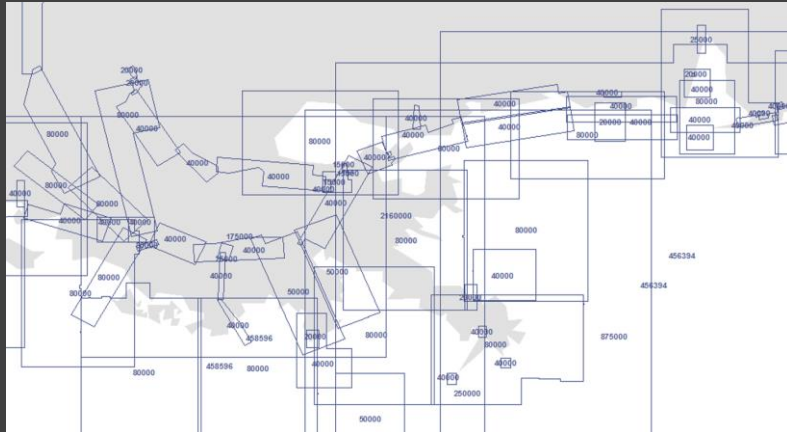


Impediments to Automation

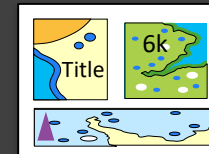
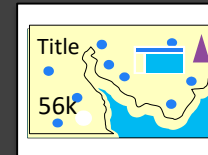
- 1 Product schemes and Layouts
- 2 Symbol definitions
- 3 Data-driven standards



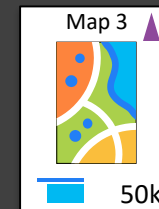
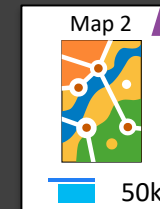
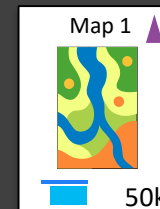
Product schemes and Layouts



Nautical charts



Topographic maps





Symbol details

Provide baseline for size, dashing patterns, and colours.

B-127 LINE WEIGHTS AND DASHED LINES

It is not yet considered feasible to attempt full international standardization of line weights and dashed lines. It is therefore left to national discretion to make use of differing line widths and numbers of dashes per centimetre to distinguish the varying significance of different charted lines and limits.

In a number of paragraphs, where some distinction is particularly important, the terms 'fine' or 'bold' are used: the appropriate recommended widths are 0,1mm for fine lines, 0,15mm for medium lines and 0,2mm for bold lines. In a few instances, dashed lines are specified, such as 10 dashes per cm for light sector limits.

Must and/or Shall, with no *How*....

B-438.1 Ferry routes. The following symbol, in magenta, must be used:



B-311 COASTLINE INADEQUATELY SURVEYED

A coastline inadequately surveyed shall be represented on the larger scale charts by a dashed line delimiting the land tint.







Symbol details

With no *How...*




B-412.1 Style of sounding numerals should be in sloping sans serif

“Font is too large.” *What is the font size?*

 *[green]* or  *[magenta]* **N22**

“Bird is too big.”

What is the height and width in mm?

 **L30.1**

“Waves are high.”

What is the height and width in mm?



Data-driven standard

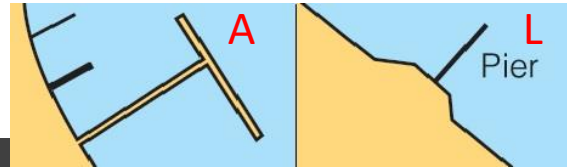
- Multiple resources, incomplete...
- Infer the mapping
- Reverse engineering

B-321.2 A pier is a long narrow structure, usually on piles, extending into the water to provide a berth at the pierhead on the seaward end. The legend 'Pier', or equivalent, may be needed if the pier is small and could be confused with a groyne.

