

USER GUIDE FOR NETmc MARINE *Triops*



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1. Introduction

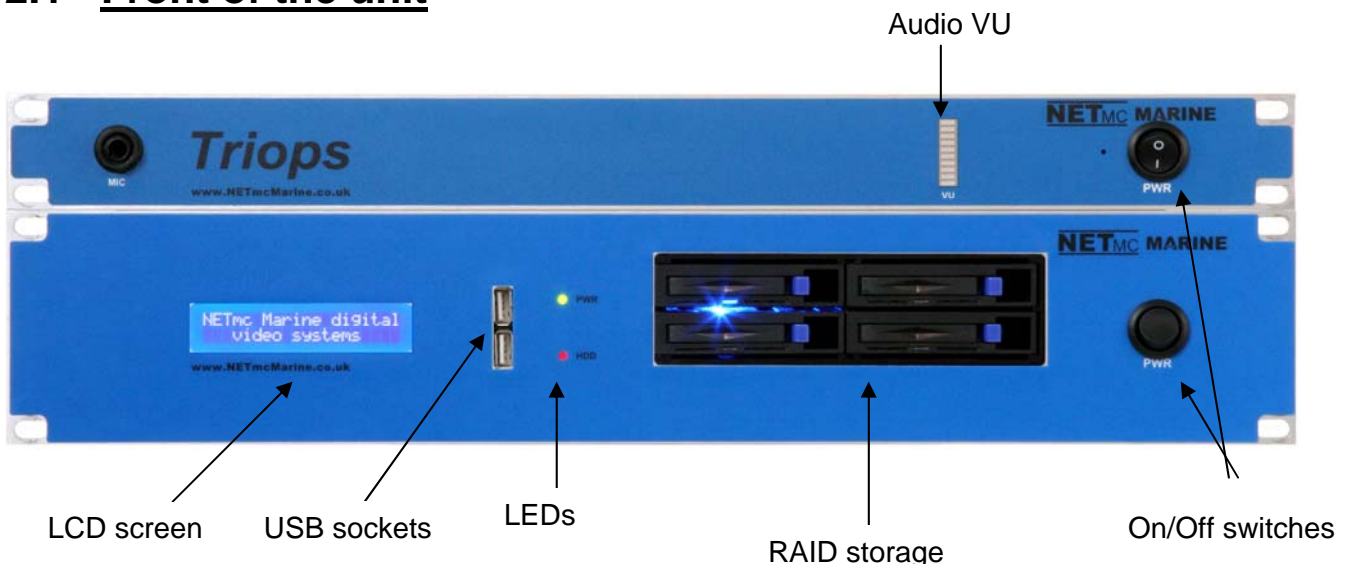
The **Triops** is a 19" rack mountable, multi-channel video acquisition system developed specifically for the offshore pipeline inspection market. Unlike other multi-channel pipeline recorders, the **Triops** does not depend on a single multi-channel board, rather each video channel has its own individual module. Thus if one channel goes down it does not take down the whole system. Each video file is stored as a separate entity, though by using NETmc Marine filters, media players know that there are associated files and so all three files will be launched simultaneously. Furthermore, as no special viewer is required, the files can also be viewed in Windows Media Player.

The **Triops** is supplied with an intuitive user interface that displays each of the three video streams in a live view. Clicking on any of the live views expands the image to full screen. The set-up screen allows for manually configuring store paths and other configurable parameters.

NETmc Marine can supply filters and SDKs to enable eventing packages to interface to the **Triops** for associating video to events.

2. Hardware Description and Connections

2.1 Front of the unit



LCD screen

Text on this screen indicates the status of recording – time / date / current file progress.

