

Digital Cinema Package Creator

Installation and appliance

Internet: www.terminal-entry.de

Email: info@terminal-entry.de

Content

1. System requirements
2. Installation
3. Configuration
4. Compile DCP fixed-image
5. Compile DCP movie
6. Enter license key
7. Enclosure
- 7a. Compile single images of a movie with VirtualDub

1. System requirements

Operating system: Windows XP, Windows 7, 2003 / 2008 Server
Windows 7 64bit is recommended, 8GB RAM (>8 threads 16GB RAM)

.Net Framework 4 Clientprofile (dotNetFx40_Client_x86_x64.exe)

VC++ 2012 Runtime (vcredist_2012_x86.exe / vcredist_2012_x64.exe)

VC++ 2013 Runtime (vcredist_2013_x86.exe / vcredist_2013_x64.exe)

.NET Framework and VC++ Runtimes can be downloaded from www.terminal-entry.de or www.microsoft.de.
For VC++ Runtime, the 64bit version is needed for 64bit operating system and 32bit (x86) for a 32bit operating system.

The 32bit version of Digital Cinema Package Creator has the following limitation:
Due to memory limitations, the 4K movie mode is only applicable with a maximum of 4 processes.

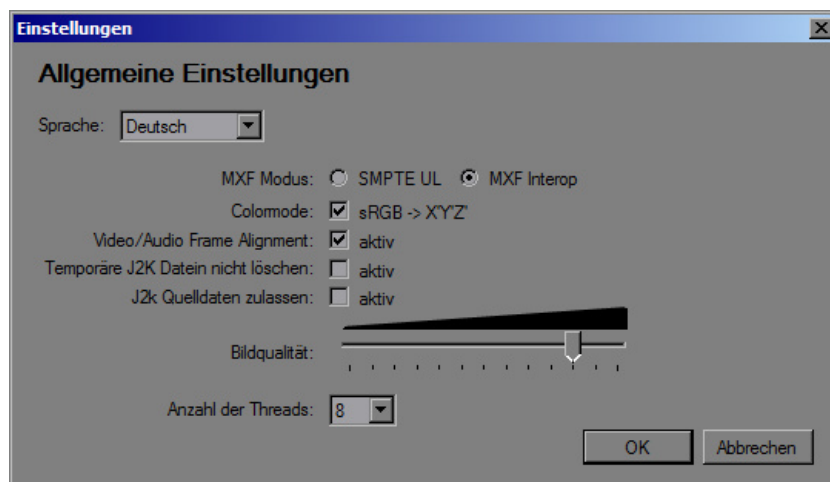
2. Installation

Execution of installation program „DCPC-setup-1490-x64.msi“. (here version 1.4.9.0 64bit)
Follow the instructions of the installation program.

After a successful installation, program is found in start menu under „Program/DCPC“. With the first launch, the configuration window opens. You can find settings later under „File/Settings“.

3. Configuration

Explication of options:



Language sets the program language of the menu.

MXF Mode: Defines whether compiled DCP`s will be compiled as SMPTE or Interop DCP.

Colour-mode: Defines whether a colour conversion shall be executed according to XYZ (recommended to be activated in most cases).

Video/Audio Frame Alignment: An adjustment will be made in case of diverse length of video/audio tracks, when this option is activated.

Do not delete temporary data: Defines whether temporary J2K video data should be deleted after compiling (Normally, please do not activate!).

