



## How to record From ET with cl\_avidemo

### Written by Hannes Anders

So what are you going to learn here?

- How to set up your graphic card (NVIDIA ONLY)
- How to force ET to use the nvidia driver settings
- How to set up your graphic card (ATI ONLY)
- How to export the a scene from ET
- How to render the TGA files from ET into an avi file
- How to set up a vegas Project
- How to render from vegas
- What is meGUI?
- How to encode your final wav file (Music) using meGUI
- How to encode your final avi file (Video) using meGUI (x264)

### Some Pre-words:

Guys times are changing, 2 years ago when i started Heroine i planned to release it in 800by512 which still is the weirdest resolution i ever used. Still, there are lot movies that got released with that resolution in the past, and will probably get released in the future.

I asked some of the random guys why they are not thinking about doing high-res movies.

The most given answer was simple: „There are a lot of my friends who cannot see High-res footage“.

Well in my opinion they are just too lazy to get the right playback tools and codec's, and this should NOT keep you away from encoding your movies in a 720p HDV resolution.

But anyways high-res or low-res, always keep in mind that you can easily resize your footage to a lower resolution, but resizing to a higher resolution is not that easy and more advanced. Decimated got resized from low-res to high-res and as you can see this didn't kill the quality. (Just as an example that it is possible to do)

## Chapter 1.) Setting up your graphic adapter.

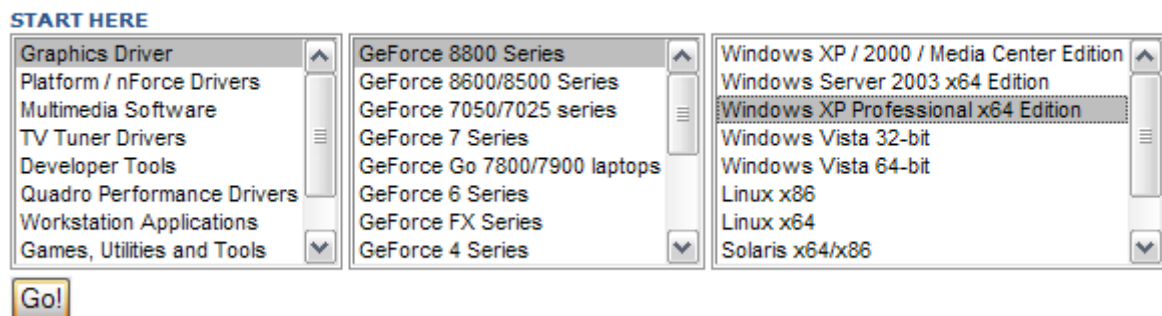
**As I mentioned above, this will be a NVIDIA only.**

### **Known Issues:**

- Green Blood -> Check the Hz of your monitor.  
If this is right and you still have green Blood then it is maybe a driver problem.

I suggest using the nvidia suggestions for their drivers. Follow their interface to get the correct drivers.

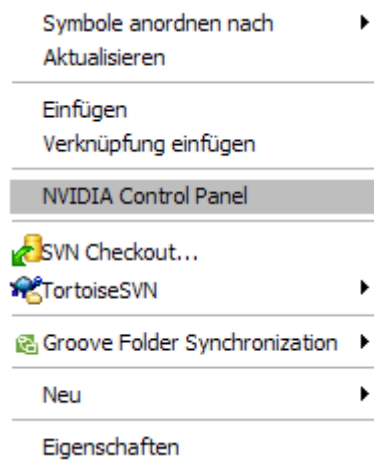
If you still have green Blood then you maybe have a GeForce 79xx with a broken chip (hi2u zadd) and you can't be helped here any further.



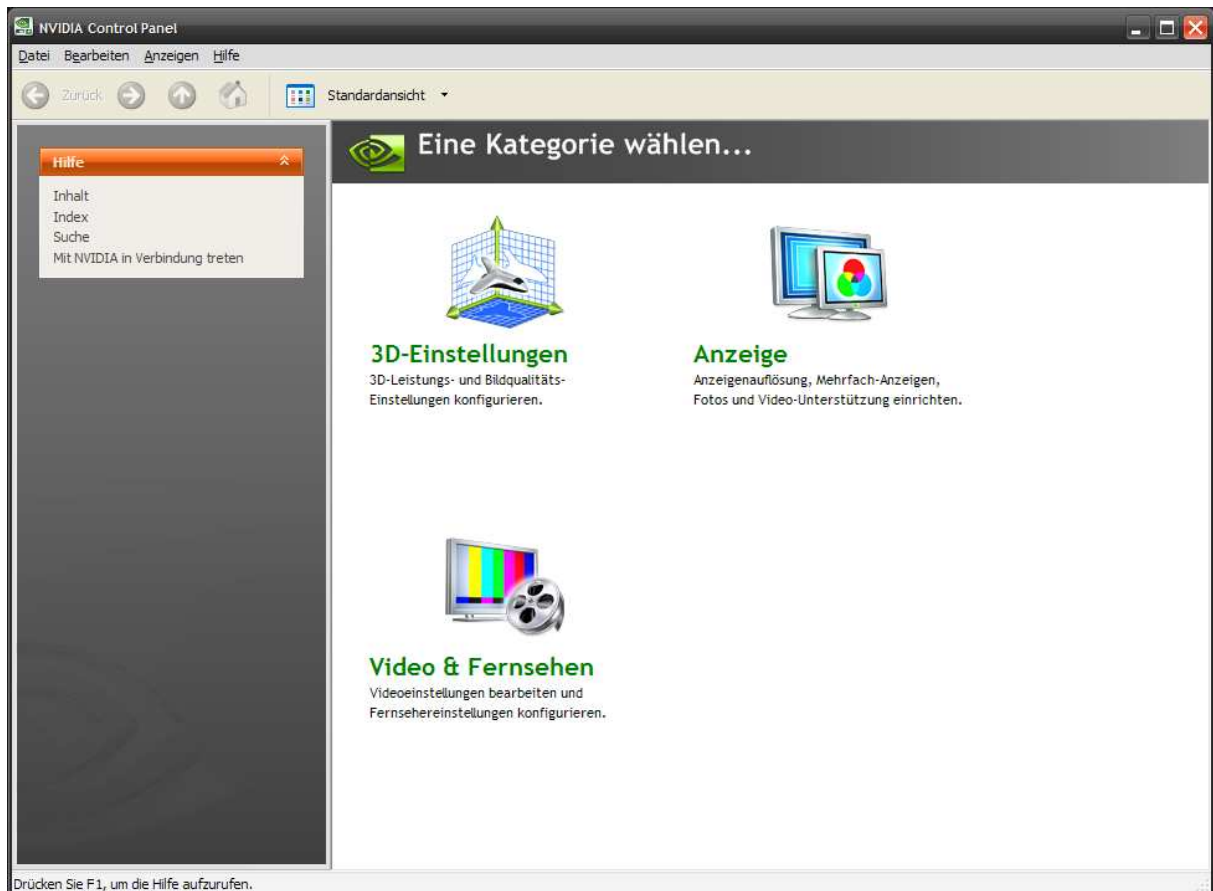
- Laptop GeForce GO Chips: you can use the normal GeForce drivers by editing the driver inf file. I won't get into detail on that here.

## **Chapter 2.) How to force ET to use the nvidia driver settings**

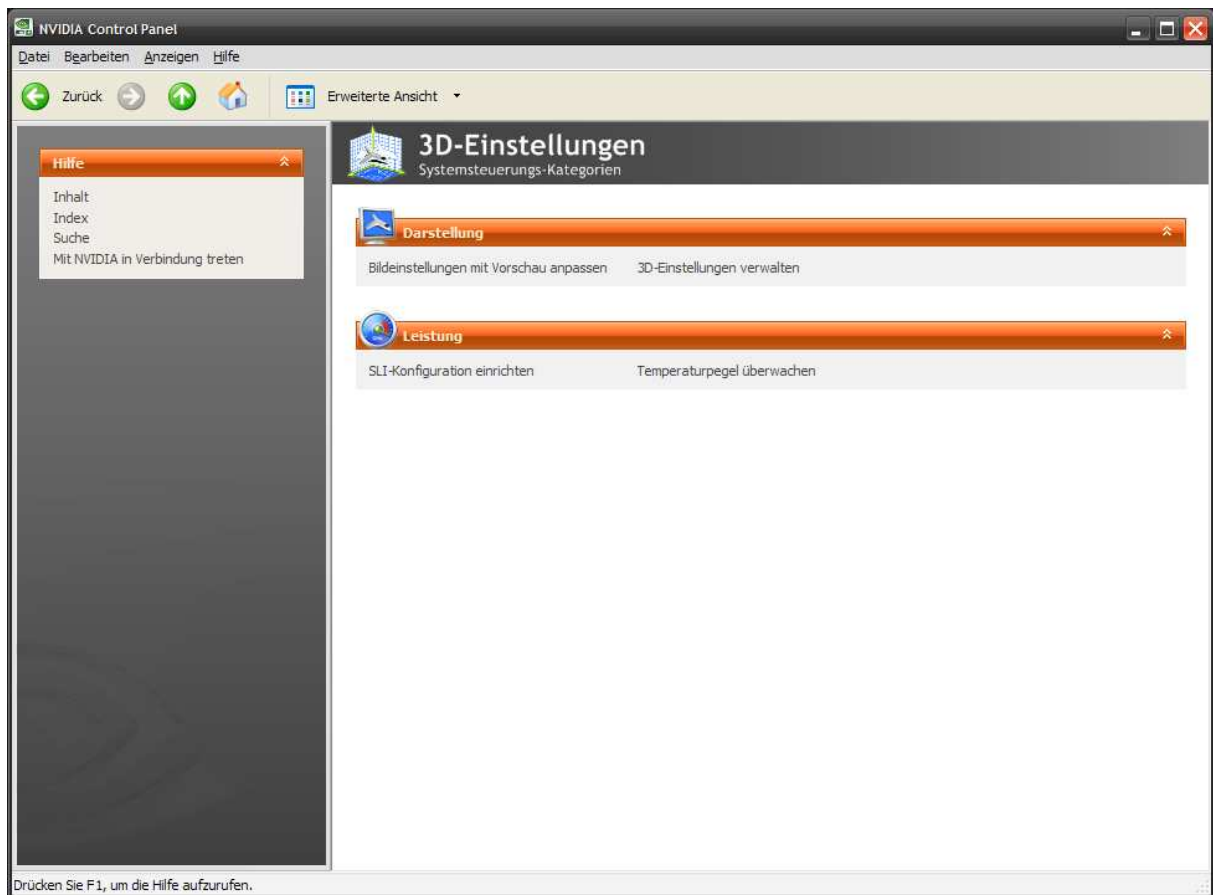
After updating you NVIDIA drivers you will see a new option when you right-click your desktop.



