

Current visualization of S124 messages in the Wartsila-Transas products

Submitted by Wartsila-Transas

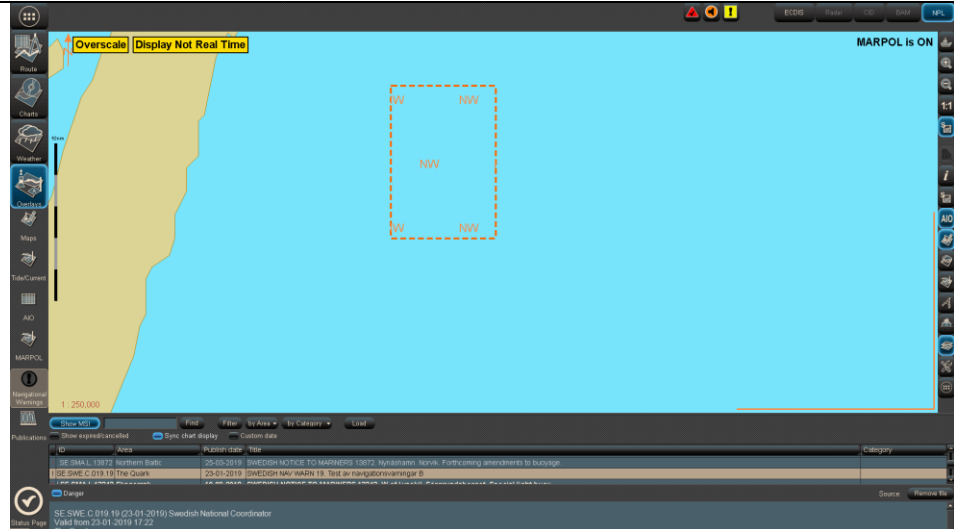
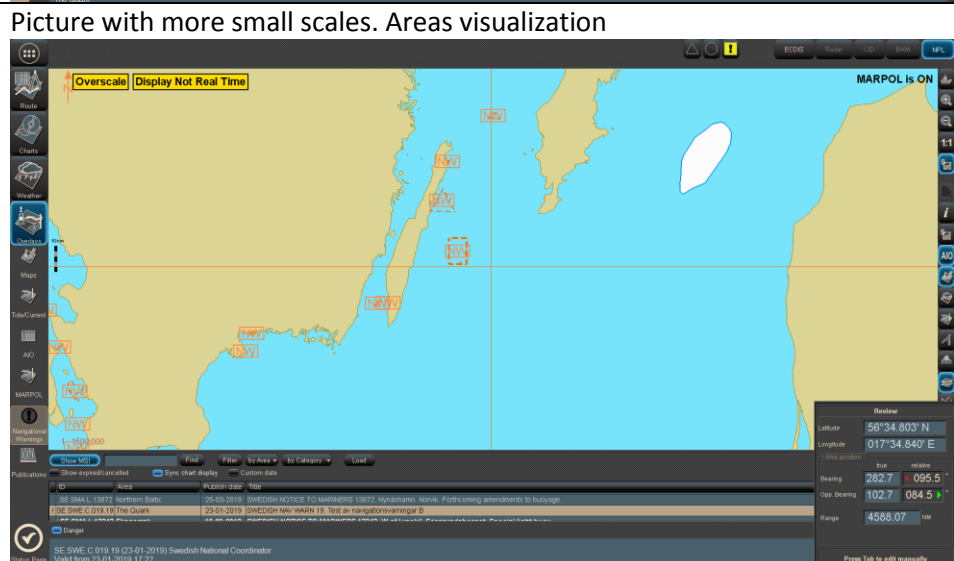

SUMMARY

Executive Summary: Portrayal is the instructions for how information is to be displayed to the user. Several factors influence important details when defining portrayal.

Action to be taken: Discuss the open questions and record conclusions as input to further the S-124 portrayal rules.

Related documents: S-124 Product Specification Draft 2.0.0

Provided examples based on S124 messages that have been received from Baltic Navigational Warning Service under STM project

N	Portrayal in Navi-Planner (in our ECDIS we have the same visualization principles)	Description
1		<p>Current portrayal rules resemble displaying rules for MSI regarding to the IEC 62288 ed.2 Main difference is that symbol's NW instead of MSI and we are not displaying this pattern in a rectangle.</p>
2	<p>Picture with more small scales. Areas visualization</p> 	<p>When small scales are applied on the map, we implemented the next way for polygons: if the perimeter of area is less than 500 pixels the pattern NW in rectangle is shown up at the area center.</p>  <p>This symbol will be displayed on the map at the small scales while the criterion is performed.</p>

