



Advances in the Development of New S-101 Symbolology

KHOA

S-101PT8, Online Meeting , 06-07 Dec. 2021

[illegible]

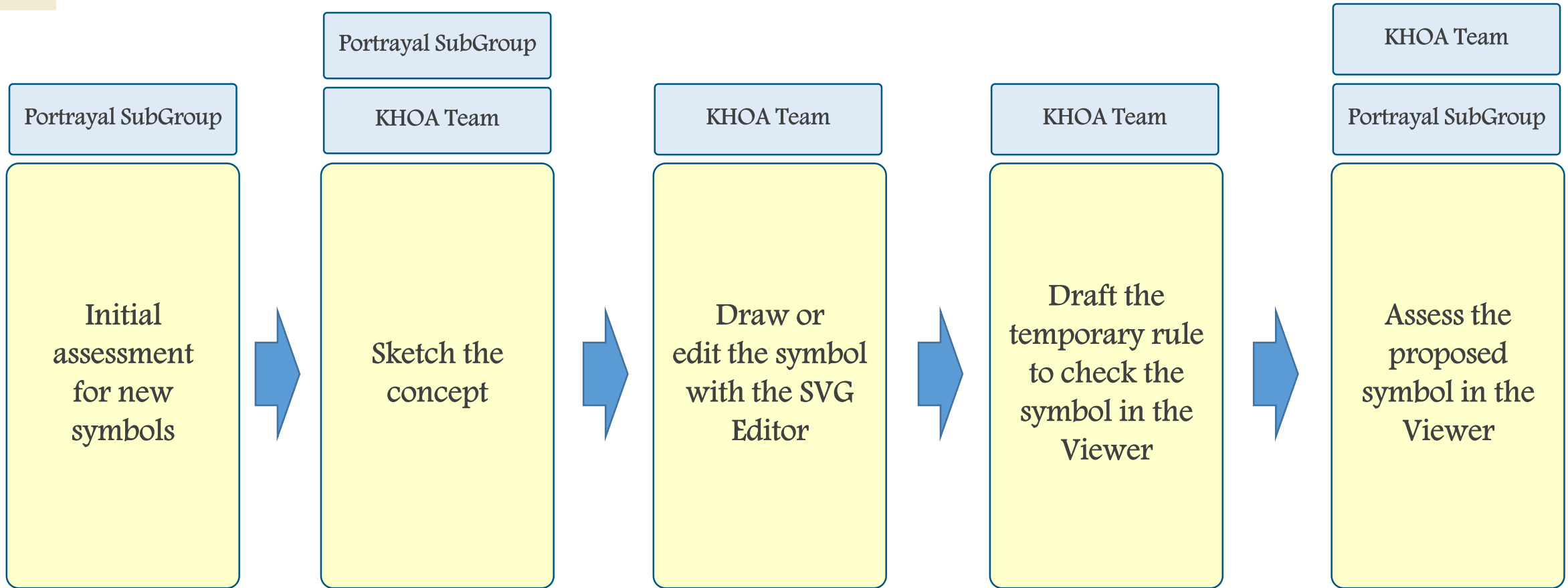


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PROCEDURE AND TOOL

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Organization

- Procedure to develop S-101 new symbols



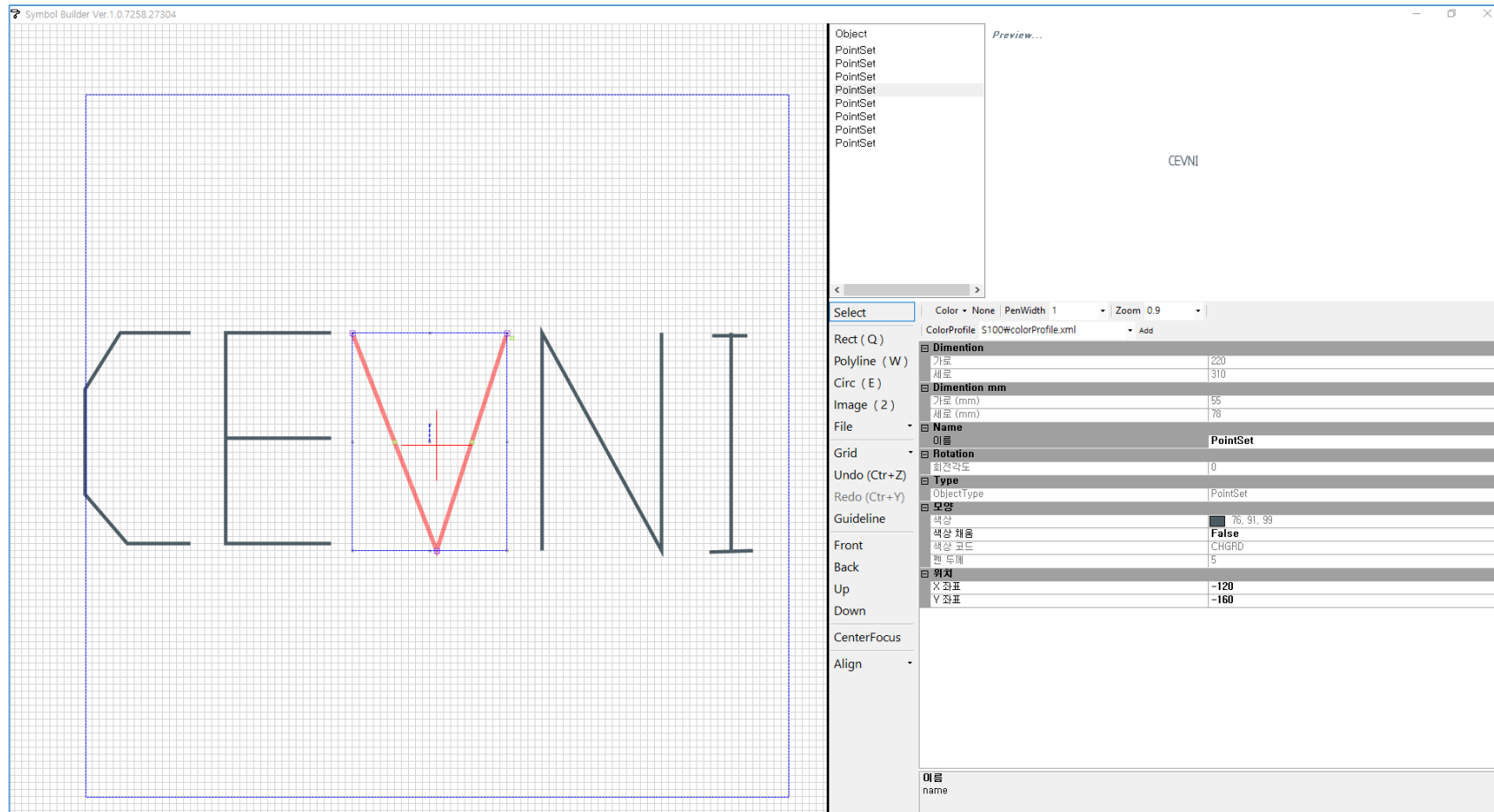


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PROCEDURE AND TOOL

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- S-100 SVG Editor
 - KHOA developed the S-100 SVG Editor to support S-100 test bed system
 - The tool supports to draft and edit SVG Symbols.





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PROCEDURE AND TOOL

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- KHOA S-100 Viewer with editing function
 - Load the S-101 TDS and display based on the PC
 - Support editing the TDS and adding native feature instance

The screenshot displays the KHOA S-100 Viewer application. The main window shows a nautical chart with various navigational features, including beacons, buoys, and depth soundings. The interface includes a top toolbar with icons for zooming, editing, and viewing. On the left, there is a 'LayerManager' panel with a list of layers and their status. Below it, the 'Data Set Identification' panel shows details about the loaded dataset. The 'Feature Information List' panel on the