NCWG Baseline Symbology Project Team Work Project plan January 2022

The following is a list of recommended activities to enable the development of a baseline symbology for the automatic or semi-automatic creation of paper charts from ENC data. This is intended only to jump start the conversation and provide something to add to and “chop on” by the BSPT, not as a complete, comprehensive list.

This work breakdown structure (WBS) facilitates breaking large tasks into smaller and smaller activities. Although the WBS may appear to set out tasks sequentially from start to finish, there are many activities that could be executed concurrently or in a different order. That is, this is a list of things to do, not a schedule or a sequence of the order in which the things should be done.

# Establish Virtual Working Environment for Project Team

## Create a space to store working documents

## Provide means to comment on documents and interact with other team members

# Create Digital Paper Chart Symbol Library

## Develop list of S-4 Symbols

### Develop naming convention for S-4 symbols (not all of them are in INT1)

### Identify preliminary list of S-4 symbols that will and will not be used for automation

## Identify existing digital symbol sets

### Poll HOs and industry partners to determine what SVG symbols exist

### Poll HOs and industry partners to determine what other digital non-SVG symbols exist

### Gather available digital symbols

## Determine a single set of S-4 symbols for use in automated paper chart generation from all symbol sets available

### Assess suitability of individual SVGs for automation use

### Identify SVG symbols that will need to be created

## Convert digital symbols that are available in other formats to SVG

## Create new SVGs for symbols that have no digital equivalent

## Apply for and establish a "Paper Chart" Domain within the IHO GI Registry Portrayal Register to store SVGs

### Submit an application to the HSSC for the establishment of a new Domain in the Portrayal Register

### Work with IHO Secretariat to set-up the necessary infrastructure

### Identify representatives to perform the necessary Registry Roles (Submitting Organization, Domain Control Body)

### Register SVGs into the Portrayal Register

# Collect and Create Paper Chart Portrayal Rules (portrayal comprises both symbolization and associated text labeling)

## Identify existing digital portrayal rules

### Poll HOs and industry partners to determine what S-101 portrayal rules exist

### Poll HOs and industry partners to determine what S-57 portrayal rules exist

### Gather available portrayal rules

### Assess suitability of individual S-101 portrayal rules for paper chart automation use

### Assess suitability of individual S-57 portrayal rules for paper chart automation use

### Identify preliminary list of paper chart portrayal rules that will need to be created

## Develop standard format for paper chart portrayal rules to be captured, stored, and used

### Determine if an S-100 Portrayal Catalogue be used to store paper chart portrayal rules

### Determine if other formats for storing or using the rules are required

### Reformat/Load rules into S-100 Portrayal Catalogue and/or another database structure

## Create new paper chart portrayal rules when none exist

### ~~Create missing S-57 rules~~

### Create missing S-101 rules, using S-57 rules as a guide if available, as appropriate\*

## Assess the usefulness of the S-101 ENC Product Specification to support the automation of paper chart production

### Identify any S-101 feature symbolization or labeling rules that may need to be deferred until the S-101 Product Specification is more mature

### Identify recommendations for improving S-101 feature/attribute content or structure to the S-100WG, S-101 Project Team that may improve ENC paper chart automation

# Testing

## Assemble a suitable collection of ENC data for automation testing.

### Poll HOs to determine what S-101 data might be available for testing

### Poll HOs to determine what S-57 data might be available for testing

### Determine the usefulness of available S-57 to S-101 conversion software to create S-101 data for testing

### Gather available S-101 test data

### Gather available S-57 test data or create it from available S-57 data

## Assemble a collection of corresponding “standard” paper nautical charts to compare with ENC data to paper chart automation output

### Request HOs send (PDF) image(s) of the corresponding paper chart(s) over the areas that they have provided ENC test data for

### Establish a secure location and method to store and share the copyrighted charts within the BSPT

## Test ENC data to Paper Chart Automation

### Create paper charts for various ENC test datasets

### Compare automation output to standard paper nautical charts

### Identify and document differences that are considered acceptable, for consideration by NCWG

### Identify and document differences for which changes need to be made in the baseline symbology or portrayal rules

1. Product Specifications:
2. Timelines

**\*Add the S101 Data Classification and Encoding Guide version numbers to be used for rules.**