

Get the most out of KCE-635UB

How to Create Files for Playback on the USB Video Player



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1. Initial Considerations

1.1 What this guide can do

The intention of this guide is to help you to get the most out of the KCE-635UB. We aim to give you guidelines to the creation of own content from your recorded DVDs, Videos etc. Content from websites with user generated content, such as YouTube become also more popular these days. We will give you an idea how to get such content into your car with the KCE-635UB. Finally, we will show you how to analyze a video file in order to be able to determine if KCE-635UB can play it back without prior conversion. The tools we use are either freeware or the most popular applications used in Western Europe. We avoid exotic command line driven hardcore tools. Our aim is to offer at least one commercial and one freeware solution for each of the tasks.

1.2 What this guide can't do

There is an overwhelming number of different video formats out there that may or may not be compatible with the USB Video player. We are not able to tell you which of these formats will work or not. Especially with container formats, such as AVI, anything may be inside. We won't assist in any illegal activities such as converting content from copyright protected DVDs. Mac and Linux users are welcome to create a similar guide, we can't give any advice for anything but the applications mentioned in this guide under Windows Operating System. This guide is not a scientific paper on video encoding techniques; some areas are not discussed in depth. We don't aim to replace the instructions which come with the software described.

2. Formats, Resolution, Bitrates

2.1 Which Format is the best?

The answer to this question depends on what you are going to do with your video files. If you are going to use them with the KCE-635UB only, you might want to stick to DIVX, if you use another portable device, MPEG4 or Windows Media might be better for you. However, it is likely that you are required to process separate files for your KCE-635UB and another portable device.

2.2 Which resolution is best?

The resolution you choose for your video files shall not be higher than the resolution of the screen. Alpine screens have a resolution between 400x234 up to 800x480. This may sound low compared to a PC monitor which won't do anything less than 1024x768. But nobody will disagree that a DVD delivers a pretty good image quality. A DVD's maximum resolution is 720x480 (NTSC) or 720x576 (PAL). On the other hand, the size of a screen is another factor. Typical in-dash screens are around 7 inches, any resolution from 320x480 will deliver good results. If the resolution of the video material differs from the 'native' resolution of the screen, the image will be electronically scaled to fit. This does not necessarily improve the image quality. As a rule of thumb, try to match the screen's number of lines (234 or 480).

Model	Horizontal	Vertical
IVA-D100R/RB	400	234
IVA-D105R	400	234
IVA-D106R	480	234
IVA-D310R	480	234
IVA-D511R/RB	800	480
IVA-W200Ri	400	234
IVA-W202/205R	400	234
IVA-W502/505R	800	480
iXA-404R	400	234

Model	Horizontal	Vertical
iXA-W407BT	400	234
PKG-1000	800	480
PKG-2000	800	480
PKG-850	480	234
TME-M680	400	234
TME-M740BT	800	480
TME-M780	800	480
TME-S370	800	480
TMI-M990	800	480

Resolution of ALPINE screens

2.3 Bitrates

The bitrate of a videofile (stream) defines how much data is transferred within a specific time. For video, the bitrate is usually measured in Mbit/s (Megabit per second). Some Programs also use kbit/s. 1000kbit/s equal 1Mbit/s.

Average bitrates for DVD are between 4Mbit/s and 9Mbit/s. The more complex motion paths and content of the video image become, the higher the bitrate needs to be for an accurate reproduction.

The recommended average bitrate for material encoded to be used with KCE-635UB is between 1 and 3Mbit/s. Higher bitrates don't necessarily improve the image quality, but inflate file sizes and may cause problems in playback.

2.4 Compatibility Guideline

The chart below (taken from the KCE-635UBs Owner's Manual) gives an indication about files which can be played back by the KCE-635UB.

However, there are more factors than the ones stated in this list. Sometimes encoders add invalid data to the header of a video file that prevent playback on KCE-635UB although all parameters seem to be within specification.

Codec	Bitrate	Max. Resolution	File Extension (Container)	Remark
MPEG-1	3Mbit/s	HxV = 414720	*.mpg, *.MPEG	Max. Resolution HxV = 414720 For Example: H720xV576 = 414720 H800xV518 = 414720
MPEG-2	3Mbit/s	HxV = 414720	*.mpg, *.MPEG	
MPEG-4	3Mbit/s	HxV = 414720	*.avi, *.mp4	
ipod MPEG-4 Movie	3Mbit/s	HxV = 414720	*.mp4	
DivX 3	3Mbit/s	HxV = 414720	*.avi	
DivX 4	1.5Mbit/s	HxV = 414720	*.avi	
DivX 5	2.8Mbit/s	HxV = 414720	*.avi	
Xvid	3Mbit/s	HxV = 414720	*.avi	
MPC-MPEG-2	3Mbit/s	HxV = 414720	*.avi	
WMV1 (WMV v7)	2Mbit/s	720x480	*.wmv	
WMV2 (WMV v8)	2Mbit/s	720x480	*.wmv	
WMV3 (WMV v9)	2Mbit/s	720x480	*.wmv	

Playback Compatibility

3. Identifying Video Files

3 GSPOT

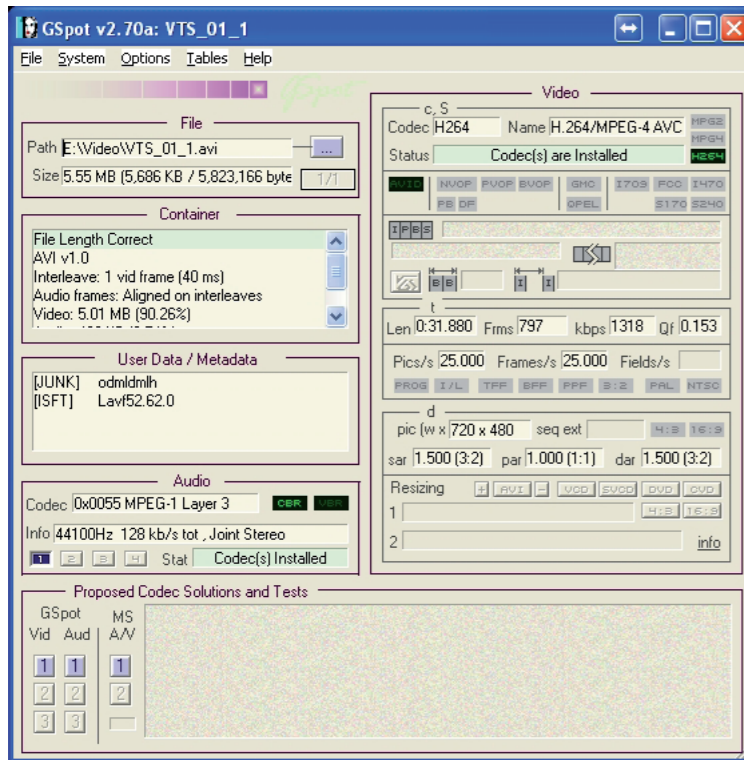
Download from:

<http://gspot.headbands.com/>

This little freeware tool reads out the header of many video files. Sometimes it can be a hint why a particular file can't be played on KCE-635UB.

