

a basic guide to video conversion using SUPER

This is a basic guide to video conversion using the freeware video conversion tool SUPER, from eRightSoft. SUPER is a graphic front end to several free, powerful, but command-line only encoders. It makes the job of converting video from one format to another simple and relatively fast.

This guide takes you through the basic of using SUPER to convert video from any format (camera phone, digital still camera, downloads etc) to the Windows Media Video format for editing in Windows Movie Maker, however the steps detailed here can also be used to convert to any other format that SUPER supports, including iPod and 3gp phone formats.

the basics

The screenshot shows the SUPER v2006.build.19 (04.26.2006) by eRightSoft interface. The window title is "SUPER © v2006.build.19 (04.26.2006) by eRightSoft (Right-Click for Menu)".

Encoder Settings: This section includes three dropdown menus for "1. Select the Output Container" (set to avi), "2. Select the Output Video Codec" (set to H.264/AVC), and "3. Select the Output Audio Codec" (set to mp3). Below these are radio buttons for "You may select mencoder OR ffmpeg" (mencoder is selected) and "ffmpeg2theora" / "producer". There is also a "Use Direct Show" checkbox.

Video Settings: This section is labeled "VIDEO" on the left. It contains several sub-sections: "Video Scale Size" with a grid of options (320x240 to 640x368, with NoChange selected); "Aspect" with a grid of options (1:1 to 16:9, with 16:9 selected); "Frame/Sec" with two columns of options (11.988 to 30, with 25 selected); "Bitrate kbps" with a dropdown set to 1008; and "Options" with checkboxes for "Hi Quality", "Stretch It", "3gp/3g2 V3", "H264 Profile", "Crop / Pad", and "Other Opts".

Audio Settings: This section is labeled "AUDIO" on the left. It includes a "Disable Audio" checkbox, "Sampling Freq" (22050 selected, 44100, 24000, 48000), "Channels" (1, 2), "Bitrate kbps" (96), and "DVD Language Select AudioStream Track #" (default).

File Load Area: Below the settings is a text area with the prompt "DROP A VALID MULTIMEDIA FILE HERE - Will try to play or encode". Below that, it shows the current configuration: "Encode to File Format: AVI", "Use Video Codec: H.264/AVC, Maintain input's scale size & aspect ratio, 1008 kbps, 25 fps", and "Use Audio Codec: mp3, Stereo, 96 kbps, 22050 KHz, AudioStream [default] is selected".

Basic Controls: At the bottom, there is a table with columns "Active", "FileName", "Streaming Link", and "Output Status". Below the table are buttons for "Encode (Active Job-List Files)", "Play (Active Job-List Files | Streams)", "Player Options", "An ERROR has occurred. Click to read more.", "Play The Last Rendered File", and "Cancel All".

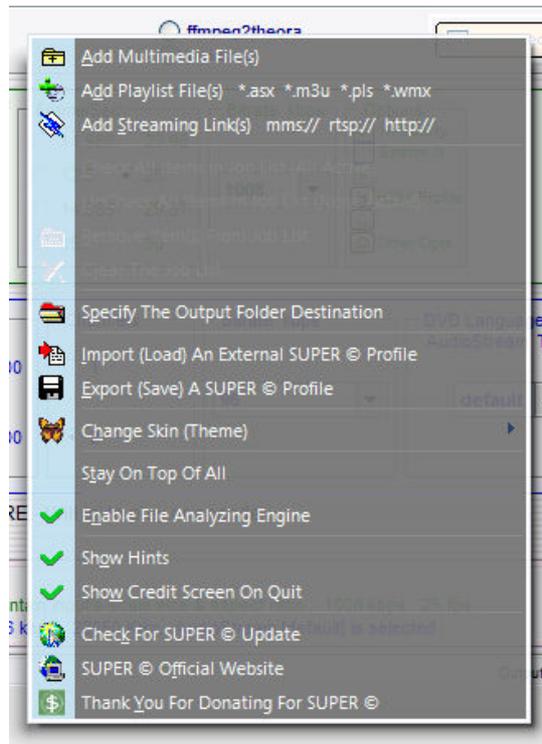
This is the SUPER screen. Everything you need is either here, or on the menu that pops up when you click the right mouse button. The sections are laid out logically, and the contents of each section change depending on the type of video or audio you are converting to.