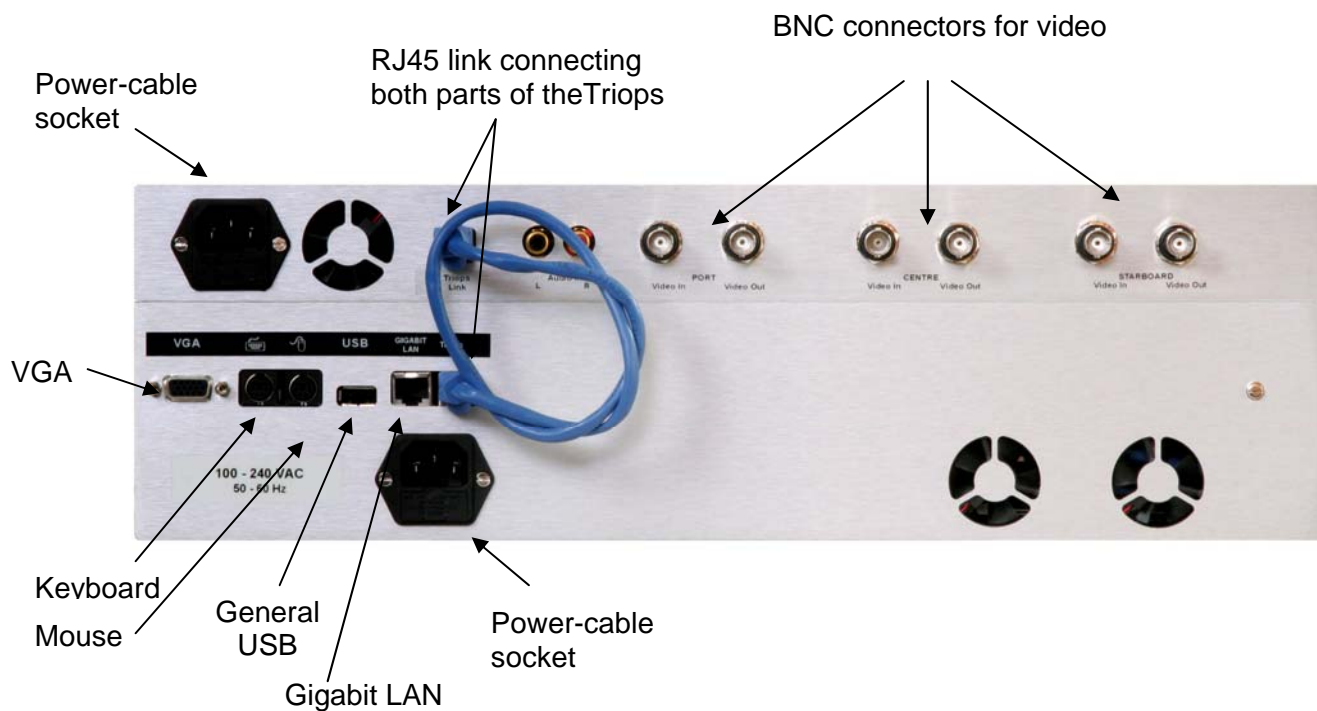
USB sockets

General purpose USB ports for the connection of portable storage drives for example.

LEDs

The top LED indicates whether the power is on.
The bottom LED indicates disk drive activity.

2.2 Back of the unit



Input sockets

The back of the unit has sockets for connecting a monitor, keyboard, mouse and a further USB socket for connecting, for example an external storage device.

Video pass-through

Video pass-through is available on the “video out” BNC sockets.

