

On Quality

1. Download the latest drivers for you gfx card.
2. In gfx card settings do following steps
 - a) uncheck "application controlled/use application settings" whenever you see it
 - b) push all sliders to the right (Quality)
3. Download Demomanager and MovieUnreal2002 (they should be in this .rar but ...):
http://moyd.mm1.cz/moviedemomanagerv1_1.rar
<http://moyd.mm1.cz/MovieUnreal2002.zip>

READ README.TXT AND INSTALL.TXT IN ORDER TO LEARN HOW TO WORK WITH THEM

Do not forget to copy clearhud.ini to your System folder!

4. Back up your User.ini and MovieUnreal436.ini and copy my config to your System folder (either OpenGL or D3D9 version, your pick).
Note: Assault demos refuse to work with this User.ini, but you can always yours and just use CleanHUD or clearhud.ini to get rid of all on-screen info.
5. Now open MovieUnreal436.exe and do following changes:
 - a) Output settings:
 - Video (AVI) -> choose -> uncompressed OR huffyuv
 - if fancy error message appears, select Shots (BMP) next time
 - b) Create subdirectories - check
 - c) Rendering:
 - FPS: 30 (it's your call, choose whatever FPS you like, lately I've been using 50)
 - Enable FPS changes: uncheck
 - Start capturing immediately: uncheck
 - Gamma correct output: **uncheck if using OpenGL/check if using D3D**
 - d) Frame size: (also depends on what your monitor can handle)
 - Width: 1280
 - Height: 800
 - These values gotta match FullscreenViewportX= and FullscreenViewportY= in your MovieUnreal436.ini (resolution in UT)**
 - Scaling: Super Sampling (useful only if while scaling down – don't really suggest to do that)
 - e) Click OK
6. Now in UT get to Mod -> Demomanager -> Paths and set the path to your demos (for example C:\UnrealTournament\System\Demos\)
7. Load a demo
8. You can use slomo command change the demo playback speed.
 - slomo 1 = demo will run at normal speed
 - slomo 0.5 = demo will run twice slower
 - slomo 10 = demo will run ten times faster

For watching a demo I don't recommend values higher than 2 (it's easy to miss a frag), but once you watch a thousand demos, you can easily work with slomo 5.

Once you notice a frag you want to use, press Pause key, open the console and type curtime. Curtime is time in seconds from the beginning of demo and it's pretty useful, because standard UT clock is inaccurate and while using higher slomo (use slomo 10-15 if you want to rely on UT clock, higher values will fuck it up). Note the curtime somewhere (I prefer to change the demo name, for example: agony_breach_740-ripperairhs.dem (map_opponent_curtime-fragtype)).

9. Now lets assume you have a list of demos marked with curtimes. Open MU -> open the console and type "exec clearhud.ini" -> load a demo -> get to desired curtime (I like using high slomo like 100 for a second (Note: MovieDemomanager1.1 handles very high slomo, but in my