The following sections will briefly go through each area of the screen, before taking you step by step through a conversion.

the right-click menu

The right-click menu is where some of the basic preferences for SUPER can be set, and an alternate method for loading files can be found.

Right-click the mouse anywhere on the SUPER screen, and you will be presented with this;

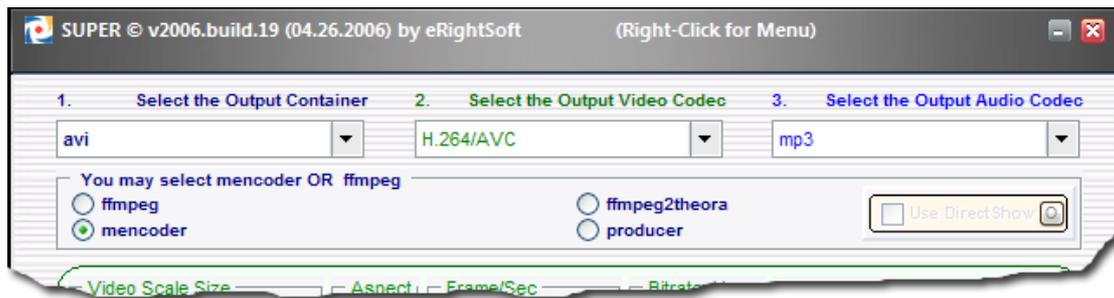


From this menu you can

- **Add Multimedia Files** : Add files to be converted by browsing your local or network disk drives
- **Add Playlist Files** : Convert lists of files using playlists from Winamp and WMP
- **Add Streaming Links** : Convert directly from streaming media locations
- **Specify The Output Folder Destination** : sets the folder for converted files. Make sure you click Save Changes to make this permanent
- **Import and Export SUPER Profiles**
- **Change the SUPER Skin**
- **Turn basic settings on and off (Analysis Engine, Tool Tips etc)**
- **Go to the SUPER website**
- **Check for updates**
- **Donate to the author¹**

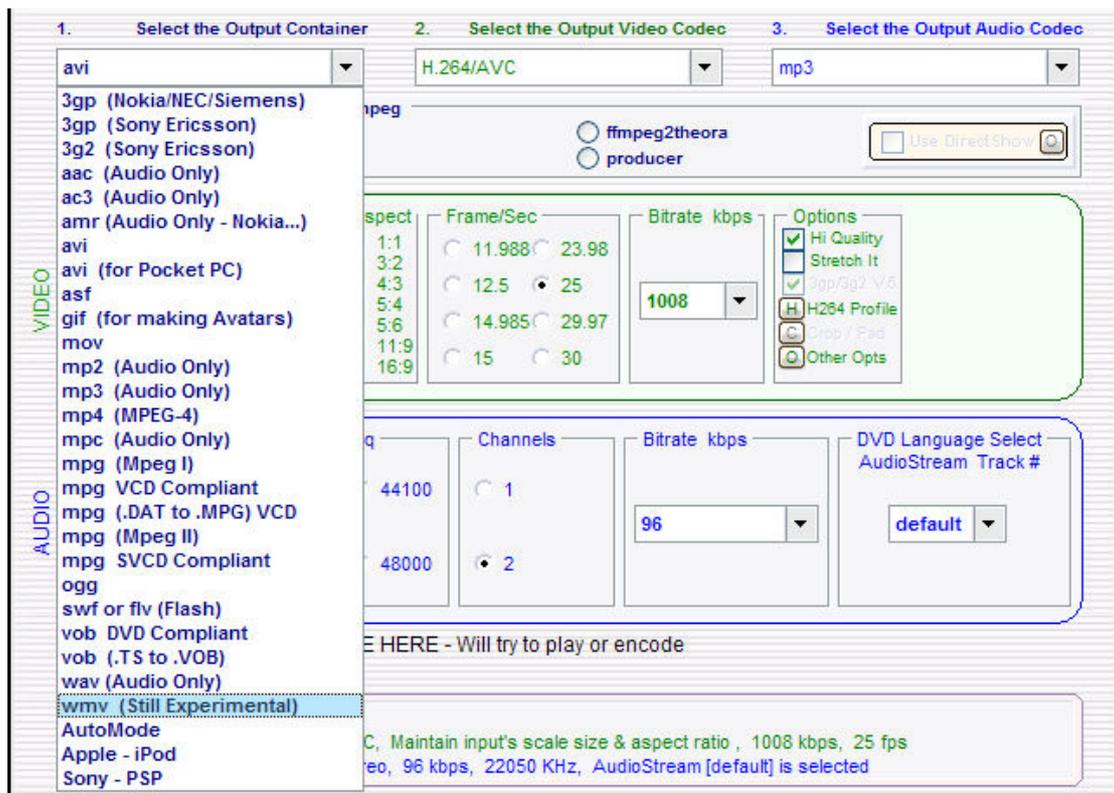
¹ SUPER is freeware, which means that there is no licensing charge for it's use. Payment is optional, hence the option to donate to the author. Whether or not you choose to do this is up to you.

