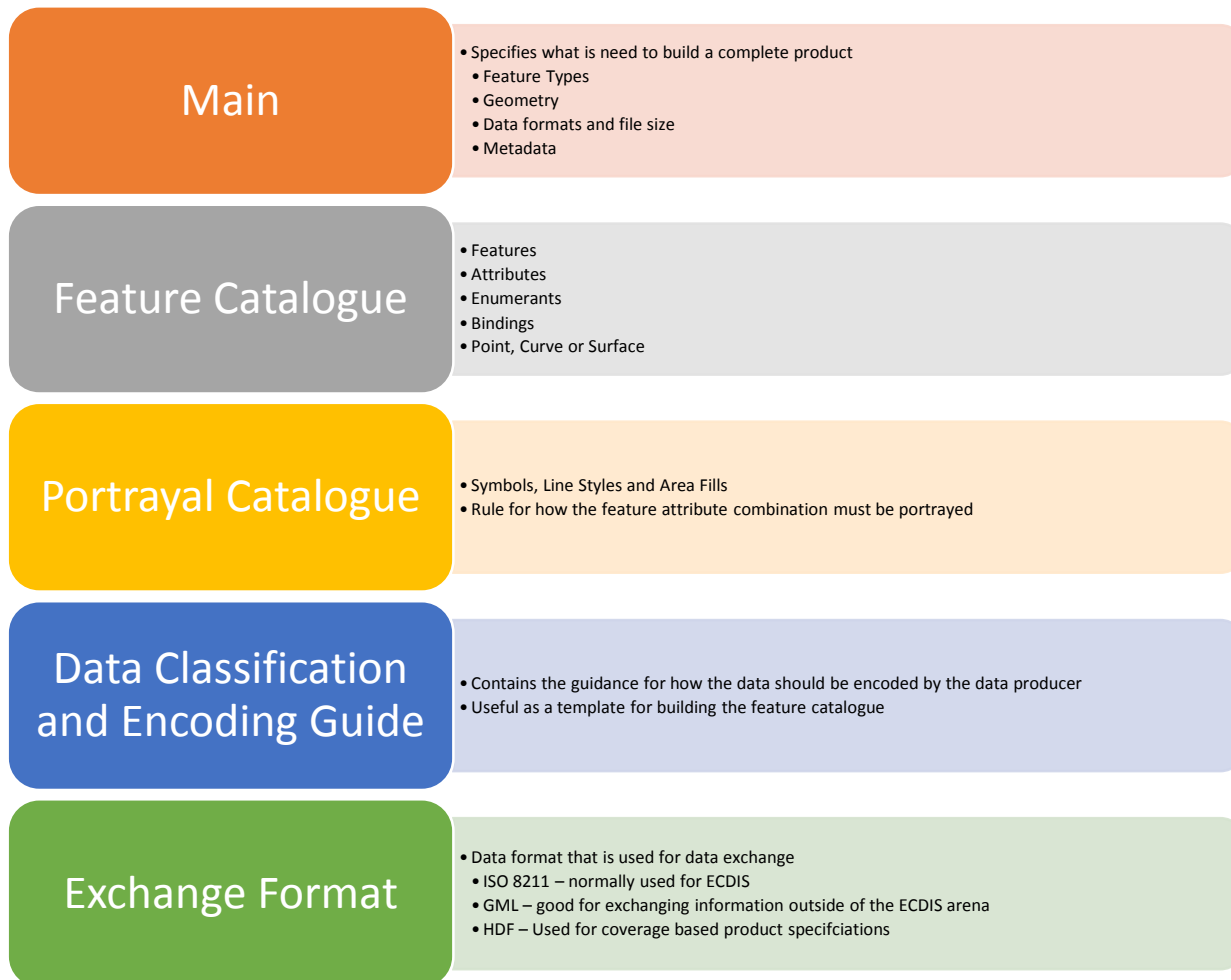
