Local User Interface

VB3X Viewer

Support Guide

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Version	Date	Change Summary	Author
V1.0	20.09.16	V1.1.8	TPL
V1.1	08.11.16	V1.1.9 snapshot	TPL
V1.2	28.11.16	V1.1.10 zoom/layout	TPL
V1.25	12.06.17	V1.2.2 Presets	TPL
V1.26	27.06.17	Virtual Serial Ports Emulator v1.2.3	TPL

FOREWARD

Vemotion specialise in the acquisition of analogue and IP video streams, compressing via H264 and transmission of high quality video over low bandwidth and unreliable networks, as well a cost effective delivery over high bandwidth providers. These networks include, but are not limited to Cellular, Satellite and broadband bearers. Vemotion gives the ability to switch dynamically between low and high bandwidth video streams, adjusting the video quality to suit. HD 1080p streams are catered for and ONVIF compatibility allows integration into Video Management Software (VMS) platforms. Viewing the transmitted stream can be done via a multitude of platforms, from mobile phones to command and control rooms.

This handbook provides a reference for users of the Vemotion applications. It aims to help you install and set up the Vemotion software.

The system is flexible and may be tailored to meet specific business requirements.

For further details or if you need any extra support please contact Vemotion.

HOW DOES VEMOTION WORK?

Vemotion specialise in innovative video compression enabling multiple live video channels to be transmitted to a server and then multi cast to a platform of your choice. You can allocate available bandwidth between channels, increasing picture resolution to view a scene of particular interest.
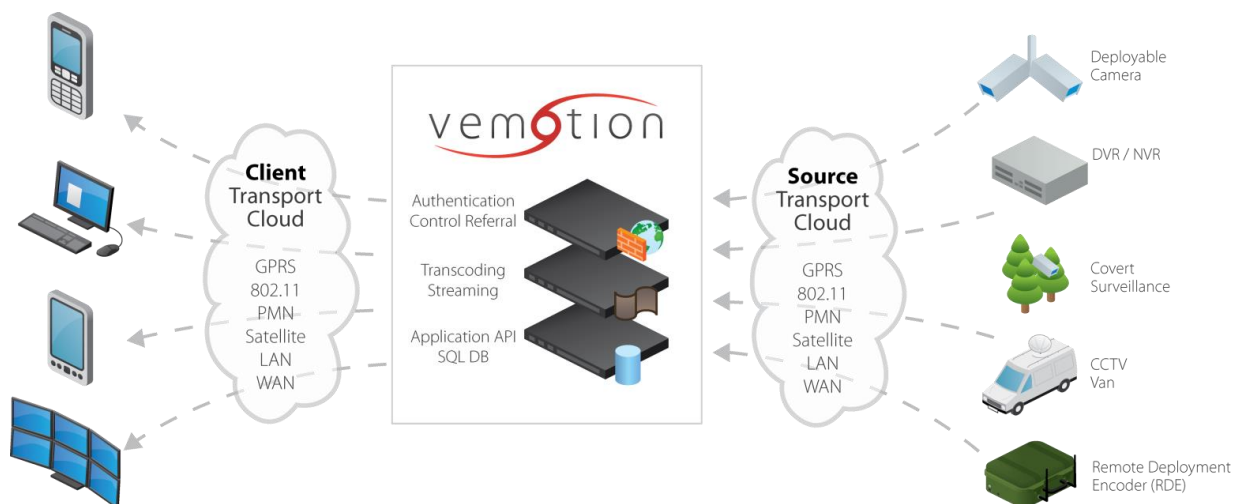
VEMOTION SOFTWARE

There are many software applications that work in conjunction with one another allowing video streams to be taken from any source and transmitted to the viewing client.
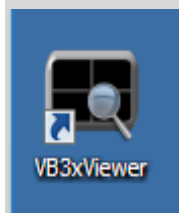
Vemotion Video Server (VVS)
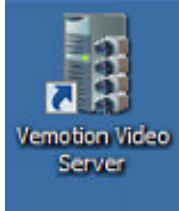
The VVS allows you to program how many cameras you wish the Encoder to have access to by adding a channel per camera. The VVS also allows you to record the camera of your choice at the specific resolution, bit rate & frame rate desired. It also permits you to add either analogue or IP Cameras. It then sends the streams to the Vemotion Encoder software to begin processing.

Vemotion Encoder (VE)

The Vemotion Encoder transcodes live video captured from the camera into highly-compressed data finding a perfect balance between quality and compression.

## Local User Interface (LUI) – VB3X Viewer

The VB3X viewer will allow you to connect directly to the Vemotion Video Server to enable a live stream from the camera to be viewed on the Hardware Encoder itself acting as a PC or to enable the video feed to be viewed on an HD screen.

Vemotion Streaming Server (VSS)
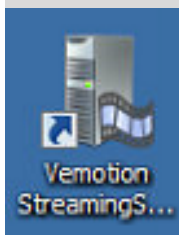
The Vemotion Stream Server is used to consolidate and distribute the Vemotion video streams.

Vemotion V264 Player and Vemotion Viewer
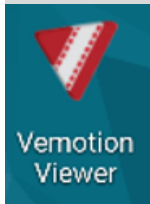
This is the software that displays the live video on the viewing device of your choice, be it CCTV control rooms, PC, laptop or Android & iOS phones or tablet. The software not only displays the live video, it also enables various control options.