encoder settings



Digital video is stored in a container, or file. The video and audio data are compressed within that file using a codec (Compressor DeCompressor). Different containers allow for different codecs to be used. SUPER knows which codecs you can use in which containers, and will guide you by changing the content of the drop down lists accordingly.

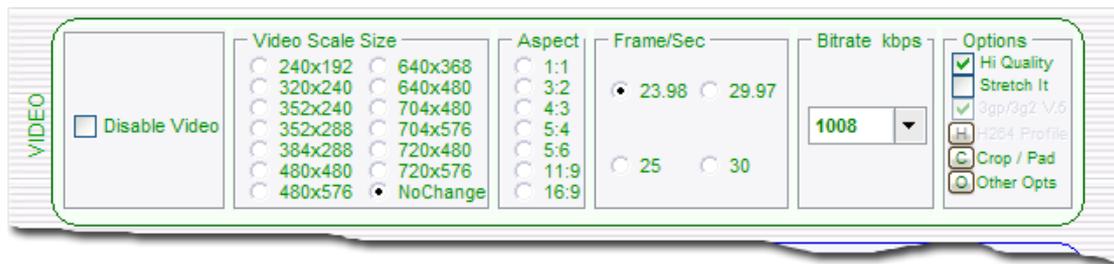
The output container determines the type of file to be created, and may affect the type of player that your computer uses to playback the converted file.



As you can see from the image above, SUPER supports a lot of container types.

The video and audio codecs will be determined by the container type selected. Some containers, such as .avi, support many different types of video and audio codecs. Others, such as .wmv, support a much smaller range.

video settings



The video settings affect the frame size, pixel aspect ratio, framerate and bitrate that the video codec uses to encode the video. If these are set incorrectly, the converted video may be distorted, play too fast or too slow, or in a jerky manner, the quality may be very low, or the file size very large. You can use the built in video/audio analysis tool to help you determine what you need to set these to (more on that soon).

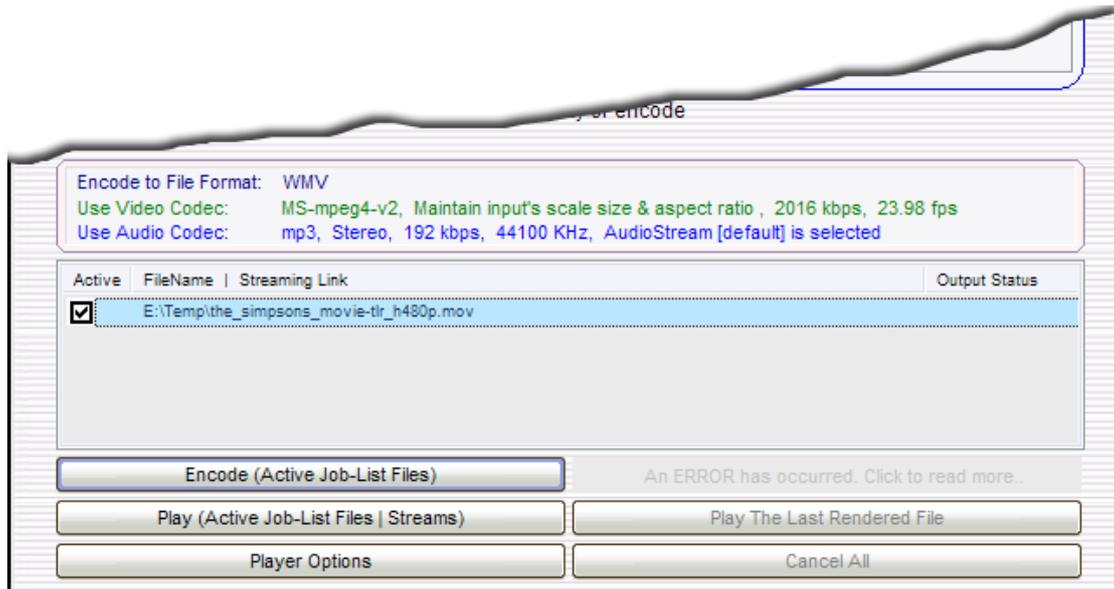
The contents of this section will vary depending on the video codec selected.

