S-130PT7

2023-02-05

Opening and Welcome

S130PT7-1

Approval of Agenda

S130PT7-2

https://iho.int/en/s-130pt7

Annex A S130PT7 Draft Agenda

5 February 2024, (13:00 – 15:00, UTC+1, CET) / VTC Event

DRAFT AGENDA v1.0

Agenda item	Title	Lead	Remarks
1. Opening and Administrative Arrangements			
S130PT7-1	Opening and Welcome	Chair	
2. Approval of Agenda			
S130PT7-2	Agenda	Chair	
S130PT7-2.1	Status of List of Actions and Decisions from S-130PT6	IHO Sec.	
3. Work Items			
S130PT7-3.1	Application Schema - Status update GI registry definitions for new terms	IHO Sec.	
S130PT7-3.2	Presentation of new test datasets for S-130 Product Specification Edition 1.1.0	Chair	
S130PT7-3.3	Review proposed timeline and work plan for S-130PT to achieve Edition 1.1.0	Chair	
4. Any Other Business (AOB)			
S130PT7-4.1	AOB	IHO Sec.	
S130PT7-4.2	Group Photo	Chair	
5. Date and Venue of Next Meeting			
6. Review Action Items			
S130PT7-6	Review Action items	IHO Sec.	
Close			

Status of List of Actions and Decisions from S-130PT6

List of Actions and Decisions from S-130PT6

Action	Status
[Action 6/01] S-130PT6 are invited to update contact details of the S-130PT membership.	Ongoing
[Action 6/02] IHO Sec to proceed with the proposals agreed upon at the S-130PT6 for inclusion in the Concept Register and Data Dictionary register and report the progress at the next S-130PT meeting.	Completed
[Action 6/03] S-130PT Chair/IHO Sec to update association names and roles for Ed. 1.1.0 of S-130PS considering the updated proposal during the meeting and incorporate the changes into the relevant section of S-130PS.	Completed
[Action 6/04] IHO Sec to extract the modern coordinates of named features listed in S-23 Edition 3 from the ENC usage band 3 or 4 and/or satellite images, depending of availability and applicability.	Ongoing
[Action 6/05] S-130PT Chair to send out the draft application schema, along with the modifications in the PS/DCEG/FC, to S-130PT members for their comments by mid-December 2023.	Completed

List of Actions and Decisions from S-130PT6

- **[Decision 6/01] S-130PT6 approved** the draft agenda as presented at the meeting.
- **[Decision 6/02] S-130PT6 designated** IHO Sec (Mr Yong BAEK) as the representative of S-130PT to propose terms and definitions for S-130PS. While S-130PT6 agreed not to appoint a representative of S-130PT to Domain Control Body (DCB), IHO Sec is responsible for monitoring any potential impact on S-130PS arising from the Concept Register in the GI Registry.
- **[Decision 6/03] S-130PT6 agreed** to proceed with the terms and definitions as amended during the meeting. The confirmed terms and definitions are as following:
  - GlobalSeaArea: An area describing the extents of global seas and oceans
  - locationReference: Textual information to describe a geographic location
  - version: Identification of a specific form or variation of an entity
  - textLatitude (replacing textLat): Textual description of latitude information
  - textLongitude (replacing textLon): Textual description of longitude information
  - lineType: Indication of the nature of the path between two points, associated with a line segment
- **[Decision 6/04] S-130PT6 supported** to separate source indication for Geometry and locationReference to make the relation clearer (as reference in the test data, 1301810SAMPLESO01a).
- **[Decision 6/05] S-130PT6 supported** that the sourceIndication should be 'normalized' similar to additionalSpatialInformation in S-130PS Ed. 1.0.0 and adopted the scenario 4 as the remodelling approach for the sourceIndication.
- **[Decision 6/06] S-130PT6 agreed** to the selection of a name or coordinates, depending on the source information, in order to create a polygon in principle. Taking into consideration the S-23 Edition 3, the principle will be based on the outlines in the S-23 Edition 3.
- **[Decision 6/07] S-130PT6 agreed** to consider referencing the U.S. Board on Geographic Names gazetteer for obtaining the modern coordinates of named features as given by S-23 Edition 3 during the initial phase of digitization in the envisioned regional test implementation.
- **[Decision 6/08] S-130PT6 agreed** to have lineType as an attribute to indicate the method of drawing the line between points and also to include all lines to construct the polygon.

