-support software and even educational events and publications today extend the EOS System family of products and services. Canon EOS: the comprehensive digital imaging solution — still the choice of discerning professionals.

©Lewis Kemper

©Vincent Isola

EOS-1Ds Mark III

The Featured Professionals

LARGE PRODUCT

Gil Smith

Explorer of Light

The Stuff of Dreams

Gil Smith is an internationally recognized advertising photographer specializing in high-action automotive and sports-industry images. An innovator in live and simulated-action photography, he has created dramatic campaigns for high-visibility American, European, and Japanese auto manufacturers and sports-oriented clients. Smith depends on the "big picture" capabilities of Canon EOS DSLRs, which give him the pixel count and quality he needs to create the bold images of dreams.

LANDSCAPE

Vincent Isola

Explorer of Light

Detail and Tonality

Vincent Isola has won numerous awards for his work, and teaches digital photography, printing and lighting techniques to photographers throughout the country. His work and articles have been featured in many prestigious publications, including *Architectural Digest*, *Designer's Illustrated*, *The Professional Photographer*, *Studio Photography* and *Shutterbug*. An accomplished fine-art/landscape photographer, Isola counts on Canon for rugged reliability and uncompromised image quality.

SMALL PRODUCT

Michel Tcherevkoff

Explorer of Light

A Superb Creativity Tool

The recipient of more than a hundred awards for creativity, Michel Tcherevkoff has captured images and exhibited his work around the globe. He is known for his unique ability to create visual metaphors for advertising, corporate, design and editorial clients. His signature style is "reality with a twist" — finding the extraordinary in the ordinary. For Tcherevkoff, the EOS System stands alone as a photographic tool, enabling him to experiment with design and color as with no other camera system.

Digital Capture Redefined

Once in a while, a new tool comes along that recalibrates our capabilities...a technological tour de force that forever changes our perception of what is and is not possible...a professional instrument that expands the boundaries of creative communication. The Canon EOS-1Ds Mark III is just such a tool. True to the EOS-1 legacy, this remarkable camera redefines the state of the DSLR (Digital Single-Lens-Reflex) art in no uncertain terms.

ARCHITECTURE

Norman McGrath

Explorer of Light

Specialty Lenses for Specialized Shooting

Educated as an engineer, London-born photographer Norman McGrath transitioned into his career as an architectural photographer after moving to New York in 1956. His work has appeared in every major architectural publication worldwide, and shooting assignments and workshops have taken him everywhere. McGrath credits Canon and the EOS System's ability to deliver images, at one time only possible with more cumbersome 4x5 view cameras.

ASTRONOMY

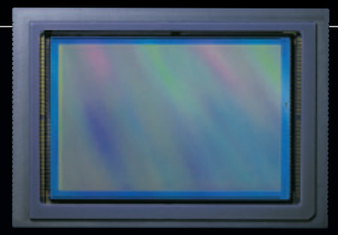
Jennifer Wu

Explorer of Light

Beauty in the Eye of the Photographer

Award-winning nature photographer Jennifer Wu travels extensively throughout the United States and Europe to capture her striking images. Her commercial work has appeared in numerous local, national and international publications. Wu's lifelong quest to capture the elusive and unrecognized beauty in nature pushes her to ever more challenging adventures. The Canon EOS System is her choice for recording those magical moments.

Get the Big Picture and the Smallest Detail



FULL FRAME CMOS

The EOS-1Ds Mark III 21.1 Megapixel Full-Frame CMOS Sensor delivers a high-resolution image of exacting precision, yielding a whopping 60MB file in Adobe® Photoshop®, with superb data density for enhanced large-output capabilities and post-processing cropping flexibility. Actual size shown above.

Exceptional Canon Full-Frame CMOS Technology

The EOS-1Ds Mark III incorporates a Canon CMOS sensor, which delivers approximately 21.1 Megapixels (5616 x 3744 pixels). The recording area of the sensor is 36 x 24mm, which is equivalent to the full-frame size of the 35mm film format. Compared to typical smaller digital camera sensors, the Canon full-frame sensor can accommodate a tremendous pixel count while maintaining larger individual pixel site size. Larger sites improve light gathering capability, enabling the sensor to produce a cleaner, more noise-free image.

EOS Digital SLR cameras with full-frame sensors let you use interchangeable lenses exactly as you would with 35mm film SLR cameras. They let photographers use the entire range of superb Canon EF lenses without a conversion factor, making it possible to take full advantage of the specific optical characteristics for which the lenses were designed. This is an important benefit for photographers who have sizable EF lens collections. 23

Ultra-High-Resolution Image Capture

The 21.1 Megapixel Full-Frame CMOS Sensor captures images with stunning detail and precision. The resulting high-resolution image files ensure exceptional reproduction quality, with generous data density for enhanced large-output capabilities and post-processing cropping flexibility. 23

23 *This icon indicates the page where you will find more detailed information.*

The Canon CMOS Advantage

Canon CMOS sensors — designed and manufactured by Canon for exclusive use in Canon digital cameras — provide a number of important advantages over sensors typically found in other digital cameras: Their significantly reduced power consumption helps extend battery life and eliminates performance problems related to increased heat and noise. They deliver fast operation, taking full advantage of multi-channel architecture to provide standout combinations of high resolution and high-speed image capturing performance. In addition, a multi-layer low-pass filter is placed in front of the sensor to isolate false colors that the sensor may detect. Canon CMOS sensors also incorporate a novel noise reduction system that records the noise of each pixel prior to exposure then automatically subtracts that noise. Lauded by the best in the business, Canon's CMOS sensors deliver outstanding resolution and signal purity, making them ideal for the most critical photographic applications. 23

Extended RAW Recording Capabilities

The EOS-1Ds Mark III can capture RAW and sRAW (Small RAW) images. This added versatility is ideal for photographers who prefer the control afforded by RAW capture in shooting situations that do not require the camera's full resolution capability. Options are also provided for simultaneous RAW+JPEG and sRAW+JPEG recording with an extensive choice of JPEG sizing options. 28

Smoother Color Tonality

The EOS-1Ds Mark III employs powerful 14-bit converters to process the output of the imaging sensor. Each color channel provides 16,384 separate steps of brightness, from darkest to lightest. This ensures smoother tonal transitions and more natural gradations. 16,384 distinct tones can be recorded in each color channel, with every click of the shutter — even JPEG images start using 14 bits of tonal data!

"As photographers, we dream and produce images. Canon has also dreamed to give us one of the most powerful imaging tools in the world today with the Canon EOS-1Ds Mark III, its Dual "DIGIC III" Image Processors and an astounding 21.1 Megapixel Full-Frame CMOS Sensor that makes your image pop off the page like this one."

Gil Smith
Explorer of Light

LARGE PRODUCT

EOS-1 Ds Mark III

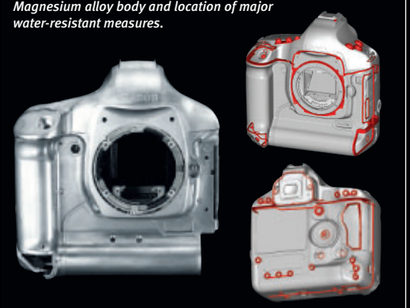
EOS-1Ds Mark III

Technology at One with Nature

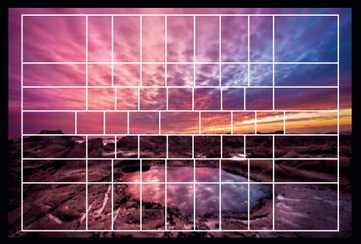
Rugged Weather-Resistant Design

The ideal professional camera is rugged yet not so massive as to compromise usability. The entire body of EOS-1Ds Mark III, including its internal chassis and mirror box, is made of an advanced magnesium alloy. In lesser cameras, these parts are typically made of composite materials. Exceptionally strong and rigid, this alloy results in a camera that can truly withstand the punishment routinely meted out by many professional photographers. At the same time, it makes the camera lighter for improved handling and maneuverability.

Magnesium alloy body and location of major water-resistant measures.



Extensive weatherproofing ensures true reliability, even when shooting in harsh environments. Rubber gaskets are used at nearly every joint and seam — including around the battery compartment cover, memory card door and flash shoe — to keep out moisture and dust. 26



63-zone Metering System

A 63-zone metering sensor combined with sophisticated metering algorithms delivers more precise and stable exposure calculation over a wider range of shooting situations. Both available-light and flash metering performance have been improved. The metering sensor zones optimally match the 19 primary AF points. Photographers can choose from among automated Evaluative, Partial area (8.5% at the center), Spot (2.4% at the center), Multi-Spot and Center-Weighted average metering modes. 26

A Full-Frame Performance Standard

The CMOS sensor developed by Canon for the EOS-1Ds Mark III delivers approximately 21.1 effective Megapixels (5632 x 3750 pixels). It makes possible ultra-high-resolution digital photography, and the large amount of image data recorded result in enhanced large-output capabilities and effortless post-processing flexibility. 28

"The EOS-1Ds Mark III is a wonderful tool that has made photography fun again for me. It is

light and rugged, with a very long battery life, all very important features in my backpack. It provides me with a similar experience to shooting with my 4 x 5 camera, without the bulk, weight and dark cloth. Most importantly, the image quality is superb, with fine detail and smooth, continuous tones apparent throughout the file. Kudos!"

Vincent Isola
Explorer of Light

Dependable, Repeatable High Image Quality

The Wireless File Transmitter WFT-E2A integrates elegantly with the EOS-1Ds Mark III, is powered by the camera body and is as durable and weather-resistant as the camera itself.

With 10x magnification

Large 3.0-inch LCD Monitor with Live View Function

The 3.0-inch LCD monitor on the EOS-1Ds Mark III provides the photographer with a large, bright, detailed view of images and graphical data. The bigger image area makes it easier than ever to confirm capture, check memory card contents, confirm shooting parameters and access all menu options.

Moreover, the EOS-1Ds Mark III features a sophisticated Live View Function, which makes the 3.0-inch LCD monitor a real-time finder. When the Live View Function is enabled, the reflex mirror is locked up and the shutter opened. The image output from the CMOS sensor will be displayed in real time on the LCD monitor at 100% coverage. A selectable portion of the image can be magnified by 5x or 10x to aid in precise manual focusing. Manual focus, exposure check, composing and shooting can all be accomplished in this mode.

Live View Function is convenient for tripod-mounted shooting, macro work and other situations in which it would be a physical strain to keep the eye at the viewfinder. The Live View Function image can also be displayed on a TV monitor, which is ideal for showing images, as they are being composed, to clients and portrait subjects. 31

Highlight Tone Priority: ON

Highlight Tone Priority: OFF

Highlight Tone Priority

Activated via a Custom Function, the Highlight Tone Priority mode employs sophisticated processing algorithms to preserve greater detail in image highlight areas — a perennial problem for digital photographers, especially those who work in bright sunlight or contrasty studio lighting. Highlight Tone Priority actually expands the available range of capture in the highlights, yet it exacts no penalties in either shadow detail or camera performance. It benefits photographers who shoot RAW images as well as those who rely on in-camera processing. 29

21.1 MEGA PIXELS CMOS

Stunning Image Quality

The EOS-1Ds Mark III features a Canon full-frame 21.1 Megapixel CMOS sensor. Compared to typical smaller digital camera sensors, the Canon full-frame sensor can accommodate a tremendous pixel count while maintaining larger individual pixel site size. Larger sites improve light gathering capability, enabling the sensor to produce a cleaner, more noise-free image. The Canon full-frame sensor thus delivers ultra-high-resolution images of exacting precision with glorious color richness and tonal accuracy. 23

"The EOS-1Ds Mark III is great! The ability to capture fine image detail is of paramount importance

in my work, and this camera truly delivers. What also impressed me is the precise rendering of tonal nuance over a wide range of light values, which is equally important in my images. This camera's features — like the 3.0-inch LCD, Live View Function and improved wireless capabilities — are exactly what I've wanted for tabletop work. A superior tool… a joy to use."

Michel Tcherevkoff
Explorer of Light

EOS-1Ds Mark III

Record with Precision and Artistry

Canon EOS Tilt-Shift Lenses

Canon TS-E lenses are capable of tilt and shift movements that normally require the use of technical view cameras. Tilt movements alter the angle of the plane of focus between the lens and the focal plane, making broad depth-of-field possible even at wider apertures. These capabilities greatly expand the versatility of the EOS System and are ideal for specialized applications, such as architectural photography.

The Full-Frame Optical Advantage

Digital SLR cameras with smaller sensors, by comparison, require a focal length conversion factor that effectively narrows the field of view as though you've added a telephoto converter. EOS Digital SLR cameras with full-frame sensors let photographers use the entire range of superb Canon EF lenses without a conversion factor, making it possible to take full advantage of the specific optical characteristics for which the lenses were designed. 23

63-zone Metering System

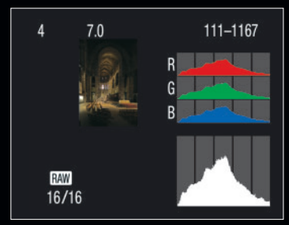
A 63-zone metering sensor combined with sophisticated metering algorithms delivers more precise and stable exposure calculation over a wide range of shooting situations. Photographers can choose from among Evaluative, Partial area (8.5% at the center), Spot (2.4% at the center), Multi-Spot, and Center-Weighted average metering modes. 26

Highlight Tone Priority

The Highlight Tone Priority mode can be activated via Custom Function to help preserve greater detail in image highlight areas. It actually expands the available range of capture in the highlights, yet it exacts no penalties in either shadow detail or camera performance. It benefits nearly all professionals — for example, a nature photographer shooting winter snow scenes, a wedding photographer seeking to preserve detail in the bride's dress, or an architectural photographer facing a high-contrast scene in bright sunlight. 29

Wide Dynamic Range

The outstanding image capture performance of the Canon Full-Frame CMOS sensor, the extended bit depth of the A/D converters, and the advanced design of the Dual "DIGIC III" Image Processor ensure not only abundant detail but also amazing dynamic range. The EOS-1Ds Mark III thereby addresses a critical shortcoming among many of today's digital cameras. It is better able to capture a wide range of light values without blowing out highlights or losing shadow detail. Subtle tonal gradations are also more accurately recorded.



