TSD (Tideland Smart Display) is a powerful AIS display system, including Message 21 (AIS AtoN data), with features such as record and replay, warning areas and AIS target filtering. TSD offers a unique concept by allowing the operator to view AIS vessel traffic with the option of integrating and viewing AtoN. TSD is compatible with Tideland’s NavLink® remote monitoring and control system.

**Characteristics**

- Efficient display of real-time AIS data
- Advanced replay feature viewing replay and online data simultaneously
- Display of historical tracks for one or more ships, with timestamp indication
- Advanced customisable zooming capabilities
- Bookmarks can be added for easy chart navigation
- Automatic target tracking, for example the chart can be rotated automatically so that the ship is always facing the same direction
- Distance and bearing measurement
- Advanced filtering, for example, making it possible to easily find all tankers on the chart.
- Warning areas can be set for ships entering/leaving a sensitive zone
- 2 x AIS base stations can be connected
- Zones can be used to provide a warning of speeding vessel

**Integrated Filtering**

Filters can be constructed by combining many types of attributes in endless ways. Examples of attributes that can be used are MMSI, Country, Ship Type, Speed over Ground, Heading, Course over Ground, Rate of Turn, Draught, Size, Heading and many more. For example, a filter can be used to display all tankers within the area of operation. All matching ships are displayed in green, and other ships are shown in blue. The colours are configurable. Also, unmatched targets can be removed entirely. All AIS message fields (such as destination, type of cargo, etc.) can be used as the basis of this kind of analysis in the TSD System.

**Optional Features**

- Connect up to 5 x AIS base stations with upgrade module
- AtoN alarm/failure warning
TSD AIS Display System

Warning Areas
Different types of warning areas can be defined in the system. For instance, a warning area can be set around a port generating an event when a ship either enters or leaves the port, and warning areas can be defined and configured manually through a graphical and intuitively easy user interface in the TSD.

Warning areas can also be set to detect vessels traveling in excess of the speed limit.

Advanced Reply
TSD System makes it easy to replay AIS data. Replay data can be taken from the built-in local database. Replay speed is adjustable and provides a powerful method to investigate traffic behavior.

AtoN Remote Monitoring
TSD offers the powerful and unique capability to remotely monitor and provide warnings and alarms. Summary data can be easily viewed. Detailed reports can be exported to many applications including Crystal Reports, Access and Excel. Remote monitoring information can include lantern status, battery voltage, solar module voltage, sunswitch status and additional useful information.

Technical Details

<table>
<thead>
<tr>
<th>Hardware and Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSD System runs on Windows XP, 2000, or 2003, Windows 7 or 8</td>
</tr>
<tr>
<td>TSD handles directEnc charts</td>
</tr>
<tr>
<td>Charts can be purchased from <a href="http://www.chartworld.com">www.chartworld.com</a></td>
</tr>
<tr>
<td>A USB dongle is used to protect the installation</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Hardware Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel P4 2.4GHz or higher</td>
</tr>
<tr>
<td>120GB hard disk drive, depending on how long replay data should be available</td>
</tr>
<tr>
<td>1GB RAM</td>
</tr>
<tr>
<td>2 x USB 2.0 ports</td>
</tr>
<tr>
<td>10/100Mb network interface card</td>
</tr>
</tbody>
</table>

The Most Popular AIS Display for Situation Awareness

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