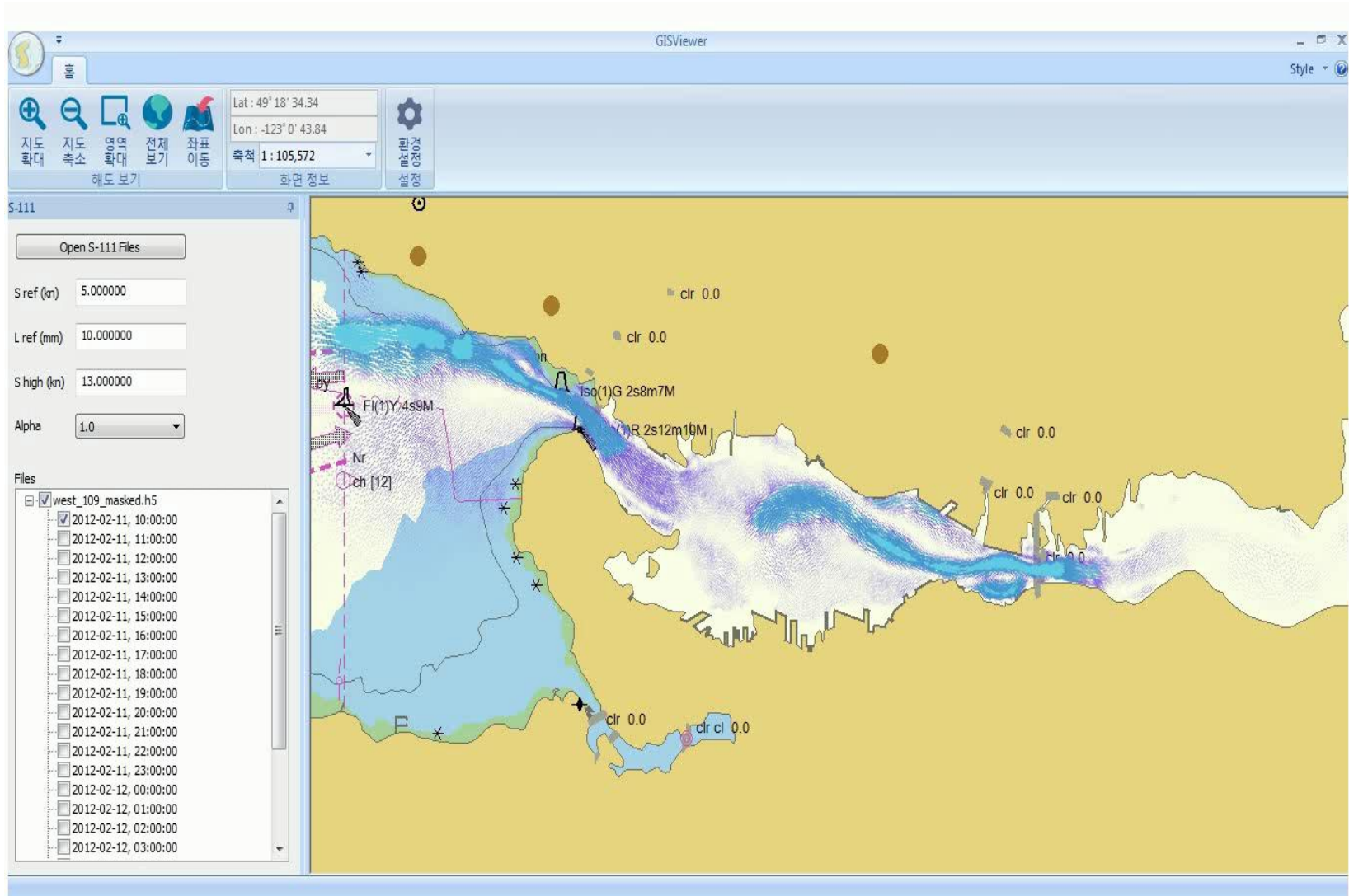