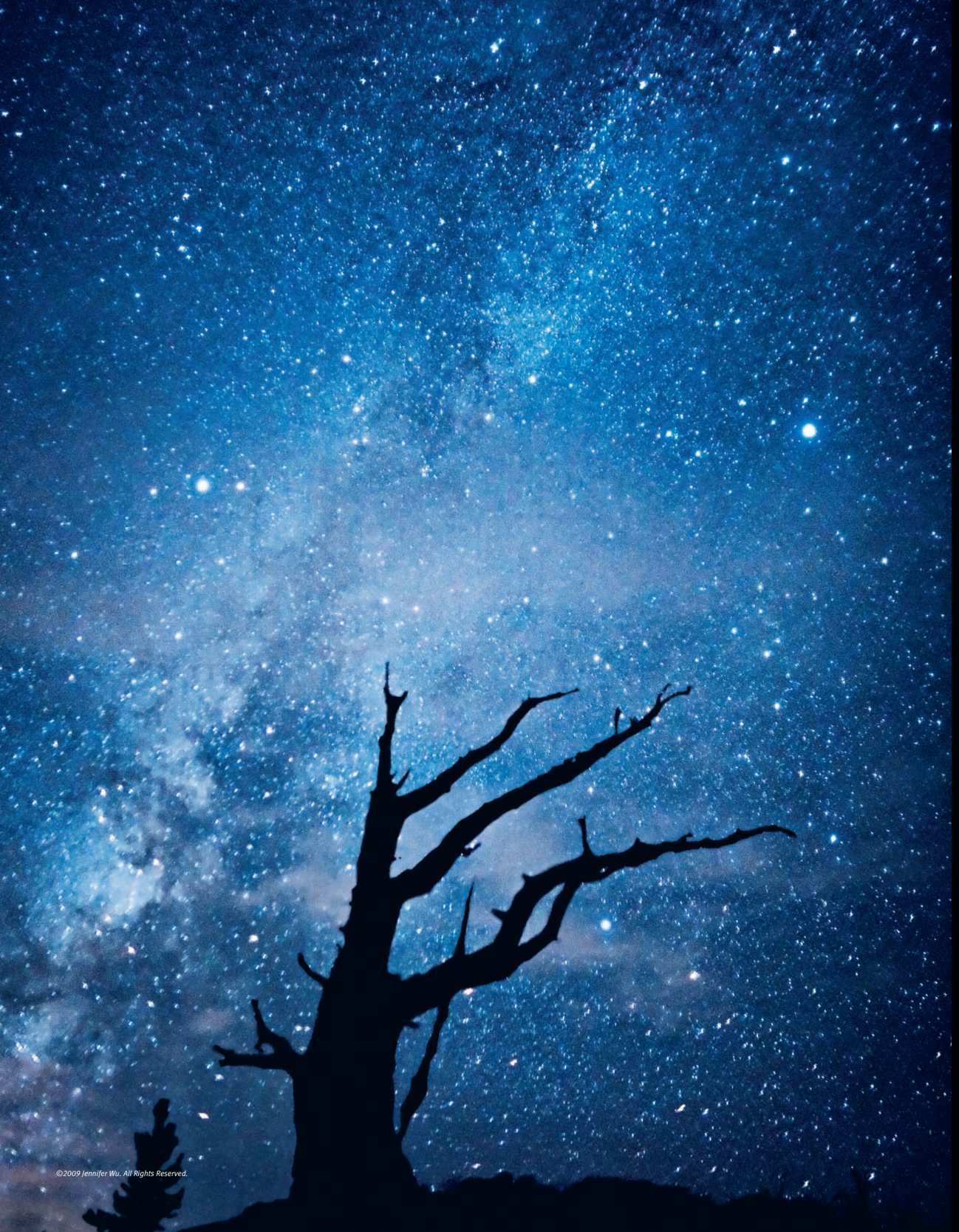
"I much enjoyed using the EOS-1Ds Mark III. It is a superb piece of equipment capable of holding its own when

compared to a 4 x 5 view camera. With its extraordinarily high resolution in combination with ease of operation, I predict this will become the tool of choice for many architectural photographers."

Norman McGrath
Explorer of Light

EOS-1 Ds Mark III

Advanced Capabilities for Specialized Applications



Lenses and Accessories for High-Magnification Photography

Four Canon EF Macro lenses, a Life-Size converter, two extension tubes and three screw-on close-up lenses make the EOS System lineup a formidable tool for precision high-magnification photography, revealing detail undetectable by the unaided human eye. Macro Twin Lite and Ring Lite options provide riveting close-up lighting solutions.

MP-E 65mm f/2.8

GPS Support for Field Work

The optional Wireless File Transmitter WFT-E2 II A*/ WFT-E2A (for EOS-1Ds Mark III and EOS-1D Mark IV), the WFT-E4 II A/ WFT-E4A (for EOS 5D Mark II), the WFT-E5A (for EOS 7D) and the WFT-E3A (for EOS 50D) can communicate with compatible third-party GPS devices connected via USB. Latitude, longitude, altitude and Universal Time are all recorded in each image's EXIF shooting data. This enables location coordinates to be recorded for each picture as it's taken.

Wireless File Transmitter WFT-E2 II A

**This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not, be offered for sale or lease, or sold or leased, until authorization is obtained.*

Wide ISO Range

By combining the excellent image capture capabilities of the Canon CMOS sensor with advanced data processing technologies, the EOS-1Ds Mark III offers an extraordinarily wide ISO range, making it possible to shoot even in previously impossible lighting conditions. The standard ISO range of 100–1600 can be extended to a remarkable low end of 50 and a high end of 3200. More important, the low-noise performance at high ISO settings makes the entire range usable in real-world shooting situations. 23

Sophisticated Flash Capabilities

Canon E-TTL II technology incorporates distance information from compatible EF lenses to ensure a meticulously precise flash exposure and deliver versatile lighting control. Canon EX Series Speedlites provide advanced wireless and automatic multiple-flash capabilities to deliver magnificent lighting solutions for a wide variety of specialized shooting applications.

Wireless Speedlite Transmitter ST-E2

EOS Integrated Cleaning System

Integrated Cleaning System

Because professional photographers must change lenses in all kinds of adverse environments, Canon invented the Integrated Cleaning System, which uses ultrasonic vibration to remove dust that can settle on the sensor surface. 29

Self Cleaning Sensor Unit

"On a recent trip to the White Mountains of California, the camera stood up to the high heat of the day, the bitter cold of nights, and rain didn't faze the camera's weather sealing. The long battery life is essential for cold nights. Other cameras with shorter battery life give up during long exposures in low temperatures. The EOS-1Ds Mark III is the perfect camera for photographing nature and the stars."

Jennifer Wu

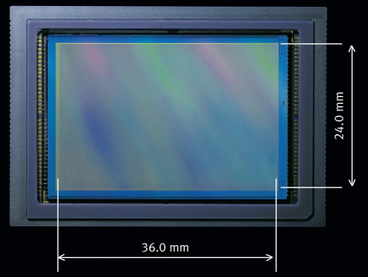
Explorer of Light

The Technology to Set the Standard

Raising the Bar in Professional Cameras

EOS-1Ds Mark III: A Full-Frame Performance Standard

FULL FRAME CMOS



EOS-1Ds Mark III Full-Frame CMOS Sensor (Actual Size)

©2009 Vincent Isola

The EOS-1Ds Mark III incorporates the Canon CMOS sensor, which delivers approximately 21.1 Megapixels (5616 x 3744 pixels). The recording area of the sensor is 36.0 x 24.0mm, which is equivalent to the full-frame size of the 35mm film format. Compared to typical smaller digital camera sensors, the Canon full-frame sensor can accomodate a tremendous pixel count while maintaining larger individual pixel site size. The EOS-1Ds Mark III can capture up to 56 consecutive full-resolution JPEG images or up to 12 RAW images in a single continuous burst (at 5 fps with 21.1 Megapixel files). Larger sites improve light-gathering capability, enabling the sensor to produce a cleaner, more noise-free image. The Canon full-frame sensor thus delivers high-resolution images of exacting precision, with jaw-dropping data density for enhanced large-output capabilities and post-processing cropping flexibility.

Full-frame sensors let photographers use the entire range of superb Canon EF lenses without a conversion factor, making it possible to take full advantage of the specific optical characteristics for which the lenses were designed. This is an important benefit for photographers who have a sizable EF lens collection.

Image Quality

Canon Exclusive CMOS Sensor

Designed and manufactured by Canon, CMOS single-plate sensors advance the state of the art in professional SLR sensor design. The imaging area of the CMOS sensor of EOS-1Ds Mark III measures 36.0 x 24.0mm (full-frame) — appreciably larger than 28.1 x 18.7mm (APS-H) and 22.2 x 14.8mm (APS-C).

Effective Light-gathering

21.1 MEGA PIXELS CMOS

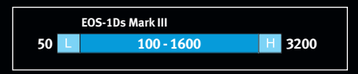
The EOS-1Ds Mark III sensor has 21.1 Megapixels.
Individual pixel size on the 1Ds Mark III's sensor is 6.4µm.

By optimizing the gap between the on-chip microlenses and improving the fill factor (photodiode area divided by total pixel size) of each pixel, light-gathering efficiency has been improved.

Wide ISO Range

By combining the splendid image capture capabilities of the sensor with advanced Dual "DIGIC III" Image Processors, the EOS-1Ds Mark III offers extraordinarily wide ISO range, making it possible to shoot even in previously impossible lighting conditions. The standard ISO range of 100–1600, can be extended to a remarkable low end of 50 and high end of 6400.* More importantly, the low-noise performance at high ISO settings makes the entire range usable in real-world shooting situations.

**CIPA standard output sensitivity. Recommended exposure index.*



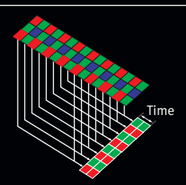
Low Noise, High Speed

To achieve even less noise, the EOS-1Ds Mark III has a feed-through output amp that attains both high speed and low noise. Low noise is also achieved with an improved manufacturing process, an optimized pixel amp and an optimized reading circuit.

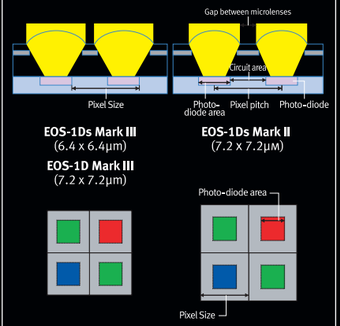
The EOS-1Ds Mark III employs a single-line, 8-channel reading. With a faster output amp and optimized read circuit, a continous shooting speed of approximately 5 fps is attained.

To minimize the higher power consumption required by the faster signal reading, the output amp's power consumption has been reduced. Also during long exposures, power to the output amp is turned off and the standard current driving the circuit is also cut off to save power. In addition, during shooting with Live View Function, the power distribution for the signal-reading operation is optimized for more pinpoint power-saving control.

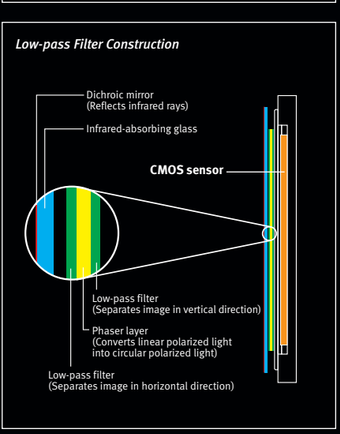
Diagram of 8-channel Signal Reading



Microlens Comparison & Opening Ratio



Low-pass Filter Construction



multiple coatings to reflect infrared and ultraviolet rays. It effectively reduces red fringing and color casts caused by reflections of the sensor surface. A sophisticated low-pass filter is also utilized, behind the IR-cut filter, to minimize color artifacts such as moiré.

Performance: Dazzling Speed, Superb Precision

Dual "DIGIC III" Image Processors

DiG!C III

DIGIC, a high-performance imaging processor, has been a major feature of

Canon digital cameras because of its very fine image detail, natural color reproduction and high-speed signal processing. DIGIC III retains its basic concept and improves upon it with higher performance and faster speed. For the EOS-1Ds Mark III's 21.1 Megapixels, Dual "DIGIC III" Image Processors work for ultra-fine detail, natural color reproduction and high-speed image processing.

The extra power of Dual "DIGIC III" Image Processors has also allowed analog-to-digital conversion to improve from 12 to 14 bits per channel, meaning that tonal gradation for RAW images is divided into 16,384 separate levels per channel rather than 4,096. When saved as a 16-bit TIFF image, the image retains the full range of tones obtained with 14 bits. Also, JPEG images, at 8 bits per color, are generated from the 14-bit data.

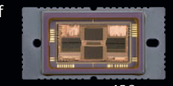
Blazingly Fast Shooting Speed and Outstanding Burst Rate

5 Frames Per Sec

The EOS-1Ds Mark III provides a continuous shooting speed of 5 fps at its full 21.1 Megapixel resolution. It can also capture up to 56 consecutive full-resolution JPEG images or up to 12 RAW images in a single continuous burst. A shutter assembly, an autofocus system and Dual "DIGIC III" Image Processors contribute to the landmark speed of the EOS-1Ds Mark III.

5 fps continuous shooting speed (Images simulated)

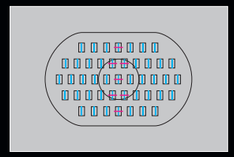
High-precision AF System



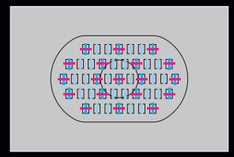
AF Sensor

The autofocus system of the EOS-1Ds Mark III represents a complete reconsideration of professional autofocus. In addition to a sensor chip, sophisticated manufacturing technologies have made it possible to reconfigure the concave submirror and the cleverly-designed secondary image formation lens. The result is greater sensitivity, easier and more logical navigation, higher precision and significantly better real-world performance.

In the previous 45-point AF system used by such cameras as the EOS-1v, EOS-1D, EOS-1Ds, EOS-1D Mark II, EOS-1Ds Mark II and EOS-1D Mark II N, there were seven cross-type, high-precision sensors grouped around the center of the frame. Any of the 45 points could be selected by navigating around the frame. This was the configuration of the previous 45-point AF array:

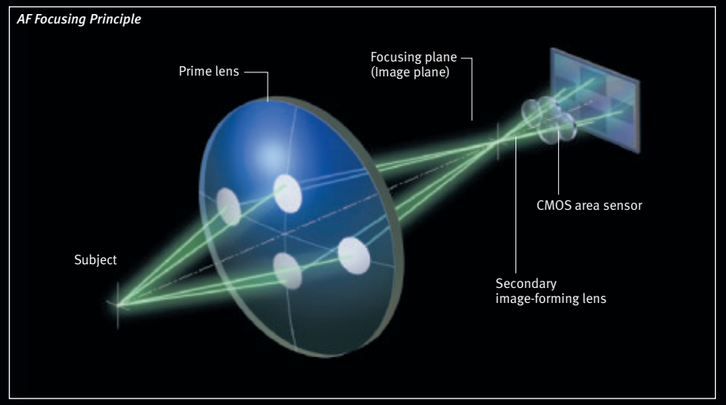


Here is the AF point layout:



Note that the 19 high-precision, cross-type points are no longer clustered solely in the center of the frame. The 26 additional assist AF points are horizontal-line sensitive at f/5.6, are not user selectable, but can be added to a manually-chosen point to expand its size, and are also used in Automatic AF point selection mode.

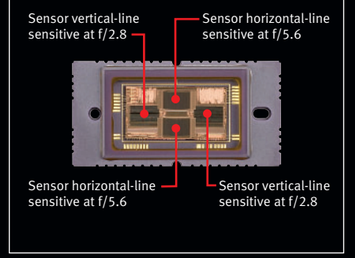
AF Focusing Principle



Speed and Predictive-AF Performance

The EOS-1Ds Mark III features higher precision AF with the 19 user-selectable, high-precision cross-type AF points and improved low light AF performance. The AF sensor, AF computation method and AF-related electronic circuitry has been designed for the EOS-1Ds Mark III. This robust AF system provides even greater consistency in high-speed sequences when tracking moving subjects.

AF Sensor



Separate CPU for AF

One important difference between the EOS-1D series and other EOS series bodies is that a totally separate CPU is used strictly for AF processing. (In other EOS bodies, one main processor handles primary camera tasks as well as AF processing.) To attain 10 fps with AI Servo AF (EOS-1D Mark III), the AF CPU and camera CPU are separate, dedicated processors.

The 19 cross-type AF points take advantage of the following technologies:

- With finer processing steps, the peripheral circuit could be made smaller and the f/2.8 AF sensor area could be expanded.
- The secondary image-forming lens (see diagram) is molded glass. By incorporating an aspherical surface on the lens, the focusing area of the f/2.8 light flux could be expanded.

Each of the 19 cross-type AF points uses a high-precision horizontal component, with about 3x the focusing precision of the vertical component. The benefit is that AF accuracy at the sensor is enhanced when the photographer needs it most — shooting with fast lenses, at wide apertures.

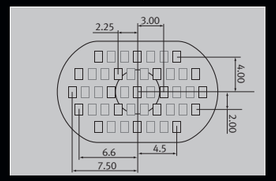
This means that on the actual AF sensor, the horizontal line pairs are significantly farther apart — and thus require a lens with a maxi7mum aperture of f/2.8 or faster in order to operate. At the center AF point, the high-precision horizontal line sensor works with lenses f/4 or faster. In other words, with fast lenses, two benefits are realized: added precision, and simultaneous vertical and horizontal coverage — ideal for focusing on subjects with fine detail. When lenses with slower maximum apertures are used, only the vertical AF line sensor is active at each AF point.

