S-130PT9

2024-10-21

Opening and Welcome

S130PT9-1

Approval of Agenda

S130PT9-2

https://iho.int/en/s-130pt9

Annex A S130PT9 Draft Agenda

21 October 2024, (13:00 – 15:00, UTC+2, CEST) / VTC Event

DRAFT AGENDA v1.0

Agenda item	Title	Lead	Remarks
1. Opening and Administrative Arrangements			
S130PT9-1	Opening and Welcome	Chair	
2. Approval of Agenda			
S130PT9-2	Agenda	Chair	
S130PT9-2.1	Status of List of Actions and Decisions from S-130PT8	Chair	
3. Matters Arising from the PT and Others			
S130PT9-3	Review decisions and actions from HSSC16 related to the work of the PT	IHO Sec.	
4. Work Items			
S130PT9-4.1	Introduction 'Waterway' concept (Canadian Coast Guard / e-Navigation)	Eiving Mond/ Robin Jefferies	
S130PT9-4.2	Data Quality Working Group cross-check results for S-130 Product Specification	DQWG Chair	
S130PT9-4.3	Meeting with S-100WG	Chair	
S130PT9-4.4	Test datasets scenario B	Chair	
S130PT9-4.5	Discuss proposed timeline and work plan for S-130PT to achieve Edition 2.0.0	All	
5. Any Other Business (AOB)			
S130PT9-5.1	AOB	IHO Sec.	
S130PT9-5.2	Group Photo	Chair	
6. Date and Venue of Next Meeting			
7. Review Action Items			
S130PT9-7	Review Action items	IHO Sec.	
Close			

Status of List of Actions and Decisions from S-130PT8

S130PT9-2.1

List of Actions and Decisions from S-130PT8

Action	Status
[Action 8/01] S-130PT8 are invited to update contact details of the S-130PT membership.	Ongoing
[Action 8/02] IHO Sec (Yong BAEK) to submit the newly approved definition of "locationReference" and will report on the status of this proposal at the next PT meeting.	Completed
[Action 8/03] S-130 PT chair to reflect the new definition in the S-130PT Report to HSSC16.	Completed
[Action 8/04] S-130PT Chair to contact S-100 experts to discuss the MultiPolygon issue further, focussing on addressing Scenario B and C as an alternative solution and seeking any suggestions until S-100 supports MultiPolygon geometry.	Completed

List of Actions and Decisions from S-130PT8

- **[Decision 8/01] S-130PT8 approved** the draft agenda as presented at the meeting.
- **[Decision 8/02] S-130PT8 approved** the new definition of “locationReference” as proposed by the PT Chair and advances the proposal to include it in the concept register within the GI registry.
- **[Decision 8/03] S-130 PT Chair to notify** S-130PT members of the next meeting at least one month in advance.

Review decisions and actions from HSSC16 related to the work of the PT

S130PT9-3

Introduction ‘Waterway’ concept

S130PT9-4.1

Data Quality Working Group cross-check results for S-130 Product Specification

S130PT9-4.2

Work done + outstanding issues

- Issues with Cross-check of FC and GI Registry
  - minimumDisplayScale (camel case issue) → fixed in Ed. 1.1.0
  - Numerical Identifier (unregistered) → no longer in Feature Catalogue
  - Text Lat (unregistered) → added to Registry as Text Latitude
  - Text Lon (unregistered) → added to Registry as Text Latitude
  - Version (unregistered) → added to Registry
  - Source Indication (unregistered) → added to Registry
  - Location Reference (unregistered) → added to Registry (see Action 8/02)
  - Global Sea Area (unregistered) → registered, but issues with camel case representation in <S100FC:code>
  - DCEG: Inconsistent rolename of consistsOf and componentOf
    - *According to the FC of S-130, if GlobalSeaArea instance 1 consists of GlobalSeaArea instance 2, then there is an Association Role "consistsOf" included in GlobalSeaArea instance 1. However, there is no an Association Role "componentOf" in GlobalSeaArea instance 2.*

```
<S100FC:S100_FC_FeatureType isAbstract="false">
        <S100FC:name>Global Sea Area</S100FC:name>
        <S100FC:definition>An area describing the extents of global seas and oceans.</S100FC:definition>
        <S100FC:code>GlobalSeaArea</S100FC:code>
```

Name	Global Sea Area
Alias	
CamelCase	globalSeaArea

Further clarification/discussion ‘Cross check of DQ chapters of S-100 based product specification’

