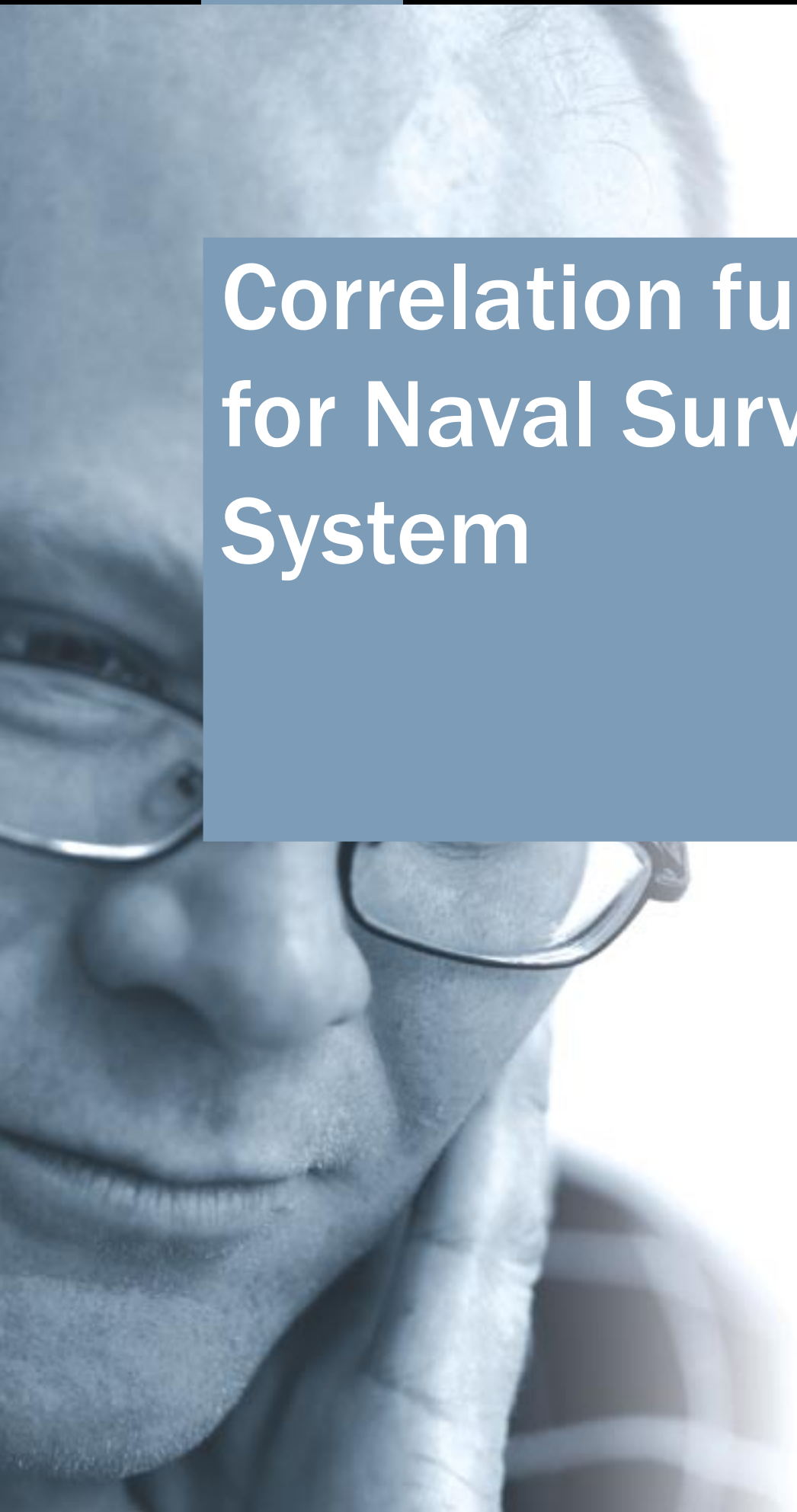
Case # 32



Correlation function for Naval Surveillance System

Technical development

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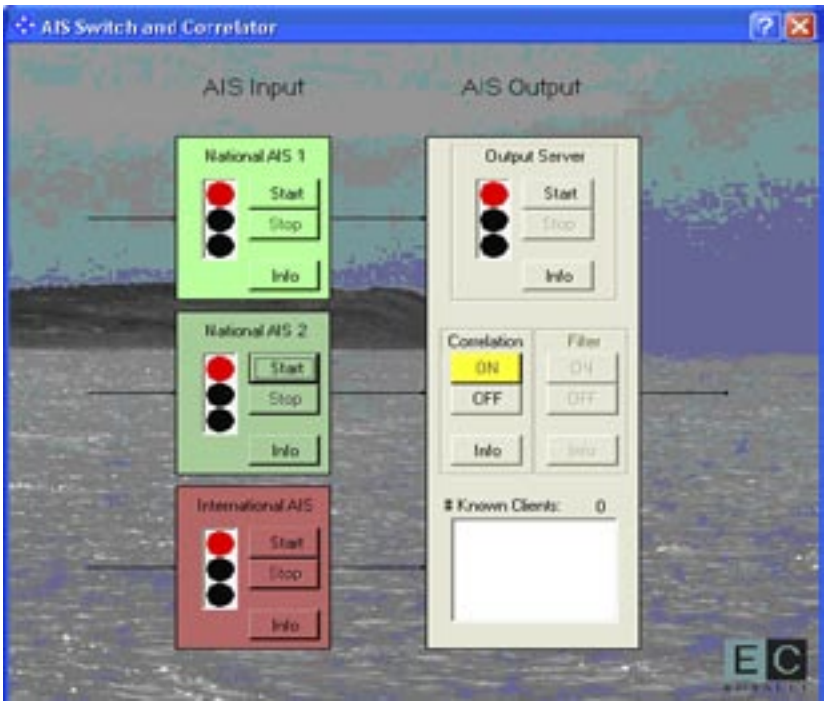
The correlation function is based on a server application with two main modules, namely the sensor switch and the correlator.
The sensor switch has to handle input data, for instance from radars and AIS transponders. Its purpose is to be a multi communication translator for several communication sources. Currently, the sensor switch controls five different communication sources.
The correlator works with the information from the sensor switch to make data fusion. When all information from different sensors is leaving the sensor switch, it has to be correlated to avoid double or triple information in the system for viewing data. Correlation can be provided in different technical solutions, for instance consisting of parameters such as time, source and priority.



Main View

The correlator is also logging all information and supervises every user who has rights to use this system.

The correlator is connected directly to the source for collecting and comparing of the information between the real-time stream and the ship database. New targets and changes initiated in the ship database are automatically forwarded to the registered Administrator.

All information is logged in the correlator system. This means that you can search for pertinent information in the log file. The information is also constantly compared to the standard to avoid spam and inappropriate measures. In the application you must initiate through a menu in which the client is also allowed to connect to the correlator. This function works like a firewall.

In the correlator system parameters the administrator can set different parameters for filtering to receive the prior information. The parameters are source, groundspeed, heading, areas, port of destination and port of arrival, etc.

Some key features:

- Correlator based on Microsoft .NET 2.0 and uses .NET's remote capabilities to enable flexibility and robustness in its client/server solution.
- Correlator is extendable through a layered and modular architecture. This ensures a good platform for incorporation of new and/or changed customer requirements into the system.
- Correlator delivers new information to the MIGRIS database for updates in real-time.

Technical Adaptabilities:

Correlator currently supports the following protocols/providers:

1. Terma Scanter Radar
2. ARPA over NMEA0183
3. AIS over NMEA0183
4. Extractor interface TCP IP

The sources can be:

1. National AIS source
2. International AIS source
3. Terma radar
4. Radar extractor interface

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