Vemotion Android Encoder (VB-10)

This Vemotion Android Encoder will allow your phone to become the Encoder and stream video to the Streaming Server.

Vemotion Proxy

This software allows connection to a network video stream from the Vemotion Streaming Server from ONVIF/RTSP and web clients. These clients can be viewing management software, to recording devices and the video stream is in an open format compared to the stream that is viewed within the Vemotion Viewers and Players.

Local User Interface

Support Guide

The VB3X viewer will allow you to connect directly to the Vemotion Video Server to enable a live stream from the camera to be viewed on the Hardware Encoder itself acting as a PC or to enable the video feed to be viewed on an HD screen.

Cursor on or off

Before VB3X viewer is opened, are you viewing via a touchscreen or not? The Viewer is automatically set to be viewed with a touchscreen so the cursor will not show and you will not be able to navigate through the viewer. So if you have no touch screen please;

Go to C:\Program Files\Vemotion\VB3xViewer and find the VB3xViewer.exe.config file. Right click and edit with Notepad ++.

Find the setting name hide cursor and edit to False as per the below;

 <setting name="HideCursor" serializeAs="String">

     <value>False</value>

Save this option and exit. Now open the VB3X viewer, something similar to the below will be displayed.
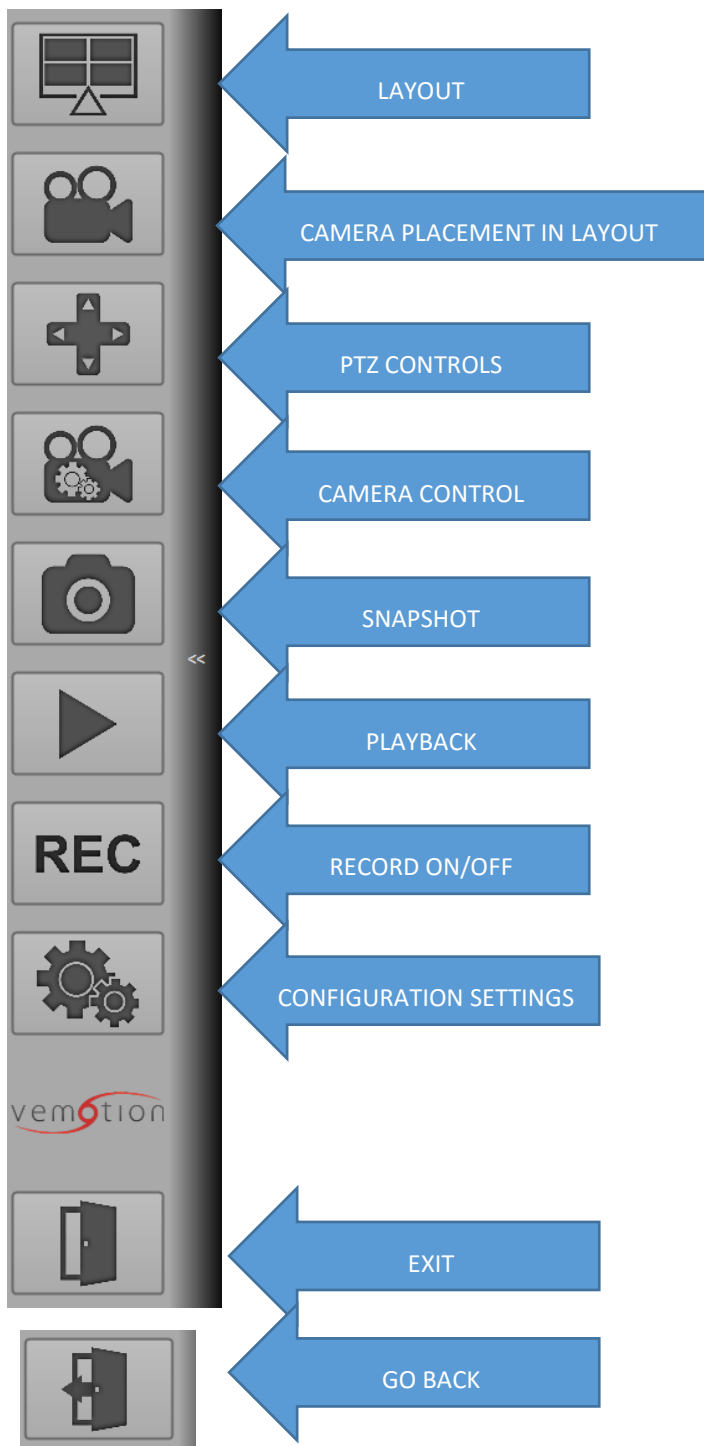
LUI Menu

The Main screen has two arrows (<<) which are highlighted by the arrow. These two arrows pull the menu out or hide it.

See menu below.

LAYOUT

CAMERA PLACEMENT IN LAYOUT

PTZ CONTROLS

CAMERA CONTROL

SNAPSHOT

PLAYBACK

RECORD ON/OFF

CONFIGURATION SETTINGS

EXIT

GO BACK

Layout

Layout gives you the option of how you wish to view your cameras. Press this button to select your required layout and then press back. If not all the options are availabe go to settings tab and then general tab to choose number of cameras.