Now open the nvidia control Panel and you will get something like this.



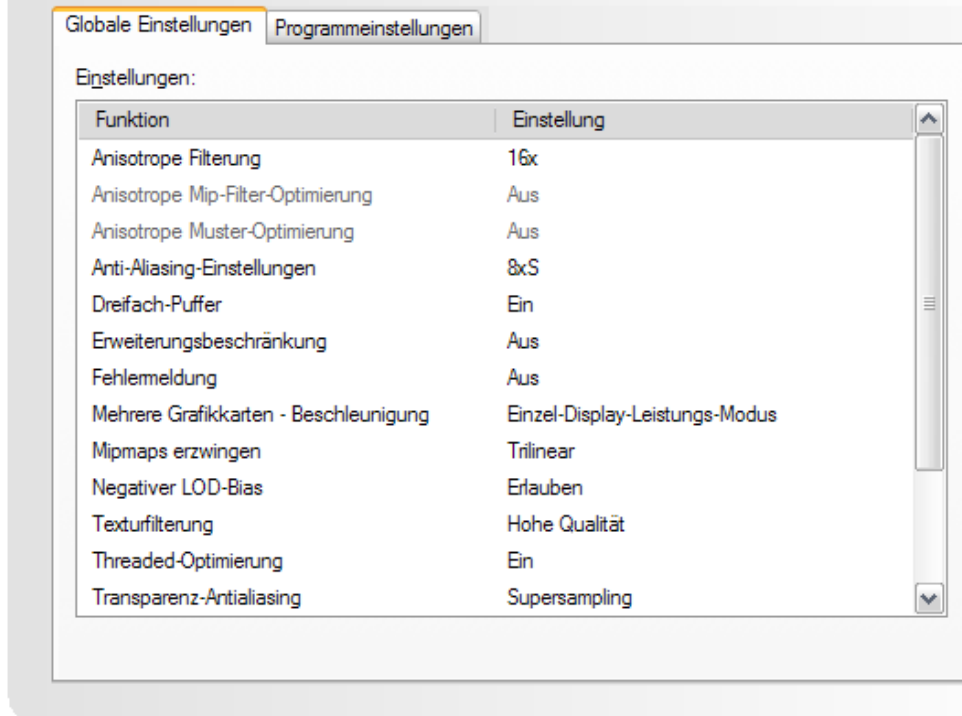
Next click on 3D-Settings and a new window will open. You will see something like this.



**Be sure to toggle your view to the advanced (extended) view, otherwise you won't see the 3D-Settings option.**

Click the option link now and you will see something like this:

Die folgenden 3D-Einstellungen sollen verwendet werden:



The settings I used for Zaigon were:

Anisotrope Filterung	16x
Anisotrope Mip-Filter-Optimierung	Aus
Anisotrope Muster-Optimierung	Aus
Anti-Aliasing-Einstellungen	8xS
Dreifach-Puffer	Ein
Erweiterungsbeschränkung	Aus
Fehlermeldung	Aus
Mehrere Grafikkarten - Beschleunigung	Einzel-Display-Leistungs-Modus
Mipmaps erzwingen	Trilinear
Negativer LOD-Bias	Erlauben
Texturfilterung	Hohe Qualität
Threaded-Optimierung	Ein
Transparenz-Antialiasing	Supersampling
Trilineare Optimierung	Aus
Vertikale Synchronisierung	Automatisch aus
Übereinstimmende Texture-Clamp	Hardware verwenden

German to English:

Aus = off; Ein = on; Einzel-Display = Single display; Erlauben = permit; Hohe Qualität =

high quality; Automatisch aus = automatic off; Hardware verwenden = use hardware;

Well that's all for the driver for now.

**NOTE: these settings were made for my Nvidia GeForce 6800 ULTRA. I do not guarantee that these are the perfect settings for other cards or drivers. But for me they worked like a charm.**

### **Chapter 2-1.) How to set up your ATI graphics adapter (thx to `legshoot)**

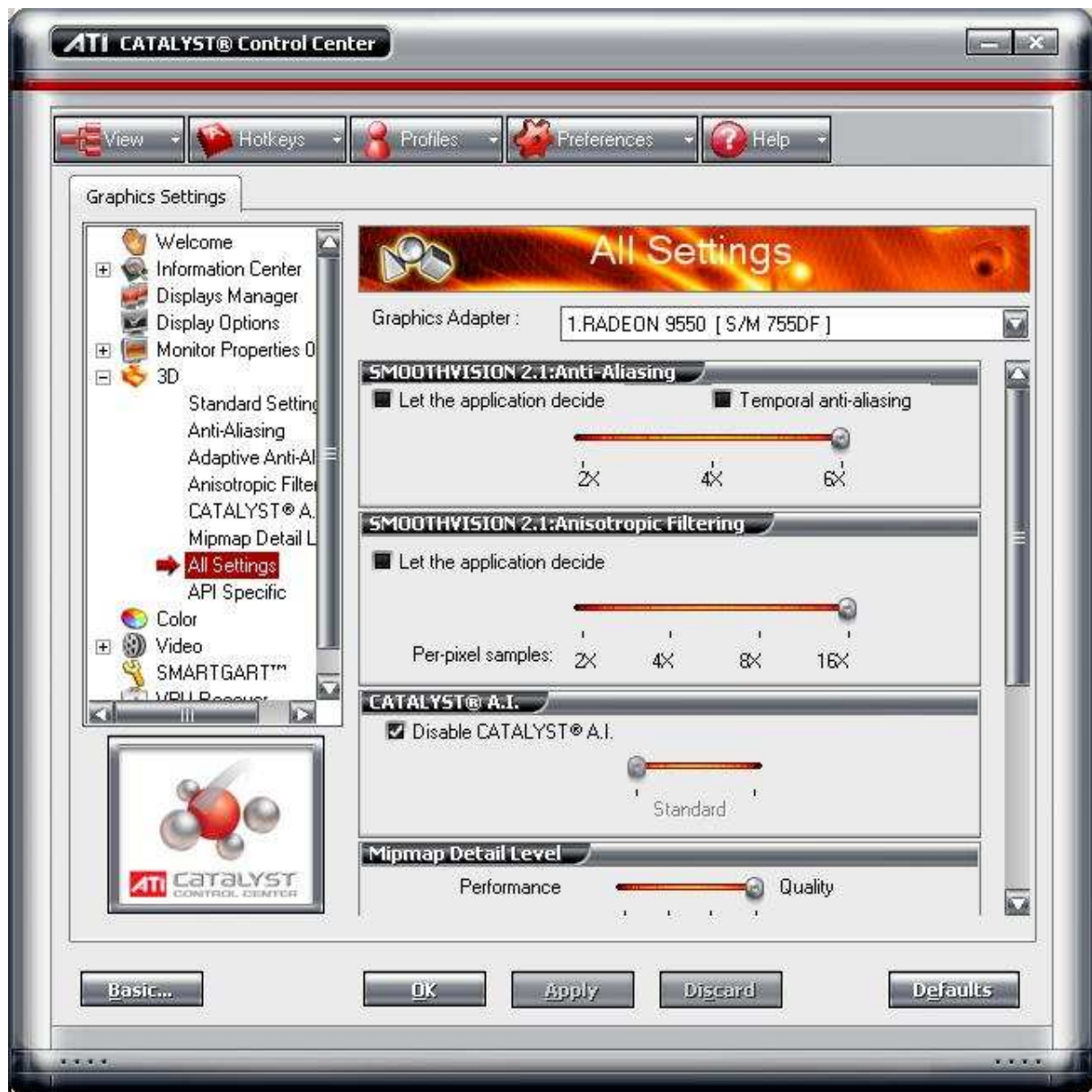
Here are the settings and stuff with ATI cards. First, you must have driver with Catalyst Control Center.

If you haven't got Catalyst, download and install it from <http://ati.com/> .

If you have Catalyst installed, then right-click on the desktop and select "ATI Catalyst Control Center".



Catalyst will open. It may ask you, which view you want to use. Select "Advanced". Now you have it opened. Select "All settings" from the left menu, you will now have something like this on screen:



Put all the settings like I have or a bit less. Now press “ok”.

**NOTICE! Make sure ATi logo is in tray or on taskbar!**

**NOTICE! You must change the resolution to more/less than you have it! Then the AA/AF settings will apply.**

### **Chapter 3.) How to export the a scene from ET**

I will explain how I did all that with the Ultraviolet MovieMod and the Ultraviolet MediaManager.

