AVxCAT

AVxCAT (rexx)

for

OS2 WORLD community

<u>A</u>udio/<u>V</u>ideo e<u>X</u>tended <u>C</u>onversion and <u>A</u>uthoring <u>T</u>ool

v 1.4.0 - 2016

(c) Rémy Dodin

I developped this interface using DRDIALOG and REXX which illustrates how rexx can be easy !

Original idea was ce2mp3 text mode to convert any file to mp3 with respect of ID3 tags.
Now, this idea was included and extented to any supported audio file as well as video file.

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Why creating a ffmpeg GUI to convert audio/video files ?

Most tools are able to do conversion but the target (ce2mp3 initial idea) was to preserve metadatas if possible and write ID3 tags into mp3 files or add accurate tags based on existing input file without use of a cddb link. An other target was to process any supported input file, or a list of files or a full directory with supported files in it.

To achive this target, additonal tool like id3v2 -id3 tags reader, updater and writer is required. This part is now fully implemented into ffmpeg with expanded possibilities like create a list with mixed files and directories. Of course, ffmpeg is able to do many great conversion and this is why AVxCAT was extented to support many kind of output format using any supported audi/video input file and not only « MP3 » like ce2mp3 does.

AVxCAT is not planned to manipulate input files like other great tools but it has great simple functions for all day use or more sophisticated processes like diaporamas, creating video chapter... Nice options mostly missing on other tools....

Why to stop on audio convertion only ?
Starting from build 0.7.0, Video conversion show some parts of futur development like crop/pad, extract part of a video, select stream to copy. AVxCAT is able to call an external video player (Kmplayer which is my prefered) or Mplayer bu this one has less usable options. KMP allow you to whatch multimedia files with displaied time which makes easy to determine the start frame and end frame for special video axtraction.

 Here are some available functions since V0.9.0:
1. Extract part of the input audio stream (low priority)
2. Extract part of the input video stream (high priority).
3. Crop/pad input video file to adjust video rendering
4. Crop input 16:9 video into 4:3 format to full 16:9
5. Multiple profiles (audio and video)
6. User can add/update its own profile
7. libtheora (ogv) and x264 (mp4 HQ) implemented
8. Switch from audio to Video and create video from audio file.
9. Create Video out of audio files
10. Create diaporama from a set of images + audio file (at least, a mute audio file is required)
11. Create Video chaptering (used with KMP player only) and add comment for each chapter. Generated file is an XML file and can be saved as HTML nice rendering with or without chapter thumbnail or saved as SRT for subtitle
12. Play video from main page using chaptering start point if available

Here are some more available functions since V1.4.0
13. Rotate video
14. Force video to portrait
15. Updated sharpness (increase / decrease)
16. New video codecs according enabled ffmpeg codecs
17. Extenal audio gain adjustment (used for normalize)
18. ...

What are required tools to well use this GUI ?

- **eComStation V2** (Mensys) (should be ok under OS/2 V4 and previous eCS version – add a set home= into config.sys if none)
- **FFmpeg-r25157** or better **FFmpeg V3.0.1** newer one on **hobbes**
- **ID3V2** by Andy Willis (on Hobbes) – <mark>required as soon you write ID3tags</mark>
- **RXU1A** (on Hobbes)
- OS/2 libvorbis package (**OGG** support) – should already be installed !
- « rxtnsion.dll » from Jan-Erik to support files above 4GiB limit (included)
- May need new dlls avalable from different package :
  emxrt.zip, gcc-4_9_2_1-3_oc00.zip, expat-2_1_0-12_oc00.zip, fontconfig-2_11_94-2_oc00.zip, freetype-2_6_3-1_oc00.zip, lame-3.99.5-r2.zip, libogg-1.3.2.zip, libpng-1_6_21-2_oc00.zip, libtheora-1.1.1.zip, libvorbis-1.3.5.zip, libvpx-1.4.0.zip, libvpx-1.5.0.zip, mmap.zip, opus-1.1.2.zip, pthread-20150408-19_oc00.zip, SDL-1.2.15-20160303.zip, x264-0.148.x.zip, xvidcore-1.3.4.zip, zlib-1.2.8.zip or newer if requested by ffmpeg version/build
  See **NETLABS** or **hobbes** for missing DLLs.

What are optional tools used by this GUI ?

- **cdda2wav** from cddvdrtools 1.9 or cdrtools (available on eCo Market) for **CD-AUDIO (cdda2wav2 not supported)**
- **Priority** (from FM2UTILS package on Hobbes). This one is recommended to have better CPU sharing between other applications or FFMPEG may use most of it. <mark>NEW (if missing, rexx priority can be used)</mark>
- **KMPlayer** v 0.7.2 or up also named KMP (very nice player and strongly recommended) or Mplayer
- **Timidity** (on OS/2 site) – Used to convert MIDI files
- **VoiX** to filter audio files (put the program under AVxCAT path to enable its function)
- **mp3gain** , aacgain, wavegain, vorbisgain to normalize volume (if some tools aren't find, please check my web site for avxcat additional spacial package)
  (put the program under AVxCAT path to enable its function and disables volume on ffmpeg but set it on *gain process to adjust the normalized output volume)

  Despite the number of required or optional tools, it is very easy to install them (just unzip them into a targert directory) and no user customization needed. The only parameters which have to be set are into AVxCAT which has to know tools path or, for some tools like VoiX or MP3GAIN..., put them under AVxCAT path.

Note: At end of WPI installation of AvxCAT, a bach cmd file is executed which opens two html web page with most available links for dll's or optional tools
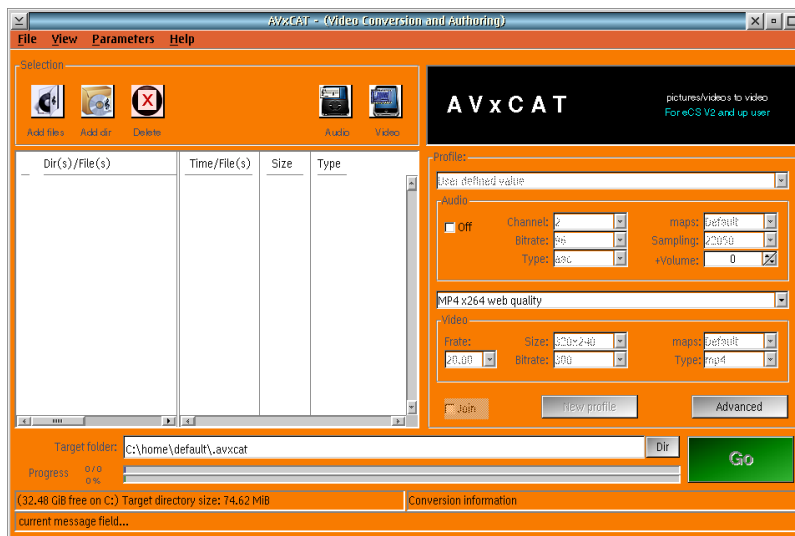
AVxCAT MENU

Use color drag/drop into background to change color. Color is changed after AVxCAT gets focus back

Audio mode
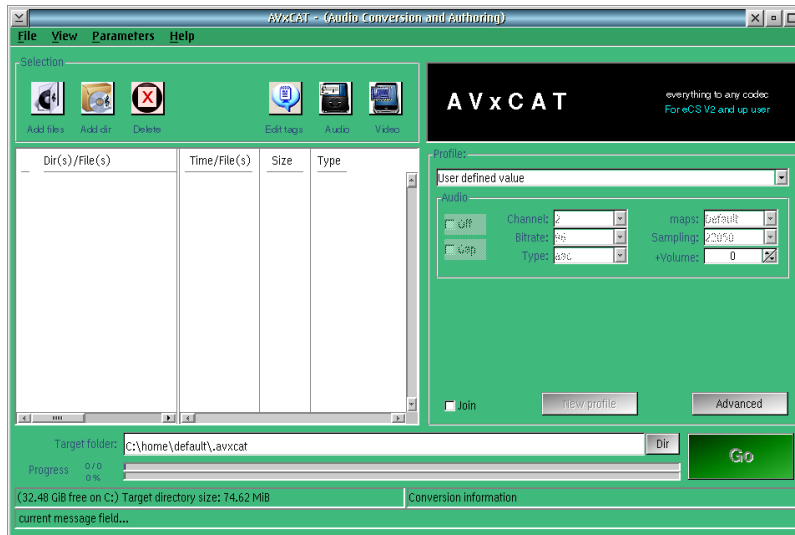
Video mode

Main menu bar options
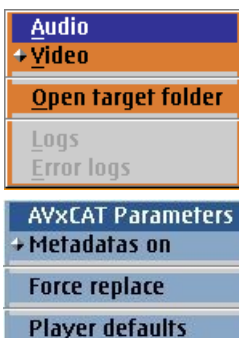
View:

Switch between audio and video mode. Open target folder and of course, you can have a quick on logged errors or a full log under which you find many information about conversion execution and wriited tags.

Parameters: Specify both AVxCAT and used Player default parameters. Writing Metadatas is enabled by default but can be disabled here. Force replace can be used when an overwrite of this option is required
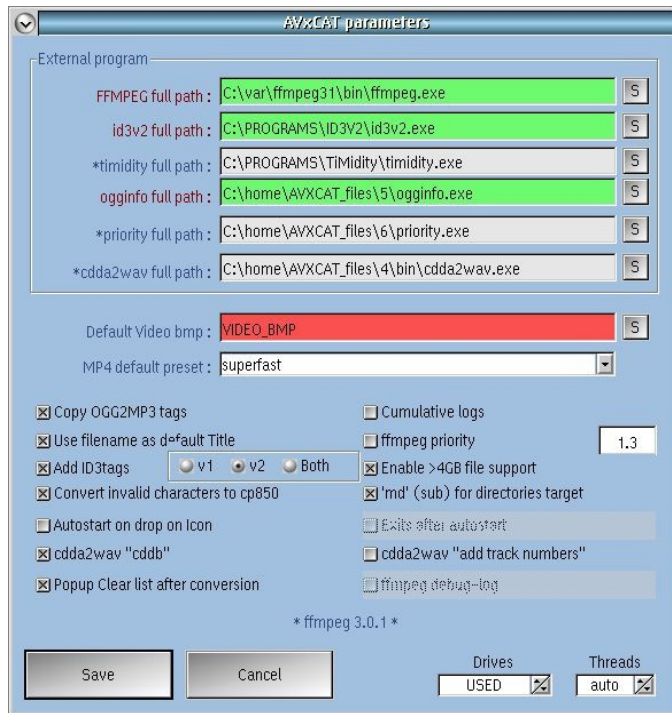
Installation

Product is a WPI package to use advantage of the great OS/2 – eCS installer
Download and install all required tools before installing AVxCAT (at least, before starting it)

Start installation

Run AVxCAT WPI package and follow instructions

After installation, start AVxCAT and customize using « Parameters » « FFMPEG parameters » link from main window. Update with correct value any required entries
Entries pre-fixed by a « * » are optional entries
**Paths in red are required (mandatory)**

Select right program path using the **[S]** button.