List of Actions and Decisions from S-130PT6

- **[Decision 6/09] S-130PT6 agreed** to reserve numerical ID, in the form of MRN, comprising five digits for latitude and six digits for longitude, totalling eleven digits in length.
- **[Decision 6/10] S-130PT6 agreed** to the draft of the revised Application Schema Scenario 6, which incorporated decisions made during the meeting.
- **[Decision 6/11] S-130PT adopted** the feedback from S-100WG Chair as presented by S-130PT Chair for the next version of S-130PS.
- **[Decision 6/12] S-130PT agreed** that the next edition of S-130PS will be Ed. 1.1.0 of S-130PS and submit it to the HSSC in 2024 for approval, along with the test datasets of S-130. Additionally, the plan for S-130PS Ed. 2.0.0 and the IHO S-130 global dataset are scheduled for approval in 2025 and 2026, respectively.
- **[Decision 6/13] S-130PT agreed** to the schedule for Ed. 1.1. of S-130PS as follows:
  - Draft the revised Application Schema during the S-130PT6 and initial draft PS/DCEG/FC
  - S-130PT members' feedback by 18th Dec 2023
  - IHO Sec/S-130PT Chair to develop another regional and/or update the existing test datasets presented at this meeting against the Ed. 1.1.0 of S-130PS by the end of Jan 2024
  - S-130PT7 VTC in Feb 2024 to review the new and/or revised test datasets
  - S-130PT member feedback on the presented test datasets by end of March 2024
  - S-130PT8 VTC in April 2024 to review the final draft Ed. 1.1.0 of S-130PS prior to submission to HSSC16 for approval and further directions how to continue towards the finalization of S-130PS Edition 2 and the production of the authoritative global S-130 dataset based on
- **[Decision 6/14] S-130PT6 re-elected** Ms Britt LONNEVILLE (Belgium) as Chair and Mr Lingzhi WU (China) as Vice-chair of S-130PT
- **[Decision 6/15] S-130PT6 agreed** to hold a series of the next S-130PT meetings:
  - S-130PT7: 5 February 2024 (VTC)
  - S-130PT8: 8 April 2024 (VTC)

Application Schema
Status update GI registry definitions for new terms

S130PT7-3.1

Presentation of updated test datasets for S-130 Product Specification Edition 1.1.0

S130PT7-3.2

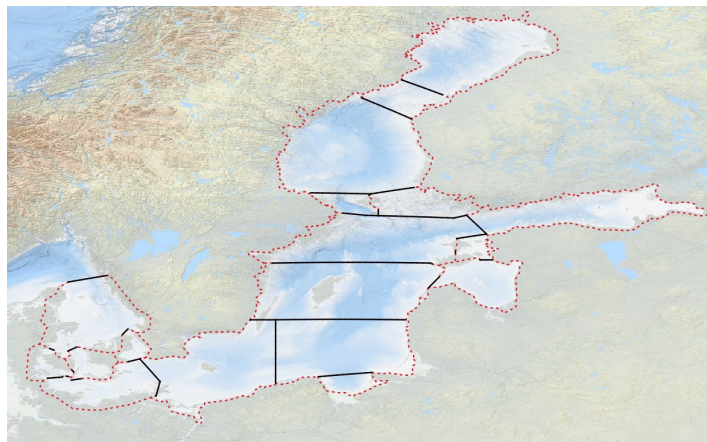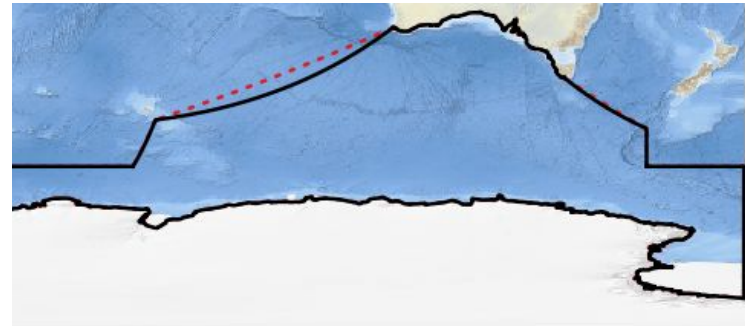# Changes in geometry (based on decisions S-130PT6)

- **[Decision 6/08] S-130PT6 agreed** to have lineType as an attribute to indicate the method of drawing the line between points and also to <u>include all lines</u> to construct the polygon.

1301810SAMPLESO_110.gml

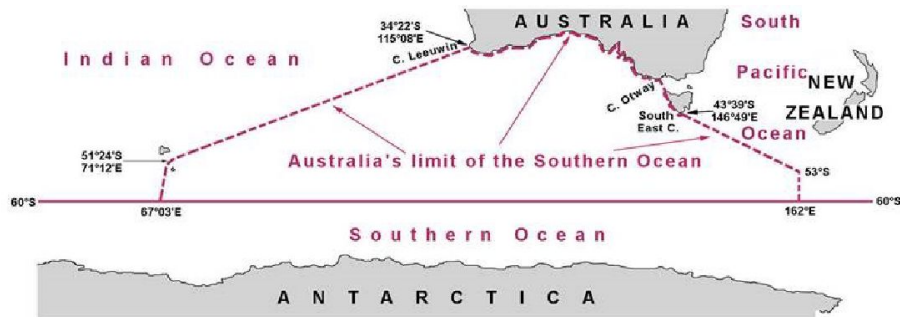# Changes in geometry (based on decisions S-130PT6)

- **[Decision 6/08] S-130PT6 agreed** to have lineType as an attribute to indicate the method of drawing the line between points and also to <u>include all lines</u> to construct the polygon.

