REPUBLIC OF CHERNARUS
MINISTRY OF EDUCATION

THE ULTIMATE
VHS EFFECT GUIDE

THE APPROPRIATE LEARNING GUIDE FOR THE CHERNARUSIAN PATRIOT
SEEKING TO PERFECT THE ART OF VHS EDITING

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THE ULTIMATE VHS EFFECT GUIDE

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INTRODUCTION

What makes for a good montage? Well first thing would be the level of editing depth & experience. Most people love to watch a well-edited piece, no matter the context or content. It has to grasp your attention and make you stay throughout the video. It has to evoke feelings and emotions, whether positive or negative. One type of medium that evokes a certain feeling of nostalgia is the VHS tape. Most people born before the start of the century have grown up with VHS tapes, VHS camcorders and VHS players. It plays an important part of many people's childhoods, and those who didn't grow up with VHS as a cornerstone of childhood see VHS as something captivating, unique and other-worldly. Watching digitalized VHS footage of any historic period feels genuine rather than watching a remastered high-definition version of the same footage. VHS is unique.

In this guide, the Ministry of Education of the Republic of Chernarus will teach you how to achieve the exact same look of much of the archived footage that we have published since we launched our web portals in October of 2021. You are encouraged to follow this guide to achieve your look, and to reference the guide in case errors happen.
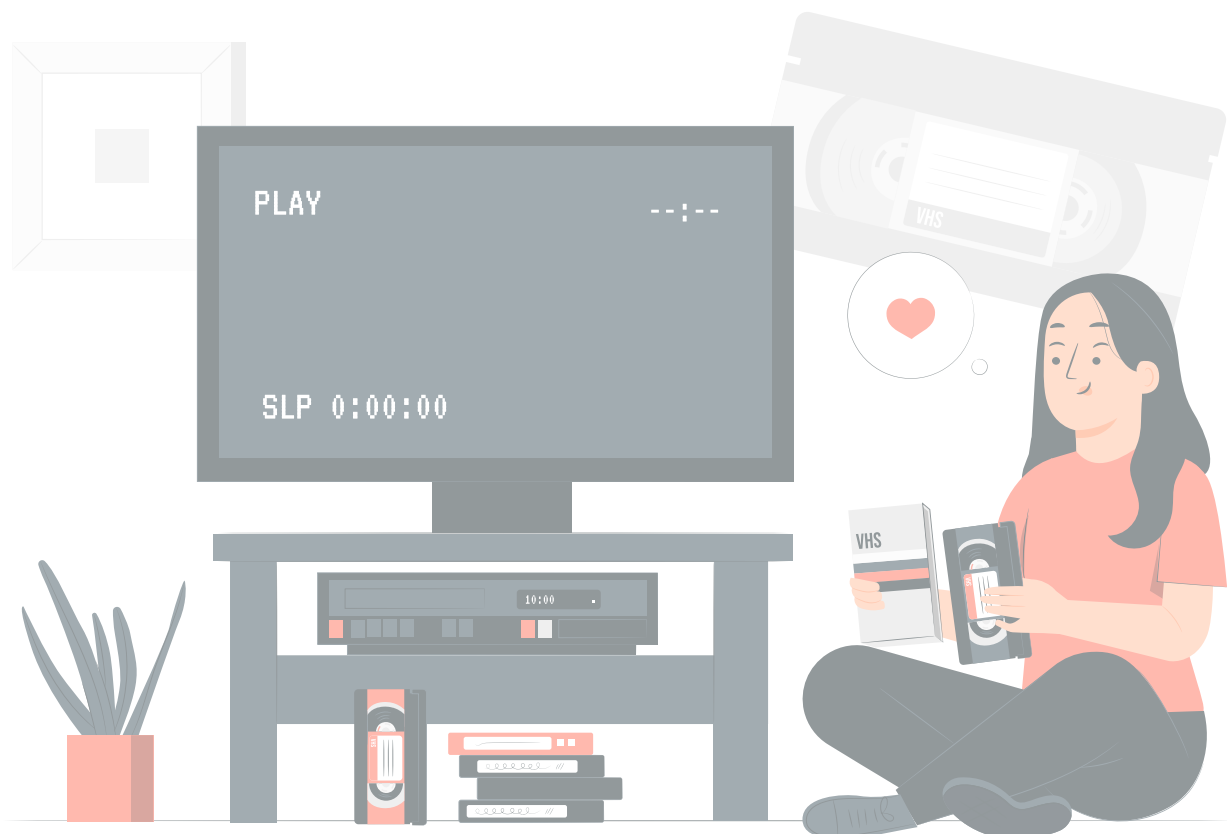
PART 1
THE INSTALLATION PROCESS

