



## Sub Activity 5.5 – Alignment S-401

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# Agenda

- **Status:**
  - Product Specification
  - Feature Catalogue
  - Portrayal Catalogue
  - Data Classification and Encoding Guide

Status

## S-401 Product Specification

- Publication S-101 PS, December 2018
- Important changes:
  - Temporarily removal of Section 9 – Portrayal
  - Temporarily removal of Annex C – Validation checks
- Draft S-401 PS finalized and distributed on forum.
  - Some open topics for discussion

# Decisions to take IEHG

## Adoption S-401 Product Specification

- Dataset Identification:

*subfield:* **classifications**

Unclassified, Restricted, Confidential, Secret, Top Secret, Sensitive but Unclassified,  
For Official Use Only, Protected, Limited Distribution

**Question:** are all the values required?

- Support files:

Picture files must be TIFF 6.0

**Question:** are we allowing JPEGs?

# Decisions to take IEHG

## Adoption S-401 Product Specifications

- Filenaming
  - Defining ranges of usages for which the overlay cell will be displayed
  - Subfield INTU (intended usage) does not exist in S-401
  - specificUsage A, B, C, D

### Questions:

- Do we need to specify for which usage range an overlay cell will be displayed?
- In general: do we need overlay cells?

**Proposal:** *remove this section temporarily and check during testing if it's necessary to define the ranges.*

Status

## S-401 Feature Catalogue

- IHO has created Inland domain for Data Dictionary
- Registration of Inland specific features and attributes is finished
- IHO noticed discrepancies and errors in the Data Dictionary
  - Denise LaDue is working on it
- Feature Catalogue Builder 2.1.0 has been published
  - Tested by Persikal (Gaël Billet)

FCB

Status

## S-401 Feature Catalogue

- Next steps:
  - Check whether there are new features, attributes, enumerations in the S-101 FC.
  - Comparison with 'CoRISMa'-document.
  - Check whether the noticed discrepancies have an influence on the S-401 FC.
  - Start working on the S-401 FC using the S-101 FC as a base.

Status

## S-401 Portrayal Catalogue

- Portrayal section needs to be written
- First draft based on European standard
- Registration of Inland specific symbols
  - IHO has created Inland domain for Portrayal
  - Possible to use inland specific portrayal definitions (style sheet, color profiles, schemes, linestyle,...)
  - All symbols are registered and approved
- Technical issues – questions forwarded to IHO

PCB



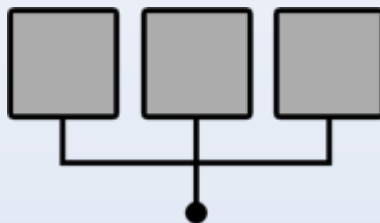
Status

# S-401 Portrayal Catalogue

- Technical issues:

## Overlapping symbols

The display priority of symbols will determine which symbol will be on top when there are overlapping symbols and therefore this symbol will be visible and the others will be partially or completely hidden. In the Inland area, we would like to introduce the possibility to display overlapping symbols (e.g. notice marks) next to each other with a common foot point to indicate the position of the symbols. How is S-100 dealing with these overlapping symbols? Is it possible to display all symbols at the same time? If so, how is this done?



Status

## S-401 Portrayal Catalogue

- Technical issues:

**Overlapping symbols**

**Answer IHO:**

IHO is not supporting a feature for overlapping symbols.

**However:** you can draw anchors to a common point if one is available via attribution or spatial association. It may be possible to prevent the overlaps if attribution / associations are made available for processing in the rule files.

Status

# S-401 Portrayal Catalogue

- Technical issues:

## **How to deal with common symbols**

S-101 is using LUA scripts for the visualization of e.g. conditional symbology. S-401 is also going to use LUA to stay in line with S-101. Because S-401 is using S-101 features and attributes we need to know if we have to copy all S-101 scripts to our S-401 product to get a correct display of S-101 features and symbols? If not, how can we amend the rules in the S-101 scripts for the inland specific attributes that we amended to the S-101 features?