– **[x] Copy OGG2MP3 tags** saves existing OGG tags into new resulting MP3 file
– **[x] Use filename as default Tile** allow to set missing audio file ID3 title using file name if possible
– **[x] Add ID3 tags** Write ID3 tags according selection which could be V1, V2 or both inot MP3 files.
– **[x] Convert invalid characters to cp850** translate some characters (e.g. French accent) to a more readable CP850 character.
– **[x] Autostart on drop on icon** dropping a file/folder onto the AVxCAT icon will autostart conversion using previous user setting
– **[x] Cumulative logs** Append all results into a unique logfile
– **[x] ffmpeg priority** (do not change this value except if you know what you do). This is used with « priority » tool or rexx dll. Do not change [1.3] or **[1.-31] (rexx dll)** except if you know what you do !
– **[x] Enable > 4GB file support** Show file size above 4GiB
– **[x] 'md' (sub) for directories target** Created a sub-directory under current target directory with the same name as the input directory from the list to be processed (has no effect on files into the list)
– **[x] Exit after autostart** In condition « autostart » as described above, AVxCAT is closed at end of conversion
– **[x] cdda2wav « cddb »** enable cddb request (to use with a valid internet link)
– **[x] cdda2wav « add track numbers »** (add track number into track name
– **[x] ffmpeg debug-log** (enabled if « extra logs » enabled too)
– **MP4 default preset** (define prefered default MP4 preset
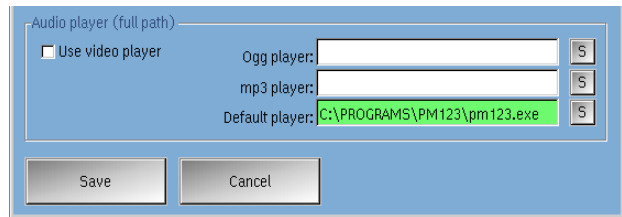– **Threads** (specify how many threads may be used in multi-thread process – prefer default « auto »)
Click on Save to save AVxCAT parameters in owner INI file under .\OS2 **(INI can be moved under program path since v0.9.8)**

Installation final step

From AVxCAT main window, follow « Parameters » « Player Defaults » link
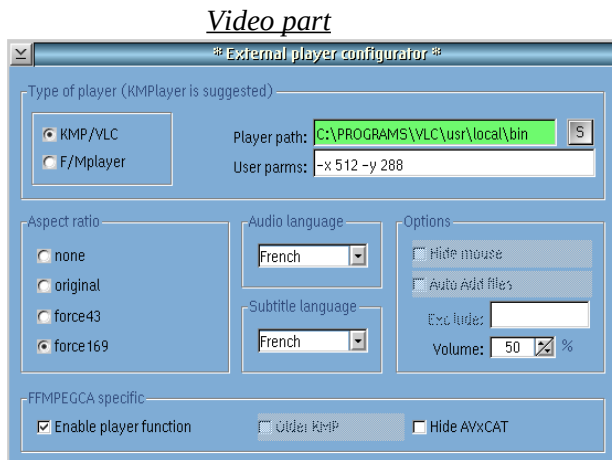
<u>Video part</u>   <u>Audio part</u> (new since V1.0.0)

Select the type of player you would like use with AVxCAT (KMP or VLC strongly recommended for full enabled functions) and set required player path

Add User parms if needed. By default, KMPlayer will start with the size given into User parms
which is « -x 512 -y 388 » the half size for full 16:9 DVD vob files. If KMP doesn't provide any audio during play, try adding "-audio dart" into user parms.

Adjust the KMPlayer aspect ratio and optional parameters like Hide mouse etc...
Adjust the Volume level to have a correct audio level and not too high which could damage your Eardrum.

Select the default (ISO) language and (ISO) subtitle code to select if available.

Once you set all parameters, you can enable or disable use of the Player through AVxCAT after uncheck
[x] Enable player function

When the player is started, you can choice to make the main window invisible and only the player help window is remain visible but at end of play, you'll have to close the help window to get back the main window. To use this option, check **[x] Hide AVxCAT**

[x] Hide AVxCAT is disabled if chaptering with KMP is used and main window is hiden from chapter window.

**[x] Older KMP** removes '--autoexit' parameter from KMP command   (may be hidden)

Using VLC player could result into a wrong used video size format with 16:9. This is due VLC doesn' correctly used the line parameter. To bypass the problem, add « 16:9 » into VLC Force Aspect Ratio parameter field under Tools – Preferences or switch manually to a different Video size and return to the correct value
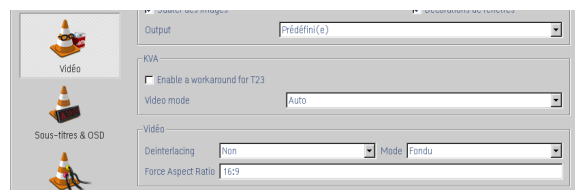

[x] Use video player allow play audio files using the video player. If this option isn't checked, update audio player paths with full path names and have, at least, the default player configured

Create a list of files to be converted

Start AvxCAT and click on [Add files] to add audio and/or video files only
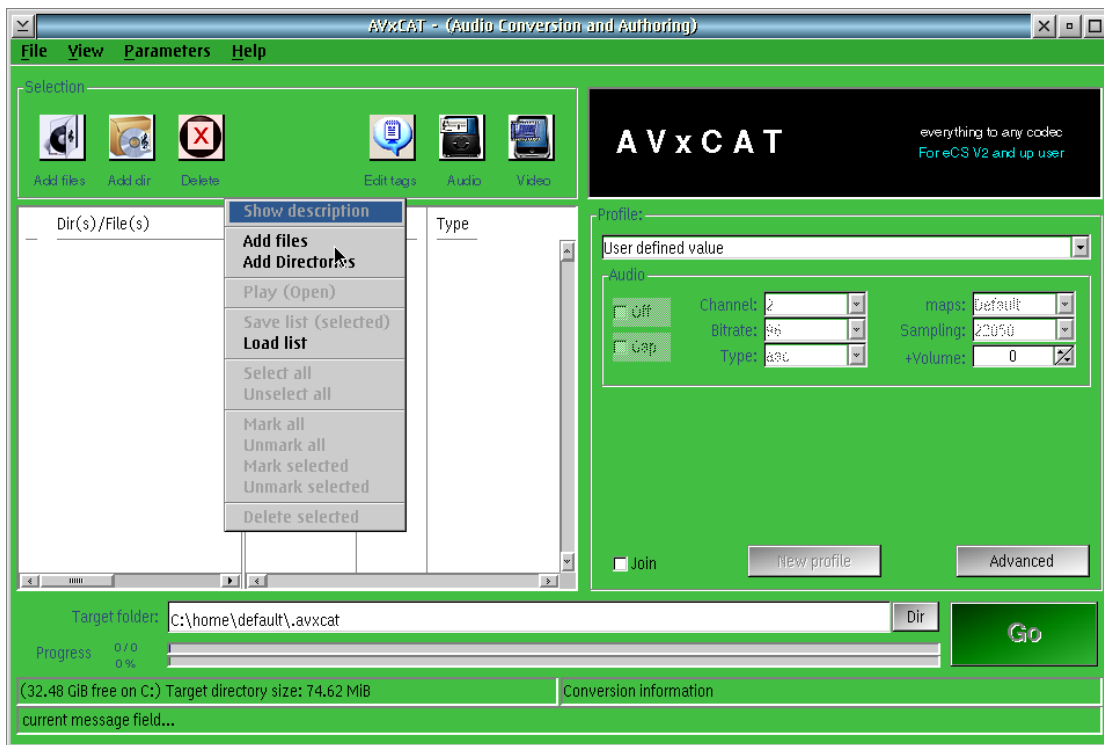
From Opened internal filemanager, select the directory (single selection) or files (expended selection mode) to be added and click on ADD or use DROG/DROP into list container (see above picture with dir(s)/Files(s)) CD-audio tracks updates both Time/Size value and type is set to -CD(drive letter)- instead of real media type
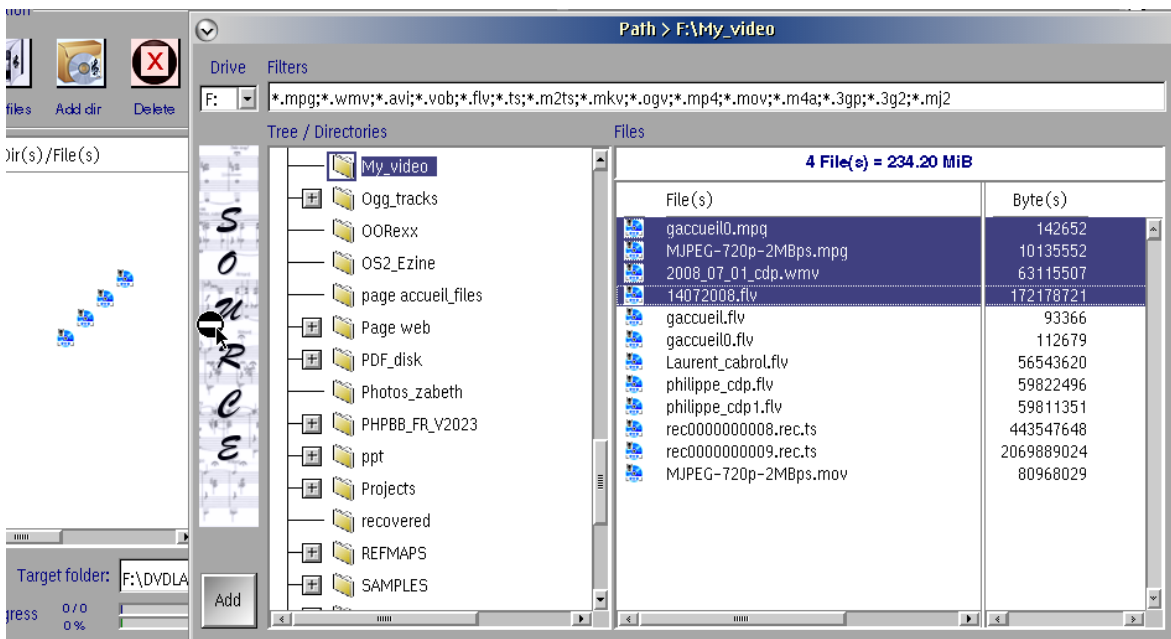
Click 2 times on selected file(s) does the same. Adding directories is similar with the filemanager having file parts removed.
With cdda2wav enabled, add CD-audio tracks from any CD-ROM drives with [Add files] button