Installation rundown

1. Avisynth
2. VirtualDub
3. Various Codecs
4. VHS font
5. The VHS effect package
6. Script configuration

AVISYNTH

First, we're gonna download the Avisynth installer.Head over to
https://sourceforge.net/projects/avisynth2/.

Click on **"Download"** on the SourceForge page, and wait for the
executable file to finish downloading. Once downloaded, run the
.exe and install the program. After that is done, you will not
have to do more related to Avisynth itself.

We're linking to the SourceForge page, as the official AviSynth
website is not secured with a HTTPS connection. Furthermore, the
SourceForge link brings you directly to the 32-bit version of
AviSynth, which is important to make this project work. **Even if
your system is 64-bit, you have to download the 32-bit version.**

VIRTUALDUB

To download VirtualDub, head over to http://virtualdub.source-forge.net.

You will be presented with two versions: a 32-bit version and a 64-bit version. **DO NOT download the 64-bit version.** This effect will only work with 32-bit.

You will be redirected to a SourceForge page that will automatically download VirtualDub for you in Zip format. When downloaded, unpack the Zip file to a location of your choosing. You can leave VirtualDub for now, as we head over to the codecs.

THE CODECS

There are three sets of codecs that you will need for this to work.

1. XMediaRecode3545
2. VC_redist.x64
3. ffdshow_rev4532

The Government of the Republic of Chernarus has packed a .rar depository with the .exe files. Click here to download our Codecs package.

Run all the executables and install each codec. **These codecs are absolutely vital.**
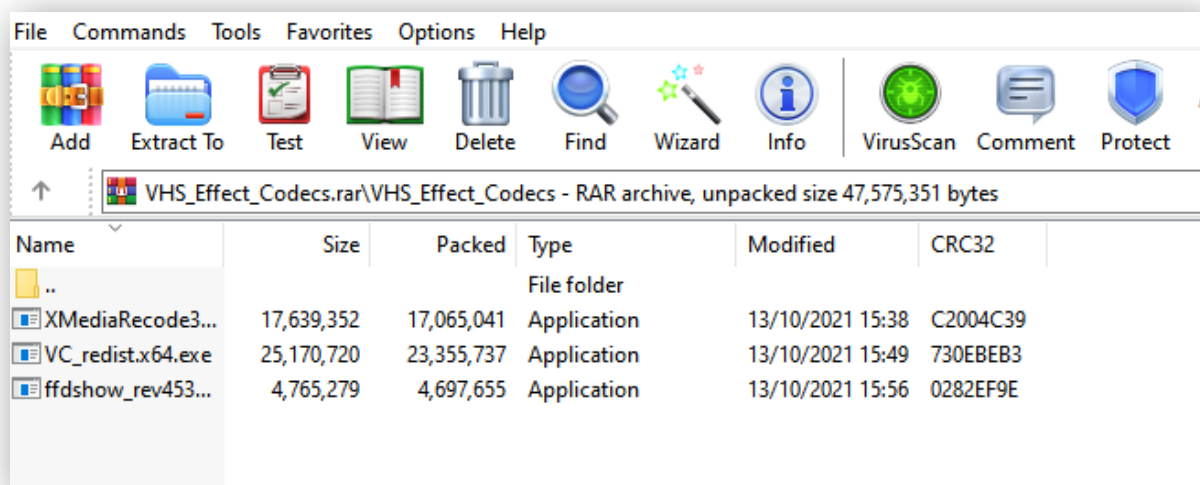
VHS FONT