Advanced technology in the EOS-1Ds Mark III's AF sensor gives even greater light-gathering efficiency (for both the horizontal and vertical line sensors), and greater low light AF sensitivity. In addition, the camera's ability to latch onto subjects with little detail is improved.

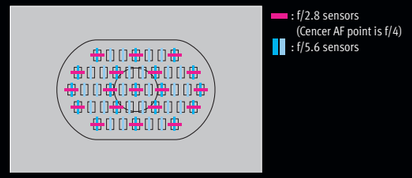
Lenses (or lens + extender combinations) with maximum apertures as slow as f/5.6 can be used with AF at all focusing points. At the center AF point only, the camera can focus with a lens + extender with a maximum effective aperture as slow as f/8 (using the vertical line sensor only).

The remaining 26 AF points are "Assist Points." Each has a single-line vertical sensor, and these points will focus with lenses having maximum apertures f/5.6 or faster.

Actual AF Point Field-of-View



AF Sensor configuration

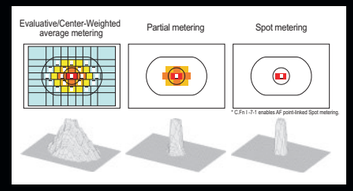


With the EOS-1Ds Mark III, the size of a user-selected AF point can be expanded (via Custom Function III-8) regardless of whether the camera is in One-Shot AF mode or AI Servo AF mode. As noted previously, the assist AF points are also used when the camera picks the AF point(s) in Automatic AF point selection mode.

For low-light focusing, the EOS-1Ds Mark III is much more sensitive than previous models. The CMOS AF sensor's pixel sensitivity has been improved, thanks to pixel characteristics, a pixel fill factor due to fine semiconductor manufacturing processes and optimized pixel size. As a result, the EOS-1Ds Mark III's AF sensitivity have been improved to EV -1 through EV 18 (at 73°F/23°C, ISO 100).

63-zone Metering System

The EOS-1Ds Mark III incorporates a 63-zone metering sensor linked to the 19 AF points. The metering sensor is located at the rear of the pentaprism. The 19 AF points in the Area AF are a highly favorable match for the metering sensor's zones. The metering range is EV 0 to EV 20 (at 73°F/23°C, 50mm f/1.4 lens, ISO 100). The following metering modes are provided: Evaluative, Partial, Spot, and Center-Weighted average. Also, AF point-linked Spot metering is possible with C.Fn I -7-1. Partial metering reads approximately 8.5% of the viewfinder and Spot metering reads approximately 2.4%.



This Evaluative metering system is based on the concept for the previous 21-zone and 35-zone metering systems. With the optimized 63-zone metering sensor and improved calculations and processing, more consistent and correct ambient and flash exposures are obtained with less influence from the subject. The basic concepts for the 63-zone Evaluative metering are:

1. Metering is weighted on the linked AF point.
2. If there is a very bright object in the picture, the exposure will be increased.
3. In backlit scenes, the exposure will be increased. With dark backgrounds, the exposure will be reduced.

The E-TTL II autoflash algorithm uses the same 63-zone metering sensor. While based on the previous system which weighted the metering based on the preflash reading, the EOS-1Ds Mark III has been improved to obtain consistent flash exposures. The major improvements are:

1. Correct flash exposures are obtained even with off-center subjects.
2. The incorporation of lens distance information has been optimized to obtain accurate flash exposures even with highly reflective backgrounds.

Built to Perform: Durable, Rugged, Precise

1-Series Body

EOS-1Ds Mark III retains and refines the beautiful curved surfaces and superb basic layout of the EOS-1 series. Ease of operation and holding comfort have been improved appreciably, as has ease of operation with accessories. The camera is designed to be easier to understand and more reassuring. The massive strength of its magnesium alloy body and chassis, combined with complete environmental sealing, means that the camera stands with its forebears as an instrument worthy of the photographers who risk their lives daily to take pictures.

All-magnesium Alloy, Including Mirror Box and Chassis

EOS-1Ds Mark III Magnesium-alloy Body

Because of its light weight and strength, magnesium alloy is used for the top, front and rear covers as well as for the memory card slot covers. The chassis and mirror box are also made of magnesium alloy to make the body very strong, rigid and light. The magnesium alloy also works as an electromagnetic shield. It is highly durable, allowing minimal wear even under harsh conditions.

Shutter Durability, Tested to 300,000 Cycles

Shutter Unit

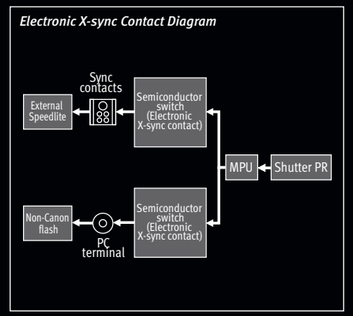
The EOS-1Ds Mark III's shutter unit is rated for 300,000 shutter cycles. To attain this level of ruggedness, surface finish and heating processes in manufacturing have been changed for specific highly durable parts. To increase stability and shutter precision, a PR (Photo Reflector) is employed to detect the slit-passing time. For the X-sync contact, the mechanical contact has been eliminated to prevent contact scorching and wear.

Shutter Design Specifications

Item	Specification
1. Type	Vertical travel, focal-plane shutter
2. Shutter curtain type	Parallelogram link type
3. Shutter curtain blades	1st curtain: 4 blades, 2nd curtain: 4 blades, total 8
4. Shutter curtain materials	1st curtain: Two carbon blades, two duralumin blades 2nd curtain: Two carbon blades, two duralumin blades
5. Drive system	1st curtain: Dedicated torsion spring 2nd curtain: Dedicated torsion spring
6. Speed control method	Mechanical shutter with tension released by a rotary magnet, all shutter speeds electronically-controlled
7. Curtain speed	Approx. 2.3ms/21.0mm
8. Shutter speed range	1/8000 sec. – 30 sec. bulb
9. Max. flash sync.	1/300 sec.
10. Signals	1. X-sync, 2. 2nd curtain travel-completed signal

By employing PR signals for the electronic X-sync contact (a semiconductor switch), reliability is improved. By optimizing the sync timing, an X-sync speed of 1/300 second is now attained with EX-series Speedlites.

Electronic X-sync Contact Diagram



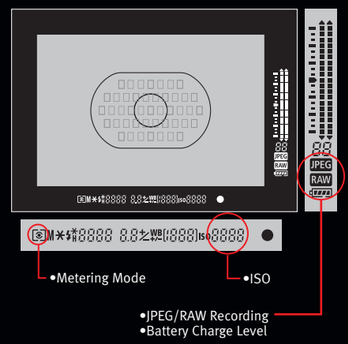
Weather-resistant System

Location of Major Water-resistant Measures

The legendarily excellent water- and dust-resistant construction measures are incorporated at 76 places around the camera controls and along cover seams. Also, O-rings are used on the memory card slot covers and the battery compartment, and silicon rubber is employed around the top and rear covers and buttons where the user can see it and feel reassured. The camera's hot shoe is shaped to resist water with a rib around its perimeter. When the Speedlite 580EX II is attached, water resistance is maintained. When a water-resistant EF lens is attached to the camera, the entire camera-and-lens outfit will be moisture- and dust-resistant.

Clear, Sharper Viewfinder

The EOS-1Ds Mark III's viewfinder has approximately 100% coverage, 0.75x magnification, a 35° angle of view, a 20mm eyepoint, -3 to +1 dpt. dioptric adjustment and an eyepiece shutter that is gray to make it easier to see when it is closed.

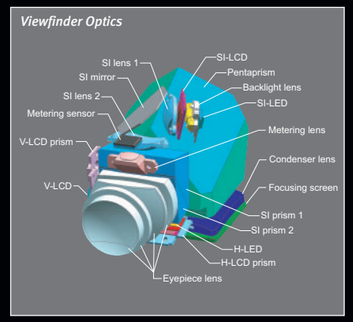


Major Viewfinder Specifications

Item	EOS-1Ds Mark III	EOS-1D Mark III
Coverage [Approx.]	100%	
Magnification	0.75x	0.76x
Viewing Angle	35°	30°
Eye point [Approx.]	20mm	
Dioptric adjustment	-3 to +1 dpt	

The viewfinder's optics have been developed to achieve best-in-class performance. A highly refractive material is used for the pentaprism of the EOS-1Ds Mark III. To improve viewfinder magnification, a larger pentaprism is employed. The basic configuration of the eyepiece optics has four lens elements.

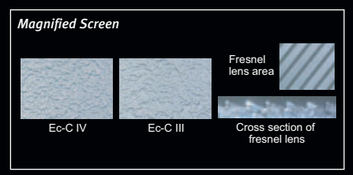
Viewfinder Optics



However, by increasing lens power, high magnification is attained. Finally, the finder's parts are fabricated with greater precision for more consistent performance at higher magnifications.

The Ec-C IV focusing screen is a Laser Matte unit whose molding method has been improved over the previous Ec-C III focusing screen's.

Magnified Screen

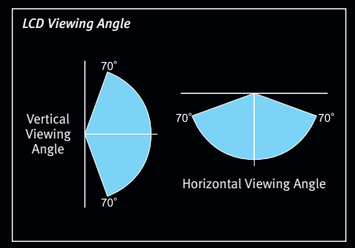


It makes it easier to focus and provides natural-looking background blur (bokeh). It is also brighter and less grainy, making it a very well-balanced focusing screen. The dispersion characteristic is improved, and the screen is bright with minimal flare. The Ec-C IV focus screen gives superb contrast and visual "snap," making it easy for photographers to tell when an image pops into sharp focus. All previous Ec-series focus screens can be used in EOS-1Ds Mark III. Since the eyepiece frame now has a different shape to accommodate the bigger eyepiece lens, Eg-series viewfinder accessories have been developed: Eyecup Eg, Dioptric Adjustment Lenses Eg (7 types: -4, -3, -2, 0, +1, +2, +3), and Anti-fog Eyepiece Eg. The standard Eyecup Eg has a mount for attaching it to the eyepiece. It is less likely to detach inadvertently.

Eyecup Eg

Wide-view 3.0-inch LCD Monitor

LCD Viewing Angle



The large, 3.0-inch wide TFT monitor features approximately 230,000 pixels, a wide viewing angle (140° both vertically and horizontally), high-level brightness and low power consumption. The LCD monitor is backlit with four LED modules. The maximum brightness setting makes it easier to see the image on the LCD monitor even in bright outdoor conditions. The seven brightness adjustment levels make the camera more adaptable to environmental conditions. A large, clear gray scale is provided for guidance. Also, the color reproduction range has been increased to more closely simulate a personal computer monitor. The LCD monitor is not only larger, but easier to use and the display is more informative than ever.

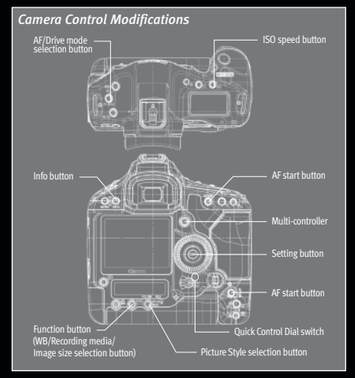
LCD Brightness

Professional Features

Revised and Simplified Operation

Canon has thoroughly investigated ways to make camera operation easier. The camera uses the EOS Digital line's basic operation method with the Main Dial, Quick Control Dial, Multi-controller, SET button and other buttons to select and set various functions. Also, the ISO speed button, AF Start (AF-ON) button, Picture Style button, and Memory selection/Image size/White balance function button have been added to make camera operation easier.

Camera Control Modifications



With the older EOS-1D series cameras, the basic shooting operation logic consisted of holding down a button and turning the Main Dial or Quick Control Dial to select a setting. However, with the Mark III series, when you press a button, it remains active for a while so you can let it go and then turn a dial to set something. Several buttons are multi-purpose — press once and turn either the top Main Dial or rear Quick Control Dial for the respective functions.

The Multi-controller on the rear is used to select Menu headings, and provides several AF functions as well. If the AF point select button is pressed once, a push on the Multi-controller toggles between selecting the center AF point and Automatic AF point select mode. The cameras can also memorize any of the 19 user-selectable AF points, and instantly jump back to it when you press the Multi-controller.

Recording Options

The EOS-1Ds Mark III offers some highly flexible image recording options. With the Wireless File Transmitter WFT-E2 II A*, users can download directly to a compatible portable USB hard drive. Compatible devices range from popular and convenient USB thumb drives to many portable USB hard drives. With the CF card, SD card and external media, the following recording functions can be used:

- Standard: Images are recorded onto one card (or connected hard drive).
- Automatic switching of recording media: When the current recording medium becomes full, the camera switches to another automatically and continues recording without interruption.
- Separate recording: A captured image can be recorded in different image sizes on different media. Each recording medium can be set to record a specific image size (L, M1, M2, S, RAW, sRAW) for each shot.
- Recording of identical images: A back-up mode, this records the exact same file type and size onto two cards and/or a connected hard drive.

SDHC (SD High-Capacity) is a memory card standard (SDA Ver.2.00) to handle high-capacity data from 2GB to 32GB. Because it is compatible with SDHC, the camera can be used with SD cards having a capacity up to 32GB.

Recording Quality Specifications: EOS-1Ds Mark III

Image Size		Pixels [Approx. MB]	File Size [Approx. MB]	Possible Shots [Approx.]	Maximum Burst [Approx.] Hi-Speed	Maximum Burst [Approx.] Low-Speed	Printing Size
L (Large)		21.0 (5,616x3,744)	6.4	290	56	83	A2 or Larger
M1 (Medium1)		16.0 (4,992x3,328)	5.2	350	73	140	Around A2
M2 (Medium2)		11 (4,080x2,720)	3.9	470	110	300	Around A3
S (Small)		5.2 (2,784x1,856)	2.2	840	160	890	Around A4
RAW		21.0 (5,616x3,744)	25.0	75	12	14	A2 or Larger
RAW+	L (Large)		25.0+6.4	54	10	10	—
	M1 (Medium1)		25.0+5.2	57	10	10	
	M2 (Medium2)		25.0+3.9	60	12	12	
	S (Small)		25.0+2.2	64	12	12	
sRAW		5.2 (2,784x1,856)	14.5	130	18	24	Around A4
RAW+	L (Large)		14.5+6.4	82	12	14	—
	M1 (Medium1)		14.5+5.2	90	12	14	
	M2 (Medium2)		14.5+3.9	97	12	18	
	S (Small)		14.5+2.2	100	18	20	

The size of one image, number of possible shots (also related to battery life) and continuous shooting speed are based on JPEG quality 8, ISO 100, Standard Picture Style, Canon's testing standards and a 1GB CF card. (These figures vary depending on the subject, memory card brands, ISO speed, Picture Style, etc.)

Security

If the slot cover of the EOS-1Ds Mark III is opened during the writing operation, an alarm sounds and a warning message appears on the screen to indicate that writing is in progress. The card writing continues even if the slot cover is opened. Also, if you set the power switch to ‹OFF› during the card writing, a message appears on the screen to indicate that writing is in progress. After the writing is completed, the power turns off.

On-screen message if the slot cover is opened

On-screen message if the power switch is set to ‹OFF›

You can protect individual images, all images in a folder, or all images on the card. Alternately, you can cancel image protection. You can erase individual images, all images in a folder, all images in the card, or just check-marked images. Unprotected images will be erased.

Copying Image Files

Selected images, a folder of images, or the entire contents of any memory card can be copied by the photographer onto another memory card — or attached USB hard drive — at any time. This gives the ability to make back-up copies of important images, whenever it's appropriate. If the Canon Wireless File Transmitter WFT-E2 II A* or WFT-E2A is used, a compatible USB-enabled hard drive can be attached directly to the transmitter's USB port. Instead of having to bring a laptop computer on location, a photographer can quickly copy their files to a high-capacity hard drive during a break in shooting. It's an ideal option to provide security and peace of mind to the working professional.