Camera Placement

Camera Placement button allows you to select which camera you want to place in what quadrant;
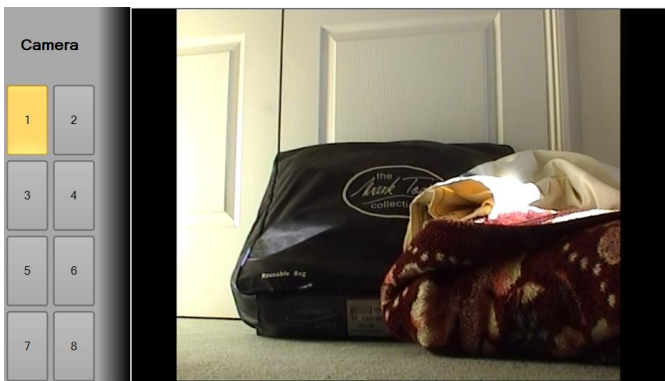

Clicking on one of the squares with in the layout will highlight it with a white surround. Choose which camera you would like to place in this view by clicking on camera 1-6 in the top left.

PTZ Controls

If you have enabled PTZ in the Configuration settings then you will have PTZ control functionality for each camera. Click the PTZ button and the pan tilt and zoon functions appear. Click on the camera stream you wish to control, this will be highlighted by a white surround, so you know which camera you are set to control.

Digital Zoom

Zoom functionality

Pan and Tilt

To alter Speed of PTZ
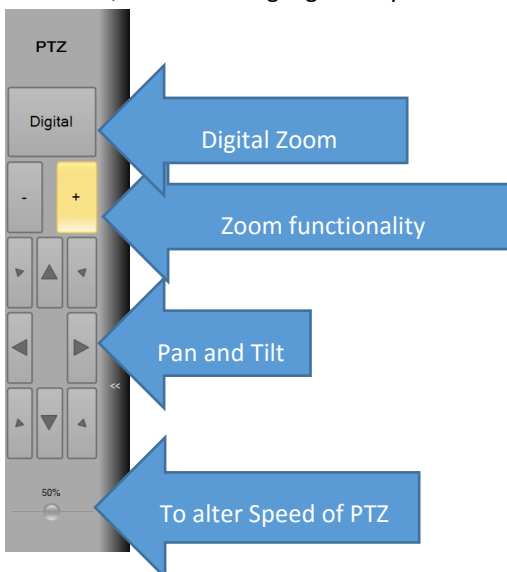
Digital button will allow you to use the digital zoom of an IP camera and it will outline which part of the picture you are zoomed into by the square in square.
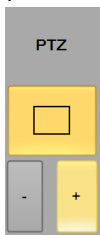
If the camera cannot PTZ or you have not set up the functions correctly the screen will revert to the main page. Click back to exit the PTZ page.

Camera Control

If the cameras have been set up with PTZ enabled in the Configuration settings you will be able to set tours and presets in the Camera Control page
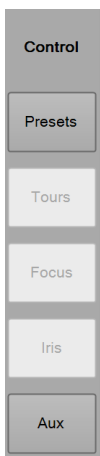
The Pre-set function

This allows the user to set predetermined positions of the camera.

To set an Analogue camera pre-set:

- Position the Camera to the desired position using the Camera Movement Direction Keys in the PTZ page

- Select the Pre-set number 'x' required in the Pre-set Window

- Click the 'Set Pre-set' Button

For later retrieval with a "go" to preset 'x' command.

In V264Player you enter the number of the preset you want, then press either the Go or + button underneath.

To set an ONVIF camera pre-set:

ONVIF cameras do not to use a number based system and instead use a "name" based system.

So the current behaviour for ONVIF cameras is that our applications reads the preset that are already configured within the camera, then indexes into this list when you issue a set or 'go' to preset command. Hence the camera must be configured before Vemotion software is configured.

It is not possible to set a preset through Vemotion it must be done via the cameras web interface.. So for example set the camera with:

Preset1

Preset2

Preset3

Then 'go' to preset 1, 2 or 3 and that will also overwrite any existing position for preset 1-3. However if you set or 'go' to preset 5, it won't do nothing as it doesn't already exist.

Once set up in the Vemotion software, no further changes can be done. For example if you added another preset via the cameras web pages, each camera has a different way of adding the preset and it may not be in order. Hence it may not mirror the presets in Vemotion software anymore which could cause confusion.

To set pre-sets, firstly set up the camera via that PTZ control button to point exactly where you wish pre-set 1 to be set. Once you have done this come back into the camera control page, click Pre-set button to take you to pre-set page;

So in summary, highlight pre-set 1 and press 'SET'. If you wish to set up another pre-set return to the PTZ control and set up the next view and so on and so forth.
Once all the pre-sets are registered you can then press any number and 'Go' and it will take you to the view of your choice. 'HOME' will take you to the cameras home pre-set.

The arrows allow you to scroll through the unlimited pre-sets available

Focus

This will allow you to focus near or far by using the buttons presented. The option is also given to manually set the focus to near and far or put into automatic or both. To set into one state either use the drop down box or scroll through using the + and – buttons and then press GO.

IRIS

This will allow you to open or close the IRIS by using the buttons presented. The option is also given to Auto IRIS so manually, automatically or use both capability to set the iris open or closed. To set into one state either use the drop down box or scroll through using the + and – buttons and then press GO.