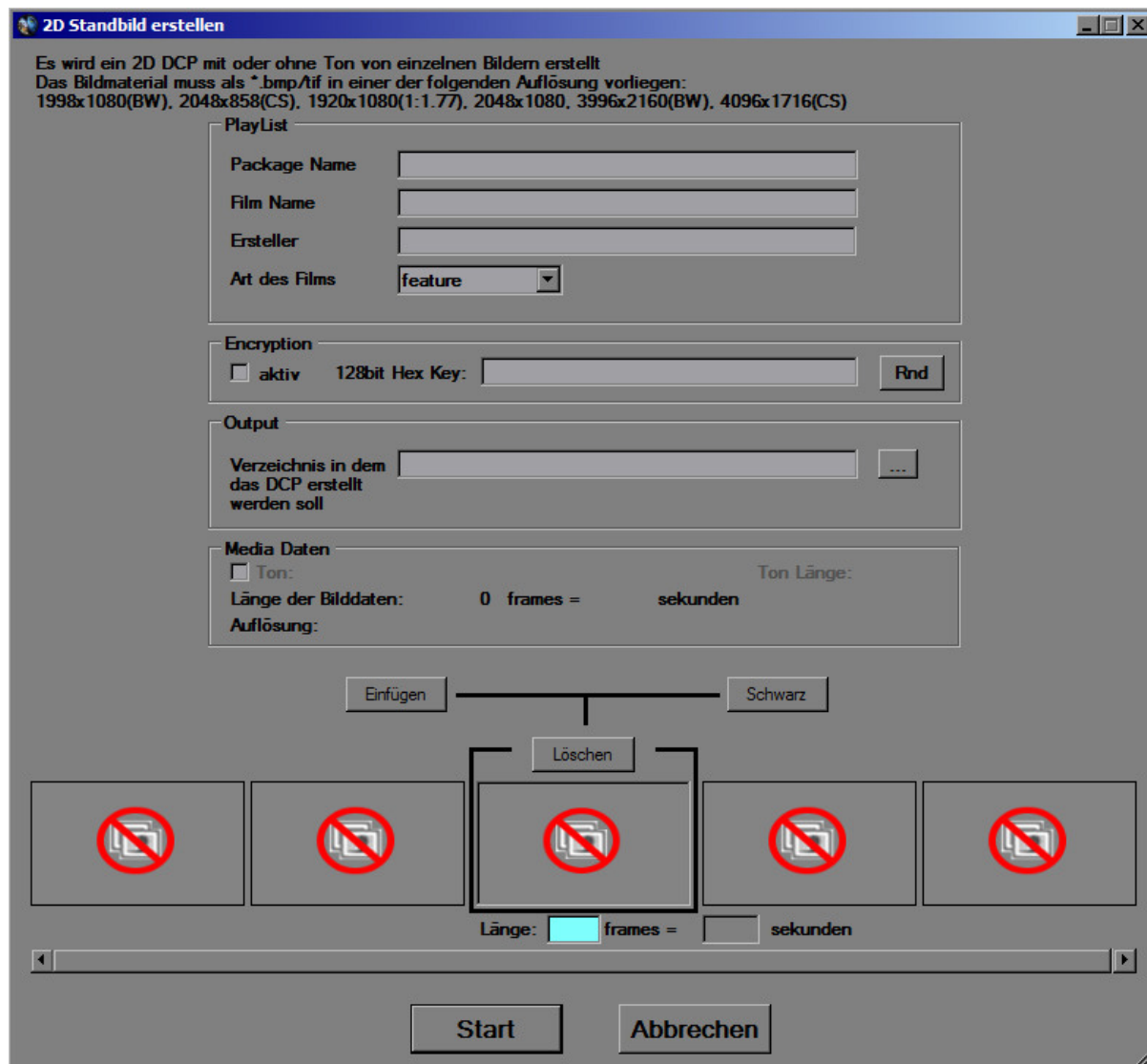
Allow J2k source data: Defines to allow existing JPEG 2000 data.
Please respect norm conform J2K data!!

Image quality: Defines compression rate of video data.

Number of threads: Set up number of CPUs/cores that are available for your workstation.

Please click „OK“ after you have made all settings.

4. Create DCP still-image



Set up under „Playlist“ all information to the name of DCP`s and type of DCP`s.

Subscribe the path under „Output“ in which DCP shall be compiled.

Should DCP be compiled with audio, please activate selection „tone“. An audio data will be requested automatically afterwards.

Caution: Image data cannot be longer than audio data!

You can insert now the first image by using the „Insert-Button“. After insertion of the image, can enter under „length“ the number of frames the image should be shown. For confirmation of your entries, please push „Enter“.