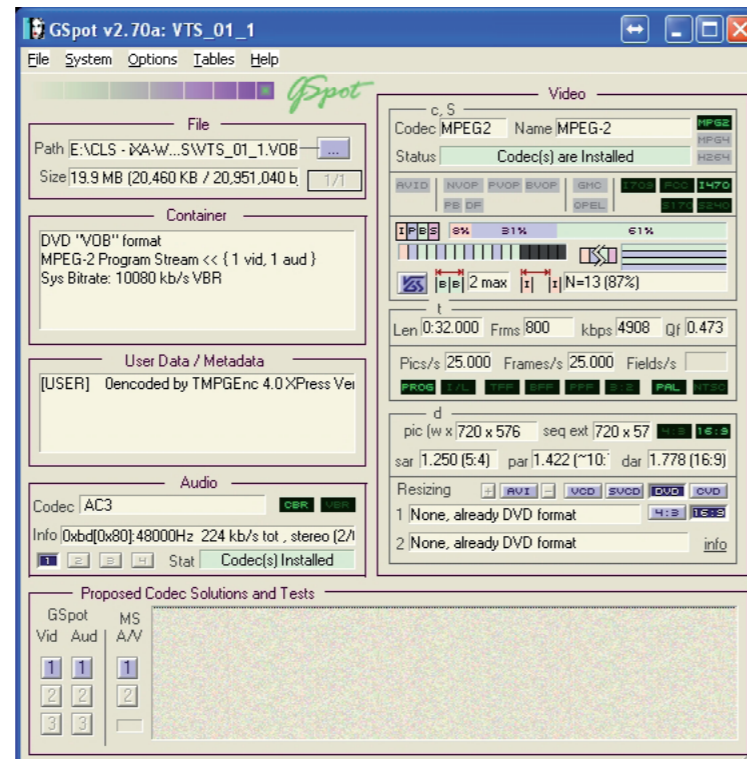
There are other more capable tools, specifically for AVI files, which also allow changes to the file header. If you are confident with that, you might want to have a look at abcAVI Tag Editor.

<http://abcavi.kibi.ru/download.htm>



The video was encoded using a H264 codec. H264 is not supported by KCE-635UB.

The bitrate of this file is rather high (4908kbps). Therefore KCE-635UB refuses to play back.



4. Formatting Harddrives for best use with KCE-635UB

4 FAT32 Limitations

The way to format hard drives or memory devices for the use with KCE-635UB is FAT32.

Later Windows Operating Systems force the user to format hard drives or memory devices with NTFS to get partitions over 32GB. There are several freeware programs to allow formatting HDDs over 32GB with FAT32.

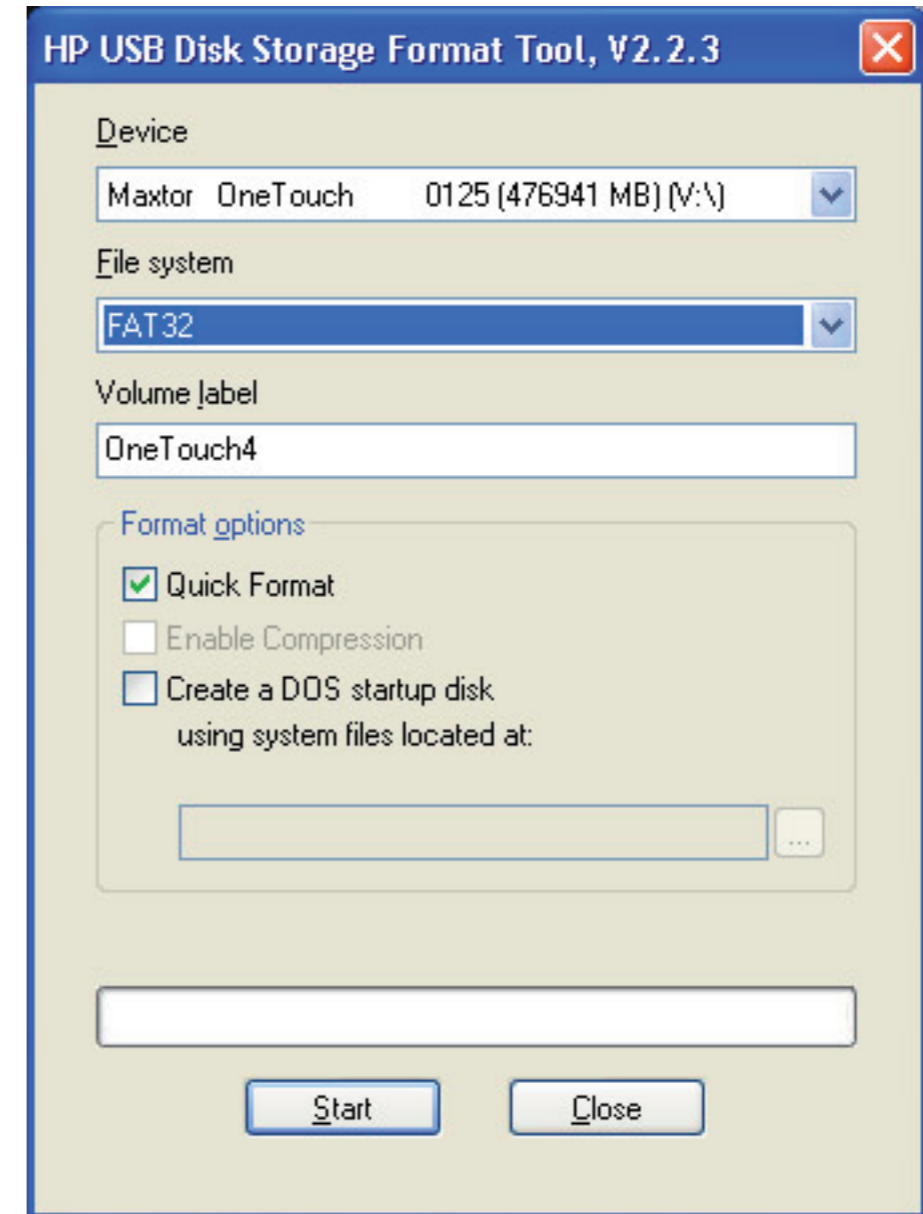
One example is the USB Disk Storage Format Toolby HP:

Download from:

http://download.chip.eu/en/USB-Disk-Storage-Format-Tool_176935.html

Connect your drive/ memory device to your PCs USB port and start the program.

Select the appropriate device and choose FAT32 from the menu. Don't worry about the other options.



5. Converting DVDs

5.1 Commercial Solution 1: allDJ Video Converter Platinum

Download from:

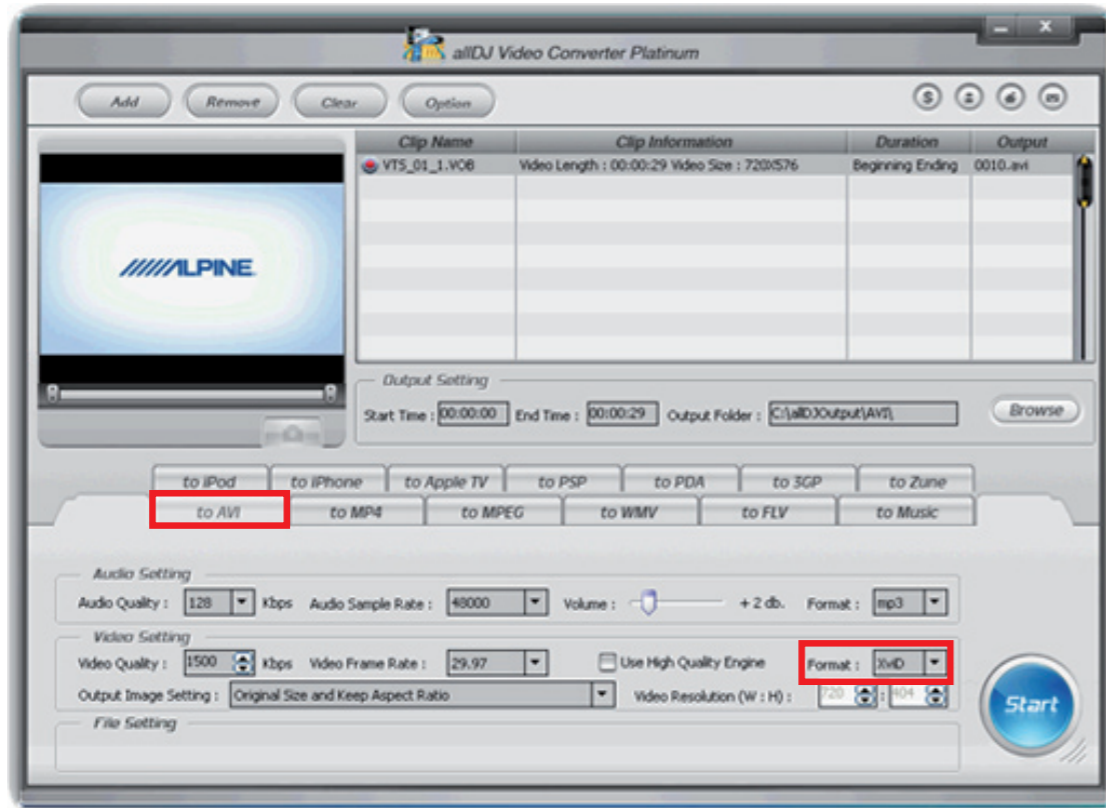
http://www.alldj.com/video_converter/video_converter.htm