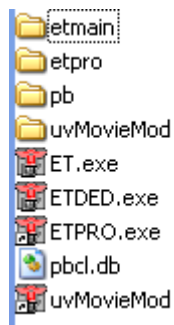
MovieMod: <http://myhannes.info/wordpress/?p=32>

MediaManger: <http://myhannes.info/wordpress/?p=33>

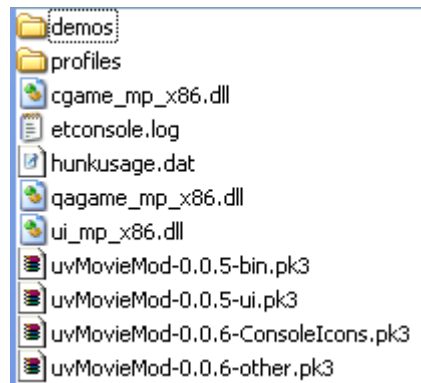
First get both files.

#### **Setting up the mod.**

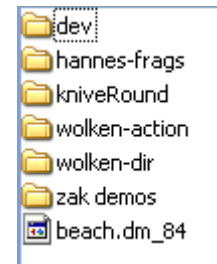
**ET: ROOT**



**ET: uvMovieMod**



**ET:Demos**



Setting up the Manager:

Just double click the exe and start the Manager over the start menu.

NOTE: There is still a bug in the Software that keeps the MediaManager crashing when you start the Software from the Start Menu. So I suggest you start the Media Manger directly from the exe File.

After finishing the settings you can start your demos easily directly from the Software. Detailed information about that can be found here:

<http://myhannes.info/stuff/movie/uv-MediaManager/Mediamanager.pdf>

## Config related stuff:

### Heroine – dark cfg:

```
seta r_glDriver "opengl32" unsafe
seta r_allowExtensions "1" unsafe
seta r_ext_compressed_textures "1" unsafe
seta r_ext_gamma_control "1" unsafe
seta r_ext_multitexture "1" unsafe
seta r_ext_compiled_vertex_array "1" unsafe
seta r_gllgnoreWicked3D "0" unsafe
seta r_ext_ATI_pntriangles "0" unsafe
seta r_ati_truform_tess "0" unsafe
seta r_ati_truform_normalmode "GL_PN_TRIANGLES_NORMAL_MODE_LINEAR" unsafe
seta r_ati_truform_pointmode "GL_PN_TRIANGLES_POINT_MODE_LINEAR" unsafe
seta r_ati_fsaa_samples "0" unsafe
seta r_ext_texture_filter_anisotropic "0" unsafe
seta r_ext_NV_fog_dist "0" unsafe
seta r_nv_fogdist_mode "GL_EYE_RADIAL_NV" unsafe
seta r_ext_texture_env_add "1" unsafe
seta r_clampToEdge "1" unsafe
seta r_picmip "0"
seta r_picmip2 "0"
seta r_roundImagesDown "1"
seta r_rmse "0.0"
seta r_detailtextures "0"
seta r_texturebits "32" unsafe
seta r_colorbits "0" unsafe
seta r_stereo "0" unsafe
seta r_stencilbits "0" unsafe
seta r_depthbits "24" unsafe
seta r_mapoverBrightBits "3"
seta r_ignorehwgamma "0"
seta r_mode "8" unsafe
seta r_oldMode ""
seta r_fullscreen "1"
seta r_customaspect "1"
seta r_simpleMipMaps "1"
seta r_subdivisions "12"
seta r_smp "0" unsafe
seta r_ignoreFastPath "0"
seta r_lodCurveError "250"
seta r_lodbias "0"
seta r_flares "1"
seta r_ignoreGLErrors "1"
seta r_fastsky "0"
seta r_drawSun "1"
seta r_dynamiclight "1"
seta r_dlightBacks "1"
seta r_finish "0"
seta r_textureMode "GL_LINEAR_MIPMAP_NEAREST"
seta r_swapInterval "0"
seta r_gamma "1.4"
seta r_facePlaneCull "1"
seta r_railWidth "16"
seta r_railCoreWidth "1"
seta r_railSegmentLength "32"
seta r_primitives "0"
seta r_trisColor "1.0 1.0 1.0 1.0"
seta r_normallength "0.5"
seta r_highQualityVideo "0"
seta r_inGameVideo "1"
seta r_highQualityVideo "1"
```

## Heroine – (too) bright cfg:

```
seta r_depthbits "0" unsafe
seta r_stencilbits "0" unsafe
seta r_stereo "0" unsafe
seta r_colorbits "32" unsafe
seta r_texturebits "32" unsafe
seta r_clampToEdge "1" unsafe
seta r_ext_texture_env_add "1" unsafe
seta r_nv_fogdist_mode "GL_EYE_RADIAL_NV" unsafe
seta r_ext_NV_fog_dist "0" unsafe
seta r_ext_texture_filter_anisotropic "0" unsafe
seta r_ati_fsaa_samples "0" unsafe
seta r_ati_truform_pointmode "GL_PN_TRIANGLES_POINT_MODE_LINEAR" unsafe
seta r_ati_truform_normalmode "GL_PN_TRIANGLES_NORMAL_MODE_LINEAR" unsafe
seta r_ati_truform_tess "0" unsafe
seta r_ext_ATI_pntriangles "0" unsafe
seta r_gllgnoreWicked3D "0" unsafe
seta r_ext_compiled_vertex_array "1" unsafe
seta r_ext_multitexture "1" unsafe
seta r_ext_gamma_control "1" unsafe
seta r_ext_compressed_textures "1" unsafe
seta r_allowExtensions "1" unsafe
seta r_glDriver "opengl32" unsafe
seta cg_shadows "0"
seta r_normallength "0.5"
seta r_trisColor "1.0 1.0 1.0 1.0"
seta r_primitives "0"
seta r_railSegmentLength "32"
seta r_railCoreWidth "1"
seta r_railWidth "16"
seta r_facePlaneCull "1"
seta r_drawfoliage "0"
seta r_swapInterval "0"
seta r_textureMode "GL_LINEAR_MIPMAP_NEAREST"
seta r_finish "0"
seta r_dlightBacks "1"
seta r_dynamiclight "1"
seta r_drawSun "1"
seta r_fastsky "0"
seta r_ignoreGLErrors "1"
seta r_flares "0"
seta r_lodbias "0"
seta r_lodCurveError "250"
seta r_ignoreFastPath "0"
seta r_subdivisions "12"
seta r_simpleMipMaps "1"
seta r_customaspect "1"
seta r_customheight "960"
seta r_customwidth "1280"
seta r_fullscreen "1"
seta r_oldMode ""
seta r_ignorehwgamma "1"
seta r_detailtextures "1"
seta r_rmse "0.0"
seta r_roundImagesDown "1"
seta r_intensity "1.5"
seta r_picmip "0"
seta r_gamma "1"
seta r_mapoverbrightbits "3"
seta r_overbrightbits "1"
seta r_mode "8"
```

Now start a Demo and timescale or FastForward (DemoFF <seconds>) to the scene you want to record.

Once you reached the scene type **cl\_avidemo <desired recordFPS>**

For Zaigon I used the following way to record from ET.

**cl\_avidemo 200;**

NOTE: its normal that ET starts to lag now.

after the scene is over type:

**cl\_avidemo 0;**

to stop recording and quit ET.

In your moviemod / etpro folder will be a new Folder called Screenshots. This will contain all the screenshots ET took for you.

Be also sure to have enough disk space free. One screenshot will take about 3,75 megs. So do some math's  $200 * 3,75 * 10$  for a 10 second clip.

That's all for the Export next we will render the TGA files into one big avi Video file.

## **Chapter 4.) How to render the TGA files from ET into an avi file**

Start Virtual Dub and Open the first Image of the images you have just recorded.

Virtual dub will now import all following images and you can see when you move the search bar that you already can see the frag in motion.

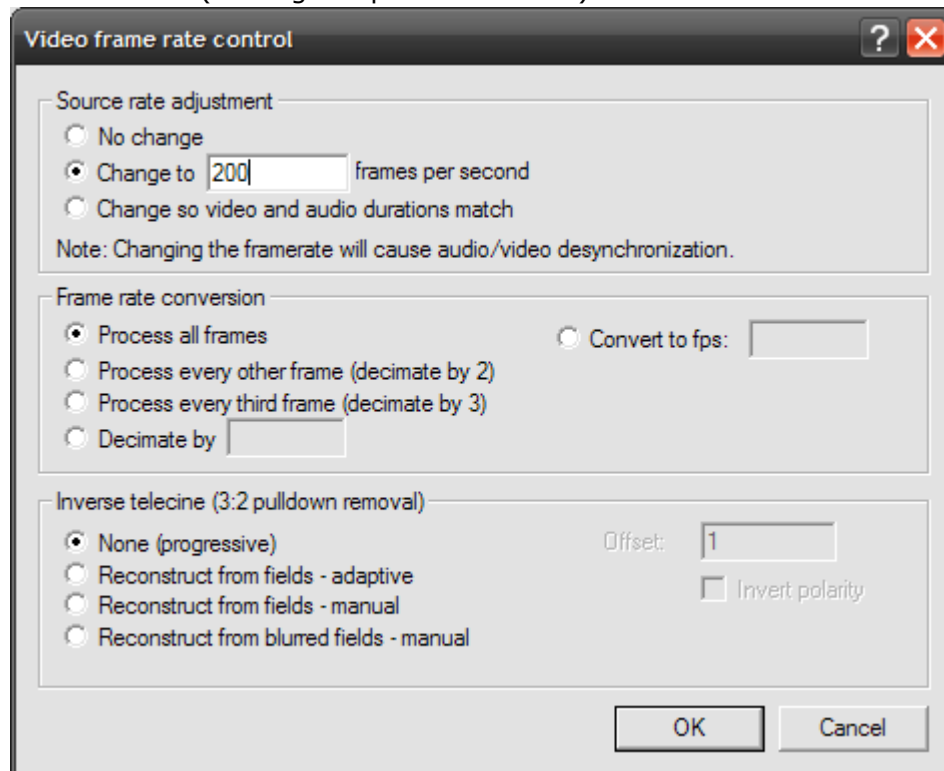
But there are still some settings to do.

