

SONY

High-Definition Video Sales Guide



What is "HDV"

- HDV is a new video format for recording High Definition Video on standard DV tape.
- HDV is a cost-effective step up to the benefits of HD for videographers, independent film-makers, corporate and other professional users.
- HDV allows users to begin the move to HD as their workflow allows.
- HDV offers easy connectivity via i.LINK, and fits perfectly in existing DV based Non Linear Editing (NLE) systems available from Sony and other vendors.
- HDV uses industry standard MPEG 2 coding at a data rate of 25 Mb/s, the same rate as DV and DVCAM.

Products Covered in this Guide

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Sony: Creator of the World's First 1080i HDV Camcorder

In 2003, Sony in conjunction with JVC, Canon and Sharp combined their talents to create a system that would finally allow both professionals and consumers access to true High Definition acquisition at Standard Definition prices. Sony's first professional HDV camcorder, the HVRZ1U, entered the market as the first 1080i HDV camcorder available and changed the way the world looked at High Definition forever. Starin Marketing assembled this HDV guide to make you aware of the significant advantages Sony's HDV equipment has over other competitive models.

Why buy a Sony?

Sony has always believed that true High Definition means 1080i, and has put everything they know about imaging technology, image processing and user features into the HVR series of products. What this means is a solid and technically well balanced camera from the custom Zeiss lens up front to the rugged tape mechanism in back.

Why Buy a Sony HDV Camcorder?

Take a look at the three main advantages that Sony offers over other brands.

Extremely high quality Zeiss HD optics —Your recorded image can be no better than the lens that produced it. Sony uses Zeiss lenses specifically designed to match the other components of the imaging system.

14 bit A/D converters and Sony Exclusive Digital eXtended Processor (DXP) —The HVRZ1U and HVRA1U both use 14 bit A/D conversion which preserves a large exposure latitude without needing any knee compression. This allows the DXP image processor to intelligently create the best possible HD image

14 bit A/D converters and Sony Exclusive Digital eXtended Processor (DXP) —The HVRZ1U and HVRA1U both use 14 bit A/D conversion which preserves a large exposure latitude without needing any knee compression. This allows the DXP



Sony HDV At-A-Glance



HVR-A1U

Smallest and least expensive professional HDV camcorder on the market.

The newest product in the HDV line-up, the HVR-A1U camcorder - an extremely compact and lightweight camcorder, ideal for applications where space is at a premium or extreme mobility is required. This camcorder is equipped with a newly developed 1/3-inch type, 2.97-megapixel (total) CMOS sensor and an all new Enhanced Imaging Processor(tm) that optimizes the performance of the CMOS sensor and provides outstanding high-definition picture quality.

MSRP: \$3,100
MAP: \$2,699

Promotions:
\$500 End-User Rebate Thru 3-31-06

More Info:
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HVR-Z1U

World's First 1080i HDV Camcorder.

The Sony HVR-Z1U professional camcorder uses 1/3" 3CCD imager technology and advanced 14 bit A/D and DXP image processing to shoot brilliant high definition 1080i pictures with jaw-dropping detail, color and clarity, Comes equipped with a Carl Zeiss Vario-Sonnar® T* 12x zoom lens - the same glass and coatings used in the legendary Zeiss prime lenses. (Shown with optional ECM-678 shotgun microphone).

MSRP: \$5,946
MAP: \$4,900

Promotions:
None

More Info:
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HVR-M10U

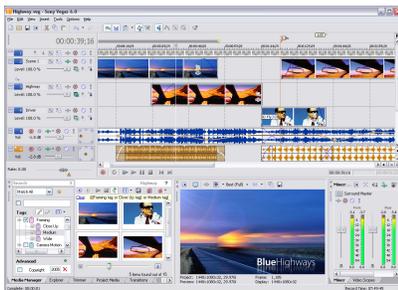
HDV/DV/DVCAM companion VTR with built-in monitor

This affordable, portable professional deck runs on AC or DC and takes up minimal desk space -even when you turn it on its side. The HVR-M10U records and plays HDV at all the same frame rates as the HVR-Z1U camcorder. And the deck records and plays DVCAM and mini DV tapes, making it a terrific bridge from SD to HD. Plays back both 1080i and 720p mode HDV tapes.

MSRP: \$3,950
MAP: \$3,700

Promotions:
\$400.00 End-User Rebate AND free full version of VEGAS 6.0 AND 12 Inch Design ProductionBlox animations thru 3/31/06

More Info:
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Vegas 6.0

Sony® Vegas® software combines state-of-the-art HD video editing with leading-edge audio production and DVD authoring technology.

