

Update SevenCs Display Issue

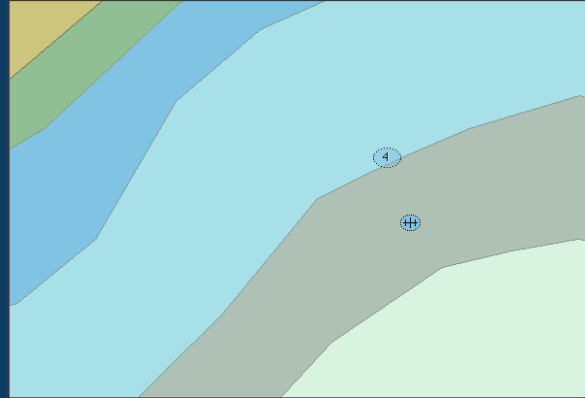
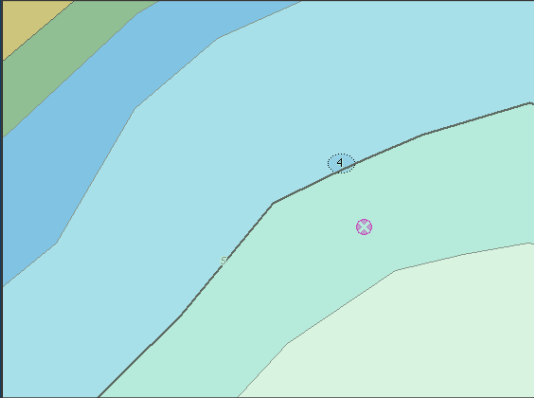
Measures taken by SevenCs

Friedhelm Moggert-Kägeler, ENCWG VTC February 2022

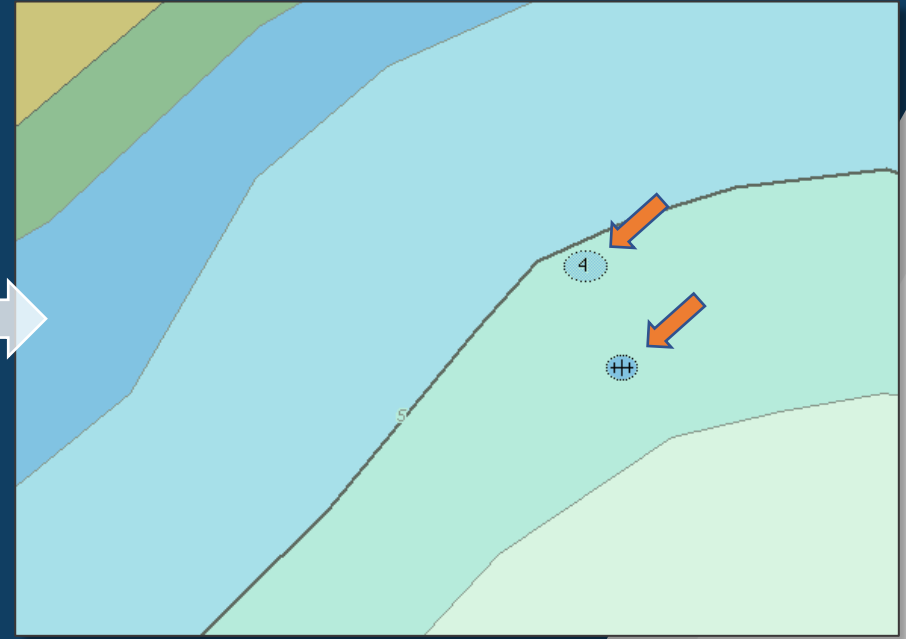
Background

- In older versions of the SevenCs SDK EC2007 software used to render ENC data in ECDIS there are instances when isolated danger symbols are not displayed.
- The issue may occur when ENC **update files** contain instructions related to Group 1 objects (delete, modify) containing isolated danger objects (WRECKS, OBSTRN, UWTROC)
- Changes to WRECKS, OBSTRN, UWTROC point objects will fix the display error
- Route checking, detection of dangers or anti-grounding functions of ECDIS are not affected
- By selecting the *OTHER* display category all features are visible