I'll go quick through them:

Video

|

->FrameRate (In Zaigon I put 100 in here)



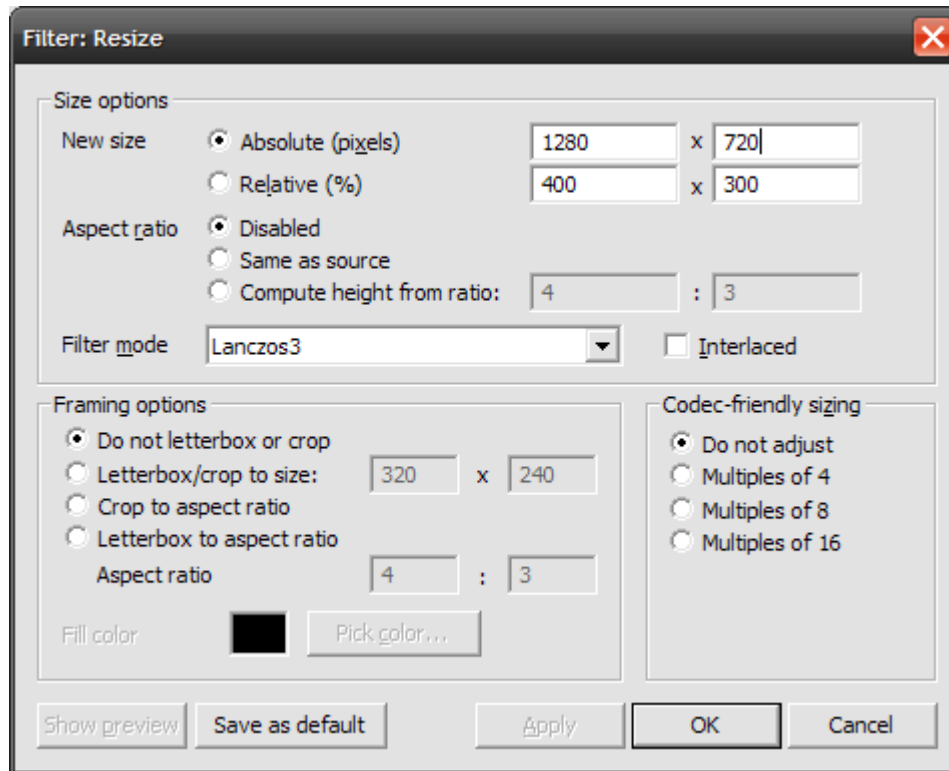
Video

|

->Filters

|

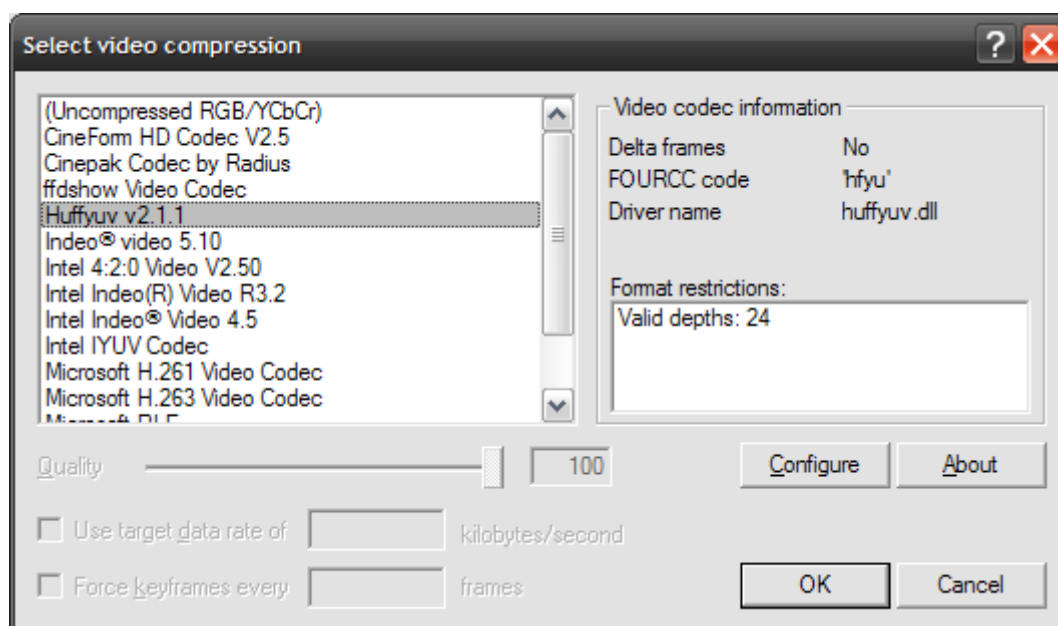
->Resize (You can also resize at the very end. (In Zaigon I resized from 1280by1024 to 1280by720))



Video

|

->Compression



Now you can save those settings as a preset.

File

|

-> Save configuration file

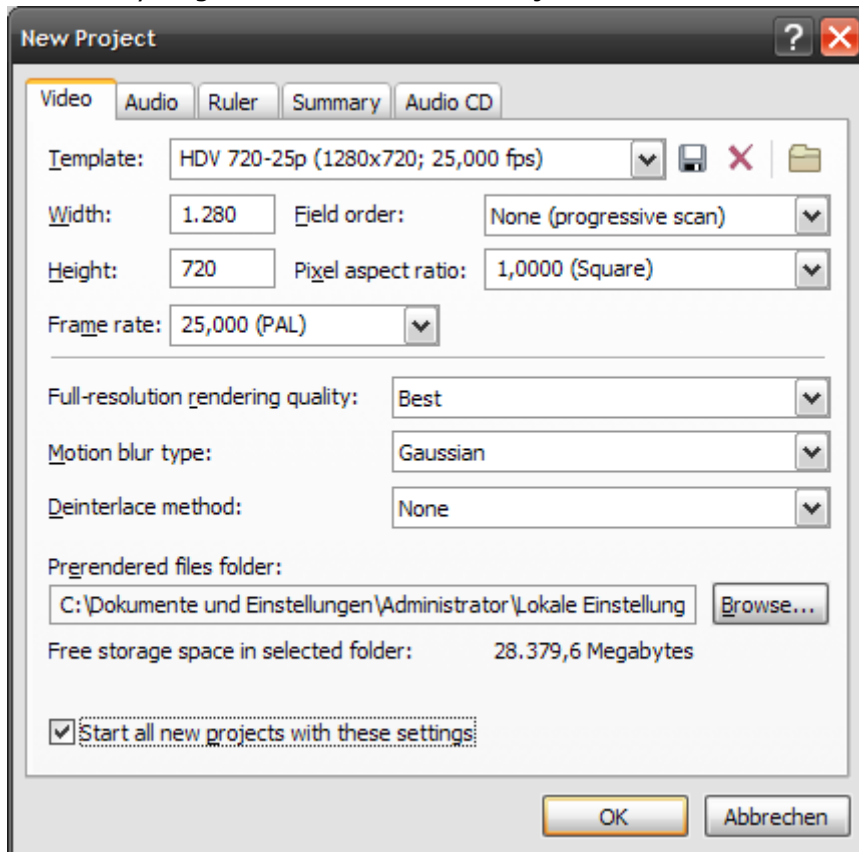
And you can load this file then again. Saves time.

If you do not yet have huffyuv codec installed, grab it from my webpage, extract it, right click the inf File and select install. That's all.

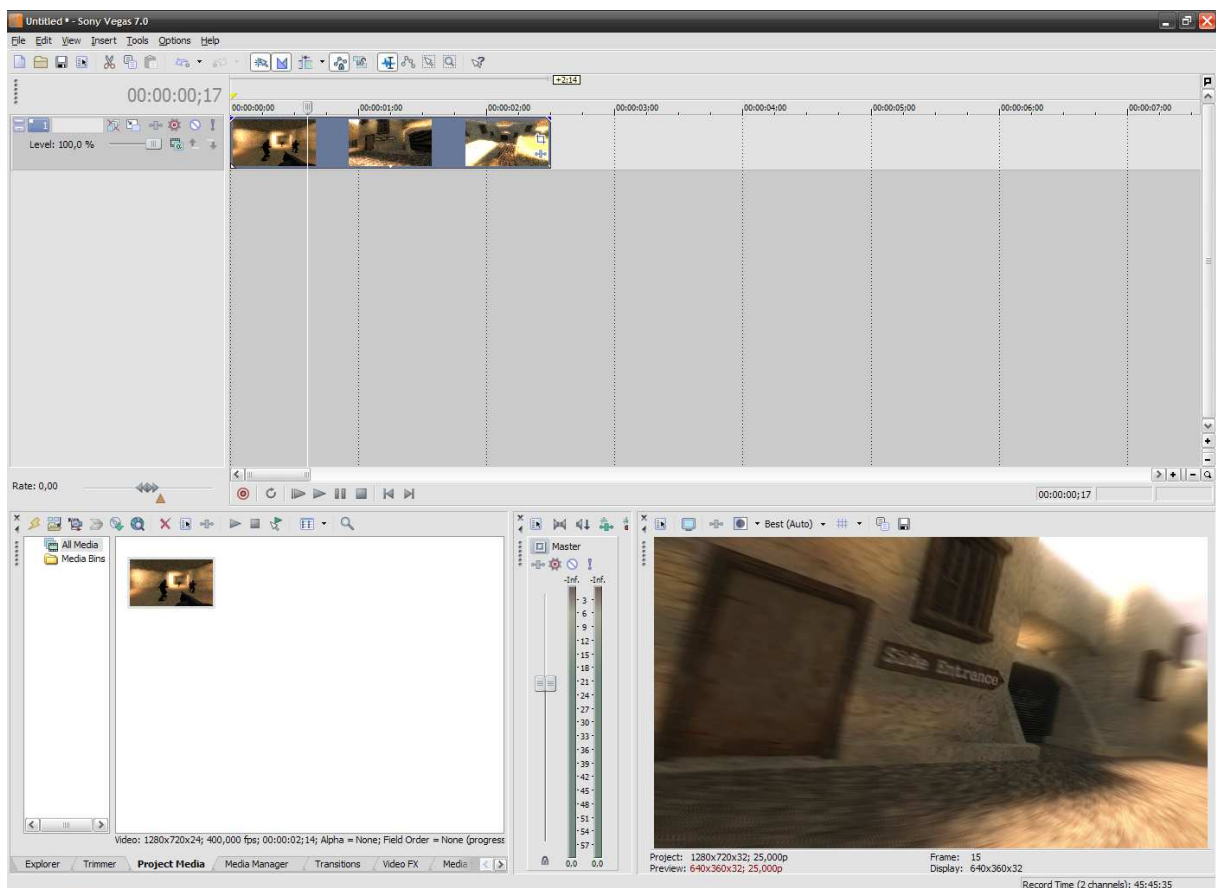
Now give Virtual Dub some Time and enjoy your rendered, resized, uncompressed Video File. If you are watching this file now, do not care about the lags that are normal.