AUDIO conversion

Important (Specify a [target folder] for the converted audio files) or [Go] remain disable
v0.9.8: Default target folder is set to « home »\.AVxCAT if SET HOME exist into config.sys
v1.2.4: VBR (variable bitrate) checlbox is enabled for special use with mp3 audio format

Select a default audio profile or create your own audio profile

Create / Update your user audio profile
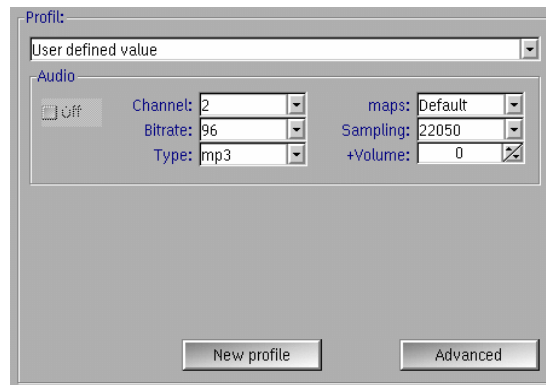
To create a <u>new User profile</u>, select profile [**User defined value**]

Change any audio setting as needed except volume which will not be saved inot the profile
If the setting is a valid and like you expect have it, click on [**New profile**]. Enter a profile name into the entry
field of opened dialog and then, click on [**Create**]

To update an <u>existing user profile</u>, select the user profile and click on [**New profile**]. Update the profile name
into the entry field of opened dialog and then, click on [**Update**]

Audio advanced options

You can select a specific audio stream from the input file using the [**maps:**] selection. To view existing
streams into the selected file (not allowed on directories), click on the file from the list and then RMB (right
mouse button) and option « show description ».
But, you can use the [**Advance**] button (*enabled if only one file is selected*) which show you all audio stream
and allow you to copy more than only one audio stream into output file.
To select only part of the input stream, set [**start time:**] and [**duration:**]
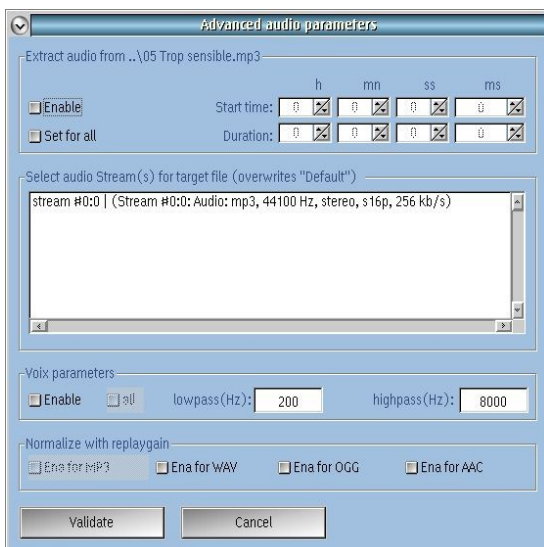
Note: New in V1.2.0
Voix.exe support is now fully supported (thank to Andy Willis).
To have the corresponding entries enabled, be sure voix.exe
available under AvxCAT path.

Like the cut option, you can decide to set VoiX
parameters to all files (check on [all] (near [ ]Enable option which
is enabled if VoiX enable checkbox is checked first.

Of course, as soon you remove this option, all files
have the parms lost and you'll have to enable with specific parms
each file.

If *gain.exe for normalize are under AvxCAT path, options are
enabled

[Enable] activates use of stream extraction and is valid for all list entry. Each file can have its own setting and those having the default setting of 0h0mn0ss0ms for Start time and Duration are processed like if [Enable] was off.

Sometimes, it could be interesting to create samples from a list of audio files (e.g. First 10s as demonstration). Set both **[Enable]** and **[Set for all]** on and specify the Start time and Duration. You only have to do it one time because **[Set for all]** is on. At process time, all file from the list or under directories are cut using this setting.

Join Audio files
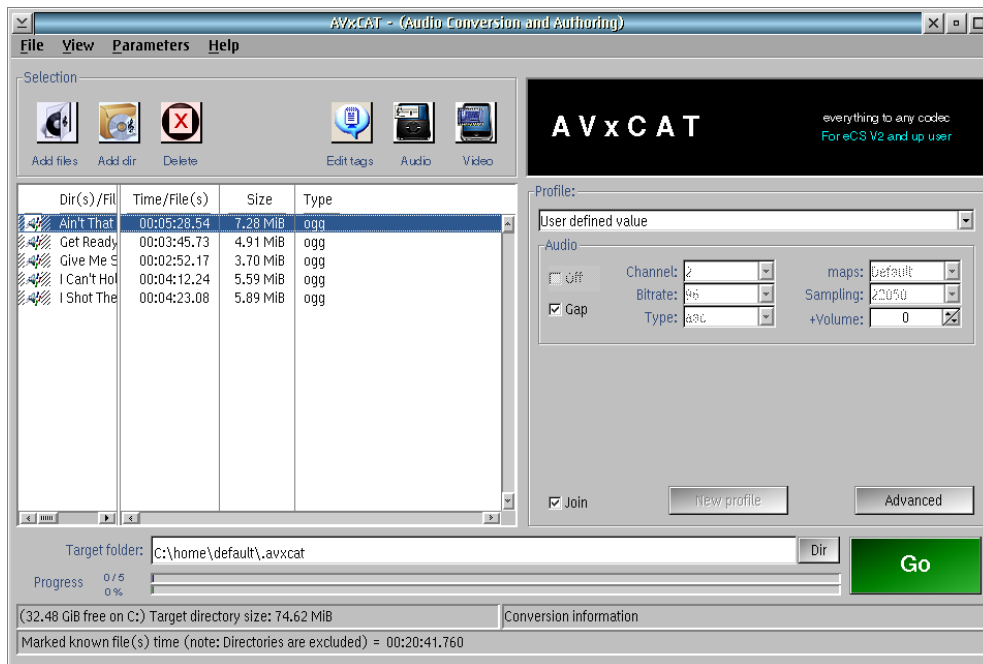
- Verifiy temporary path disk has enough free size

- Add audio/video files into process list

- Use advanced option to cut part of selected audio/video files if needed

- Select output audio codec using defined profiles or not e.g. Mp3, ogg …

- Set [x] Join checkbox on

- Check [x] Gap if you would like have a 2 seconds gap between each audio file like Cds

- Clik on [GO] Button

Process will cut (if defined) input audio file and convert it into a FLAC codec (losness) temporary file. At end of single converted file, process starts a second step which appends all files and final step will correctly convert to the specified codec output file.

The resulting JOIN file always named « ~FFJOIN. XXX » with XXX = your selected coded file extension e.g. Mp3, ogg, ac3...

To add ID3TAGs on mp3 or add WPS EA's, add the new created file into the process list and click on edit tag button. Update entries and click on [Write tags]

Note: 2s-gap.flac is a required file under program path to enable 2s gap option

Create / Update IDTAGs, WPS and or « Prepare Metadatas »

Click on Edit tags button with these function available on OGG, WAV, MP3 and FLAC CWMM supported format.

Here is how the opened window looks like:

Existing entries have a comment text into purple color while suggested entries have original dark blue color.

A click on **[Fn]** will change Tile entry from current displaied value to the track filename. If REXXUNI.DLL is installed, Both button **[Sys_cp]** and **[cp1252]** are made available. If your displaied fields have unrecognized characters (e.g file created under windows), you can try convert them using Sys_cp which is the best approch of the character set used into ID3 tags. If you would like **[Write tags]** into cp1252 instead of system code page, click on cp1252 befre writing tags.

Of course, you can click on **[Prepare Metadat]** to save all updated elligible fields into a variable used during FFMPEG conversion to add all specified Metadatas. According audio file format, some metadatas may not be supported. Review log file to check which metadatas are well recored into the audio file. [Prepare Metadata] is personnalized per audio entry into the list. Each entry has its own variable used at processing time.

For MP3 files, the **[Write tags]** writes ID3V1 or ID3V2 or both Idtags with value from elligible entries while OGG, WAV and FLAC have the corresponding CWMM class entries updated with elligible value. To view CWMM entries, Click RMB (Right Mouse Button) on the audio file and check properties.