3 Overlapping of NW symbols at the small scales
Open question: Should we define object's generalization rules?
Examples on Stockholm approaches with two ways on



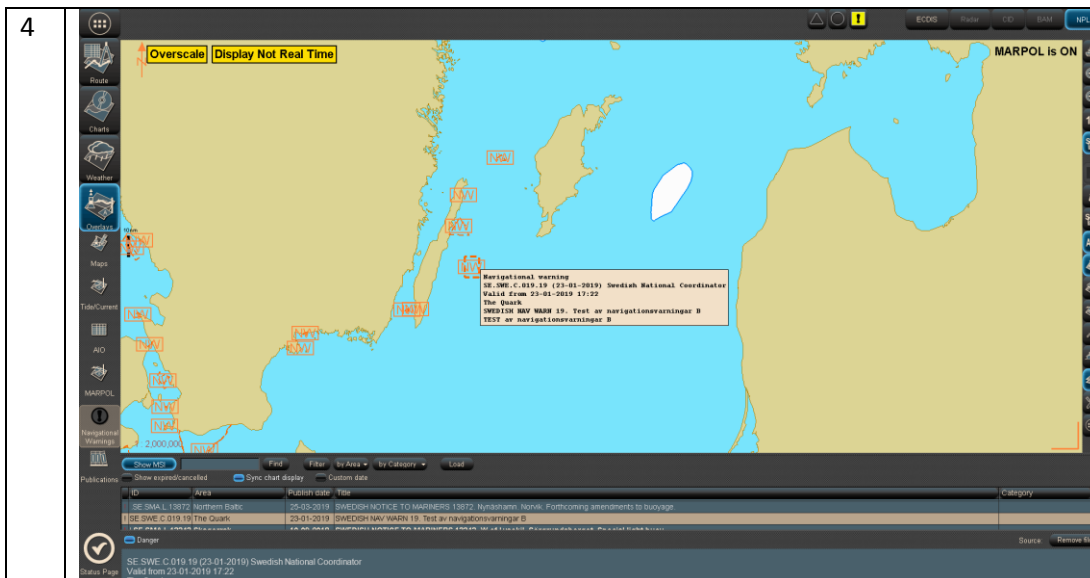
If we have dense coverage for NW there are two ways on our sight:

- 1) As in the picture on the left when we see conglomeration of symbols by area
Lack in this case it is not presentable view on the map. But from another side this concentration of warnings will attract an attention from user side and he will zoom-in on the map in order to get more details. That's advantage from other side.
- 2) Generalization of objects. If two or more objects (symbols) are overlapping each other then one object should be shown on map.

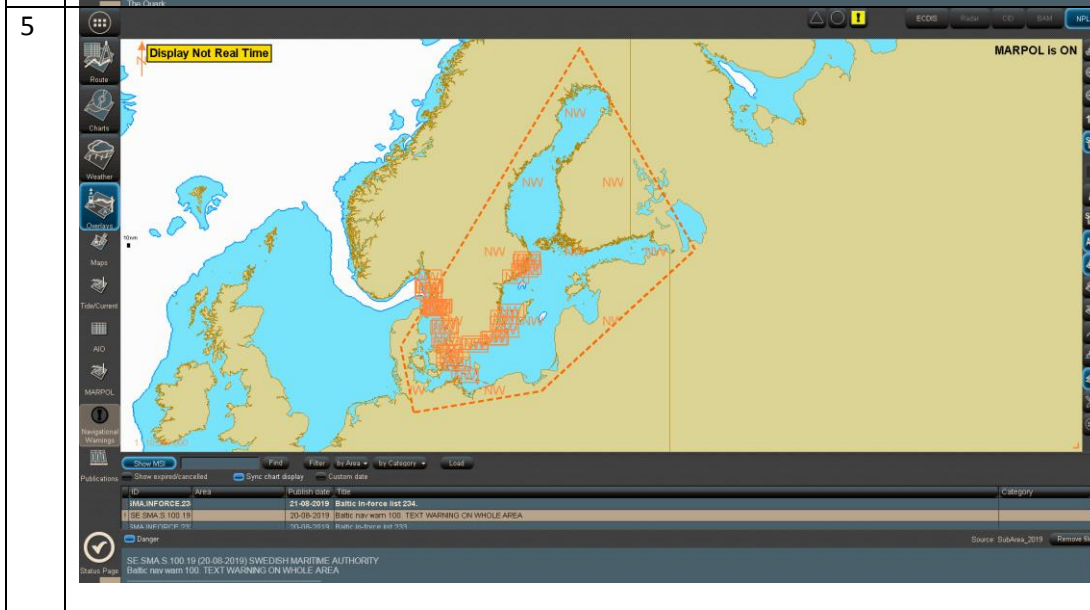
Perhaps the next multiple symbol can be displayed when we have overlapping of warning's symbols (see the picture at left side. In this case one symbol in rectangle will be displayed and plus



some additional line on upper right corner which says that there are several warnings under that place. It would be good to get any feedback on that.