audio settings



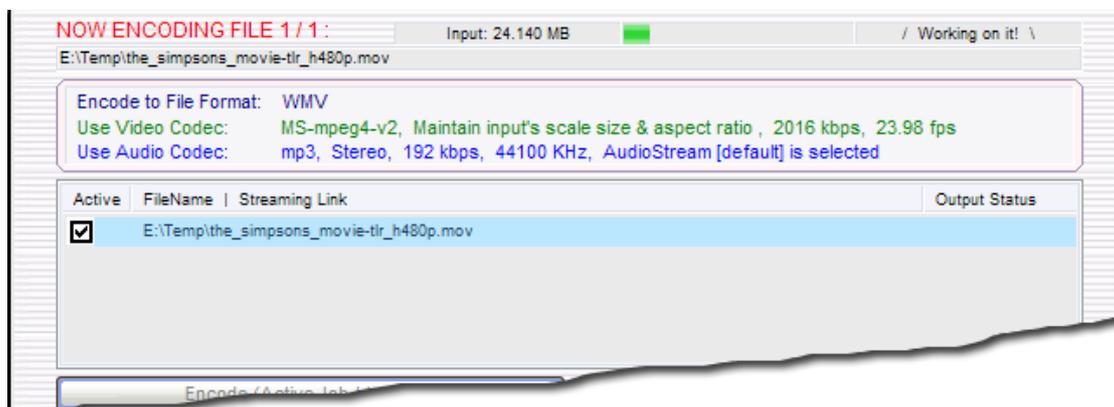
As with the video settings, the audio settings are important in ensuring that the sound you get in your converted file is of high enough quality. The contents of this section will vary depending on the audio codec selected.

file load and encoding



The final area of the SUPER screen is the file load and encoding area. You can load files for conversion I two ways. You can use the Add Multimedia Files option on the right-click menu, or you can simply drag and drop the files onto the panel shown in the image above.