AUX

AUX page will allow you to set up any other camera auxiliaries that are available with the camera, such as Back Light Compensation On/Off – (BLC ON/OFF)
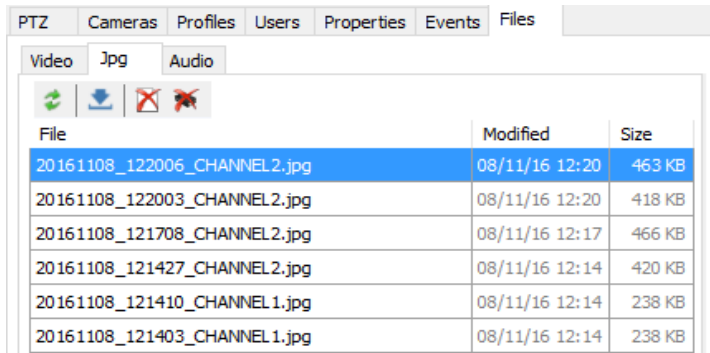
Snapshot

If you press the snapshot button that button will appear highlighted in yellow.

Once this is yellow, click on the camera you wish to take a snapshot of. This will then be highlighted by a white surround. Now press the snapshot button. The surround will flash red to show it has taken a snapshot. By clicking snapshot a picture is automatically sent to the server to enable it to be viewed in the V264 player.

V264 Player viewing the snapshot

Open the V264 player and drop and drag any stream from the VBOX encoder from which you wish to view the snapshot.
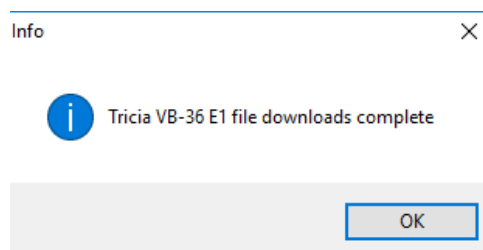

Click on the files tab.

Click on the green circling arrows and then click the date you wish to view the snapshots from.

A list of snapshots will appear. Highlight one and press the download button

Once the full snapshot has been downloaded a verification of download message will appear;

Downloaded files can be viewed from the file you save them to, this can be checked by going to the options button to check where V264 Player is saving them to.

Playback

Playback button gives you the option to review recorded footage

Select the camera of interest top left and if there are any recordings this will be highlighted, at the bottom of the screen, against the time period by a green bar. Drag the grey circles to the timeslot you wish to view and press play

Recording

Record button allows you to turn recording on and off. By pressing the main record button at the top this will record all cameras. Or you can turn recording on and off for individual cameras by pressing the camera concerned. If the button is highlighted in red then it will be set to record the cameras. This is recording via the Video Server software hence whatever is changed her in the LUI will be mirrored in Video Server.
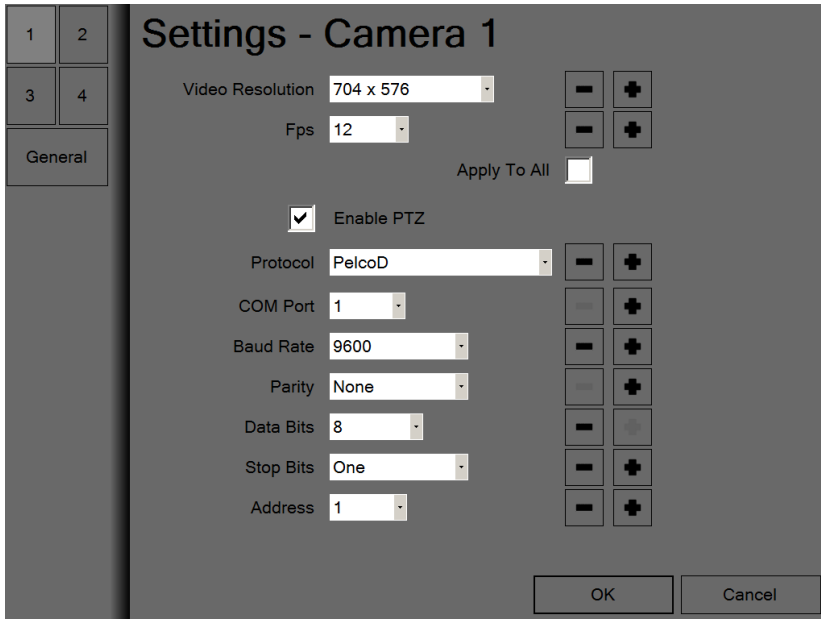
Note; The number of cameras in this Local user interface must match the cameras configured in the Video Server, otherwise the record all on/off will not work.

Record Button – ALL ON/OFF
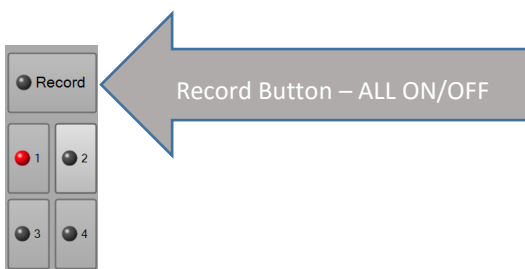
Configuration Settings

This allows you to allocate the viewing resolution you desire and the frame rate. This can then be applied to all cameras or just the camera chosen.