- Tests regarding Aggregation Measures (e.g. DataProductSpecificationPassed and DataProductSpecificationFailRate) are not required for the S-130 Product Specification.
    - *Aggregation is not a mandatory DQ Measure. It will be used only when an evaluation based on a single data quality element is not sufficient for a user to be satisfied. In practice, it could be used in the following scenarios:*
        - *the overall data set quality is deemed to be conformant only when the data set 100% pass the DQ evaluation based on each data quality element.*
        - *the overall data set quality is deemed to be conformant only when the data set weighted pass the DQ evaluation based on all of the data quality elements.*

Further clarification/discussion ‘Cross check of DQ chapters of S-100 based product specification’

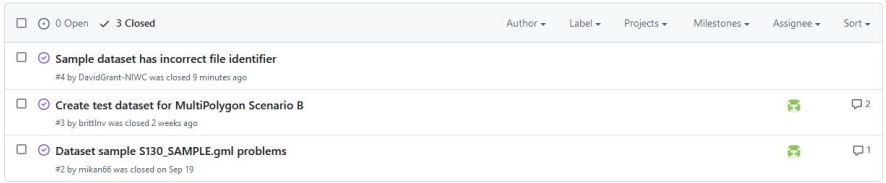
- “Similar to the previously reviewed product specifications, DQ chapters of S-124, S-130, S-131, S-201, S-240 and S-401 are not in a harmonized way.”
  - *There is a Recommended Template for the Data Quality chapter of S-1xx Data Product Specifications which has been developed by DQWG and will be included in S-100 Ed 6.0.0. TWCWG and NIPWG will revise their PSs after the inclusion of the template in S-100 Ed 6.0.0. The DQ chapter of S-130 is developed based on the template, so there is no need to make a big change to it.* ***However, there are something in the S-130 DQ Chapter that need to be discussed and reviewed within the project team. For example, whether or not it is allowable to publish the data set with a quality statement indicating that there is commission or omission of feature instance in the data set?***

Meeting with S-100WG

S130PT9-4.3

General remarks

- Assistance with harmonisation to S-100 Edition 5.2.0
  - Little changes needed for S-130PT in general (no Portrayal Catalogue)
  - Changes to Feature Catalogue Schema provide extra capability to mark attributes as public/private/protected
- Use of GitHub to track outstanding issues
  - https://github.com/iho-ohi/S130PT
  - If needed, introduction on use of GitHub at next PT meeting



mikan66 commented 2 weeks ago • edited

Evaluation of Dataset: S130_SAMPLE.gml, with Feature Catalog: S-130_FC_1.1.0.xml results in some data issues that need further investigation. Below is our Testbed output:

Corrected some namespace processing errors on our side.

```
Error: [FeatureCatalog] Aggregation relationship between GlobalSeaArea and GlobalSeaArea: neither side has roleType of association.
Error: [Feature] GML Element: 'applicationProfile' missing value
Error: [None] GML Geometry error: id='M.0001'  points must form a closed linestring
```

