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focus
performance innovation

Video Formats Guide



Background to Video Formats

Introduction

The ability to work with any of the video files that you generate or want to use is a key part of our Focus software. We are constantly extending the range of video formats that can be used in Focus to make the process of working with video as efficient as possible. This document explains how different video file-formats can be used on your PC, and explains how to work effectively with video in Focus.

Overview

The number and range of video formats used by the digital video camera manufacturers has increased significantly over the past few years. Until quite recently the DV-AVI video format was standard for most cameras, allowing video to be transferred (streamed) from the camera and stored on your computer as it was being filmed, through a Firewire (IEEE1394) cable and connection.

Almost all of the digital video cameras sold now compress and store the video footage on the camera itself. Cameras using memory cards, solid state and internal hard drives are now the standard. This means that once the user has completed videoing the performance they must transfer the video from the camera's storage media onto their computer before being able to use it.

This variety of file-formats now means that it is no longer as straightforward for your computer (Windows) to play every video file. For those using any of the non DV-AVI formats you can no longer assume that your computer will automatically play them or utilise them effectively in Focus.

Don't worry though, even if the video files that you generate don't play on your computer, we can get them to work with Focus through a simple conversion process. We can provide you with free video conversion software that will enable you to quickly convert any video file-format into the .AVI format that Focus works best with.



Working with video in Focus

Our Focus software utilises the video-based technology built into each Windows operating system to enable you to play and move smoothly through your video, automatically generate 'Highlights' movies and create Compilation Projects and their associated video clips. There are a number of factors that will determine whether your computer will play any non DV-AVI video files generated by your camera or from a DVD that you might have;

Your Windows operating system

The number and range of drivers/codecs integrated into Windows has increased with each new Operating System. As a result, the ability of your computer to play different video file-formats is enhanced if you are using the Windows 7 and to a lesser extent Vista operating systems.

The video drivers/codecs that are currently installed on your computer

You may have added other drivers/codecs to your computer since you took it out of the box and this will increase its ability to play different video file-formats

Other 3rd party software that you have installed on your computer

You may have added 3rd party software onto your computer that can have an impact on your computer's ability to play different video formats. A good example of this is - if you have installed iTunes on your computer, a number of drivers/codes will have been added that make it more likely that your computer will be able to play a broader range of video file-formats.

Your own camera drivers/codecs

Most video cameras come with additional software to be installed when you take the camera out of the box. If you have done this it is likely that a number of drivers/codecs will have been added that will make it more likely that your computer will be able to play the video file-formats generated by that camera

Having video conversion software installed

If you have installed any video conversion software, it is likely that additional drivers/codecs will have been installed onto your computer, again making it more likely that your computer will be able to play a wider range of file formats.

Windows XP:

This OS came with a limited number of the drivers & codecs needed to play many of the newer video formats.

Windows Vista:

This OS added a number of these drivers/codecs as standard

Windows 7:

This OS provides a greater range of the required video drivers/codecs as standard

3rd Party Software

Adding 3rd party software can affect the running of existing software programmes

Camera-specific Software

Adding camera drivers can occasionally impact on the drivers/codecs that Window (and consequently, Focus) uses. For example, some of the drivers that are loaded with Sony camera software are designed to override the Windows drivers and this can sometimes affect the ability of Focus to 'capture' video'

Working with different video file-formats (1)

Using DV-AVI video file-format

The DV-AVI video file-format is the best to use with analysis software programmes like Focus...

- It offers excellent video quality as it is not compressed in any way by the camera hardware or software
- It allows video to be transferred (streamed) from the camera and stored on your computer as it was being filmed, through a Firewire (ieee1394) cable and connection.
- It provides the user with the option of doing 'real-time' analysis with events being entered/tagged live as the video is 'streamed' into the computer.
- This format is handled well by all Windows operating systems (XP, Vista, 7) and is not dependent on additional drivers having to be installed
- Scrolling through the video is seamless and smooth



Process for working with video in Focus:

Video and 'capture' video straight into your Focus Project (or if you have your .AVI video already on your computer, simply load it into Focus)

Working with different video file-formats (2)

Using non DV-AVI video file-formats that play in Windows and Focus

As outlined earlier, we are constantly extending the range of video file-formats that Focus works effectively with and so there is an increasing chance that you will be able to take your existing video files into Focus and use them without converting them.

(Please note that the 'Highlights' facility will work most effectively with files in the DV-AVI format and so if you are looking to use this functionality we would recommend that you do convert your files into this format).