## Chapter 5 + 6.) Sony Vegas

Start Sony Vegas and create a new Project.



And import your clip from Virtual Dub (I used a cam from my current project (400FPS))



Now you can see the motion blur that's been created by Vegas. Well that's pretty all here. Add sound for sure :).

Now we need to export it from Vegas again to final encode it in meGUI.

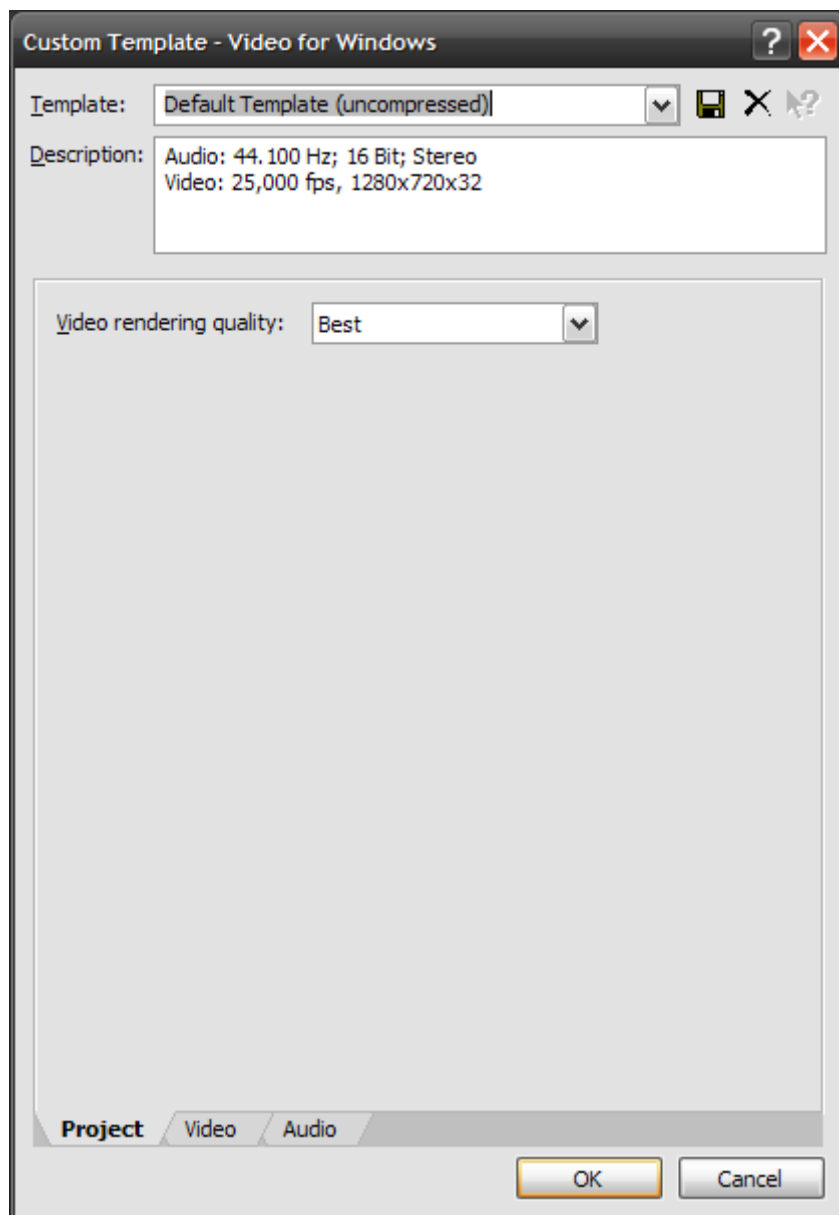
File

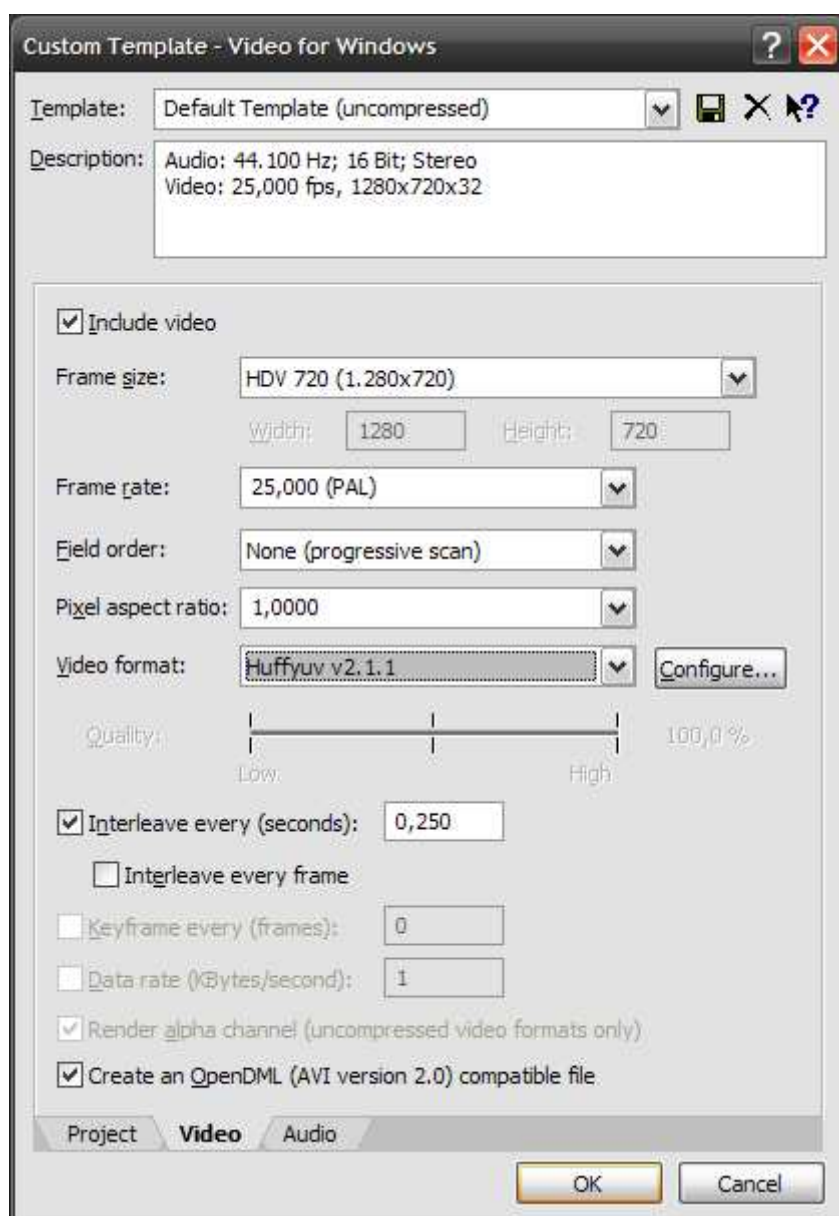
|

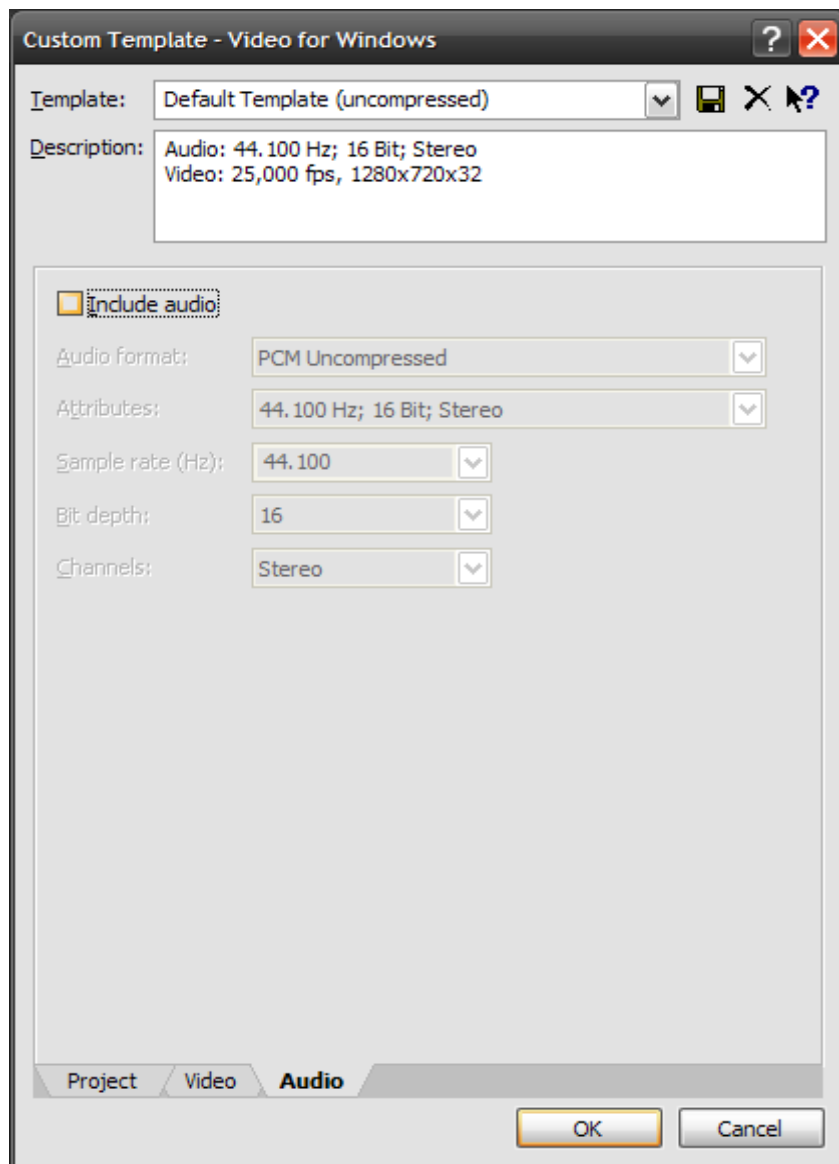
-> render as

**NOTE: always export sound and video on its own.**

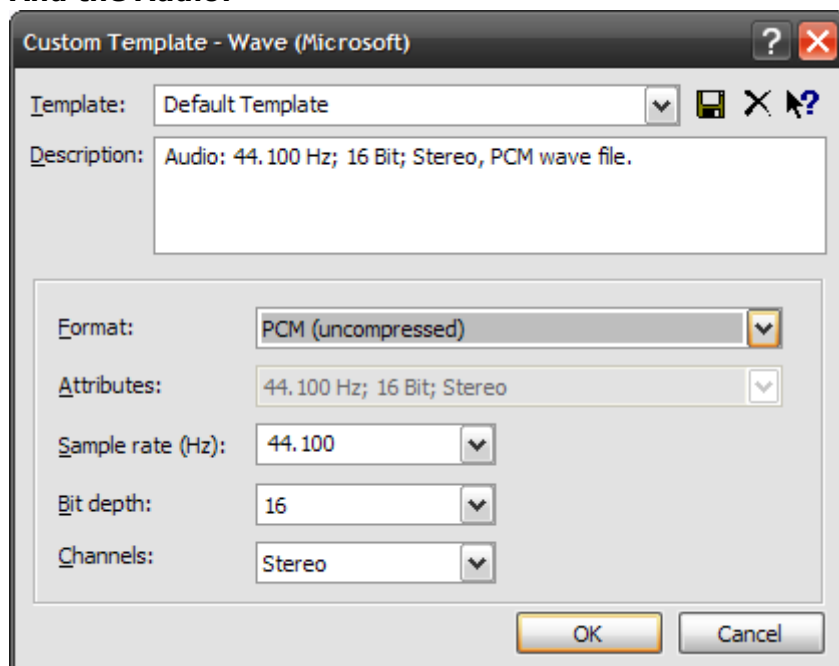
**My settings: (Video)**







### And the Audio:



## **Chapter 7.) What is meGUI?**

**THIS is meGUI: <http://forum.doom9.org/showthread.php?t=96032>**

What is this all about?

Get the best HD quality with a very low file size.

PRO's:

- Low file size
- Very sharp Picture quality
- A Lot of Settings to adjust

Contra's:

- Very slow encoding (up to 10 times slower than xvid)
- Not that easy to understand the whole thing

What do we need for encoding HDV with x264.

Simple: The page <http://www.x264.nl>

Download and install from there:

- ffdshow (video and audio decoder. During installation: Decode the following video formats with ffdshow: H.264 enables x264 playback)
- media player classic (good small player for many formats)
- matroska splitter (used to split .mp4 and .mkv files)
- MeGUI

<http://avisynth.org/SourceForge>

Download and Install from there:

- Avisynth

Next create the avs file for avisynth which is loaded by meGUI:

```
AVISource("C:\stuff\preview--30fps-uncompressed-edited.avi") # Path to the File
Crop(0,0,-0,-0) # Dow we want to crop? NO
ConvertToYV12() # A must have
#Lanczos4Resize(720,480) # No Resize yet
```

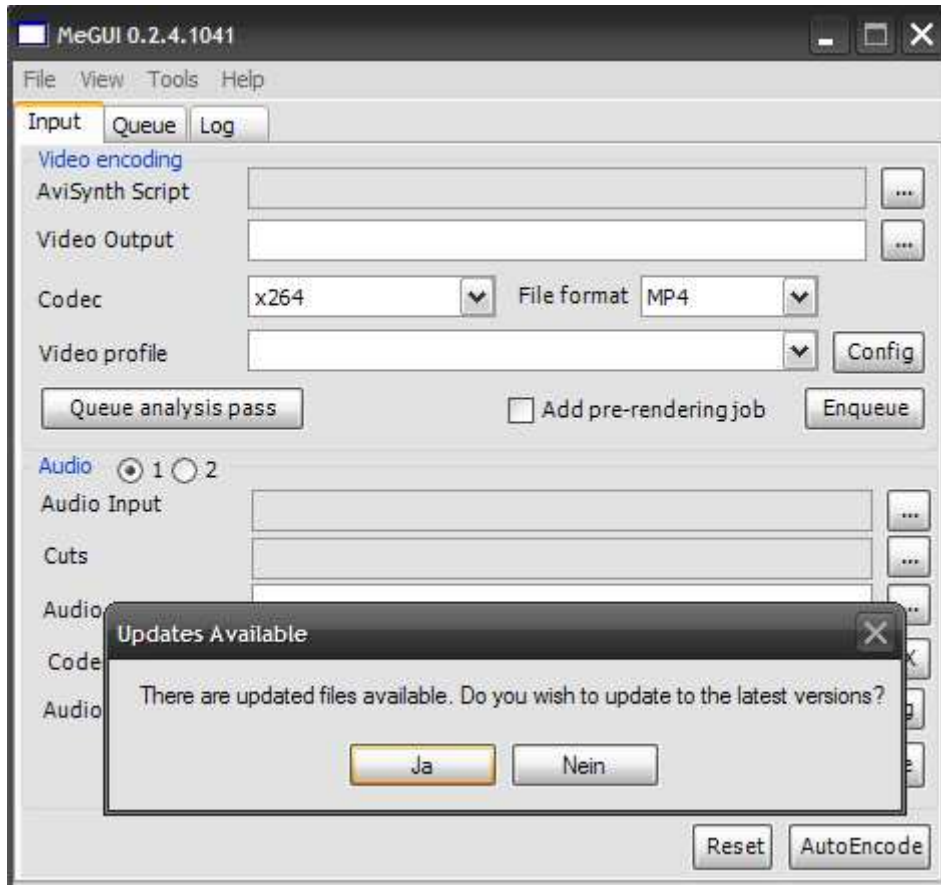
Save this to a file and start meGUI.

NOTE: there are several very nice plug-in dll's for avisynth. You should Google for them!

NOTE: All x264 related stuff, like settings and explanations can be found in the doom9.org forums. READ that and understand the codec to get proper quality. <http://forum.doom9.org/forumdisplay.php?f=77>

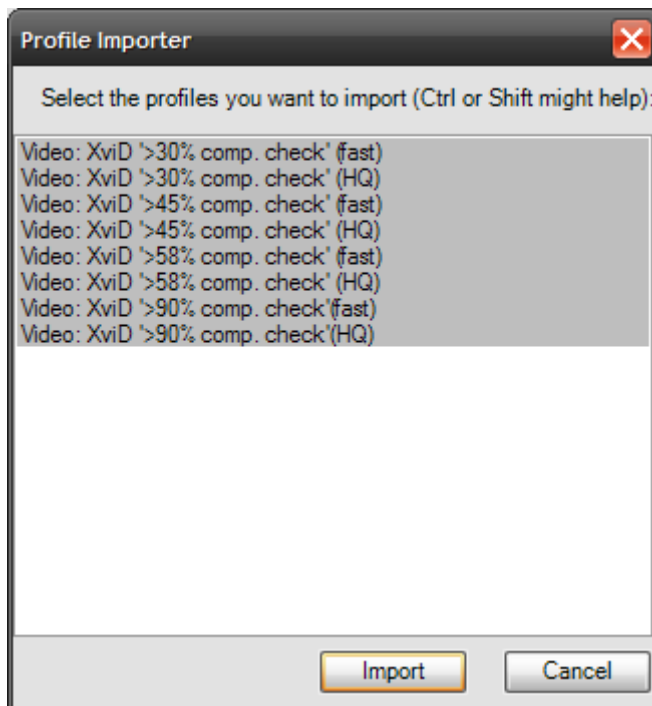
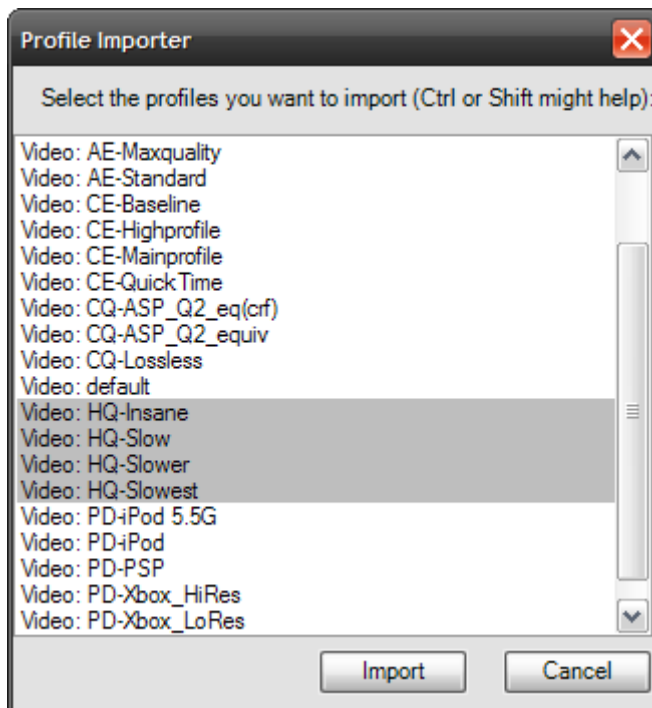
I am using a fresh, up to date meGUI install.

