

Career development

Workshop supported by:

Visual Impact
MAGUS



Developing your career

- Internships at rental companies
- Assist film makers
- Make short films
- Start working on long term projects
- Develop stills skills
- Do FIGASA Level 1 course
- Look for access and opportunities around the area where you stay

Own Brand phenomena

Own brand phenomena

- Internet has allowed access to a worldwide audience
- 2.5 Billion searches each day
- Social networking sites:
 - Facebook:demographic ?
 - You Tube
 - Own websites: Joomla, Wordpress, Red Bubble, Yola
- As loader/DOP/artist need to build profile

SEO & e-Marketing

Courses and recommended reading

- Getsmarter course
 - www.quirk.co.za
 - What is SEO ?
 - What is e-Marketing ?
- Read *Outliers* by Malcolm Gladwell

Develop Shooting skills

- Develop lighting skills
- Cross over to digital formats
- Develop stills skills
- Develop IT media wrangling skills
- Identify niche markets and differentiate
- Intern ships: Germany as example

3 D

3 D (three dimensional cinema)

- IBC: Amsterdam: 2 halls for 3 D
- Increases market if releasing film in 3 D
- Growth area also premium product alongside HD

3 D – Three types of 3D

1. Stereoscopic 3D:

- Coraline, Journey to the centre of the earth
- 2 cameras with degree offset on one plate
- Specialist DIT required

2. 3D Animation

- Monsters vs Aliens
- All software

3 D – Three types of 3D

3. Conversion technology: from 2D to 3 D

- Taking existing films like Matrix and using very complicated software to convert to 3D
- Creates 2nd release for films
- Imagine Star Trek in 3D with all those moving spaceships and lasers

Thank you
&
Good luck



Contact details:

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Rentals & sales

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Resources

- www.visuals.tv (for this presentation)
- www.convergentdesign.com
- <http://news.creativecow.net/story/861759>
- www.michaelnicknichols.com/article/camera_traps/
- http://en.wikipedia.org/wiki/Camera_trap
- <http://www.nationalgeographic.com/media/tv/amateur-explorers/>
- <http://grahamhatherley.com/>
- www.adamwill.com
- www.hdhub.co.za

Thank you for listening



HD QUALITY FACTORS:

1. HD bit rates per colour channel
2. HD transfer bit rates
3. Colour sampling rates

HD bit rates per colour channel

- Video formats have different bit rates per colour channel
- The bit rates determine the formats ability to differentiate between black and white or
- The steps between black and white that the camera can reveal
- Very important to note that there are 2 bit rate values:
 1. A to D bit rate on the camera(off the chip)
 2. recording bit rate

Bit rates per colour channel

BIT RATE	A to D (from chip)	RECORDING Bit rate	2 THE POWER OF:	TO THE POWER OF 2:	GREYSCALE
8 bit	DV,HDV,P2,	HDW 900H HDW 900R VARICAM HDW 750 XDCAM(422) HDX900 HDV,	8	2x2x2x2x2x2x2x2	256
10 bit	HDW 750 HDX900	HDCAMSR, D-5	10	2x2x2x2x2x2x2x2 x2	1024
12 bit	HDW 900H HDW 900R VARICAM		12	2x2x2x2x2x2x2x2 x2x2x2	4096
14 bit	XDCAM(422) GENESIS PHANTOM-P65		14	2x2x2x2x2x2x2x2 x2x2x2	16384
16 bit			16	2x2x2x2x2x2x2x2 x2x2x2x2	32768

HD format quality factors

Formats	XDCAM SR	XDCAM	D5HD	DVCPRoHD	HDV
Image Quality					
Bit Depth	▪ 10-bit	▪ 8 bit	▪ 8- or 10-bit	▪ 8 bit	▪ 8-bit
Raster Sampling	▪ 4:2:2 or 4:4:4	▪ 3:1:1	▪ 4:2:2	▪ 4:2:2	▪ 4:1:1 or 4:2:0
Data Rate	▪ 440/880 Mb/sec	▪ 135 Mb/sec	▪ 235 Mb/sec	▪ 100 Mb/sec	▪ 18-25 Mb/sec
Native Support					
Acquisition	▪ Yes	▪ Yes	▪ No	▪ Yes	▪ Yes
Postproduction	▪ No	▪ Yes (Sony only)	▪ No	▪ Yes	▪ No
Frame Size & Raster Issues					
	▪ 1080	▪ 1080	▪ 720 ▪ 1080	▪ 720 ▪ 1080 with raster decimation	▪ 720 ▪ 1080 with raster decimation
Storage	▪ 521 GB / hr	▪ 781GB /hr	▪ 521 GB / hr	▪ 44 GB / hr	▪ 55 GB / hr
Production/ Post Equipment	▪ Cameras/decks \$100K range ▪ NLEs \$5K-100K [sw-hw]	▪ Cameras/decks \$60K range ▪ NLEs \$5K-100K [sw-hw]	▪ No cameras; decks \$60K range ▪ NLEs \$5K-100K [sw-hw]	▪ Cameras \$5-\$10K range ▪ NLEs \$5K-100K [sw-hw]	▪ Cameras \$3-5K range ▪ NLEs \$5K-100K [sw-hw]
Workflow	▪ 4:2:2 1:1 HD-SDI capture to NLEs, output to HD SDI for master ▪ 4:4:4 requires massive processing power ▪ Ties up gear rendering	▪ Similar to SD: 1:1 HD-SDI capture to NLEs, output to HD SDI for master	▪ Similar to SD: 1:1 HD-SDI capture to NLEs, output to HD SDI for master	▪ Two approaches ▪ Firewire via DV ▪ 1:1 HD-SDI capture to NLEs, output to HD SDI for master ▪ Multi-generation issues in post	▪ Same as SD/DV ▪ Multi-generation issues in post