The Configuration settings is where you can enable PTZ and set the protocols, com ports and baud rates. Enabling the PTZ by ticking the box will mean your PTZ control button on the main page will be in bold rather than greyed out. Please see the Virtual Serial Port Emulator (VSPE) for com port management.

Settings - Camera 1

1	2
3	4
General	

Video Resolution: 704 x 576

Fps: 12

Apply To All

☑ Enable PTZ

Protocol: PelcoD

COM Port: 1

Baud Rate: 9600

Parity: None

Data Bits: 8

Stop Bits: One

Address: 1

OK   Cancel

The General Button will allow you to program how many cameras you can see at any one time, this should match what is programmed to the Video Server software. You can also configure alarm inputs.

Settings - General

1	2
3	4
General	

Cameras: 4
- 1
- 4
- 8
- 16

Video Renderer:

Hi-Res Single View:

Playback Channel: 253

Alarm Input 1   Camera   1

Alarm Input 2   Camera   2

Alarm Input 3   Camera   3

Alarm Input 4   Camera   4

OK   Cancel
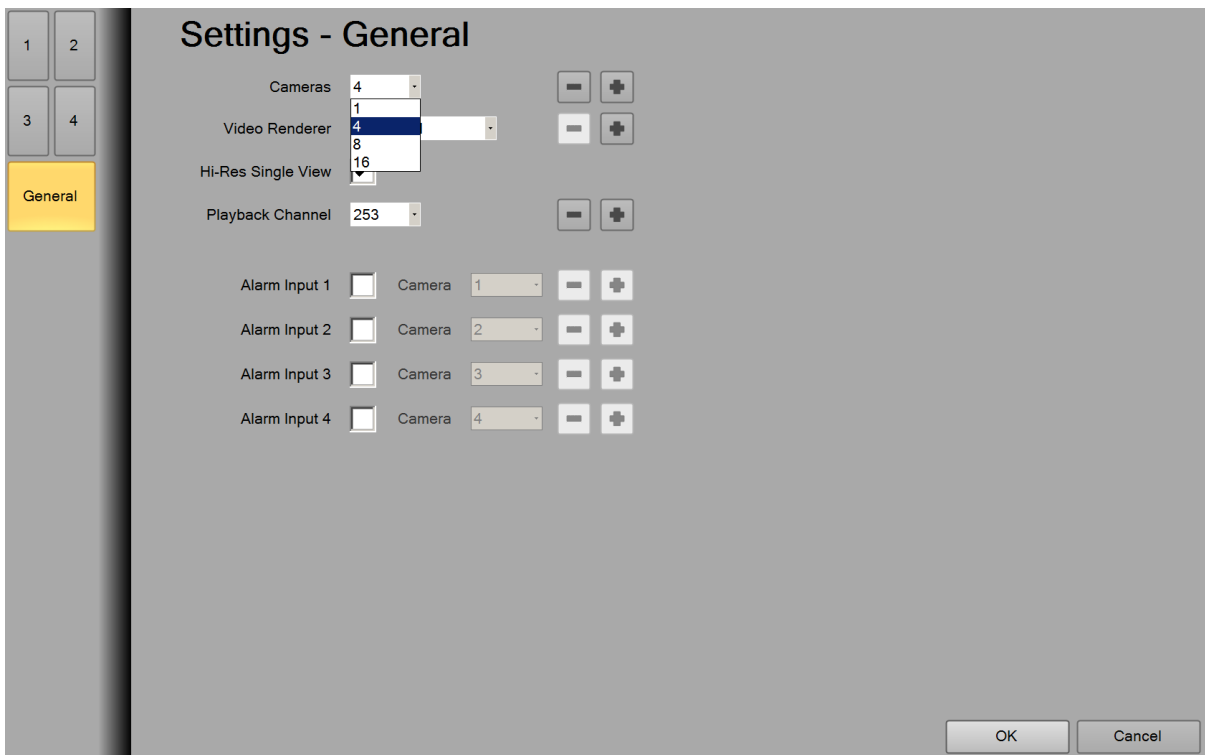
VIRTUAL SERIAL PORT EMULATOR (VSPE)

