**Setting Up XviD’s First Pass**

Here comes the complicated parts. We need to set up VirtualDubMod to run two projects

in batch processing mode. The first project it runs will the be the first pass by the XviD

encoder, which won’t actually output anything. Instead it will collect information about

each frame to give you higher quality results when it actually encodes on the second pass.

Go to the Video menu and make sure that Full Processing Mode is selected. Next, go to

the Video menu and select Compression. This will bring us to the the screen that allows

us to configure our encoder options. Select the XviD MPEG-4 Codec from the list on the

left and click the Configure button.

Now we need to configure the encoder for it’s first pass. Use the following settings.

**Setting Value**

Profile @ Level AS @ L5

Encoding Type Twopass - 1st Pass

If there are any zones defined in the Zones box, select and apply the following settings to

each one.

**Setting Value**

Start Frame # 0

Rate Control Weight 0.00

Begin With Keyframe Checked

Greyscale Encoding Unchecked (unless your video isn’t in color)

Chroma Optimizer Enabled Checked

BVOP Sensitivity 0

Now click on the Advanced Options button. Use the following settings on the Motion tab.

**Setting Value**

Motion Search Precision 6 - Ultra High (reduce for smaller files)

VHQ Mode 4 - Wide Search (reduce for smaller files)

Use Chroma Motion Checked

Turbo Unchecked

Frame Drop Ratio 0

Maximum I-Frame

Interval

240 if you needed to select Forced Film in DGIndex, otherwise

set to 300

Cartoon Mode Unchecked (unless you’re encoding something like anime)

Use the following settings on the quantization tab.

**Setting Value**

Min I-Frame Quantizer 1

Max I-Frame Quantizer 31

Min P-Frame Quantizer 1

Max P-Frame Quantizer 31

Min B-Frame Quantizer 1

Max B-Frame Quantizer 31

Trellis Quantization Unchecked

Finally, on the Debug tab use the following settings.

**Setting Value**

Automatically Detect Optimizations Selected

FourCC Used XVID

OutputDebugString Debug Level 0×0

Print Debug Info On Each Frame Unchecked

Display Encoding Status Unchecked

Now click OK to close the advanced options window and click OK to close the XviD

configuration window. Lastly, click OK to close the video compression window.

Go to the File menu and choose Save As. Make sure the file type is Audio-Video

Interleave (\*.avi) and give it a file name. Most importantly, check the box that says

“Don’t run this job now; add it to job control so I can run it in batch mode.” Click the

Save button. That’s it for the first pass.

**Setting Up XviD’s Second Pass**

Don’t close VirtualDubMod or reopen the file or anything. Just go back to the Video

menu and select Compression again. Click Configure to open the encoder options

window. I’m only going to give you the settings you need to ***change***. Leave everything

else the way it was before.

**Setting Value**

Encoding Type Twopass - 2nd Pass

For high quality video like the one in the screenshots, toggle the Target Bitrate/Target

Size button to Target Bitrate. Type 1500 in the box to its right. That’ll give the video a

bitrate of 1500 kbps which produces excellent quality video.

If you want to aim for a particular file size toggle the button to Target Size and click the

Calc button to open the bitrate calculator. Type in your target size (in kilobytes) and leave

the subtitles box at 0. Make sure the Container Format is set to AVI-OpenDML. Type in

your movie’s duration. If you checked Forced Film in DGIndex select 23.976 (FILM), if

not select 29.97 (NTSC). Select AC3 as your audio format and choose the average bitrate

of your AC3 audio file. This can be found by looking in the file name of the AC3 file we

outputted earlier using DGIndex. Finally, click OK to close the bitrate calculator.

Remember, only perform these steps if you’re aiming for a particular file size.

Click OK to close the XviD options window and click OK to close the video compression

window. Now we’ve got to add our AC3 audio to be muxed in on the second pass. Go to

the Steams menu and select Stream List. Click the Add button and select your AC3 audio

file from earlier. After a short pause as VirtualDubMod parses the AC3 audio, it should

show up in the stream list. Click OK to close the stream list box.

Go back to the File menu and select Save As. Type in the same name you did before

(taking care to select the AVI file type) and again check the “Don’t run this job now”

box. Click Save to close the window. Now open the job control box by going to the File

menu and selecting Job Control. Both the first pass job from earlier and the second pass

job we just configured should be listed. Your box will differ from the screenshot below

because I’ve already finished encoding. Just click the Start button and VirtualDubMod

will start the long and arduous process of encoding your movie. This would be a good

time to go and do something else for… quite a while. Once the project starts running you

can open a status window from the main VirtualDubMod window that will display its

progress and let you play with the priority settings.

After it’s done you will have your beautiful new high-quality XviD movie file with AC3

audio. Good luck!