Now, additional images can be inserted. By using the button „black“, black pictures can be inserted between the images.

The length of the black picture will be defined in the same manner as the other images.

The position to the actual edited image can be changed by using the horizontal scrollbar.

Under „Media Data“ the total length of the actual compilation can be found.

In case of a shorter video length than audio data, rest of audio will be cut off automatically.

By using the „Start-Button“, DCP can be compiled once your compilation is ready.

A 3D DCP fixed-image will be compiled in the same manner, by inserting a picture, at first it will be requested for the left and afterwards for the right picture.

5. Create DCP movie

2D Film erstellen

Es wird ein 2D DCP inkl. Ton erstellt
Das Bildmaterial muss als *.bmp/tif/dpx in einer der folgenden Auflösung vorliegen:
1998x1080(BW), 2048x858(CS), 1920x1080(1:1.77), 2048x1080
Der Ton als 48khz, 24bit *.wav | Achtung: 6.1/7.1 nur als Mono/Stereo File!

Reel 1 | Reel 2 | Reel 3 | Reel 4 | Reel 5 | Reel 6 | Reel 7 | Reel 8 | Reel 9

Bild

Bild Verzeichnis: [] ...

Bildrate: 24 Startframe: [] Dauer: []

Untertitel: [] ...

Ton

Links | Links+Rechts | Mehrk. [] ...

Rechts | Mitte+LFE [] ...

Mitte | Links SR+Rechts SR [] ...

LFE | Left B SR+Right B SR [] ...

Links SR [] ...

Rechts SR [] ...

Links hinten SR [] ...

Rechts hinten SR [] ...

☐ Dolby® Atmos™ Sync-Signal hinzufügen

Startframe: [] Dauer: []

PlayList

Package Name []

Film Name []

Ersteller []

Art des Films: feature

Encryption

☐ aktiv 128bit Hex Key: [] Rnd

Ausgabe

Verzeichnis in dem das DCP erstellt werden soll [] ...

Start Abbrechen

Schritt: n/a Bild: -

Define under „PlayList“ the information for the name of the DCP and type of DCP.

Subscribe the path in which DCP should be compiled under „Output“.

Select register in which image data is stored under „Image Register“.

The picture rate will be defined under „Picture Rate“.

By specification of „Startframe“ and „Duration“ frame number can be defined the video track to be begun and how long (frames) of video track will be played.

E.g., an existing „Starting Tape“ can be skipped.

However, all image data that is available, will be collected in the DCP. When playing, only the defined section will played. Herewith, in connection to these information of the audio track, the synchronization of video/audio can be realised, e.g., length of „Starting Tape“ of audio track and video track differs.

In case of a specification, audio/video frame alignment will be switched off automatically.

Please leave out fields in case this function is not needed.

Please select under „Subtitle“ the XML data, in case a subtitle is desired.

Under the section „Tone“, audio tracks are specified.

Specification for „Startframe“ and „Duration“ have to be respected analogical to the video track.

You can specify a multichannel (5.1) audio track in the first field. Please use the first 3 fields resp. the first 4 fields for 7.1 audio, in case of stereo tracks.

Alternatively, mono tracks can also be used. Please subscribe the data in the designed field.

Caution: A multichannel data cannot be used for 6.1/7.1!

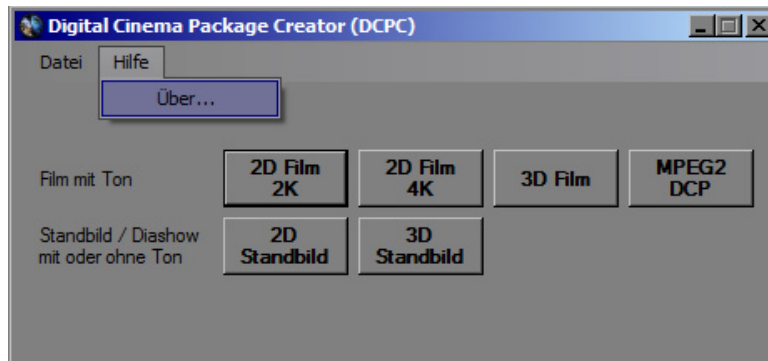
By activating the Atmos(tm) option, synchronisation track will be inserted automatically to use this DCP for Atmos(tm) audio.