Creating and selecting a folder

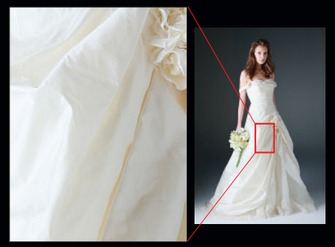
**This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not, be offered for sale or lease, or sold or leased, until authorization is obtained.*

File Naming Options

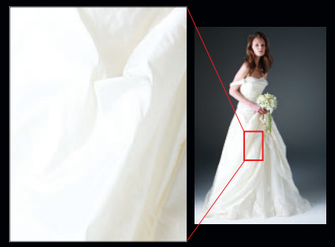
Each EOS-1Ds Mark III body comes with a unique, 4-character prefix for its file numbers. It also offers two user-defined options to tailor file naming to the shooter's needs: the user can set their own first four characters for file names (ABCD1234.jpg) or set the first three characters, and have the camera add the 4th to indicate size of the file (L for full-resolution, M for M1, N for M2, or S for Small JPEG/Small RAW—ABCL1234.CR2).

Highlight Tone Priority

This feature extends the dynamic range of highlights by about one stop and improves gradation within highlight areas. By expanding



Highlight Tone Priority: ON



Highlight Tone Priority: OFF

the range from the correct exposure level (18% gray) to the maximum allowable highlight level, the gradation from the grays to the highlights becomes smoother and loss in highlight detail is minimized. If [C.Fn II-3; 1: Enable] is set, the ISO range is ISO 200-3200 (EOS-1Ds Mark III: 20–1600).* When active, zeros in the ISO display are lower case (2oo, 4oo, etc). Depending on shooting conditions, noise in the shadow areas may increase slightly.

**Standard output sensitivity. Recommended exposure index.*

Integrated Cleaning System

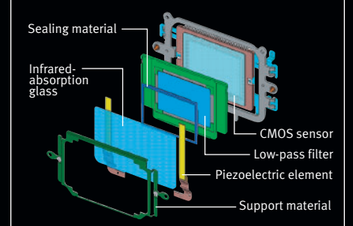
Self Cleaning Sensor Unit

The EOS-1Ds Mark III incorporates the EOS Integrated Cleaning System, which is a complete anti-dust system. It suppresses dust generation and dust adhering to the sensor, removes dust and makes any remaining dust less noticeable.

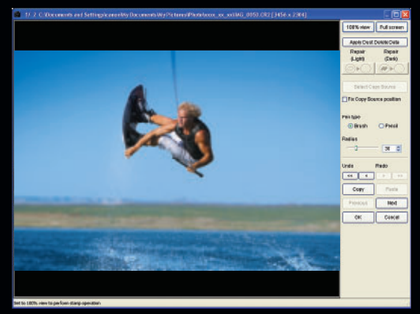
- The shutter has been improved to generate less dust.
- The IR-cut filter's anti-static charge surface prevents attracting dust due to static charge.
- The sensor unit is self-cleaning.
- Dust Delete Data can be obtained and appended to images.
- Manual cleaning of the imaging sensor using air is still an option.

The compact Self Cleaning Sensor Unit is optimized for the full-frame EOS-1Ds Mark III. On the front infrared-absorption glass, two thin, single-layer piezo-electric elements are

Self Cleaning Sensor Unit Construction Diagram



attached. By applying ultrasonic vibration to the infrared absorption glass, the adhering dust is shaken off. The removed dust particles stick onto adhesive material around the infrared absorption glass. Also, to prevent dust from entering the sensor unit, the assembly is secured with sealing material around the perimeter. Unlike some competitors who vibrate an extra glass plate, the EOS-1Ds Mark III vibrates the infrared absorption glass directly, so the optical performance is not degraded by an extra layer of glass and the unit can be kept compact. The Self Cleaning Sensor Unit can therefore be incorporated in a conventional size body.



Dust in the image is deleted by Digital Photo Professional software using "Dust Delete Data."

Operation timing is either Auto or Manual. The default setting has the unit operating for about 3.5 seconds whenever you turn the power switch ON or OFF. While the unit is operating, the LCD monitor displays a logo indicating that sensor cleaning is being executed. If the menu is set to [Auto cleaning: Disable], the auto cleaning is not executed.

When the menu is set to [Clean now], you can clean the sensor whenever you wish. It takes about 4 seconds. During the cleaning, ultrasonic vibration is applied to the infrared-absorption glass and the shutter is cocked three times so that the dust falls off the infrared-absorption glass and any dust resettling on the shutter curtains is also shaken off. During sensor cleaning, whether started automatically or manually, pressing the shutter button halfway or pressing the Menu button will immediately terminate the cleaning and the camera will be ready to shoot. Because the unit has very low power consumption, cleanings do not significantly affect the number of possible shots, even if the default Auto setting is selected.

To prevent the piezo-electric elements from overheating and to ensure proper cleaning, the unit cannot operate again within 3 seconds of finishing operation. Also, if the unit operates five times successively at intervals shorter than 10 seconds, it will not operate again for 10 seconds. During the stoppage, the [Clean now] menu option can not be selected.

The position and size of any remaining dust particles can be mapped onto each image, and the dust "cloned-out" with supplied Canon Digital Photo Professional software. This removal of dust takes place with a simple mouse click, and can be automatically performed on one or hundreds of images at a time.

A "Dust Delete Data" test image needs to be taken to enable this, and after it's taken, the location of any remaining dust is added to each subsequent image. Activated via a Menu setting, the user simply sets their camera lens to infinity, and fills the frame with a plain white subject located about 1 or 2 feet away. A test shot is taken, with the camera switching momentarily to Av mode at f/22. The LCD monitor confirms whether Dust Delete Data was successfully acquired. Dust Delete Data can be updated whenever the photographer feels it's necessary.

Live View Function

LiveView MODE

Live View Function is a significant addition to the professional SLR shooter's arsenal. It is a terrific problem-solver for all those situations in which it would be awkward, difficult or impossible to look through the viewfinder to compose, meter and shoot. In response to the particular requests of studio and remote sports photographers, EVF (Electronic ViewFinder) shooting with a computer, wired or wireless, is possible with the EOS-1Ds Mark III. By connecting the camera via USB to a computer with the EOS Utility 2.0 software provided, the computer will display in real time the image output by the camera's imaging sensor. You can then check and adjust the focus, subject framing and so forth in real time and shoot remotely. With the optional Wireless File Transmitter WFT-E2 II A* or WFT-E2A attached, you can use a wireless LAN and see the Remote Live View Function on a computer without using a cable. Key features of Live View Function include a 100% field-of-view, precise manual focusing with 5x and 10x magnification, the ability to pre-visualize exposure, framing and focusing on a computer monitor, easy checking for moiré and false color, displaying film-related aspect ratios and having a video-out terminal for TV display.

Camera Live View Function

Instead of looking through the viewfinder, you can shoot while viewing the scene on the camera's LCD monitor. Compared to looking through the viewfinder, it provides the following advantages:

1. The real-time picture can be magnified by 5x or 10x to help make focusing more precise.
2. Shoot while checking the composition on the LCD monitor.
3. You can view a live histogram before the shot is taken (C.Fn IV-16-1, then press the INFO button to apply histogram).

Live View Function is extremely effective in a variety of conditions. It's applied by first enabling it with a menu setting, and then pressing the SET button. The reflex mirror will then lock up, the shutter will open, and the image output from the CMOS sensor will be displayed in real time and 100% image coverage on the camera's LCD monitor. Press the SET button again and the reflex mirror will go back down and the shooting with Live View Function will end.

Focusing

Focusing is manual-only with Live View Function. Use the Multi-controller to move the AF point aimed over the area on which you want to focus, then press the Magnify button to enlarge the image by 5x or 10x at the AF point's position. Press the button again to return to normal view. At 5x or 10x magnification, you can focus manually while looking at the LCD monitor. To make it easier to focus during the magnified view, image sharpness is applied at a higher setting on the LCD monitor than it really is. Pressing the depth-of-field preview button stops down to the aperture that will be used to take the picture. It will simulate the shooting exposure and you can check both the exposure level and depth-of-field. If you use depth-of-field preview during regular viewfinder shooting, the viewfinder will look dark and it may be difficult to see the depth-of-field. However, with Live View Function shooting, a clever simulation is displayed so checking the depth-of-field is easier as long as the exposure setting is near the metering's correct exposure.

Live View Function enabled

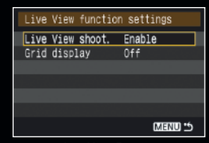
With 10x magnification

Remote Live View Function

Remote Live View Function is controlled through the EOS Utility software included on the EOS Digital Solution Disk, Ver.14 or higher. The camera can be connected, either wired with the provided USB 2.0 Hi-Speed cable, or wirelessly with the Wireless File Transmitter WFT-E2 II A* or WFT-E2A. To get started, the camera must be set to enable Live View Function. Then, click the [Starting Live View Function] selection on the Remote Live View Function screen.

**This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not, be offered for sale or lease, or sold or leased, until authorization is obtained.*

Function Settings



Live View Function settings

The metering mode is set to AF point-linked Evaluative metering. Other shooting settings (Shooting mode, Drive mode, Image Size, ISO speed, Exposure Compensation, etc.) can be set in the same way as during viewfinder shooting. The metering timer is 16 seconds (including AE lock). Focus presets with super telephoto lenses cannot be used. Even during shooting with Live View Function, the power will turn off after the [Auto power off] time elapses. During Live View Function, pressing the MENU or Playback button will terminate the Live View Function shooting and the menu screen or image playback will appear.

Metering and Exposure with Live View Function

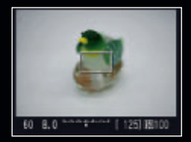
Evaluative metering directly off the imaging sensor is used. The Metering mode cannot be changed. The metering range is EV 0 to EV 20 (at 73°F/23°C, with EF 50mm f/1.4 lens). Any shooting mode and drive mode can be used. Also, AE lock, Exposure Compensation, AEB, and depth-of-field preview are possible.

During magnified view, AE lock is automatically applied to the meter reading for the entire image. If C.Fn IV-16 [Live View exposure simulation] is set to [1: Enable (simulates exposure)] and the shooting mode is P, Tv, Av, or M, then the LCD monitor's brightness will change in response to the exposure setting so you can see how the exposure will look before you take the picture. When you press the shutter button completely, the opened shutter will close; the shutter will be cocked and released, and the picture will be taken.

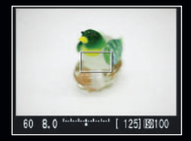
If flash is used, the mirror must come down briefly. Pressing the shutter button completely will cancel the mirror lockup and the metering sensor will execute E-TTL II flash metering control (preflash fired and the correct flash output is retained). Then the reflex mirror is locked up again and the picture is taken. For continuous shooting, the maximum shooting speed as with normal shooting can be achieved. During continuous shooting, the LCD monitor is off. After the shooting ends, the captured image is displayed on the LCD monitor. When the user is ready to shoot again, the camera returns to the Live View Function display automatically.

As with viewfinder shooting, pressing the AE lock button during shooting with Live View Function will lock the current exposure and an asterisk will appear on the LCD monitor. During magnified view, AE lock will be applied automatically to the exposure level of the full view display. The Tv and Av settings will be displayed in orange. During the magnified view, the AE lock button will not work. With C.Fn IV -16-1, the picture brightness is also locked.

Normally, the image with Live View Function displayed by the LCD monitor is always displayed at the correct brightness, regardless of the exposure setting, for easy viewing similar to compact digital cameras. However, if C.Fn IV-16 [Live View Function exposure simulation] is set to 1, the picture will be displayed on the LCD monitor at virtually the same brightness as the final exposure will be — based on the current aperture, shutter speed, ISO and exposure compensation settings. This enables you to see the exposure condition before taking the picture. Exposure simulation will not work with flash or long time exposures in Bulb mode. If you press the depth-of-field preview button, exposure simulation will be active at all times regardless of the C.Fn IV-16 setting.



No compensation



1 1/3 stop compensation

Info Display During Live View Function

Below the image, the shutter speed, aperture, exposure level (Exposure Compensation amount, AEB level), flash exposure level, shots remaining and ISO speed are displayed. In the magnified view, the magnified location, magnification and AE lock status are displayed on the right of the image. In addition, when you press the INFO button, the Picture Style, battery check, AE lock status and flash-ready are also displayed on the lower left of the image. If C.Fn IV -16-1 is set and you press the INFO button again, a brightness or RGB histogram appears on the right of the image. (For flash shots and bulb, the histogram display will be grayed out.)

Grid Display

C.Fn IV-14-1 (Aspect Ratio 6:6)

Aspect Ratio Display (6:6)

Information Display 4

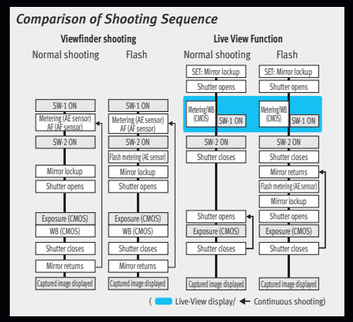
Press the INFO button again and only the image seen with Live View Function (without information) will be displayed. If [Grid display: On] has been set, a four-line grid will be displayed on the image. This can be used to check the vertical or horizontal orientation of the image. The grid appears only in the full view mode (not in the magnified view). Also, with C.Fn IV-14 [Add aspect ratio information] set anywhere from 1 to 6, you can shoot in the same aspect ratio as 6 x 4.5, 6 x 6, 6 x 7 and 4 x 5, corresponding to medium- and large-format film sizes.

When this feature is set, vertical lines matching the respective aspect ratio will appear on the screen. You can then compose the subject within this frame. Since the aspect ratio information will be appended to the image, when you open the image with Digital Photo Professional 3.0 or higher, the image will be displayed in the aspect ratio that was set. Note that the image areas outside the vertical lines are not actually deleted and that when the image is played back with the camera, the vertical lines matching the aspect ratio will also appear.

Shooting Sequence

During shooting with Live View Function, the picture is displayed and then the reflex mirror locks up automatically to maintain display with Live View Function (and returns later).

Comparison of Shooting Sequence



The Live View Function display's frame rate is approx. 30 fps. The picture remains smooth even if you change the camera's direction or if the subject moves. If the camera direction is changed to a scene with a very different light level, the picture brightness seen with Live View Function will be thrown off for a moment. If this happens, wait until the picture brightness stabilizes again before shooting.

If the light source changes, the image seen with Live View Function may flicker. If this happens, stop shooting with the Live View Function and press the SET button to start shooting with the Live View Function again. During continuous shooting, the exposure for the first shot will also be applied to subsequent shots. If the sun or other bright light source enters the picture, the bright area might look dark. However, it will be correctly recorded as a bright area. Note that FE lock and modeling flash cannot be used.

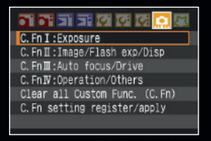
Thermal Issues

Live View Function can normally be used without a practical time limit, allowing photographers to shoot extensively without interruption. However, if Live View Function is used and the camera is in a hot area (such as in direct sunlight), it's possible for image quality to degrade slightly. Another factor that can increase camera temperature during Live View is use of a MicroDrive-type memory card.

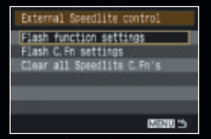
To avoid this, an internal temperature sensor in the EOS-1Ds Mark III will alert the photographer by displaying an icon on the LCD monitor shaped like a thermometer. In extreme conditions, Live View Function will terminate automatically. It's possible to return to Live View Function after the camera's internal temperature drops to a normal level.

Custom Functions

The old Personal Functions of the previous EOS-1D series have been consolidated with Custom Functions (C.Fn), 57 in all, with a helpful numbering system. They are organized in groups I to IV. Custom Functions are now pleasantly faster to select and set.



Custom Functions



External Speedlite Control

With the Speedlite 580EX II attached, you can set or cancel the Speedlite's Custom Functions (C.Fn-0 to C.Fn-13) with the EOS-1Ds Mark III. You can also use the camera to set the 580EX II's flash mode, flash exposure compensation amount, FEB, flash sync and other Speedlite functions. The EOS-1Ds Mark III also allows Wireless E-TTL settings to be made on the camera's menu.