Cost: ca. 40 Euro

The software features a simple to use GUI and the possibility to save custom profiles. This will allow users to customize profiles matching to KCE-635UB and other portable players. The videos created by this software are highly compatible. The software allows batch conversion.

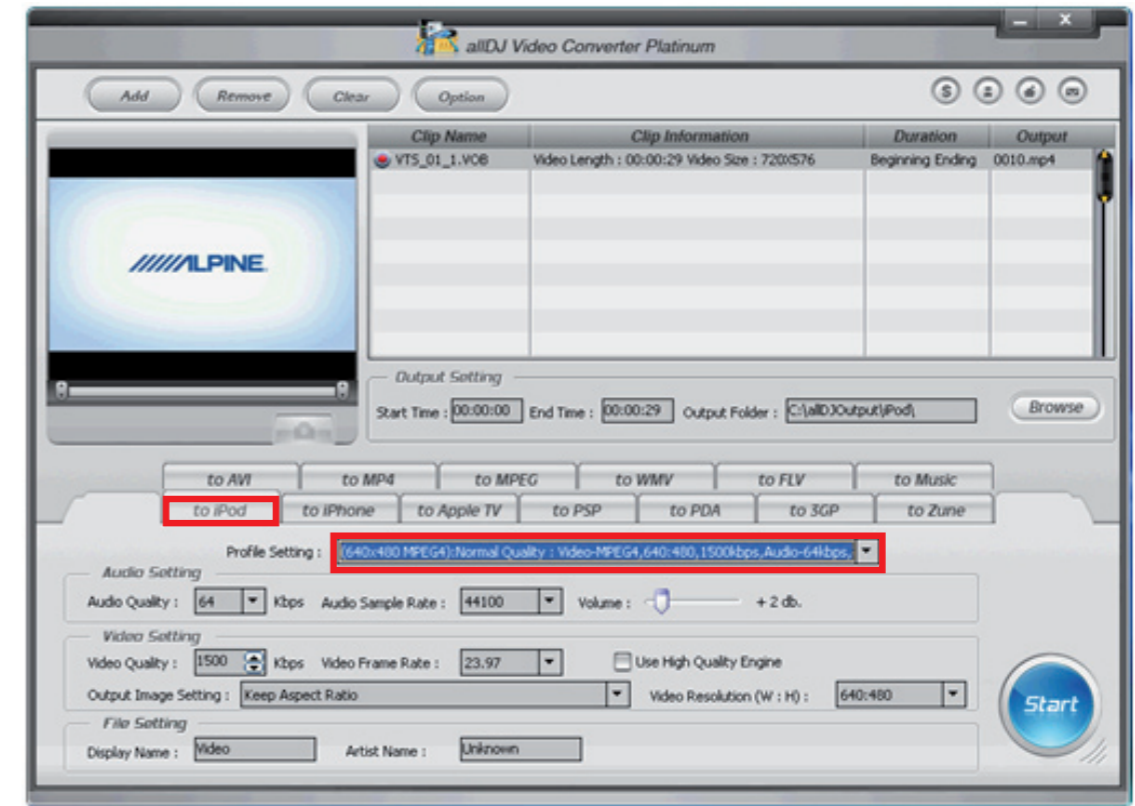
Tested profiles:

5.1.1 XVID

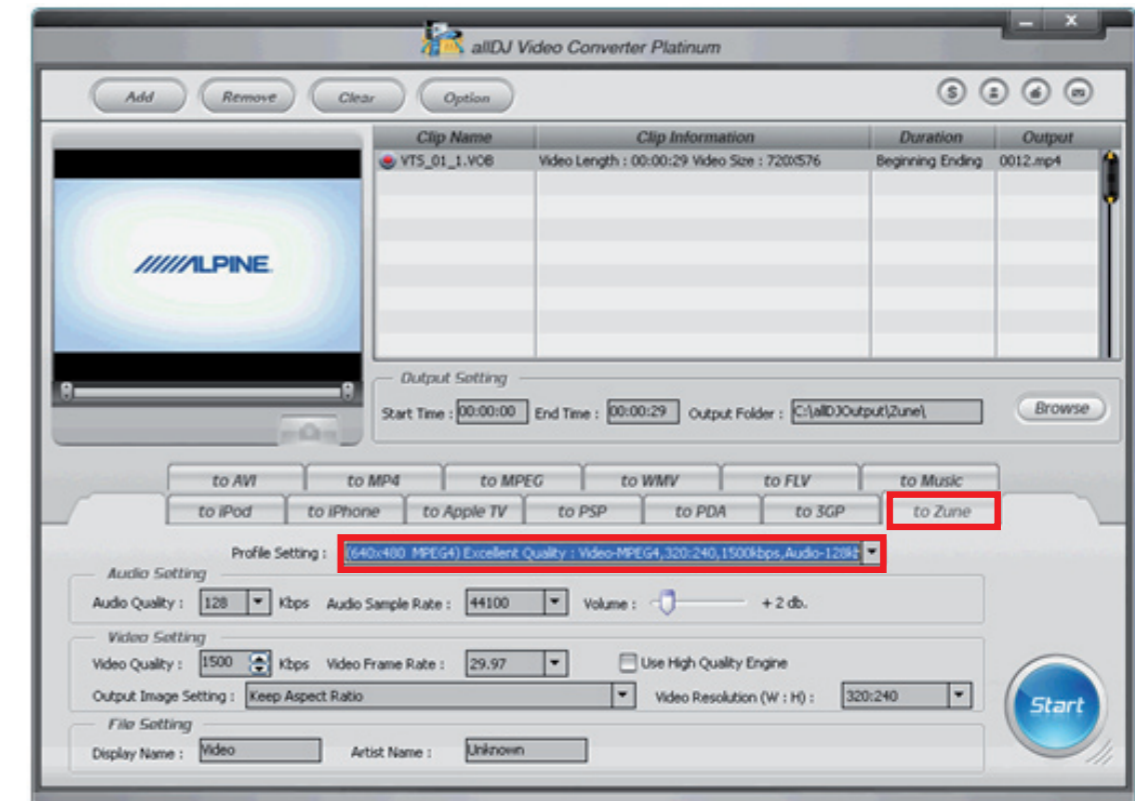


5. Converting DVDs

5.1.2 iPod



5.1.3 Zune



5. Converting DVDs

5.2 Commercial Solution 2: DivX Pro + DivX MPEG-2/DVD Plug-in

Download from:

<http://www.divx.com/>

Cost: ca. 30 Euro

No fuzzi solution to create DivX movies for all DivX certified hardware. Various profiles can be selected. The software allows batch conversion.