In case you want to use more than one reel, please go to tab „Reel 2“ and make settings analogical to „Reel 1“.

To finalise, start compiling of DCP with „Start-Button“.

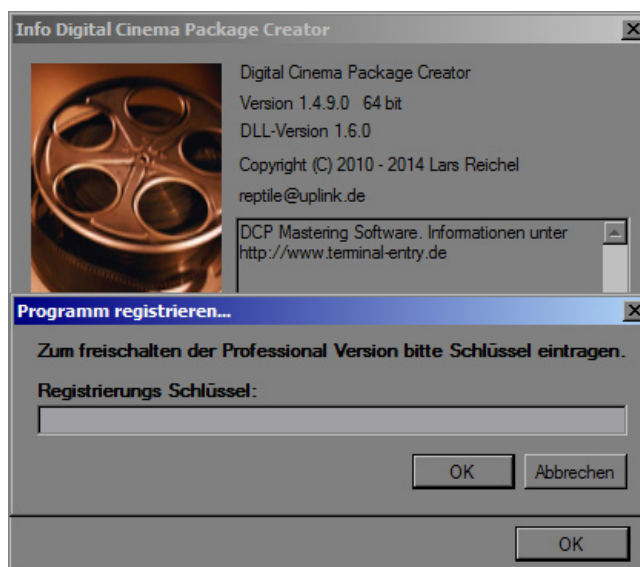
A 3D DCP movie will be compiled in the same manner, however, a picture register for left and right has to be specified.

6. Insert licence key



Select menu under help
„about...“

After information window appears, please click keys „Strg + R“.
The input field for licence key appears.



After entering the key, please restart program.

7. Enclosure

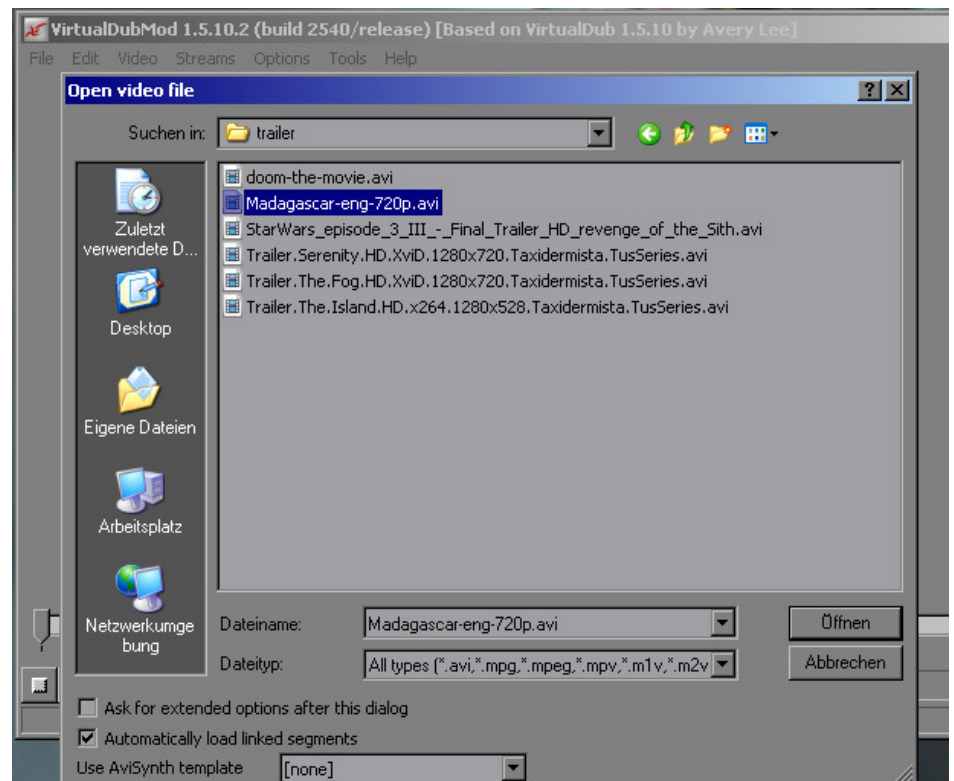
7a. Compile single pictures of a movie with VirtualDub

The source data will be split in single images with the program VirtualDub. For this, data will be loaded.

