

Digital & Analog Imaging Formats *(draft)*

	Resolution	Media Sampling	Color Depth	Data-Rate	Compression	Camera	Recording Spec	Films
Human Brain	3,000+ lines	4:2:2	16+ bit	1 Gbit/s	"Depends"	eyeballs ;-D		
Film	4,000+ lines	4:4:4	20+ bit	1 Gbit/s	None	\$10,000 - \$1,000,000		
Viper	1080 lines	4:4:4	12 bit	2.9 Gbit/s	None	Thompson Viper 3x 2/3" 16:9/2.37:1 9.2Mpixel - harddrive-based - \$110,000	1080/24p/25p, 1080/60i/50i	
HDCAM 4:4:4	1080 lines	4:4:4	10 bit	500 Mbit/sec	4:1	3x 2/3" 16:9chip Sony HDC-950 - \$110,000 - dual-D5	1080/24p/25p, 1080/60i/50i	
D-5	1080 lines	4:2:2	10 bit	235 Mbit/sec	4:1	deck only, SDI		-N/A-
HDCAM (Sony)	1080 lines	3.1.1	10 bit	140 Mbit/sec	5:1	3x 2/3" 16:9chip Sony HDW900W - \$100,000	1080/24p/25p, 1080/60i/50i	"Episode1&2", "Sex & Lucia", "Spy Kids"
DVCPRO-HD (Panasonic)	720 lines	4:2:2	10 bit	100 Mbit/sec	6.7:1	3x 2/3" 16:9 chip Panasonic AJ-HDC27 VariCam - \$60,000	720/60p/50p	"Dopamine"
D-1	525 lines	4:2:2	10 bit	166 Mbit/sec	5:1	deck only, SDI / component		-N/A-
MPEG IMX	625 lines	4:2:2	10 bit	50 Mbit/sec	3.3:1	3x 2/3" 16:9 MSW-900P - MPEG 422P@ML - \$40,000	625/25p	"The Technical Writer"
DigitalBeta	525 lines	4:2:2	10 bit	90 Mbit/sec	1.6:1	3x 2/3" 16:9 - \$45,000	525/60i 625/50i	"The Fast Runner"
DVCPRO-50	525 lines	4:2:2	8 bit	50 Mbit/sec	3.3:1	Panasonic SDX-900 3x 2/3" 16:9 60i/30p/24p - \$25,000	525/60i 625/50i	
DV	525 lines	4:1:1	8 bit	25 Mbit/sec	5:1	\$1,000 (1-chip miniDV) -to- \$16,000 (3x 2/3" 16:9chip 14bit Sony DSR-570WSL)	525/60i 625/50i	"Personal Velocity", "The Anniversary Party"
BetaSP	525 lines	3.1.1	8 bit	???	analog		525/60i 625/50i	"Genghis Blues"
NTSC-TV	480 lines	???	8 bit	???	???		525/60i 625/50i	

(initial data © Scott Billups, pixelmonger.com)

8 bit	256 colors/pixel	Standard "Desktop" Resolution	
10 bit	10,024 colors/pixel	High-End uncompressed cards	High-End Broadcast
16 bit	65,536 colors/pixel	After Effects Production Bundle, combustion2	Cinema
20 bit	1,048,576 colors/pixel	Currently unrecordable in non-still capture	