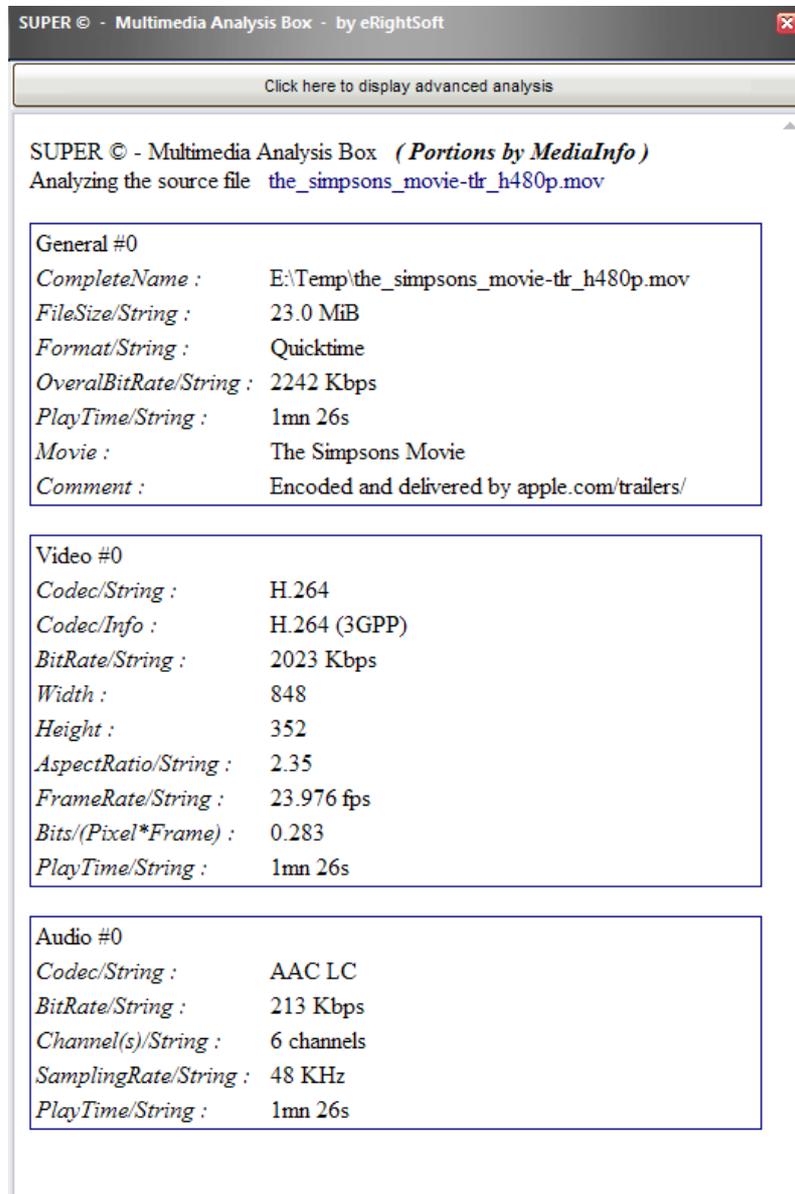
Once you have your files loaded and your settings configured, click on the Encode (Active Job-List Files) button to start the encoding process. Progress is displayed using a green progress bar, as in the image below.



Note : unlike other progress bars, the SUPER progress bar does not currently represent the file encoding progress from 0 to 100%. Depending on the length (running time) of the original file, and the amount of work required to encode it, the progress bar may go from to empty to full several times for a single file.

multimedia analysis tool

This is a handy tool to see what properties your source file has before setting up the encoder. After you have loaded your source file, double-click on it in the file load area, and the multimedia analysis tool window will open

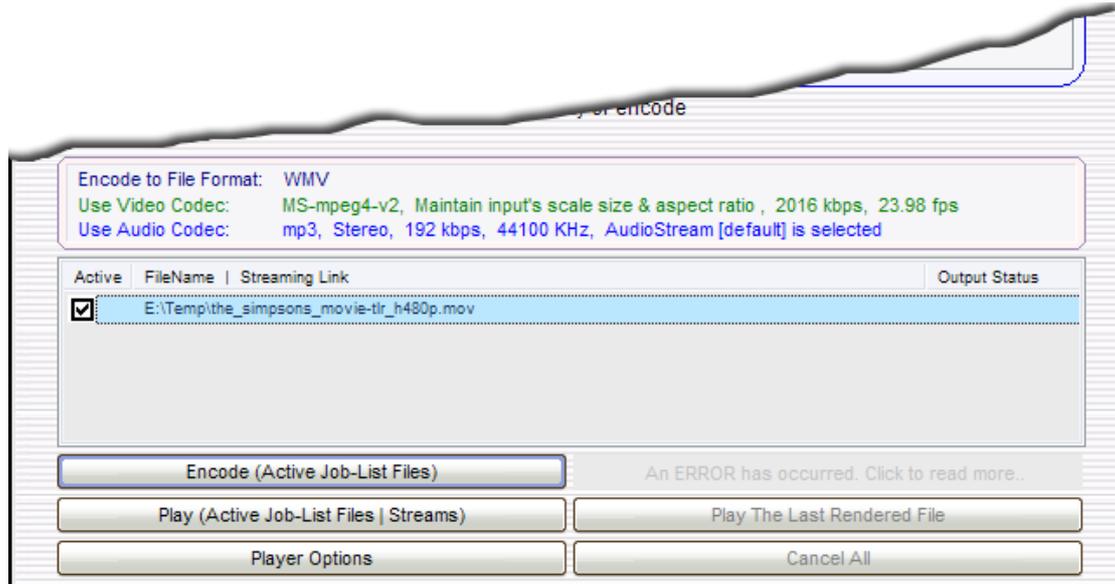


Use this tool to see details of the source file, including resolution, framerate, bitrate and codecs. This information becomes import when you set up the encoder details later, as the example will show. The image above shows the simple view. There is a detailed few, however the simple view generally shows enough information for our needs.