[File -> Open video file]

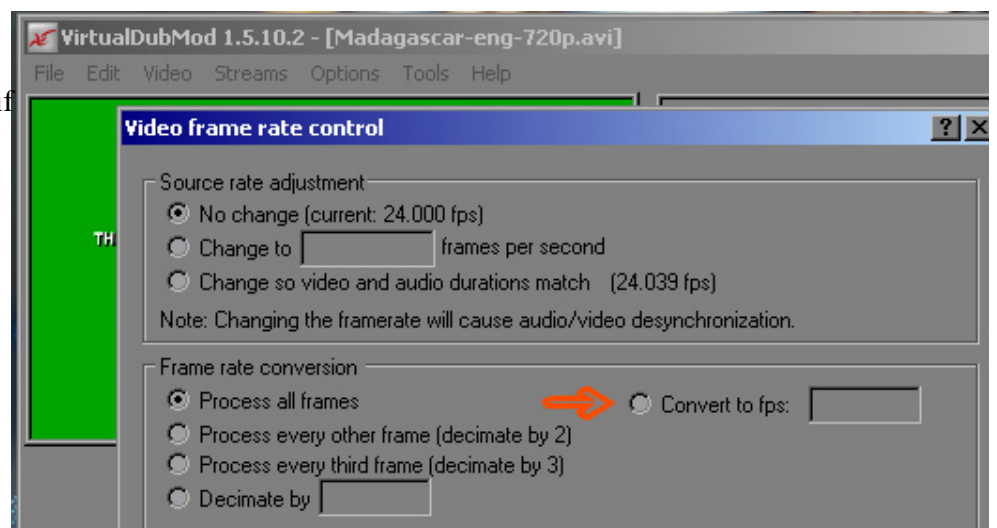
Here, corresponding file can be loaded.

In case video data is not available as AVI or MPEG, it can be loaded with program „Avisynth“ in VirtualDub.



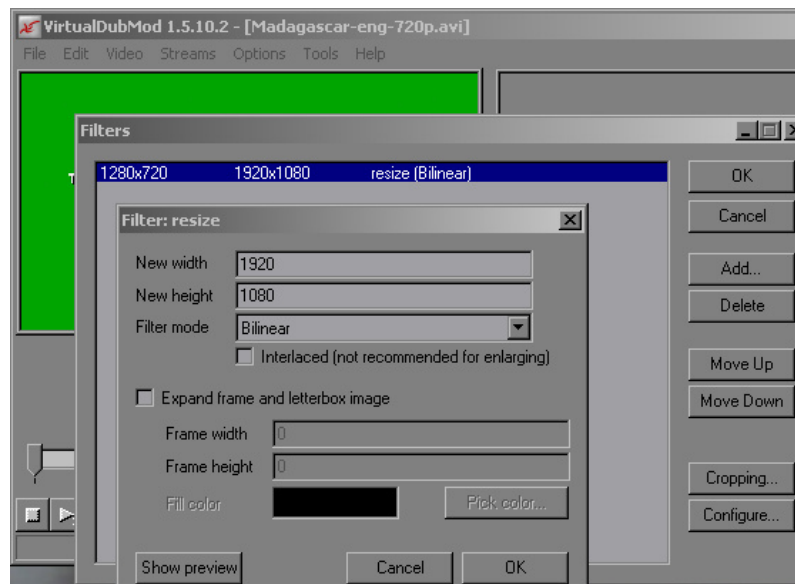
[Video -> Frame Rate...]

Here, frame rate can be converted if it does not corresponds to 24fps.