Speedlite 580EX II Flash C.Fn Settings

No	Item	No	Description
0	Distance indicator display	0	Meters (m)
		1	Feet (ft)
1	Auto power off	0	Enabled
		1	Disabled
2	Modeling flash	0	Enabled (DOF preview butt.)
		1	Enabled (Test firing butt.)
		2	Enabled (with both buttons)
		3	Disabled
3	FEB auto cancel	0	Enabled
		1	Disabled
4	FEB sequence	0	0 → − → +
		1	− → 0 → +
5	Flash metering mode	0	E-TTL II / E-TTL
		1	TTL
		2	External metering: Auto
		3	External metering: Manual
6	Quickflash w/continuous shot	0	Disabled
		1	Enabled
7	Test firing with autoflash	0	1/32
		1	Full output
8	AF-assist beam firing	0	Enabled
		1	Disabled
9	Auto zoom for sensor size	0	Enabled
		1	Disabled
10	Slave auto power off timer	0	60 minutes
		1	10 minutes
11	Slave auto power off cancel	0	Within 8 hours
		1	Within 1 hour
12	Flash recycle w/ exter. power	0	Flash and external power
		1	External power source
13	Flash exposure metering set.	0	Speedlite button and dial
		1	Speedlite dial only

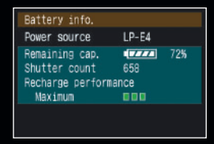
With the Speedlite 580EX II's flash mode, flash exposure compensation amount, FEB, flash sync and other Speedlite functions. The EOS-1Ds Mark III also allows Wireless E-TTL settings to be made on the camera's menu.

Lightweight "Smart" Battery Pack and Charger


Battery Pack LP-E4

The powerful LP-E4 rechargeable battery pack — a 2300 mAh, Lithium-ion battery is small and lightweight. It can display the following on the camera's LCD menu: Power source type, remaining capacity 6-level icon, display in 1% increments, shots taken since battery charged, whether battery calibration is needed and even when the battery has reached the end of its useful life.

This information can be viewed with the [Battery info.] menu. The system also consists of Battery Charger LC-E4 and AC Adapter Kit ACK-E4.



Battery Info.

An IC chip in the battery tracks battery information. Battery level is displayed upon communication with the chip. The remaining battery level is indicated by a battery icon indicating one of six levels on the top LCD panel, in the viewfinder (during metering), and on the menu screen [Battery info.]. If communication with the battery chip fails, a communication error message will appear. By selecting [OK], you can continue shooting. (The battery icon will be displayed as empty.)

Battery Check

Icon	Level (%)
	100 – 70
	69 – 50
	49 – 20
	19 – 10
	9 – 1
	0

After the battery undergoes 20 discharging and charging cycles, a message recommending battery calibration will appear on the bottom of the screen the next time the battery is installed. Calibration is performed with Battery Charger LC-E4 to find out the battery's capacity so that the remaining battery level can be indicated accurately. Each time the battery is recharged and used or discharged naturally, a slight discrepancy between the battery's remaining capacity information and the actual remaining capacity develops. With repeated recharge/discharge cycles, this discrepancy can become a large one. By performing calibration to discharge the entire battery and by then recharging the battery fully, accurate battery capacity information can be obtained. Two battery packs can be attached to the LC-E4 charger. It takes about 120 minutes to recharge one battery pack. The charger is compatible with the optional DC power adapters (12V/24V) so you can connect it to a car battery with the optional Car Battery Cable CB-570 to recharge the battery pack.

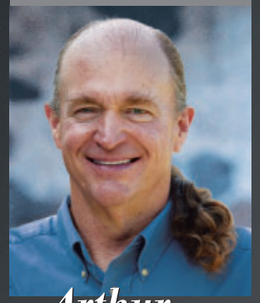
EOS-1D Mark IV

The Featured Professionals

Designed to Succeed. Designed to Exceed.

A remarkable combination of imaging performance and high-speed shooting capability, it offers performance that's nothing short of stunning: the flagship of the Canon EOS series, the EOS-1D Mark IV. Offering the most comprehensive combination of speed and accuracy available today, the EOS-1D Mark IV is the true professional choice. With its APS-H sized 16.1 Megapixel CMOS Image Sensor, Dual DIGIC 4 Image Processors and a spectacular ISO expandable up to 102400, the EOS-1D Mark IV is designed to surpass expectations. With a completely redesigned 45-point AF system, including 39 cross-type points, plus 10.0 fps shooting, spectacular Live View shooting, Full HD movie recording and a host of new features to enhance every facet of the shooting process, it's clear that there's nothing like it.

WILDLIFE



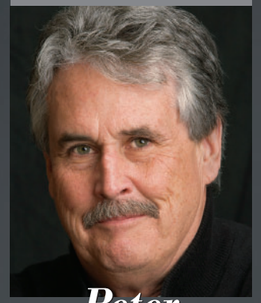
Arthur Morris

Explorer of Light

Taking Flight

After being an elementary school teacher for 23 years, Arthur Morris picked up a camera and would go on to become a renowned photographer of birds, with images published in *Audubon*, *National Geographic* and *Nature Photographer*. The Canon EOS high definition LCD monitor faithfully reproduces the hues of his subjects, allowing Morris to capture creatures as famous for their intricate coloring as their colorful displays.

SPORTS



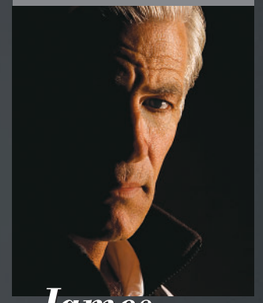
Peter Read Miller

Explorer of Light

The Moment of Victory

A respected sports photographer for over 20 years, Peter Read Miller has covered eight Olympics, 14 NBA finals and 34 Super Bowls, plus numerous other events ranging from the Kentucky Derby to World Championship Freestyle Wrestling. Capturing the perfect catch or slam-dunk as it happens, Miller depends on Canon EOS digital SLR cameras and their blisteringly fast autofocus technologies so that the victor's glory lives on forever.

PHOTOJOURNALISM



James Nachtwey

Explorer of Light

Bearing Witness

James Nachtwey has devoted himself to documenting wars, conflicts and critical social issues, from the deserts of Africa to the jungles of Central America. Requiring a camera that is durable, strong and resistant to the elements is absolutely essential to Nachtwey's work, and Canon EOS digital SLRs deliver. With Canon, Nachtwey captures some of the most haunting images in photojournalism.

BEAUTY

John Huba

The Coordinated Canon Workflow

John Huba came to New York City in his early twenties seeking a career in fashion photography. He has since established himself as a sought-after portrait and editorial photographer, working in his studio and traveling all over the globe to capture magical images. With a keen appreciation of the simplicity afforded by a coordinated workflow, Huba keeps it all in the Canon family to ensure a smooth transition from capture to print.

PHOTOJOURNALISM

Vincent Laforet

Explorer of Light

Stills and Video United

New York-based photographer Vincent Laforet's work got him recognized as one of the "100 Most Influential People in Photography" by *American Photo Magazine*, and his images have appeared in outlets such as *Vanity Fair*, *The New York Times Magazine*, and *Life*. Integrating stills and video into his portfolio, Laforet uses Canon EOS SLRs for everything from adventure scenes to eye-popping aerial photography.

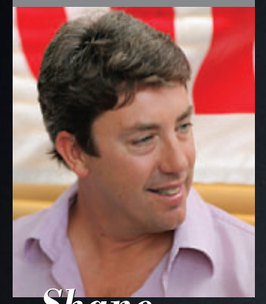
TELEVISION

Félix Alcalá

Behind the Camera

California native Félix Alcalá got his start in television with the series *Homefront* and later won an ALMA award for his directorial work on *Third Watch*. Bringing his cinematographic skills to other shows like *House*, *Stargate Universe* and *CSI: Crime Scene Investigation*, Alcalá requires acuity, vivid color and an easy video production process — the kind of technology found in Canon's unique Full HD EOS digital SLR cameras.

CINEMATOGRAPHY



Shane Hurlbut

Game-changing Technology

Known for his energy and passion, Shane Hurlbut uses those qualities to make his work stand out. Cinematographer for a wide range of productions, from the blockbuster action film *Terminator Salvation* with its gritty, grainy look to the more thoughtful biopic *The Rat Pack*, Hurlbut uses Canon EOS digital SLR technology to up his game and capture the imagery that makes movies explode off the screen.

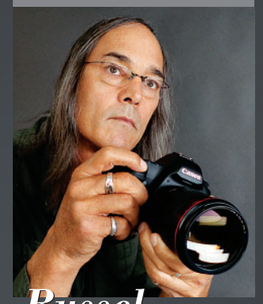
WEDDING/PORTRAIT

Charles Maring

To the Stars

An acknowledged pioneer in the digital cinema revolution, Charles Maring taps Canon digital SLR cameras' abilities to capture both stills and HD video of some of the most glittering weddings in Hollywood, with his footage being shown on *Entertainment Tonight* and *Extra* and his stills in several wedding books. Capturing special moments in a variety of ways is a Canon EOS hallmark, getting every sparkle and smile.

CINEMATOGRAPHY

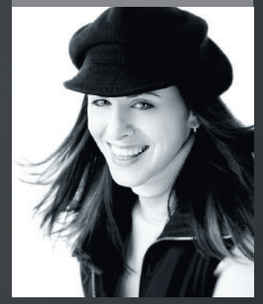


Russel Carpenter

The Image Will Go On

Having won the Academy Award for Cinematography for his work on *Titanic*, Russel Carpenter's cameras double as cinematic tools. Requiring his cameras to meet the challenges unique to moving images, Carpenter's Canon EOS digital SLR cameras, with their razor-sharp HD video technology, not only capture moving images with the precision Canon is known for, but augment them with all the effects afforded by Canon's vast array of lenses.

WEDDING/PORTRAIT



Sandy Puc'

Explorer of Light

Romance in Soft Light

Her sets range from natural, window-lit scenes to elaborate fairytale tableaus, so Sandy Puc' relies on the high ISO performance of the Canon EOS System for beautiful, timeless imagery. Tapping the romance of soft light and shadow, Puc' depends on Canon for grainless and sharp shots, even if taken in dim light. Puc' also values the journalistic style of her EOS digital SLRs, capturing a soft, romantic vision with a technologically advanced tool.

Clear and Detailed Viewing

Clear View II LCD

The EOS-1D Mark IV features the finest Canon LCD screen to date: the high resolution, 3.0-inch Clear View II VGA LCD has 920,000 pixels and provides a new level of clarity and sharpness with a 160° angle of view. It's perfect not only for confirming focus and composition, but for composing and shooting in Live View mode, or when shooting video. It features a tempered glass protective cover with an optical elastic resin filling between the actual LCD and glass cover that minimizes internal reflections and improves visibility in bright viewing situations. During image playback, pressing the illumination button displays an LCD brightness screen, so brightness can be adjusted quickly and easily. 64

LiveView MODE

Live View

With the EOS-1D Mark IV, Live View operation is made easy with a dedicated Live View function settings screen. Image review, AF, Drive, ISO, Grid view and size, plus other menus can be accessed without leaving Live View mode, enabling the photographer to tailor-fit their view, easily. The EOS-1D Mark IV's Live View shooting is enhanced with three improved AF modes: in Live mode, AF is achieved with contrast detection according to AF point selection. In Face detection Live mode, the camera detects the human face automatically and focuses with contrast AF. If multiple faces are detected, the largest face closest to the center is chosen automatically. Alternative faces can be selected via the camera's Multi-controller. In Quick mode AF, phase-difference detection AF with the AF sensor is completed as in normal AF. When focus is achieved, the image appears automatically. In Live View mode, the EOS-1D Mark IV's exposure simulation mode displays the image as it would record based on chosen exposure, helpful in avoiding under or overexposed images. Additionally, exposure control and drive modes are the same as with viewfinder shooting, making for no-compromise photography whether composing through the viewfinder or on the EOS-1D Mark IV's Clear View II monitor. 62

Live View shooting information display

Improved Menu Screens

Canon has refined the EOS-1D Mark IV menu screens for faster, easier control of settings. With 256 colors, proportional fonts, gradations and animations, plus 25 languages, every screen is refined and intelligently designed.

Ergonomic Design and Button Layout

Improving on the design of the flagship EOS is no small feat, but the EOS-1D Mark IV offers refinements and improvements in the design of covers, buttons and more, for improved, more intuitive operation. The Multi-controller has an improved shape and protrudes more. The AE lock and AF buttons all protrude more and have improved stroke, while all terminal covers are attached and well-sealed.

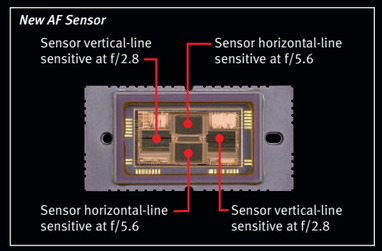
"The Canon EOS-1D Mark IV features fast and sure initial focusing acquisition and consistently accurate focusing.

My images of birds were all razor-sharp, even their eyes. With static subjects, the ability to quickly select any one of the 45 autofocus points is a huge plus. And the high resolution LCD monitor makes it a snap to evaluate image composition and sharpness."

Arthur Morris
Explorer of Light

Speed and Accuracy in Autofocus

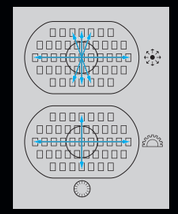
45-Point Wide Area AF



The EOS-1D Mark IV has a redesigned, extensively field-tested and refined, high-precision AF sensor designed for split-second response and spot-on performance no matter the subject. This phenomenal new system includes 45 manually selectable points covering the expanse of the camera's field-of-view, including 39 cross-type AF points for precise and fast focusing in both portrait and landscape modes (with f/2.8 and other EF lenses) no matter the are 60

AF Point Selection

With the EOS-1D Mark IV's new AF system, AF point selection has been improved as well. Photographers can select their own point through either the camera's Multi-controller or Main Dial/Quick Control Dial. Automatic selection is as simple as the press of a button.



AF point selection

Additionally, photographers can define their own default focus points depending on the camera's orientation when composing in normal, plus grip-up and grip-down vertical positions, instantly switching the AF point according to the position of the camera. Photographers can also program the camera to focus from five predetermined focus zones, and can even choose to have their primary focus point supported by adjacent focus points for more accuracy in motion photography. 60

Spectacular AI Servo II AF

The EOS-1D Mark IV's AI Servo II AF mode has been thoroughly redesigned to improve stability, reliability and focus tracking. Directed by an entirely new algorithm, the completely redesigned AI Servo II AF system answers the call of photography professionals for reliable and stable focus and tracking of speedy and irregular movements. While invaluable for sports, the new AI Servo II AF algorithm is precise and responsive enough to shoot at high-magnification using macro lenses where the distance between the camera and subject changes rapidly and focus accuracy is critical. 60

AF for subject tracking (C.Fn III -8-3)

"I am knocked out by the Canon EOS-1D Mark IV's autofocus. It combines almost instant focus with incredibly accurate focus tracking. I have shot with this camera in bright sun, in flat lighting and in very low light. In each situation, this camera has out-performed any digital SLR I have ever used. Throw in 10 fps and astonishing high ISO performance and you have the perfect camera for shooting sports, day or night."

Peter Read Miller
Explorer of Light

Reliability Second to None

Amazing Magnesium-alloy Body

Built to endure the worst possible environments, the EOS-1D Mark IV has a lightweight and incredibly strong magnesium-alloy construction. Built to go wherever the photographer dares, it's ready for anything. It features durable, baked-on paint with a grippy surface that keeps the camera in hand, ready to shoot. 64

Shutter Durability

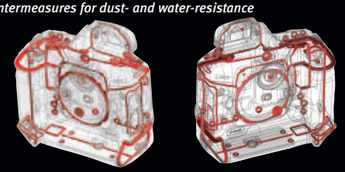
The EOS-1D Mark IV's shutter unit has a durability of 300,000 shutter cycles. And the rest of the camera is built to last — the mechanical parts, electronics, optics and operation controls are constructed to the highest standards to perform brilliantly, whether it's the camera's 30th or 300,000th shot. 64

Shutter Unit

Numerous Weather Seals to Ensure Dust and Water Resistance.