Process for working with video in Focus:

Transfer the video from camera to computer → Bring video into your Focus Project

Using non DV-AVI video file-formats that do not play in Windows and Focus

There will inevitably be some file-formats that either won't play at all or will not allow you to scroll smoothly through the video due to the way that they have been compressed and stored by the camera.

In these instances we recommend that you use Video Conversion Software to convert your video files into the DV-AVI format for effective use in Focus. This process is quick and easy (e.g. a 10 minute clip will take around 3 to 4 minutes to convert on most computers).

Process for working with video in Focus:

Transfer video → Convert video into AVI format → Bring video into your Focus Project



Converting Video Files

Using Video Conversion Software

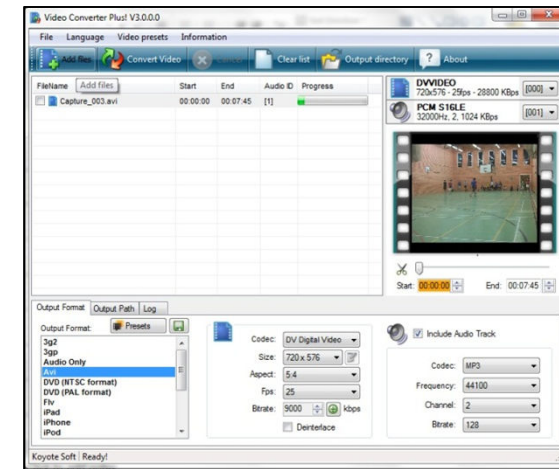
As indicated, there may be times when you have to convert your video files into a format that Focus can use and work with.

If you need to convert video files we would recommend that you download the Free Video Converter software from Koyote. It creates .AVI files that work well in Focus and is fast and easy to use.

The link to download this free software is;
<http://www.koyotesoft.com/indexEn.html>

Instructions on Use:

- 1) Open Free Video Converter
- 2) When the window opens, on the lower half of the left side of the screen you will see 4 tabs (Output Format, Output Path and Log). Click on the Output Format tab first and then select the .AVI option
- 3) Now click on the Output Path tab. This is where you can decide where you want to store the videos that you are going to convert. An existing path should be outlined in the window already by use the button on the right hand side to explore and choose your preferred folder then click on OK.
- 4) Click on the Add Files button on the menu at the top of the main window and search for the file(s) that you want to convert. If it is files from a DVD that you want to convert then find and select the DVD drive on your computer.
- 5) The files that you are looking for will be VOB files and will be found in the Video_TS folder. There may be a number of VOB files in this folder and the ones that you want to select will be the larger files so check the size of each. Select the first file that you want to convert and it will now appear in the list in the main window.
- 6) Repeat for any additional files that you want to convert until you are happy that your list is complete.
- 7) Click on the Convert Video button in the main menu. Your video(s) will now start to be converted in turn and you will be notified when the process is complete (there is a clock that tells you how long until completion).
- 8) Open Focus create your new project. Select the Video Playlist option under the Project tab and then use the ADD CLIP option to find and bring in the clip(s) that you need.



Other Important Information

Using Video from DVD's

There will be occasions when the video files that you want to use do not come directly from a camera, but from a DVD that you have been given or acquired.

The video format used most often in the creation of DVD's is .VOB and Focus now works well with this format. Therefore, for the vast majority of DVD files you should be able to load them directly into Focus.

Again there are a wide range of VOB formats with some playing better and more smoothly than others. If you do find that the VOB format that you have is not scrolling as well as you require then of course you can convert your files to .AVI format as described.



Real-Time Analysis

As mentioned earlier in this document, there may be times when you want to 'capture video directly into your laptop and perhaps enter your analysis data 'live'.

Option 1: Capturing from a Firewire connection on your camera

This is straightforward. The video will be 'streamed' from the camera directly into Focus via a Firewire cable and utilising the Video Capture facility in Focus.

Option 2: Capturing from a VCR, DVD player or SKY set-top box

If your device has the facility to take out analogue video (e.g. normally through a SCART connection and lead) you can use a piece of equipment called a DV-Bridge to convert this analogue feed into digital (DV-AVI) format that can then be captured directly into Focus. The most popular manufacturer is Canopus and if you want to find out more about this technology the link is... <http://www.grassvalley.com/products/advc110>

Option 3: Capturing from a non DV-AVI camera that has an analogue video output

Again, a DV Bridge (e.g. Canopus ADVC110) will enable you to convert the analogue feed into digital video that can be captured directly into Focus.