left provides detailed information about the selected feature, including its name, color, and scale. The 'Attribute List' panel on the right shows a list of attributes for the selected feature. The 'Current Selection' table at the bottom lists the selected features with their IDs, names, geometries, coordinates, and relation counts. The 'Logger' panel at the bottom right shows a log of system events.

Feature ID	Name	Geometry	Lat	Long	Relation Cnt	Feature type
4067	Beacon Lateral	point	35.091750	129.085251	2	Feature
3780	Light All Around	point	35.091750	129.085251	1	Feature
160	Text placement	point	35.091750	129.085251	0	Feature
406	Text placement	point	35.091750	129.085251	0	Feature
1129	Depth area	surface	35.080820	129.095638	0	Feature
3115	Information Area	surface	35.018198	129.000000	1	Feature
3099	Information Area	surface	35.021856	129.000000	1	Feature
3120	Vessel Traffic Service Area	surface	35.130335	129.117017	0	Feature
10	Navigational system of marks	surface	35.047738	129.000000	0	Feature
2587	Sea area/named water area	surface	35.130335	129.117017	0	Feature
3117	Restricted Area Navigational	surface	35.130335	129.117017	0	Feature
20	Quality of Bathymetric Data	surface	35.130335	129.117017	0	Feature



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DRAFTING S-101 NEW SYMBOLS

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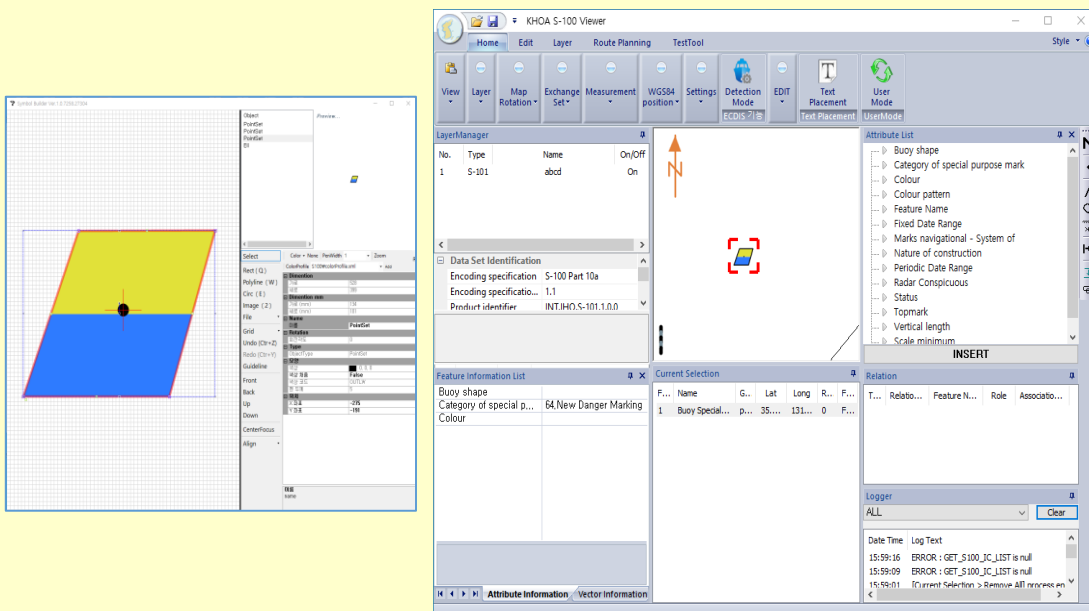
Buoy New Danger Marking