For fast « Genre » selection, enter first genre character e.g. **R** and repeat the operation until the correct genre is listed e.g. **Rock**

VIDEO conversion

Switch to video mode, click on « View » « Video » (to return to audio, click on « View » « Audio » useful to select audio stream)

Video Menu

An additonal set of parameters appears for video processing. The [**Advanced**] button is now usable for additonnal video options
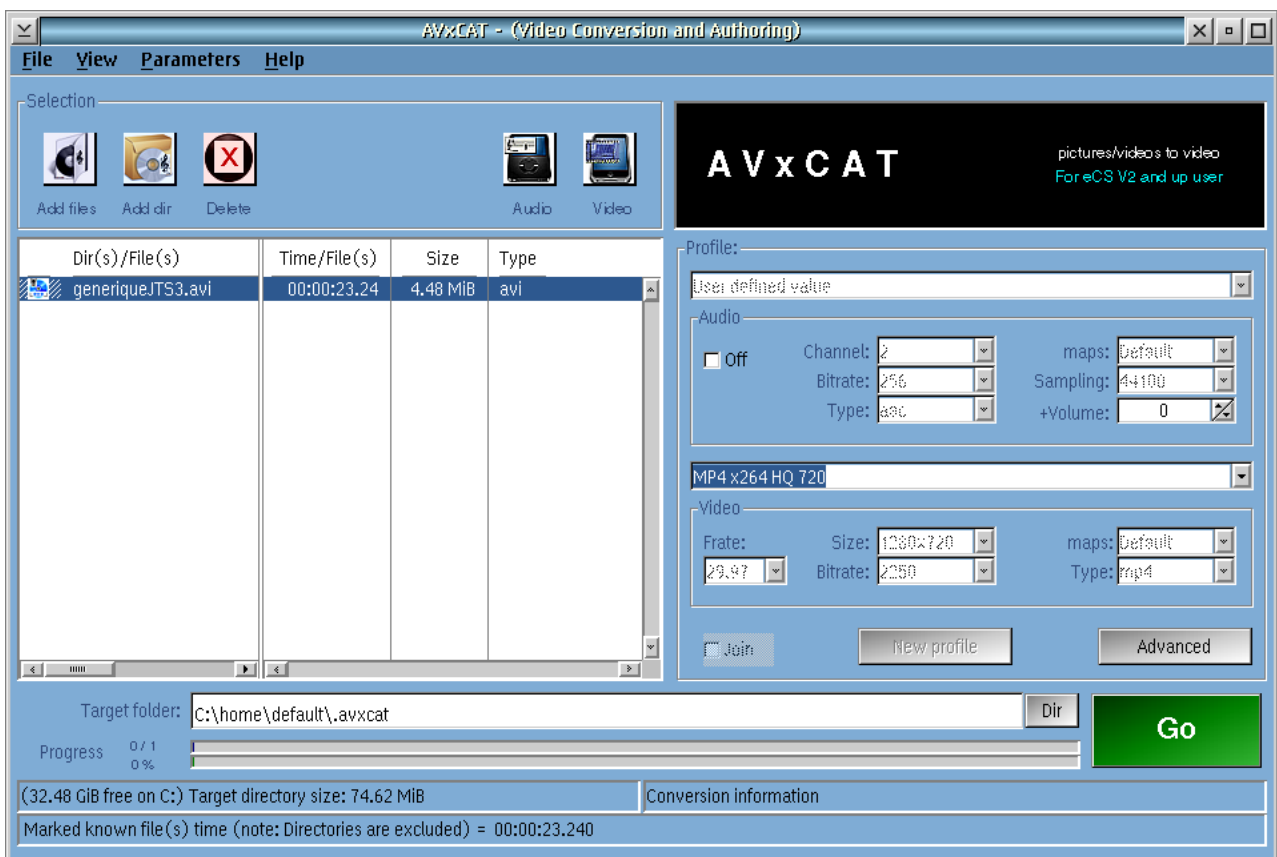
Of course, video profile selection allow user video profile like audio profile does, following the same rules except that video profiles contrôles both audio and video options.

Well, select you video profile and if you would like change one of its value, select user profile and do needed changes. Options from previous profile are keept under user profile until you change them.

Video Advanced options (video output size is reset to « default »:

(The advanced button is enabled if one file is selected)

Format (group)

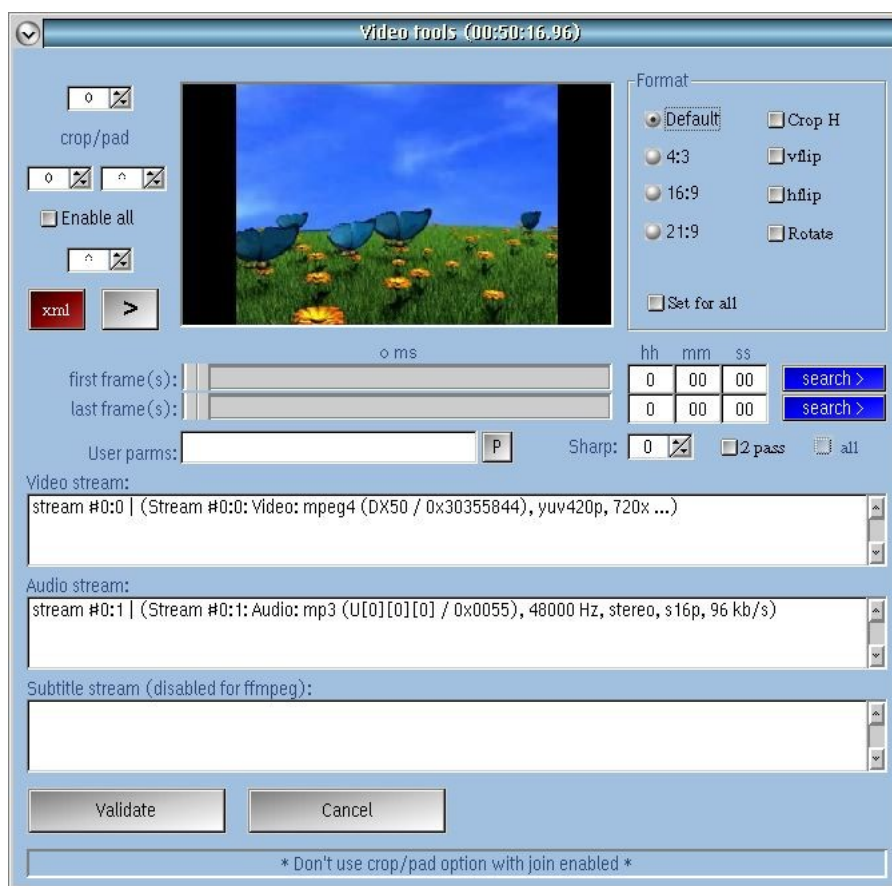Select the video aspect to use which can be 4:3, 16:9 or 2.35 (cinema). « Default » disables aspect and size ratio. Since ffmpeg v2, the size is adjusted according original video width. Once you changed setting under advances option and would like a larger or smaller size, switch the video profile to « user profile », it will preserve all setting but allow you to change output size. If you select 640x480 and have already set 16:9 under advanced option, the new size will be forced to 16:9 as 640x360 (the high is adjusted to the width for any selection)

The source video aspect, if found, is indicated with an '*' at the right the corresponding video aspect (previous picure has 4:3 as source aspect)
Source aspect 4:3 enables **[Crop high]** special option. This one used in conbination with 16:9 allow you to zoom 16:9 film into a 4:3 source file to a full 16:9 output file.

As for Audio file, the **[Set for all]** will force video aspect for any files into the list and force video aspect to default if no suitable format was found. The crop option is propagated and calculated for any files to respect the ratio used for the setting. e.g if the ratio from used video to set crop/pad = 1 and the next video file has a newratio = 1.25, the crop/pad is adjusted using following formul:
((crop or pad) / ratio) * newratio)%2 *2

The center image is taken by FFMPEG at the specified **[first frame]** (or **[Last frame]** if changed).

You can save the displaied image using RMB (Right Mouse Button) on the picture it self.

WARNING: Specify the to jump to and click on the blue button to refesh displaied image, this is very fast

For additional adjustment, you can use the CROP/PAD option on the left of the picture. The summ of both top/bottom or left/right must be an even number and this is why only one of them is enabled updating both side crop/pad value into one operation. Of course, you can [enable all] crop/pad button but you must be care to choice a valid number to respect video size rules.

Below the crop/pad options, you'll have a **[>]** button which allow you to play the video from specified time .

Button **[xml]** opens chapter/comment XML file editor. (see how to create video chaptering or subtitles)

Into **[User parms]**, you can add you specific options but be sure to not interfer with those set by AVxCAT. To have a look on set options, you can have a look into the FCAxxxxx.TMP under ..\var\temp\ folder. This file is generated during conversion process used as input parameter for ffmpeg.

Preset (enabled since v0.9.3) :

Some internal hard coded x264 preset exist and can be called using following user parameter pre-fixed with « pre264 » keyword (e.g. pre264 hq)
1. baseline (if the parameter after pre264 is unrecognized, this option is used as default)
2. hq
3. lossless-fast
4. lossless-medium
5. lossless-slow
6. lossless-slower
7. lossless-ultrafast
8. max
9. normal

Default used option without specifying a user parameter is AVxCAT own setting named « user1 »
Like you can find under video option, you can select video and/or subtitle stream to be included into final video file.

Use the **[P]** button to select and correctly add **(codec specific) preset** (prefixed by « -fpre » or you can specify external preset files adding the parm into the user field e.g. **-fpre C:/ffmpeg/share/ffmpeg/libx264-lossless_max.ffpreset**

You can use other presets options like -vpre which requires having set some definition e.g. -vpre fast

« Fiest, ffmpeg searches for file named arg.ffprest in the directories **%FFMPEG_DATADIR%** if set and **%HOME%\.ffmpeg** and the datadir defined at configuration time (usually **%prefix%\share\ffmpeg**) in that order. For example, if the arguments is **fast**, it will search for file **libx264-fast.ffpreset » -** Since v1.4.0, AVxCAT uses presets for libvpx avalable under \share folder of ffmpeg

More video options

[x] 2 pass Button which enable use of 2-pass processing for ffmpeg. Both steps are automatically processed wihout any other user action. This option is usable on any file from the input process list.

[x] All Button near « 2 pass » enables the « 2 pass » process on all files into the process list without any need to select and set 2 pass on each file.

[0] S: Option is very usefull to increase sharpness or blur in resulting video. Default ffmpeg value is 1.0 to which the specifed value divided by 10 is added e.g. S: set to 5 result into a ffmpeg setting of 1.5.

