

Manual MainConcept DV-Codec v2.4.4

Introduction

MainConcept Digital Video (DV) Codec v2.4.4 for Win32 v2.04 allows you to read as well as write digital video footage on your computer. The codec is optimized for MMX technology. It should be able to decode PAL as well as NTSC coded DV-AVIs.

This software contains a full-featured CODEC DLL (dynamic link library) for encoding and decoding of Digital Video (DV) coded AVIs.

Our DV-Codec supports the following frame sizes:

Frame sizes in pixels (for 4:3 and 16:9)

PAL 720x576, 25 fps (frames per second)

NTSC 720x480, 30/29.97 fps

Installation

To install the MainConcept DV-Codec v2.4.4 on your system, simply run the **DVCodec** exe-file, and follow the instructions on the screen. To unlock the codec you are requested to enter your personal serial number. If you do not enter a valid serial number, the demo version of the DV Codec will be installed, which adds a watermark to your videos.

The Settings Window

You can open the DV-Codec settings window in the **Control panel** under **Sounds and Multimedia** (under Windows 2000; it depends on the operating system you use where to find the necessary information and settings window. In the window that appears, activate the **Hardware** pane and select **Video Codecs**. When you click the **Properties** button you find detailed information about the codecs which are installed in your operating system. Select the MainConcept DV-Codec to get access to the codec's settings. After you have clicked **Properties** in the following window, the settings window appears on the screen.

There are two way to reach the codec settings. The first one is under **DirectShow** and the second one under **Video for Windows**. You find functions under **DirectShow**, that are not available under **Video for Windows**.

Under **DirectShow** you see the following settings window:



The **Decoder's** parameters are explained in details below. Depending on the DV input material some checkboxes may be disabled.

Decode to CIF size is a special option for decoding. It decodes DV-AVI with a quarter of the resolution, which can be useful on older PCs. This option allows fluent playback of files. It allows the following settings:

Quarterly PAL: 352x288
Quarterly NTSC: 320x240

Fast Decoding decodes in fast computing mode. Although this option enhances speed it is prone to errors.

The option **Change field order** reverses the field order of a frame.

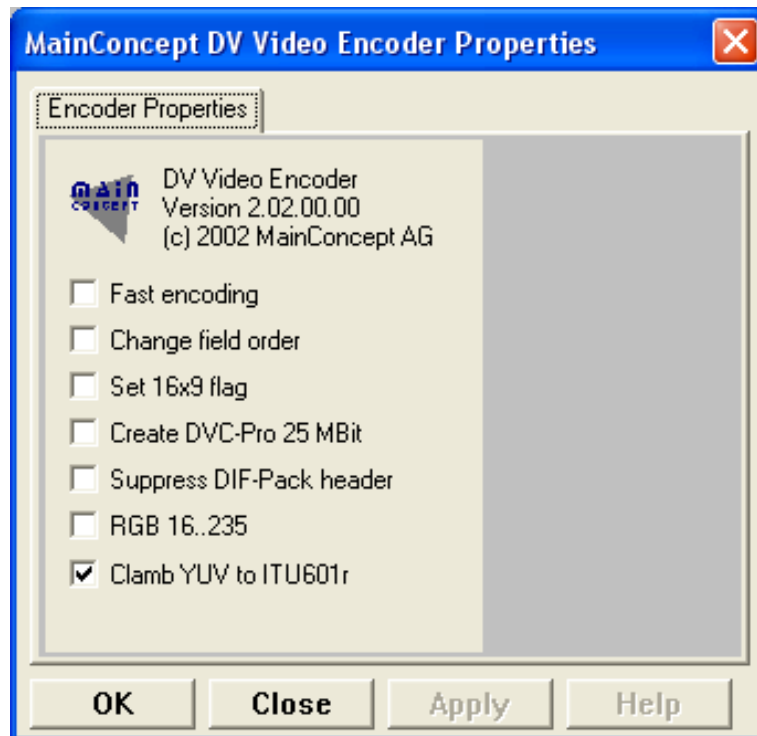
Disable 16:9 turns off the widescreen format.

Using the setting **RGB 16..235**, particular black and white values are preserved. During encoding and decoding the RGB color space with R=G=B=16 is used, which corresponds to the color black. Furthermore, the RGB color space with R=G=B=235 is used, which corresponds to the color white. Normally the values for white are R=G=B=0, and for black R=G=B=255. The specification ITU601R now defines black (Y=16) and white (Y=235), i.e. the real video signal receives values which are “blacker than black“ or “whiter than white“ (so called super-black and super-white values). These super-black and super-white values get lost in the normal PC RGB 0..255 color space, but they are preserved with the **RGB 16..235** option.

If you tick the **Clamp YUV to ITU601r** option, the super-black and super-white values of the decoder are clipped in the ITU601r valid range during export.

After you have adjusted all parameters, click the **OK** button to confirm the settings. Otherwise, press the **Cancel** button in order to abort the process. Click the **Apply** button so that all settings are accepted.

The following presents the **Encoder's** options in detail.