Initial assessment for new symbols

Propose new symbology for 'simplified symbols'. Symbols could be as per S-52 LUT for BOYSPP but instead of using yellow infill colour only, use half yellow and half blue (RESBL ?) splitted vertically

Remarks

Need to define new feature and rule for this symbol
Proposed symbol could be improved with comments from PortSub



Seagrass

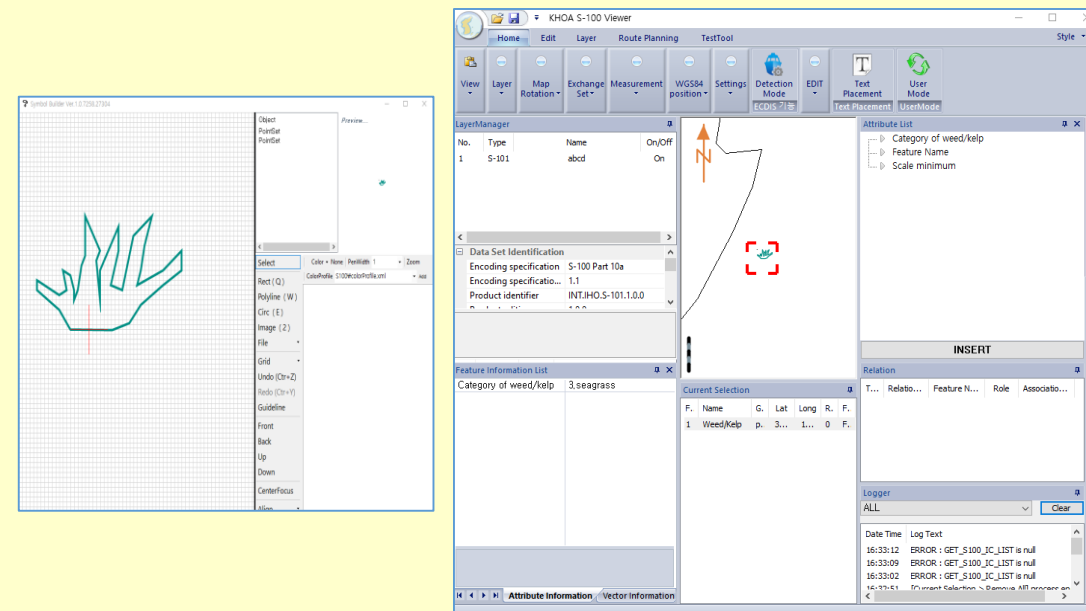
Initial assessment for new symbols

Same instructions than Weed but replacing the symbol with something similar to (preferably using single not double, lines for the leaves)



Remarks

Proposed image is so complex, tried to draw similar symbol
Proposed symbol could be improved with comments from PortSub





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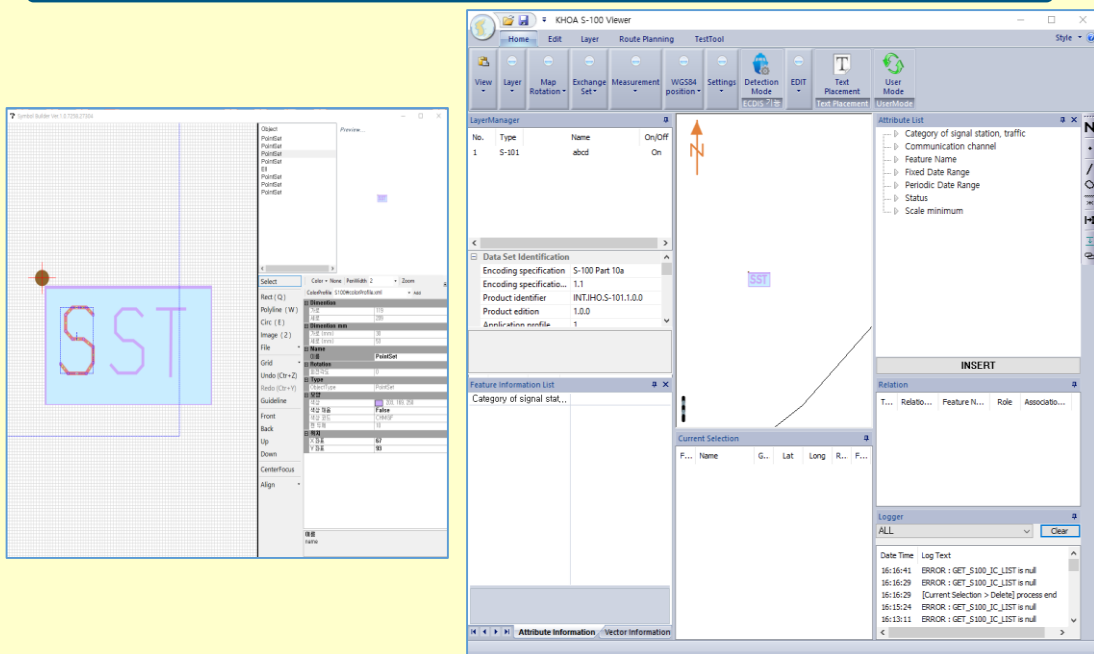
Signal Station Traffic

Initial assessment for new symbols

Point symbol: Use SISTATO2 symbol but with SST instead of SS.