[vflip] or **[hflip]** will flip the video horizontally or vertically

[Rotate] will rotate the video +90° or -90° and with or without flip as well the possibility to force « portrait » mode

note: « 2 pass » may not be usable on some codec using mp4 conversion. For this raison, some known not working codec in « 2 pass » mode have this option disabled. This is normal and as expected

Join Video files
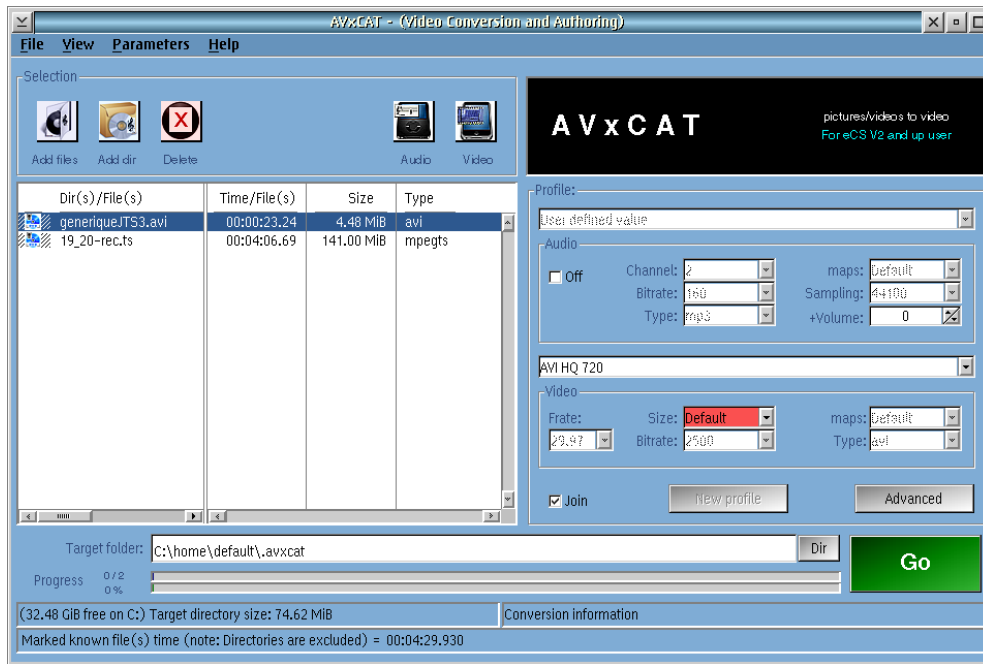
- ◦ Verifiy temporary path disk has enough free size
- ◦ Add video files into process list
- ◦ Use advanced option to cut part of selected video files if needed (*crop/pad not supported)
- ◦ Select « 2 pass » option if needed
- ◦ Select **AVI or MPEG** output video codec using defined profiles or not (only supported codec)
- ◦ Set [x] Join checkbox on
- ◦ Change « Size » from « Default » to a supported size (red background = unsupported)
- ◦ Clik on [GO] Button

Process will cut (if defined) input video file and convert it into selected codec temporary file. At end of single converted file, process starts a second step which appends all files and final step will convert to the specified codec output file using « sameq » quality option.

The resulting JOIN file always named « ~FFJOIN. XXX » with XXX = your selected coded file extension which is Avi or mpeg

Note 1: Crop/pad isn't supported because video can't be resize with this facility. It may work if all video files have the same video size and of course, default size is selected. Any other option may result into a final conversion fail.

Note 2: AVI and MPEG video codec are those codec given best join result. Of course, VOB is an other good candidate codec for join function but less used and not as easy to handle. Other video codec may fail or give unpredictable result.

Convert a non protected DVD film into a single VIDEO file

Use internal filemanager and DVD tree. Go into VIDEO_TS and select the film corresponding *.IFO file. Generaly, it is the one having the most .VOB files. e.g. **VTS_01_**0.IFO has attached **VTS_01_**.VOB
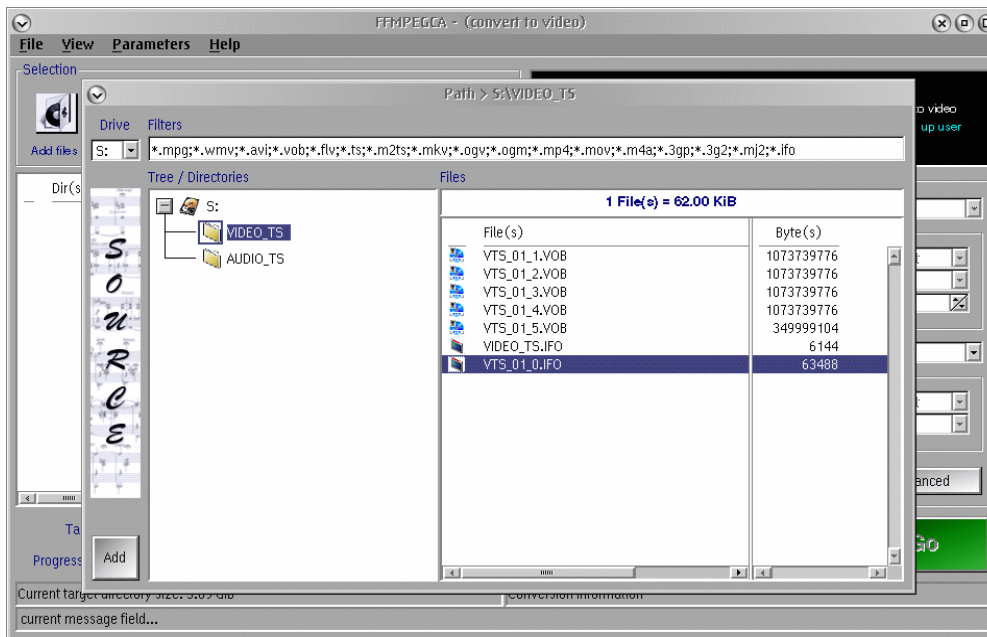
AVxCAT adds IFO with full film time/size into the file list with a special « VOB » type codec to inform you that the calculated values are from all corresponding VOB files.
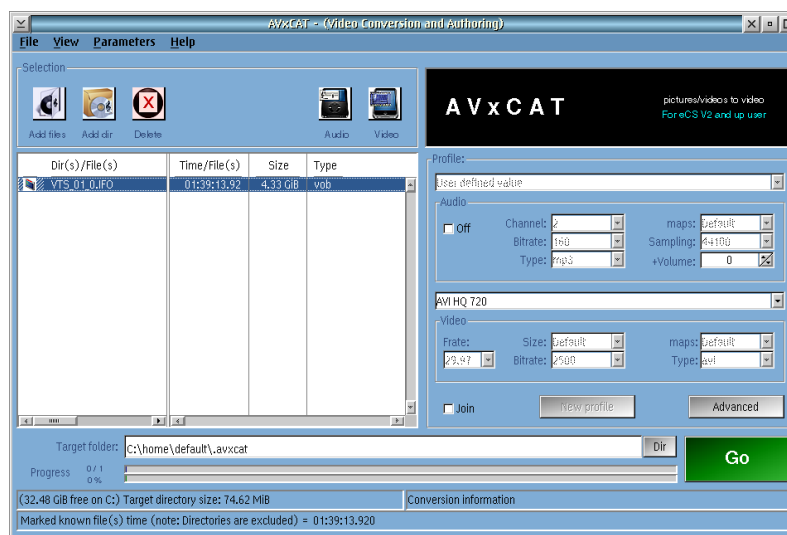

Of course you can use [Advanced] option which display first VOB info only for audio selection and start of video as well as video format to use.

If temporay path disk space is not enough (e.g. RAMFS used), you can set a specific temp path on popup of following command: **AVxCAT.EXE --vobtemp** (specify the path as <u>DEFVOB tu reset to the default program temp path</u>). Be carefull to use « -- » in front of vobtemp

At run time, first process may take several time (estimation given) to complet before FFMPEG processes the file and progression is then shown.

Extract pictures from the video file

- Select the video file from the added files into the process list.

- Set the **Frate used to extract images** (e.g. 1 = 1 per second or 25 = 25 per second)

- Click on advanced option

- Set the start time if needed

- Click RMB (Right Mouse Button) on the displaied thumbnail which opens a popup menu

- Select **« Extract image(s) at Frate »** and you'll get **10 images (default) from the video** file

- To change the default number of extracted images, add **« -vframes x »** into the user params field *(x must be a numerical value e.g. 100 to extract 100 images)* or use **First frame(s) time** with **last frame(s) time** value. Images are then extracted using Frate starting at first frame(s) time up to last frame(s) time.
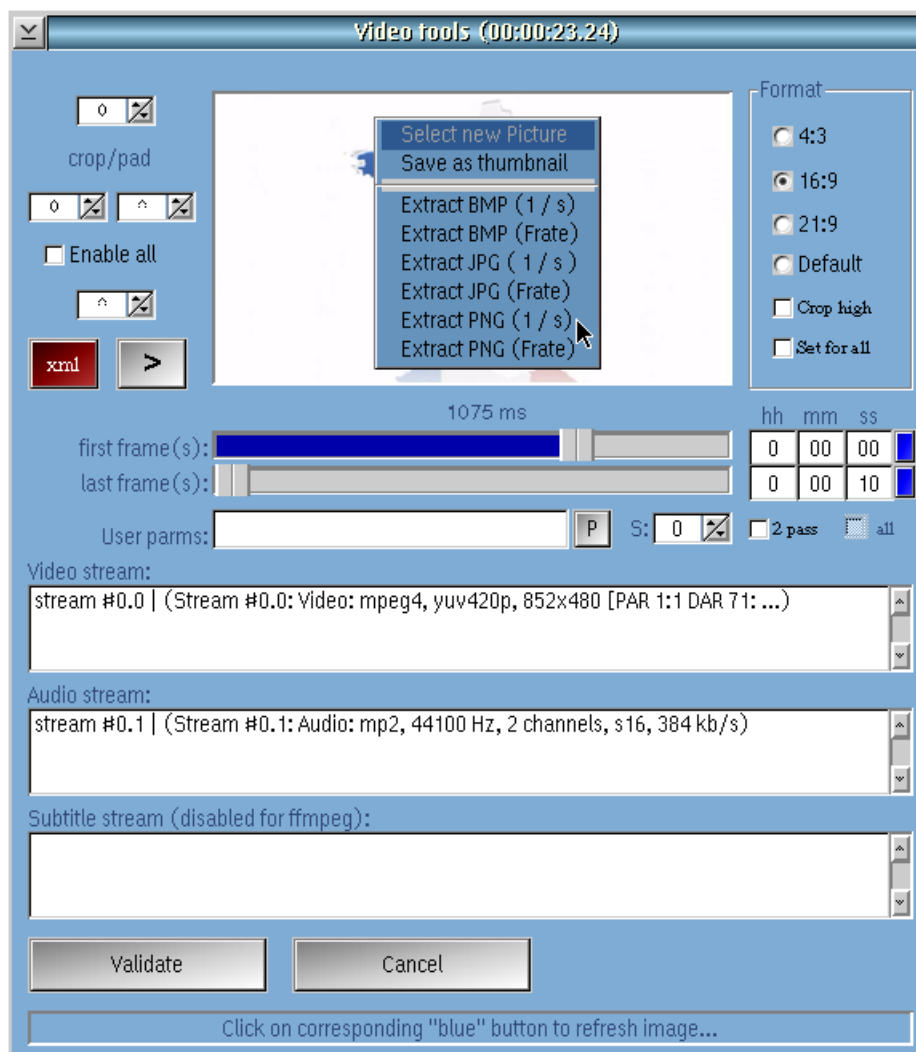
Click and selected image files type and frate. Than, select destination path and you'll get all extracted images. During the extraction, the dialog is disabled and a message is displaied and tells you to « ...Wait... »

Create SLIDESHOW / ANIMATION

Always use an audio file. This one can be you recorded audio file or a « dummy » audio file which consist of a real audio file with lowest volume level (e.g. Convert an audio with volume set at -256). Cut the audio file to the required play time due this one is used to end your diaporama or animation.

