

SafeSeaNet Workshop no. 19
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SAFESEANET TECHNICAL ASPECTS

Central SSN Graphical Interface refurbishment

Submitted by EMSA

<i>Summary</i>	To introduce changes in the SSN Graphical interface application to improve user satisfaction and enable better performance
<i>Action to be taken</i>	As per paragraph 3
<i>Related documents</i>	IFCD version 1.00

1. BACKGROUND INFORMATION

According to the IFCD Chapter 2, the central SSN Web browser-based mechanism offers the Graphical Interface (GI) which uses geographical information system technology to provide access to ship positions and additional data in the central SSN system (e.g. pre-arrival, arrival, Hazmat cargo, incidents, etc.). This interface enables the creation of a vessel traffic image which displays vessel movements in near-real time, together with additional information on each vessel. The central SSN GI allows users of the SSN system to request and present ship-related information in many different ways.

Taking into account the feedback gathered during the training sessions, EMSA proposed the update of the SSN GI to ensure better system performances (increased speed) and user satisfaction (improved ergonomics of the web application). The EMSA Administrative Board approved the proposed action and included the task in the EMSA work programme 2013.

2. WAY FORWARD

The improvement will be achieved mainly via a refurbishing of the SSN web application without major impact on the underlying central SSN infrastructure.

The major improvements are summarised as follows:

a. Improved usability and ergonomics

The new application will extensively use modern GIS and HTML techniques to provide a highly ergonomic graphical interface. The goal is to improve both the quantity and the presentation quality of the features and functions.

The application has a web interface via which all of the functionalities are grouped visually and logically into thematic units, taking into account the different types of entities (e.g. vessels, ports, tracking, etc). Special attention will be given to the

ergonomics, to provide requested information instantaneously, and with minimal effort in terms of user actions.

b. Improved performance

A new engine will be developed for the central SSN GI to improve visualisation and interaction with the application, especially in terms of the display of dynamic data.

The new approach is oriented to the transfer of rendering functionalities from the server to the client application (web-browser), while minimising the interactions between the client and the server, and thus improving the overall performance of the platform.

c. New functionalities

The central SSN GI will incorporate some new functionalities that aim at improving the usability of the data available in SSN to fit the operational needs such as:

- AIS signal lost track: providing the user with an alert which is triggered when the last AIS received message is older than a predefined threshold (customisable by users);
- improved plotting capabilities for ship movements: users can search for historical vessel tracks by setting up different criteria (e.g. within a defined timeframe, in a given area, between two ports, etc.);
- follow-up mode: allowing the screen to move with a selected ship;
- free line/polygon drawing and symbol insertion: allowing users to interact with the interface;
- multiple segment lines: for distance measuring;
- improved playback functionalities, and;
- specific visualisation of anchored vessels.

The refurbished central SSN GI is expected to enter in production by the end of September 2013. The look and feel of the new application is presented in the Annex.

3. ACTION REQUIRED

Member States are invited to take note of the information provided.

ANNEX

Look and feel of the refurbished SSN GI

The look of the new SSN GI can be seen in Figure 1. The picture displays the maps, including density clusters, and the panels triggering the available functionalities.