Remarks

Proposed symbol could be improved with comments from PortSub



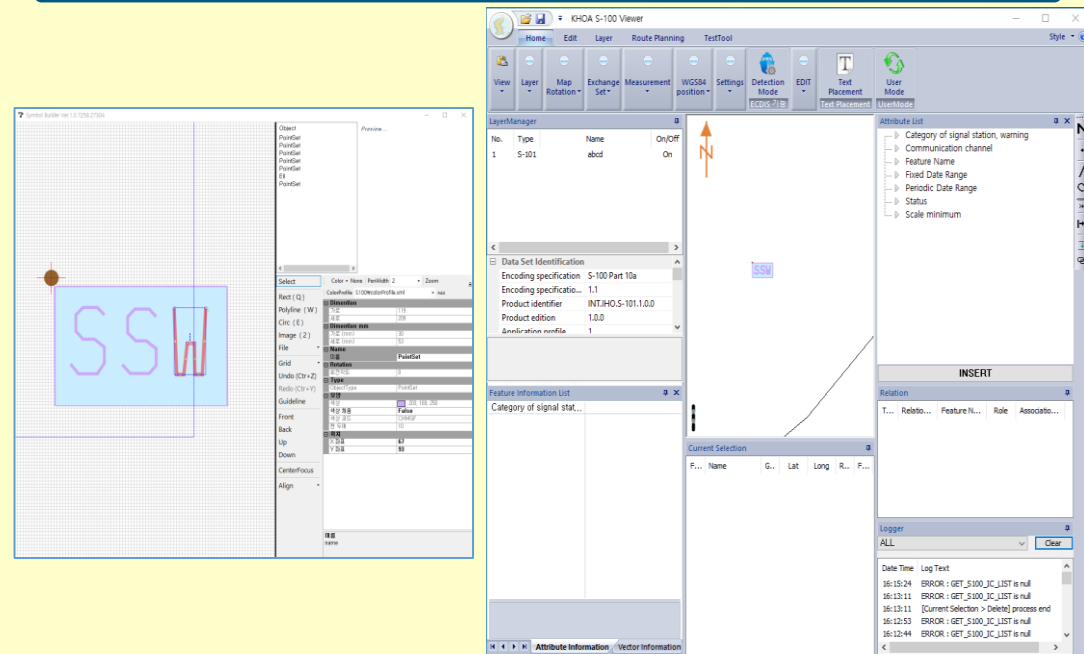
Signal Station Warning

Initial assessment for new symbols

Point symbol: Use SISTATO2 symbol but with SSW instead of SS.

Remarks

Proposed symbol could be improved with comments from PortSub





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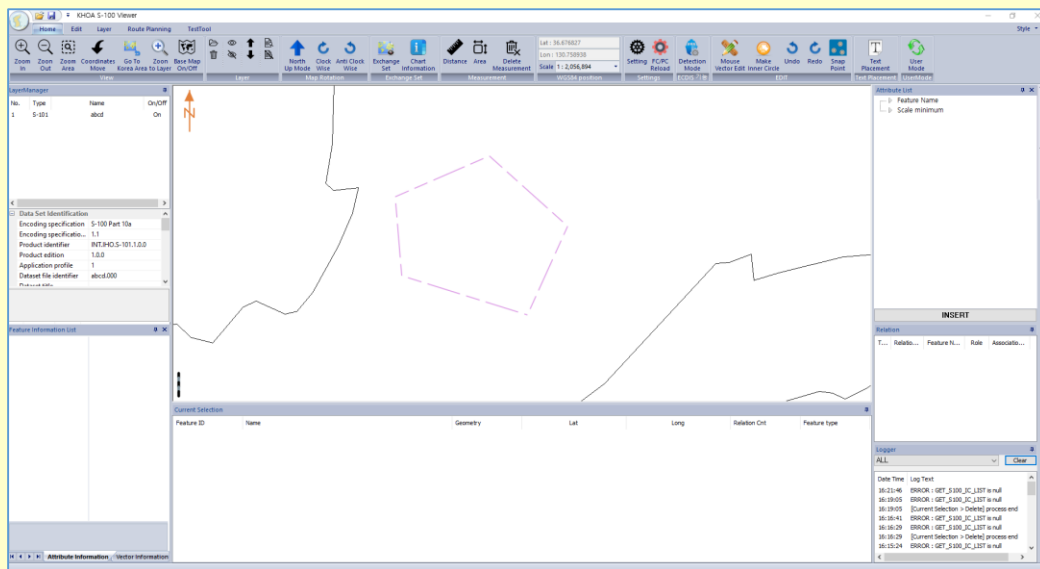
Vessel Traffic Service Area

Initial assessment for new symbols

KHOA to prototype new line style: as per marine limit in general but with evenly spaced (as per Deep Water route) three letter acronym (VTS). Other options welcomed

Remarks

New line style was proposed
Proposed symbol could be improved with comments from PortSub