- experience not every DemoManager can do that – as in they can't handle slomo higher than 50 or something), then slomo 1, curtime to see where I am, high slomo again etc etc till I get to the frag position). Also you may notice that there are scorch marks on textures created by rocket/combo explosions. That's caused by Decals = True. In order to prevent them from appearing you need to let UT run on normal speed for a while (circa 30-50 secs). Thus if your curtime is 660, stop fast-forwarding your demo @ curtime 600-630. Or simply disable Decals.
10. When you can recognize the frag scene, press F12. UT will slow down A LOT but that's normal (OpenGL is MUCH faster than D3D9). Record whole scene + few extra second and press F12 again to stop recording.
 11. Import your footage to Vegas (if it's a sequence of BMP files: select the first BMP file, wait a bit, check Open still image sequence and click OK)
 12. Press Alt+Enter and set the Project Properties:
 - Width: same as in MU
 - Height: same as in MU
 - Frame rate: same as in MU
 - Field order: none
 - Pixel aspect ratio: 1,0000 (Square)
 - Full-resolution rendering quality: BestYou can keep the rest on its default settings.
 13. To have 720p (1280x720 progressive) you will probably need to crop your footage (only if your footage was recorded at 1280x800 and higher) AND change the Project Properties of course, because you want to have 1280x720 as output resolution, not 1280x800. Drag your footage onto the timeline -> right click on it -> Video event pan/crop. A cute window with big F letter and a preview of your avi should appear. On the left side you should see few icons (or somewhere else in that window). Find "Lock aspect ratio" and disable it. Find "Size about center" and enable it. You should also see Position: Width/Height. Click on height and set 720. Find Source: Stretch to fill frame (still in this dialog window) and set it to "Yes". That's it. At this point your avi should be cropped nicely.
 14. Those who don't have AE or just don't know it "well" (for example: don't know how to create a composition) can skip this step. I'm gonna say few words about color correction and motion blur. There's much more ways to do that, I'm just gonna describe this universal one and unless you know more on this topic and have your way to do that you can use this one:
 - Open AE, load your footage, create new comp, drag footage onto the timeline
 - Apply Color correction -> levels
 - Basically you always want "the hill" to fill the whole space (from left slider to the right one), but that rarely happens. Click and hold the left slider and push it closer to the bottom of the hill. Do the same with the right slider.
 - Apply Color correction -> curves and create this S-shape which should give you nice contrast
 - You may add Color correction -> Hue/Saturation and boost saturation just a little bit to get better looking colors (max 20% or something, if you boost it more it will not look good)
 - Now duplicate the layer and in the top layer add Color correction -> brightness and boost it up. Do the same for Saturation - boost it up a lot (I know I just said not to do that, trust me)
 - Change the transfer mode for the top layer to Lighten and lower the opacity to 30 or 40%Just a quick note - some ppl say you always wanna have balanced colors, no really dark scenes etc. .. but think about it - some scenes are really meant to be dark or just for example green only. And no other colors. Why would you wanna add another colors when it's meant to be green? (for example sniper window on arean (dunno which base though)). It's always fine to experiment and make stuff look cool, but that doesn't mean you have to change everything you can.

You always need to key-frame several values (levels, curves, saturation etc) in order to achieve nicely looking scene, because it changes every second.

Adding motion blur:

- Get RE:Vision Reel Smart Motion Blur Rro
- Once you are done with color correction, select both layers and precompose them.
- Apply RE:Vision Plug-ins -> RSMB Pro. You may leave all default values except for
Main_BG: Blur amt: 0,20
Main_BG: Sensitivity: 75,00
Of course you can mess with them and use other values.
- Don't forget to mask out the kill messages!
- Render

15. Because I'm focusing on quality, I will skip this step - creating your movie

16. Select your movie and click on File -> Render as

- File type: avi
- Template: default (uncompressed) and click on Custom
- Click on Video:
 - Include video: check
 - Frame size: Custom frame size and input the resolution you were using .. in our case it's either 1280x800 or 1280x720 (Step 13)
 - Frame rate: 30
 - Field order: none
 - Pixel aspect ratio: 1
 - Video format: uncompressed OR huffyuv
 - Interleave every (seconds): **uncheck**
 - Render alpha channel: uncheck
 - Create an OpenDML compatible file: check
- Click on Audio:
 - Include audio: **uncheck**
- Click on OK, click on Save

17. Select your video again and click on File -> Render as but this time select file type: wav and render it.

18. The XviD compression:

Now you need to install and open up VirtualDub. You also should take this time to install the XviD 1.1.3 files as well, because you will be using these for compression purposes.

