

PRODUCTION ON A BUDGET

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www.urbanfox.tv

UrbanFox Ltd

All of this presentation will go on our website

www.urbanfox.tv/seminar

WHAT KIT SHOULD I BUY ?

What is your budget?

BUDGET

Whatever your budget - don't forget you'll need to set aside some money for a tripod, mics, lights, editing.....

Think about 50:50

So if you spend £3,000 on the camera - you could easily spend £3,000 on all the other stuff.

HOW WILL YOU USE IT?

- Internet broadcasting, podcast, vodcast
 - £500 - £2,000
- Weddings, special interest videos (SIV)
 - £500 - £3,000

HOW WILL YOU USE IT?

- Corporate, broadcast and stock footage.
 - £3,000 - £?,???
- Documentary
 - £3,000 - £?,???
- Drama
 - £1,500 - £?,???

What makes a good camera?

- The lens
- The imaging system (sensor)
- The recording format
- The operator

LENSES

- Cheaper cameras tend to have fixed lenses.
- Focus lag
- Probably won't zoom out wide enough

LENSES

If you spend more you can get a camera with interchangeable lenses.

- Panasonic AF101
- Canon DSLRs
- JVC HD range
- Sony F3, DSR, Z7 or EX3...



But, check your budget...

...will you be able to afford a second lens?

THE IMAGING SYSTEM

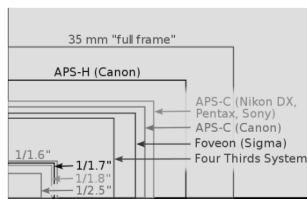
- CCD and CMOS
- More = better (max of 3)
- Bigger = better = more expensive

Canon XF100/XF105 => 1/3inch CMOS £2,600/£3,300
 Canon XF300/XF305 => 1/3inch 3CMOS £5,500/£6,200
 Panasonic HPX371 => 1/3inch 3CMOS £8,600
 Sony PMW-EX1R=> 1/2inch 3CMOS £5,500
 Sony PMW-500 => 2/3inch 3CCD £20,000
 Canon EOS 550D => APS-C 1CMOS £700

(all prices inc VAT)

THE IMAGING SYSTEM

- Big - AF101 (Micro Four Thirds)
- Bigger - Super35mm (APS-C)
- Biggest - Full Frame 35mm (5DMII)



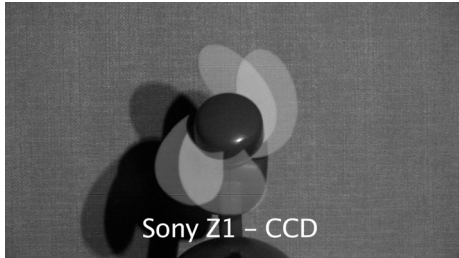
THE IMAGING SYSTEM

CMOS problems

- Rolling shutter
 - Partial exposure - flash
 - Banding - fluorescent lights
 - Skew
 - Wobble

THE IMAGING SYSTEM

CMOS



RECORDING MEDIA

- TAPE
- INTERNAL HARD DRIVES
- OPTICAL DISC RECORDING
- SOLID STATE RECORDING
- EXTERNAL HARD DRIVES

Mega bits

- DV/DVCAM (25 Mbps)
- DVCPRO HD (100 Mbps)
- HDV (19 + 25 Mbps)
- XDCAM EX (25 + 35 Mbps)
- AVCHD (up to 24 Mbs [or 28 Mbps])
- AVC-I (50 + 100 Mbps)
- Canon XF (50 Mbps)
- 50Mbps is the magic number

...SOLID STATE...

- Getting cheaper
- No moving parts
- Pretty reliable
- Pretty resilient too (washing machine safe)
- So, good for hostile environments

...SOLID STATE...

- Panasonic P2
- DVCPRO HD or AVC-I
- Expensive
- £430 - 32GB card
- 1GB = 1min HD
- No moving parts



...SOLID STATE...

- Sony PMW-EX1R & EX3
- SxS Cards
- 16GB = 50/70mins
- 32GB card = £440
- So, not cheap



...SOLID STATE...

- Compact Flash/SD cards
- Smaller cards
- 32GB CF card = £130-250
- 32GB SD card = £130



Camera outputs

FireWire used to be the way to get video and audio into an external hard drive.

Now. Look out for cameras with:

- » HDMI
- » HD-SDI



...EXTERNAL HARD DRIVE...

- Atomos Ninja - £840
- AJA Ki-Pro Mini - £1,600
- Convergent Design nanoFlash - £2,600



...EXTERNAL HARD DRIVE...

- Where do you put it?
- Higher bitrate recording
- Good back-up
- Long record times
- Possibility of faster workflow (ProRes)
- Insecure HDMI socket (HD-SDI better)
- DSLR

...Hybrids...