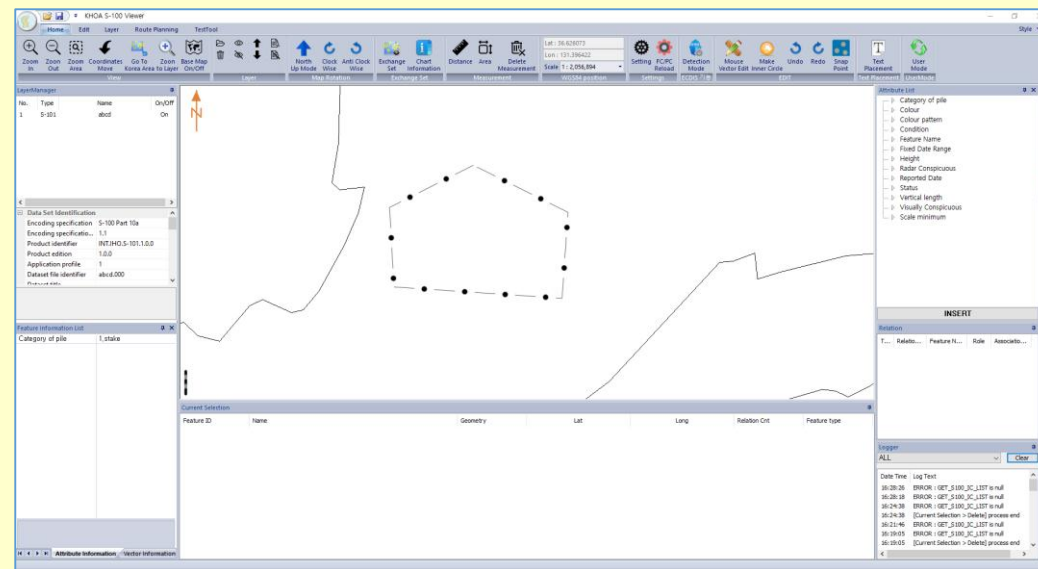
Area of Piles [Category of Pile]

Initial assessment for new symbols

KHOA to prototype new Surface style using evenly spaced and slightly larger (3mm D) PILPNT02 patterns and dashed CHGRD boundary. Other options (including the use of text 'PILES' (as per PSSARE01))

Remarks

New line style was proposed
Proposed symbol could be improved with comments from PortSub





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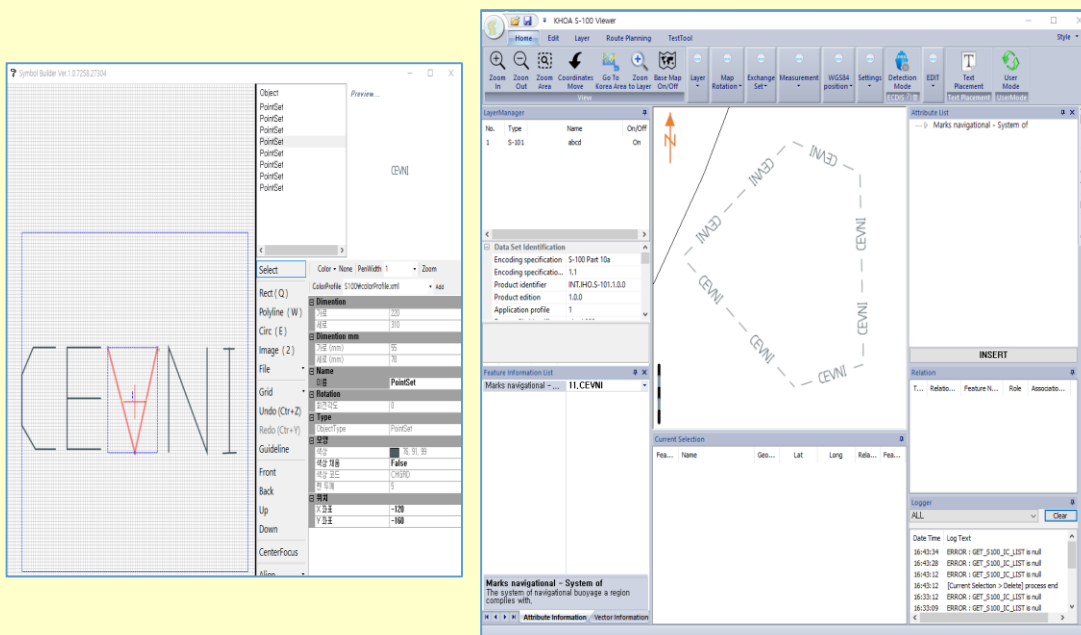
CEVNI [Marks Navigational – System Of]

Initial assessment for new symbols

KHOA to prototype new symbology as recommended. Needs new symbology – Recommend variation of LC(MARSYS51) but replacing the A and B letters with the text CEVNI spaced every 50–60 mm

Remarks

New complex line symbol was proposed
Proposed symbol could be improved with comments from PortSub



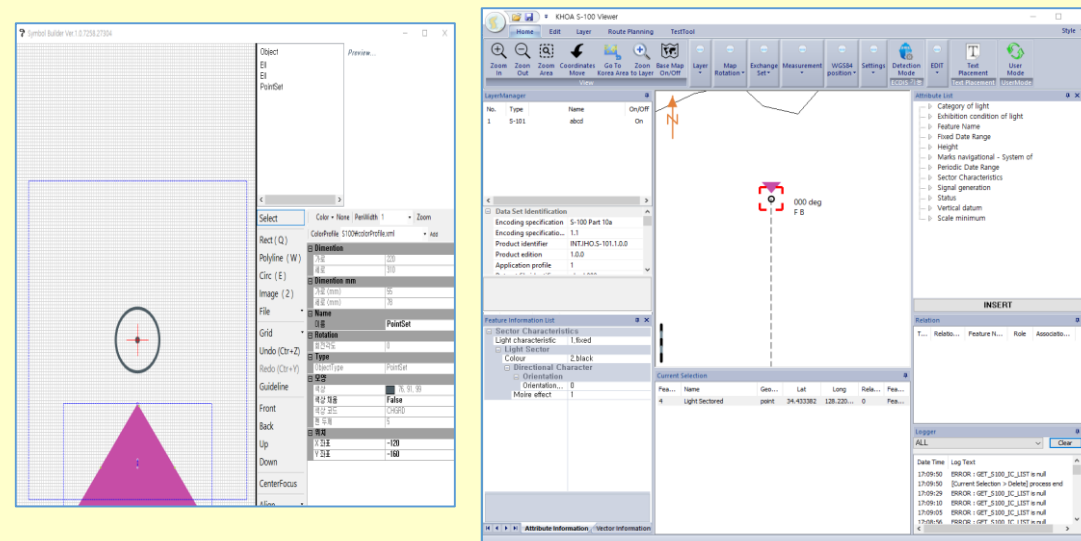
Moiré Effect [Directional Character]