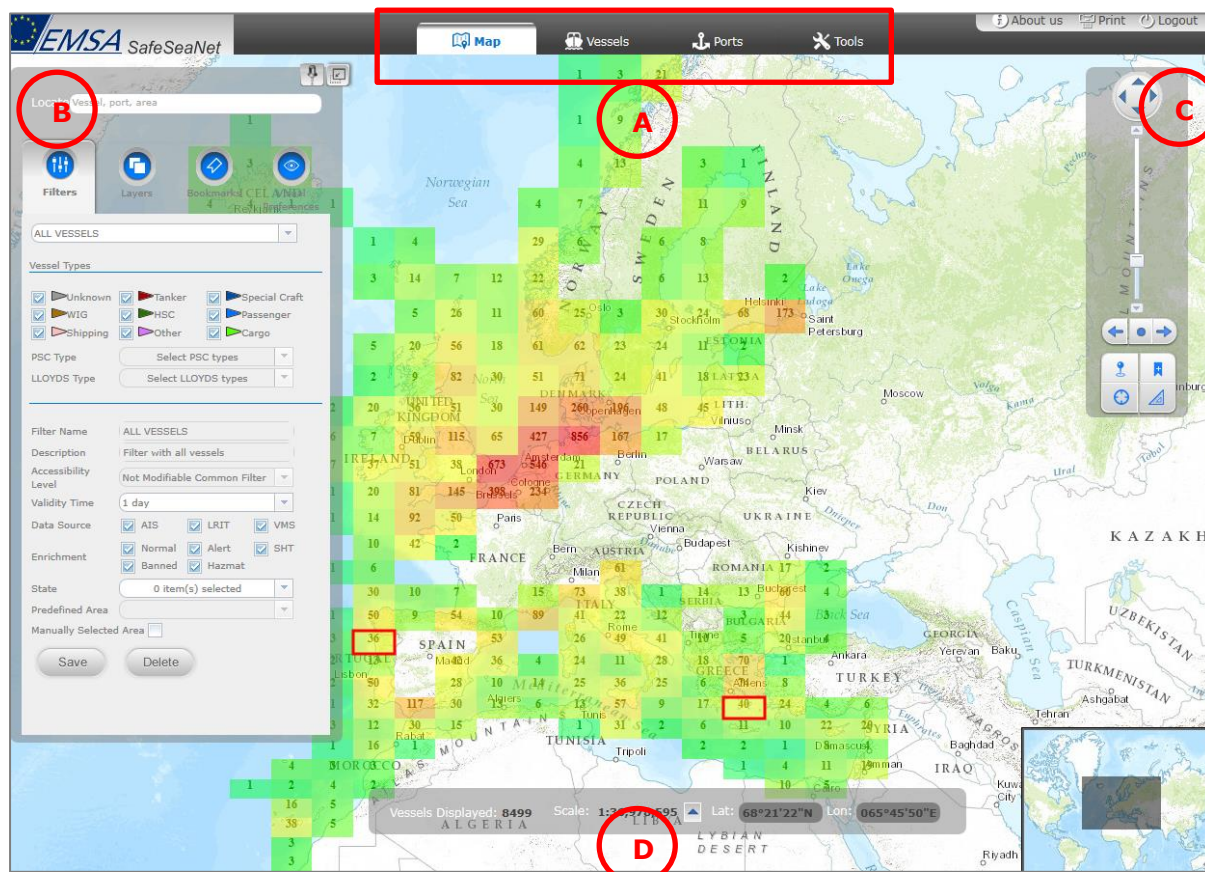


Figure 1 - Map visualisation (density clusters)

The user can switch from map view to other views (I.e. vessels, ports and tools) in a single click by clicking the top-tabs (A). Access to the majority of the operational functionalities (e.g. filters, search options, layers, bookmarks and visual preferences) is via the left panel (B). The right panel (C) includes the navigational tools (e.g. zoom, pan, previous/full extent), and also the functionalities which allow users to interact with the map (e.g. measuring distances and drawing polygons). The bottom panel (D) provides additional information (e.g. the number of tracks displayed, the scale and the geographic coordinates of a selected target). Both the (B) and (C) panels are collapsible.

Figure 2 presents the nautical picture when the zoom level is increased over a specific area.