Recommended profile:

Home Theater

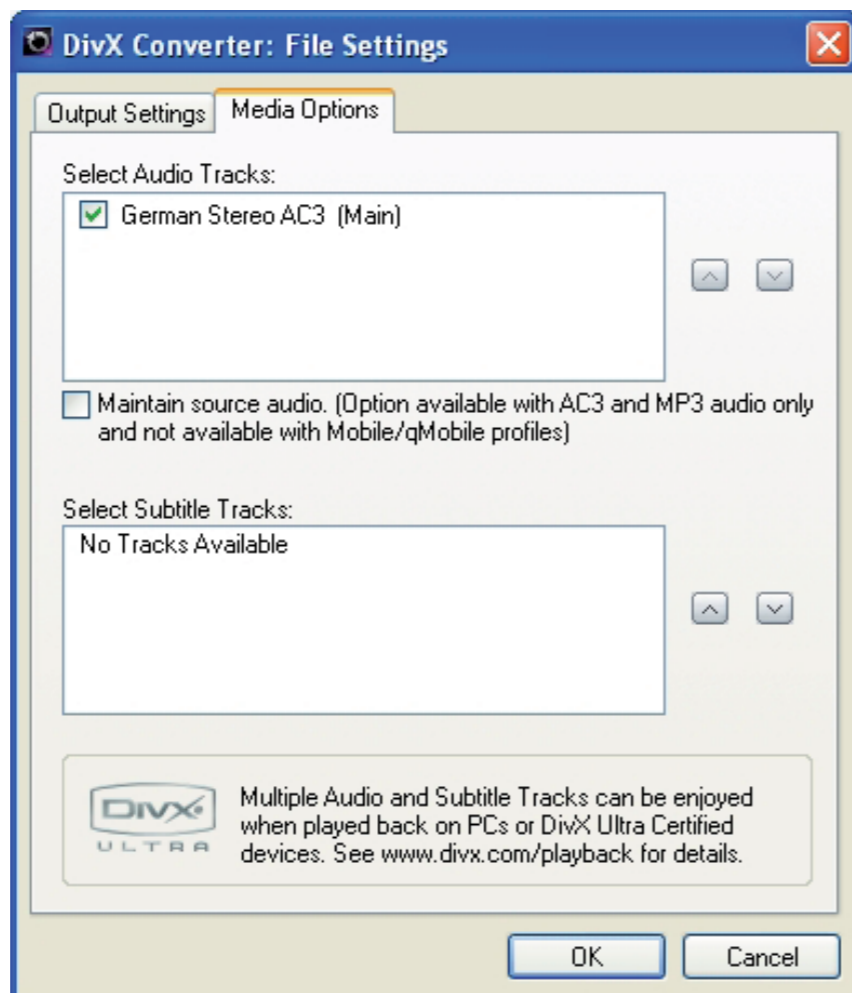


Drag & drop the desired file

Then select the audiotrack (only one track will be supported by KCE-635UB)



The **Output Settings** Tab allows various adjustment for resolution and quality. However, the standard settings for Home Theater deliver a good image quality at a reasonable file size.



5. Converting DVDs

5.3 Commercial Solution 3: CloneDVD mobile

Download from:

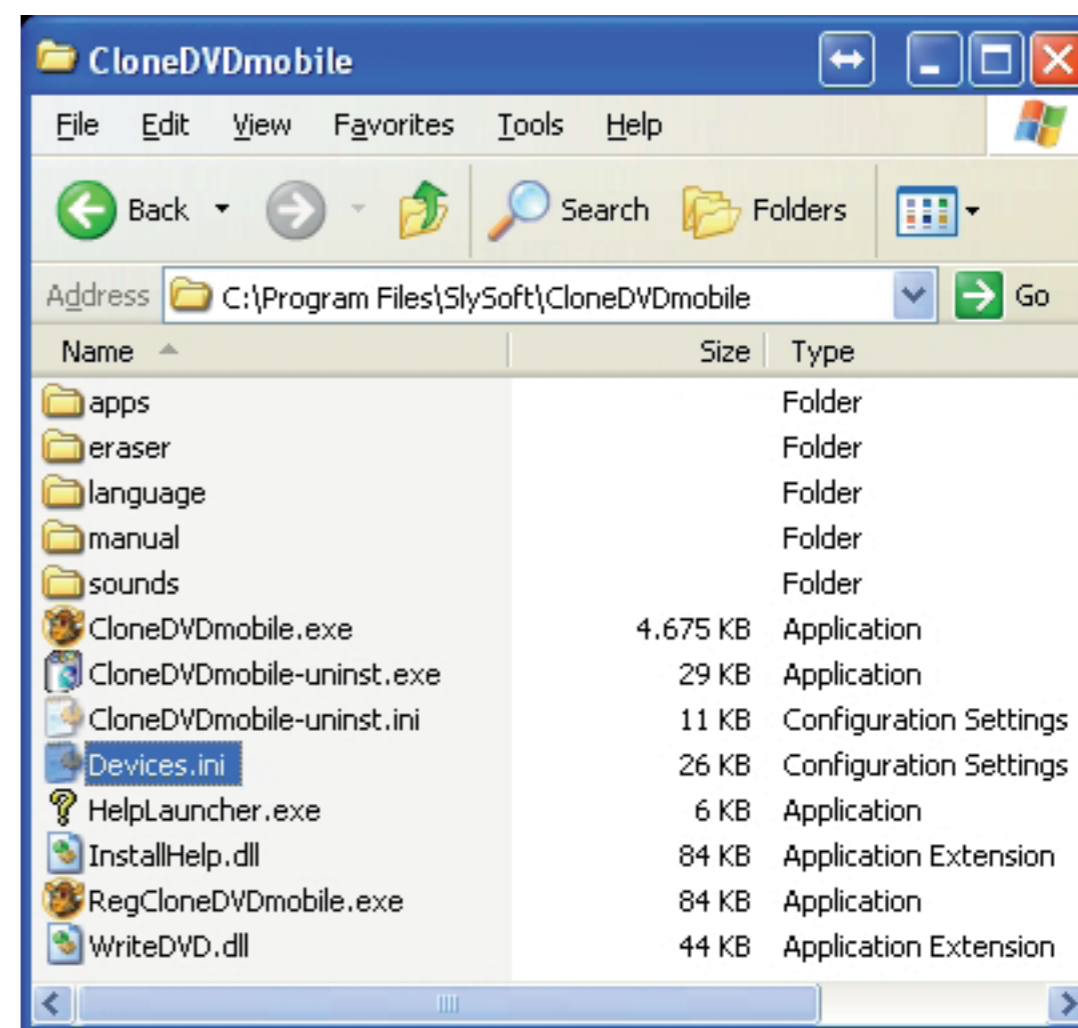
<http://www.slysoft.com/>

Cost: from 33 Euro

Straightforward user interface with several options for customisation. Profiles can be easily added by modifying the ,devices.ini' file. We have prepared such a file which can be downloaded here:

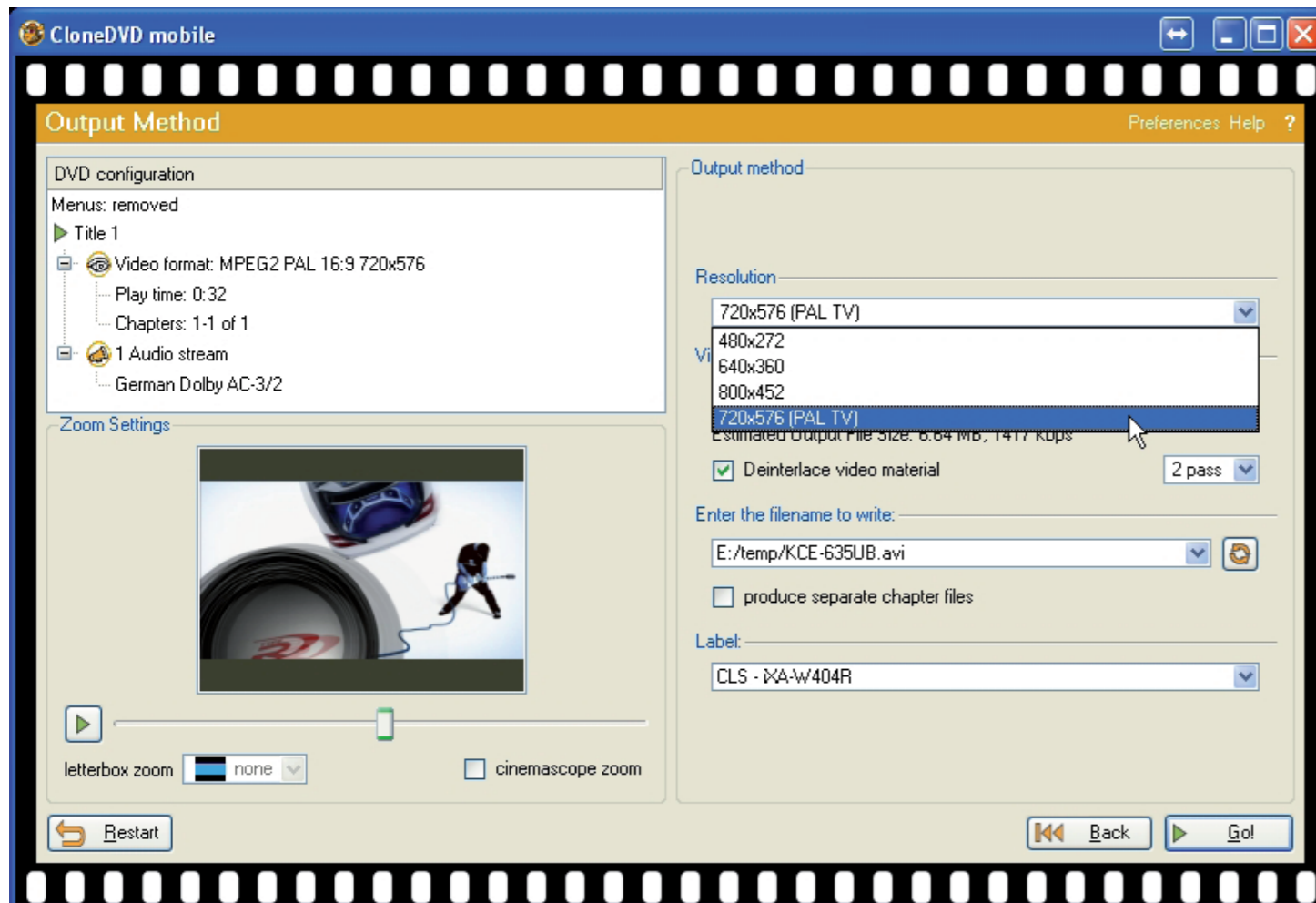
<http://www.alpine-extranet.de/phpBB3/viewtopic.php?f=11&t=3775>

After you have downloaded the file, backup the original ,devices.ini' to a safe place and copy the downloaded file into the program folder of CloneDVD mobile (usually C:\Program Files\SlySoft\CloneDVDmobile\).



5. Converting DVDs

Recommended profile:
KCE-635UB



5. Converting DVDs

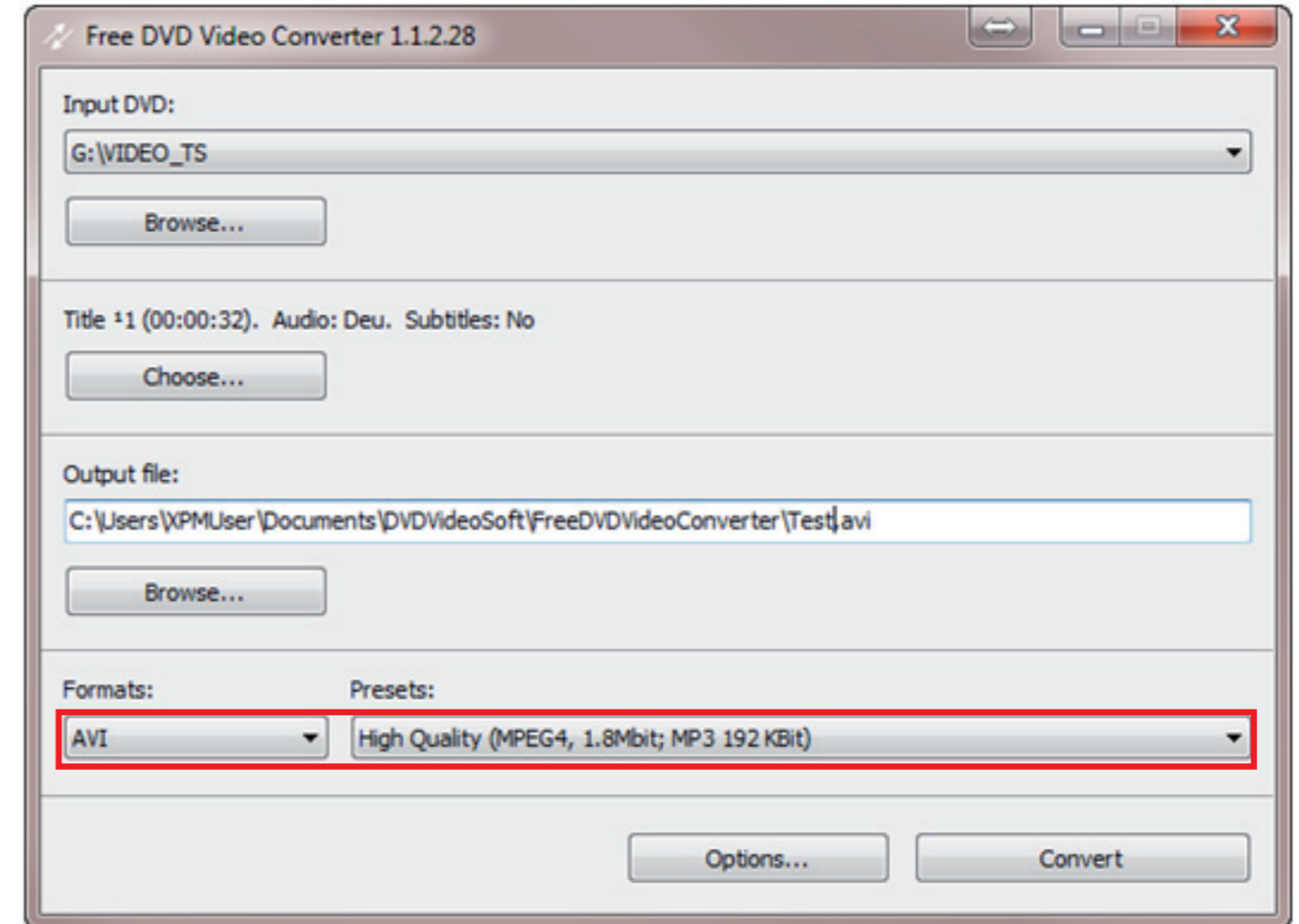
5.4 Freeware Solution 1: Free DVD Video Converter

Download from:
<http://www.dvdvideosoftware.com/>

A simple user interface that can be understood in no time. The conversion time is short but the results are very good.