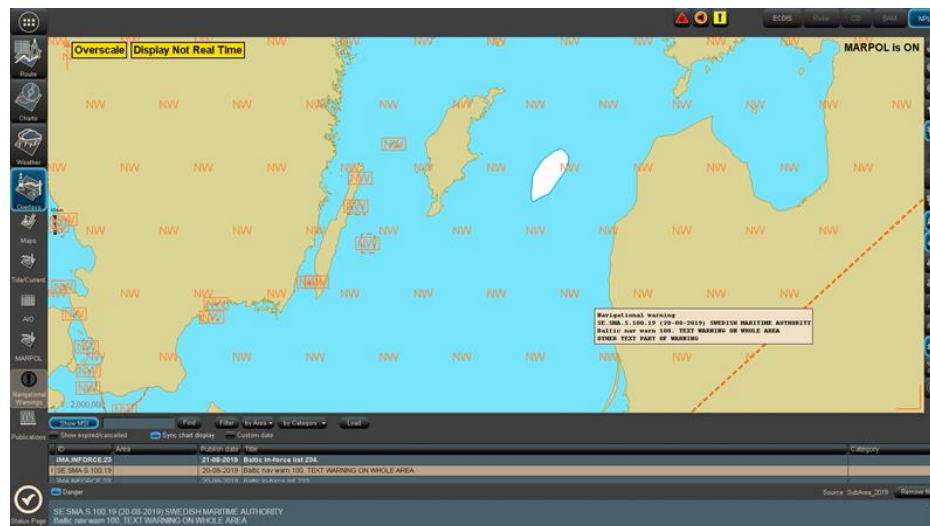
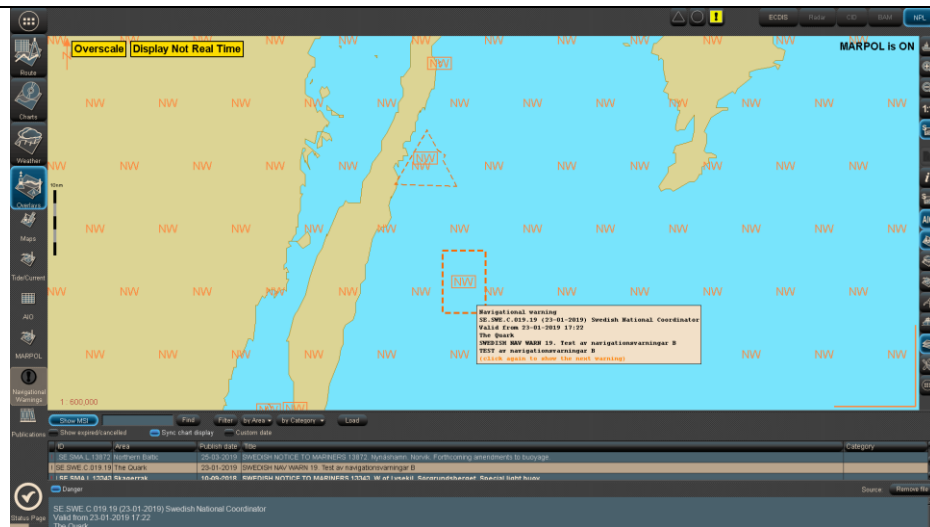


Click on the symbol then warning text will be displayed in pop-up window. The same time this warning will be selected in the table – list of warning below in the table view



Overlapping by very large polygons, for instance, that relate to the whole subarea or NAVAREA. In the example on the left side I've loaded warning with geometry for whole area. Question is– should Onshore service create (encode) geometry in the warning? and should we show this geometry for such warnings in end-user apps? These polygons will be overlapping other warnings. There may be several such warnings and they may exist simultaneously for one subarea or NAVAREA. I think that we shouldn't create geometry for such warnings. All needed information for these warnings can be obtain in the table view where all warnings are specified. What requirements will be to the ECDIS systems if

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geometry would be filled in for these warnings?