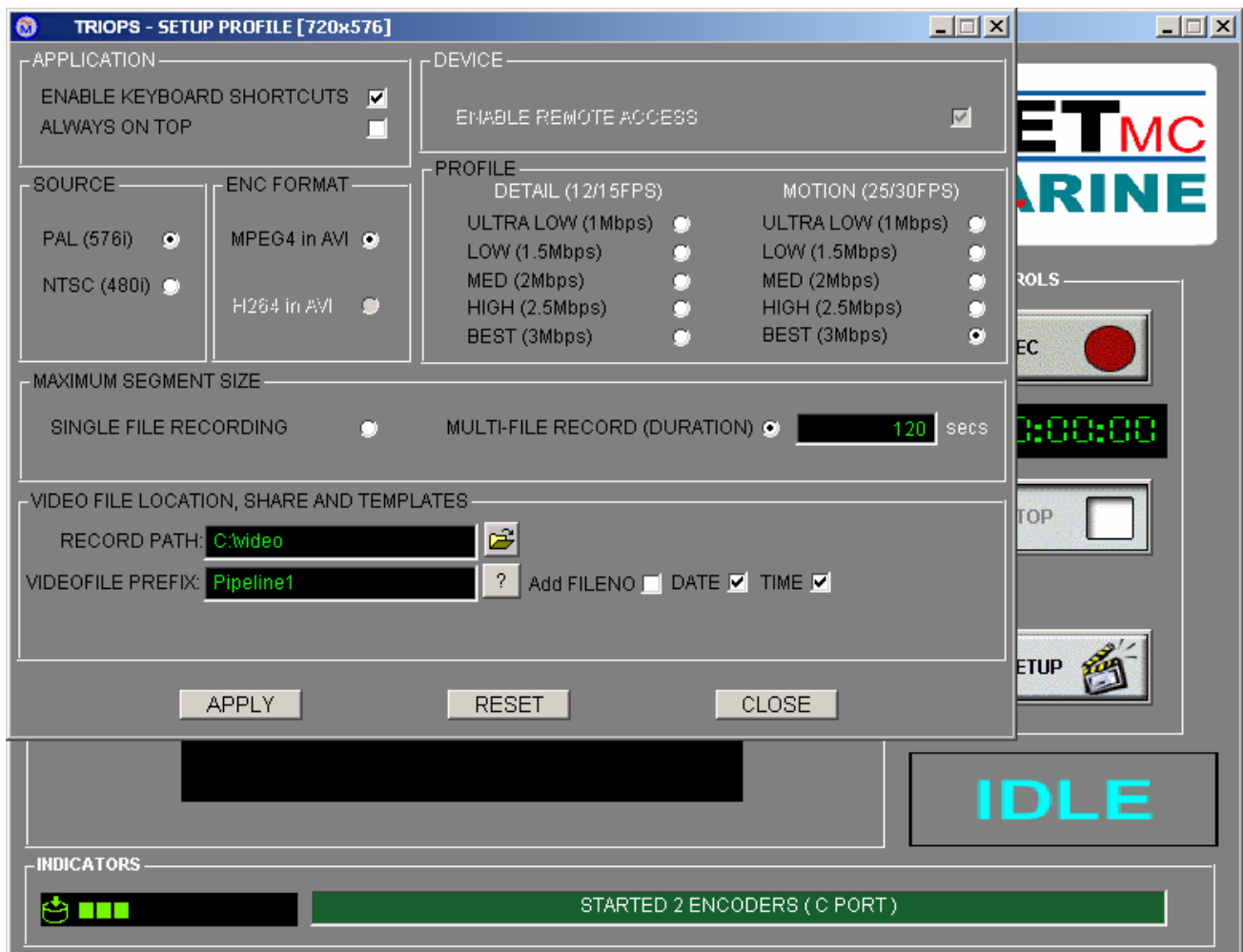
It is important to plug in all video connections before switching on the *Triops*.

3. Set-up

THIS EQUIPMENT MUST BE EARTHED.

1. Mount the *Triops* in a suitable rack mount system.
2. Connect the power supply. **Note: this unit must be earthed.** Note (2): we highly recommend connection to a UPS (uninterruptible power supply) to prevent data loss.
3. Connect keyboard / mouse / monitor
4. Connect encoder module to controller via short RJ45 link supplied.
5. Connect video / audio signals.
6. Power up both units.
7. Launch *Triops* software from desktop icon.
8. Live video images should be displayed on screen. If video windows says “offline”, check that the RJ45 link is correctly installed and both units powered up. Double click on “Offline” window to restart that channel’s encoder.