Recommended Profiles:

AVI: High Quality or Standard Quality (DivX)



5. Converting DVDs

5.5 Freeware Solution 2: MediaCoder

Download from:

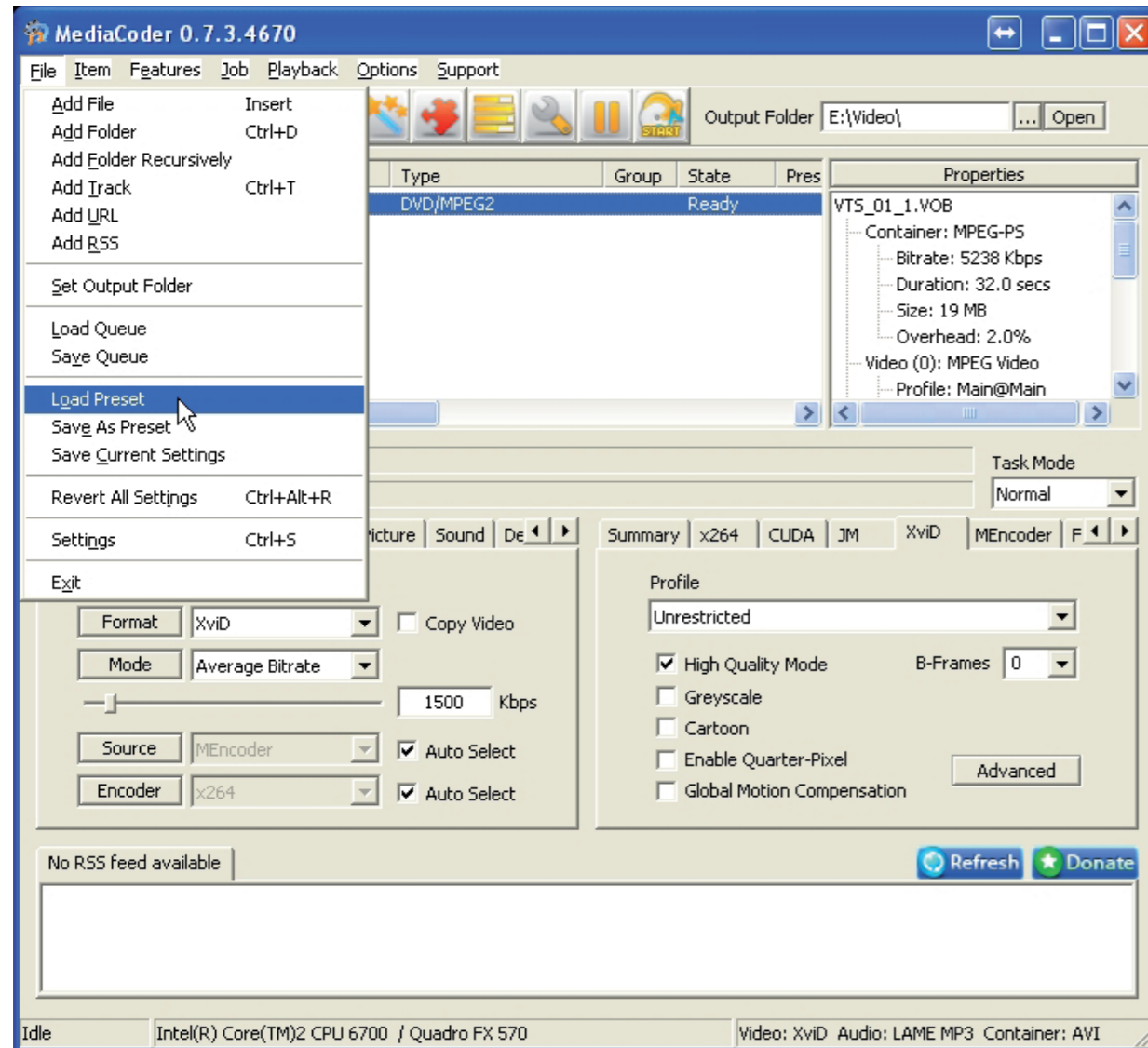
<http://www.mediacoderhq.com/dlfull.htm>

WARNING: The use of this software might be illegal in some countries. Please check legal implications.

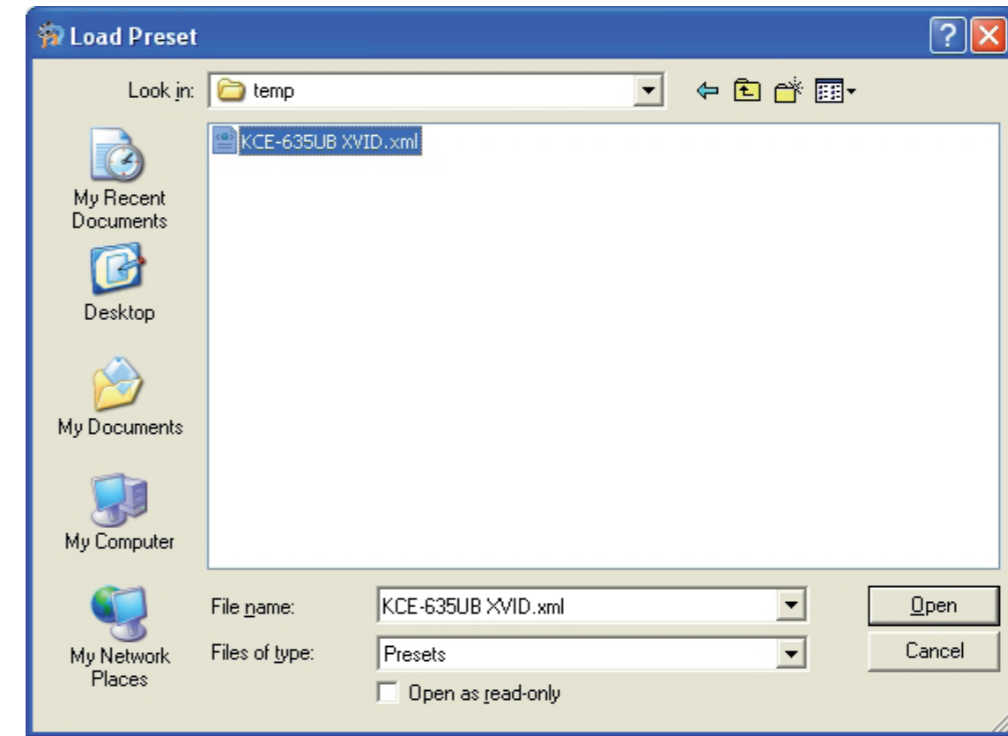
If you know what you do, this program gives you lots of options. If you are not quite an expert, you may wish to use one of the presets which we created.