brittlnv self-assigned this last week

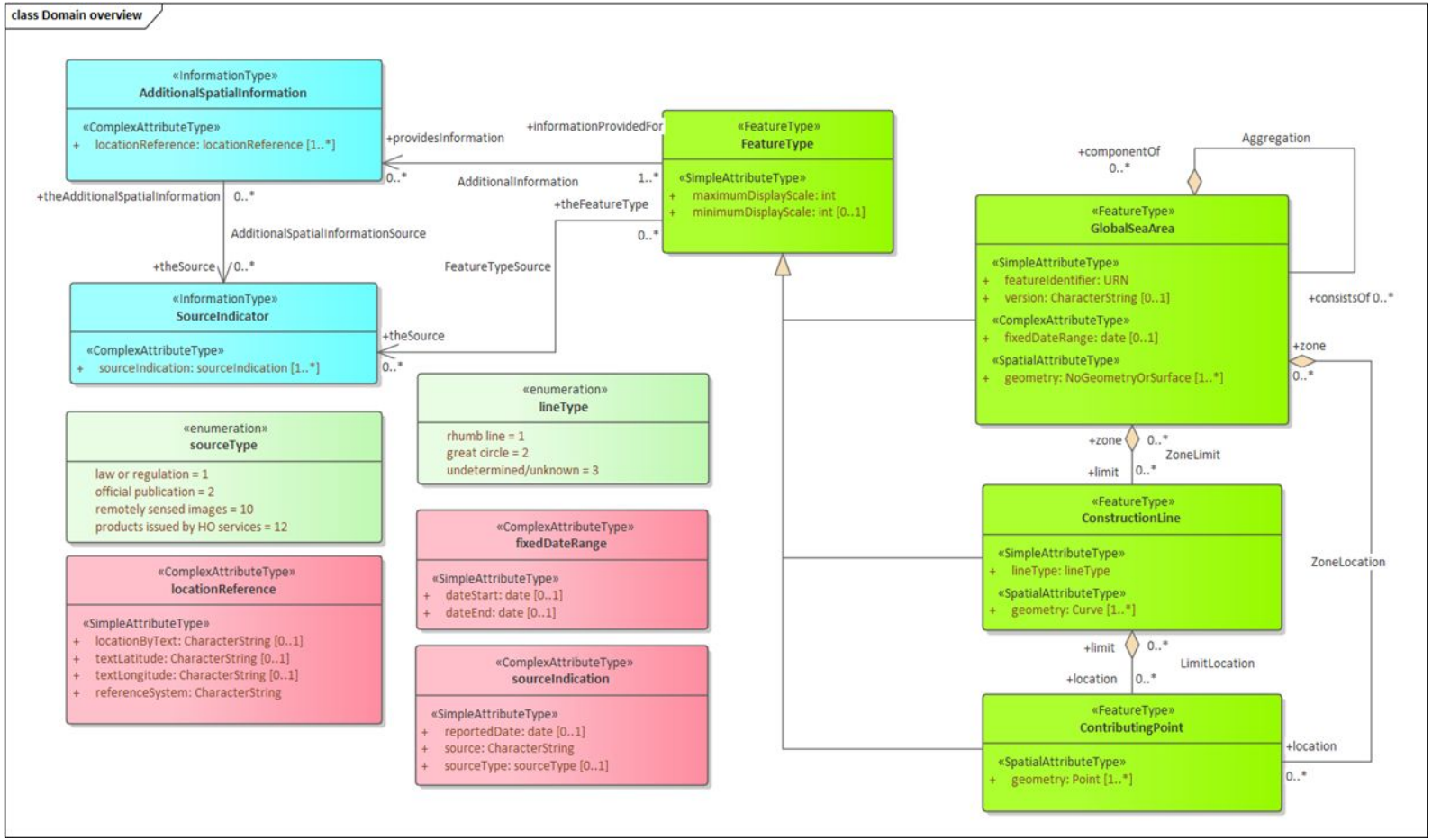
brittlnv added a commit that referenced this issue last week

`fix reported issues applicationProfile/geometry` ... Verified d882432

brittlnv added a commit that referenced this issue last week

`change roleType consistsOf` ... Verified c0d1538

brittlnv closed this as completed last week


class Domain overview
«InformationType»
AdditionalSpatialInformation
«ComplexAttributeType»
+ locationReference: locationReference [1..*]
+providesInformation
+informationProvidedFor
0..*
AdditionalInformation
1..*
«FeatureType»
FeatureType
«SimpleAttributeType»
+ maximumDisplayScale: int
+ minimumDisplayScale: int [0..1]
+theAdditionalSpatialInformation
0..*
AdditionalSpatialInformationSource
+theSource
0..*
+theFeatureType
0..*
FeatureTypeSource
«InformationType»
SourceIndicator
«ComplexAttributeType»
+ sourceIndication: sourceIndication [1..*]
+theSource
0..*
«enumeration»
lineType
rhumb line = 1
great circle = 2
undetermined/unknown = 3
«enumeration»
sourceType
law or regulation = 1
official publication = 2
remotely sensed images = 10
products issued by HO services = 12
«ComplexAttributeType»
fixedDateRange
«SimpleAttributeType»
+ dateStart: date [0..1]
+ dateEnd: date [0..1]
«ComplexAttributeType»
locationReference
«SimpleAttributeType»
+ locationByText: CharacterString [0..1]
+ textLatitude: CharacterString [0..1]
+ textLongitude: CharacterString [0..1]
+ referenceSystem: CharacterString
«ComplexAttributeType»
sourceIndication
«SimpleAttributeType»
+ reportedDate: date [0..1]
+ source: CharacterString
+ sourceType: sourceType [0..1]
+componentOf
0..*
Aggregation
«FeatureType»
GlobalSeaArea
«SimpleAttributeType»
+ featureIdentifier: URN
+ version: CharacterString [0..1]
«ComplexAttributeType»
+ fixedDateRange: date [0..1]
«SpatialAttributeType»
+ geometry: NoGeometryOrSurface [1..*]
+consistsOf 0..*
+zone
0..*
+zone
0..*
ZoneLimit
+limit
0..*
«FeatureType»
ConstructionLine
«SimpleAttributeType»
+ lineType: lineType
«SpatialAttributeType»
+ geometry: Curve [1..*]
ZoneLocation
+limit
0..*
LimitLocation
+location
0..*
«FeatureType»
ContributingPoint
«SpatialAttributeType»
+ geometry: Point [1..*]
+location
0..*