More Info:
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Sony HVR-A1U Up Close



SUPPLIED ACCESSORIES
ACL15 AC Adapter
Power Cord
NPFM50 InfoLITHIUM battery
Lens Hood with built-in lens cap
RMT-831 IR Remote Commander
A/V connecting cable
Component video cable
USB cable
16MB Memory Stick Duo w/ adapter
ECM-NV1 Electret Condenser Shotgun Microphone
XLR Audio Adapter
Shoulder strap
Operations Manual

Key Features of the HVR-A1U

Newly developed 1/3" CMOS imager - Native 1920 x 1440 (3 Mega-pixel) resolution imager provides for both video and still image recording. Unique pixel design combines high sensitivity and low noise levels and a complete absence of vertical smear.

10x Optical Zoom Zeiss Vario-Sonnar T* Lens – Custom designed to work with the new imager, this lens uses the same glass and coatings as Zeiss prime lenses and produces sharp, high contrast images with virtually no chromatic aberration or flare. Manual or servo zoom, manual or auto focus, and a Tele Macro function give the operator complete control over his shots.

Enhanced Imaging Processor – This high speed image processor was developed to handle the large amounts of image data provided by the HD CMOS imager. The EIP employs a unique algorithm to process detail and brightness data independently, allowing high details in black and bright areas of the image and exceptionally wide dynamic range.

Still Picture Recording to Memory Stick Duo Media - Still pictures at the full 1920 x 1440 pixel resolution of the imager can be captured to Memory Stick even while HD video recording is underway simply by pressing the "Photo" button.

2 Channel XLR Audio Input – Two XLR inputs with switchable 48v phantom power are provided. The camera includes a built-in stereo microphone and an external directional microphone. Audio levels can be viewed on the LCD screen, and adjusted Independently. level controls for each channel.

Compact and Lightweight Design - The camcorder weighs only 2 lb. 14 oz. in operation and is extremely compact, providing a high level of mobility.

Dual monitoring with LCD panel and Electronic View Finder - The HVR-A1U provides both a side mounted, fold out, high resolution LCD screen and rear mounted EVF for operator convenience. The touch screen LCD is also used to access and control the menus and other settings in the camera.

OPTIONS (NOT INCLUDED)	See more audio options on page 7
NP-QM71D/QM91D Battery Packs	VMC-30FS 3m Multi AV Cable (w/S-video)
VCL-HG2037Y 2.0x Tele-conversion lens	UWP-C1 UHF Synthesized Wireless Microphone Package
VCL-HG0737Y 0.7x Wide Conversion Lens	RM-1BP LANC Remote Controller
LC-A1TH Hard Carrying Case	PHDVM-63DM Digital Master Mini Cassette Tape
LC-ZA1BP Soft Carrying Case	
VMC-30VC 3m Component Video Cable	

CALL STARIN AT 219-929-4127 IF YOU HAVE A TECHNICAL QUESTION ON HDV PRODUCTS



Sony HVR-Z1U Up Close

3.5" 16:9 Hybrid LCD Display

Super SteadyShot Optical Stabilization System

14 bit A/D and Sony Digital eXtended Processor (DXP)

Manual Zoom Ring, Manual Focus, Manual Iris Controls

Built-in stereo microphone for ambient sound

12x Optical Zoom Carl Zeiss Vario-Sonnar T* Lens

2 XLR Audio connections with independent level and phantom power

1/3" 3CCD Super HAD HD imager

Ultra low vertical smear

See more audio options on page 7

SUPPLIED ACCESSORIES
AC-VQ850 AC adaptor/charger Power Cord
Camera Power Cable
Lens Hood with built-in lens cap
Large Eyecup
RMT-841 IR Remote Controller
A/V Connecting Cable
Component Video Cable
Shoe Adapter
NP-F570 InFoLITHIUM Battery Pack
Cleaning Cassette
Shoulder Strap
Operation Manual

Key Features of the HVR-Z1U

1/3" 3CCD Super PowerHAD Imager - Developed specifically for the HVRZ1U, this imager uses 3 1.12 Megapixel 16:9 CCDs in a unique spatial offset configuration to create the specified HDV resolution of 1440 x 1080.

12x Optical Zoom Zeiss Vario-Sonnar T* Lens - Coated HD elements, integral Optical SteadyShot technology which uses a servo driven lens element to correct for unsteady handling when used in a handheld configuration.