Download them from here: <http://www.alpine-extranet.de/phpBB3/viewtopic.php?f=11&t=3775>

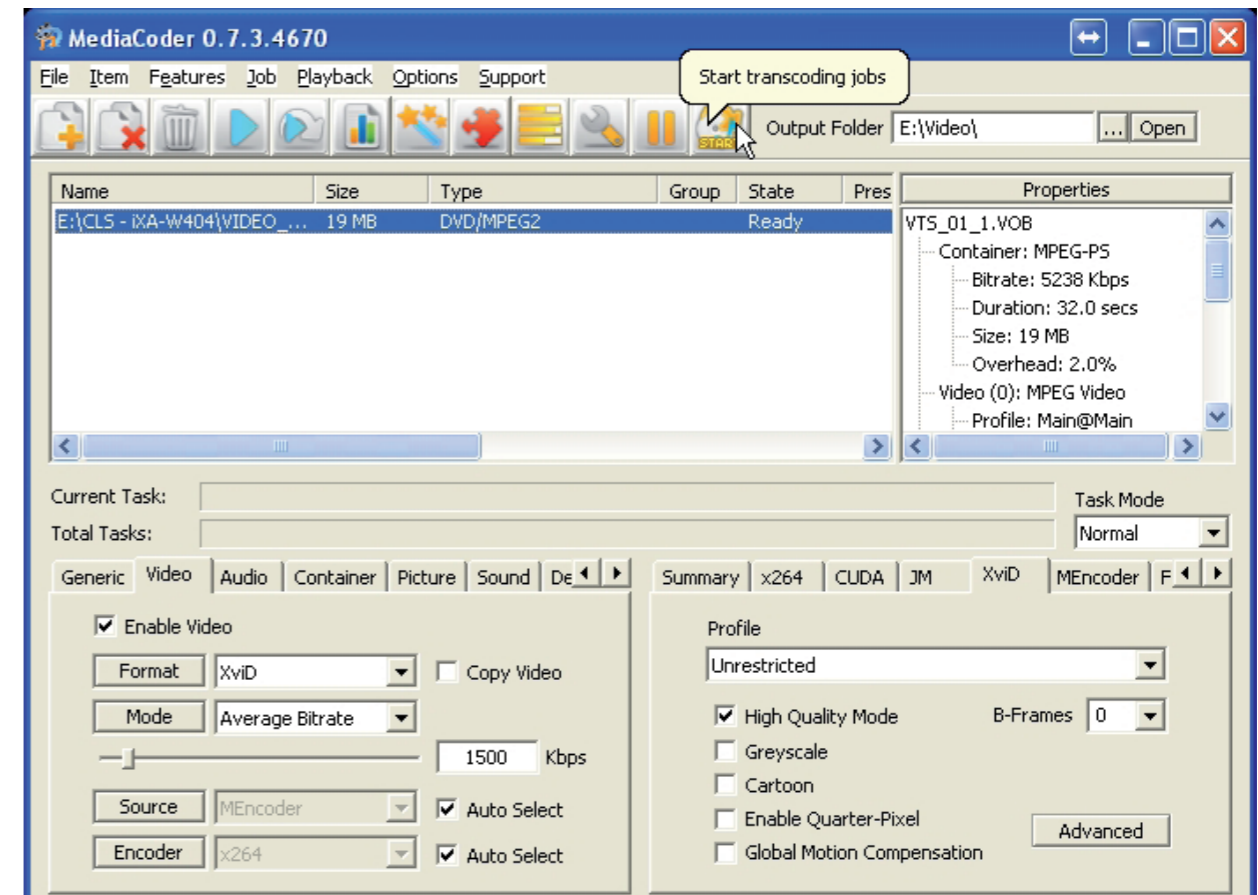
After you have downloaded the file, open it from MediaCoder (File-Load Preset).



5. Converting DVDs



Now drop the files you want to convert into the MediaCoder window, select the output folder and click on start.



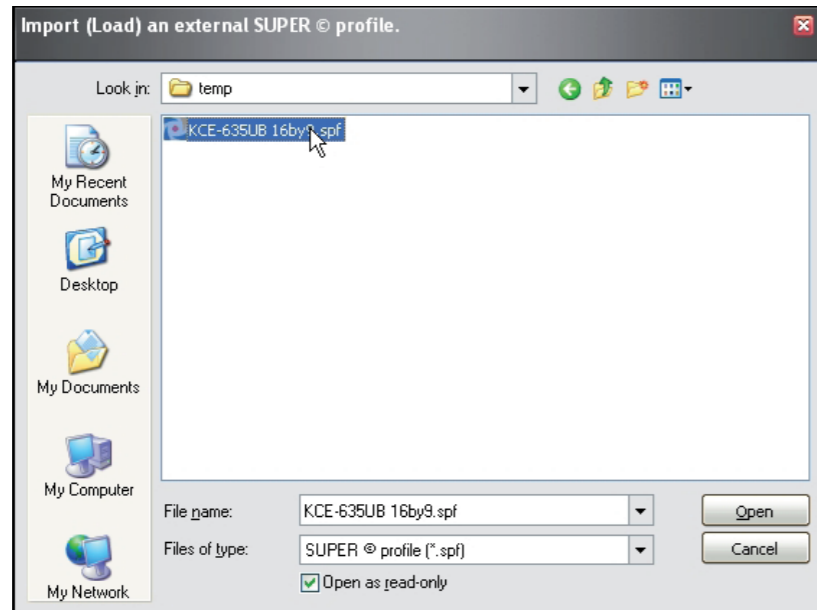
5. Converting DVDs

5.6 Freeware solution 3: SUPER

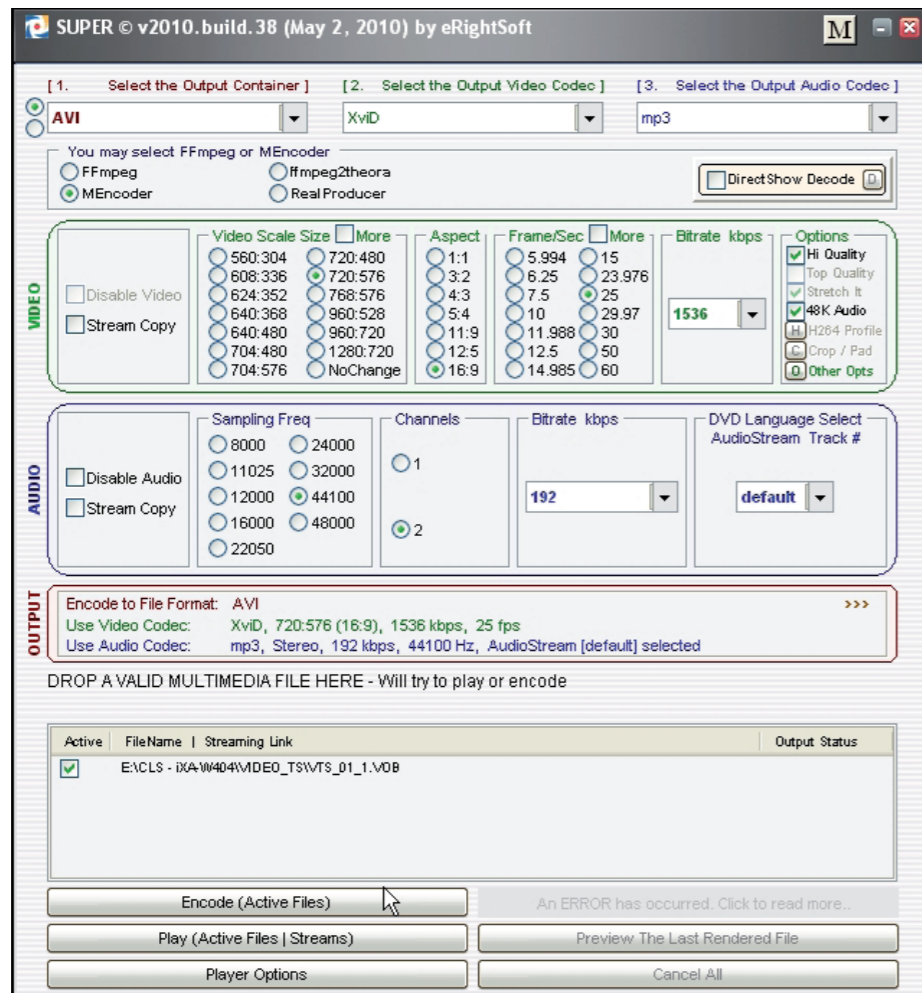
Download from <http://www.eightsoft.com/SUPER.html#Dnload> (you must be patient to find the final download link).