Feedback on current Application Schema

- maximumDisplayScale required, minimumDisplayScale is not
  - backwards to what other PS have in mind (to declutter) → to reconsider?
  - maximumDisplayScale = *The value considered by the Data Producer to be the maximum (largest) scale at which the data is to be displayed before it can be considered to be "grossly overscaled".*
  - minimumDisplayScale = *The smallest intended viewing scale for the data.*

Feedback on current Application Schema

- version → text value
  - intended for human use or applications?
    - for applications: preferably not a free text string, but integer

MultiPolygon geometry

Scenario A

```
<GlobalSeaArea>
<attributes>...</attributes>
<geometry>
       <multipolygon>
              P1, P2
       </multipolygon>
</geometry>
</GlobalSeaArea>
```

Scenario B

```
<GlobalSeaArea id = “1”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P1
       </polygon>
</geometry>
</GlobalSeaArea>

<GlobalSeaArea id = “2”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P2
       </polygon>
</geometry>
</GlobalSeaArea>
```

Scenario C

```
<GlobalSeaArea id = “1&2”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P1
       </polygon>

</geometry>
<geometry>
       <polygon>
              P2
       </polygon>
</geometry>
</GlobalSeaArea>
```

MultiPolygon geometry

Scenario A

Scenario B

```
<GlobalSeaArea id = “1”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P1
       </polygon>
</geometry>
</GlobalSeaArea>

<GlobalSeaArea id = “2”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P2
       </polygon>
</geometry>
</GlobalSeaArea>
```

Scenario C

```
<GlobalSeaArea id = “1&2”>
<attributes>...</attributes>
<geometry>
       <polygon>
              P1
       </polygon>

</geometry>
<geometry>
       <polygon>
              P2
       </polygon>
</geometry>
</GlobalSeaArea>
```

MultiPolygon geometry

- **Arguments pro Scenario B**
  - (!) Most off-the-shelf GML software will not be able to read Scenario C
  - Used in S-101 (e.g. IslandGroup / IslandAggregation / LandArea)
  - Leverage existing aggregation to encode relationship(s)

- Arguments pro Scenario C
  - No additional aggregation or associations are required

