



Using the x264vfw Codec with ProAnalyst®

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Abstract

H.264 (also known as MPEG-4 AVC) is a new video compression standard that is very popular for compressing video with high quality into smaller file sizes. While Xcitex does not recommend compressing video in general, many customers have asked about this compression technique. X.264 is an open source implementation of the H.264 standard. This application note describes how to use the x264vfw encoder and decoder with ProAnalyst. This enables ProAnalyst to load and save X.264/H.264 encoded AVI files. Specific configuration recommendations are provided for obtaining the best results.

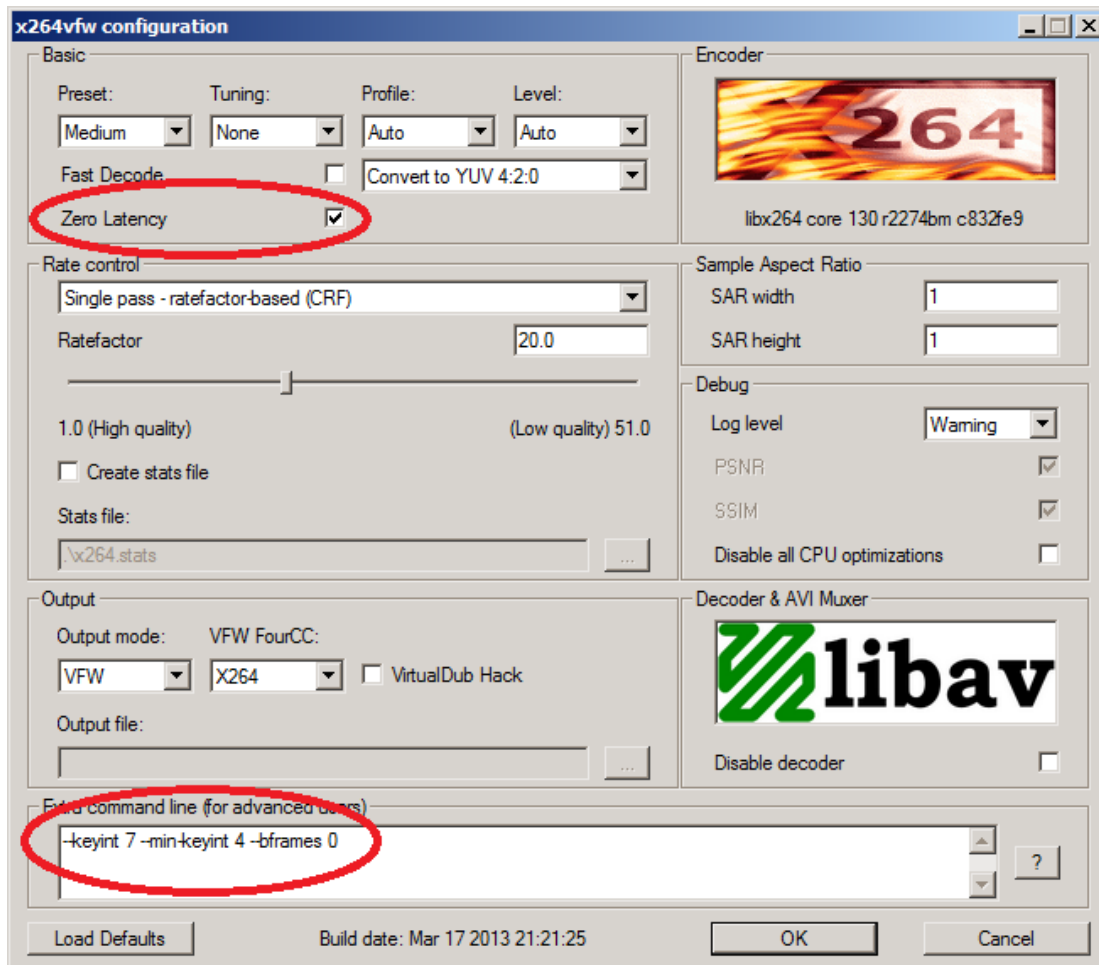
Installation and Configuration

1. The x264vfw codec can be obtained from the Sourceforge website:
<http://sourceforge.net/projects/x264vfw/files>

*Note: For use with ProAnalyst, make sure that you are downloading **x264vfw**. This is the 32-bit version of the codec. If you are installing on a ProCapture system, you can also install the 64-bit version (x264vfw64) for use with ProCapture.*

2. Click on the link titled **Looking for the latest version?** to download and install the latest x264vfw package.
3. We recommend changing some of the default settings for better playback performance in ProAnalyst. To change the configuration, go to **Start ► All Programs ► x264vfw ► Configure x264vfw**.

4. At the top of the configuration screen in the "Basic" section, check the **Zero Latency** box.
5. At the bottom of the configuration screen in the "Extra command line (for advanced users)" section, enter **--keyint 7 --min-keyint 4 --bframes 0**, as shown below. Please note, the dashes in front of each item are double dashes (--).