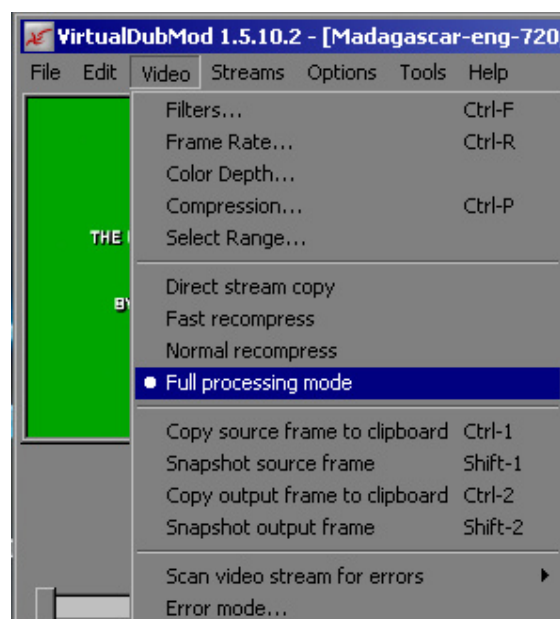


[Video -> Filters] [Add.. -> resize]

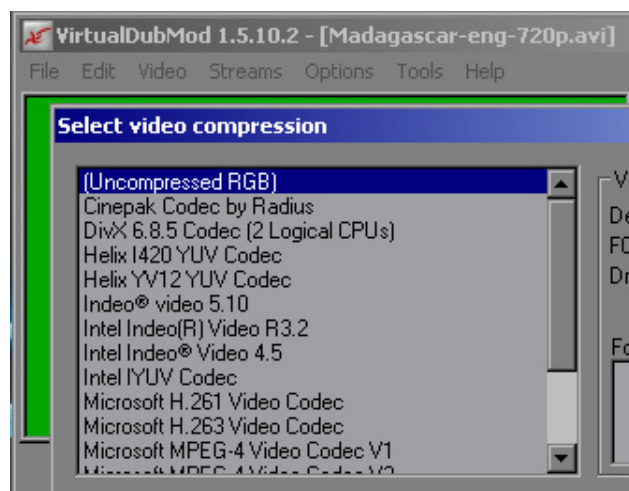
Here, resolution will be converted.



Here it is essential to select „Full processing mode“.

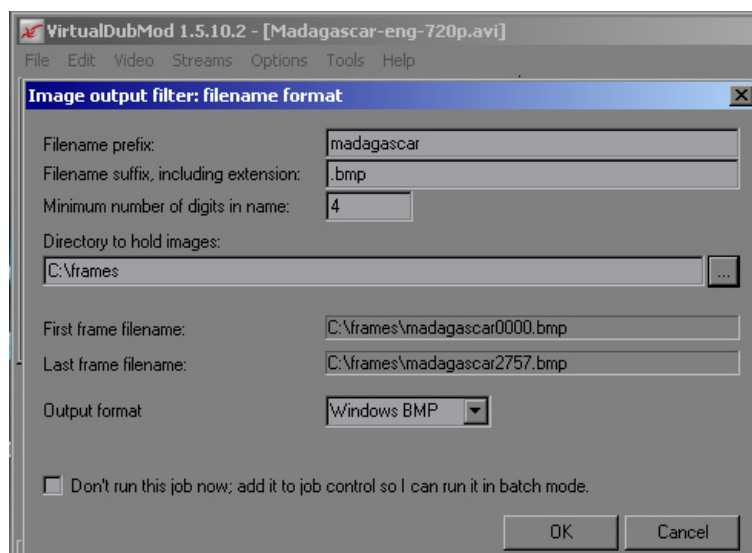


[Video -> Compression]
Select „Uncompressed RGB“.



[File -> Save Image sequence]

Please select name of data and select format „BMP“.
Select a folder for the output (empty folder).