Initial step

Proceed as for <u>audio conversion</u> and select audio file(s)
Then, <u>switch to video view</u> , select the video profile to use and click on **[Advanced]**. For some profile, some setting coulb be forced for better output result. Default AVxCAT bitmap is used as picture or use your scaled bmp iamge (e.g 320x240)   .

To change it and use other FFMPEG image file (*.bmp, *.jpg, *.gif, *.png..) click RMB (Right Mouse Button) and select a new picture. Add extra parameters if needed (<u>Default format strongly suggested</u>) and save the setting. Select the video profile to use and that's all (some setting are forced to get better result)
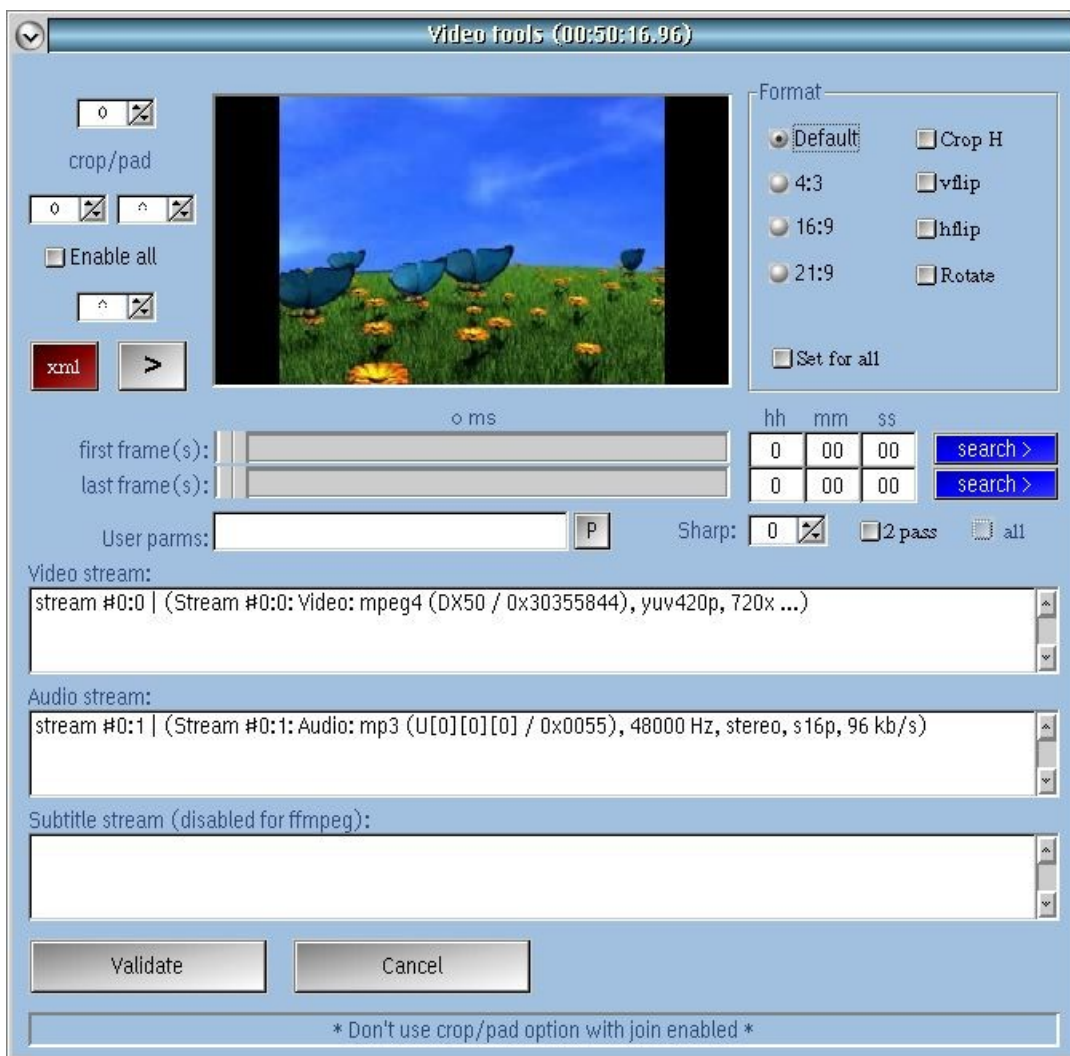
Create a slideshow « diaporama »

**Always select an audio file first (this one can be a mute audio file)**
Select video « FLV flash *slideshow* » profile

A/ create you pictures in a suitable image format (bmp is nice) with the same size **(even value only)** for each picture. e.g. 480X360. Use an incremental numerical ordered naming convention. e.g. IMG001.BMP, IMG002.BMP etc... If you do a numbering on 3 characters, use always the same rule for any new picture. Add as many picture as needed according Frate (display time) set before building the diaporama.

B/ Proceed like « create a video from an Audio » until you open the advanced option.
Under **[Advanced]** option, click on RMB and select a new picture. Select one the the newly created picture (e.g. IMG001.BMP). This one is then displaied in place of the default picture and because the name end with a number « 001 », process turns AVxCAT mode into DIAPORAMA mode (see title). Into this mode, the picture is renamed as IMG%3d.BMP using full range.
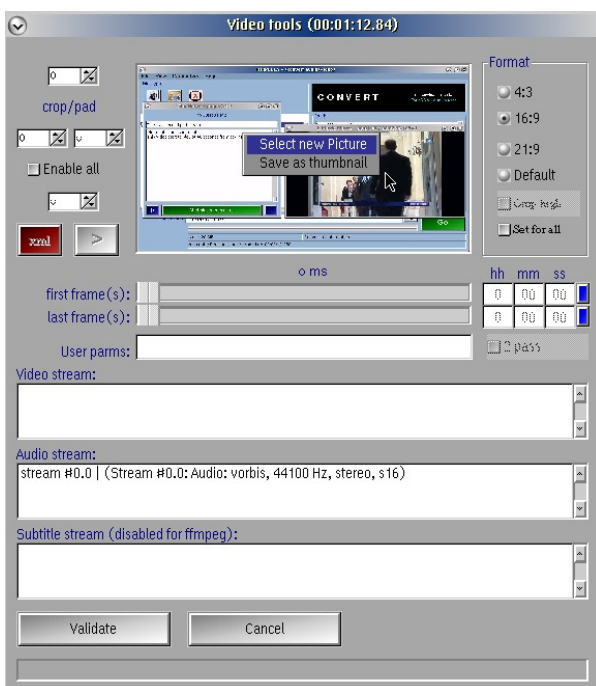
Review other parameters like « format » to get a corect rendering as you can see on this picture, Diaporama mode may auto-enable default flash diaporama profile.

To change the video type from flv to mpeg, select user profile but **DON'T CHANGE and use Default for maps, size and sameq for bitrate**. Only change Frate if needed which is the number of frames per second. Selecting .333 is same as display picture 3s (0.25=4s...)

WARNINGS:
Video type MP4 with x264 for diaporama gives wrong duration (ffmpeg bug). To bypass this problem, use video type mpg and then, convert the resulting video file from mpg to mp4 (x264).

Video type AVI os/2 player compatible has a limited resolution of 480x360. Use this option on video using correct size or select this option and switch to user profile and change the size only.

**A diaporama with no sound uses a « mute » audio file with the expected duration.**

Create an animation

Proceed like for diaporama but change the Frate « frame rate » to the correct number. If you created 25 images for 1 seconds, set Frate to 25.00 (this produces a smooth video)

Add chapters to an existing video (With KMP or VLC player)

Create chapters (XML file and optional subtitles and/or html)

Select the video to be chaptered, open video [**Advanced**] options and click on [**xml**]. Following window appears :
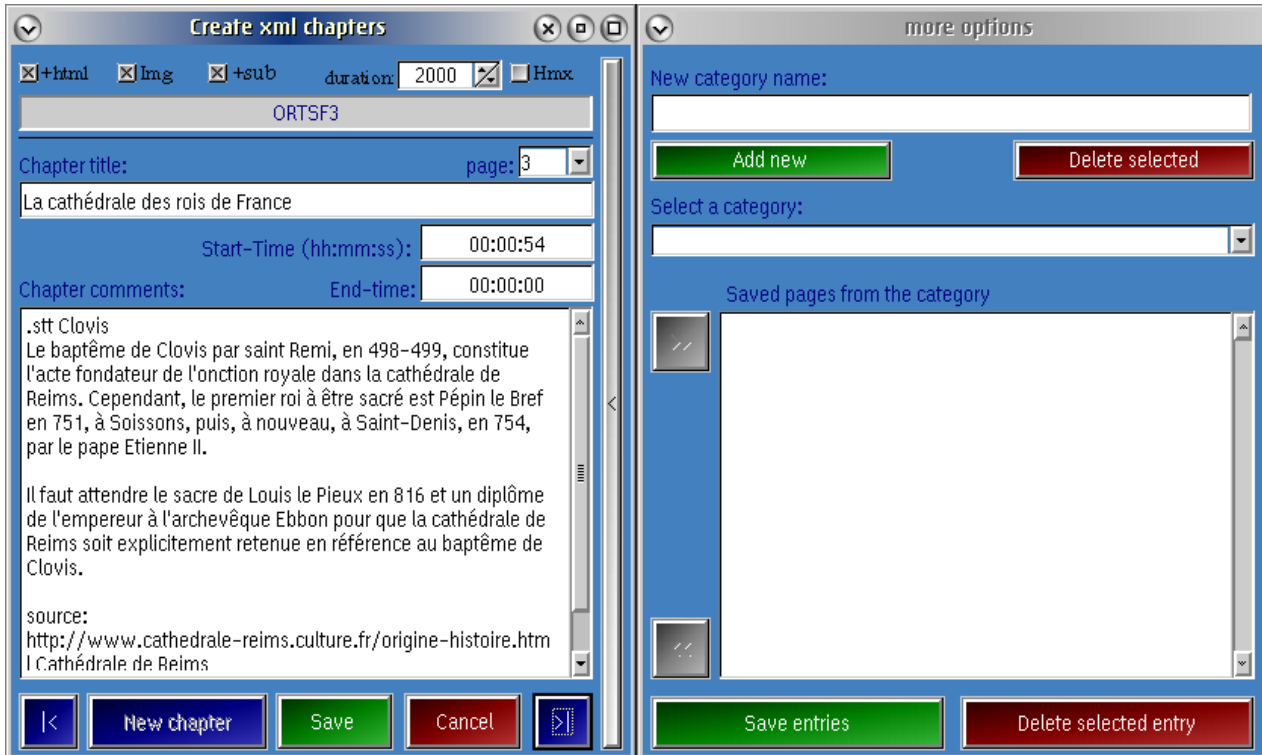
The chapter xml file is always created and you can add an html and/or subtitle files (SRT or SSA or SUB) Required fields:

- Chapter title (or omit chapter title to create subtitle only)
- Start-Time (respect the format 00:00:00 or 00:00:00.000 for srt,saa,sub only), End-time for play
- First paragraph is used to create subtitle except if you specify:
    1. « .stt » with no comments disables subtitle for this chapter
    2. « .stt » lines with comments are used instead of first chapter if added into the comment field

Any added « .stt » are not displaied into the chapter reader nor added into html conversion.
Of course, adding comments is welcome as a short chapter description

To syncronize the time with the video, start the video using [>] button on [advanced] option window.
You'll probably see that as soon the xml generator gets focus, the video is no more visible !
Click on **[x] hmx** checkbox to hide unwanted AVxCAT window which makes KMP appear.