Status

# S-401 Portrayal Catalogue

- Technical issues:

**How to deal with common symbols**

**Answer IHO (David Grant):**

Your product is responsible for delivering all of the symbols it uses (even if they are shared with other products). You should get common symbols from the portrayal registry, and register your unique symbols.

Status

# S-401 Portrayal Catalogue

- Technical issues:

## **Letters and numbers in conditional symbols**

In the visualization of symbols, we need the possibility to add characters (letters and numbers) to the symbols according the condition. As far as we understand, this would be possible with LUA. We would like to be sure that this assumption is correct and we also like to know how this can be done in LUA (e.g. by an existing example)

Status

# S-401 Portrayal Catalogue

- Technical issues:

**Letters and numbers in conditional symbols**

**Answer IHO (David Grant):**

Option 1) If the text is available in an attribute (or can be built up from attribution) it should be pretty easy. See the "TextInstruction" drawing command in Part 9a; it can be used to add text to a symbol.

Option 2) You could define singular unique symbols which include the text as part of the SVG.

Option 3) Create two separate symbols, one for the common symbol, and a second containing the numbers / text.

Option one and three allow the numbers / text to have a different drawing priority than the symbol, option two does not.

Status

## S-401 Portrayal Catalogue

- Technical issues:

### **Lookup table**

For the development of the S-401 LUA scripts and the conversion of the S-52 Lookup tables, we need to make a comparison with the maritime lookup tables. The reason therefore is that we need to know which display rules have been converted in which scripts. The maritime lookup tables are not openly available at the moment. Can IHO provide us with a copy of these tables so the IEHG can make this comparison and avoid double work?

***IHO has shared the S-52 Presentation Library with Lookup tables.***

Status

# S-401 Portrayal Catalogue

- Technical issues:

## **AIS Symbols**

For the visualization of AIS symbols, the European Inland ECDIS expert group has developed separate symbols which will be registered in the IHO GI Registry. Does S-101 include the maritime AIS symbols in their SVG library and are these symbols also registered in the registry?



Status

# S-401 Portrayal Catalogue

- Technical issues:

## AIS Symbols

### Answer IHO (David Grant):

AIS AtoNs are encoded per S-101 DCEG 21.2 (Physical AIS AtoN) or 21.3 (Virtual AIS AtoN). There is currently no symbology defined for these features, but it is my opinion that symbols will need to be added to the portrayal registry. ECDIS has no way to know that the portrayal does not handle these symbols.

# Decisions to take IEHG

## Portrayal: how to proceed?

- Section 9 – Portrayal
  - Continue the work in RIS COMEX or successor ?
  - Wait on results of S-101?

**Proposal:** continue the work with participation of all (forum) and in collaboration with IHO.

# Decisions to take IEHG

## Portrayal: how to proceed?

- Development LUA scripts / conversion Lookup tables

### Proposal:

- comparison S-52 Lookup tables: e.g. RESARE , resare
- use the existing S-101 scripts and amend with inland specific conditions
- develop new scripts

Status

# S-401 Data Classification and Encoding Guide

- IHO DCEG
  - description relations between features and attributes
  - no real world entities
  - DCEG Builder
  - inline with S-101
  - initially big workload
- IEHG EG
  - real world entities
  - relation with all features and attributes
  - almost no workload
  - risk of inconsistencies between encoding instructions S-101 / S-401
  - **Inland ENC validation checks**

**DCEG**

# Decisions to take IEHG

## DCEG or EG?

- European proposal: DCEG
  - To be inline with S-101
  - Mention in the encoding instructions of the main feature which other features have to be used to encode the whole real world object
  - Try to specify in the encoding instructions which attributes and enumeration values have to be used for which real world object.

# Other issues

## Annex C – Validation checks

- How to proceed?