



PSM INSTRUMENTATION LTD

Clearview

For Windows

Operation Manual

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Notes about this manual

Incorrect function or damage to associated equipment may occur if Clearview is not used in accordance with this manual. The information in this manual may be highlighted by the following symbols indicating that special care should be taken when performing these associated actions.



A hazard indicates actions or procedures which, if not performed correctly may invalidate safety certification



A warning indicates actions or procedures which, if not performed correctly may result in personal injury or cause damage to the instrument or associated instruments.



A caution indicates actions or procedures if not performed correctly may cause incorrect function or loss of information



A note indicates that actions or procedures if not performed correctly may cause unexpected results.

About Clearview

Clearview is a monitoring system that operates in conjunction with the Triton OWS monitoring system from **Transas Telematics** and is designed to guard against accidental overboard discharge by overriding the existing OWS plant and all machinery with real-time monitoring and fail-safe activation.

Clearview has a simple to operate graphical display and monitoring package running in the windows environment, which provides the user with a clear overview in both bar graph and numeric format, of the condition status of pre-programmed on board devices and tank levels.

PSM's Clearview system typically comprises of two basic units. A marshalling panel and a stand alone display system.

NB: Functionality and operation of the Transas Triton system is covered in a separate manual.

The Marshalling Panel:

The PSM marshalling panel houses the analogue and digital input data acquisition modules.

Typical inputs are 4-20mA level signals from each of the level transmitters and the Oil in water monitor, all bilge switch and pump status signals, and all incinerator status signals. These are retransmitted as an RS485 data packet to the PSM Clearview monitor. The Transas Triton system also provides GPS data to Clearview via an RS232 link.

PSM Stand-alone Monitor:

The Clearview system is normally located in the Engine Control Room. It comprises a bulkhead mounted self-contained cabinet with door mounted keyboard, touchpad and display. Internally a PC unit runs under MS Windows and has PSM's "Clearview" application installed.

This panel continually interrogates the acquisition modules in the marshalling enclosure and the Triton System to obtain the current status of tank content and other parameters.

This means real time information regarding the status of all monitored signals is provided "on-screen"

Clearview also automatically logs the status of all monitored parameters with time, date, and GPS stamp into a file that is routinely collected by the Ships communications management system via an Ethernet connection. Onward transmission of the data to the central Transas Server is handled by the Ships communications management system.

The file is encrypted to ensure integrity of transmission and is decrypted only when received by the Transas Server.

The Program

Clearview is designed to automatically run when the display system is booted. If this is not the case or the system has been stopped for any reason, it can be re-started from the Clearview program group in the Windows 'start' menu, or from an icon on the desktop.

In use, no operator intervention is needed, but standard Windows conventions apply for display manipulation.

Clearview will have been factory configured to suit your exact requirements, therefore no adjustments are needed or permitted. Once started you will be presented with a screen similar to the one below.



The system will immediately be running and this is clearly indicated in the active window bar.

Stopping the Program



Closing the programme will trigger a critical alarm transmission to the Transas Fleetview online server.

Clearview can be stopped by pressing 'stop' in the menu bar. This action is password protected and will bring up the following dialogue box

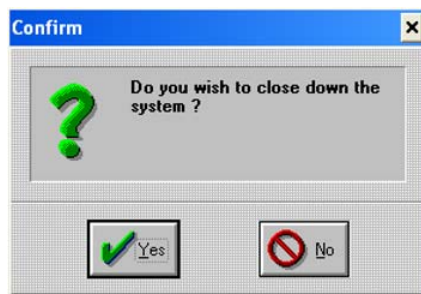


The default password is '1234'. It is recommended that the shipboard personnel change this to one known to them.

Once the password is entered click 'OK', Clearview will remain open but inoperative, this will be indicated in the active window bar and 'stop' will be replaced by 'run' on the menu bar. An active alarm pop-up will also be displayed.

NB: The password is not required to run the program.