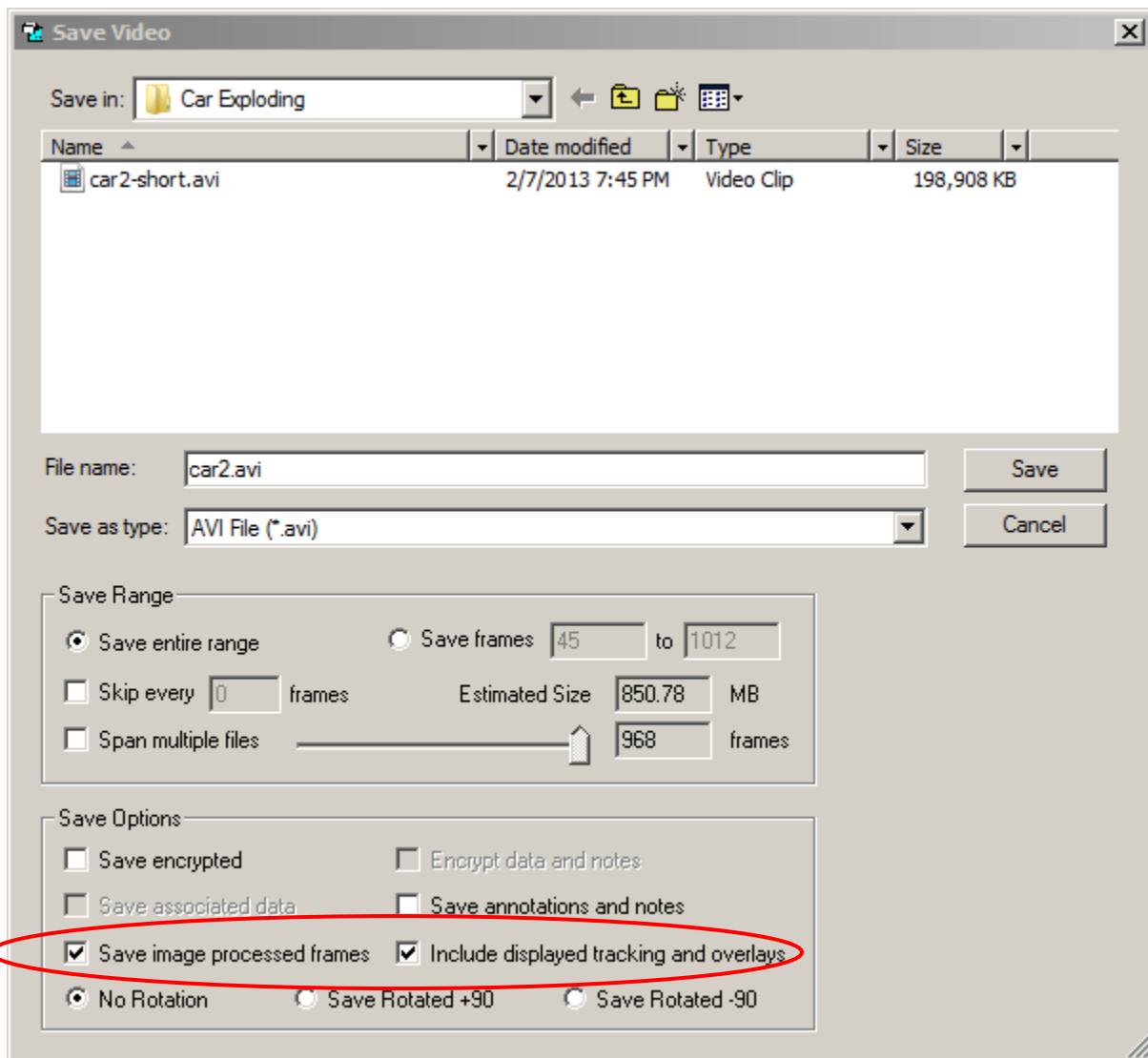
6. Click **OK** to save the command line instructions.

Special Note for Saving Grayscale Videos in ProAnalyst

Attempting to save a grayscale video in ProAnalyst using the x264 codec will result in the following error message: "An error was encountered while attempting to save to the AVI output file. [hr=0x8004022a] If you have selected a compression option, please try using different compression settings."

The x264vfw codec works only for color videos. In order to save a grayscale video with this codec, it is necessary to force ProAnalyst to artificially convert the grayscale images to color while saving.

One way to force ProAnalyst to generate color images for saving is to save processed frames with overlays. When saving the video in ProAnalyst, check the boxes for **Save image processed frames** and **Include displayed tracking and overlays**, as shown below.



Special Note for Saving Videos with Odd Heights in ProAnalyst

We have found that the x264 codec requires the video to have an even height. Attempting to save a video with an odd height will produce an error: "An error was encountered while attempting to save to the AVI output file..."

While there is no easy way to add an extra row to a video in ProAnalyst, you can crop a video to remove one row and produce a video with an even height. To crop a video you can use the Zoom button in the Play controls.

1. Click the **Zoom** button and click and drag a rectangle in the image.
2. In the zoom window that appears, click the first toolbar button to edit the dimensions of the zoom rectangle.
3. Set the values to cover the entire image, but reduce the height by one to make it an even number. Click **Apply** and then **OK**.
4. Click the **Save** button on the toolbar to save the cropped video.
5. When the AVI Compression window appears, select **x264vfw – H.264/MPEG-4 AVC codec** from the list and click **OK**.

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Xcitex Inc.
600 West Cummings Park, Suite 5500
Woburn, MA 01801 USA