Initial assessment for new symbols

Suggest consider a new symbol in S-101. there is a clear distinction between Moiré effect (INT1 – P 31) and other directional lights for paper charts. Consider that with improved graphical displays a new symbol should be investigated

Remarks

Proposed symbol could be improved with comments from PortSub





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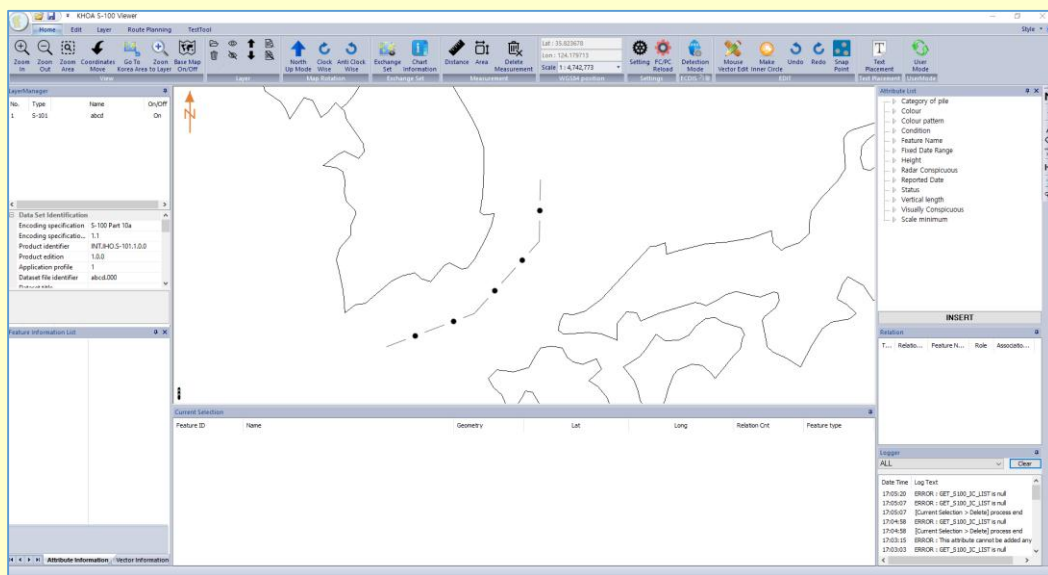
Piling [Category of Pile]

Initial assessment for new symbols

KHOA to prototype new Curve style using evenly spaced and slightly larger (3mm D) PILPNT02 patterns and dashed CHGRD linework

Remarks

New complex line symbol was proposed
Proposed symbol could be improved with comments from PortSub



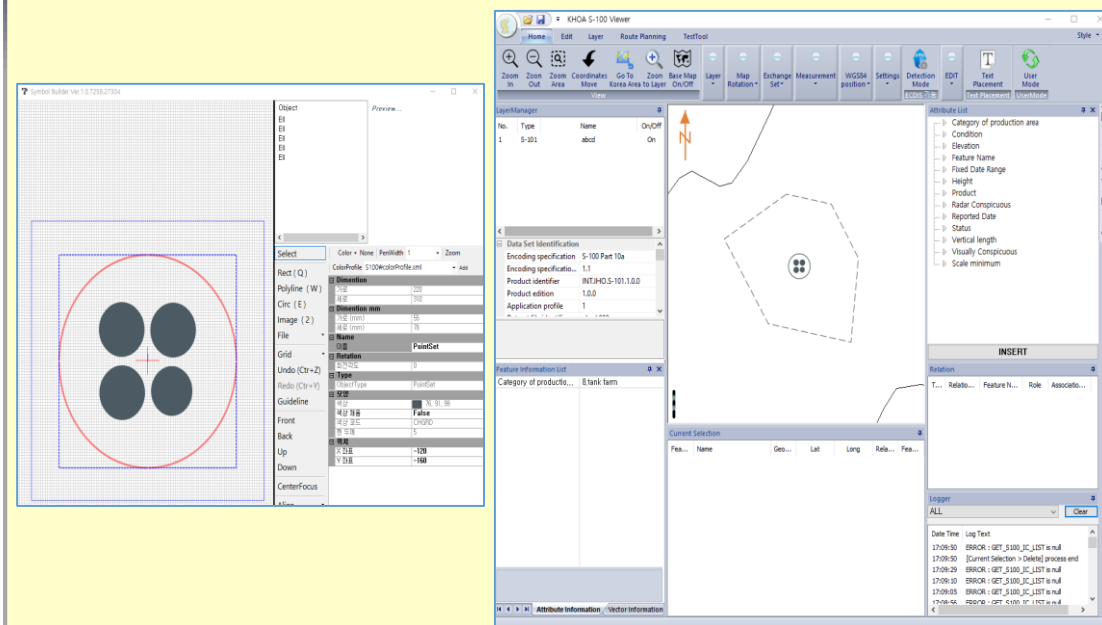
Tank Farm [Category of Offshore Production Area]

Initial assessment for new symbols

similar to Marine farm areas but with an area pattern made of TNKFRM01 symbols in CHGRD colour

