

2255 AVStream usage instructions. V109F

Updated February 2009. Please read the release notes in the SDK zip file. Note, V109E and V109F are not backward compatible with V109C.

Sensoray provides two drivers for the 2255. This DirectShow driver, and a non-DirectShow driver. If using the DirectShow driver, it is assumed the user knows how to program and use DirectShow. If not, please use the non-DirectShow SDK or refer to the relevant Microsoft DirectShow sample applications. A comparison of the 2 2255 drivers is available at the Sensoray forum.

<http://www.sensoray.com/forum/index.php>

Sensoray recommends using the AMCap sample included in the Windows SDK. The AmCap sample is described at:

[http://msdn.microsoft.com/en-us/library/dd373424\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/dd373424(VS.85).aspx)

The Windows SDK can be downloaded at:

<http://msdn.microsoft.com/en-us/windows/bb980924.aspx>

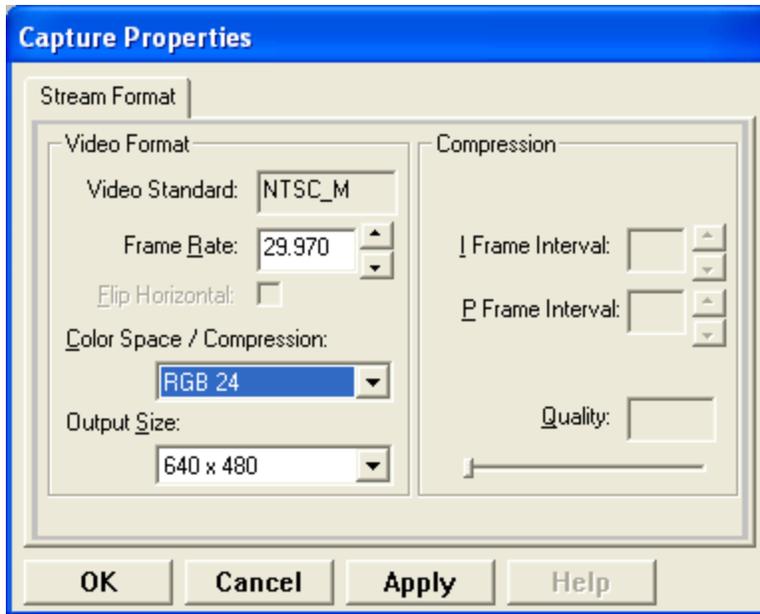
## GraphEdit

GraphEdit is another DirectShow program obtainable from Microsoft. It is useful for testing and debugging DirectShow filter graphs.

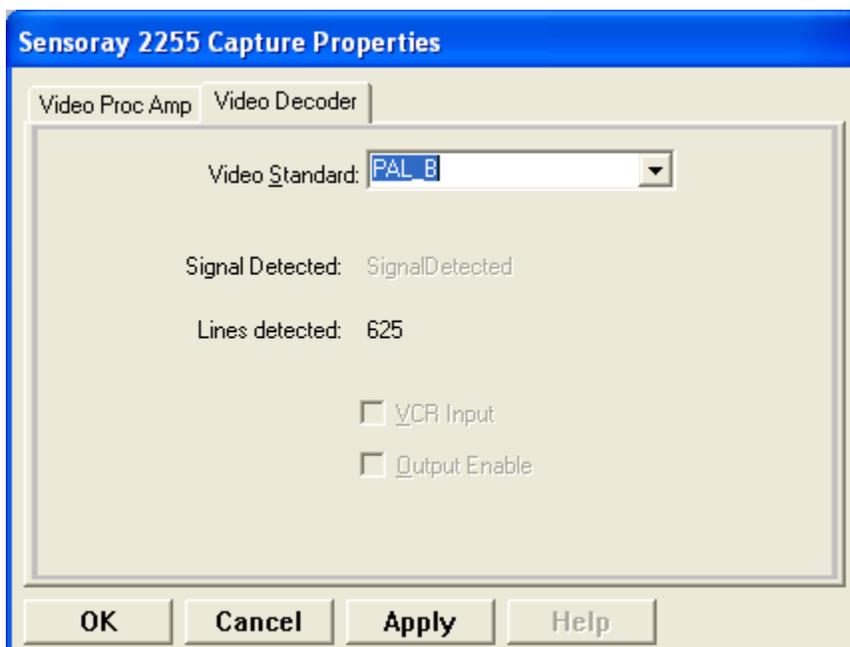
You should now have the 2255 device in the capture graph.

If using NTSC, simply right-click one of the capture pins and select render. You will get a graph such as the one below. Press the green arrow button to start previewing the video stream.

Alternatively, you can change the colorspace or video size by right clicking the pin and selecting properties. This must be done BEFORE connecting any filters or rendering as done above.



If using PAL, you must change the Video Decoder before connecting ANY pins by right-clicking on the 2255 Device and selecting Filter Properties as shown below.



Click OK and follow the steps for NTSC above to create an example filter graph.

To render in greyscale, right click on the 2255 before starting the stream and deselect the "ColorEnable" check mark.

The 2255 also supports frame decimation. If rendering all 4 streams at the same time in color, each stream should be set to  $\frac{1}{2}$  the frame rate in order to satisfy the USB2.0 bandwidth constraints. If the pins are connected, disconnect them before changing the frame rate by right

clicking and selecting pin properties on the capture pin. If ColorEnable is off, 4 channels can be streamed at once at full frame rate. Note: only specific frame rates are supported. For NTSC, they are 29.97fps, 15fps, 10fps and 6fps. For PAL, they are 25fps, 12.5 fps, 25/3 fps and 5fps. Important, these correspond to DirectShow AvgTimePerFrame (in the VideoInfoHeader) values for NTSC of 333667, 666667, 1000000, 1333333, 1666667 and for PAL of 400000, 800000, 1200000, 2000000. If you use other values, you may not be able to connect and/or start the filter graph.