In top of KMP window title, current video time is displaied

[New chapter] - Add a new chapter timestamp for the current video
[|<]   - Navigate backward into chapter
[>|]   - Navigate forward into chapter
[save]   - Create all selected files
[Cancel]   - No change
[x] +html   - Generate html file too
[x] img   - Enabled with html and adds thumbnail into generated html
[x] +srt   - Generate a subtitle srt file using timestamp + display duration in 1/1000 of second
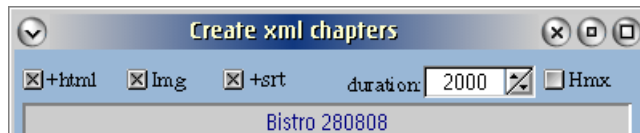
Here is an extract of HTML generated chapter file:

How to include a web link ?
Any single line (do not press enter key at end of line) starting with http:// is converted into a hyperlink
Following rules applies:
– No blank into web link
– After the web link and separated by a blank, you can add a comment which is then taken as the text to be displaied for the hyperlink instead of the http://... text (see example above under Source:)

How to include page jump or other video start sequence into a same chapter
Add a single line into the comments with following starting characters :
@page x   (x = page number / chapter number)
@video 00:00:00   (time MUST be specified as hh:mm:ss rounded to seconds)

or

@page your comment x (x= page number always placed as last charater on the line (@page can be @page:)
@video your comment 00:00:00: (some comment as for page. Time must be at last position into the line)

All files are saved under the same path as selected video. With [x] img checked, images are generated under a subfolder into source path.

Note: generating all thumbnails for the html page may need some time to end. FFMPEG needs to seek to each timestamp location.
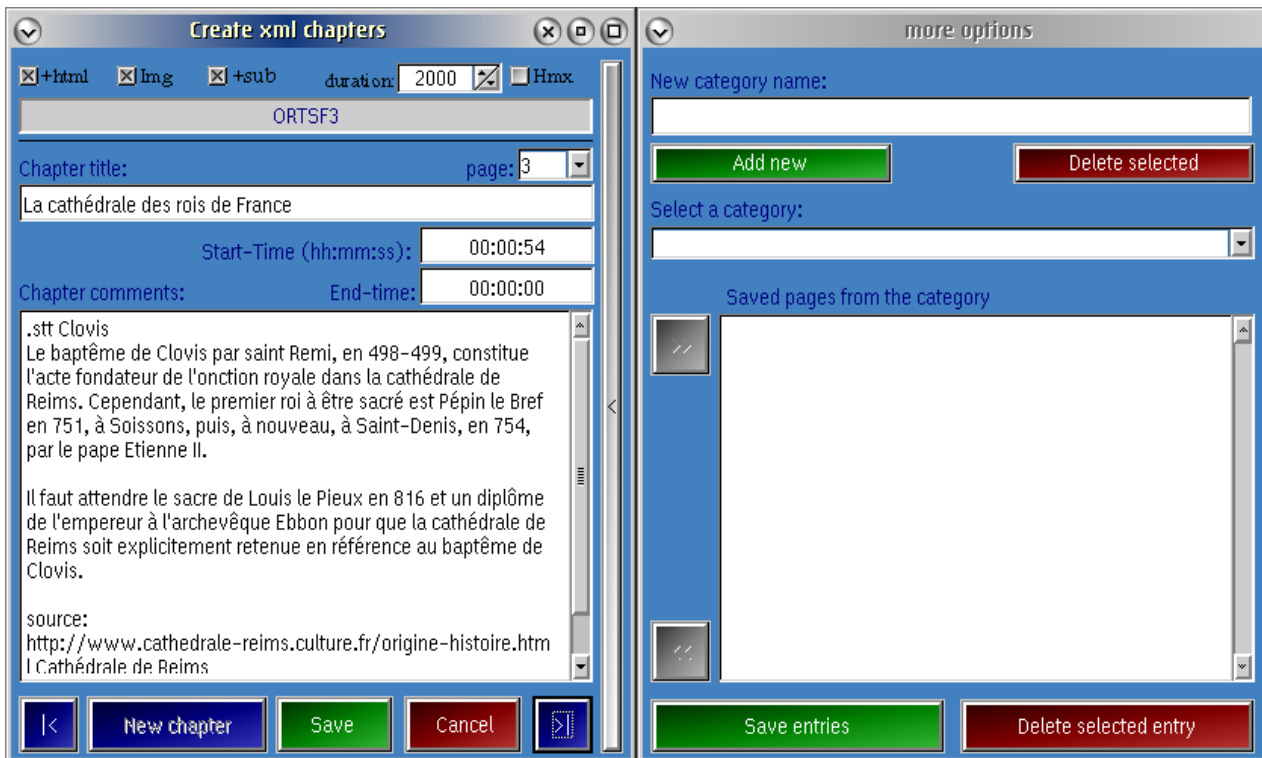
How to play the video using created chapter file ?

See next page...

Create video chapter from saved categories

Create categories

Open any chaptered video and expand right Chapter creation window to open « more options »

Add a new category name (e.g. Holidays) and click on [**Add new**]. The category will be added into the category list. Select a chapter you would like use as part of a category and click on [>>]to add current chapter contain and video file name into a category entry. Redo the operation with any chapter from any video elligible to this category. To save the added entries to a category, don't forget to click on [Save entries]

Create a specific video for the category

To create a specific « category video » using all or part of the category entries, Create a copy from model.flv and give it the same name as the category. Go to create chapter and expand the right window. Select a video category and then select an entry. Click [<<] to create the current chapter (page) using selected category entry. Add a new chapter and repeat the operation. Select [**x**] html and [**x**] img

Create a html file for the category

which enables a [**x**] html in category checkbox under « more options ». Select this checkbox and at end of all added chapters, click on Save which adds a « category.html » copy under category directory. Next time you select this category under « more options », a [**show**] button is made available to display the corresponding category html result. This is usefull to review each category entries.

Note: See start parameters about how to change html fonts.
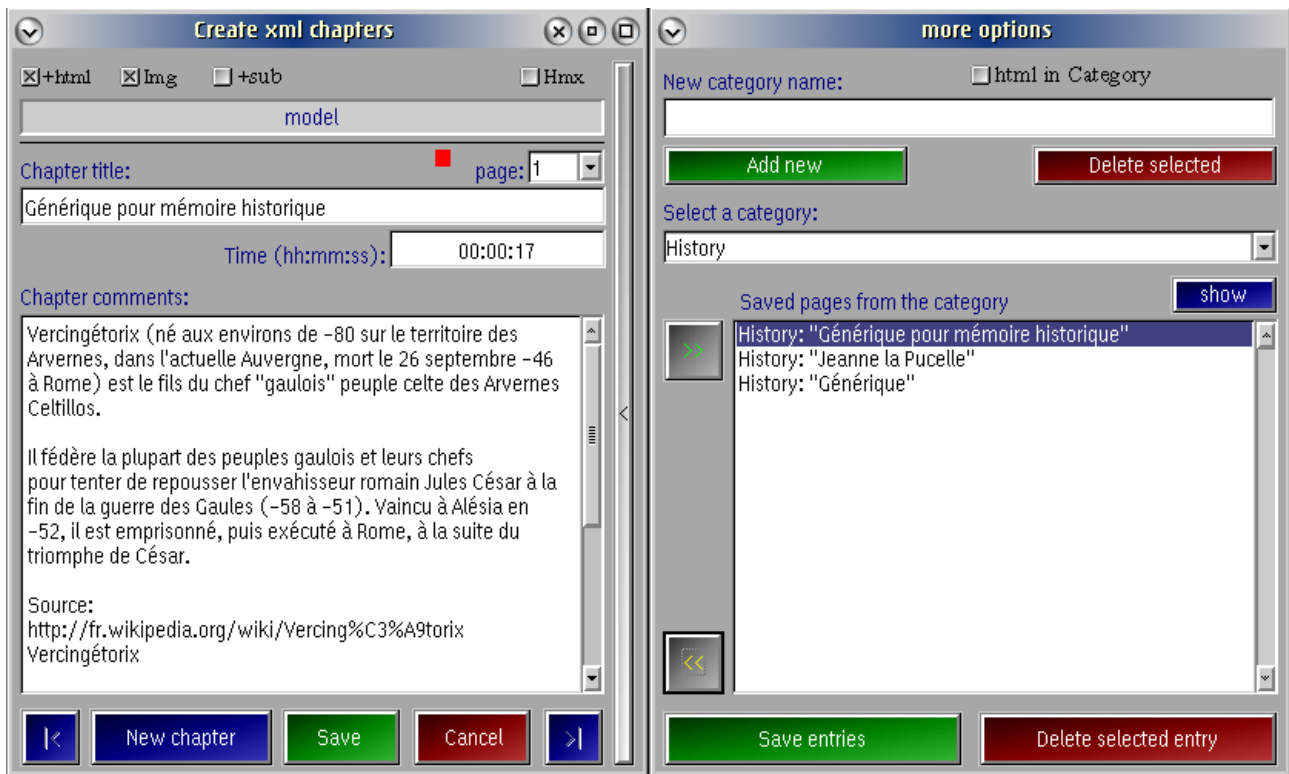
Of course, you can create a video using mixed entries of different categories. Just change the category and select the entry to be added into the project video.