Test datasets scenario B

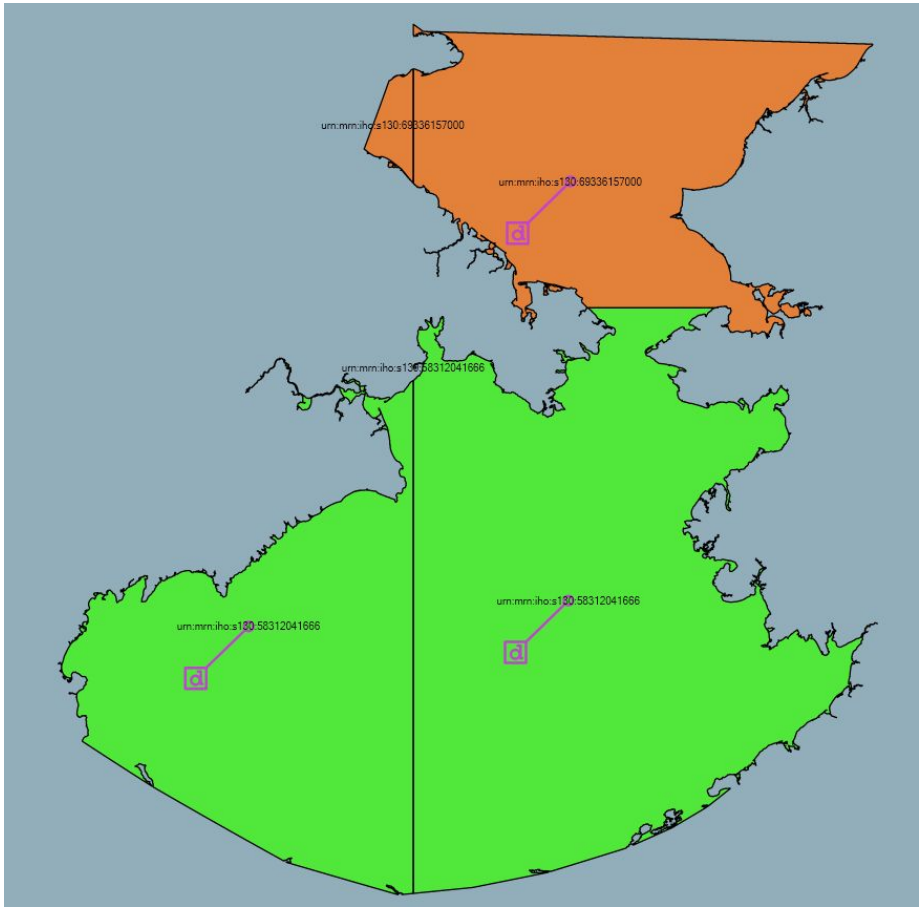
S130PT9-4.4

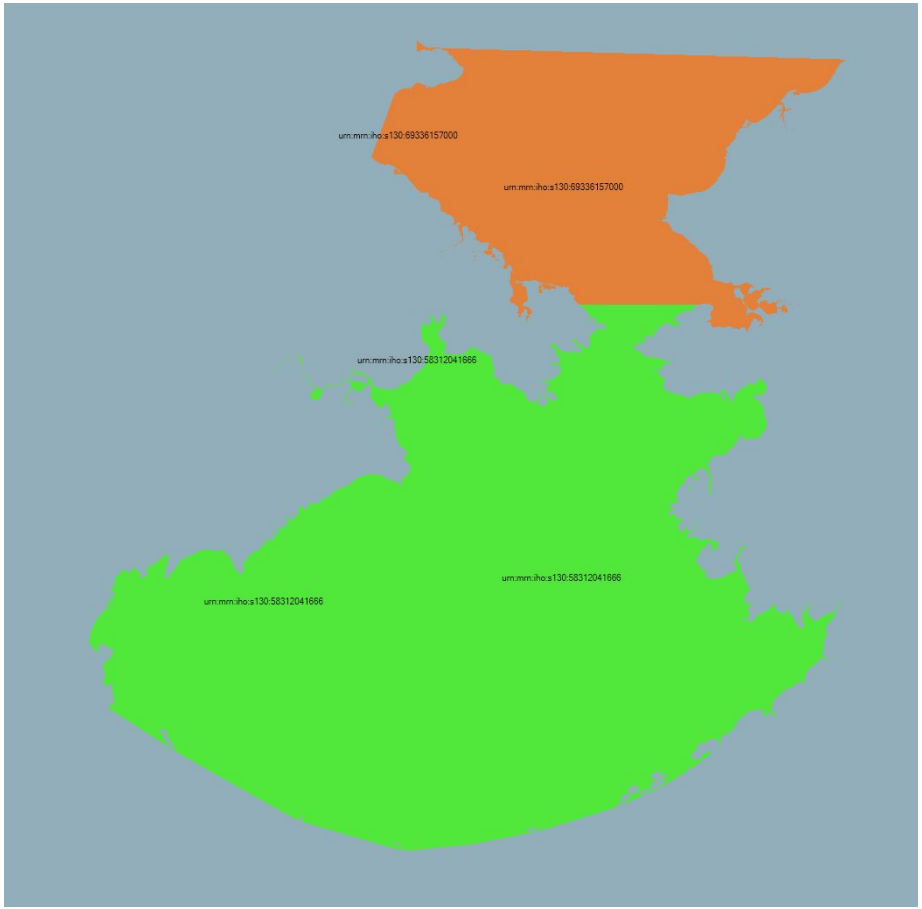
```
<S130:GlobalSeaArea gml:id="M.0001">
    <S130:featureIdentifier>urn:mrn:iho:s130:58312041666</S130:featureIdentifier>
    <S130:version>1</S130:version>
    <S130:fixedDateRange>
        <S130:dateStart>
            <S100:date>2024-10-09</S100:date>
        </S130:dateStart>
    </S130:fixedDateRange>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
    <S130:componentOf xlink:href="#M.0002" xlink:title="Aggregation"/>
    <S130:componentOf xlink:href="#M.0003" xlink:title="Aggregation"/>
    <S130:componentOf xlink:href="#M.0004" xlink:title="Aggregation"/>
```

```
<S130:GlobalSeaArea gml:id="M.0002">
    <S130:featureIdentifier>urn:mrn:iho:s130:58312041666</S130:featureIdentifier>
    <S130:version>1</S130:version>
    <S130:fixedDateRange>
        <S130:dateStart>
            <S100:date>2024-10-09</S100:date>
        </S130:dateStart>
    </S130:fixedDateRange>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
    <S130:consistsOf xlink:href="#M.0001" xlink:title="Aggregation"/>
    <S130:geometry>
        <S100:surfaceProperty>
            <S100:Surface gml:id="S.0002">
                <gml:patches>
                    <gml:PolygonPatch>
                        <gml:exterior>
                            <gml:LinearRing>
                                <gml:posList>65.51648057 173.15301335 65.5135324 17
                            </gml:LinearRing>
                        </gml:exterior>
                    </gml:PolygonPatch>
                </gml:patches>
            </S100:Surface>
        </S100:surfaceProperty>
    </S130:geometry>
</S130:GlobalSeaArea>
```

```
<S130:GlobalSeaArea gml:id="M.0003">
    <S130:featureIdentifier>urn:mrn:iho:s130:58312041666</S130:featureIdentifier>
    <S130:version>1</S130:version>
    <S130:fixedDateRange>
        <S130:dateStart>
            <S100:date>2024-10-09</S100:date>