- Open VirtualDub and click File > Open video file... Find your uncompressed .avi file that you just rendered with Sony Vegas and open it.
- Click on Video > Compression. Select XviD MPEG-4 Codec from the window and click OK. Open XviD screenshots folder and make sure your settings are same. Before you compress your movie I have to tell you, that there is nothing like unique XviD settings. For each movie you have to create new settings, or at least change them a bit (depends on resolution, fps, scenes, textures, details, effects, motion, depth, blur, colours, ...). The settings I use should give you decent results if you work with HD 720p footage, BUT the filesize will most likely go skyhigh. You really do need to do shitloads of test.
- Click on Audio > Wav Audio and load your uncompressed .wav. Then click on Full Processing Mode. Click Audio > Compression. Select MPEG-Layer 3 and a reasonable kbit value and click OK.
- Now pay your attention. In XviD dialog, select Encoding type: Twopass - 1st pass, click on More, check Discard first pass, uncheck Full quality first pass, click OK, once again, File > Save as AVI > OK. XviD will do the first pass (basically it will gather information about your video file so it can distribute bitrate better during the second pass). Once this is done, click Video > Compression > XviD > Encoding type: Twopass - 2nd pass and click OK and File > Save as AVI > OK. Your compressed file will probably be extremely big due to these setting which were not designed for your movie. If so, select Twopass - 2nd pass and click on More -> Quantization and change Max-P to 5 and Max-B to 7. If your file is still too big, set even higher values for Max-P and Max-B again.
- This is very boring process and it takes some time (days, weeks, months) to find nice settings

and that's why a lot of movie makers don't provide an xvid version of their movies. Simply because they don't know what settings they should use/change etc.

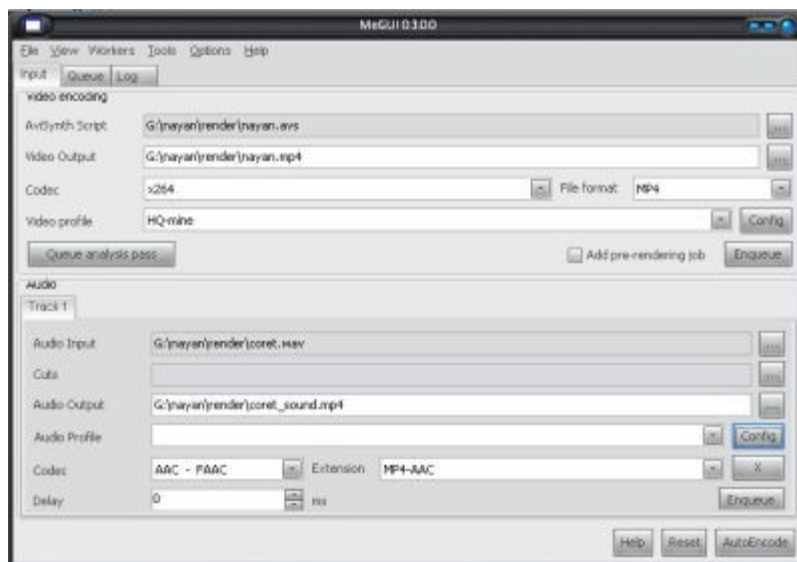
VirtualDub will begin compressing your movie. Once the process is complete, the finished product is your compressed movie. You can delete the very large uncompressed .avi (after you check out your final movie for errors etc!) file from Sony Vegas now and view your work of art.

19. The x264 compression:

- Download and install MeGui and AviSynth (.NET Framework 2 is needed)
- Create a file called **output.avs** for example (AVS script folder) and put there following lines:

```
AVISource("nameOfYourFile.avi")
ConvertToYV12()
```

- Open MeGUI and press Ctrl + U for updates.
- Click on File -> Import presets and select HQ_presets..zip from the MeGui Preset folder
- Once you have latest versions of all files, load your AviSynth script (that output.avs you created before). A preview window will pop up, but we don't need to work with it, so feel free to close it.



- Encoder settings: Select x264: HQ-720p
- Click on Enqueue
- Audio:
 - Audio Input: load your uncompressed .wav file
 - Audio Output: just some filename
 - Codec: AAC – FAAC
 - Extension: M4A
 - Delay: 0
 - Config > Set some reasonable bitrate
- Click on Enqueue
- Click on Workers > Create new worker
- Click on Queue > Start. MeGUI will now encode your .avi and .wav to separated .mp4 files (video .mp4 file will have same filename as your .avs file). Don't be surprised by **_VERY_ low** encoding rate. Encoding x264 is CPU-killer and my settings are insane. Anyway, once the encoding of both files is done, click on Tools > Muxer > MP4 Muxer, load your encoded video .mp4 file (Video input) and audio .m4a file (Audio input), change the final filename (Muxed output), click Queue and Start. Muxing should take few seconds