encoding to Windows Media Video

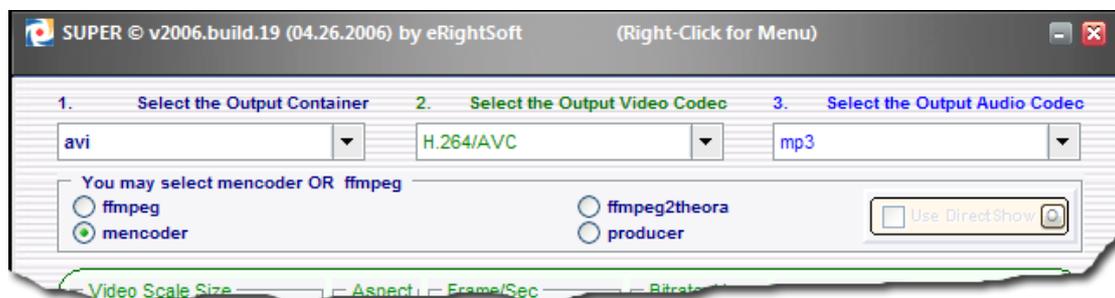
This section of the guide will take you through the steps of encoding a sample file (in the case a quicktime HD teaser trailer) to WMV format for editing in Windows Movie Maker. The same process can be followed to convert the various mobile phone and digital still camera formats (usually .3gp, .mov or .mp4) to WMV.

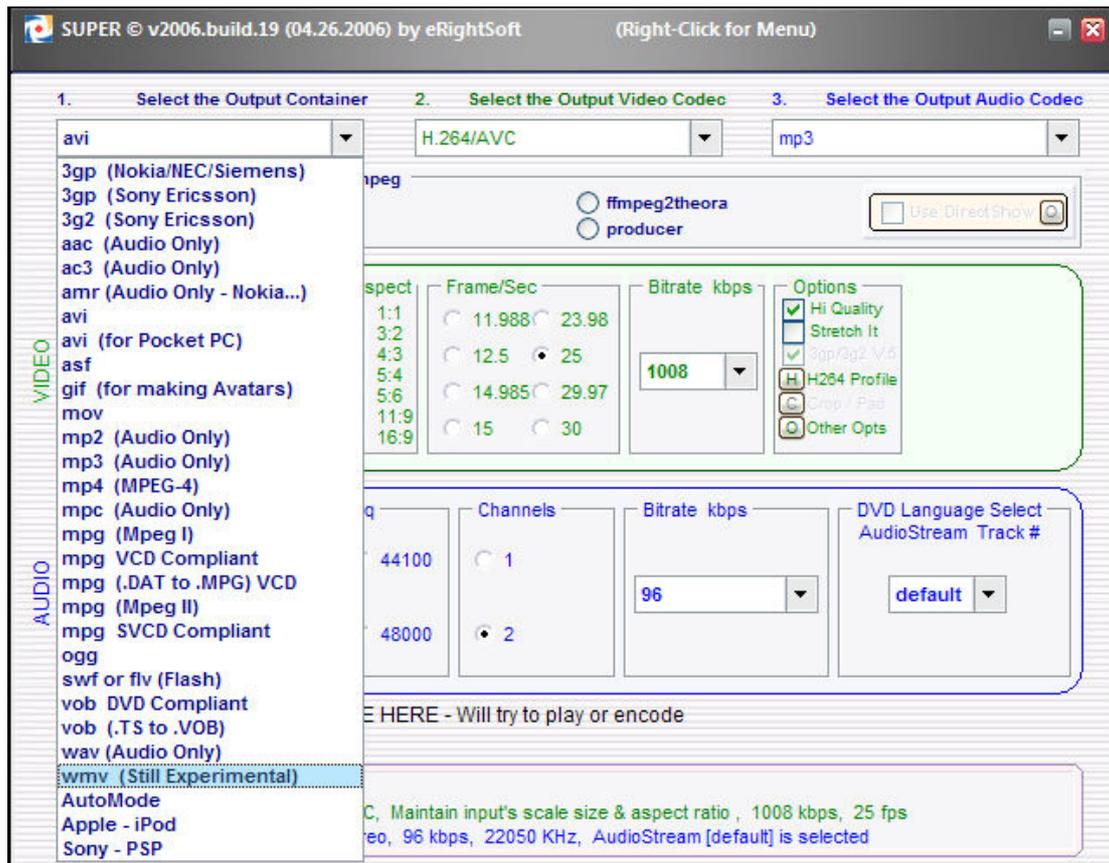
Step one, load the video by drag and drop from Windows Explorer, or by using the right-click menu and selecting Add Multimedia Files option.