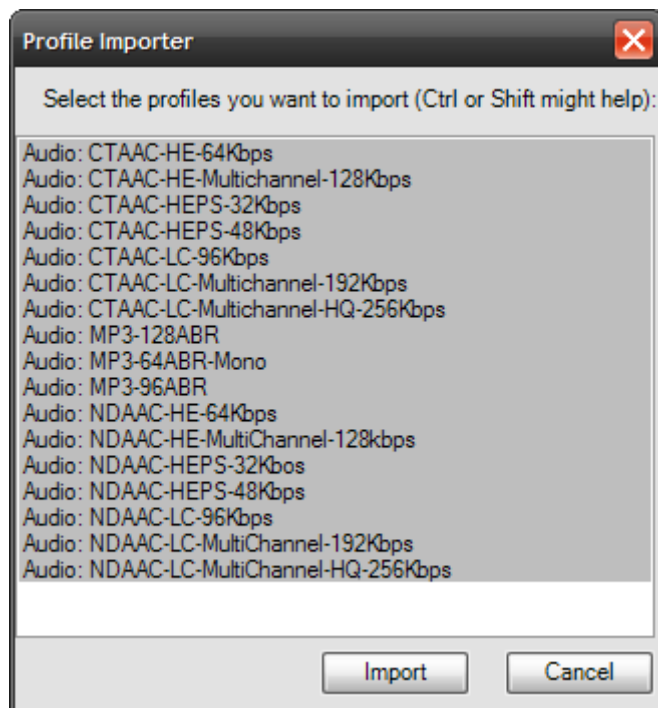
First start will ask for an update, you should really do this.



Do not care about the settings, just hit update and let him work.

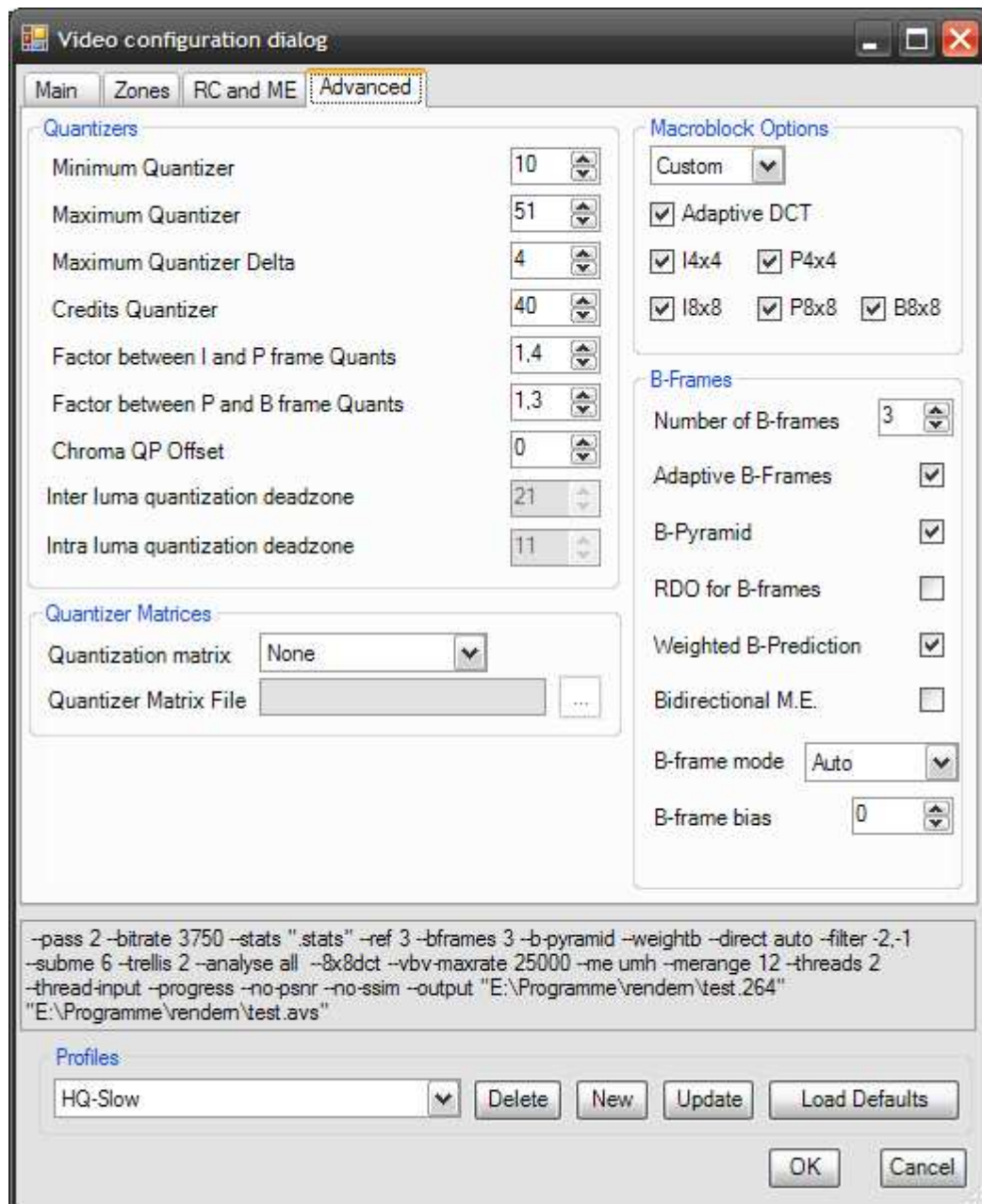
After some time you are asked to import some profiles. I imported those:

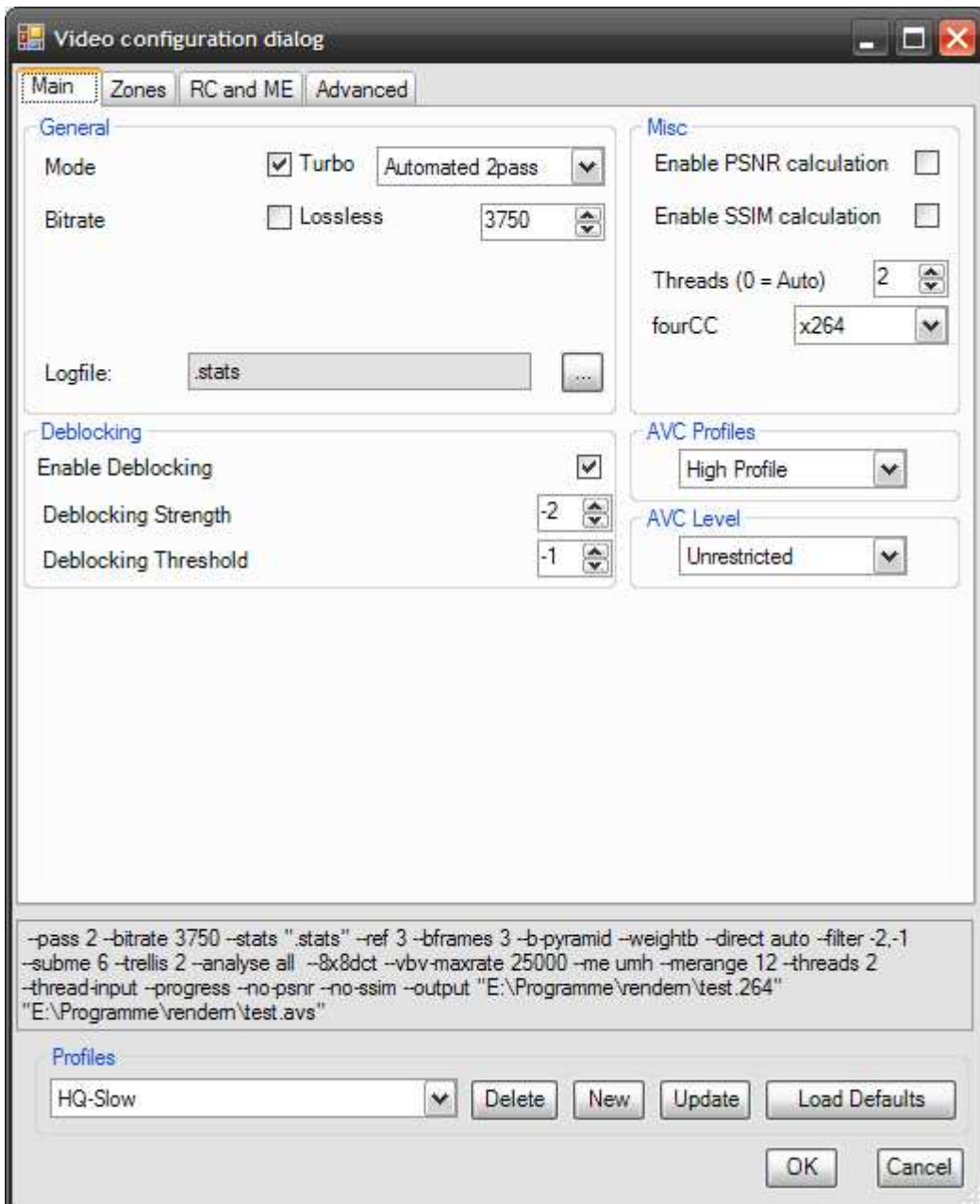


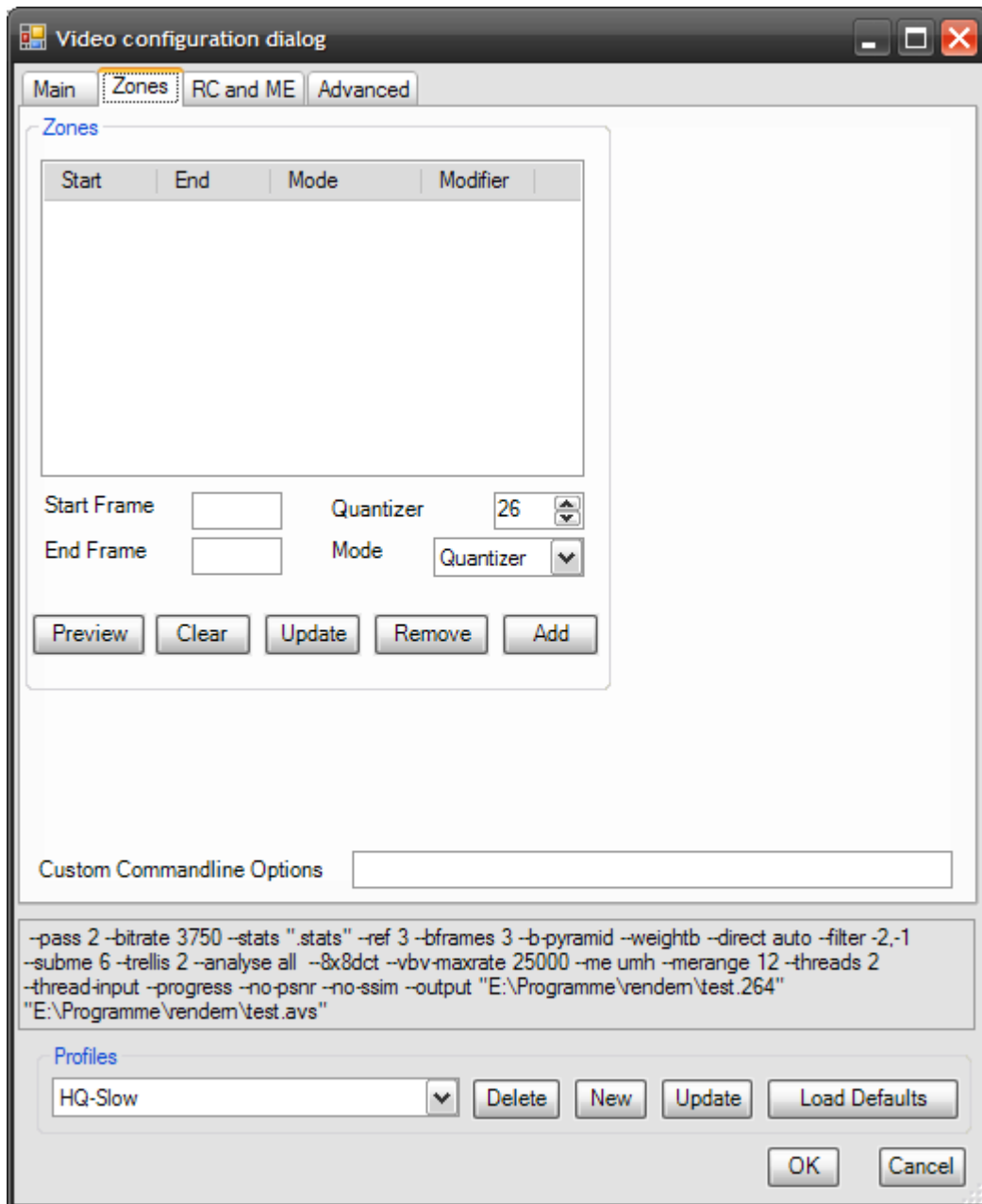


Now load the avs script, choose the HQ-slow profile and click Config.

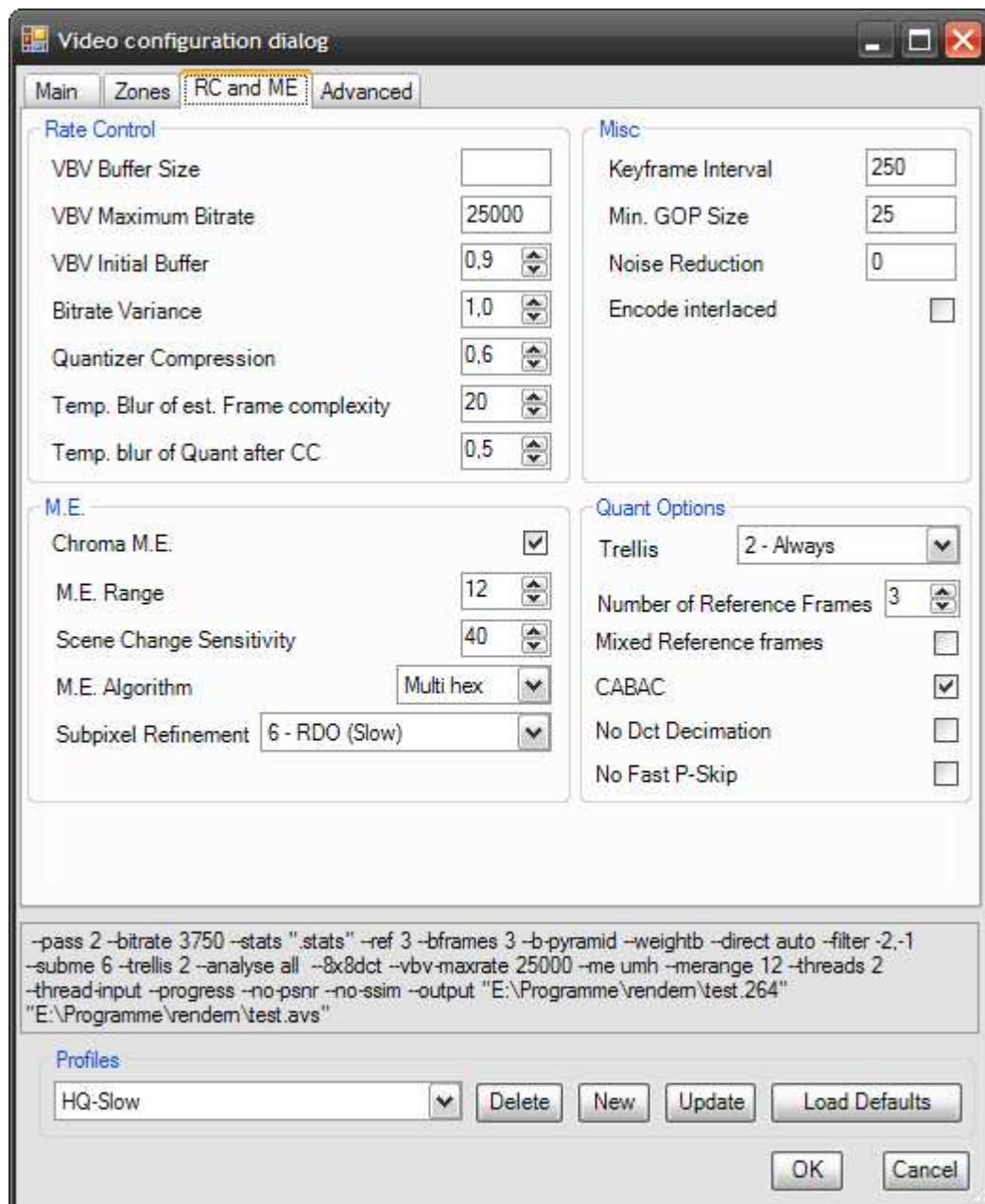
The screens now are NOT my Ziagon settings, just some quick done settings (HQ-slow)  
I do not suggest using them for your encode!







**Be sure to know what zones are and what they do! They are not for fun here!**



Now click update, OK and then enqueue.

Switch to the queue tab and click start. Go to bed and hope that the movie will be finished within the next days. It took me about 70 hours to encode Zaigon.

Do the same now for the sound, but load the wav file now and not the avs file. do the settings, enqueue, start the queue. This will only take a few seconds / minutes.

Once both files have been encoded go to tools

```

|
-> Muxer
  |
  -> MP4 Muxer

```

Add your video mp4 and your sound file, define an output file, click queue and start the queue for a last time. Again, this only takes a few seconds / minutes.

The final mp4 file is your FINAL Movie that can now be shipped to your fans!

Well that's the BASICS, and I hope it helped the \_NOT YET THAT ADVANCED\_ moviemakers (there are A LOT of you out there).

### **LINKS:**

Here are some useful links that you should visit:

- <http://Myhannes.info>  
Well known, get all my mods / programs / tutorials
- <http://forum.doom9.org/forumdisplay.php?f=77>  
"home" of the x264 codec
- <http://ct3d.twen.name/>  
Home of Camtrace 3D (recaming for ET, Quake3 and RTCW)
- [http://www.shaderlab.com/q3map2/2.5/q3map\\_2.5.13\\_win32\\_x86/lmt.txt](http://www.shaderlab.com/q3map2/2.5/q3map_2.5.13_win32_x86/lmt.txt)  
q3map2 releases
- <http://www.thegnomonworkshop.com/tutorials.html>  
Maya ftw!
- [http://ninteh.co.uk//e107\\_plugins/forum/forum\\_viewforum.php?2](http://ninteh.co.uk//e107_plugins/forum/forum_viewforum.php?2)  
Some basic Vegas stuff

Bugs, suggestions, feedback

Pm @ #ultraviolet

Best Regards

Hannes

<http://www.ultravioletproductions.co.uk>

<http://www.myhannes.info>