Components of an S-100 Product Specification



S-100 Viewer (Courtesy KHOA, Canada)

Note: HO provides charting data, Mfgr provides tools,
User selects items to display



Status of the S-111 Product Specification

COMPONENTS OF THE S-111 PRODUCT SPECIFICATION

- | | |
|---|---|
| 1. Main Document | (Draft 10, needs UML diagrams, etc) |
| 2. Data Classification and Encoding Guide | |
| a. Establish Feature and Attributes (F&A) | (Done, Annex A) |
| b. Enter F&A into the IHO GI Registry,
FCD (Feature Concept Dictionary) Register | (Done – see below) |
| 3. Feature Catalogue (XML) | (Annex D, draft) |
| 4. Portrayal Catalogue | |
| a. Establish Symbol | (Done, ???) |
| b. Convert Symbol into SVG Files | (Done, KHOA) |
| c. Establish Color File (XML, SVG) | (Draft , KHOA) |
| d. Establish Portrayal Rules (XSL) | (Draft , KHOA) |
| e. Enter into Portrayal Register | (In progress) |
| 5. Exchange Format | (Done – HDF5) |

S-111 PRODUCT DELIVERY

- | | |
|--------------------------------|-----------------------|
| 1. Data Product File (HDF5) | (Samples created) |
| 2. Catalogue File (XML) | (To be done) |

• ANNEX A. DATA CLASSIFICATION AND ENCODING GUIDE

•A.1 Features

IHO Definition: FEATURE: SURFACE CURRENT: a set of value items required to define a dataset representing direction and speed of the surface water current.			
S-111 Geo Feature: Surface Current			
Primitives: S-100 Grid Coverage, S-100 PointSet			
S-111 Attribute	Allowable Encoding Value	Type	Multiplicity
Surface Current Speed	must be in decimal Knots, max resolution 0.01 knot	RE	1
Surface Current Direction	must be in decimal degrees, max resolution 0.1 degree	RE	1

•Feature Attributes

•Surface Current Speed (*surfaceCurrentSpeed*)

Surface Current Speed: IHO Definition: SPEED. Rate of motion. The terms speed and VELOCITY are often used interchangeably, but speed is a scalar, having magnitude only, while VELOCITY is a vector quantity, having both magnitude and direction. Speed may either be the ship's speed through water or the SPEED MADE GOOD over ground. <u>Unit:</u> knot (kn) <u>Resolution:</u> 0.01 kn <u>Format:</u> xxx.xx <u>Examples:</u> 2.54 <u>Remarks:</u>

•Surface Current Direction (*surfaceCurrentDirection*)

Surface Current Direction: IHO Definition: DIRECTION OF CURRENT. The direction toward which a CURRENT is flowing, called the SET of the CURRENT. Also called current direction <u>Unit:</u> degree (of arc) (°) <u>Resolution:</u> 0.1 ° <u>Format:</u> xxx.x <u>Examples:</u> 298.3 <u>Remarks:</u>
--

Registered Feature – Surface Current

<http://registry.iho.int/feature/list.do>



IHO Geospatial Information Registry

Definition(Description):
Alpha Code(Acronym):
KHOA of ROK
Complex Line Symbol:

HOME INTRODUCTION GI REGISTERS PROPOSAL

[FCD](#) [Portrayal](#) [Product Specification](#) [Agency Code](#)

FCD Register

· Domain · Item Type · Status

· Search

[Go to index](#)

All Type : 2 items found

No.	Alpha Code(Acronym)	Camel Case ID	Name	Date Accepted
2		SurfaceCurrent	Surface Current	2016-12-01
1	CURENT	CurrentNonGravitational	Current - non-gravitational	

Feature Details

Details		Management Details	
Item Type :	Feature	Proposal Type :	Addition
Proposal Type :	Unspecified	Submitting Organization :	NOAA
Domain :	IHO Hydro	Proposed Change :	S-111 Product specification
AlphaCode :	Unspecified	Justification :	S-111PT has reviewed and approved this feature
Feature Name :	Surface Current	Proposed :	2016-10-13
Alias :	Unspecified	Accepted :	2016-12-01
CamelCase :	SurfaceCurrent	Amended :	
Use Type :	Geographic	Successor :	-
Definition :	Water or other fluid in essentially horizontal motion.	Predecessor :	-
Reference :			
Definition Source :			
Similarity to Source :	Unspecified		
Int1 :	<input type="text" value="▼"/>		
S4 :	<input type="text" value="▼"/>		
Recommended Attributes :	Name : Surface current direction (Valid) ▼		
Distinguishing Features :	Unspecified ▼		
Remarks :	Unspecified		

