NETMC MARINE

A short introduction to the NETmc Marine recorders and how the system works

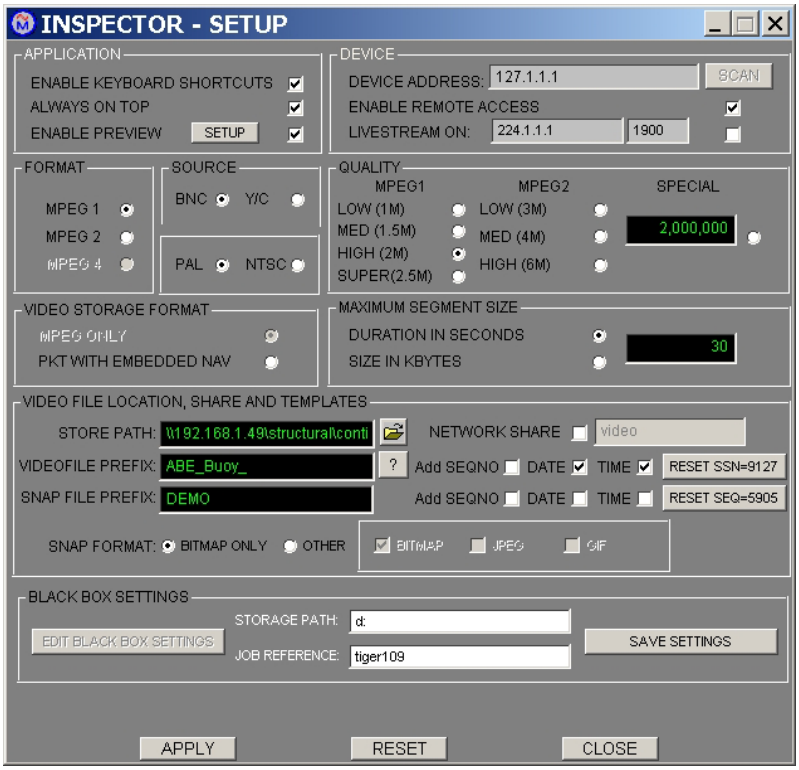
SOFTWARE

It should be noted that NETmc Marine does not develop software for GIS, pipeline eventing, ROV sensor data acquisition or survey navigation rather they design and manufacture hardware and enable a variety of third party software applications to interface to and control their recorders thus making it easy to bring video and associated data together. Other suppliers reportedly supplying digital video solutions in fact supply survey acquisition software and low end video grabber cards, these systems end up with complex file naming structures and hence the requirement to use special viewers to review the video. NETmc Marine systems are designed around broadcast quality encoding cards producing high quality video recordings, something they believe is a fundamental requirement in underwater inspections.

DVR Inspector

(featuring optional SATA removable drive)

The DVR Inspector is a 19” rack mountable recorder that accepts PAL or NTSC video and audio signals converting them to MPEG files, of which the format and bitrate of the encoding is selectable.

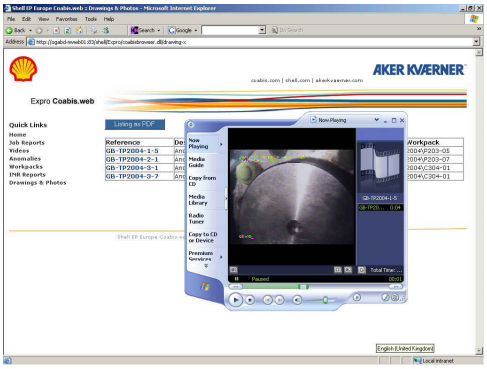


The video files are stored either internally or externally via USB or network connections, the size of these files can be selected in a setup screen along with other settings, e.g. stills format and storage location. Built in to the DVR Inspector is a file management system, which again eases the location of files, and on top of that each file name can have time, date and a sequential number appended to it.

The video files are stored in “packet” (.pkt) files, also in the packet is telemetry information from the navigation computer or eventing package, this can include KP, Easting, Northings, CP etc, this data is not “seen” on the display but is embedded in the packet.

When an application opens the packet it sees the video files and the telemetry data. To access this telemetry information requires the use of tools, which NETmc Marine can provide to developers as a SDK (software development kit). Here is a picture of the demo viewer where you can see the telemetry displayed in the light green boxes, a free copy of this can be downloaded from their website http://www.netmcmarine.co.uk/inspector.htm. Several software, packages have been interfaced to the DVR Inspector such as Coabis SCOPE and Surespek's SIMS, these packages control the start stop functions of the recorder and also name the files automatically for storage in their database, they also use the optional built in video overlay of the DVR Inspector to send information to the screen.

Once the video is stored there is no requirement for the DVR Inspector, it is not required to play back the video neither is a dedicated viewer, the video can be played in Windows Media Player, even without opening the application software that was used to control the DVR Inspector. The image on the left shows how Coabis use Windows Media Player to replay the video from within their environment linked to its web browser.



DVR Pro

The DVR Pro consists of three DVR Inspectors networked with a DVR Server. The DVR Server creates a "packet" that includes all three inspector video files. The telemetry data is sent to the DVR Server so when the packet is opened the associated survey data is also there. Using the SDK, developers can use the telemetry data to jump to points in the video.

The viewer on the left is the NETmc Marine demo viewer and gives you an idea as to how the video could be displayed. It shows the telemetry in the green boxes.
Again this viewer is for demonstration purposes only and is available as a free download from their website http://www.netmcmarine.co.uk/dvr.htm.

As NETmc Marine do not produce software it is in discussion with several companies regarding interfacing the DVR Pro with their software packages, currently Pisys is developing the interface to their XPANS eventing package which hopefully will be finished early August 06 and are also looking at interfacing it to their PIMS package, Surespek in Australia have started the integration of the DVR Pro as they have a contract with Woodside which requires the use of the DVR Pro. In addition to this we are in discussions with various producers of navigation software and engineering software regarding their integration to the NETmc Marine equipment.

As can be seen the DVR Pro will allow several companies that have been performing pipeline inspections for many years, using either off the shelf software or in-house developed software, to move up to digital video acquisition without having to re-invest in new software, which may or may not be better than what they already have.

There would be nothing stopping a customer that possesses software development capabilities from developing its own viewer or integrating the data to an existing package already being used.

Hopefully the above answers some of the questions that may arise from reading the brochures or raises some new ones.

Please do not hesitate to contact us should you have any further questions.

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