In order for both the Vemotion Encoder software and the LUI software to use the same comport for PTZ control of analogue cameras, there needs to be a splitter put in place. This comes in the form of Virtual Serial Port Emulator (VSPE) and is added into watchdog so it will always be working behind the scenes to split the ports for both software applications. If you have LUI already set up on your VB-3x then this should already be in place. However if you need to change anything of add a com port, please follow the below:
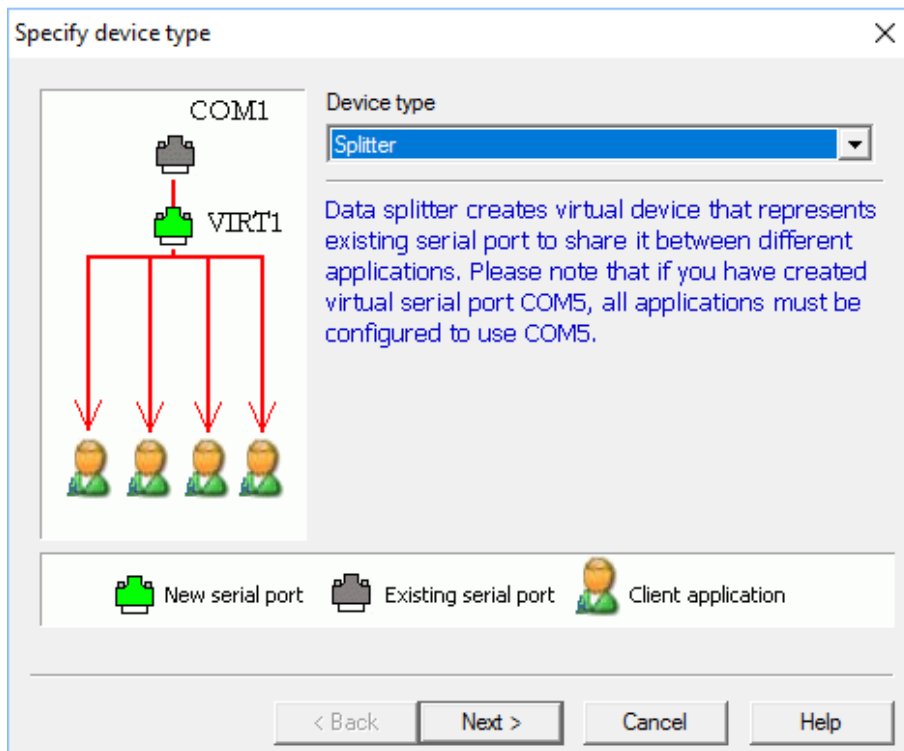
Click on the icon in the systems tray to launch the app
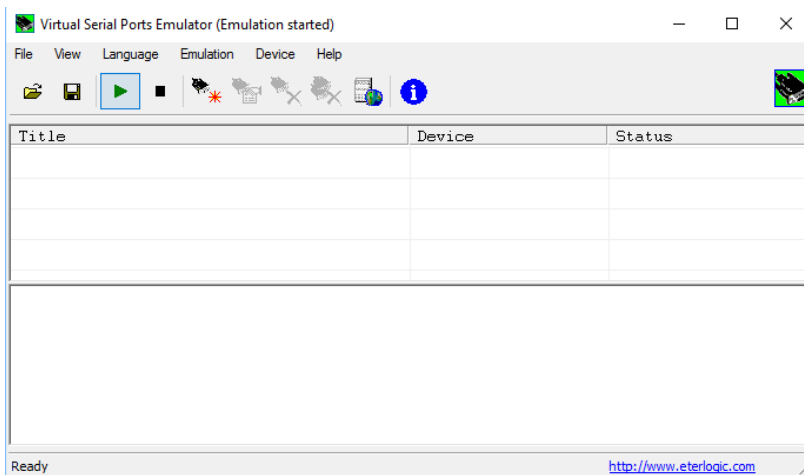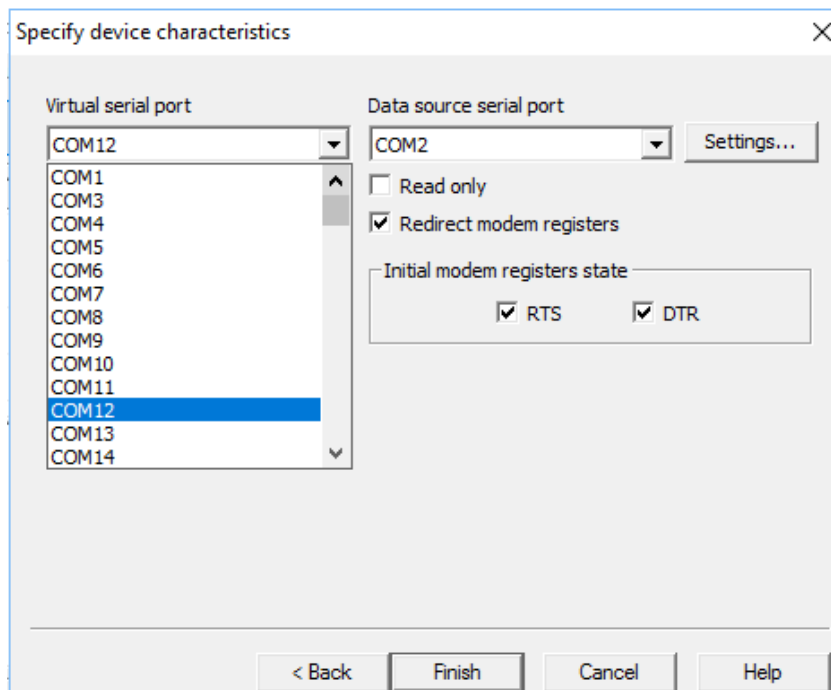

Click on create new device:

In the drop down box of the specify device type page, choose splitter:
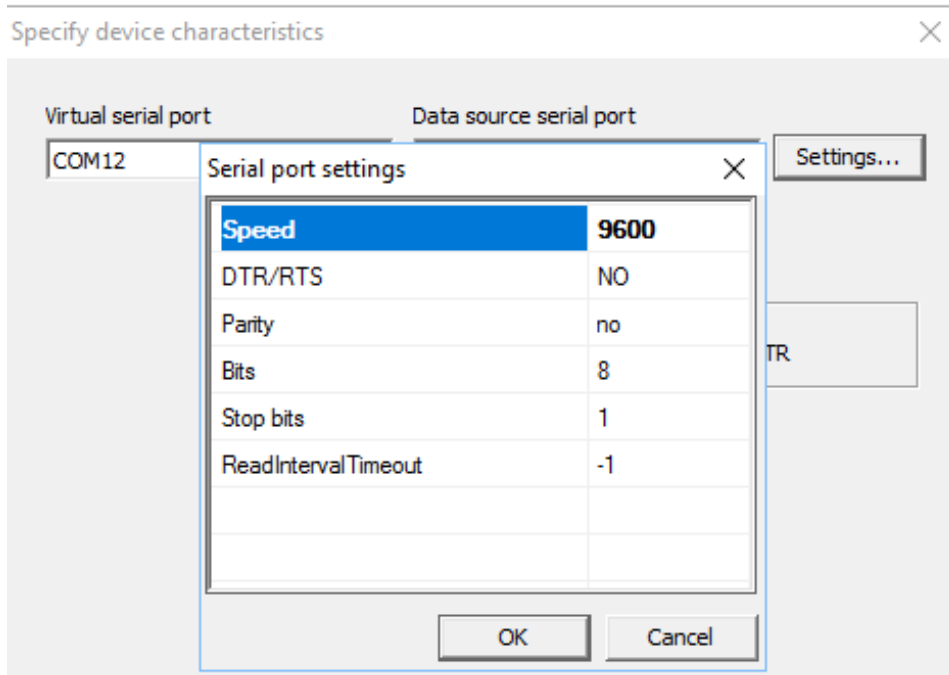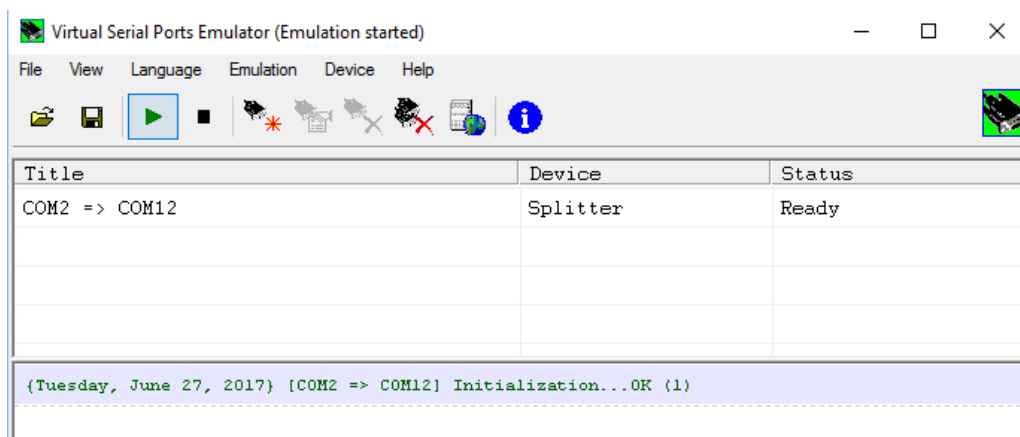
Click next.

In the specify device characteristics page, choose any Com port form the drop down virtual serial port tab, apart from 5 as that is the GPS comport.
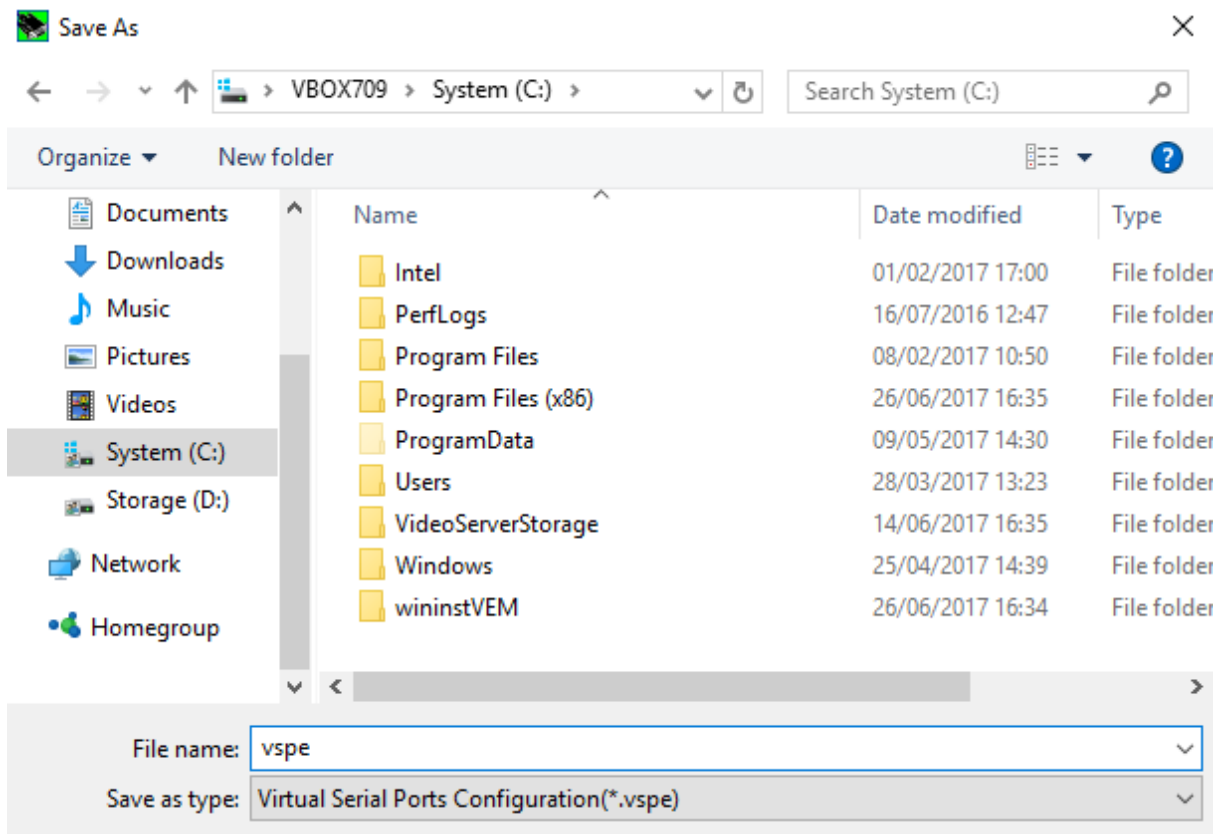