14 bit A/D Conversion - Allows the camera to process very large contrast-range scenes. Includes image processing such as color correction and Cinematone Gamma functions.

HDV 1080i, DVCAM and DV Recording and Playback - 50i or 60i - The HVR-Z1U will operate in both 50i and 60i by menu selection regardless of the format. For projects needing more of a film look, the camera can also operate in Cineframe modes to provide 24, 25 or 30 frame recordings.

On-board HD - SD Downconverters - Converts material from 1080i down to 480i (and 576i), and output these signals through via iLink/Firewire, analog component, composite or S-Video simultaneously. Aspect ratio modes: Squeeze, Letterbox or Edge Crop.

2 Channel XLR Audio Inputs - Professional audio connections with 48v phantom power and full independent control over level and routing for external signals, plus a high quality built-in stereo microphone for ambient sound.

High Resolution LCD Display and Electronic View Finder - 3.5" 16:9 LCD panel is mounted on the front of the camera handle. This unique placement allows the panel to be used in a variety of positions, including facing the on-camera talent, and will work simultaneously with the EVF.

Full-Auto or Manual Controls for Camera Functions - The HVR-Z1U has one of the smartest full auto systems of any camera on the market, but also allows any or all functions to be controlled manually by the operator if necessary. Focus, White Balance, Gain, Shutter Speed and Iris can be independently selected for manual operation.

OPTIONS (NOT INCLUDED)

See more audio options on page 7

NP-F970/F770/F570 InFoLITHIUM Battery Packs	VMC-IL4615/IL4635 iLink Cables (4pin to 6 pin)
VCL-HG0872 0.8x Wide Conversion Lens	UWP-C1 UHF Synthesized Wireless Microphone Package
VCT-FXA Shoulder Brace	ECM-678 Electret Condenser Shotgun Microphone
LC-Z1BP Soft Carrying Case	PHDVM-63DM DigitalMaster Mini Cassette Tape
LC-Z1TH Hard Carrying Case	
VMC-IL4408A/IL4415/IL4435 iLink Cables (4pin to 4 pin)	

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Sony HVR-M10U Up Close



SUPPLIED ACCESSORIES	
IR Remote Control	
AC Adapter	
Power Cord	
Vertical Stand	
Cleaning Cassette	
Operating Instructions	
OPTIONS (NOT INCLUDED)	
VMC-IL4408A/IL4415/IL4435	iLink Cables (4pin to 4pin)
VMC-IL4615/IL4635	iLink Cables (4pin to 6pin)
NP-F570/F770/F970	InfoLITHIUM Battery Packs
PHDVM-63DM	DigitalMaster Mini Cassette Tape

Key Features of the HVR-M10U

HDV 1080i / DVCAM / DV Record and Playback (50i/60i) – The HVRM10U can switch between HDV 1080i, DVCAM and DV (SP) record modes and like the HVRZ1U operates in both 50i and 60i. It will also play back 720p30 HDV tapes.

Built-In Down Converters – While operating in HDV mode, the unit can provide down-converted Composite and S-Video outputs as well as Standard Definition DV through the iLink connector. HD or SD Component Video is also available. Various Aspect Ratio conversions are available to suit all operating needs.

Compact, Unique Design – The HVR-M10U is compact and lightweight and will fit in any work environment. The front mounted LCD screen also acts as a field monitor. Once a tape is loaded and the front panel closed, the tape transport is sealed and protected from the environment. Since the unit needs no cooling fan, dust cannot be circulated through it either and the unit is noise free.

Professional SMPTE Timecode – Drop Frame and non Drop Frame modes, RECORD RUN and FREE RUN, Timecode Preset and User Bits can all be set as desired.

Long Operational Time with Battery Power- With the optional NP-F970 Battery Pack, the VTR gives you up to 545 minutes of operation in HDV mode and up to 630 minutes in DVCAM or DV mode (LCD off). For convenience, it uses the same batteries as the HVR-Z1U camera.

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Sony Vegas 6.0 Up Close

The perfect HDV non-linear editor to add to any HDV camera: Sony® Vegas® software combines state-of-the-art HD video editing with leading-edge audio production and DVD authoring technology. Vegas provides a complete, all-in-one media creation environment. DVD Architect™ 3 software now features dual-layer authoring, burning and mastering to multiple formats. The Vegas+DVD Production Suite also includes: Boris® Grafitti™ Ltd, Boris FX Ltd for Vegas, and Magic Bullet™ Movie Looks™ HD50.