Fast encoding encodes in fast computing mode. Although this option enhances speed it is prone to errors.

The option **Change field order** reverses the field order of a frame.

Set 16:9 flag activates the widescreen format 16:9.

The option **Create DVC-Pro 25 MBit** is self-explanatory. It simply creates the DVC-Pro format. This format is mainly used in the broadcasting area.

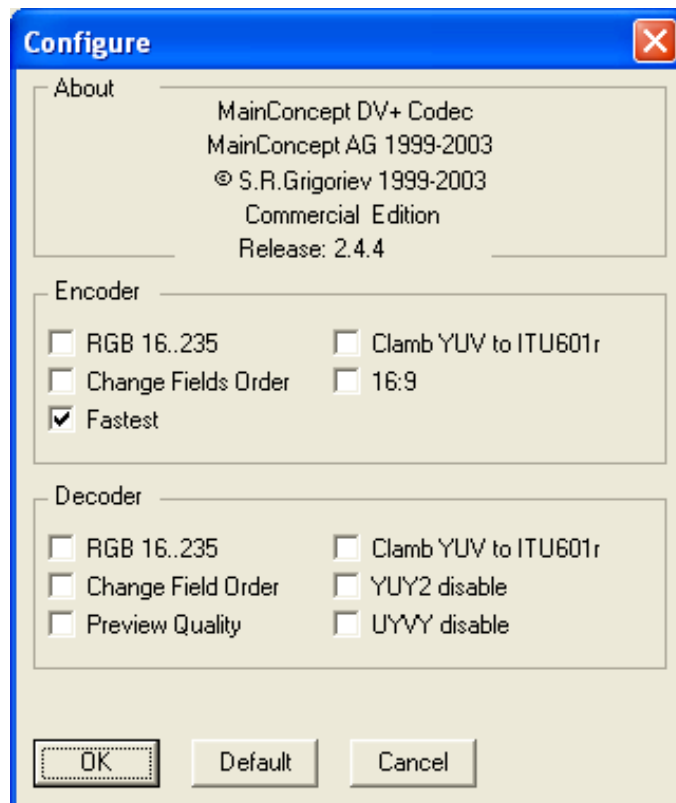
Suppress DIF-Pack header enables you to hide the Dif-Pack header. It is only used for special DV hardware, which works with Dif files. Dif files are a kind of raw format.

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If you tick the **Clamb YUV to ITU601r** option, the super-black and super-white values of the decoder are clipped in the ITU601r valid range during export.

After you have adjusted all parameters, click the **OK** button to confirm the settings. Otherwise, press the **Cancel** button in order to abort the process. If you have made any changes, click the **Apply** button so that all settings are accepted.

The DV-Codec's settings window changes under **Video for Windows**:



The settings for **Video for Windows** almost correspond with the DirectShow settings. However, here are a few remarks about the differences:

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The option **Change field order** reverses the field order of a frame.

Under **Encoder** the option **Fastest** is the same function as **Fast Encoding**. We have already explained this function before.

If you tick the **Clamb YUV to ITU601r** option, the super-black and super-white values of the encoder are clipped in the ITU601r valid range during import.

Also under this heading: The option **16x9** corresponds to the function **Set 16:9 flag**.

Under **Decoder** there are two more additional options:

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The option **Change field order** reverses the field order of a frame.

Under **Preview Quality** you set the quality of the preview to 352x288.

If you tick the **Clamb YUV to ITU601r** option, the super-black and super-white values of the decoder are clipped in the ITU601r valid range during export.

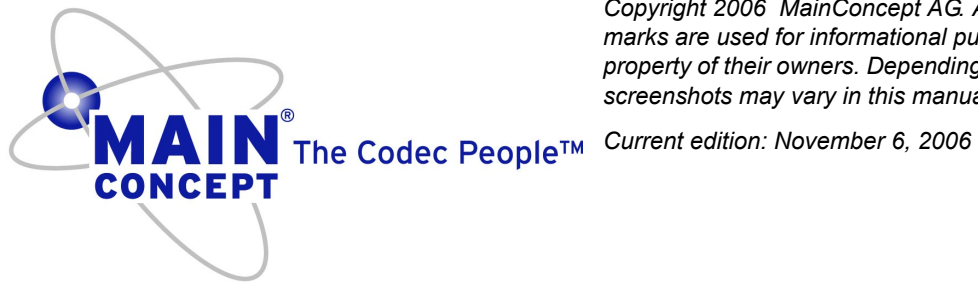
The decoder currently supports RGB16, RGB24, YUY2 and UYVY color spaces as input formats. It is possible to disable the YUY2 and UYUY color spaces by activating the **YUY2 disable** or **UYUY disable** checkboxes.

Technical Support

If you want more information about the MainConcept DV Codec, visit our website at www.mainconcept.com. Visit the **Support** section for a variety of resources.

If you need additional assistance, the MainConcept Technical Support team is standing by to help. Send an e-mail to support@mainconcept.com, and we'll assist you as quickly as possible.

NOTE: Depending on your location, charges may apply for telephone technical support.



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