- Sony HVR-Z5 & Z7
Mini DV tape and Compact Flash
- Sony NX5
SDHC or Memory Stick and
External Hard Drive



CAMERA CHOICES

what to look out for
at BVE2011

CAMERA CHOICES

Internet broadcasting

Panasonic 700 series 'semi pro' camcorder

-1920x1080 @ 50fps

-AVCHD @ 28Mbps

-3xMOS sensors

-SDHC/SDXC cards

-5.1 surround sound...

-Replacement 900 series just announced, coming soon

-Sony 28Mbps models (HDR-CX700) soon too



HDC-SD700 under £600



CAMERA CHOICES

Internet broadcasting

Canon XA10

-Same sensor and lens as Canon XF100/XF105

-AVCHD @ 24Mbps

-1xCMOS sensor

-SDHC cards + 64GB solid state drive

-Professional audio inputs (2xXLR) in a removable handle

-Infrared for nighttime shooting

-Coming soon - under £1,500?



CAMERA CHOICES

Weddings/special interest/B roll

Canon XF100/XF105

-50Mbps recording (CF cards)

-Professional features

-Infrared nighttime shooting

-XF105 one of cheapest camcorders with HDSDI and Genlock (suitable for studio use)

-Useful features for 3D

-£2,600/£3,300



CAMERA CHOICES

Weddings/special interest

Canon 5D MkII

-Full Frame 35mm sensor

-Wonderful choice of lenses

-Good in low light

-Compact Flash

-Takes photos too...

-£1,500 (body only)

Also EOS 7D, 60D, 600D or 550D (Or Nikon D7000)



CAMERA CHOICES

- Canon EOS 550D
- 1080p 24/25/30
- 18 mega pixels
- APS-C CMOS
- MPEG-4 44Mbps
- SDHC cards
- £500 (+ lenses)



DSLRs are not a cheap option

- Zacuto Z-finder - £320
- Monitor - £1,800
- Variable ND filter - £100-200
- Follow focus - £400+
- (and focus puller?)
- Lenses
- Rig



- Vincent Laforet
- <http://bit.ly/e004h7> - different configurations
- <http://bit.ly/i0BMP5> - his gear

CAMERA CHOICES

- Corporate, news and stock footage
JVC HM750
- Shoulder mounted, comfortable
 - Records native QuickTime .MOV for instant editing on Final Cut Pro (35Mbps)
 - SDHC and SxS
 - 3xCCDs (no rolling shutter)
 - Interchangeable lenses
 - £6,000



CAMERA CHOICES

- Corporate, news and stock footage
Panasonic HPX371
- DVCPRO HD and AVC-Intra 50/100Mbps
 - 10-bit 4:2:2 recording
 - Shoulder mounted
 - Interchangeable lenses
 - Records to P2 cards
 - £8,600



CAMERA CHOICES

- Corporate, broadcast and stock footage
Sony PMW-EX1R/EX3
- 35Mbps SxS cards (4:2:0)
 - Not always accepted for HD broadcast
 - HDMI + HD-SDI outputs
 - EX3 has interchangeable lenses
 - £5,500/£6,600



CAMERA CHOICES

- Observational Documentary/Broadcast
Canon XF300/XF305
- 3x1/3-inch CMOS sensors
 - 50Mbps MXF MPEG2 recording
 - 2xCompact Flash cards
 - Accepted by BBC as HD
 - XF305 has HD-SDI
 - Genlock and timecode sync
 - £5,500/£6,200



CAMERA CHOICES

- Drama
Canon 5D MkII
- Full Frame 35mm sensor
 - Wonderful choice of lenses
 - Good in low light
 - Compact Flash
 - Takes photos too...
 - £1,500 (body only) - but not cheap once you have everything else you need...
 - Also EOS 7D, etc....



CAMERA CHOICES

- Drama
Panasonic AG-AF101
- Large Micro-Four Thirds sensor (4x size of 2/3-inch broadcast sensors)
 - Interchangeable lenses - lots
 - Wide range of video features
 - Variable frame rates
 - Records AVCHD 24Mbps
 - on to SD cards
 - HDMI + HD-SDI outputs
 - £4,200



CAMERA CHOICES

Drama

Ikonoskop A-Cam dII
-1920x1080 uncompressed 12-bit 4:4:4 (DNG RAW)
-80GB Memory card
-Tiny
-Variety of lens mounts
-1xCCD (Super 16mm equivalent)

About €7,000



CAMERA CHOICES

Drama

Sony PMW-F3
-Larger Super35mm (APS-C) sensor (Same as 7D or D7000)
-Interchangeable lenses
-SxS 35Mbps 8-bit 4:2:0 (XDCAM EX)
-Full 10-bit 4:4:4 output option...

£12,500 (worth looking at to rent - probably about £250 per day)

-Also upcoming, lower-cost
Super35mm AVCHD 24Mbps
NXCAM model



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You can also find us at...

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Any questions?

I run camera, audio and editing
training courses - find out more at...

www.urbanfox.tv/training

we have loads of info on the
latest video technology at...

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