Unlimited tracks: Edit SD, DV, HDV video, audio and more on unlimited tracks

Tape-style scrubbing

Drop markers in real time

Customize 2D/3D transitions or create with script center

Easy to use Windows Based. Uses common Windows® commands such as Cut, Copy, Paste, and Delete

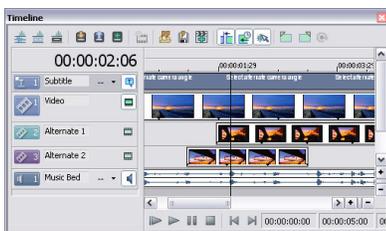
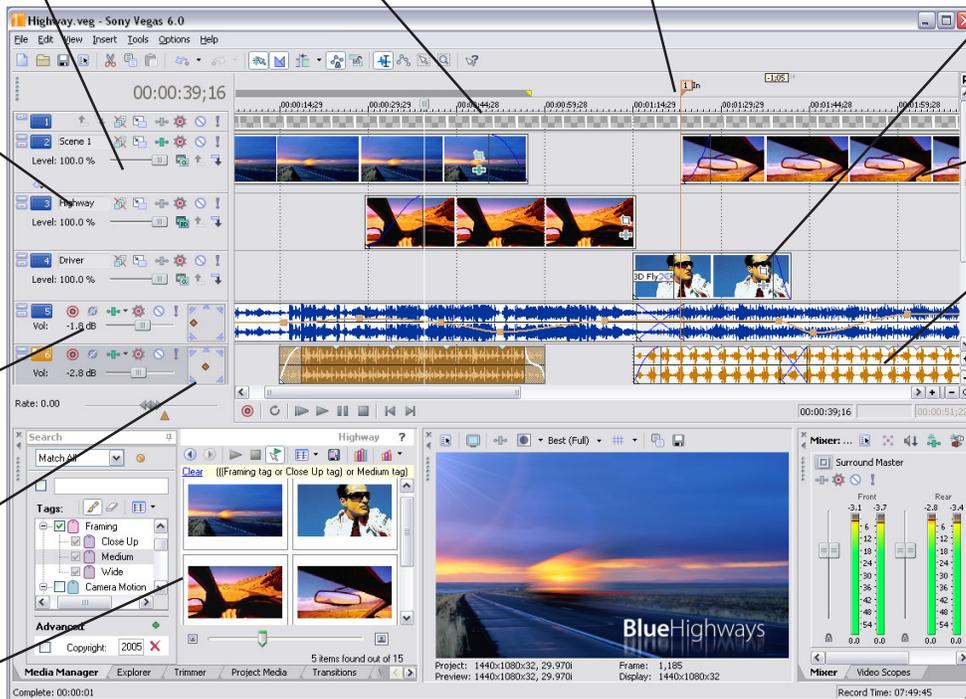
Mix SD and HD on same track

Import, edit, and export high-quality 24-bit/192 kHz audio files and ACID loop files

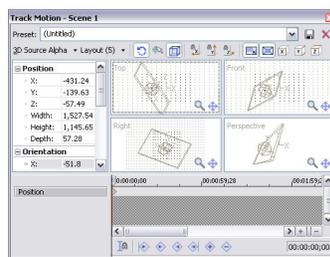
VST-plugin support

5.1 surround mixing

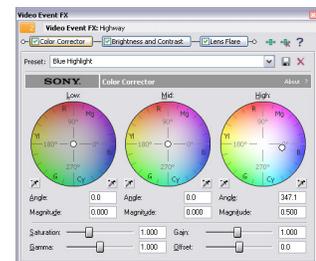
Easy drag-and-drop functionality



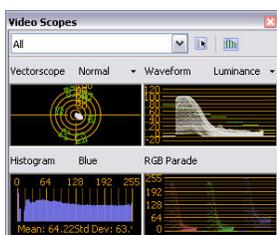
DVD Architect Multiple Camera Angles



Vegas 6 3D Track Motion



Vegas 6 Color Corrector



Vegas 6 Scopes



Vegas 6 Surround Panner



Vegas 6+DVD



Vegas 6

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Audio Options for HDV Camcorders