Remarks

Proposed symbol could be improved with comments from PortSub





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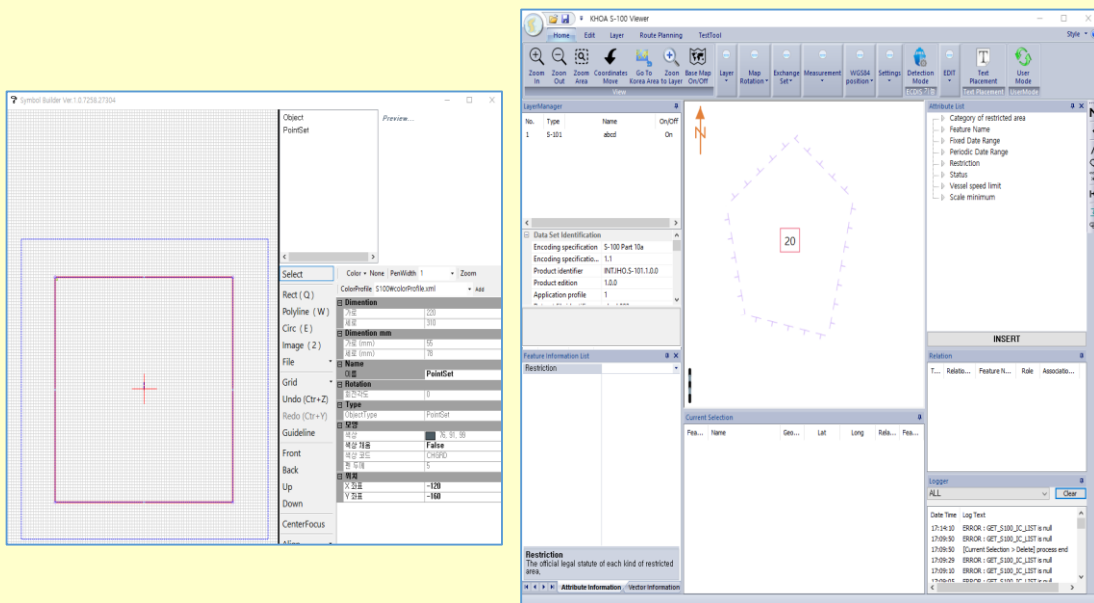
Vessel Speed Limit

Initial assessment for new symbols

Include Inland ENC symbol NMKREG06A to default Restricted Area
Navigational feature portrayal

Remarks

Proposed symbol could be improved with comments from PortSub



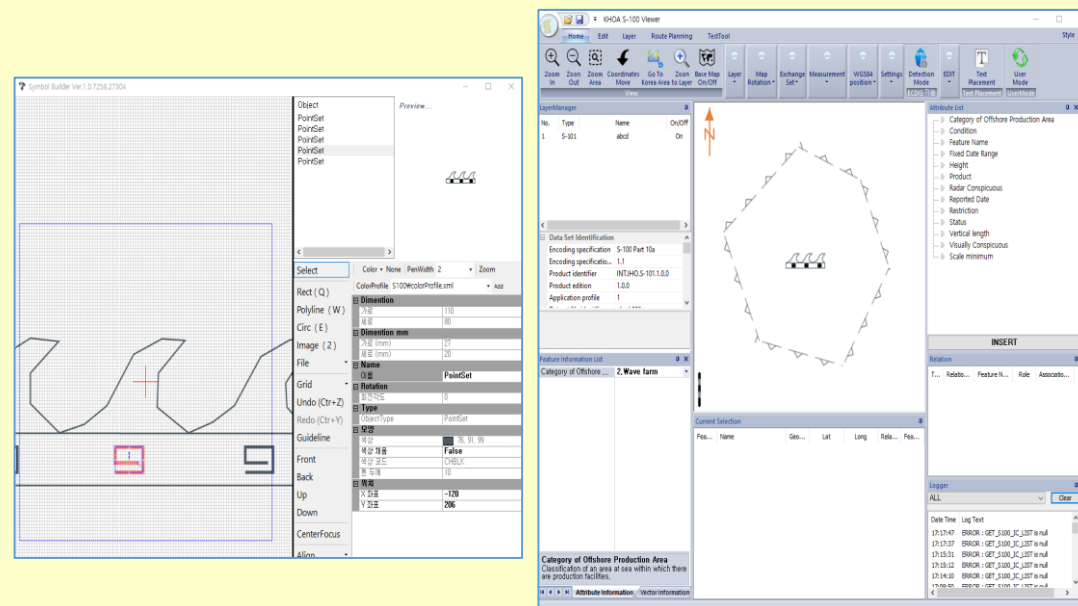
Wave Farm [Category of Offshore Production Area]

Initial assessment for new symbols

Develop New 'underwater current turbine' symbol (as per INT1 L6) in
CHGRD colour but depicting circle using danger line instead of continuous
line. Surface, similar to Marine farm areas but with an area pattern made of
the new 'current turbines' symbols.