4. Software Settings



In this set-up page the user can select:

- the video input source (PAL/NTSC)
- video quality (by experiment / customer specification)
- where files are to be saved
- what the file names should be.

Note: Rev1 units default to saving EIVA-compatible file names

e.g. 2010-0604-092718-000-videofileprefix-centre.avi

2010-0604-092718-000-videofileprefix-port.avi

2010-0604-092718-000-videofileprefix-stbd.avi

4. Live Screen

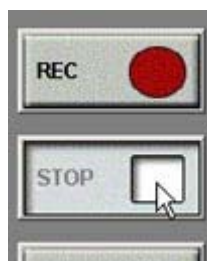


To start recording, simply click on the RECORD button.

When recording has started, the status indicator changes to "REC" instead of "IDLE", the REC button will become depressed and the minute counter will start to increment:

The image on the screen shows the video signal that is being input to the DVR.

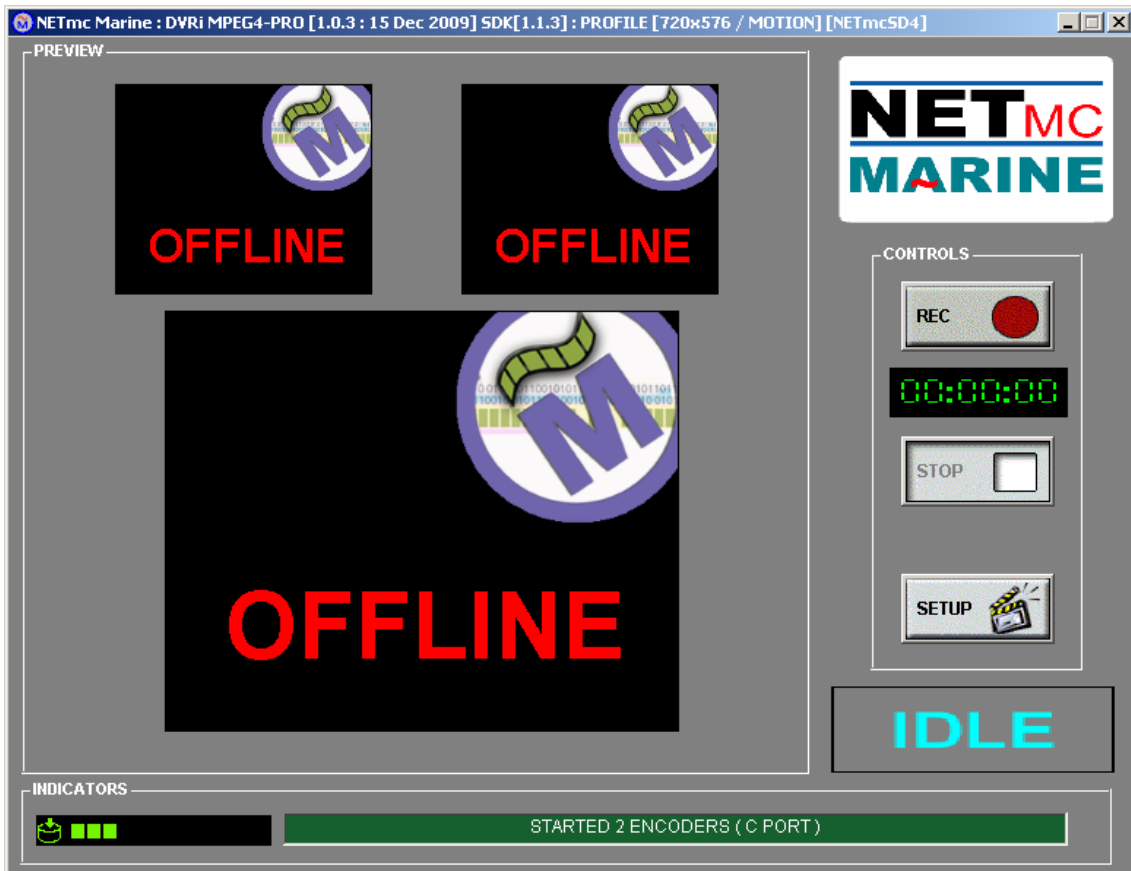
Once the desired footage has been recorded, simply click on the STOP button to end recording.