Click on the settings button and set up the serial port settings to match the camera characteristics, press Ok:

Specify device characteristics   ✕

Virtual serial port   Data source serial port

COM12   Serial port settings   ✕   Settings...

Speed	9600
DTR/RTS	NO
Parity	no
Bits	8	TR
Stop bits	1
ReadIntervalTimeout	-1

                              OK   Cancel

Press finish to bring you back to the Home page of VSPE:

Virtual Serial Ports Emulator (Emulation started)   —   □   ✕

File   View   Language   Emulation   Device   Help

Title	Device	Status
COM2 => COM12	Splitter	Ready

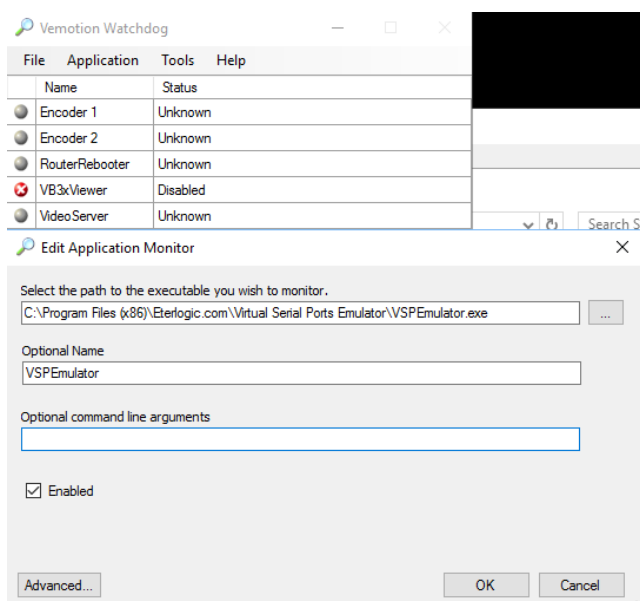{Tuesday, June 27, 2017} [COM2 => COM12] Initialization...OK (1)

Click on file and save as and save to the C drive as vspe;

Now go to watch dog which can also be found in the systems tray as a magnifying glass;

Click on application add and press the 3 dots to enter the location of the executable file .exe. This is on the desktop for quick access;

Then in optional command line arguments write in where you have saved just saved the VSPE split port file, in this case:

"c:\vspe.vspe" – press ok

Now highlight the encoders and press edit, go to the advanced button and add in delay after first start (seconds) and add in 5. Press Ok and Ok:
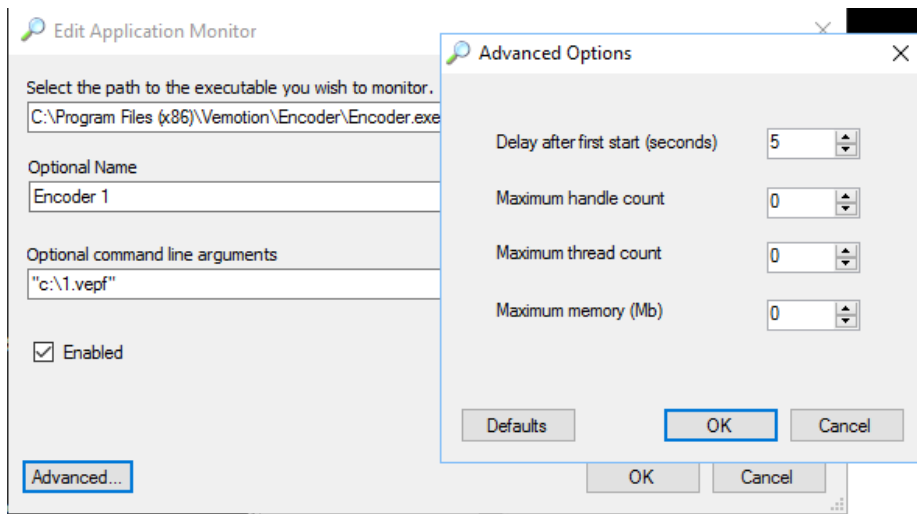
You will now use the comport chosen, in this instance comport 12 for both the encoder software and the LUI software.

If any more info is required please contact Vemotion – +44 (0) 8444 906 906 or info@vemotion.com

~ End of Document ~