The software comes with an overwhelming choice of options which are just too much for the average user. therefore we created a set of profiles to be downloaded here: <http://www.alpine-extranet.de/phpBB3/viewtopic.php?f=11&t=3775>

Start SUPER and push CTRL-I to load the KCE-635UB profile of your choice.



Drop the files to convert into the SUPER window, select the output file destination and you are ready to start.



5. Converting DVDs

5.7 Summary

There are many ways to get an acceptable result, which one you choose depends on your preferences. Here, we just try to give some advice for the users who just start to discover the ways to generate video content for the KCE-635UB.

The most user friendly solution might be CloneDVD mobile, but it is also the most expensive solution and not flexible for anything other than DVD. On the other side, they offer the best customer support in their own forum. This might be the right choice if you convert DVDs for more than one device.

If you only want to bring your DVDs to an MPEG4 file, the Free DVD Converter will do the job.

All other solutions allow not only conversion from DVD but from many other formats too.

SUPER might be the most versatile solution, but it is for sure also the most complicated to handle and the slowest in conversion speed. But admittedly it does lots of things which you won't find in any commercial program.

MediaCoder is a good compromise between performance and possibilities to tweak. However there are voices claiming that some part of the software violates copyrights. If you are afraid of legal implications, make sure to check before installing the software.

The DivX Coder ist the least flexible in terms of output formats, not the fastest of them all, but delivers good quality.

The allDJ converter comes with most flexibility in the commercial programs and is also pretty fast.

Except DivX, all makers offer trial versions with either a time limit or watermarks in the generated file. They allow the user to play around and test if the program is the right solution for the intended purpose or not.

All of the above programs and settings have been tested with 'home made' DVDs including menu structures and multiple soundtracks. None of them will work with copy protected discs.

If backing up copy protected material is legal in your contry, you will surely find tools which will hook into the system and allow the above programs to work as if there was no copy protection.

The profiles which we prepared, will be uploaded to a forum thread, which allows users to share their settings. We have seen that there are a lot of experts out there finding alternate solutions for this matter and encourage them to share their methods.

<http://www.alpine-extranet.de/phpBB3/viewtopic.php?f=11&t=3775>

6. Downloading and converting videos from websites with user generated content (YouTube etc.)

6.1 Freeware Solution : Free You Tube to iPod Converter

Download from:

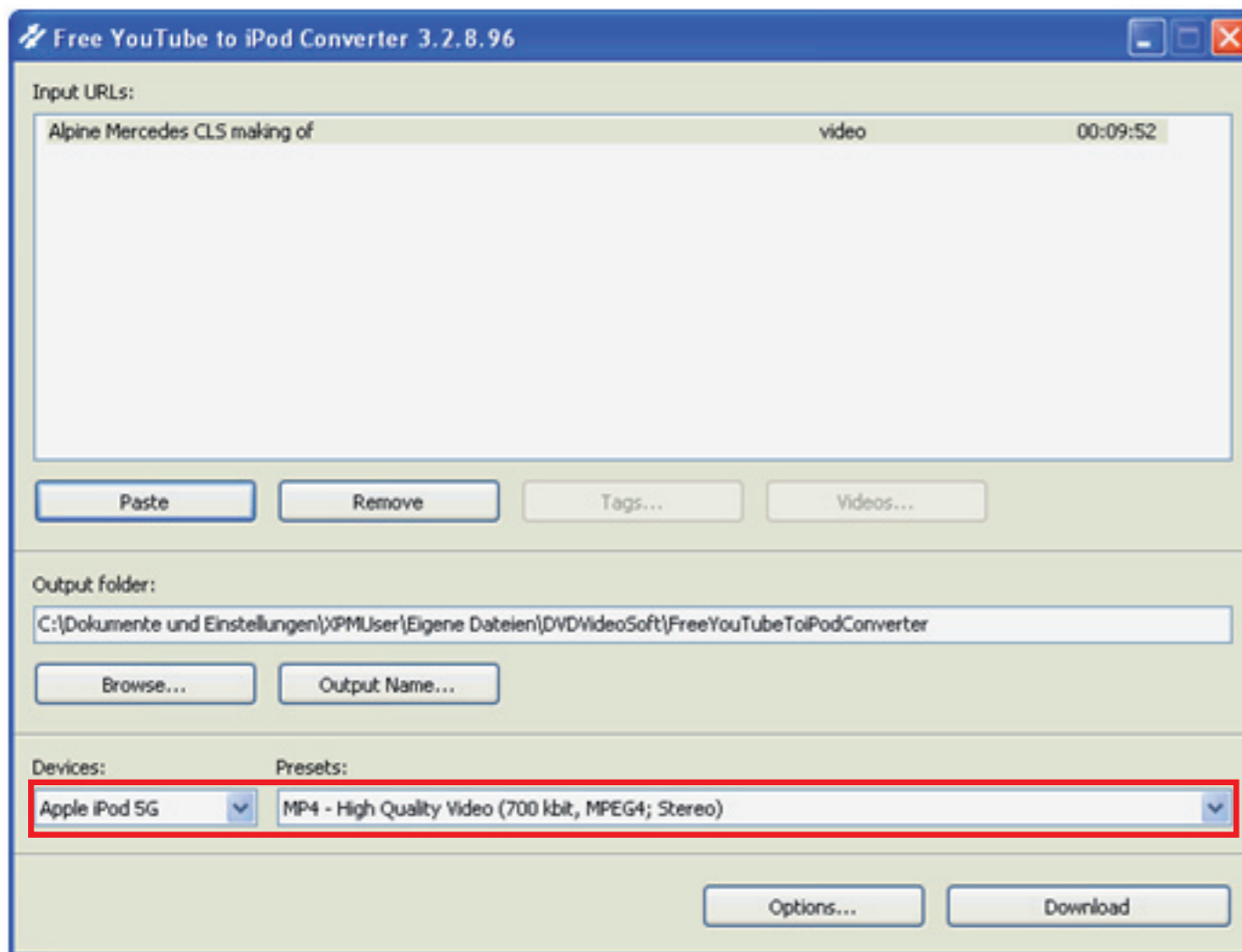
<http://www.dvdvideosoft.com/>

This software is browser independent and allows batch downloads.

The URL of the desired video clip needs to be pasted, select Apple iPod 5G as device and a preset using MPEG4 codec (not h.264).

The use is pretty simple:

- paste the YouTube link(s) into the *Import URLs* field.
- select Apple iPod 5G as device
- select MP4 - High Quality Video (700kbit, MPEG4; Stereo)
- click ,Download'



6. Downloading and converting videos from websites with user generated content (YouTube etc.)

6.2 Freeware solution 2: DownloadHelper (Add-On for Firefox Browser)

Download via the browser's Add-On search (more information here: <http://www.downloadhelper.net/>)

Whenever video content available for download is detected, the symbol in the browser's navigation line will indicate so. Now Click the down arrow right from the rotating icon and select Quick Download.

This methods works with much more websites than the Free You Tube to iPod Converter, but the downloaded videos need to be converted, as they use the h.264 codec which is not supported by KCE-635UB. This can be done with the Free Video to iPod Converter by dvdvideosoft (<http://www.dvdvideosoft.com/>) or some of the tools described in section 3 (SUPER, MeciaCoder, allDJ Videoconverter Platinum).