A good VHS production is not the same without the classic 8-bit font. Head over to Dafont and download the "VCR OSD Mono" font. This will also, as everything else, come in handy later.

https://www.dafont.com/vcr-osd-mono.font

THE VHS PACKAGE

We have now arrived to the most important part of this entire process: The VHS effect package. The VHS package can be downloaded on the following link:

https://www.mediafire.com/file/3o79t7lj7v2j2qf/AVISynth_VHS_Effect_v12.12.19.zip/file

Open the zip file and unpack it to any location of your choosing. When we create our VHS videos (before effect is applied), we're going to export it to the same folder as the VHS package and all of its contents.

CONFIGURING THE SCRIPT

Before we begin the video editing process, we have to edit the VHS effect script "EFFECT.avs". This is the script that we will drag onto VirtualDub, which will thus render the effect upon our video.

First, open the .avs file using notepad, and locate **"sourcevideo"**. Change **"AVISOURCE" to "DirectShowSource"**.

```
#In downloaded ZIP, locate this: CAMCORDER FONT FAMILY -> CAMCORD
#Extract and install CAMCORDER_MS_REG.otf font.

#AVISOURCE: Your raw footage in AVI format
#Note: You can omit file path if it is in the same folder as this
#If AVISOURCE gives an error, use DirectShowSource instead.
sourcevideo=AVISOURCE("                    .avi").bilinearresize
```

```
#ADDBOR #In downloaded ZIP, locate this: CAMCORDER FONT FAMILY ->
        #Extract and install CAMCORDER_MS_REG.otf font.

        #AVISOURCE: Your raw footage in AVI format
        #Note: You can omit file path if it is in the same folder
        #If AVISOURCE gives an error, use DirectShowSource instead
        sourcevideo=DirectShowSource("                    .a

        #ADDBORDERS of (32,20,32,20) is between title safe and act
```

Now that is done, we have to configure the VCR font that we have downloaded previously. In the same EFFECT.avs file that you have opened using notepad, locate the "#overlay" down in the bottom. You will see three fields using the font **"Camcorder Monospaced"**. As this is not the name of the font we have downloaded, **we need to change it to "VCR OSD Mono".**

```
#overlay(render, avnoise, mode="add", opacity=1).tweak(0,1,-32)

#If you don't want an OSD then disable these commands.
Subtitle("> PLAY",48,24,10,160,"Camcorder Monospaced",36,$DDDDDD)
Subtitle("  LP NTSC",48,60,70,161,"Camcorder Monospaced",36,$DDDDDD)
#SUBTITLE("  JAN 2010 = 125, JAN",48,24,180,330,"Camcorder Monospaced",36,$DDDDDD
#SUBTITLE in caps: Disable it if you use Baseband audio.

#SE
#SE
```

```
#SEay(render, avnoise, mode="add", opacity=1).tweak(0,1,-32)

u don't want an OSD then disable these commands.
le("> PLAY",48,24,10,160,"VCR OSD Mono",36,$DDDDDD)
le("  LP NTSC",48,60,70,161,"VCR OSD Mono",36,$DDDDDD)
tle("  OCT 1994",48,24,180,330,"VCR OSD Mono",36,$DDDDDD)
TLE in caps: Disable it if you use Baseband audio.
```

With those two things squared away, we can now proceed to the video editing process itself. You can edit your video in any shape you like, but a few export settings & sequence settings are absolutely crucial, in order to make your VHS video as believable as possible.