When scare **red light** is on, selected chapter is an imported category

When scare **green light** is on, current chapter is well exported as a new category entry.

Play video with chapters

Requirements

Use configured KMP player (KMP062 or up) or VLC player

Process

Add the video for which you created chapters if it isn't in AVxCAT main window process list.
It is suggested to read chapter « Play Video - DVD - Audio » too.
To play the video, select the video file from the list and click 2 times (or enter key or RMB « Play (Open) »)

As soon AVxCAT find an xml file under the same directory as the selected video file and with the same name, it displays a message telling you what to do « show the presentation » using found xml file or « play the video » - When show the presentation is choiced, following chapter window opens:
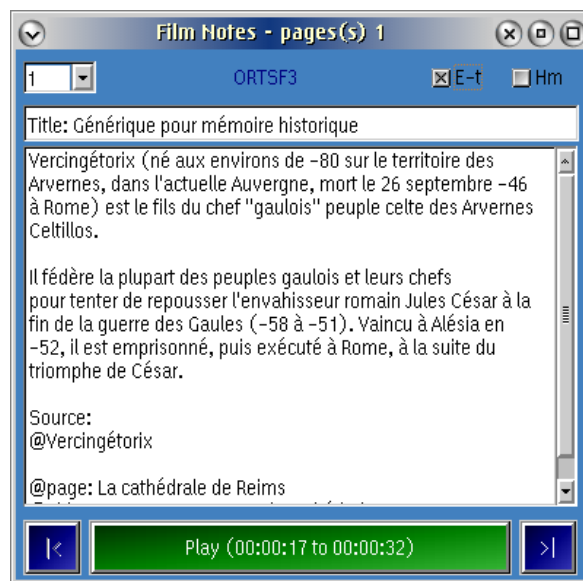
Use **[|<]** and **[>|]** to select chapter to **[play]**
Check **[x] Hm** (like under generator) to Hide main AVxCAT window.
Check **[x] E-t** (End-Time) to enable End of video play as specified during chapter creation

Any supported hyperlink are displaied prefixed by '@'
e.g.
- @Vercingétorix (web hyperlink)
- @page:
- @video:

Chapter can be a part of current video or a link to an other video file according what you defined under chapter creation and imported entries from a category.

Note: The corresponding xml or html associated to a video can be deleted from under
RMB options from the container including the video file on main dialog. See left image

Play Video – DVD – Audio
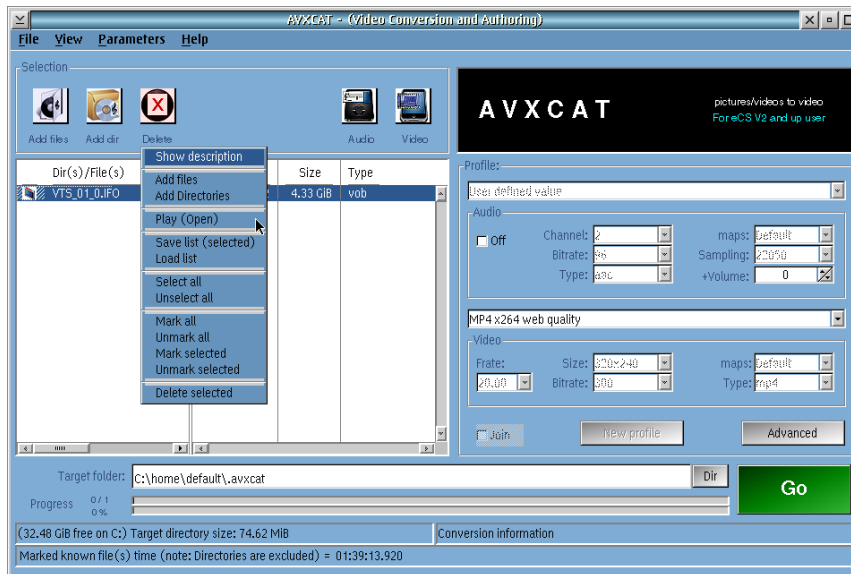
1. To play audio files, configure the required video player or audio player, add audio files into the process list and « mark» them. **Enter** or « **2 clic** » or Use « **Play (Open)** » from RMB popupmenu and play the selected entry of the list. The configured player will start.
2. To play video files, proceed as for audio files except if a chapter file created by AVxCAT exit for the selected file, chapter window opens instead of starting the player
3. To play a **DVD**, add the « **VIDEO_TS** » folder of the DVD into the list or you can select the *.IFO corresponding the film stream (this last option takes longer because it calculates the total time of all film files).

Save / Load lists (since v1.0.0)
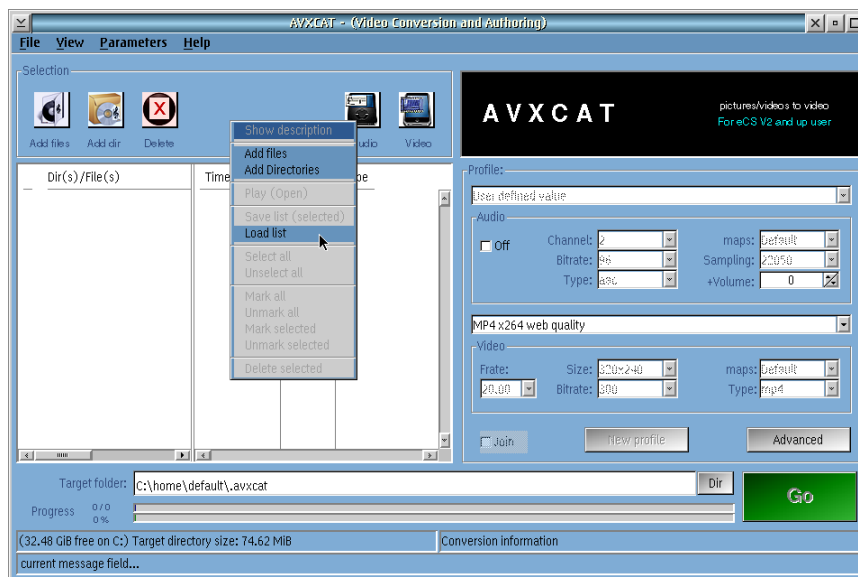
Since V1.0.0, you can load PM123 *.LST list into AVxCAT process list. To use this option, click on the RMB (Right Mouse Button) and select load. From the fileprompt window, select the *.LST to import.
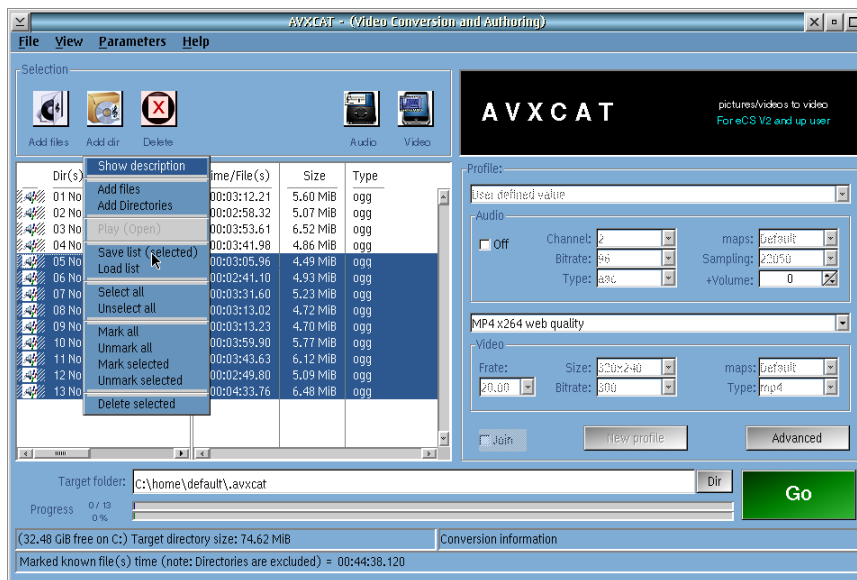
Like Load option, you can save your selected entries from the current process list into a *.LST file usable by PM123 (audio list only). Click on RMB and select « Save list (selected) » option. A fileprompt window opens, go into your list directory and specify the list filename replacing *.LST and click [ok]

Special parameters (use only one at a time)

- **- -vobtemp**   (popup input field will open at AVxCAT start)
  Specify a new path for DVD rip or other specific conversion. Set path to <u>DEFVOB to reset</u> to default
- **- -locald**   (saved in ini)
  Change internal filemanager to display local drives only (default)
- **- -usedd**   (saved in ini)
  Change internal filemanager to display all used drives
- **- -remoted**   (saved in ini)
  Change internal filemanager to display all remote drives only
- **- -amode**   (used for current run)
  Start AVxCAT in audio mode only (planned for futur use when called from external program)
- **- -vmode**   (used for current run)
  Start AVxCAT in video mode only (planned for futur use when called from external program)
- **- -async x**   (used to change default « 3 » ffmpeg video async parameter. Numeric value should be between 1 and 10 (e.g. Audio syncro is performed every 3 seconds – this gives nice syncro)
- **- -jsync x**   (used to change default video join stream mapping syncro. Use 0 for default, 1 for video stream synchronized to audio (if exist) and 2 for audio synchronized to video (if exist)
- **- -mxplayerb**
  All player be started as /MAX and /F thread
- **- -resethm**
  reset permanent disabled player help window
- **- -htmlz 4 4 3 4** (Change font size into html generated file for Title, Chapter, Time, Comments, Title .. valid number range: 1 to 5)
- **- -paranoia x**   (enable -paranoia option on cdda2wav which may give better result. Set x to 0 or 1)
- **- -deemphasize x**   (enable cdda2wav deemphasize option, usefull on very old Cds. Set x to 0 or 1 (0=off or 1=on))
- **- -ffdebug**   (converts generated ffmpeg command file into a line command executable batch file for debugging – requires copy_metadata as input parms or add a copy_metadata=" line as line 2)
- **- -aacgain x options**   (enable mp3gain on aac audio files. To enable « x=1 » aac support, a new mp3gain out of aacgain is needed and expected in the futur). With x=0 (mp3) support only, you can specify new mp3gain parameters, add them as « options » . **e.g. - -accgain 0 -r -k**

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