        </S130:dateStart>
    </S130:fixedDateRange>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
    <S130:consistsOf xlink:href="#M.0001" xlink:title="Aggregation"/>
    <S130:geometry>
        <S100:surfaceProperty>
            <S100:Surface gml:id="S.0002">
                <gml:patches>
                    <gml:PolygonPatch>
                        <gml:exterior>
                            <gml:LinearRing>
                                <gml:posList>64.54064762 -164.47436486 64.54473472 -
                            </gml:LinearRing>
                        </gml:exterior>
                    </gml:PolygonPatch>
                </gml:patches>
            </S100:Surface>
        </S100:surfaceProperty>
    </S130:geometry>
</S130:GlobalSeaArea>
```

```
<S130:GlobalSeaArea gml:id="M.0004">
    <S130:featureIdentifier>urn:mrn:iho:s130:58312041666</S130:featureIdentifier>
    <S130:version>1</S130:version>
    <S130:fixedDateRange>
        <S130:dateStart>
            <S100:date>2024-10-09</S100:date>
        </S130:dateStart>
    </S130:fixedDateRange>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
    <S130:consistsOf xlink:href="#M.0001" xlink:title="Aggregation"/>
    <S130:geometry>
        <S100:surfaceProperty>
            <S100:Surface gml:id="S.0002">
                <gml:patches>
                    <gml:PolygonPatch>
                        <gml:exterior>
                            <gml:LinearRing>
                                <gml:posList>65.31200361 -179.99898291 65.3118974 -
                            </gml:LinearRing>
                        </gml:exterior>
                    </gml:PolygonPatch>
                </gml:patches>
            </S100:Surface>
        </S100:surfaceProperty>
    </S130:geometry>
</S130:GlobalSeaArea>
```


urn:mrn:iho:s130:69336157000
urn:mrn:iho:s130:69336157000
urn:mrn:iho:s130:58312041666
urn:mrn:iho:s130:58312041666
urn:mrn:iho:s130:58312041666