PART 2

VIDEO EDITING & EXPORT SETTINGS

CREATING A NEW PROJECT

Now comes the fun part. We're going to open up our video editing software of choice, and begin putting together a video that we want to use the VHS effect on. **For this guide, we will be using Premiere Pro**, but you may use any software that you like, as long as the settings stays roughly the same.

Open up Premiere Pro and create a new project. Create a new sequence with a 4:3 aspect ratio. For this example, we will be creating a sequence with a 640x480 resolution.
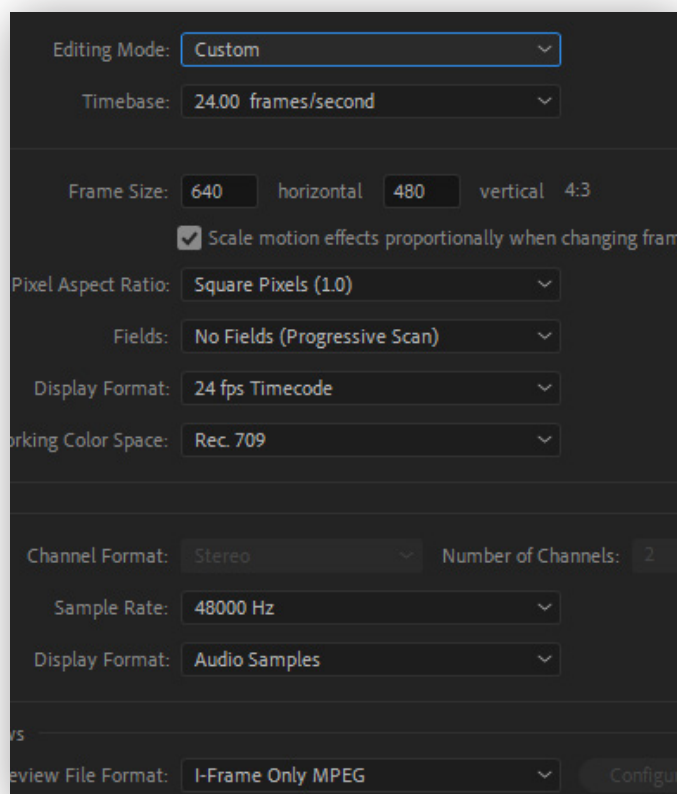
We will set the timebase to 24 frames per second, Square pixels in the pixel aspect ratio and progressive scan in the fields tap. Using the resolution 640x480 for our video will help to make the video much more believable when we apply the VHS effect later on. You can take any video in reality, but a widescreen 1080p video will be scaled down to a 4:3 aspect ratio any way. We recommend sticking to 4:3 at all times.

VIDEO EDITING

You can now begin editing your video as you see fit. For this guide, we're using our archived footage showing Chernarusian special forces blowing up a Russian tank during the 1994 war for independence. When we edit our videos, we like to add some tweaks to the color. We usually apply LUT's (Look-Up Tables) that can alter the color scheme for our intended purpose. This particular video has been applied a LUT called "fade out", which downscales the saturation and thus makes the VHS effect a lot more believable.

One thing that we also pay a lot of attention to are the transitions and effects that we are using. For transition, we either go with very simple 3D stuff like "page flip" or "3D cube", and simple stuff like fades. The trick here is to make a "poor" edit on purpose. To mimick video editing of the late '80s and '90s.
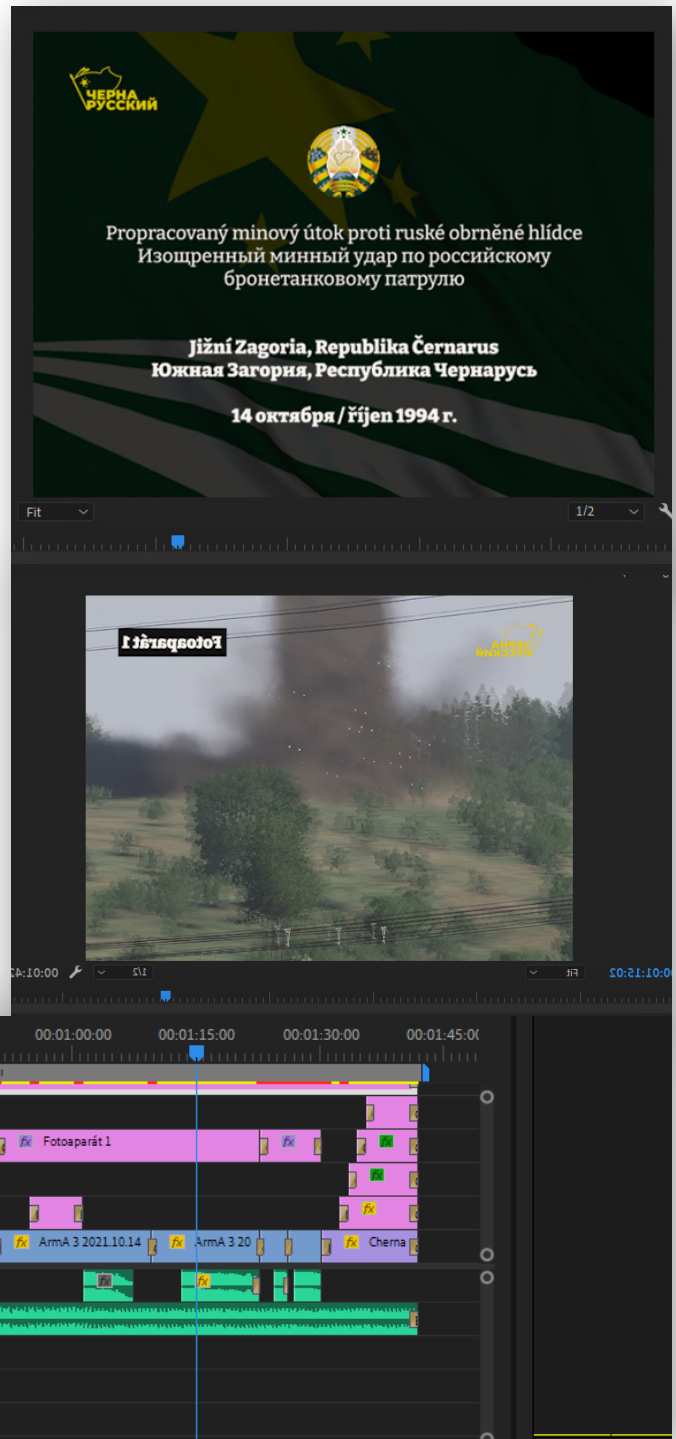
VIDEO EXPORT

You have now completed the editing process of your new video, and are about export the entire thing. Normally we export our stuff in the H.264 format as an MP4 file, but the AviSynth VHS effect only allows for videos in the AVI format. Set the format to AVI, uncheck "Use Maximum Render Quality" and alternatively, pick a suitable video codec. We use the Xvid MPEG-4 codec, which came as bundled with the codec pack that we supplied earlier in the guide.

If it isn't applied already, make sure to set your aspect tab to "Square Pixels" under "Basic Video settings". As long as the aspect ratio stays at 4:3, you will be good to go. Once everything is checked and all settings have been applied, render your project and export the file into the VHS package folder that you made earlier.

Export Settings

- ☐ Match Sequence Settings

Format: AVI

Preset: Custom

Comments:

Output Name: Sequence 01.avi

☑ Export Video   ☑ Export Audio

Summary

Output: G:\Chernarus\Sequence 01.avi
640x480 (1.0), 23.976 fps, Progressive, Quality 100, 00:01:41...
Uncompressed, 48000 Hz, Stereo, 16 bit

Source: Sequence, Sequence 01
640x480 (1.0), 24 fps, Progressive, 00:01:42:00
48000 Hz, Stereo

Effects | **Video** | Audio | Captions | Publish

Video Codec

Video Codec: Xvid MPEG-4 Codec

Codec Settings

Basic Video Settings

☐ Use Maximum Render Quality   ☐ Use Previews
☐ Import Into Project   ☐ Use Proxies
☐ Set Start Timecode 00:00:00:00 ☐ Render Alpha Channel Only

Time Interpolation: Frame Sampling

Quality: ———————————○ 100

Width: 640
Height: 480

Frame Rate: 23.976

Field Order: Progressive

Aspect: Square Pixels (1.0)

☐ Render at Maximum Depth

Depth: 24 bit

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PART 3
APPLYING THE VHS EFFECT

PREPARING THE SCRIPT

Congratulations on getting thus far in the entire process. With your 4:3 video now rendered in the AVI format to the same folder as the VHS package, we can begin to "prep" the script. Follow along.

First, open the "EFFECT.avs" file in notepad and locate "sourcevideo". It should be somewhere at the very beginning. Add the exact file name of your video between the parentheses after "DirectShowSource". **It has to be the exact same file name with file format suffix.**

```
mands in CAPITALS have notes/tips below.
ERNAL FONT IS USED (Camcorder Monospaced.)
nload from http://www.bjernies.com/CamcorderFontFamily/ -> Click
downloaded ZIP, locate this: CAMCORDER FONT FAMILY -> CAMCORDER MC
ract and install CAMCORDER_MS_REG.otf font.

SOURCE: Your raw footage in AVI format
e: You can omit file path if it is in the same folder as this file
AVISOURCE gives an error, use DirectShowSource instead.
cevideo=DirectShowSource("Your_video_goes_here.avi").bilinearresi:

BORDERS of (32,20,32,20) is between title safe and action safe.
 (8,0,8,0) for full image area. (4:3 Aspect Ratio source)
 (8,80,8,80) for widescreen. (16:9 Aspect Ratio source)
```

Save the script by holding down the ctrl button on your keyboard and pressing s. Your script is now prepped, locked and loaded for the final touch to be initiated: the VHS effect. In all its might and nostalgic glory.