SLCONS

=

CATSLC = 4



F14

- One document
- Machine readable
- Complete

Factory Hotel



Hotel



CONVIS = 2 OR CONVIS IS NULL

FACTORY HOTEL




FACTORY

HOTEL



WATER TOWER

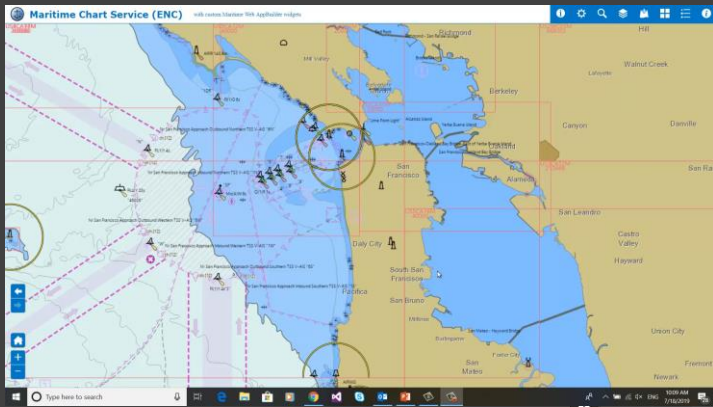
CONVIS = 1

Symbol	S-4 Reference	Symbol Name	Geometry	COLOUR	Dimensions	Line weight	S-57 Encoding
	462.5	Pillar Buoy	Point	100,100,100	3mm w x 3mm h	.15mm	OBJECT LIKE ('BOY*') AND BOYSHP = 4 AND (COLPAT <> '2' OR COLPAT IS NULL) AND (COLOUR IN ('-32767','1','3','5','6','7','8','9','10','11','12','13') OR COLOUR LIKE ('*','*'))

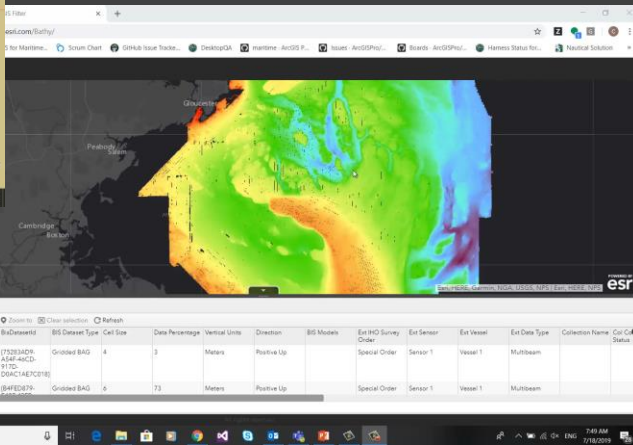


Marine Information Services

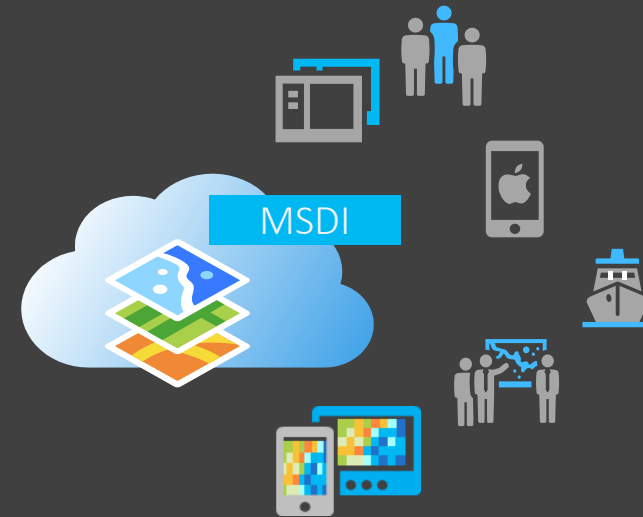
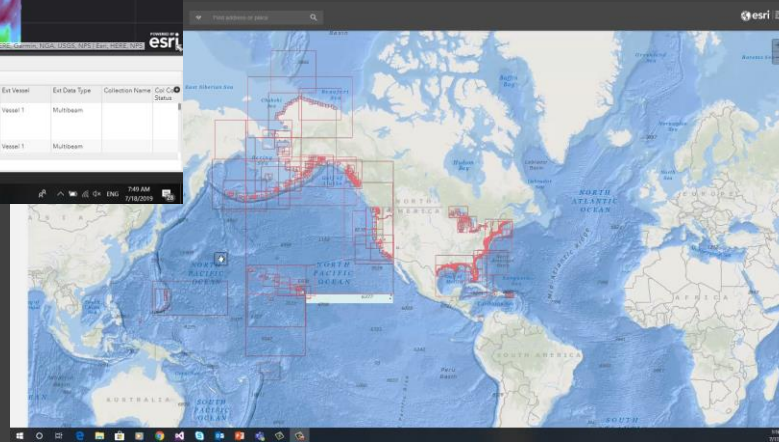
Electronic Charts as a Service



Bathymetry Services



Charts on Demand





thank you

Esri Hydrographic Office Organization
<http://esriho.maps.arcgis.com/home/index.html>

Maritime GeoNet Page
<https://geonet.esri.com/groups/arcgis-for-maritime>

Contact
maritime@esri.com

