AIS Analyser

Overview

Automatic Identification System (AIS) is an effective means of tracking ships at sea. The technology is based on VHF broadcasts, and carriage of AIS equipment is mandatory for the majority of SOLAS vessels greater than 300GT. It is also well adopted by fishing vessels (mandatory for EU fishing vessels of 15m and over), as well as a growing number of recreational craft.

AIS data is increasingly being recorded and stored to provide a useful source of information about shipping movements. However, AIS was not designed for such applications, and processing and analysing AIS data reliably can be problematic.

Anatec Ltd has developed *AIS Analyser*, an integrated AIS analysis system, that lets the user record, process, store, playback and analyse AIS data to obtain useful information about vessel movements.

Clients include the Port of London Authority, Trinity House, Oil Companies and Wind Farm Operators.

Data Recording

AIS Analyser uses a dedicated server to record AIS data from one or more receivers, either via a direct serial data connection or over a local network. This timestamps each AIS message to record when it was received.

Data Processing

AIS data is split across different message types: some give positional information, while others give (static) vessel details such as name, callsign and length. *AIS Analyser* processes and combines the individual position reports and static details to create a daily database of vessel tracks.
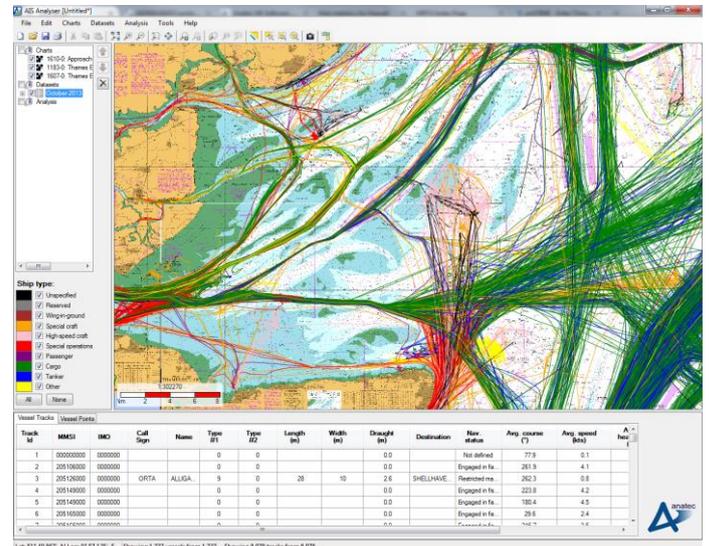
Data Querying

Multiple daily databases can be combined and filtered to create a larger dataset for in-depth analysis. Data can be filtered on fields such as ship type, navigation status, length, draught, name, destination, etc. Tracks can also be selected within a specific geographic area of interest, such as crossing a "gate" or within a given range of a location or area of interest.

Data Analysis

Analysis can be performed on either a daily database or a generated dataset. Vessel tracks can be overlaid on charts and colour-coded by a range of AIS properties, such as ship type, length, draught, speed and cargo type. The number of tracks in each category can also be calculated, and the results printed or copied into a spreadsheet or document.

Examples of practical applications include:

- Incidents/near miss investigations;
- Identifying infringers within prohibited areas; and
- Dynamic under keel clearance profiling.

Contact us below for more information.