APPLYING THE EFFECT

With the folder of the AviSynth VHS package open, open a new file explorer tab and locate your VirtualDub install path. Open the VirtualDub executable, and with both windows open, drag the Effect file onto the VirtualDub window.
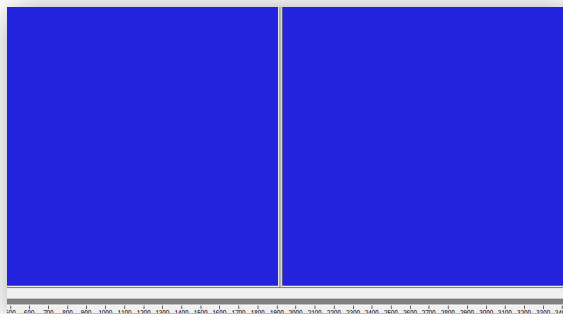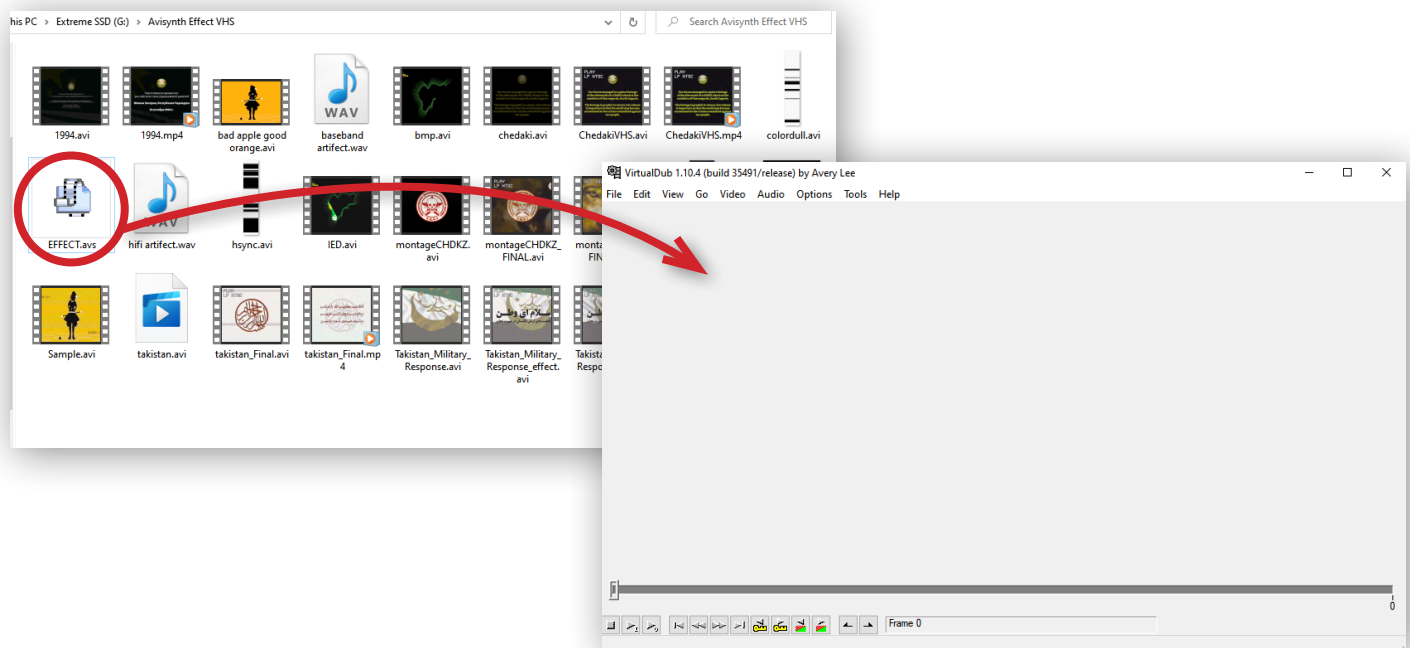
You will now see two screens side by side with each having turned blue. **Congratulations! That means the effect has been successfully applied.** Use the playback buttons to watch your new VHS video, check for irregularities before you render it again.

