Scalable Vector Graphic Symbols to Support Automation

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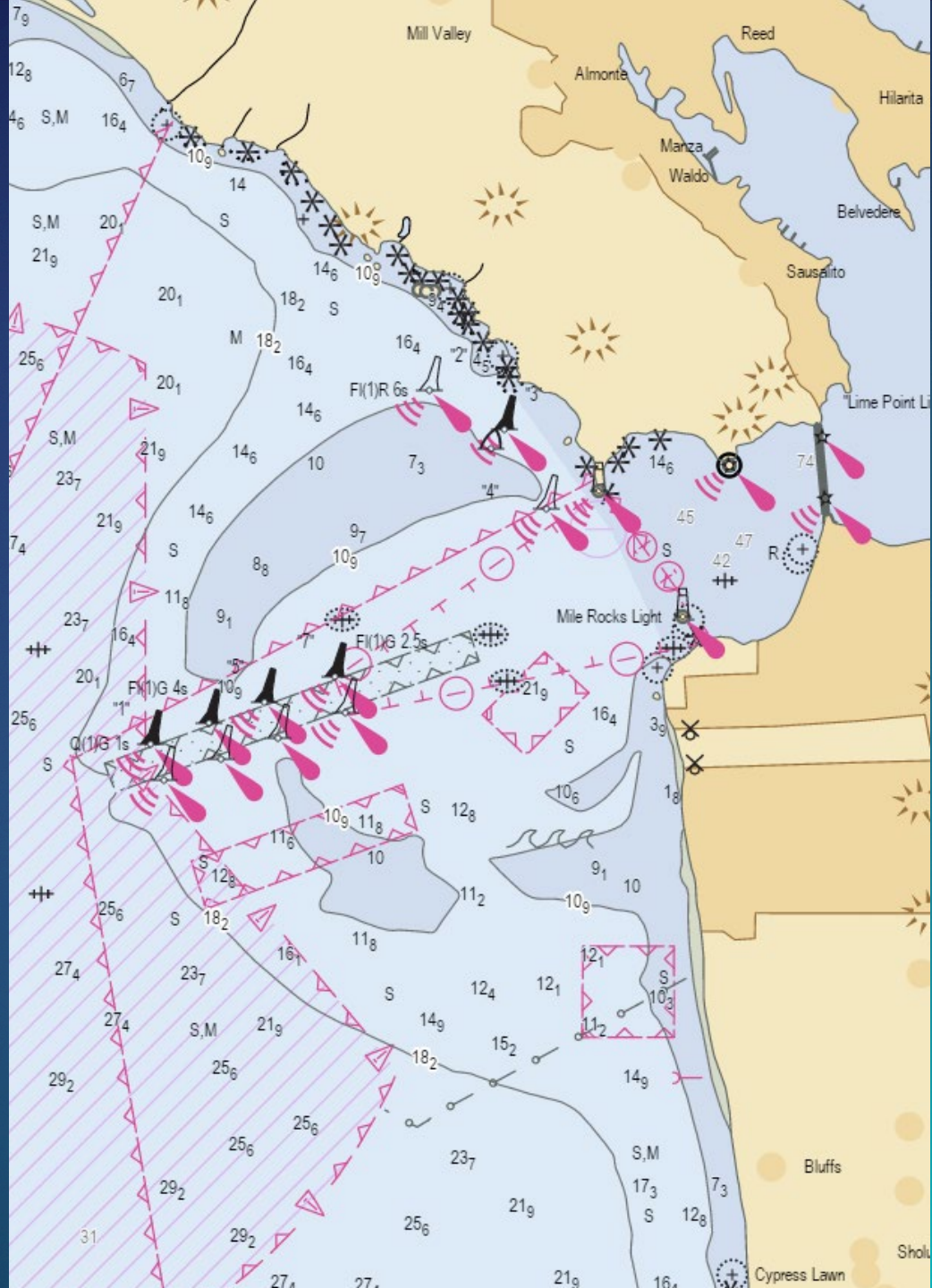
Background NCWG 5

Graphic

Data driven
Machine readable



S-100 SVG Requirements

S-100 SVG Requirements

Tiny SVG 1.2

- Subset of Tiny SVG 1.2 profile
  - Unless removed by S-100, anything should be valid
  - Clarification needed
- Example of S-100 specific
  - Must be absolute coordinates, not relative
  - M, L, Z or z
- Clarification
  - SVG text
  - Animation

S-100 SVG Requirements

Top level

WNDMIL02.svg

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="daySvgStyle.css" type="text/css"?><svg xmlns=
"http://www.w3.org/2000/svg" version="1.2" baseProfile="tiny" xml:space="preserve"
style="shape-rendering:geometricPrecision; fill-rule:evenodd;" width="3.32mm" height=
"4.42mm" viewBox="-1.66 -3.16 3.32 4.42">
  <title>WNDMIL02</title>
  <desc>windmill</desc>
  <metadata>
    <iho:S100SVG xmlns:iho="http://www.iho.int/SVGMetadata">
      <iho:Description iho:publisher="IHB" iho:creationDate="2014-06-09" iho:source=
      "S52Preslib4.0" iho:format="S100SVG" iho:version="0.1"/>
    </iho:S100SVG>
  </metadata>
  <rect class="symbolBox layout" fill="none" x="-1.5" y="-3" height="4.1" width="3"/>
  <rect class="svgBox layout" fill="none" x="-1.5" y="-3" height="4.1" width="3"/>
  <circle class="f0 sLANDF" style="stroke-width: 0.32;" cx="0" cy="0" r="1.1"/>
  <path d=" M 1.5,-3 L -1.5,0" class="sl f0 sLANDF" style="stroke-width: 0.32;"/>
  <path d=" M -1.5,-3 L 1.5,0" class="sl f0 sLANDF" style="stroke-width: 0.32;"/>
  <circle class="pivotPoint layout" fill="none" cx="0" cy="0" r="1"/>
</svg>
```

- Coordinate system
  - Size in mm
  - Pivot point
  - View box
- Title
- Description
- Metadata

S-100 SVG Requirements

Drawing elements

WNDMIL02.svg

```
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</svg>
```

- Class attribute
  - Style information
- Style properties
- Path
- Rectangle
- Circle
- Curves* - not specified
- stroke/width 0.32 mm increments
  - ECDIS monitor resolution

SVG in Inkscape

Post export modifications for S-100

WNDMIL02.svg | E25_Windmill.svg

```
<?xml version="1.0" encoding="UTF-8"?>
<svg width="1.6379mm" height="1.823mm" version="1.1" viewBox="-.82 -1.36 1.637
="http://www.w3.org/2000/svg">
    <path d="m0.75441 0.12948-1.5109-1.422" style=
    "fill:none;stroke-miterlimit:3.864;stroke-width:.18521;stroke:#231f20"/>
    <path d="m-0.75653 0.12948 1.5109-1.422" style=
```

WNDMIL02.svg

```
<?xml version="1.0" encoding="UTF-8"?>
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</svg>
```

- Manual XML edits
- CSS style sheet
  - Day.CSS
- Remove stoke/fill
  - Styled by CSS
- Add
  - Line class color token
  - Fill class color token

SVG files

- Current set does not meet the S-100 profile
  - *S-100 Universal Hydrographic Data Model edition 4.0.0 Appendix 9-C*
  - Contains curves
  - Color tokens are not defined
- Should the SVG files meet the S-100 standard?
  - How should items proceed?
- Clarification in S-100
  - SVG text, animation or scripting
  - Test bed support
- Welcome comments and feedback

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