

**Paper for Consideration by ENCWG6
Date Attribute Formats
Clarifications for S-57 Use of the Object Catalogue for ENC and S-58**

Submitted by:	SevenCs and Nautical Dimensions
Executive Summary:	This paper proposes to update the wording of the UOC and S-58 in order to disambiguate the allowable formats for S-57 date attributes.
Related Documents:	S-57 Use of the Object Catalogue for ENC, Ed. 4.2.0 S-57 Maintenance Document (Cumulative) Number 8 S-58 Ed. 6.1.0
Related Projects:	-

Introduction / Background

This document proposes to clarify the ISO 8601 encoding of S-57 date attributes.

The encoding formats of the various date attributes are defined in S-57 Appendix A ch. 2 and the S-57 Maintenance Document (Cumulative) Number 8 (MD8). The Use of the Object Catalogue for ENC (UOC), sec. 2.1.5, seeks to summarise the formats based on the previous two mentioned documents. The intent of S-58 checks 1515a and 1515b is to verify that date attributes follow the guidelines as presented in the UOC.

According to S-57 Appendix A and MD8, recurring/periodic date formats, --MM and --MMDD, must only be used for the attributes PERSTA and PEREND.

Discussion

Checks 1515a and 1515b state that date formats are to conform to ISO 8601:1988. The question has recently been raised why S-58 check 1515a is triggered when DATSTA is encoded with the value --04, since --04 conforms to ISO 8601. The answer is that --04 is only allowed for PERSTA and PEREND. In addition, the allowable S-57 date formats represent only a small subset of ISO 8601. For example, the following two ISO 8601 conforming dates are clearly not valid for S-57 date attributes:

1993-W06-7
1985-102T23:50:30

Clearly, the intent of checks 1515a and 1515b is not to verify the date formats against the general ISO 8601 specification, but rather to verify them against the subset of ISO 8601 formats allowed by S-57 for the specific date attributes.

Proposal – Use of the Object Catalogue for ENC

Update the text of section 2.1.5 to remove any ambiguity as to the allowable date formats.

2.1.5 Dates

When encoding dates using the attributes CPDATE, DATEND, DATSTA, ~~PEREND, PERSTA~~, SORDAT, SUREND and SURSTA, ~~and no specific month or day is required~~, the following values must apply in conformance to ISO 8601:1988.

- Full date: CCYYMMDD
- No specific day required: CCYYMM
- No specific month required: CCYY

If it is required to encode periodic/recurring dates using the attributes PEREND and PERSTA, the following values must apply in conformance to ISO 8601:1988.

- Full date: CCYYMMDD
- No specific year required, same day each year: --MMDD
- No specific year required, same month each year: --MM

Notes: CCYY = calendar year; MM = month; DD = day.

In the **last** two values, the dashes (--) must be included.

Where the temporal attributes DATEND, DATSTA, PEREND or PERSTA have been encoded for any object that is the master component of a master/slave relationship, all other component objects within the relationship must not extend beyond the temporal attribute values encoded.

Proposal – S-58

Reword checks 1515a and 1515b to:

1515a	For each feature object where a value of DATEND, DATSTA, PEREND or PERSTA does not conform to the formatting defined in ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	Date attribute not formatted according to ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	Amend formatting to conform to ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	2.1.5	C
1515b	For each feature object where a value of SORDAT, SUREND or SURSTA does not conform to the formatting defined in ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	Date attribute not formatted according to ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	Amend formatting to conform to ISO 8601:1988 the S-57 Use of the Object Catalogue for ENC.	2.1.5	E

Alternatively, Appendix A ch. 2 and MD5 could be referenced by the check text (see check 1517), but MD5 is not referenced anywhere else within S-58. In addition, the intent of UOC is to summarise the formats defined in Appendix A and MD5.

Conclusions

The proposed changes to the UOC and S-58 should remove any ambiguity that may have existed regarding the ISO 8601 encoding of date attributes.

Recommendation and Action Required of ENC WG

The ENCWG is invited to review, consider and endorse the proposed changes to the wording of the UOC, ch. 2 sec. 2.1.5 and S-58 checks 1515a and 1515b.

Acknowledgements

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