All the EOS-1D Mark IV's controls, buttons and external covers are dust- and water-resistant, ensuring uninterrupted operation whether shooting in the rain, in a windstorm or anything in between. When the EOS-1D Mark IV is used with a dust- and water-resistant EF lens or external Speedlite, the entire camera system is nearly impervious to the elements. 64

Countermeasures for dust- and water-resistance

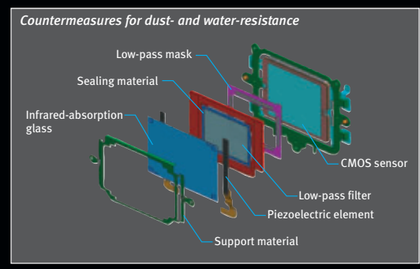


EOS Integrated Cleaning System

Integrated Cleaning System

Dust is managed with the advanced Canon EOS Integrated Cleaning System. To combat stray dust that can enter the camera when changing a lens, the Canon Self Cleaning Sensor's low pass filter cleans itself automatically with ultrasonic vibrations every time the camera is turned on or off. Removed dust adheres to material beneath the filter to ensure it stays off. Dust missed by the cleaning unit is captured by the Canon Dust Delete Data Detection software and can be removed from the image file. By ensuring the sensor is free of dust and debris, the camera guarantees a cleaner image. 64

Countermeasures for dust- and water-resistance



"The durability of the new Canon EOS-1D Mark IV is as tough and rugged as its predecessor, the

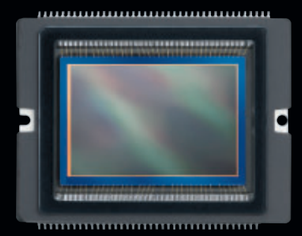
Mark III. The Mark IV withstands the harsh conditions encountered by photojournalists — dust and rain and the cold. Bang it around and it keeps on shooting. When you're way out on the edge, with no second chance, you want to be using a camera you can rely on."

James Nachtwey
Explorer of Light

EOS-1D Mark IV

Beautiful Images. Fast.

Canon CMOS Sensors

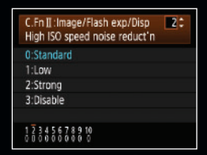


APS-H Size CMOS Sensor (Actual Size)

16.1 MEGA PIXELS CMOS

The EOS-1D Mark IV's CMOS sensor was designed by Canon to deliver only the highest quality images. Smooth complexions, stunning colors and sharp detail are achieved thanks to the sensor know-how of Canon. 59

Noise Reduction Technology



High ISO Speed Noise Reduction display

With its noise reduction technology, the EOS EOS-1D Mark IV is designed to minimize digital noise that can ruin what is otherwise a beautiful photo. Smooth images, rivaling the best medium-format films, are achieved simply and quickly thanks to brilliant Canon hardware and software solutions. 59

DiGiC 4

Dual DIGIC 4 Image Processors

In addition to speeding up and enabling a dizzying array of camera functions, the EOS-1D Mark IV's Dual DIGIC 4 Image Processors ensure that color rendition, noise reduction and reproduction of fine detail are improved such that editorial and advertising photography are now standard fare for a digital SLR. 59

Dual DIGIC 4 Image Processors

14-bit A/D

The EOS-1D Mark IV employs a 14-bit converter to process the output of the CMOS sensor. Compared to the 12-bit converters used in most digital cameras, the Canon design ensures smoother tonal transitions, more natural gradations and superior color fidelity. RAW images are recorded at 14 bits (or 16,384 colors) so that processed 16-bit TIFF images contain the full range of tonal values captured by the sensor. 60

"The first thing that strikes me about the EOS-1D Mark IV is speed. Fast shooting, fast focusing, fast ISO, fast period. I only shoot RAW, and with this camera, I can shoot a burst of 25 images without waiting for it to buffer. That's 25 RAW images in about 2.5 seconds. The focusing is incredible, I use it in conjunction with the 300mm f/2.8. This combination allows you to capture any subject, in focus, quickly, whether it's a linebacker breaking a tackle or an eagle taking flight. This camera responds!"

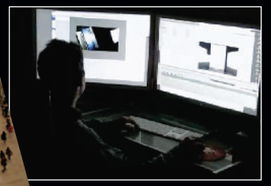
John Huba

EOS-1D Mark IV

Photojournalism in the 21st Century

Final apperance of Wireless File Transmitter WFT-E2 II A may be different*

No-compromise Video and Stills in One Camera



In addition to its standout still-image capture, the EOS-1D Mark IV offers enhanced image quality, smooth frame rates and adaptive exposure compensation. Shooting video with the EOS-1D Mark IV is effortlessly simple, and the camera increases flexibility for the photographer. The fully-operational multi-lens system of the EOS-1D Mark IV is totally portable, and its rugged design means shooting in remote or adverse situations is simple. And since switching from stills to video is as easy as the press of a button, the EOS-1D Mark IV ensures no-compromise, adaptable recording suitable for whatever comes in front of the lens. Still images can be captured, in full resolution, while shooting movies and can be saved as distinct files. It's as simple as pressing the shutter button while recording a movie, and the resultant image can be modified as could any other recorded still.

The Advantage of Interchangeable Lenses

By shooting video with a large sensor camera, it's simple to take advantage of characteristics intrinsic to SLR photography. Since the EOS-1D Mark IV is part of a comprehensive SLR system, an entire range of compatible lenses adds enormous freedom and creativity in shooting. With control of depth-of-field, focal length and more, EF lenses lend the ability to bring the same "eye" to both still and moving pictures, helping to ensure that a consistent and established style is maintained, whatever the media.

With a Redrock Micro DSLR Cinema rig

Inside of the lens bag

Use of Canon EF15mm Fisheye on the hood of a car

"The EOS-1D Mark IV provides me with a one-two punch. It allows me to capture my stills with

one of the best digital camera bodies available today. The camera has an incredible array of autofocus features that allows me to photograph sporting events, news, aerial and fine art photography. Its 1080p video function allows me to push the boundaries. The CMOS sensor and Dual DIGIC 4 Image Processors capture an incredibly high-quality video that mimics the look of 35mm motion picture film."

Vincent Laforet
Explorer of Light

**This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not, be offered for sale or lease, or sold or leased, until authorization is obtained.*

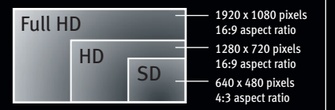
Shooting Commercials on an SLR

FULL HD 1080

Frame Rates

In response to the varied applications of the commercial video market, the EOS-1D Mark IV shoots not only at a number of different resolutions, including Full HD, it also shoots at a variety of frame rates to suit most any application. In Full HD, at a resolution of 1920 x 1080, the EOS-1D Mark IV can shoot at 30 frames per second (actually 29.97 fps), the traditional speed for video produced for viewing online or to be viewed or broadcast on television. 29.97 fps is the same exact frame speed as television in North America. At 24 (23.976) fps, the EOS-1D Mark IV shoots at the same frame rate as a typical film camera, and creates what some consider a more "film-like" look, rendering video perfectly suited to be interspersed with digitized film in the editing room. Finally, the EOS-1D Mark IV shoots at 25 fps, the standard for PAL, perfect for video produced in international markets. When shooting in HD (1280 x 720) or VGA (640 x 480), the EOS-1D Mark IV can shoot at up to 60 (59.94) fps, perfect for action, sports or reality broadcasting, not only allowing for smooth rendition of movement but also for grabbing still images after the shoot. 61

Three recording modes



16.1 MEGA PIXELS CMOS

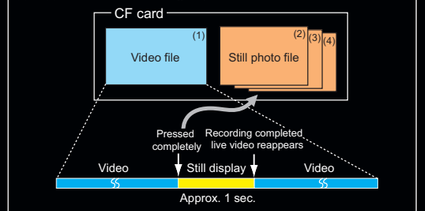
APS-H Sensor

With the EOS-1D Mark IV, and its sensor resolution of 16.1 Megapixels, there's no question that movies and stills can be captured in extensive detail. But the EOS-1D Mark IV's APS-H sized sensor offers distinct advantages. The EOS-1D Mark IV's sensor, at 27.9 mm x 18.6 mm (similar in size to super 35mm motion picture film), captures a large number of pixels for greater detail, lower signal-to-noise ratio and better light sensitivity. The difference between imagery captured on a small sensor camera and video captured on a large, Canon CMOS sensor is evident at first sight. 59

Image Quality

With the combination of its large sensor, its sophisticated shooting capabilities and its compatibility with optics unavailable for dedicated video cameras, the EOS-1D Mark IV is a compelling hybrid system, offering uncompromised performance for both still and moving image-makers.

Still photo shooting during video recording *(conceptual diagram)*
(1) – (4) indicates the recording sequence



"The future of cinema has arrived with the EOS-1D Mark IV. With its large sensor and 24p capability, this camera is as good as any pro video capture camera on the market. It's a small size, has no cables and is able to take an adapter for pro lenses. I love it and will use it on any job I have for TV or cinema."

Félix Alcalá

EOS-1D Mark IV

High Definition, Discreet Shooting

Courtesy of Bandito Brothers film on the US Navy SEALs © 2009

Courtesy of Bandito Brothers film on the US Navy SEALs © 2009

EOS Movie FULL HD

Low Light Performance

Thanks to the EOS-1D Mark IV's advanced movie shooting modes, it's now possible to shoot quality video footage in dimly-lit situations where one would never have imagined being able to shoot. With the combination of the EOS-1D Mark IV's large CMOS sensor, Dual DIGIC 4 Image Processors and wide aperture Canon EF lenses with advanced Optical Image Stabilizer technology, low light shooting is truly a reality.

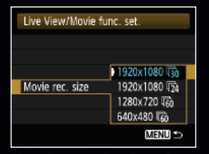
Live View/Movie function setting

ISO 12800

High ISO Performance for Low Light Video Capture

Thanks to Canon's advancements in both the design and the manufacturing of the EOS-1D Mark IV's CMOS sensor, increased sensitivities are a real possibility. The EOS-1D Mark IV can shoot video at ISO 25600 with ISO expansion enabled. 61

ISO 12800



Movie Recording Size/Frame Rate (NTSC)

24p

When shooting Full HD video at a resolution of 1920 x 1080, the EOS-1D Mark IV can shoot at frame rates of 30p, 25p and 24p. With 24p recording, film-like movement is recorded, not only providing a look and feel that's familiar to filmmakers, but delivering a quality motion recording that can easily be mixed in with film footage in the editing room. 61

Stellar Image Quality

The standout Canon EOS SLRs have inspired photographers and their audiences for decades. As filmmakers buy Canon EOS cameras with video in mind, they can do so with the knowledge that they're buying some of the best image-making tools in the world. And while the EOS-1D Mark IV's video features open up a world of new possibilities to still photographers, filmmakers too will be thrilled to discover the expansive choices available to them with 16.1 Megapixel still capture in their video cameras.

"Previously, the ISO that I used on the EOS 5D Mark II for night photography was at 1600 ISO; now I am

getting the same quality with the EOS-1D Mark IV at 6400 ISO. With three times less light to capture imagery, I can take advantage of existing light on location and create lighting set-ups that were not possible before. The weight of the EOS-1D Mark IV makes it more agile and allowed for more stable capture when I documented undercover operations of the Navy SEALs."

Shane Hurlbut

EOS-1D Mark IV

High Quality, High Definition Stills and Movies

16.1 MEGA PIXELS CMOS

High Image Quality Stills

The EOS-1D Mark IV employs a newly-developed 16.1 Megapixel CMOS sensor which records images of amazing clarity and size, perfect for most any application. At 27.9 mm x 18.6 mm, the sensor records at 1.3x the lens crop of 35mm (full-frame). 59

DiGiC 4

Dual DIGIC 4 Image Processors

The EOS-1D Mark IV's Dual DIGIC 4 Imaging Processors ensure that images are captured, processed and saved with remarkable speed — up to 10 frames per second! The Dual DIGIC 4 Image Processors work in concert with Canon CMOS sensor chips to dramatically enhance image quality and deliver a more intuitive, responsive camera. 59

Noise Reduction Technology

With new, on-chip noise reduction technology, the EOS-1D Mark IV is fully equipped to counter the digital noise that can occur when shooting at high ISOs, or in the bright and dark areas of the image. Sophisticated hardware and software designs work to ensure continuous, film-like smoothness in all images is captured. 59

14-bit A/D

The EOS-1D Mark IV employs a 14-bit converter to process the output of the CMOS sensor. 14-bit means smooth tones, natural gradations and phenomenal colors. RAW images are recorded at 14 bits so that processed 16-bit TIFF images contain a maximum range of tones. 60

EOS Movie FULL HD

High Quality Video

The EOS EOS-1D Mark IV's video mode eliminates the need to bring a video camera when shooting both moving and still images. Plus, it allows for full use of the vast range of Canon EF lenses. Video shot on a large sensor camera is enhanced by image characteristics intrinsic to SLR photography, like the EOS-1D Mark IV's expansive range of ISO sensitivities, full manual control over exposure and depth-of-field, plus lens choice and more. Full HD Video is captured at 1920 x 1080 resolution at 24, 25 or 30 frames per second. Other recording sizes include HD at 1280 x 780 (50/60 fps) or SD/VGA at 640 x 480 (50/60 fps). Sound is recorded either through the EOS-1D Mark IV's built-in microphone or through an external microphone connected to the Microphone Terminal, and movies can be viewed on the spot through the EOS-1D Mark IV's HDMI port, USB port or analog AV output. 61

"The EOS-1D Mark IV is a revolutionary camera that allows new levels of creativity that reach far beyond our client's expectations. The convergence of stills and motion picture is a major shift in the evolution of wedding photography, and its incredible low light sensitivity allows us to capture beautiful moments for print and in motion with clarity and quality that is second to none. Photography is more personal than ever, which makes the EOS-1D Mark IV the ultimate camera for wedding photographers."

Charles Maring

Making a Movie with an EOS

Full HD Movie Capture

The EOS-1D Mark IV captures video with all the benefits of shooting with an EOS SLR. It allows for full use of Canon EF lenses, including wide angle, macro, tilt-shift lenses and more. By shooting video with a large sensor camera, it's simple to take advantage of the image quality and characteristics intrinsic to SLR photography. The photographer has access to the EOS-1D Mark IV's extended ISO sensitivities, and can control exposure and depth-of-field with ease. 61

Resolution and Frame Rates

Full HD video captured at 1920 x 1080 resolution can be shot at 24, 25 or 30 frames per second, for up to 4GB per clip. Movies are saved as MOV files and can be viewed in Full HD with the EOS-1D Mark IV's HDMI output. Other recording sizes include HD at 1280 x 780 (50/60 fps) or SD/VGA at 640 x 480 (50/60 fps).

Movie shooting area of Full HD quality (1920x1080)/HD quality (1280x720)

Movie shooting area of SD quality (640x480)

SLR Effects in Motion

In the EOS-1D Mark IV's manual Video mode, users can control depth-of-field and sense of motion, creating gorgeous background blur. Exposure can be determined and set even in complex lighting situations, maintaining the same look and feel through an entire scene, not just the initial shot, and minimizing camera noise that can occur when the aperture changes due to exposure adjustment mid-clip. The EOS-1D Mark IV has a built-in microphone for simple mono recording and stereo sound can be recorded through an external microphone. Playback and simple editing can even be done in-camera, and movies can be played on televisions by using an analog AV or HDMI cable. 61

Terminals:
1. *PC terminal*
2. *Remote control terminal*
3. *External microphone IN terminal*
4. *HDMI mini OUT terminal*
5. *Audio/video OUT/ Digital terminal*

"The images shot in the EOS-1D Mark IV's movie mode really have to be seen to be believed. The pictures produced in extremely low light due to the stunningly sensitive CMOS sensor offer the cinematographer completely new ways of visualizing nighttime exterior scenes while shooting at high ISO settings. I especially appreciate that Canon has responded to filmmakers' requests for 24/25 frame rate as well as fully manual aperture adjustments. I personally see the Canon EOS-1D Mark IV as an invaluable tool in the professional filmmakers' arsenal."