That's how it looks at more large scales if geometry will be filled in for whole Subarea or NAVAREA

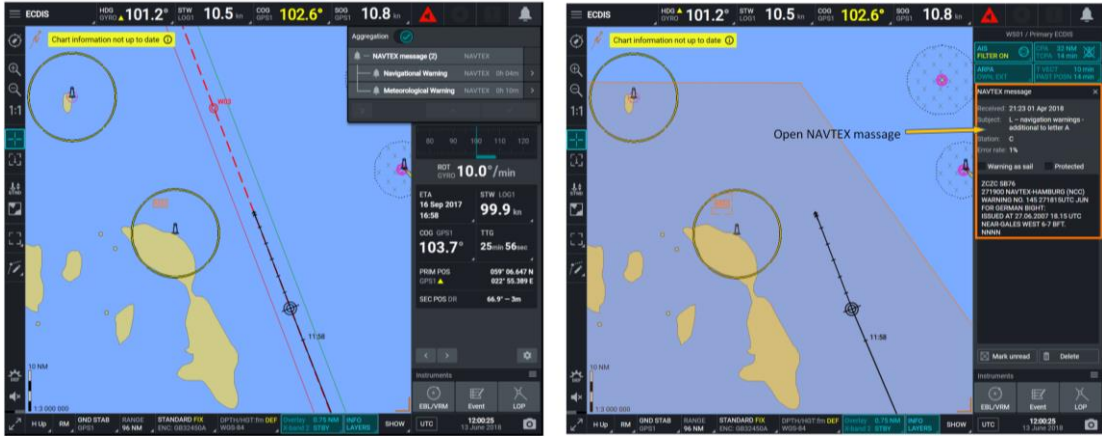
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Another proposal is how to distinguish the received messages between them (unread and read messages). In the table view unread messages shall be shown by bold font. On the map the symbols NW (or MSI) for unread messages shall be shown by bold font too.

NAVTEX messages receiving in ECDIS. (Future implementation in our ECDIS)

Below you may find several screenshots from our ECDIS prototype and main features that would be good to implement.

This case relates to the interaction ECDIS and NAVTEX receiver, features and displaying of NAVTEX messages in ECDIS

N	NAVTEX messages portrayal in future ECDIS systems	Description
1	<p style="text-align: center;">NAVTEX in Monitoring mode</p>  <p style="text-align: center;">NAVTEX in planning mode</p>	<p>New NAVTEX functionality should be represented in two modes: NAVTEX in monitoring mode; NAVTEX in planning mode</p> <p>Monitoring mode includes notification about message's receiving and view of receiving messages by text and on the map.</p> <p>Planning mode</p> <p>This mode includes next tools:</p> <ol style="list-style-type: none"> 1. Message viewing on the map and in the table-list. 2. Messages in the table should be divided by subjects depending of message type (Navigational / Meteo/ Search and Rescue/ Others) 3. Detailed view of the message 4. Selection of stations for message's receiving (station's filter) 5. Selection of message's type for receiving 6. Control of NAVTEX receiver settings 7. Auto selection of NAVTEX stations depending of monitoring route 8. Displaying of messages depending of errors number in the message 9. Viewing of unread messages 10. Displaying of NAVTEX stations on the

The screenshot displays the ECDIS NAVTEX interface. On the left, a map shows the North Sea region with labels for Kirkwall and Aberdeen. A red box highlights a specific area on the map, with an arrow pointing to a 'Graphical presentation of point message'. On the right, a list of NAVTEX messages is shown in a 'textual format', including 'A.L - Navigational warnings +1', 'Kirkwall 4209 9 kHz', 'Aberdeen 518 kHz', and 'B - Meteorological Warning +1'. Below the map, there are controls for 'STATIONS' and 'SUBJECTS', both set to 'FILTER ON'. At the bottom, there are buttons for 'BLV/M', 'Backup MSG', and 'Filter'. Annotations with arrows point to various parts of the interface: 'Position dropped', 'Zoom IN', 'Zoom OUT', 'Cursor', and 'INFO' on the left; 'NAVTEX messages in textual format' on the right; 'Display of current METAREA / NAVWarninax' at the bottom left; 'Station settings settings' and 'Messages settings' at the bottom center; and 'Instruments panel' at the bottom right.

map with details about station (name/coordinates/frequency/ transfer time)

11. Possibility of removing for messages
12. Possibility of message's protection from deletion
13. Possibility of geometry editing (if errors exist in the list of coordinates)
14. Viewing of NAVTEX receiver setting using command from Planning mode in ECDIS

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Examples of NAVTEX filters in ECDIS:

- Messages receiving from selected stations
- Message's viewing for defined subjects (categories). Basic subjects could not be switched off (this relate to A/B/D/L)