1301810SAMPLEBS_110.gml

Changes in geometry (based on decisions S-130PT6)

- Rhumb lines to better approximate original source + coordinates of point names based on authoritative source

13010SAMPLESO_110.gml

class Domain overview

«InformationType»
AdditionalSpatialInformation

«ComplexAttributeType»
+ locationReference: locationReference [1..*]

«FeatureType»
FeatureType

«SimpleAttributeType»
+ maximumDisplayScale: int
+ minimumDisplayScale: int [0..1]

+informationProvidedFor

+providesInformation 0..*

+theAdditionalSpatialInformation 0..*

AdditionalInformation 1..*

+theFeatureType

AdditionalSpatialInformationSource

FeatureTypeSource 0..*

+theSource 0..*

«InformationType»
SourceIndicator

«ComplexAttributeType»
+ sourceIndication: sourceIndication [1..*]

+theSource 0..*

«enumeration»
sourceType

law or regulation = 1
official publication = 2
remotely sensed images = 10
products issued by HO services = 12

«ComplexAttributeType»
locationReference

«SimpleAttributeType»
+ locationByText: CharacterString [0..1]
+ textLatitude: CharacterString [0..1]
+ textLongitude: CharacterString [0..1]
+ referenceSystem: CharacterString

«enumeration»
lineType

rhumb line = 1
great circle = 2
undetermined/unknown = 3

«ComplexAttributeType»
fixedDateRange

«SimpleAttributeType»
+ dateStart: date [0..1]
+ dateEnd: date [0..1]

«ComplexAttributeType»
sourceIndication

«SimpleAttributeType»
+ reportedDate: date [0..1]
+ source: CharacterString
+ sourceType: sourceType [0..1]

Aggregation

+componentOf 0..*

«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..*

GlobalSeaArea

```xml
<S130:GlobalSeaArea gml:id="M.0001">
  <S130:featureIdentifier>urn:mrn:iho:s130:02600002700</S130:featureIdentifier>
  <S130:version>string</S130:version>
  <S130:fixedDateRange>
    <S130:dateStart>
      <S100:date>2023-07-05</S100:date>
    </S130:dateStart>
    <S130:dateEnd>
      <S100:date>2023-07-05</S100:date>
    </S130:dateEnd>
  </S130:fixedDateRange>
  <S130:maximumDisplayScale>7</S130:maximumDisplayScale>
  <S130:minimumDisplayScale>7</S130:minimumDisplayScale>
  <S130:providesInformation xlink:href="#IM.0001" xlink:title="AdditionalInformation"/>
  <S130:theSource xlink:href="#IM.0002" xlink:title="FeatureTypeSource"/>
  <S130:limit xlink:href="#M.0002" xlink:title="ZoneLimit"/>
  <S130:location xlink:href="#M.0003" xlink:title="ZoneLocation"/>
```

(+ parent-child possibilities)

S130_SAMPLE.gml

ConstructionLine

```xml
<S130:ConstructionLine gml:id="M.0002">
  <S130:lineType code="1">rhumb line</S130:lineType>
  <S130:maximumDisplayScale>7</S130:maximumDisplayScale>
  <S130:minimumDisplayScale>7</S130:minimumDisplayScale>
  <S130:providesInformation xlink:href="#IM.0001" xlink:title="AdditionalInformation"/>
  <S130:theSource xlink:href="#IM.0002" xlink:title="FeatureTypeSource"/>
  <S130:zone xlink:href="#M.0001" xlink:title="ZoneLimit"/>
  <S130:location xlink:href="#M.0003" xlink:title="LimitLocation"/>
```

S130_SAMPLE.gml

ContributingPoint

```xml
<S130:ContributingPoint gml:id="M.0003">
  <S130:maximumDisplayScale>7</S130:maximumDisplayScale>
  <S130:minimumDisplayScale>7</S130:minimumDisplayScale>
  <S130:providesInformation xlink:href="#IM.0001" xlink:title="AdditionalInformation"/>
  <S130:theSource xlink:href="#IM.0002" xlink:title="FeatureTypeSource"/>
  <S130:zone xlink:href="#M.0001" xlink:title="ZoneLocation"/>
  <S130:limit xlink:href="#M.0002" xlink:title="LimitLocation"/>
```

S130_SAMPLE.gml

AdditionalSpatialInformation

```xml
<S130:AdditionalSpatialInformation gml:id="IM.0001">
  <S130:locationReference>
    <S130:locationByText>TEST</S130:locationByText>
    <S130:textLatitude>1.100000 1.200000</S130:textLatitude>
    <S130:textLongitude>1.100000 1.200000</S130:textLongitude>
    <S130:referenceSystem>A textual rendering of a coordinate reference system (CRS).</S130:referenceSystem>
  </S130:locationReference>
  <S130:theSource xlink:href="#IM.0003" xlink:title="AdditionalSpatialInformationSource"/>
</S130:AdditionalSpatialInformation>
```

S130_SAMPLE.gml

SourceIndicator

```
<S130:sourceIndicator gml:id="IM.0002">
  <S130:sourceIndication>
    <S130:reportedDate>2023-07-05</S130:reportedDate>
    <S130:source>string1</S130:source>
    <S130:sourceType code="1">law or regulation</S130:sourceType>
  </S130:sourceIndication>
</S130:sourceIndicator>
```

S130_SAMPLE.gml

Changes in encoding (based on decisions S-130PT6)