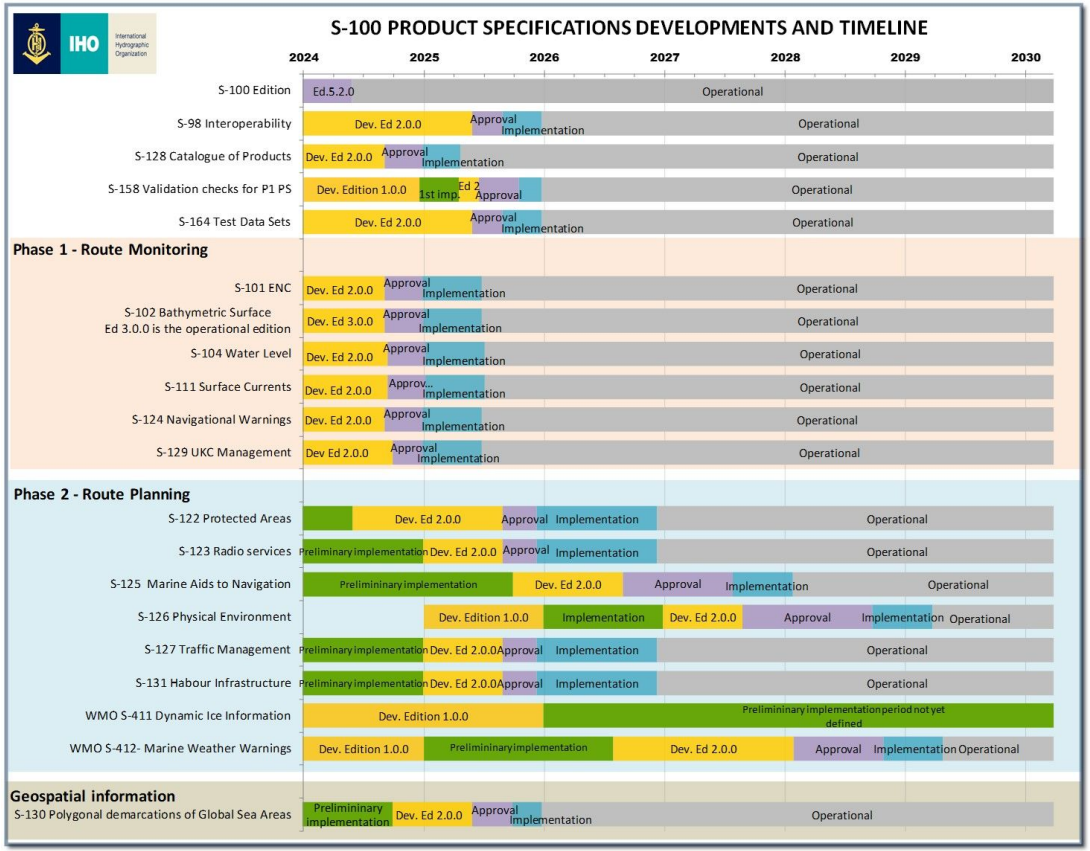

urn:mrn:iho:s130:69336157000
urn:mrn:iho:s130:69336157000
urn:mrn:iho:s130:58312041666
urn:mrn:iho:s130:58312041666
urn:mrn:iho:s130:58312041666

Feedback S-100WG

- Guidance needed from S-130PT in Product Specification regarding
  - Polygon outline
    - join the polygons by urn prior to applying any outlining and labeling
    - OR do not outline the polygons
    - OR provide a separate curve geometry as outline
  - Label clutter
    - Issue regardless of encoding polygons

Discuss proposed timeline and work plan for S-130PT to achieve Edition 2.0.0

S130PT9-4.5



This S-100 timeline is updated: 10 07 2024

Moving to Edition 2.0.0

- S-100 validation
  - Meeting with Elizabeth Hahessy (Chair of S-158 Task Group)
  - S-158:130 Edition x.x.x
  - Only add checks where there is a constraint to S-100 (e.g. exchange set naming convention)

Required Product Specification component	Level 1 v1.0.0	Level 2 v1-2.0.0	Level 3 >v2.0.0	Level 4 >v2.0.0	Level 5 >v2.0.0
Main Document (Defines the relevant parts of S-100 that are required for the Product Specification)	X	X	X	X	X
A Default Encoding	X	X	X	X	X
S-100 Compliant Feature Catalogue	X (draft)	X (updated)	X (final, from IHO GI Registry)	X	X
Data Classification and Encoding Guide	X (draft)	X	X (final)	X	X
S-100 Compliant Portrayal Catalogue NOTE: Not every Specification will need a Portrayal Catalogue – this should be determined as part of the development process and stakeholder feedback.		X	X	X	X
Data Quality Checks		X	X	X	X
Test Data Sets		X	X	X	X
Data Validation (and test datasets)		*X*	*X*	*X*	*X*
Exchange Catalogue		X	X	X	X

AOB

S130PT9-5.1

Group Photo

S130PT9-5.2

Date and Venue of Next Meeting

S130PT9-6

Review Action Items

S130PT9-7