Table by Nenad Puhovski

XDCAM HD (422)	
Bit depth	Unknown (8bit)
sampling	4:2:2
Data rate	50Mbs
Native support acquisition	yes
Postproduction	yes
Frame size	1080
costs	Cameras:

HD Transfer bit rates



HD Transfer bit rates compared

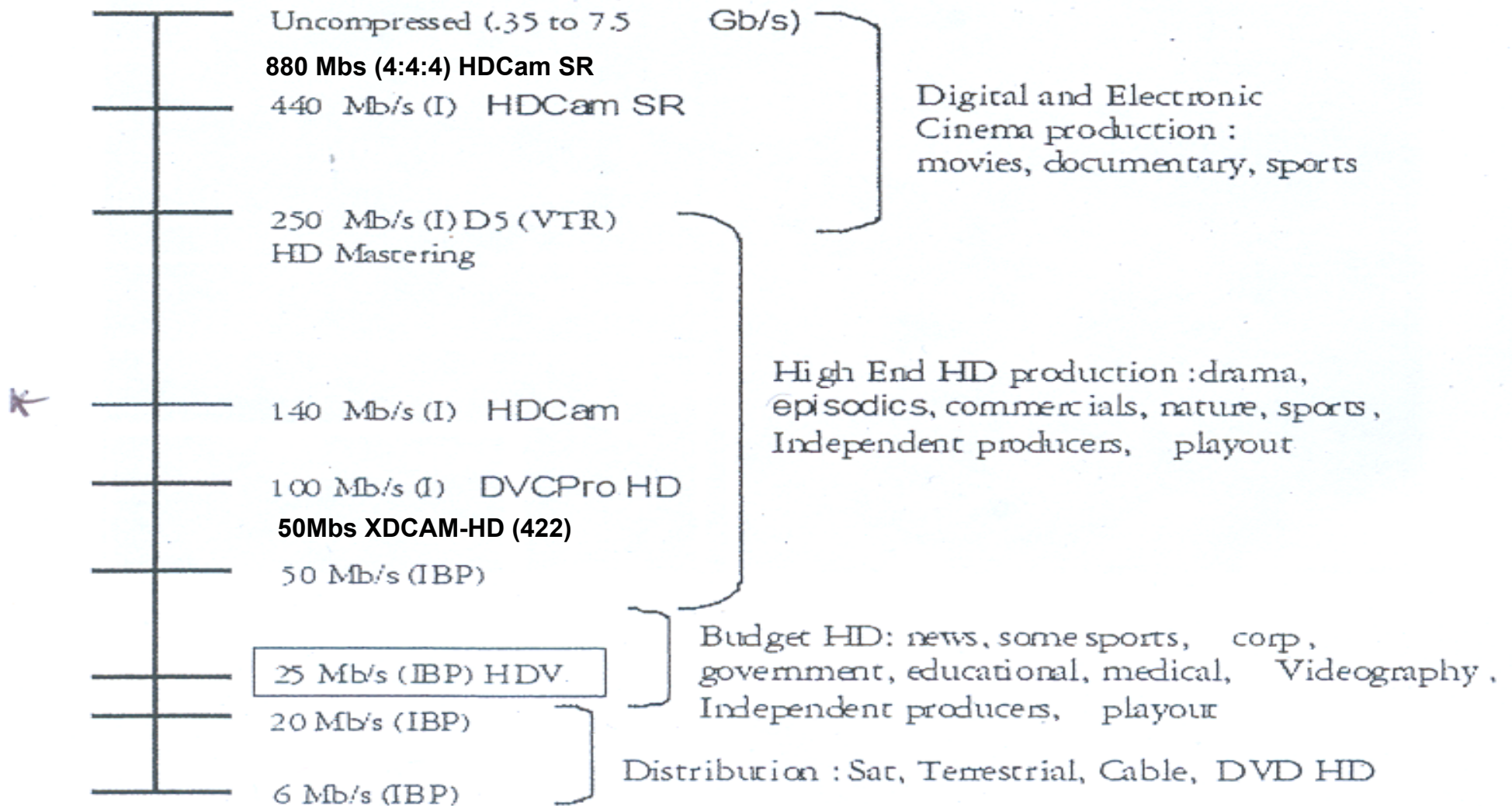


Table by Nenad Puhovski

Colour Sampling Rates:

- Colour spaces are explained by YUV or Y'CbCr
- Y=luminance
- (CbCr)=colour difference signals
- The eye more sensitive to contrast in green, less sensitive in red and least sensitive in blue
- **Designers take advantage of this by allocating more bandwidth for Y and less for CbCr**
- 4:4:4-one Cb&Cr sample for each Y sample.4:4:4 can be RGB or component (YUV)
- SR can record in RGB and component (YUV)
- 4:2:2-Y sampled at every pixel, but CbCr only sampled at every other pixel
- 4:1:1-Y sampled at every pixel, but CbCr only sampled at every fourth pixel

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