HDV Camcorder Comparison Chart

	HVR-Z1U	HDR-FX1	HVR-A1U	HDR-HC1	Consumer Model
MSRP/Street Price	\$5946 / \$4800	\$3,700	\$3100 / \$2700	\$2,000	
Weight (excl. Battery, Tape)	4 lbs. 10 oz.	4 lbs. 4 oz.	1 lb. 12 oz.	1 lb. 7 oz.	
Dimensions (W x H x D):	6" x 7 5/8" x 14 3/8"	6" x 7 1/8" x 14 3/8"	2 7/8" x 3 3/4" x 7 1/2"	2 7/8" x 6 7/8" x 7 1/2"	
LENS / IMAGER					
Imager	3- 1/3" 16:9 Advanced HAD™ CCDs	3- 1/3" 16:9 Advanced HAD™ CCDs	1/3" 3 MegaPixel CMOS	1/3" 3 MegaPixel CMOS	
Minimum Illumination	3 lux	3 lux	7 lux	7 lux	
Carl Zeiss® Vario-Sonnar® T* lens	12x Optical	12x Optical	10x Optical	10x Optical	
Filter Diameter:	72mm	72mm	37mm	37mm	
ND Filter	Yes	Yes	No	No	
Focal Distance	4.5 – 54.0mm	4.5 – 54.0mm	5.1 – 51mm	5.1 – 51mm	
Shutter Speed (In AE Mode)	1/4 - 1/10,000 sec.	1/4 - 1/10,000 sec.	1/4 - 1/10,000 sec.	1/4 - 1/10,000 sec.	
Super Steadyshot® Stabilization	Optical	Optical	Electronic	Electronic	
Tele Macro Function	No	No	Yes	Yes	
IMAGE CONTROL / RECORD MODES					
60i/50i Switchable	Yes	No	No	No	
DVCAM Record/Play	Yes	No	Yes	No	
Digital Downconvert	DVCAM/DV	DV	DVCAM/DV	DV	
Black Stretch	Yes	No	Yes	No	
Cinematone Gamma Levels	Type 1 & 2	Type 1	Type 1 & 2	Type 1	
SMPTE Timecode, Incl. REC RUN, FREE RUN, DF/NDF selectable	Yes	No	Yes	No	
Still Picture Record	No	No	Yes	Yes	
Quick REC Mode	Yes	No	Yes	No	
Programmable Shot Transition Time	2-15 seconds	Fixed at 4 seconds	2-15 seconds	Fixed at 4 seconds	
Picture Profile™	6 settings	6 settings	None	None	
Cineframe Modes	CF24, CF25, CF30	CF24, CF30	CF24, CF30	CF24	
Hyper Gain	Yes	No	NightShot (Infrared)	NightShot (Infrared)	
Manual Gain Control	Yes	Yes	No	No	
External REC Control	Yes	No	No	No	
VIEWFINDER / LCD					
Swivelscreen™ LCD display	3.5" wide (16:9) panel	3.5" wide (16:9) panel	2.7" wide (16:9) touch panel	2.7" wide (16:9) touch panel	
Histogram Display	No	No	Yes	Yes	
Viewfinder Modes	Color/B&W	Color Only	Color/B&W	Color Only	
Focus Assist (image enlargement)	Yes	Yes	Yes	Yes	
Auto Focus Override	Yes	No	No	No	
All Scan Mode (overscan)	Yes	No	Yes	No	
Peaking Level/Color	Yes, White, Red or Yellow	No	Yes, White, Red or Yellow	No	
Simultaneous Operation of LCD and Viewfinder	Yes	No	Yes	No	
Markers	4:3, Safety, Center	None	4:3, Safety, Center, Grid	None	
AUDIO					
Mic Input	XLR Stereo	Stereo Mini	XLR Stereo	Stere Mini	
Shotgun Mic Holder	Yes	No	Yes	No	
Built-in Stereo Mic	Yes	Yes	Yes	Yes	
Independent Audio Level Control	Yes	No	Yes	No	
Audio Monitoring	CH1, CH2, CH1+CH2	CH1+CH2 Mixed Only	CH1, CH2, CH1+CH2	CH1+CH2 Mixed Only	
CONNECTIVITY					
External Video Input	Yes	Yes	No	No	
USB Output	No	No	Yes	Yes	
i.LINK I/O	Yes	Yes	Yes	Yes	
Component Video Output	480i/480 60p/576i /576p/1080i	480/1080i	480i/480 60p/1080i	480/1080i	
CONVENIENCE FEATURES					
Built-in Flash	No	No	No	Yes	
Wireless Remote Commander	Yes	Yes	Yes	Yes	
Battery Charge on Camcorder	No	Yes	Yes	Yes	
Assign Buttons	6	3	1	None	
Assignable Functions	16	6	5	N/A	

Notes: