The procedure how to prepare 3D video footage in order to maintain high quality and convert interlaced video to progressive

Required tools (install them!):

- 1. MV To 2AVI converter (29 EUR): <u>http://www.3dtv.at/Downloads/Index_en.aspx</u>
- 2. Suitable Codec, e.g. **UT codec** (freeware): <u>http://www.videohelp.com/tools/Ut-Video-Codec-Suite</u>
- 3. AviSynth (freeware): <u>http://www.videohelp.com/tools/AVIsynth</u>
- 4. **3D converter** (freeware): <u>http://dsc.ijs.si/damir.vrancic/down_3d/Software/</u>
- 5. **RipBot264** (freeware): <u>http://www.videohelp.com/tools/RipBot264</u>

Abstract:

- MVC To AVI converter extracts left and right interlaced videos from the original JVC mp4 files
- 3D converter joins left and right videos into full side-by-side avs scripts (still interlaced)
- RipBot264 makes progressive full side-by-side mp4 videos which can be used by e.g. Sony movie studio Platinum 13.

1. MVC To AVI converter (Peter Wimmer)

File – Add files (add original mp4 full side-by-side files from JVC)

MVC to AVI Converter	
File Help	
Files:	
D:\3D\Seminar\Test\PIC_3174.MP4	
D:\3D\Seminar\Test\PIC_3206.MP4	
log	

File-Settings:

Settings	×
General Video Encoder	
Process audio	
Downmix to stereo	
Write audio to right file	
Download ffdshow	
	ancel

Video encoder tab:

Encoder		Туре	•
Morgan Multimedia M-JPEG2000 V3 codec	fultimedia M-JPEG2000 V3 codec Video for Windows		
PictureToExe Video Codec	lec Video for Windows		
UtVideo RGB (ULRG) VCM	/ideo RGB (ULRG) VCM Video for Windows		
UtVideo RGBA (ULRA) VCM Video for Windows			
UtVideo YUV420 BT.601 (ULY0) VCM	ideo YUV420 BT.601 (ULY0) VCM Video for Windows		
UtVideo YUV420 BT.709 (ULH0) VCM	deo YUV420 BT. 709 (ULH0) VCM Video for Windows		
UtVideo YUV422 BT.601 (ULY2) VCM		Video for Windows	
UtVideo YUV422 BT.709 (ULH2) VCM		Video for Windows	E
x264vfw - H.264/MPEG-4 AVC codec		Video for Windows	
Xvid MPEG-4 Codec		Video for Windows	-
Ouality:	- 0%	Configure About	

At the end, we confirm (OK) and in the main window choose File – Start conversion

Programme makes separate left and right files (still interlaced). The separate files are holding the names *-l.avi and *-r.avi.

2. 3D Converter:

It makes parallel pair Avisynth script in full resolution (full side-by-side). Choose the options shown below:

<u>F</u> ile <u>E</u> dit <u>H</u> elp				
VCF for deinterlacing	D:_Programs_Video\VirtualDub\Deinterlace_Cineform.vcf			
VCF for separate output	{_Programs_Video\VirtualDub\Cineform_progressive.vcf			
VCF for LR or OU output	D:_Programs_Video\VirtualDub\UT420.vcf	rograms_Video\VirtualDub\UT420.vcf		
VirtualDub #2	D:_Programs_Video\VirtualDub_No2\VirtualDub.exe			
Input Files	Output Files			
Input Format © Separate files © Side-by-side (LR) © Over-under (OU) © Separate files MVC re © Separate fields © Half width © Half height Import options © AVISource (AVI files) © DirectShowSource	Output Format Frames Separate files Repeat or Side-by-side (LR) Oter-under (OU) Over-under (OU) 2 frame Deinterlace Do only DI phase Separate fields 0utput frame Half width 11.988 Half height 21.51p (frame) File prefix: 23.976p Use 2 VirtualDubs (faster) Frame rate H Mirror L H Mirror R V Mirror L V Mirror R	skip frames 3 frames 1/2.5 frames s 4 frames 1/3 frames hes 1/2 frames 1/4 frames ne rates ge 25p (PAL) (HALF FILM) 29.97p (NTSC) HALF PAL) 550p (DOUBLE PAL) 0 (HALF NTSC) 59.94p (DOUBLE NTSC) 0 (FILM) 59.94p (DOUBLE NTSC) 0 (FILM) 0 User defined rate Numer: 30000 Denom: 1001 s sound options pitch © Do nothing		

Choose File | Convert files. Since the option "Separate files MVC reference" is active, we have to choose the original MP4 JVC files (don't worry, the programme will automatically load avi files created by MVC to AVI converter.

The resulting files are avisynth scripts with extension *_LR.avs, which will be used for creating progressive files in 25p/30p or 50p/60p form.

How? By using the programme "RipBot264".

3. RipBot264



Click button Batch and the following window appears:

Batch mode	×
	Batch mode
D:\3D\Seminar\Test\PIC_3174_LR.avs D:\3D\Seminar\Test\PIC_3206_LR.avs	
PROFILE AVC HEVC	Add Remove Clear
[HIGH 4.1] DEFAULT . FILM -	2.0 FHG AAC-LC 128 kbps [abr] ↓
MODE CRF	NORMALIZE DEINTERLACE
Constant Quality 🗸 20 🗸	OFF 👻 TFF -> 25 FPS/30 FPS 👻
SIZE	CONVERT FPS OUTPUT SPEED
Do not resize 🚽	OFF 🗣 Do not change 🗣
OUTPUT	PERMANENT SUBTITLES
D:\3D\Seminar\Test\	▼
SAVE AS .MKV .MPY AVCHD	DIVX PLUS
Start encoding as coon as first job is pre-	hered
Start encouring as soon as first job is prep	

by clicking "Add", we select all avs files created in the previous step. For other settings, see above (click .mp4 button! and set the output directory). You can choose Constant quality=18 or slightly below if you wish, but don't exaggerate (lower number is higher quality). Don't go below 16.

Then we click button "Start". Make yourself a cup of coffee, go to lunch or to bed (depends on the length of the footage).

After conversion we get the files with the same name as the original files, but with extension *_LR.mp4.

If you need 50p/60p clips, which can be used for slow-motion, Chosse "TFF -> 50 FPS/60 FPS" in deinterlace option. Don't forget to save those files into some other dirctory (Output option).

When all mp4 files are created, we can delete huge AVI files which were created by MVC To AVI converter.

Now the final footage is in parallel full side-by-side form. When importing it into project media within Sony Movie Studio Platinum 13, it will automatically make proxy files. Don't forget to set the project properies as 1920x1080, progressive, full side-by-side (or anaglyph for editing).