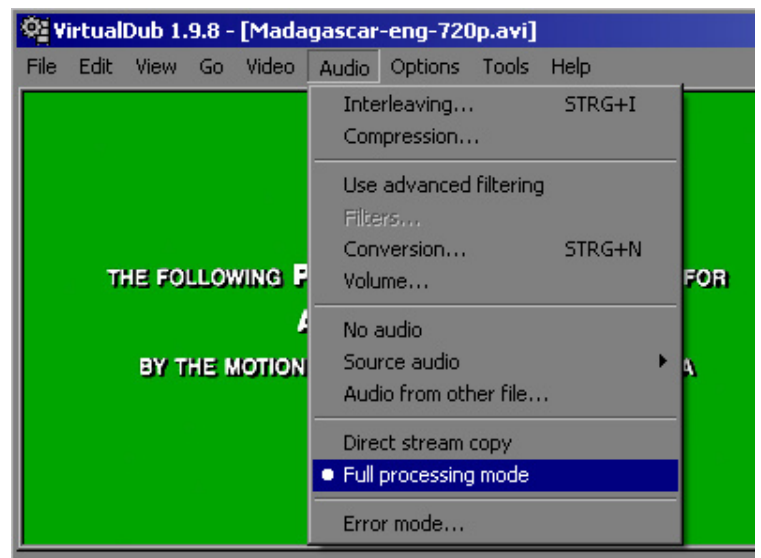
It is essential to specify a sufficient big number of numbers. All digits must be filled with „0“. For a frame number of 2400, 4 digits have to be specified; for 15000 frames, therefore 5.

Then, all images will be calculated and stored – please provide enough memory space, as approx. 6 MB are needed per picture.

1.3 Extract audio information

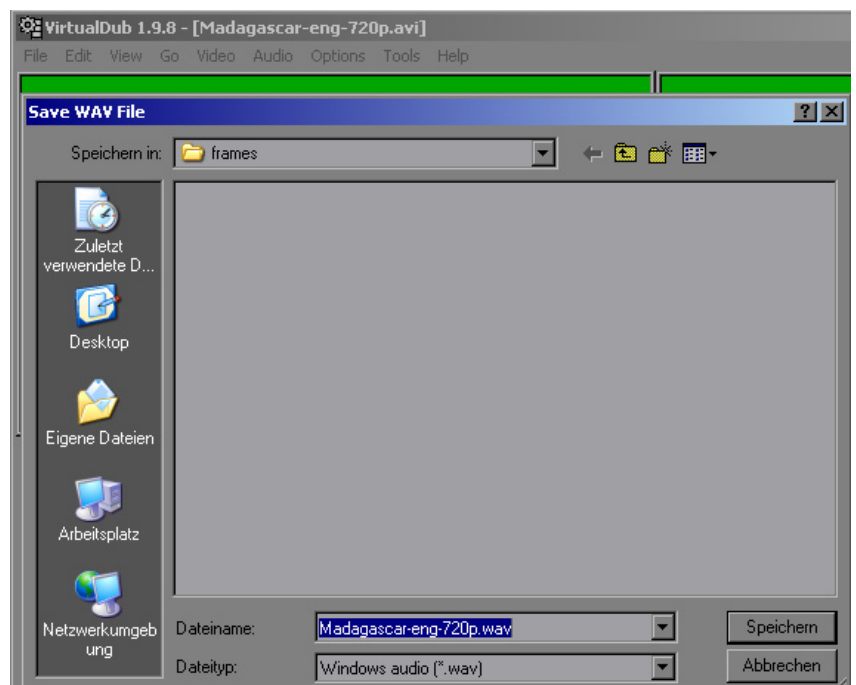
Now, all audio information can be extracted.

[Audio -> Full processing mode]



[File -> Save WAV File...]

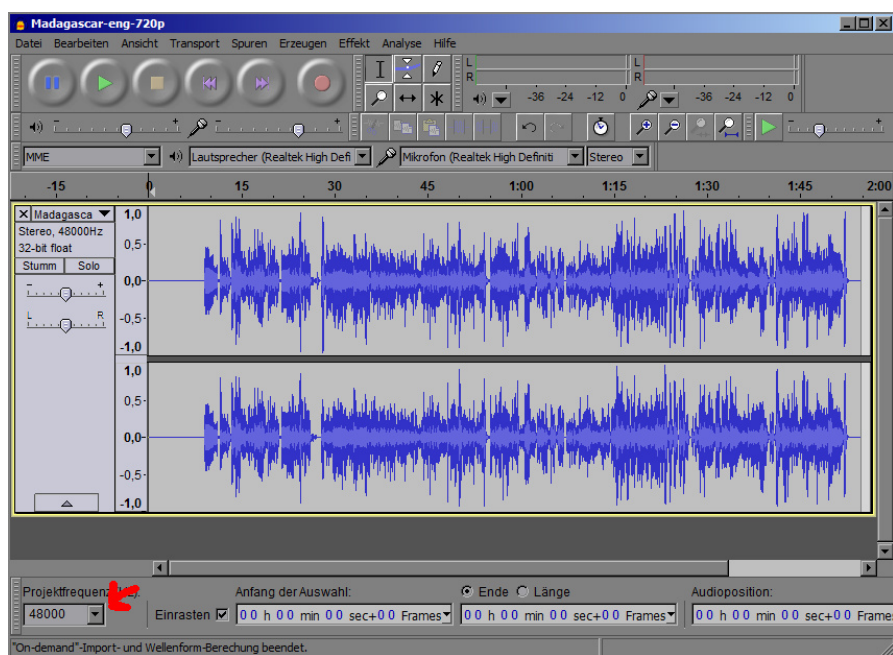
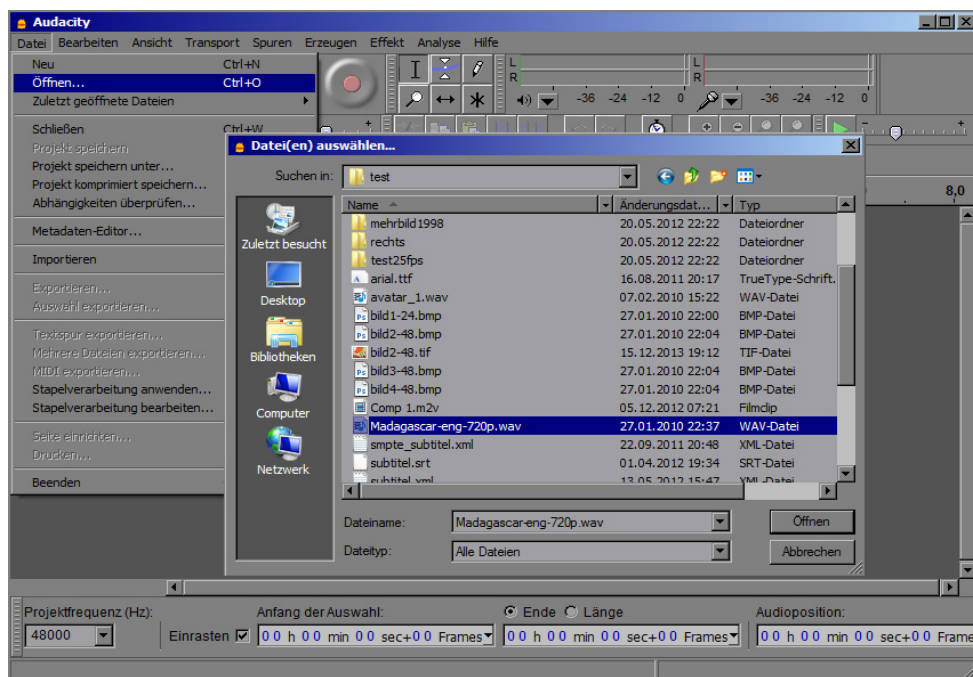
Store audio track as wav.



1.4 Convert audio

Audio data must now be converted to a compatible format. 48khz resp. 96khz and 24bit
Here an example with the program "Audacity".

Open original data



Change program frequency to 48khz

Store audio data with the function „Export“ in the new format.

Select "Other uncompressed data" and select the adjustments shown in the image.