To close down the program completely, select exit from the file menu or click the Windows 'X' in the top right corner, the following dialogue box will appear

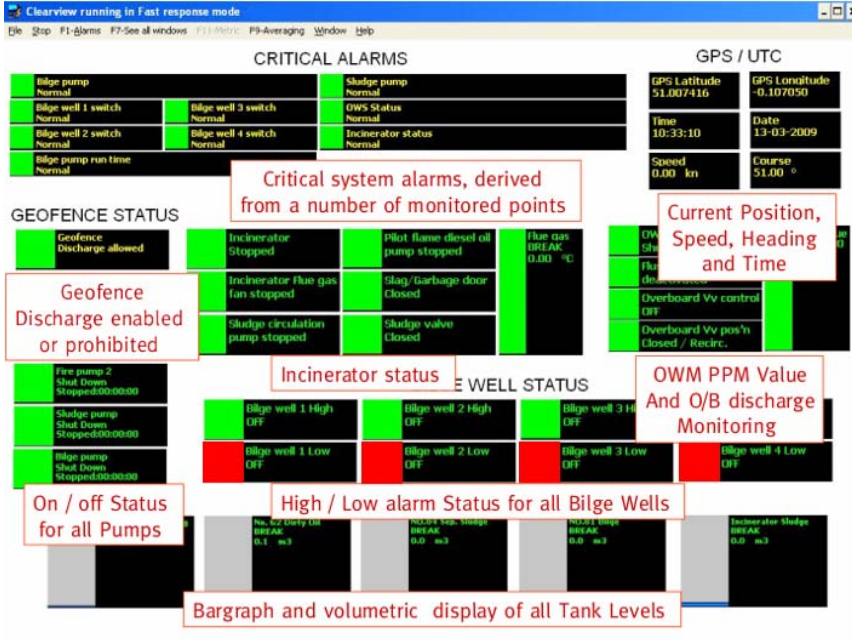


Clicking 'yes' will bring up the password dialogue as above, on completion Clearview will close down completely.

Understanding the Display

The display window contains grouped objects which represent particular tanks, devices or parameters and appear as a rectangular boxes within which descriptive information is displayed.

Each status object contains an associated colour flag which changes according to the status of that object according to requirements.



Active Alarms

Active alarms change the status from Green to Red. A text description fully identifies the alarm and it is logged with GPS & UTC stamp for transmission

Critical Alarms

Critical alarms are triggered by predefined events. A text description identifies the alarm.

NB: Refer to appendix 1 for your ship specific alarms and layout

Tank Level

Tank level objects have bar graphs instead of flags which visibly represent the current level and a numeric providing current volume. The bar graph changes colour when the tank is in different states. Blue for Normal level, Orange when the predetermined high Level point is reached, and finally red when the tank is full.

Tank Information

Individual detailed tank information can be displayed on the screen by positioning the cursor over the appropriate tank object and double left clicking on the mouse or pointing device.

Some of these parameters will not be relevant dependant upon the specific tank being monitored.

Tank Information

Tank ID : ADAM012 : No.62 Dirty Oil GMT 02-04-2009 13:28:15

Tank product : Dirty Oil

Ullage : 1.850

Flow (Fill = +): 0.0 m3/h

% of volume : 1.38 %

Actual density : 0.8500 t/m3

Volume : 0.086 m3

Weight : 0.07 Tons

Inert gas press. 0.000 mmWG

Actual temp.: 15.0 °C

Unit for level mwg

Level : 0.050

Refill : 6.124 m3

Time to fill : ---:--

Alarm 1 : 0.00 %

Alarm 2 : 0.00 %

Alarm 3 : 0.00 %

Alarm 4 : 0.00 %

Base density : 0.8500 t/m3

Max Ullage : 1.900

Max Volume : 6.210

Volume offset : 0.000 m3

Sensor offset : 0.050

Temp. Density Product

Leakage Pigt OK

Transmitter status

Raw : 0.000 OK

ICT : N/A

Double clicking on any other object type of object will result in the following dialogue box being displayed

Overboard Vv control

 Object has no detailed information window

OK

Alarm and event logging

Clearview automatically logs events as they occur : additionally it takes a system status “snapshot” every 5 minutes and under exceptional conditions every 1 minute. This data is collected by the ships communication centre at regular intervals where it is delivered via satellite link to the Transas Telematics Fleetview online server. This is an automatic background function and no user intervention is required.