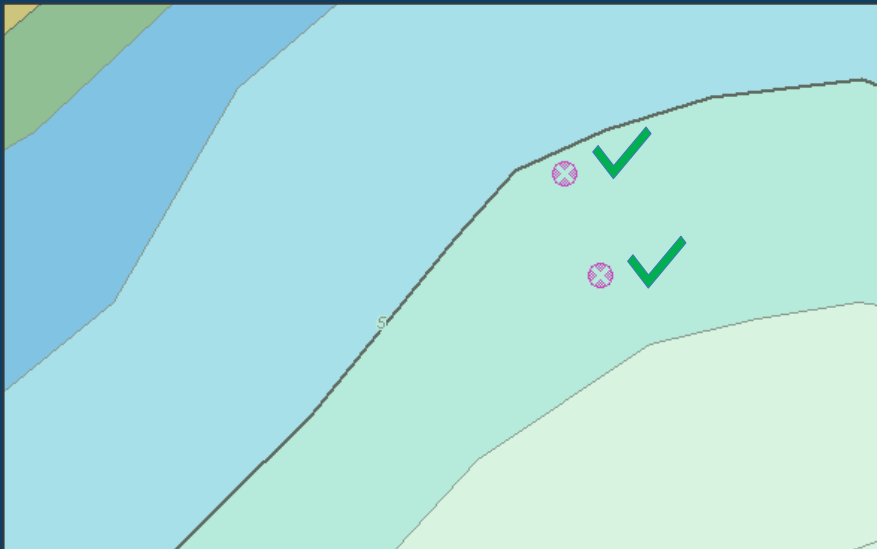
The problem



Sequential update deletes DEPARTURE and inserts new DEPARTURE



Isolated danger symbols are not displayed



Isolated danger symbols displayed correctly

Measures taken

- Release of EC2007 ECDIS kernel patch
- Weekly check if distributed ENC (AVCS) are affected or not
- and weekly report on findings
- Extension to 7Cs Analyzer validation software to detect issues prior to distribution (*IsolatedDangerUpdateCheck*)
 - Software has been made available to all interested data producers
- Refinement of *IsolatedDangerUpdateCheck* to avoid false positives
- Shared logic of *IsolatedDangerUpdateCheck* with other manufactures
- Contributed to the EB64 instructions dealing with the issue
- Provided test data and test scripts for ECDIS tests (S-64 style)

Validation check - *IsolatedDangerUpdateCheck*

7Cs Analyzer
File View Tools Options Help

Custom Checklist Tests Use Custom Checklist Edit Lists...

Ignore Checklist IsolatedDangerOnly Use Ignore Checklist Edit Lists... F G I A

Scale 1 : 33985

Dataset	Ed.	Up.	Status
GB55062B	10	1	Validated

Display Settings
Chart Symbolisation General

General
Category: Other
Primary Lookup: Traditional

Contour Settings
Safety Depth: 5
Safety Contour: 5
Shallow Contour: 2
Deep Contour: 10

Additional Settings
 Soundings
 Text
 Overscale Pattern

Mariner Selections
 SCAMIN
 Accuracy
 Shallow Pattern
 Shallow Water Dangers
 Two Shades
 Contour Labels
 Full Light Sectors
 Date Dependent
 Highlight Date Dependent
 Additional Information
 Additional Documents
 Unknown

Validation Results

Results

- GB55062B, Edition 10, Update 0 : Critical 0, Error 0, Warning 0
- GB55062B, Edition 10, Update 1 : Critical 0, Error 0, Warning 1
 - Warning: The following checks are ignored and not contained within this log.
 - Validation Parameters
 - Dataset Metadata
 - Dataset Entries : No Errors
 - Feature and Geometry Entries : Warning 1
 - ShallowIsolatedDangersUpdatedBathy : Warning 1
 - FE/2245 (540,3918967832,1) **DEPARE**: Bathymetric feature covering one or more shallow isolated danger objects has been inserted or modified via an update dataset. The isolated danger symbols may not display correctly on some ECDIS systems.
 - Categories: Bathymetry
 - Suggested Solution: Create an ENC re-issue or new edition.
 - Related Objects:
 - FE/120 (540,8460600,1) **WRECKS**
 - FE/121 (540,8460304,1) **OBSTRN**
 - Comparison of GB55062B updates 0 and 1 : Critical 0, Error 0, Warning 1

Validation check - *IsolatedDangerUpdateCheck*

Scale 1: 45162

Ignore Checklist: IsolatedDangerOnly Use Ignore Checklist Edit Lists...

F G I A

Validation Results

Results

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Attributes of feature GB55062B 100/2245

Code	Type	Value	Value Description
DRVAL1	Real	5	

Geometries

Geometry	Dataset	RCNM/RCID	Topology Indicator	Orientation	Mask
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Validation check - *IsolatedDangerUpdateCheck*

The screenshot displays a software interface for a validation check. On the left, a map shows a green area with depth markers (7g, 76, 80, 77, 3g) and symbols for a buoy, a wreck, and a danger. On the right, a 'Validation Results' panel shows the following details:

Validation Results

Results

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Thank you.