Your file should be in the list, with a tick next to it, as in the image above. At this time, depending on the source video format, SUPER may chose to use a DirectShow filter for reading. While an explanation of DirectShow filters is outside the scope of this guide, if you do see a tick in the Use DirectShow box, leave it as-is.

Set the Container Type by selecting it from the drop down list

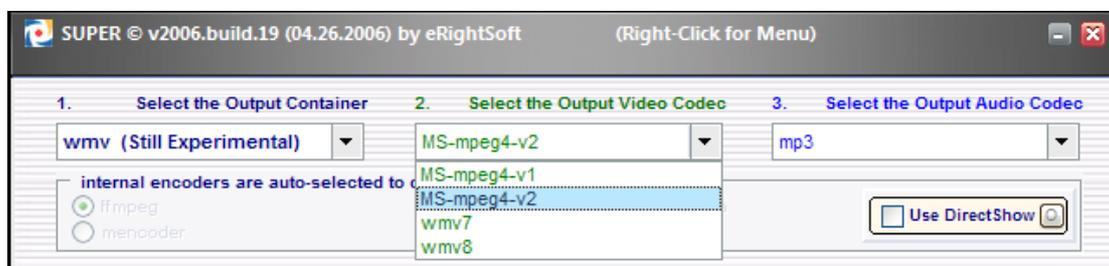




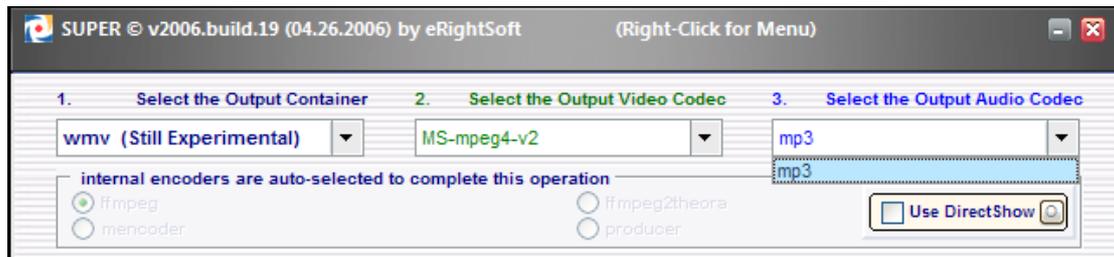
The container Type list contains most of the possible containers for digital video, showing just how versatile SUPER (or the encoders that it uses) is. From the drop down list, select WMV.

Note : SUPER currently refers to wmv support as being “still experimental”. If the standard codecs are used, SUPER will produce useful, compliant output.

Set the Video Codec by selecting it from the Output Video Codec drop down list. Note how the list has changed with the container type, and now only contains codecs valid for the WMV container type (note also that SUPER does not encode to WMV HD at this time)