- **[Decision 6/04] S-130PT6 supported** to separate source indication for Geometry and locationReference to make the relation clearer (as reference in the test data, 1301810SAMPLESO01a).

```xml
<S130:GlobalSeaArea gml:id="M.0002">
  <S130:numericalIdentifier>2</S130:numericalIdentifier>
  <S130:version>1.0</S130:version>
  <S130:fixedDateRange>
    <S130:dateStart>
      <S100:date>2023-10-18</S100:date>
    </S130:dateStart>
  </S130:fixedDateRange>
  <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
  <S130:sourceIndication>
    <S130:reportedDate>2023-07-01</S130:reportedDate>
    <S130:source>Resolutions of the International Hydrographic Organization (https://iho.int/uploads/user/pubs/misc/M3-E-2023%20-%20Ju
    <S130:sourceType code="2">official publication</S130:sourceType>
  </S130:sourceIndication>
  <S130:sourceIndication>
    <S130:reportedDate>2023-10-18</S130:reportedDate>
    <S130:source>Flanders Marine Institute (2021). Global Oceans and Seas, version 1. Available online at https://www.marineregions.or
    <S130:sourceType code="2">official publication</S130:sourceType>
  </S130:sourceIndication>
```

Changes in encoding (based on decisions S-130PT6)

- **[Decision 6/04] S-130PT6 supported** to separate source indication for Geometry and locationReference to make the relation clearer (as reference in the test data, 1301810SAMPLESO01a).

```
<S130:imembers>
    <S130:AdditionalSpatialInformation gml:id="IM.0001">
        <S130:locationReference>
            <S130:locationByText>It is considered that the northern geographic limit of the Southern Ocean is defined by the parallel
            <S130:referenceSystem>WGS84 (EPSG: 4326)</S130:referenceSystem>
        </S130:locationReference>
        <S130:theSource xlink:href="#IM.0002" xlink:title="AdditionalSpatialInformationSource"/>
    </S130:AdditionalSpatialInformation>
    <S130:SourceIndicator gml:id="IM.0002">
        <S130:sourceIndication>
            <S130:reportedDate>2023-07-01</S130:reportedDate>
            <S130:source>Resolutions of the International Hydrographic Organization (https://iho.int/uploads/user/pubs/misc/M3-E-2023
            <S130:sourceType code="2">official publication</S130:sourceType>
        </S130:sourceIndication>
    </S130:SourceIndicator>
    <S130:SourceIndicator gml:id="IM.0003">
        <S130:sourceIndication>
            <S130:reportedDate>2023-10-18</S130:reportedDate>
            <S130:source>Flanders Marine Institute (2021). Global Oceans and Seas, version 1. Available online at https://www.marinere
            <S130:sourceType code="2">official publication</S130:sourceType>
        </S130:sourceIndication>
    </S130:SourceIndicator>
```

Changes in encoding (based on decisions S-130PT6)

- **[Decision 6/04] S-130PT6 supported** to separate source indication for Geometry and locationReference to make the relation clearer (as reference in the test data, 1301810SAMPLESO01a).

```xml
<S130:ConstructionLine gml:id="M.0002">
    <S130:lineType code="1">rhumb line</S130:lineType>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
    <S130:providesInformation xlink:href="#IM.0001" xlink:title="AdditionalInformation"/>
    <S130:theSource xlink:href="#IM.0003" xlink:title="FeatureTypeSource"/>
```

1301810SAMPLESO_110.gml

Changes in encoding (based on decisions S-130PT6)

- **[Decision 6/08] S-130PT6 agreed** to have lineType as an attribute to indicate the method of drawing the line between points and also to include all lines to construct the polygon.

```
<S130:ConstructionLine gml:id="M.0011">
    <S130:lineType code="1">rhumb line</S130:lineType>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>

<S130:ConstructionLine gml:id="M.0010">
    <S130:lineType code="3">undetermined/unknown</S130:lineType>
    <S130:maximumDisplayScale>100000</S130:maximumDisplayScale>
```

13010SAMPLESO_110.gml

Changes in encoding (based on decisions S-130PT6)

- **[Decision 6/09] S-130PT6 agreed** to reserve numerical ID, in the form of MRN, comprising five digits for latitude and six digits for longitude, totalling eleven digits in length.

```
<S130:GlobalSeaArea gml:id="M.06810270">
  <S130:maritimeResourceName>urn:mrn:iho:s130:06810270</S130:maritimeResourceName>
  <S130:version>1.0</S130:version>
```

```
<S130:GlobalSeaArea gml:id="M.0001">
    <S130:featureIdentifier>urn:mrn:iho:s130:68073027058</S130:featureIdentifier>
    <S130:version>1.0</S130:version>
```