Remarks

Proposed symbol could be improved with comments from PortSub





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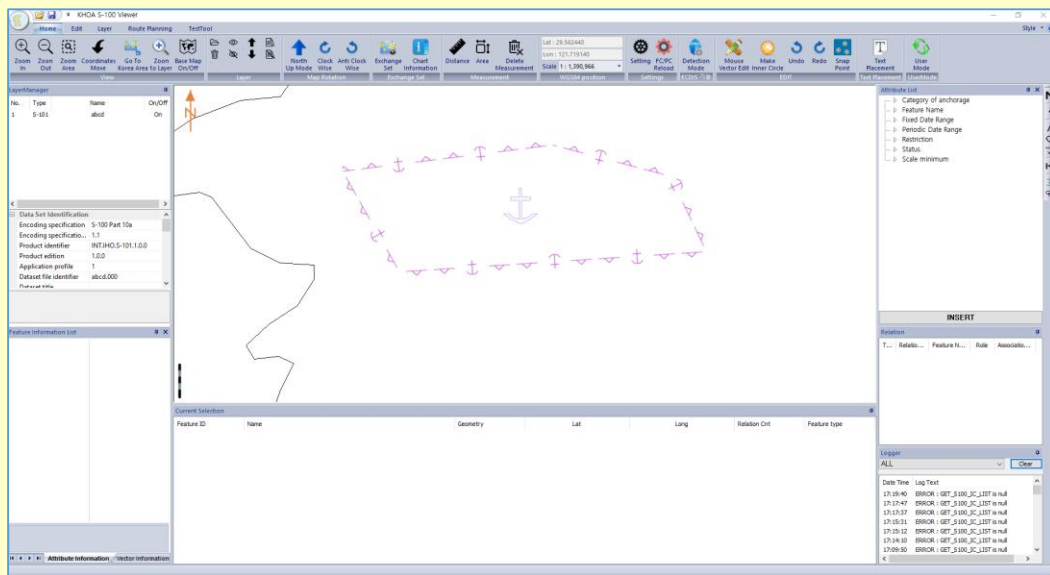
Anchorage areas

Initial assessment for new symbols

to create a new complex line symbol based on the existing complex line style but, instead of having all the anchor symbols pointing to the same side of the line, make a pattern that alternates their orientation

Remarks

Proposed symbol could be improved with comments from PortSub



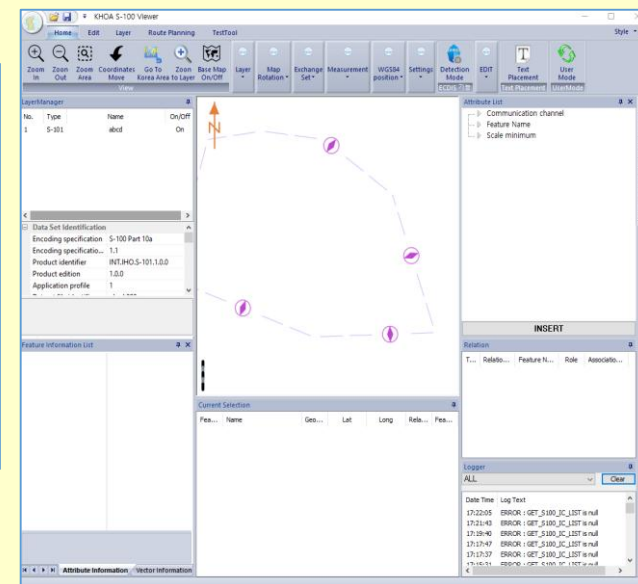
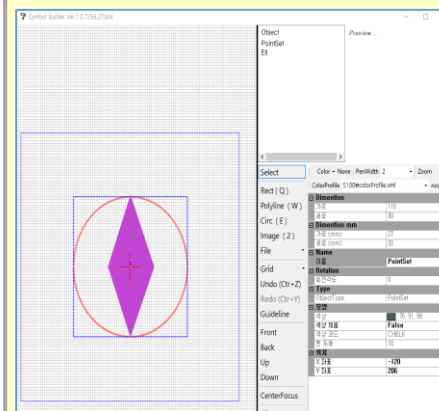
Pilotage distinct

Initial assessment for new symbols

Use complex line made of SY(PILBOP02) in CHMGF colour and LS(dash, 1, CHMGF)

Remarks

Proposed symbol could be improved with comments from PortSub



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SUMMARY

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• Proposed S-101 new symbols

N	S-101 Item	Proposed symbol	Notes
1	Buoy New Danger Marking		2021_BOYSPP45_2color.svg (BuoySpecialPurposeGeneral) feature.categoryOfSpecialPurposeMark contain [64 - New Danger Marking] - added in FC
2	Seagrass		2021_SEAGRASS.svg (WeedKelp)
3	Signal Station Traffic		2021_SISTAT02_01.svg (SignalStationTraffic)
4	Signal Station Warning		2021_SISTAT03_01.svg (SignalStationWarning)
5	Vessel Traffic Service Area		2021_VesselTrafficServiceArea.xml (VesselTrafficServiceArea)
6	Area of Piles [Category of Pile]		2021_Pile_LINEandSURFACE.xml (Pile)
7	CEVNI [Marks Navigational - System Of]		2021_MARSYS52.xml / 2021_EMMARS03.svg (NavigationalSystemOfMarks) marksNavigationalSystemOf = 11

N	S-101 Item	Proposed symbol	Notes
8	Moiré Effect [Directional Character]		2021_MoireEffect.svg (LightSector)
9	Piling [Category of Pile]		2021_Pile_LINEandSURFACE.xml (Pile)
10	Tank Farm [Category of Offshore Production Area]		2021_TankFarm.svg (ProductionStorageArea)
11	Vessel Speed Limit		2021_speed_limit.svg + speedLimit (text instruction) (RestrictedAreaNavigational) vesselSpeedLimit/speedLimit
12	Wave Farm [Category of Offshore Production Area]		2021_WaveFarm.svg (OffshoreProductionArea)
13	Anchorage areas		# line style : 2021_ACHARE51.xml # SYMBOL(Line) : 2021_EMACHAR2.svg, EMACHAR1.svg (AnchorageArea)
14	Pilotage district		PILBOP02.svg 2021_PilotageDistrict.xml