

Paper for Consideration by the Digital Information Portrayal Working Group (DIPWG)



Updates and Enhancements to the S-100 Portrayal Catalogue Builder

<b>Submitted by:</b>	DIPWG Chair
<b>Executive Summary:</b>	Status of the ongoing development of the S-100 Portrayal Catalogue Builder.
<b>Related Documents:</b>	<i>S-100, IHO Universal Hydrographic Data Model</i> <i>S-101, IHO Electronic Navigational Chart Product Specification</i>
<b>Related Projects:</b>	S-100/S-101 Testbed

### Introduction / Background

The IHO contract with CARIS to create an S-100 Portrayal Catalogue Builder (PCB) successfully delivered a working web-based application last winter. Some modifications to the catalogue builder are required to accommodate changes that have been made to the feature and portrayal models in S-100, Edition 2.0 and the S-101 feature catalogue, as well as to enhance the application's user interface and to make changes to the S-100 Portrayal Register structure to accommodate changes in the model and the PCB. Engineering Change Proposal 007 (ECP-007) to the CARIS contract is being executed to accomplish the additional work.

### Analysis/Discussion

Work on the PCB enhancements will begin in early February 2015 and will include the following:

1. Add optional scale minimum and maximum (denominator integers) to Graphical User Interface (GUI) forms for all drawing instructions.

- Update Export and Import to handle optional Scale Min/Max
- Update Create PDF functionality to include min/max scale in output.

2. Change PCB linestyle GUI to allow solid linestyles or reference to a named/registered linestyle. Treat inline linestyle definitions as custom xslt. Instruction

- Type: Line Style - User selects a line style from a list of line styles provided by the register Instruction
- Type: Simple Line - Add a default simple dashed line style option that references a static template.

3. Change PCB areafill GUI to allow solid area colour fill or reference to a named/registered areafill pattern (colorFill, symbolFill, pixmapFill, hatchFill )

- Add Area Fill Instruction type. User will select an area fill pattern from a list provided by the portrayal register.

4. For Enumerated attributes show only permitted values for the specific feature class.

- Update all GUI components to show only permitted values. Permitted value lists are assumed to be available in the feature catalogue.

5. Text Drawing instructions updates

- Remove "Serif" and Proportion from Text drawing Instruction.
- Add a new dropdown to allow the user to select a Font name from a list provided by the Register

- A Default style will be added to the list to reflect the documented default values for Serif and Proportion

#### 6. Changes to Portrayal Catalogue export to support updated Portrayal Catalogue Model

- Provide GUI to browse, select and manage Viewing Group Layers, Foundation mode and Display Modes
- RuleSet: Provide a GUI at catalogue level to define RuleSet and modify portrayal rules so they can be tagged to a RuleSet. The RuleSets allow a choice of portrayals for the same data.
- Export only symbols. Context parameters, fonts etc. from the Portrayal Register that are referenced in the Portrayal Catalogue.

#### 7. Text Instruction Custom Templates

- Create GUI elements to create/edit and delete custom XSL templates that can be used to format and select attributes for use in Text Instructions. Example of custom template would be to choose the desired display name from a list or to apply precision to a numeric value.
- Modify Text Instruction GUI to support Start/End Text and option to reference a Custom template.
- Modify Import/Export to support custom templates

#### 8. Update User Guide, screenshots to reflect changes.

- Update user guide to reflect GUI changes.

#### 9. Font Style Library - Predefined set of Font Styles (colour, size, weight)

- Provide interface to allow user to create/maintain a predefined set of font styles.
- Add interface to text drawing instruction GUI to allow user to select style.

#### 10. Register Database Updates

- Add missing columns and tables to the Portrayal Register needed for the portrayal catalogue builder

***The additional effort required to populate the new S-100 Portrayal Register data fields created by task 10 above is not included in ECP-007. It is hoped that this work can be accomplished through the support that member states will provide for the maintenance of the S-100 Registry.***

#### **Recommendations**

Support this and future development of the S-100 Portrayal Catalogue Builder as necessitated by any additional enhancements made to the S-100 Universal Hydrographic Data Model.

#### **Justification and Impacts**

Modifications to the S-100 Portrayal Catalogue Builder will enable the creation of an updated S-101 Portrayal Catalogue for testing in the S-100/S-101 testbed environment and to support the development and use of S-100/S-101 viewer applications.

#### **Action Required of DIPWG.**

DIPWG is invited to:

- a. note the report