To resume logging, simply click the RECORD button again.

The system will automatically create a new file, automatically named as per the configuration in the SETUP page.

Double-clicking on any video image will take that image to full screen.
Press ESC to take the display back to normal.



If the screens go “offline” as shown in the image above, check that the encoder module is switched on and the RJ45 cable correctly inserted. Then double-click on the window to restart the encoder.

5. Playback of files

To replay individual files on the Triops PC

Open the drive where the video files have been stored (e.g. c: video\). Simply double-click on any file and the media player will open and the video file will play.

To replay triple video files on the Triops PC

Right-click on any file, select the three related files, click on “send to” , and choose “mps file.”

Then double-click the mps file and triple video launches and is synchronised.

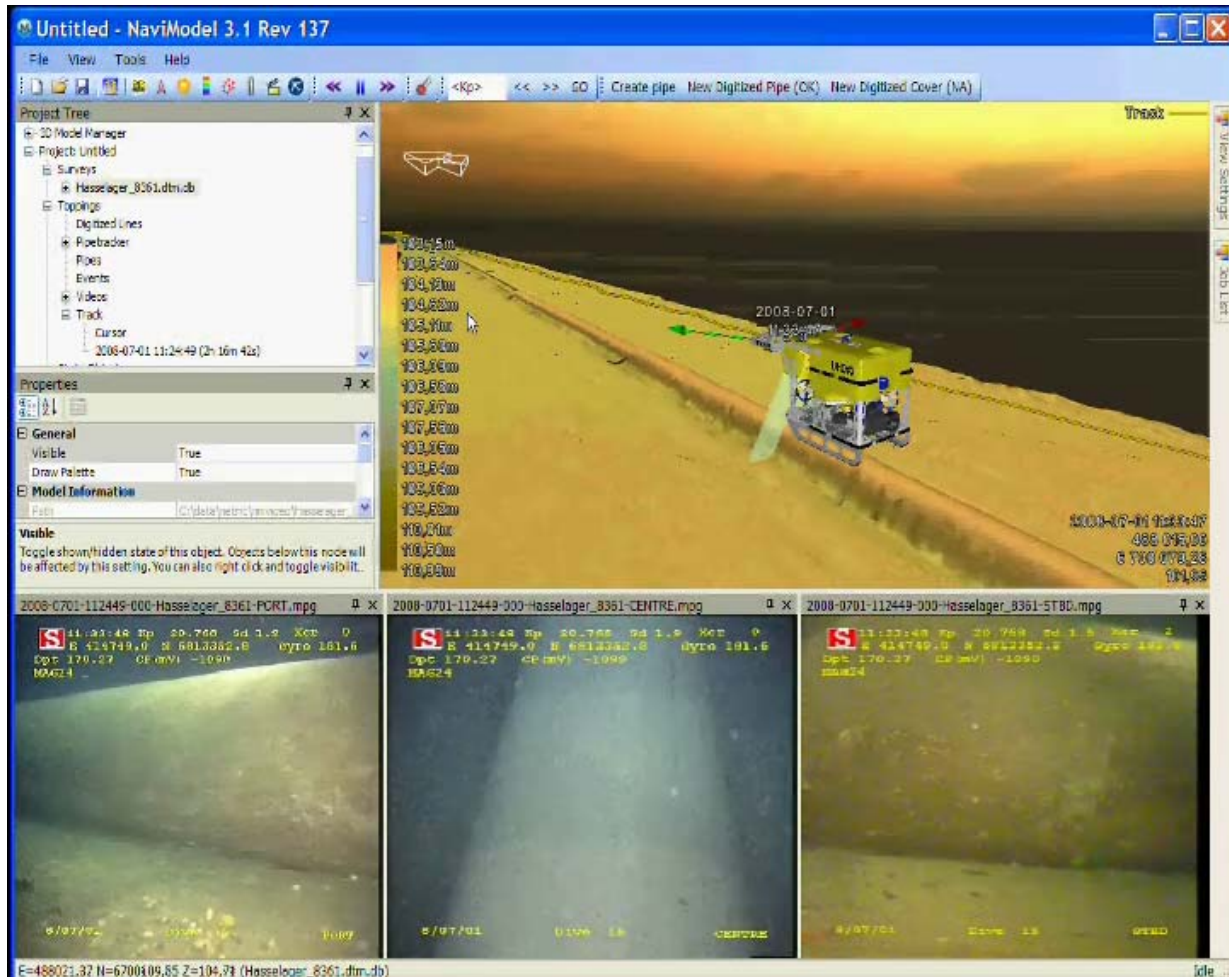
To replay video files on another PC

You will need to install a codec pack from our website: www.netmcmarine.co.uk

Select “File Downloads” from the Links menu on the right, click on “File download archive” and choose “HD / Triops Codec Pack”.

7. Compatibility with EIVA software

To enhance the operation of the system, NETmc Marine has partnered with EIVA A/S of Denmark, developers of marine navigation software, to interface the **Triops** with EIVA's suite of software including their NaviEvent package. NaviEvent allows for both online and offline eventing of pipeline inspections, with video being associated by time, thus enabling a jump to video facility when used with the NETmc Marine **Triops** system.



7. How to contact NETmc Marine Support

Should any problems occur with your *Triops* that are not addressed by this manual please contact our Support Team:

Email: support@netmcmarine.co.uk.

Tel: +44 1771 644001

Should your call be outside office hours, please leave a message on the answering machine, which will be forwarded to one of the support engineers. Although we cannot guarantee 24/7 availability, we endeavour to respond as quickly as possible to any query – regardless of when the support call is made.

Notes:

1. Whilst every effort has been made to ensure that the information contained in this manual is accurate, no liability can be accepted for errors and omissions.
2. Should this product be modified in any way by anyone other than a qualified NETmc Marine employee, then NETmc Marine cannot be held liable for any consequences.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Appendix 1

Technical Specifications

Power Requirements	85-264 Vac, 50-60 Hz
Power Consumption	180 w
Operating Temperature	10 - 35 Degrees
Non-operating Temperature	-10 - 60 Degrees
Operating Humidity	5-95% RH non-condensing
Non-operating Humidity	5-95% RH non-condensing
Operating Shock	65G, 2ms
Non-operating Shock	250G, 2ms
Operating Altitude	-305m – 3,050m
Non-operating Altitude	-305m – 12.200m
Operating Vibration	Linear 20-300Hz, 0.75G (0 to peak) Random 10-300 Hz, 0.004g ² /Hz
Non-operating Vibration	Low frequency 5-20 Hz, 0.195 inches (double amplitude) High frequency 10-300Hz, 5.0G (0 to peak)
Dimensions	482(W) x44(H) x 153(D) (1U case) plus 482(W) x 88.5(H) x 455(D) (2U case)
Weight	??? kg
Network Support	10/100 & 10/100/1000 Base T
Video Input	Composite (BNC) PAL / NTSC
Video Rate	MPEG4 1-3 Mbps
Audio	Analog stereo line input
Microphone	Mono ¼" Jack
Internal hard drive	2TB
External connections	USB 2

Storage and shipping

After overnight road freight the units should be left at room temperature for 24 hours before powering on.

After air freighting the units should be left at room temperature for 48 hours before powering on.