1301810SAMPLESO_110.gml

MultiPolygon geometry
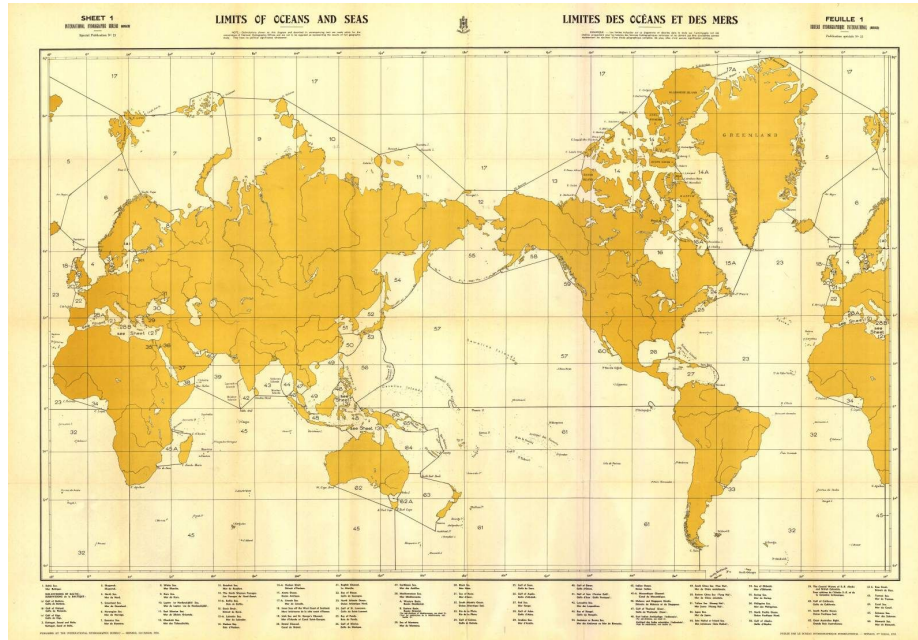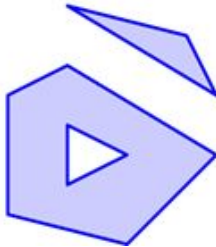
MultiPolygon geometry

- How does S-100 process MultiPolygon geometry?
  - MultiSurface? PolygonPatches?
- Alternative: use Aggregation relation to group polygons, but this is not conceptually the idea (*featureIdentifier*).
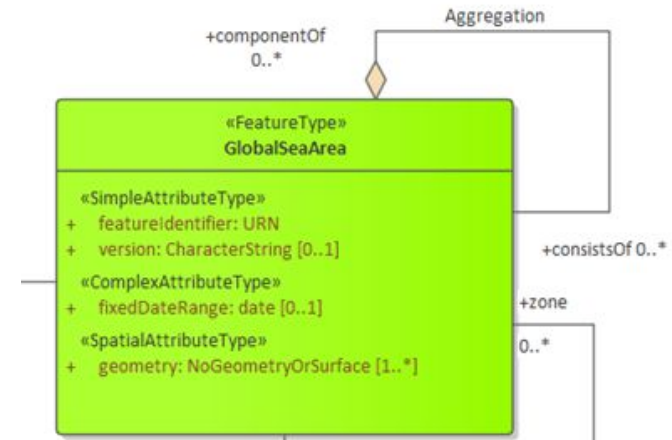
Review proposed timeline and work plan for S-130PT to achieve Edition 1.1.0

S130PT7-3.3

Timeline

Deadlines for HSSC-16

12.   Documents intended for consideration at HSSC-16 should be submitted to the HSSC Secretariat in accordance with the "*Instructions for the Submission of Reports and Proposals for Consideration by HSSC*". With the exception for substantive submissions, it is agreed that the Chairs of the working groups (WGs) and Stakeholders may only provide summary reports, using the HSSC PowerPoint® template and additional comprehensive documents if appropriate (proposals to be endorsed for instance).

	Submission Deadline
Papers in support of Agenda items (including reports/PowerPoint® presentations from WG Chairs and proposals for new work programme items)	**No later than 8 April 2024** (7 weeks before commencement of the meeting)
Papers providing comments or proposed amendments to proposals contained in meeting papers	**No later than 6 May 2024** (3 weeks before commencement of the meeting)

VTC meeting: presentation of TDS

Deadline circulation documents HSSC

29 February

8 April

5 February

remarks via correspondence

preparation documents HSSC

25 March

Deadline feedback TDS

VTC to approve HSSC documents
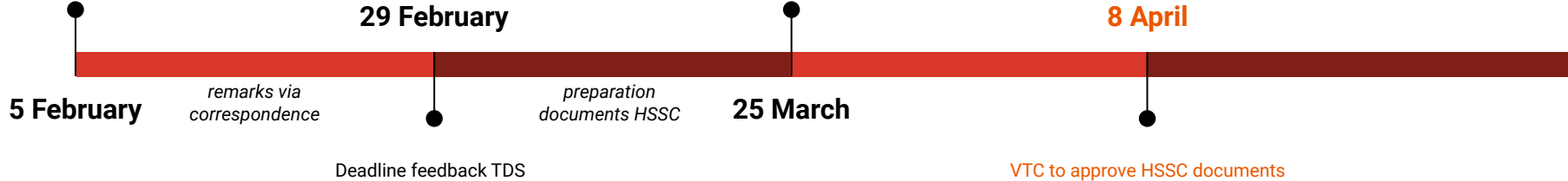
Product Specification comments - InformationType

6. Data Content and Structure

6.1. Introduction

The S-130 product is based on the S-100 General Feature Model (GFM), and is a feature-based vector product. The S-130 features classes are derived from one of the abstract classes **FeatureType** and **InformationType** defined in the S-130 application schema, which realize the GFM meta-classes **S100_GF_FeatureType** and **S100_GF_InformationType** respectively.

Britt Lonneville
If I am not mistaken, there is no abstract class InformationType defined in the S-130 application schema? Should this be included?