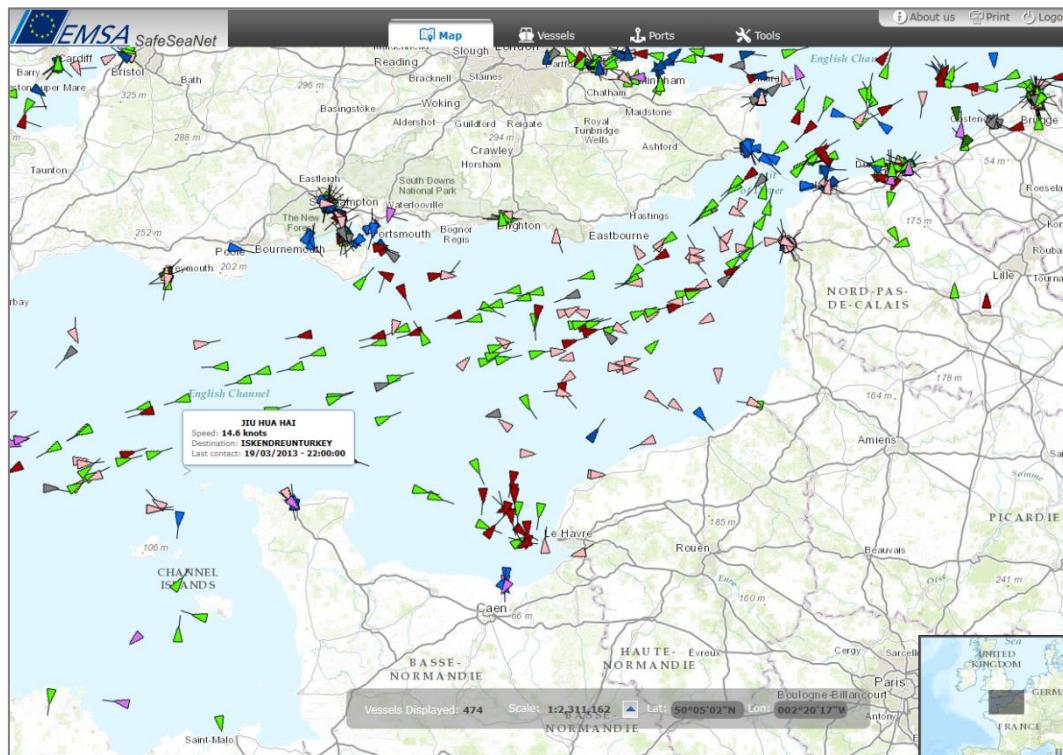


Figure 2 - Map visualisation (tracks)

The AIS positions are displayed, and also the identification of targets and certain dynamic data are provided, by hovering over the track with the pointer.

Figure 3 shows the details for a specific vessel.

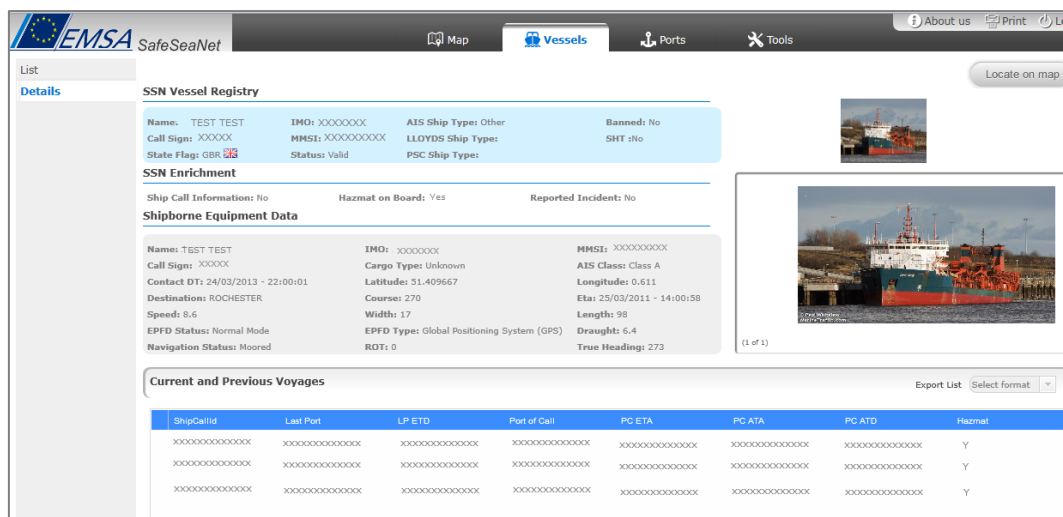


Figure 3 - Vessels tab

The identification details available in the SSN RVD are displayed at the top, and pictures of the ship can be seen to the right.

The relevant voyages of the vessel (current and previous) are also automatically displayed in the lower section of the screen. In parallel, active Hazmat information is linked to the voyage in accordance with the correlation principles agreed at SSN WS 15.