

Scalable Vector Graphic Symbols to Support Automation

Submitted by:	Esri
Executive Summary:	INT1 .SVG based symbols (to support automation)
Related Documents:	Action HSSC11/34, Action HSSC11/47, HSSC 11-05.4D, HSSC 12-05.4C
Related Projects:	Any related projects that may impact upon considerations

Introduction / Background

ENCs are becoming the primary source for paper chart products and demands are increasing to automate paper chart production. The S-4 standard, in its current graphical and sentence format, is not machine-readable and hydrographic offices may have limited resources to author a new version.

Analysis / Discussion

At NCWG5 member states and industry were in favor of developing a library of Scalable Vector Graphic (SVG) symbols.

A new symbol repository provides NCWG the opportunity to:

- Improve the cartographic quality of data driven products;
- Bring paper chart and ENC symbology closer together;
- Support automation;
- Develop a standard set of symbols;
- Promote consistency across national hydrographic offices.

Since these symbols are for paper charts it is not clear that the SVG files must follow the S-100 profile in *S-100 Universal Hydrographic Data Model edition 4.0.0 Appendix 9-C*. For example, paths use relative coordinates instead of absolute as specified in 9-C-3-3.

Conclusions

Esri is offering to provide its current set of Scalable Vector Graphic (SVG) symbols to be made available through a location NCWG deems necessary.

Recommendations

- Provide a symbol specification that will promote automation.
- Author a standard that uses attribute-based logic to determine the symbol output.
- Create explicit links between ENC data and SVG symbols.

Justification and Impacts

- Resources to author attribute-driven standard to calculate symbols from ENC data (S-57 or S-101).
- Resources to maintain or further develop symbols.

Action required of NCWG

The NCWG is invited to:

- a. note this paper;
- b. comment and provide feedback on symbols;
- c. add these symbols to a repository;