Simple Attribute of a Feature

FCD Register

· Domain

· Item Type

· Status

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· Search

All Type : 4 items found

No.	Alpha Code(Acronym)	Camel Case ID	Name	Date Accepted
4		surfaceCurrentSpeed	<u>Surface current speed</u>	2016-11-02
3		surfaceCurrentDirection	<u>Surface current direction</u>	2016-11-02
2	T_TINT	tideCurrentTimeIntervalOfValues	<u>Tide, current - time interval of values</u>	2010-11-15
1	TS_TSV	tidalStreamCurrentTimeSeriesValues	<u>Tidal stream, current - time series values</u>	2010-11-15

Attribute: Current Speed

Details		Management Details	
Item Type :	Simple Attribute	Proposal Type :	Addition
Proposal Type :	Unspecified	Submitting Organization :	NOAA
Domain :	IHO Hydro	Proposed Change :	Attribute is from the S-111 Project Team for the Surface Current Product Specification
AlphaCode :	Unspecified	Justification :	this has been vetted by the S-111PT
Simple Attribute Name :	Surface current speed	Proposed :	2016-10-13
Alias :	Unspecified	Accepted :	2016-11-02
CamelCase :	surfaceCurrentSpeed	Amended :	
Data Type :	Real	Successor :	-
Quantity Specification :	knot	Predecessor :	-
Minimum Range :	0.0		
Maximum Range :	0.0		
Range Closure :	0		
Precision :	.01		
Definition :	Rate of motion. The terms speed and VELOCITY are often used interchangeably, but speed is a scalar, having magnitude only, while VELOCITY is a vector quantity, having both magnitude and direction. Speed may either be the ship's speed through water, or the SPEED MADE GOOD over ground.		
Reference :			
Definition Source :			
Similarity to Source :	Unspecified		
Int1 :	<input type="button" value="▼"/>		
S4 :	<input type="button" value="▼"/>		
Remarks :	Unspecified		

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Portrayal Symbol (SVG)

Symbol (use IE)

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<?xml-stylesheet href="SVGStyle.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="6mm" height="11mm" viewBox="-3 -5.5 6 11">
  <title>SAFCON01</title>
  <desc>pattern of symbol</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="-3" y="5.5" height="11" width="6" />
  <rect class="svgBox layout" fill="none" x="-3" y="-5.5" height="11" width="6" />
  <path d=" M 0,5 L -0.5,5 L -1.5,-1.5 L -2.5,-1.5 L 0,-5 L 2.5,-1.5 L 1.5,-1.5 L 0.5,5 L 0,5" transform="rotate(0)" class="sl f1
fSC001" style="stroke-width:0.32;stroke-dasharray:0,0;" />
  <circle class="pivotPoint layout" fill="none" cx="0" cy="0" r="1"/>
</svg>
```

Color Codes

```
.layout {display:none} /* used to control visibility of symbolBox, svgBox, pivotPoint (none or inline) */  
.symbolBox {stroke:black;stroke-width:0.32;} /* show the cover of the symbol graphics */  
.svgBox {stroke:blue;stroke-width:0.32;} /* show the entire SVG cover */  
.pivotPoint {stroke:red;stroke-width:0.64;} /* show the pivot/anchor point, 0,0 */  
.sl {stroke-linecap:round;stroke-linejoin:round} /* default line style elements */  
.f0 {fill:none} /* no fill */
```

```
.sSC001 {stroke:#7652E2} .fSC001 {fill:#7652E2}  
.sSC002 {stroke:#4898D3} .fSC002 {fill:#4898D3}  
.sSC003 {stroke:#61CBE5} .fSC003 {fill:#61CBE5}  
.sSC004 {stroke:#6DBC45} .fSC004 {fill:#6DBC45}  
.sSC005 {stroke:#B4DC00} .fSC005 {fill:#B4DC00}  
.sSC006 {stroke:#CDC100} .fSC006 {fill:#CDC100}  
.sSC007 {stroke:#F8A718} .fSC007 {fill:#F8A718}  
.sSC008 {stroke:#F7A29D} .fSC008 {fill:#F7A29D}  
.sSC009 {stroke:#FF1E1E} .fSC009 {fill:#FF1E1E}
```

Next Steps

1. Revise the UML diagrams
2. Finalize the portrayal rules
3. Enter portrayal details into the Portrayal Registry

Intangibles

1. Colour schema
2. Interoperability