Product Specification comments - Cardinality
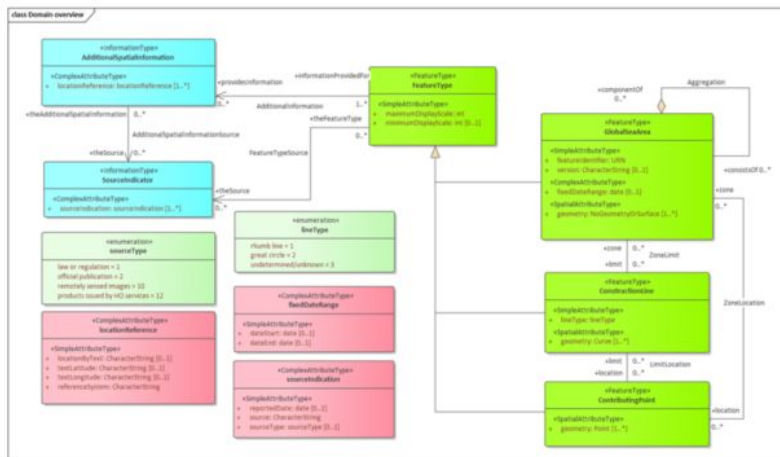
Figure 6.1 - Overview of S-130 Application Schema

Polygonal Demarcations of Global Sea Areas products describe the extents of global seas and oceans and may include a feature identifier, version, display scale range, date range, source

ゲスト ユーザー December 20, 2023
Why do +zone are "0..*" instead of "1..*"? In case that +zone is "0", a featureType does not have featureIdentifier and version. To avoid such situation, I think that +zone are "1..*" or featureIdentifier and version are moved to under featureType.

Product Specification comments - Cardinality

- Consequence of moving featureIdentifier & version to FeatureType
  - Mandatory attributes for ConstructionLines & ContributingPoints!

Cardinality

- Cannot change because points can either be linked to GlobalSeaAreas or to ConstructionLines
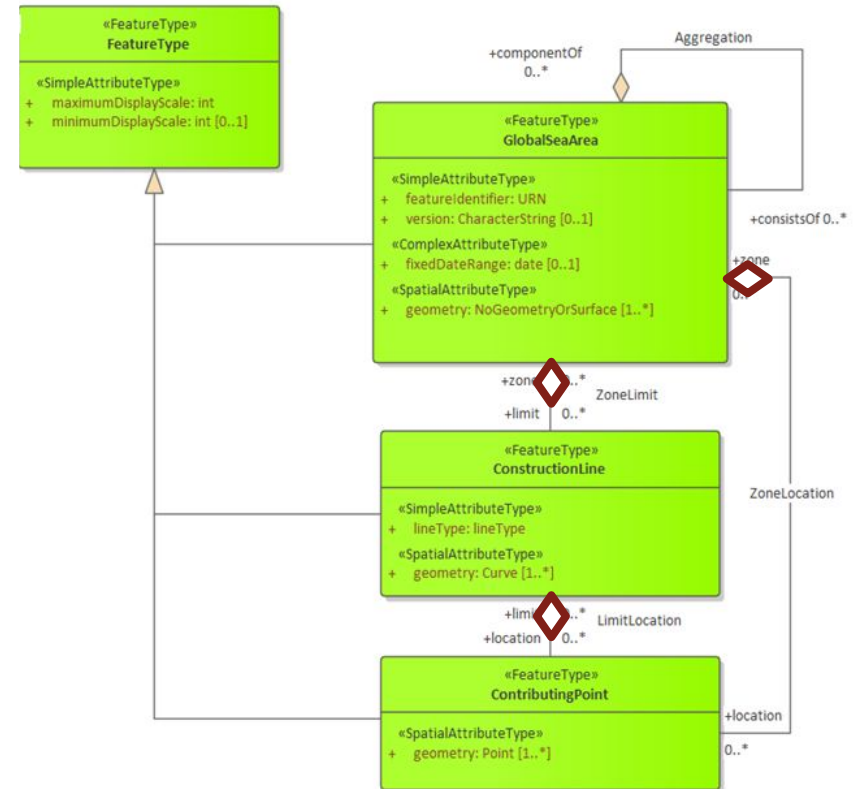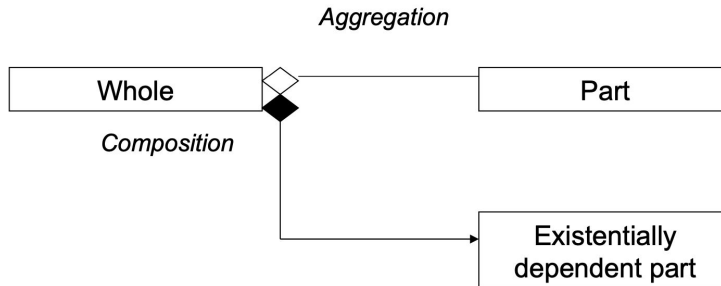- Mention in UML note and/or DCEG?
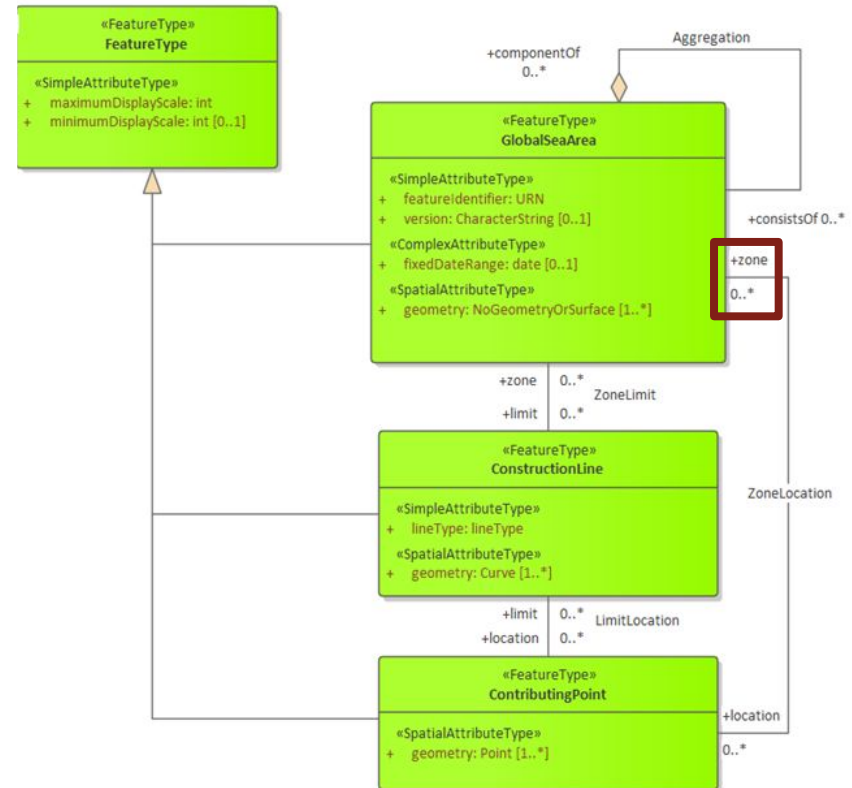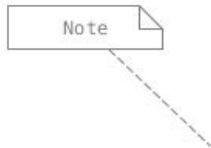
Cardinality