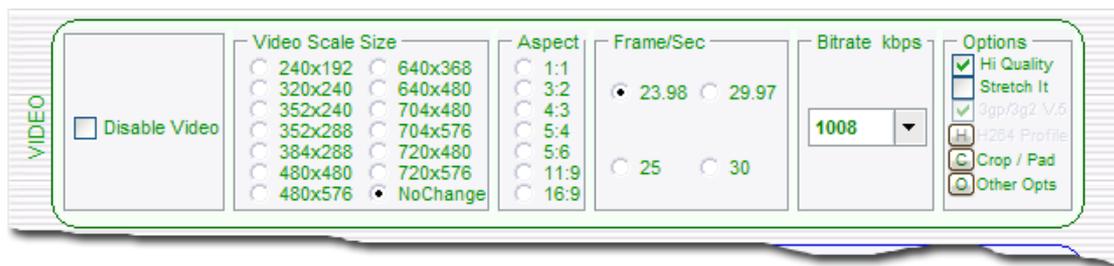


Set the Audio Codec by selecting it from the Output Audio Codec drop down list. In the case of WMV, SUPER only supports mp3 format audio.



Confirm the source details. At this time it is a good idea to check the source details using the analysis tool. Double click the source file name, and note down the framerate, resolution (width and height) and bitrate of the source video, and the sample rate and bitrate of the source audio.

Configure the video settings. As the output from this conversion is for editing in Windows Movie Maker, the output should be as close to the original as possible.



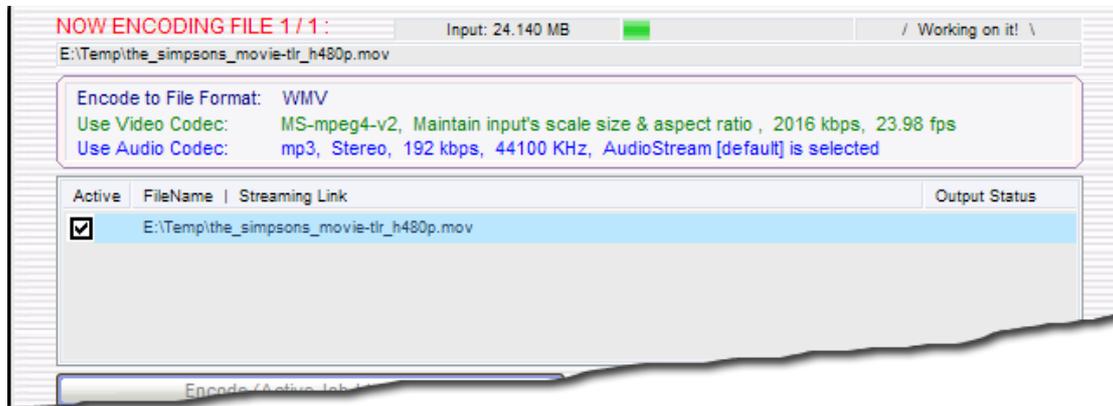
Set Video Scale Size to No Change, to preserve the resolution of the original. Aspect Ratio does not need to be set in this instance. Frame/Sec should be set to match the original frame rate. In this example that is 23.976 fps (SUPER represents this as 23.98). Set the bitrate approx. the same bitrate as the original for this example. The bitrate determines the size of the output video, and has a large impact on the visual quality of the video as well. The lower the bitrate, the lower quality. (**Note** : different codecs require different bitrates to produce the same quality. For example, most mpeg4 codecs (Xvid/Divx/x264) will produce similar quality to mpeg2 codecs, but use only half the bitrate of mpeg2 to do so. You may need to experiment a little to find what works best for each video you encode)

Configure the Audio Settings.



The example source has 6 channels of audio at a high bitrate. Basic WMV and Windows Movie Maker only supports 2 channels. The bitrate also does not need to be as high as the source. The DVD Language setting also has no meaning in this example.

Click on the Encode button and wait for SUPER to finish encoding.



SUPER is relatively fast, as encoders go, however if the file is a long file, or SUPER has to resize the image a lot, the encoding process may take some time.

finishing up

This is a simple guide, and introduces only the basic of SUPER, and walks you through one simple example. SUPER has many skills, including converting streaming media from it's source, processing avisynth scripts, and even producing DVD compliant video object files (although not authored, ready-to-burn DVD structures). While SUPER does not have traditional help files at this time, it does have extended tool tips. Hover the mouse pointer over the various fields and buttons, and text balloons will appear that often have extensive descriptions of the function it performs and sometimes tips and other useful information.

Finally, experiment. It is pretty much impossible to actually break anything by using SUPER. Encode some short clips using a variety of output containers and codecs, so you can get a feel for what settings are right for you.