MaxView Feature Summary

Towfish Control

Towfish start and stop

> The towfish power is controlled using software controls only. There are no controls needed on the acquisition hardware.

Range and frequency selection

> The operating frequency and range is selected using MaxView. The software automatically offers the range and frequency options supported by the connected towfish variant.

Special mode selection

> Special operating modes such as Shallow Water or Mute mode can be selected. The integrated towfish altimeter search depth can also be adjusted to ensure correct bottom tracking if needed.

Data Acquisition and Review

Resizable acquisition waterfall window

> The acquisition waterfall window can be expanded up to 1280 pixels wide for easy viewing. A signal profile bar shows the amplitude of the received signal.

Multiple resizable review windows

> Previously acquired records can be simultaneously viewed in multiple windows for easy comparison. Any desired section of a record can be quickly viewed by sliding a scroll bar. Selecting a target from a list will bring the section of the record containing the target into view.

Measurement of target size and height

> The distance between points can be quickly measured by dragging the mouse cursor between them. The height of an object can be measured by dragging the mouse cursor along the length of the shadow projected by the object.

Multiple image zoom windows

> An area of an image can be viewed in more detail by dragging a square around it to create a Zoom window. Multiple Zoom windows permit easy comparison of areas of interest.

Target position measurement and marking

> Geo-referenced targets can be created on either live or reviewed records by simply clicking on the object of interest. A target contains user editable name and comment fields along with the target position, record number and time.

Geometrical correction

> The image can be displayed with a slant range geometrical correction applied to remove the water column.

Selectable colour palette

> The colour palette and brightness for both live and reviewed data can be chosen from a selection that best suits the data type, the display device or the user's preference.

Integrated Plotter

Current and historical vessel position

> The current position and heading of the vessel can be   shown graphically along with a wake trail that shows the most recent vessel positions. This feature allows the vessel helmsman to judge the vessel course in relation to other objects displayed on the plotter.

Record track and coverage

> The track of the currently acquiring record and those of previously acquired records are shown. The swept area can also be shown, allowing the operator to ensure that coverage of the survey is complete.

Targets

> The positions and names of targets marked on live or review windows can be displayed and the distance or midpoint between targets can be measured.

Survey plan lines

> Survey planning lines can be shown which, in conjunction with the helmsman's display, allows the vessel to easily follow a pre-planned survey route.

Chart Imagery

> An image from a source such as a chart scan or aerial photography can be used as a geo-referenced background image. Other plotter features are superimposed on this image.

Survey Planning

Survey Lines

> Survey route planning is achieved by creating a series of survey lines. The end points of these lines can be entered manually, selected graphically from the plotter or taken from the current vessel position. The length and course of the lines can be subsequently edited.

Grid creation

> A survey grid can be easily generated by creating a survey base line and then automatically creating a series of parallel lines with a user defined spacing. The direction of alternate lines can be reversed to allow the helmsman's display to correctly follow the survey grid.

Helmsman's display

> To assist the helmsman during a survey the display indicates the distance and direction from the vessel to the nearest point on the active survey line.

Measurement

> The total length of all or a selected set of survey lines can be measured. This can be used to help calculate the required surveying time.

Workflow Management

Project based surveying

    MaxView features such as survey plan lines, acquired records, targets and chart imagery are stored in a project. Any of these features may be added or removed form the project either on or off line.

Pre-survey planning

    In preparation for a survey a new project can be created and the area to be covered can be defined by generating a number of survey lines. Additionally a background chart image can be imported.

Acquisition

    During acquisition new records are added to the project. The imagery data is typically stored on the PC hard disk giving hundreds of hours storage on a typical PC. Targets can be added at this stage to either the live record or previously acquired records.

Post survey

    Records can be viewed, targets added and measured and imagery data converted into other formats without the software protection dongle being connected to the PC. This allows these processes to be performed on any PC without requiring addition software licenses.

Navigation Interface

Flexible input format

    The navigation input is read from a standard serial port either incorporated into, or attached as a peripheral to, the acquisition PC. The navigation input accepts messages containing both Latitude/Longitude or Easting/Northing position fixes. Additional information such as vessel course and speed can be extracted from standard NMEA strings.

Filtering

    Position fix filtering options and message checksum verification ensure that corrupted fix messages do not affect the acquisition track.

Quality indication

    A fix quality window allows the user to quickly check the quality of the received GPS data. This window displays the signal strength from each satellite in view and the quality of the generated fixes.