Russel Carpenter

Ready to Go No Matter the Light

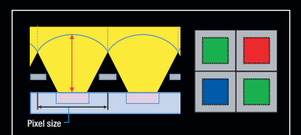
EOS-1D Mark IV

Wide ISO Range

The EOS-1D Mark IV has the largest ISO range in the history of EOS cameras, with an improved normal range of ISO 100 – 12800 and an expanded range of 50 to 102400! The combination of Dual DIGIC 4 Image Processors and the Canon CMOS sensor ensures that even at a setting of 102400, noise is kept to a minimum. 59

Noise Reduction Technology

The EOS-1D Mark IV's CMOS sensor incorporates a unique on-chip noise reduction technology to deal with both fixed pattern and random noise. It features a new photodiode construction that results in an improved photoelectric conversion rate. This speedier conversion means faster and increased sensitivity at the pixel level. This speed and sensitivity, in combination with new gapless microlenses plus less space between microlenses and photodiodes, means a better signal-to-noise ratio, which translates to better real world performance and image files. 59



Pixel size on the EOS-1D Mark IV is just 5.7µm, with improved microlens gap technology, resulting in greater light gathering efficiency.

16.1 Megapixel CMOS Sensor

The EOS-1D Mark IV's amazing CMOS sensor captures a tremendous level of resolution with striking detail down to each individual pixel. With size to spare, it's easy to crop images or to make massive enlargements without concern of losing detail. A marvel of technical innovation, the EOS-1D Mark IV's CMOS sensor incorporates a number of significant refinements that enhance the performance and speed in the capture of each image. Thanks to advanced, in-house design and manufacturing, the EOS-1D Mark IV's sensor has more pixels than its predecessor with less digital noise, higher ISO sensitivity and greater dynamic range. 59

Dual DIGIC 4 Image Processors

The EOS-1D Mark IV's Dual DIGIC 4 Image Processors work in concert with the Canon CMOS sensor chips to improve image quality and make every camera action faster and more intuitive. Features like Face Detection Live mode AF, Full HD Video, the amazing Canon Auto Lighting Optimizer, Lens Peripheral Illumination Correction and more are all possible thanks to the speed and processing power of the EOS-1D Mark IV's Dual DIGIC 4 Image Processors. 59

"The EOS-1D Mark IV is one of the most dynamic capture devices yet. Working with children

requires a lot of patience and speed. The Canon EOS-1D Mark IV is perfect. It gives me the ability to shoot a more journalistic style and capture the true essence of my subjects. The high ISO allows me time to think about the final image, rather than worry about where I am going to find the light. I have the freedom to work fast and it provides the superior image quality my clients demand."

Sandy Puc'

Explorer of Light

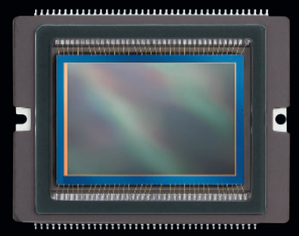
A New Standard for Ultra-High-Quality Rapid-Fire Digital Image Capture

Exceptional Performance

Newly-developed 16.1 Megapixel CMOS Sensor

16.1 MEGA PIXELS CMOS

When it comes to imaging sensor technology, Canon raises the standard for the industry with innovative in-house development and manufacturing advancements respected across the industry. The EOS-1D Mark IV features a new Canon CMOS sensor



Canon APS-H (27.9 x 18.6mm) CMOS sensor. Actual size shown.

with a capture resolution of 16.1 Megapixels (4912 x 3270), providing outstanding imaging detail. The recording area of the sensor is 27.9 x 18.6 mm (APS-H), yielding a lens conversion (crop) factor of approximately 1.3 in relation to traditional full-frame 35mm film.

The latest Canon refinements in micro semiconductor manufacturing have further reduced sensor circuitry size. This leaves more physical space for the photodiodes, enabling their collective area to be significantly increased. The larger sensor photodiode area results in wide dynamic range, elevating imaging performance to a level never before achieved with such high pixel site density. The new photodiode design also improves photoelectric conversion rate, providing a markedly improved S/N ratio. The resulting boost in sensitivity makes higher usable ISO speeds possible. A new fabrication process eliminates gaps between the microlenses, yielding even higher light gathering efficiency. The new CMOS sensor thus delivers a remarkable combination of high resolution, low noise and unprecedented high ISO shooting capability.

Dual DIGIC 4 Image Processors

DiG!C 4

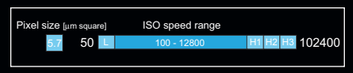
Developed by Canon, DIGIC Image Processors are found exclusively in Canon digital cameras. The EOS-1D Mark IV incorporates not one, but two DIGIC 4 Image

Processors operating in tandem to further boost performance, ensuring natural color reproduction and handling the data from the new high-resolution sensor at high speeds for instantaneous camera response. This remarkable parallel processing power makes possible not only high-speed shooting, but also such advanced features as Full HD video recording with comprehensive frame rate options, Live View with Face Detection AF, HDMI output, UDMA Mode 6 (CF card) support and advanced Auto Lighting Optimizer.

Unprecedented ISO Range

ISO 12800

Combining the inherent low-noise performance of the new imaging sensor and the sophisticated noise reduction capabilities of the Dual DIGIC 4 Image Processors, Canon engineers have endowed the EOS-1D Mark IV with the widest ISO range yet in an EOS digital SLR: 100–12800 in standard



mode, settable in 1/3-stop increments. In extended range modes, the photographer can select a low ISO speed of 50 and one of three high settings: 25600 (H1), 51200 (H2), 102400 (H3). This greatly expanded capability provides a previously unavailable range of real-world shooting options, especially in available-light or dim situations. Also significant is the camera's improved low ISO range performance. The new Canon CMOS sensor features advancements that make it possible to operate with reduced electrical charge saturation. This improves imaging performance at the low end of the ISO scale, which can be highly useful when shooting high contrast scenes with fast (e.g., f/1.4) lenses. Blown highlights can be avoided, and photographers can use wider apertures to control depth-of-field in ways not possible at higher ISO settings.

The EOS-1D Mark IV now also provides an ISO Auto option. When this feature is selected, the camera automatically selects ISO within the standard range of 100–12800 to provide the best exposure for the shutter speed and aperture combination selected by the photographer.

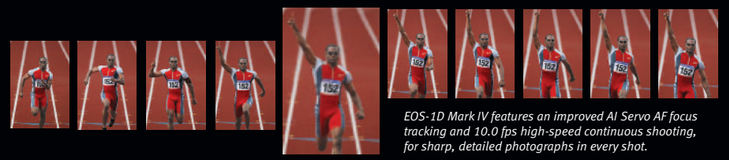
Sophisticated Noise Reduction

The advanced algorithms developed for the powerful Dual DIGIC 4 Image Processors significantly improve noise control capability. They more effectively remove not only color noise but also luminance noise. This results in dramatic subjective image quality enhancement because, while color noise is more readily noticed, luminance noise affects factors such as perceived image "naturalness." At extremely high ISO settings, the EOS-1D Mark IV clearly reproduces fine detail and subtle gradations. Moreover, all noise reduction settings other than the highest (Strong) can now be used without affecting the camera's continuous shooting speed.

10.0 fps High-speed Continuous Shooting

10 Frames Per Sec

The new CMOS sensor in the EOS-1D Mark IV features an improved, faster single-line reading sequence and an 8-channel signal path that achieve remarkable data transfer speeds. The camera drive system has also been enhanced with a two-motor design and an active mirror bounce suppression mechanism. These and other advances in the shutter assembly, autofocus system and Dual DIGIC 4 Image Processors make possible high-speed continuous shooting at 10.0 fps at full 16.1 Megapixel resolution. Maximum bursts during continuous shooting are 121 shots for JPEG Large (at a compression setting of 8) and 28 shots for RAW. When shooting RAW+JPEG (at compression 8), the maximum burst is 20 shots.



EOS-1D Mark IV features an improved AI Servo AF focus tracking and 10.0 fps high-speed continuous shooting, for sharp, detailed photographs in every shot.

14-bit A/D Conversion

The EOS-1D Mark IV is equipped with a 14-bit A/D converter which means that tonal gradations for RAW images are now represented by 16,384 separate levels per channel rather than 4,096 of 12-bit. When saved as a 16-bit TIFF image, the image retains the full range of tones captured at 14 bits. Moreover, 8-bit-per-channel JPEG images are generated from the 14-bit data. Artifacts related to limited dynamic range, such as tonal skipping and highlight clipping, are thereby substantially reduced.

The 45-point Area AF sensor features 39 cross-type high-precision AF points with manual AF point selection. Any of the 45-points are selectable.

New High-Precision AF System

Improved 45-point AF Sensor

The EOS-1D Mark IV incorporates an amazingly precise, newly-developed 45-point Area AF sensor. Compared to the 19 points in the previous Mark III, 39 of the focusing points are cross-type (provided manual AF point selection is used), and any of the 45 points can be selected manually if desired.

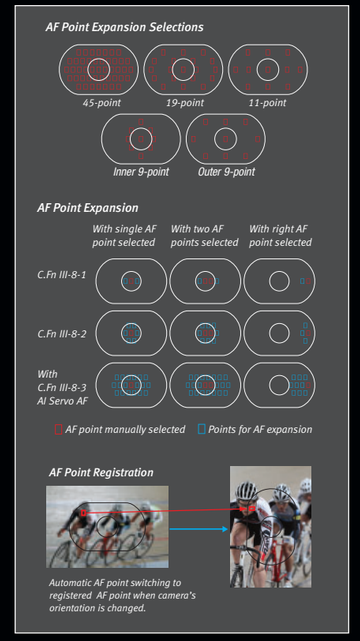
When the maximum lens aperture is f/2.8 or faster, the new AF system executes highly accurate cross-type focusing with f/2.8-equivalent light flux vertical line detection and f/5.6-equivalent light flux horizontal-line detection. The center AF point is a cross-type sensor providing f/4-equivalent light flux vertical-line detection and f/8 horizontal-line detection. When the maximum lens aperture is f/4 or faster, the center AF point provides high-precision cross-type focusing. When the maximum lens aperture is f/8 or faster (including the use of an extender), the center AF point uses horizontal-line detection. Many popular Canon EF Series lenses, including several with f/4 maximum aperture, can take advantage of 39 cross-type focusing point precision with this new system.

More Accurate Focus in More Situations

Both One-Shot AF and AI Servo AF modes are provided to cover a wide variety of shooting situations. The AI Servo AF mode has been re-engineered to ensure improved speed and stability with more reliable focus-tracking performance. The new algorithms make it possible to more accurately track subjects that move irregularly. In addition, AI Servo AF greatly enhances macro photography with algorithms that automatically sense the use of a macro-focusing lens at close distances, appropriately adjusting AF operating parameters to better accommodate unpredictable camera/subject movement.

Powerful, Customizable AF Operation

The photographer can select any one of the 45 AF points manually or allow the camera to make the selection automatically. To select an AF point manually, the user can press the AF point selection button, then use either the Multi-controller or a combination of the Main and Quick Control Dials to highlight the desired point in the viewfinder. As with previous EOS-1 series cameras, the photographer can use a Custom Function to automatically expand a manually selected AF point. The expansion of points can be limited by the user to 19, 11, inner 9, or outer 9. A Custom Function can also



be used to pre-register an AF point for selection on demand. Another Custom Function enables the user to enable or disable the burst of short flashes when a flash unit without an IR AF-assist beam is used.

Brilliant 100% High-magnification Viewfinder

The viewfinder on the EOS-1D Mark IV delivers exactly what professional photographers want: a large, bright image that provides clear, accurate framing, focus and shooting parameter information. Most digital SLR viewfinders display less than 100 percent of the actual capture area, which makes it difficult, if not impossible, to accurately frame an image. The EOS-1D Mark IV viewfinder not only provides approximately 100% coverage, but also does so with a high magnification of 0.76. The 28.3-degree angle of view is also uncommonly wide. The viewfinder has a high eyepoint of 20mm and provides built-in dioptric adjustment in the range of -3 to +1. Photographers can also choose from a range of optional interchangeable focusing screens to suit specific needs.

EOS Full HD Video: An Exciting New Tool for Motion Picture Capture

Unique Video

With the introduction of Canon EOS digital SLRs capable of Full HD video capture, professional photographers, videographers and cinematographers have at hand an important new imaging tool. They have discovered not only the convenience, but also the very special qualities of Canon EOS HD Video. By shooting video with a large sensor camera, it's simple to take advantage of the image quality and characteristics intrinsic to SLR photography. The EOS-1D Mark IV increases flexibility for the photographer in that it also allows for full use of Canon's EF and EF-S lenses, including wide angle, macro, tilt-shift and fish-eye, providing a wealth of depth-of-field and other creative shooting options once reserved only for still photography. The resulting HD video is unique in its incomparable depth-of-field characteristics, remarkable capture capability under poor lighting conditions and deep clean blacks with undetectable noise.

The EOS-1D Mark IV captures Full HD (1920 x 1080) at 30 (29.970) fps for NTSC, 25 fps for PAL, and 24 (23.976) fps for cinematography, Standard HD (1280 x 720) at 60 (59.940) fps for NTSC and 50 fps for PAL, and SD (VGA – 640 x 480) at 60 (59.940) fps for NTSC and 50 fps for PAL.

Comprehensive Choice of Frame Rates and Formats

The EOS-1D Mark IV is the first EOS-1 series digital SLR to provide video capture capability, and, not surprisingly, it sets new standards for image quality and professional versatility. It supports a wide range of frame rates and video formats, enabling photographers to tailor their raw footage to specific needs and markets.

Video is captured with progressive scanning and recorded in the MOV format (MPEG-4 AVC/H.264 video, uncompressed linear PCM audio) using a variable bit rate. This ensures high-quality image and sound while keeping file size to a minimum.

Advanced Exposure Control

When shooting HD video, including Full HD, the EOS-1D Mark IV employs Center-Weighted average metering (using the imaging sensor) to ensure stable motion picture exposure. If the AF mode is set to Face Detection Live View, the camera will use Evaluative metering linked to the AF point corresponding to the face to calculate exposure.

In P, Tv, Av and Bulb shooting modes, ISO speed is automatically set between 100 – 12,800 and shutter speed is automatically set between 1/30 – 1/4,000 second at 30/25/24 fps and between 1/60 – 1/4,000 second at 60/50 fps. With these shooting modes, aperture is also automatically selected. (If ISO speed expansion has been selected, the range can be extended to 102400.) As with still shooting, AE lock is available for video. Exposure compensation is available in the range of ±3 stops.

Full manual exposure control can also be used when shooting video. ISO speed can be set automatically or manually between 100 and 12800. Shutter speed can be manually set up to a maximum of 1/4,000 second. Available aperture settings are specific to the lens used.

Sound Recording Options

A built-in microphone below the camera nameplate records monaural sound. Stereo recording is possible with an external stereo microphone connected to the camera's mic input connector (a standard 3.5mm stereo jack). Audio levels are automatically adjusted whether recording with the built-in or an external microphone.

HDMI Connectivity

An HDMI output port is provided for full-resolution digital transfer of still and video Live View and playback of images to studio monitors, projectors and other post-production equipment.

Easy File Transfer

The new plug-in will allow for simple and easy transfer of video content from Canon's EOS DSLR cameras directly into Final Cut Pro. The EOS MOVIE Plugin-E1 will take advantage of Final Cut Pro's powerful Log and Transfer feature, which allows users to select video for import from the memory card, add custom metadata and ingest the clips in the background so the editing can begin immediately. The plug-in will be compatible with Final Cut Pro 6.06 or higher and currently supports Canon EOS 5D Mark II, EOS 7D and EOS-1D Mark IV cameras.