EXPORTING THE VHS VIDEO

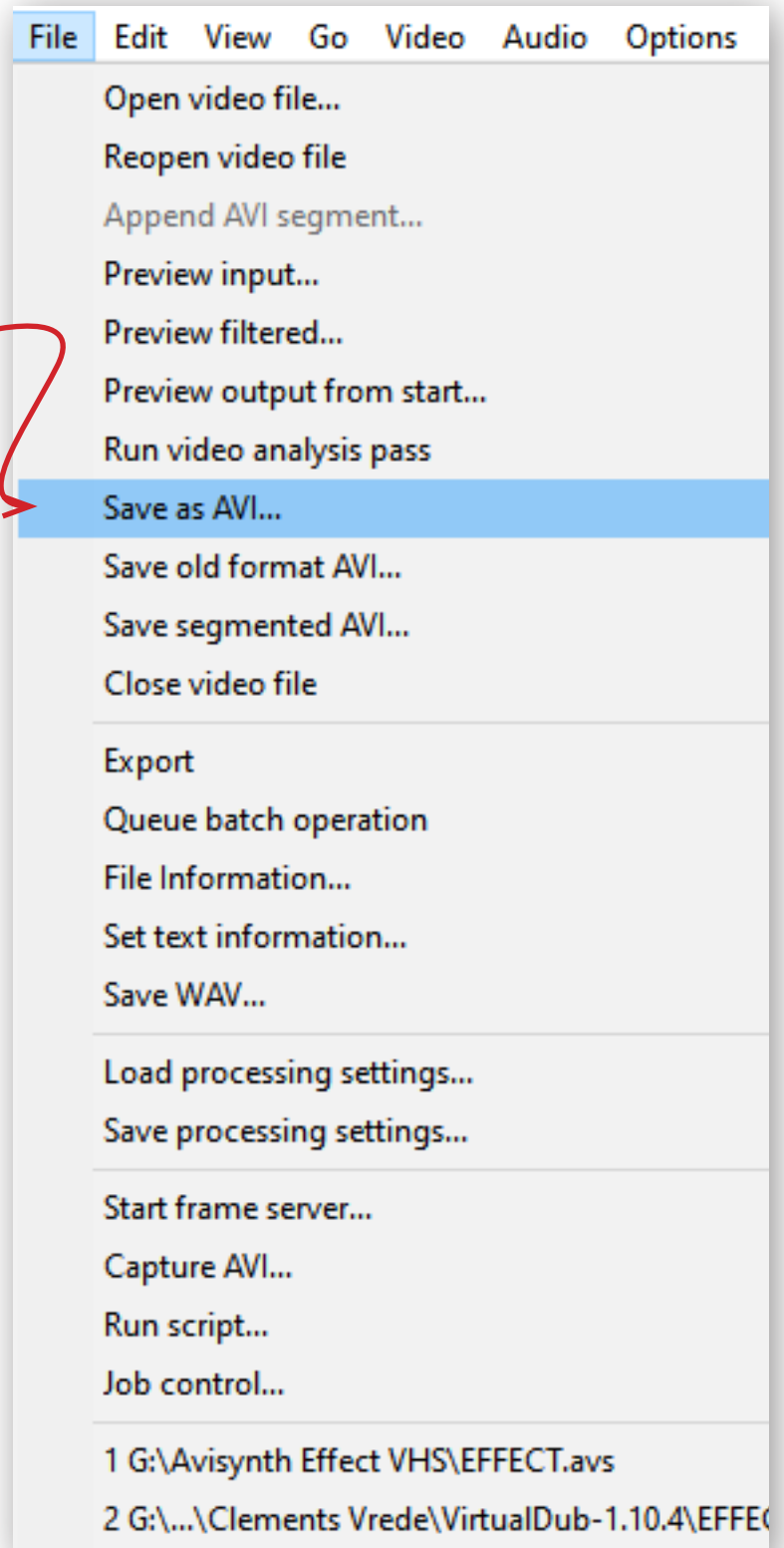You have checked your VHS video for any possible abnormalities, and have determined that everything looks as intended. What you are then going to do is navigate the mouse towards **"file" and click "Save as AVI"**.

Important to note that the entire process is bound by the AVI file format, and only AVI. Once exported, you may use a multitude of websites or software services that can convert your AVI file into the H.264 MP4 codec. A lot of websites does not support the AVI file format, and thus it is recommended that the finalized VHS video is to be converted back to any capable video format other than AVI, with H.264 recommended.

Congratulations! This is the end of our guide book on how to achieve the VHS look of many of our archived tapes. We hope that we have been of dutiful service to your ambitions, and if questions should remain, feel free to reach out to us and we will ammend this document with troubleshooting, tips and tricks.

File	Edit	View	Go	Video	Audio	Options

Open video file...
Reopen video file
Append AVI segment...
Preview input...
Preview filtered...
Preview output from start...
Run video analysis pass
Save as AVI...
Save old format AVI...
Save segmented AVI...
Close video file

Export
Queue batch operation
File Information...
Set text information...
Save WAV...

Load processing settings...
Save processing settings...

Start frame server...
Capture AVI...
Run script...
Job control...

1 G:\Avisynth Effect VHS\EFFECT.avs
2 G:\...\Clements Vrede\VirtualDub-1.10.4\EFFE(

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