● Could potentially change to 1..*
● This limits flexibility to include other temporary lines (e.g. dataset of coastlines outside the area of interest, temporary help lines,…)
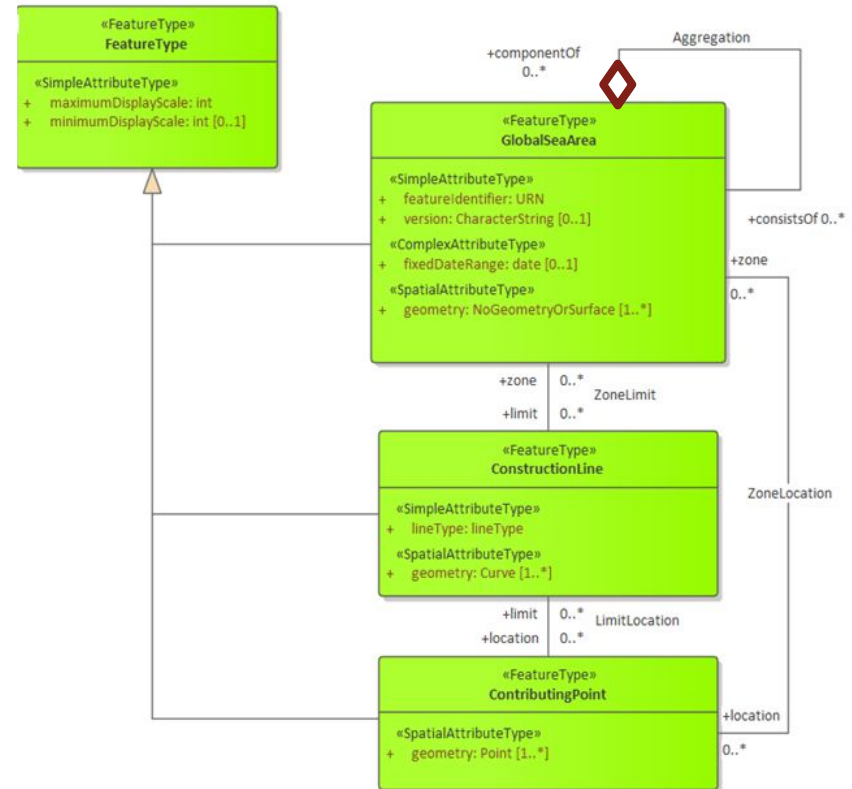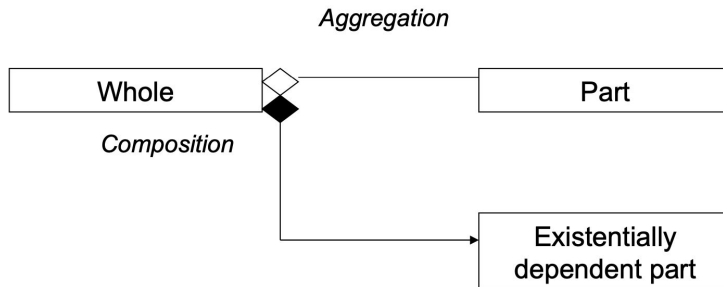● Decision?
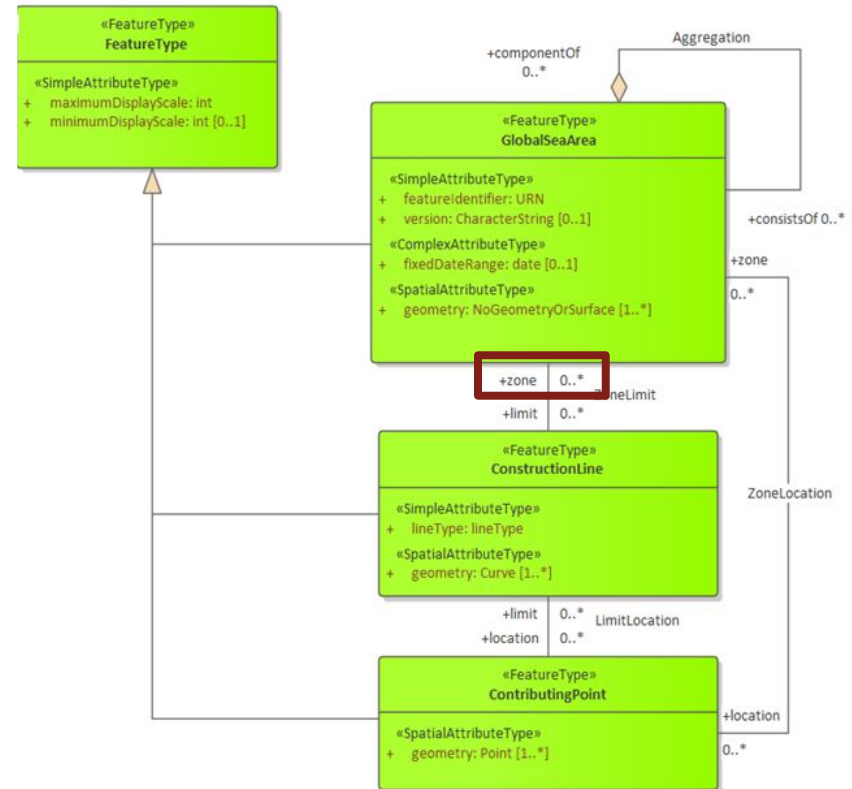
General remarks