Professional Pedigree

Better Flash Photography

The advanced automatic exposure system of the EOS-1D Mark IV includes an upgraded flash metering algorithm that reduces overexposure with wide-angle shots in which the main subject occupies a small area. E-TTL II autoflash control is possible with all Canon EX-series Speedlite flash units. Moreover, with the Speedlite 580EX II, 430EX II and 270EX, all flash settings can be controlled via the camera menu and Custom Functions. (Limited camera control is available for other Speedlite models.)

63-Zone Metering System

The EOS-1D Mark IV incorporates a 63-zone metering sensor linked to the 45 AF points. The metering range is EV 0 to EV 20 (at 73°F/23°C, 50mm f/1.4 lens, ISO 100). Photographers can choose from the following metering modes: Evaluative, Partial, Spot, Multi-spot and Center-Weighted average. AF point-linked spot metering is also possible via a Custom Function. Partial metering reads approximately 13.5% of the viewfinder area, while Spot metering reads approximately 3.8%. The Multi-spot mode automatically averages measurements taken from up to eight spot readings. The E-TTL II autoflash system uses the same 63-zone metering sensor and makes use of distance information from the lens to ensure accurate flash exposures even with highly reflective backgrounds. For both regular and flash shooting, the EOS-1D Mark IV provides a new AE microadjustment feature that enables the photographer to fine-adjust "standard" exposure. Adjustments up to ±1 stop can be made in 1/8-stop increments.

Auto Lighting Optimizer

The Auto Lighting Optimizer automatically adjusts brightness and contrast during image processing. With RAW images, Canon Digital Photo Professional (DPP) software can be used to make use of the Auto Lighting Optimizer. Auto Lighting Optimizer is available in most shooting modes, including Manual mode. Standard, weak, or strong processing as well as an option to disable.

Lens Peripheral Illumination Correction

The EOS-1D Mark IV incorporates a sophisticated feature that automatically corrects for light fall-off at the four corners of an image. Since peripheral illumination characteristics vary for each lens, this corrective system relies on a registered database. With JPEG images, the correction is performed in-camera at the time of capture. With RAW images, the same correction can be performed post-capture using Canon DPP software. The EOS-1D Mark IV includes pre-registered data for approximately 30 Canon lenses. The camera can, however, store correction data for about 40 lenses. Lens data can be added or deleted using the EOS Utility. When the feature is enabled, correction is automatically applied whenever there is corresponding data for the attached lens. (Note that in-camera correction is about 70% of what can be performed in post-processing using Canon DPP software.)

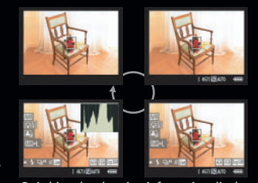
Highlight Tone Priority

The Highlight Tone Priority feature is activated via a Custom Function on the EOS-1D Mark IV. It employs advanced exposure and processing algorithms, taking advantage of the sensor's wide native dynamic range to address a perennial problem for digital photographers — loss of image detail in highlight areas, especially in bright sunlight or contrasty studio lighting. This feature extends the usable capture range of highlights by about one stop and improves gradation within highlight areas. By expanding the range from the correct exposure level to the maximum allowable highlight level, the gradation from the grays to the highlights becomes smoother and loss in highlight detail is minimized. Depending on shooting conditions, noise in shadowed areas may increase slightly.

Enhanced Live View

Whether shooting stills or video, photographers can make use of advanced Live View functionality to compose images using the large, high-resolution LCD monitor on the EOS-1D Mark IV. The various Live View settings can now be accessed via a centralized function screen for easier use.

Via the function screen, the user can enable or disable Live View and choose whether to use it for stills only or for both stills and movies.



Switching the shooting information display

In Live View mode, the camera uses Evaluative metering via the image sensor. Camera menus can be accessed and image playback performed while in Live View mode — the display will revert to Live View when the user is finished with menu and image playback functions. Shooting options — such as drive mode, ISO speed, Picture Style, white balance and AF mode — can be selected while in Live View mode.

For still shooting, the EOS-1D Mark IV Live View mode provides a choice of three AF modes. In Quick Mode, the AF sensor is used for phase-difference detection. The camera defaults to One-Shot AF mode, and the user can opt for auto or manual AF point selection. When the shutter release button is partially depressed or the AF Start button is pressed, the mirror goes down, momentarily interrupting the live display. After autofocus has executed, the mirror flips up, and the Live View image is restored. The Live mode uses the image sensor to perform contrast-detection AF. The Multi-controller can be used to select the AF point. The Live Face Detection Mode uses contrast AF to detect the human face. If multiple faces are detected, the largest face closest to the center is automatically selected as the autofocus point. The photographer can use the Multi-controller to select a different face for AF as desired.

A Grid display can be superimposed during Live View to aid in composition. There are two grid choices: two horizontal and two vertical or five vertical and three horizontal lines.

Picture Style Presets

The myriad features and settings available to the digital SLR user can be daunting — even for seasoned professionals. Canon Picture Style presets offer an ingenious solution, providing a library of useful preprogrammed camera settings that can be instantly recalled as needed based simply on the type of shooting. The EOS-1D Mark IV provides six factory preset styles and enables the photographer to program 3 additional custom presets. To create a custom Picture Style, the user can start with one of the base style presets above and modify it before saving as a user-defined preset.

Versatile Recording Options

The EOS-1D Mark IV provides a comprehensive set of JPEG and RAW recording options. They greatly enhance shooting flexibility, enabling the photographer to select pixel dimensions appropriate to the assignment and reducing file sizes when necessary to streamline data transfer and storage. The photographer can select from among four JPEG and three RAW image sizes. JPEG images can be compressed to any of ten size/quality levels. A dedicated, clearly organized image size setting menu screen facilitates selection of recording options.

UDMA Recording

The EOS-1D Mark IV fully supports the UDMA (Ultra Direct Memory Access) Mode 6 standard. With UDMA CF cards, data write/read operations are significantly accelerated.

A Powerful, Extensible System of Photography

Top-notch Wireless Capabilities

Wireless File Transmitter WFT-E2 II A

The new WFT-E2 II A Wireless File Transmitter* is a compact adapter that fits unobtrusively on the side of the camera, providing a wide range of networking functions that expand the photographer's shooting versatility and efficiency. It is powered by the camera and thus requires no dedicated battery. The many advanced features of the WFT-E2 II A include:

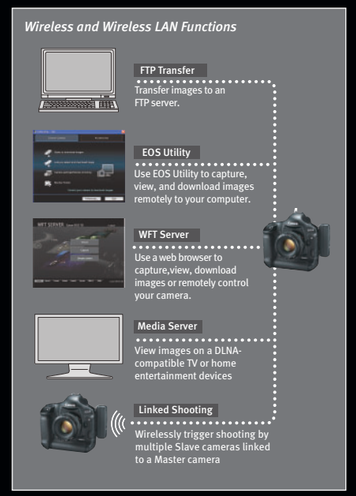
•**Weather-Resistant Design** – Like the EOS-1D Mark IV, the WFT-E2 II A features a magnesium alloy body, making it rugged and lightweight. Moreover, its fully sealed design ensures that the highly weather-resistant design of the camera is not compromised.

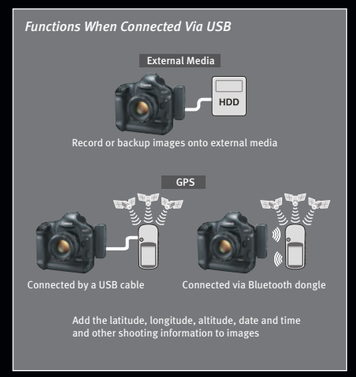
•**Extensive Wired and Wireless LAN Functions** – The WFT-E2 II A supports IEEE 802.11 a/b/g wireless LAN environments. For wired connections, the adapter supports high-speed 100Base-TX communication. Built-in WPS (Wi-Fi Protected Setup) makes it easy to make secure LAN connections.

•**Remote Live View** – When combined with the WFT-E2 II A, the Remote Live View function takes on added power. The unit then serves as a wireless server, transmitting images and enabling camera control over a LAN connection using any browser-enabled device such as a smartphone or a notebook computer. A handheld device, for example, can be used as remote live image viewer and a remote camera control, enabling the photographer to both view the image and release the shutter from a remote distance.

•**Multiple File Transfer Options** – The WFT-E2 II A enables wired or wireless file transfer using a wide range of standard protocols. With the FTP mode, the computer becomes an FTP server, enabling files to be transferred to a folder on the computer's hard drive. EOS Utility mode provides two-way communication between camera and computer, enabling not only file transfer but also remote live view and camera control capabilities. HTTP mode makes it possible for up to three separate computers to view the camera's memory card contents over the Internet, providing simple drag-and-drop file transfer capability. The HTTP mode now also includes a server function, enabling remote Live View and remote camera control.

•**USB Host Capability with GPS Support** – Photographers can take full advantage of the WFT-E2 II A USB host capability by connecting a compatible GPS device. This makes it possible to add GPS coordinates, altitude and UTC time code to embedded shooting data on images captured with the EOS-1D Mark IV. Compatible GPS units include several in Garmin's GPSMAP series and in the Magellan eXplorist series (using NMEA 0183 v.2.0.1 output data standard or "Garmin protocol").





•**Linked Multi-Camera Shooting** – Using multiple WFT units on compatible EOS Digital cameras, up to ten Slave cameras can be linked wirelessly to a Master camera. Connections are made simply and conveniently via wireless LAN. Slave camera shutters are automatically tripped when the Master camera shutter is released. With such a setup, a photographer can, for example, shoot simultaneously from various angles.

**This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not, be offered for sale or lease, or sold or leased, until authorization is obtained.*

Original Data Security Kit

The OSK-E3 Original Data Security Kit is an optional accessory providing sophisticated data verification and security features. With the EOS-1D Mark IV, shooting data (including any GPS data), as well as pixel data in the image itself, can be verified as original and unaltered. Image data encryption/decryption (secured transmission) is also possible with the EOS-1D Mark IV. Designed for press applications, this feature will prevent the wrongful use of images intercepted at public events. With the Canon OSK-E3, the images themselves are encrypted, not just the memory card. Encryption of images requires the use of a registered camera with the Original Data Security card installed. Decrypting image files and viewing or saving them requires a computer with OSK-E3 software, the card installed in the included card reader and user authentication. The kit consists of the Original Data Security card, the USB reader/writer, and the dedicated application programs (in the EOS Digital Solution Disk).

Lightweight "Smart" Battery Pack and Charger

The powerful Canon LP-E4 Rechargeable Battery Pack — a 2300 mAh Lithium-ion battery — is small and lightweight. It is a "smart" battery, containing an IC chip that enables information exchange with the camera. On a dedicated screen on the Canon EOS-1D Mark IV's LCD, the photographer can quickly verify power source type, remaining capacity (with a 6-level indicator and a percentage readout), shots taken since the battery charged, whether battery calibration is needed and even when the battery has reached the end of its useful life.

The system consists of the Battery Charger LC-E4 and AC Adapter Kit ACK-E4. Battery calibration is performed using the charger. With repeated charge/discharge cycles, a discrepancy between the battery's reported and actual remaining capacity develops. Thus, after the battery undergoes 20 discharge/charge cycles, a message recommending battery calibration will appear at the bottom of the camera screen the next time the battery is installed. Calibration entails a full discharge followed by a full recharge, after which accurate battery capacity information can once again be obtained.

Two battery packs can be attached to the LC-E4 charger. It takes about 120 minutes to recharge one battery pack. The charger is compatible with the optional DC power adapters (12V/24V), enabling charging via a car battery with the optional Car Battery Cable CB-570.

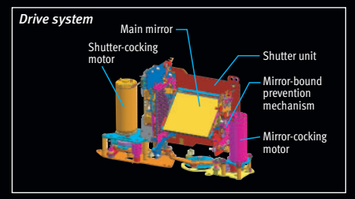
An Unmatched Selection of Focusing Screens

The EOS-1D Mark IV is equipped with the Laser Matte Ec-C IV focusing screen, which provides top notch optical performance. Background blur appears more natural, and graininess and flare are reduced. At the same time, the finder is brighter, especially at the edges and corners. Moreover, as with all EOS-1 Series digital SLR cameras, the EOS-1D Mark IV provides professional photographers with a wide choice of interchangeable focusing screens.

Unsurpassed Dependability and Ergonomics

Outstanding Shutter Durability and Performance

The EOS-1D Mark IV shutter mechanism is rated for 300,000 cycles. To attain such a high level of dependability, Canon developed new surface finishes and heating processes in manufacturing



to create key components of exceptional durability. To increase shutter stability and precision, a PR (Photo Reflector) is employed to detect the slit-passing time. No mechanical contacts are used for the X-sync flash trigger, thereby eliminating contact scorching and wear. Instead, the X-sync employs the PR signal and a semiconductor switch. This not only improves reliability but also makes possible a maximum X-sync speed of 1/300 second with Canon EX-series Speedlites.

Rugged Magnesium-alloy Construction

Magnesium alloy is used for the EOS-1D Mark IV top, front and rear covers as well as for the memory card slot covers. The chassis and mirror box are also made of magnesium alloy. Because the alloy exhibits an excellent strength-to-weight ratio, the camera body is exceptionally tough, rigid and light. The magnesium alloy also functions as an electromagnetic shield, providing added data protection. The EOS-1D Mark IV is thus built to withstand punishing professional use, providing reliable long-term performance under the most demanding conditions.

Weather-resistant Design

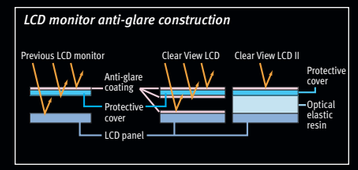
Legendary Canon water- and dust-resistant construction measures are incorporated throughout the EOS-1D Mark IV. All camera controls and cover seams are tightly sealed with specially designed silicone rubber gaskets. O-rings protect the memory card slot covers and the battery compartment. The camera's hot shoe is shaped to repel water with a rib around its perimeter. With professional Canon Speedlite flash units, such as the 580EX II, water-resistance is maintained. And when a water-resistant EF lens is attached to the camera, the integrated combination provides professional photographers with extreme dependability under the harshest working conditions.

EOS Integrated Cleaning System

The Canon EOS Integrated Cleaning System uses both mechanical and software methods to effectively deal with dust accumulation on the imaging sensor. Dust that settles on the sensor surface is removed using ultrasonic vibration. This self-cleaning routine is automatically activated whenever the camera is powered on or off, but it can also be manually activated. A special collar positioned around the sensor holds the loosened dust. In addition, by shooting a plain white subject, the photographer can acquire dust delete data that are transmitted along with the image (whether JPEG or RAW). Canon Digital Photo Professional (DPP) software can then be used to manually or automatically erase the dust spots, potentially saving a tremendous amount of time in post-processing. On the EOS-1D Mark IV, the low-pass filter on the front surface of the sensor also has an advanced fluorine coating that resists dust adhesion. Persistent dust particles that used to be difficult to loosen by vibration alone are now more easily removed.

High-resolution 3.0-inch Clear View II LCD Monitor

The EOS-1D Mark IV features a brilliant 3.0-inch LCD monitor with approximately 920,000 dots for high-resolution image and information display. It provides 100% image area coverage



and a wide viewing angle of 160˚ (both vertically and horizontally) with vibrant brightness to ensure excellent viewing ability even in bright outdoor conditions. A specially engineered optical elastic resin filling between the LCD panel and the outer reinforced glass protective cover reduces internal reflections, ensuring breath taking display visibility and clarity. When viewing images, the user can press the illumination button to immediately access the LCD brightness adjustment screen.

Refined Ergonomics

Subtle enhancements in the shape, stroke and positioning of buttons and controls make the EOS-1D Mark IV one of the most ergonomically advanced cameras ever designed. Attention to user interface detail provides the precise tactile feedback and intuitive control layout on which professional photographers depend for fast operational mastery and day-to-day productivity.