Communication Errors

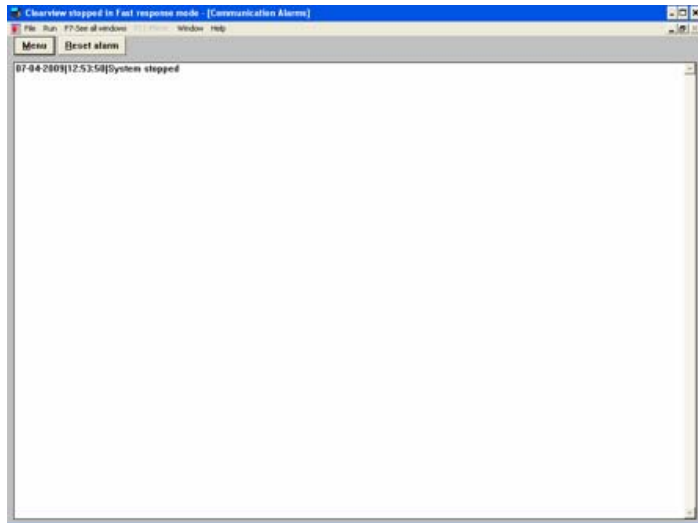
As stated above Clearview automatically records all events for onward transmission. This is a background function requiring no user input or intervention.

In the event that Clearview experiences a loss of communication with the various data acquisition modules in the Engine room marshalling panel meaning that it cannot collect data, it will automatically log details of the communication loss for transmission to the Transas Server.

At the same time Clearview will alert ships crew by displaying a pop-up window.



By pressing OK the user can view the communications error alarm page.



This page will show the 50 most recent communication issues.
Note that when communication is restored a further pop-up and message confirms this
The cause of any communications failure should be investigated immediately.

Pressing 'F1' will also open the alarm window

The alarm window has a menu with the following items :

Log

The alarms will also be logged to a file on the PC. In this application there is no requirement to log or view the alarms locally.

View log file

Selecting this will open up notepad with the current alarm.log file—not used in this application.

Audible alarm

Not applicable to this application

Print current alarm list


Not applicable to this application

Reset alarm

Select/ highlight the alarm to reset, then click this button.

You will be asked if you want to Reset the alarm.



 Resetting the alarm will simply remove it from the alarm list window and change the status of the alarm to acknowledged. If the alarm is still active this will still be indicated on the main screen but will not appear in the alarm list unless the alarm status clears and then reactivates.

Data Logging and file transmission

Log files are created every 2 hours and are run for 4 hours with a 2 hour overlap.

All events are automatically logged with GPS & UTC stamp.

The status of all digital and derived parameters are logged at the start of each log file and thereafter when any event is triggered.

All analogue parameters are logged every 5 minutes

In the event of a critical alarm, an immediate transmission to the Texas Fleetview online server is triggered via the D+ satellite and logging will commence at intervals of 1 minute resulting in a precise record of the time that the alarm was active.

Critical Alarm Transmission

While a critical alarm remains active Clearview will retransmit the alarm flag to the D+ satellite at 5 minute intervals.

Health Flag

Clearview automatically outputs a health flag at 2 minute intervals. This flag is received by the Skywave D+ unit. If the health flag is not sent for any reason (Clearview shutdown or offline) then the D+ unit will transmit an error message to the Transas Telematics Fleet View online server.

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