- Clarify relation GlobalSeaArea - ConstructionLine - ContributingPoint more by using UML aggregation relations
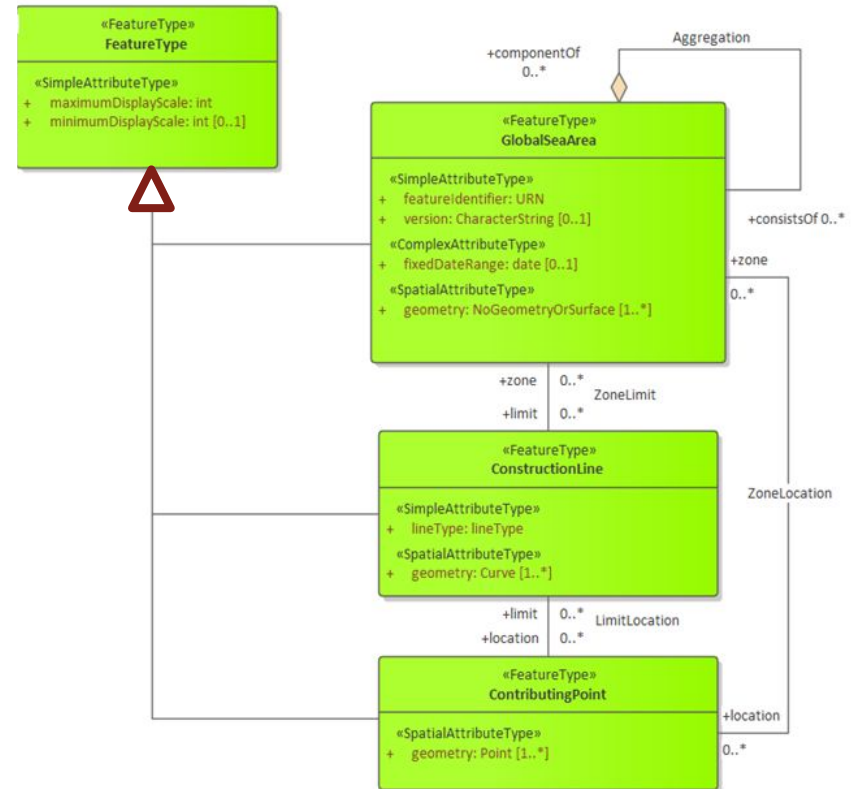
General remarks

- Clarify relation GlobalSeaArea - GlobalSeaArea by changing diamond to be unambiguously open

General remarks

- Clarify relation FeatureType - underlying FeatureTypes by changing triangle to be unambiguously open (closed triangle does not exist?)

AOB

S130PT7-4.1

Group Photo

S130PT7-4.2

Date and Venue of Next Meeting

S130PT7-5

Review Action Items

S130PT7-6