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S-127 V0.2

Package in package 'S-127 Marine Traffic Management'

NOTE: For explanations of objects and relationships, refer to the Main Product Specification.

S-127 Domain model diagrams

S-127 Base Classes diagram

Class diagram in package 'S-127 Domain Model'

S-127 Base Classes

Version 1.0

raphaelm created on 21-Aug-2018. Last modified 21-Aug-2018

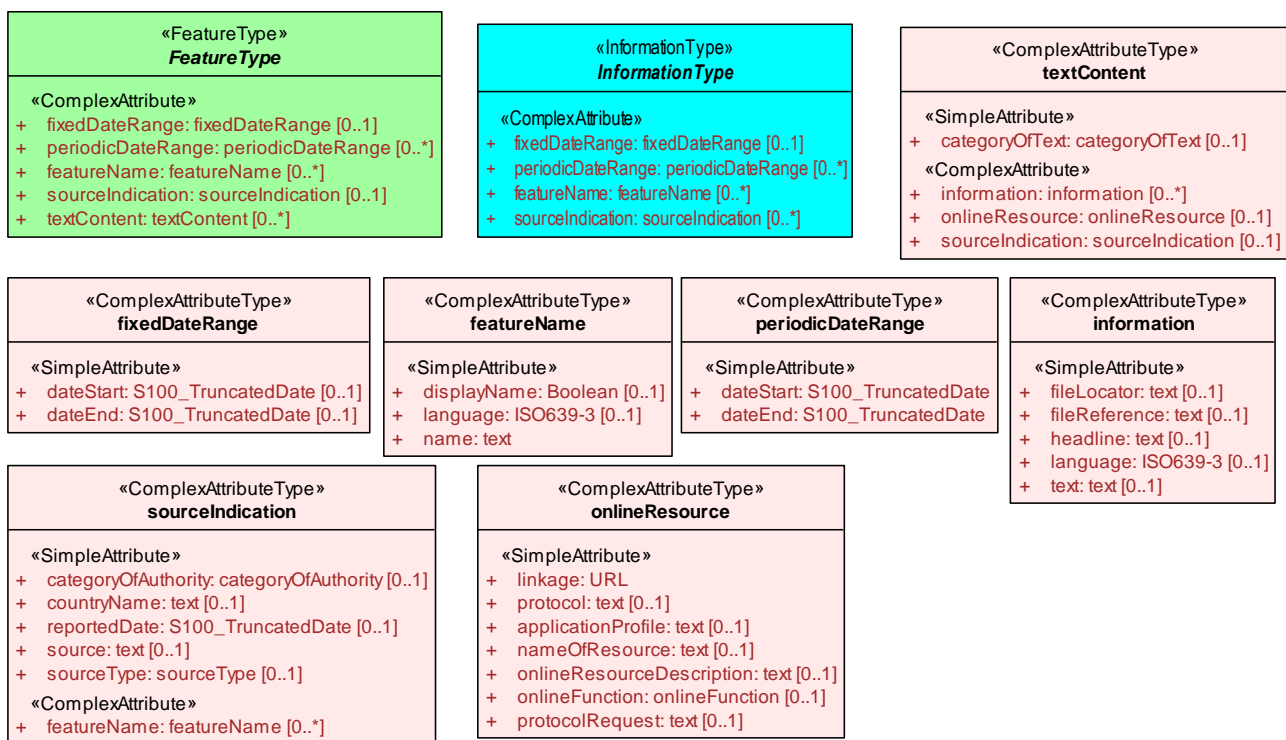


Figure 1: S-127 Base Classes

FeatureTypes diagram

Class diagram in package 'S-127 Domain Model'

FeatureTypes

Version 0.2

raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018

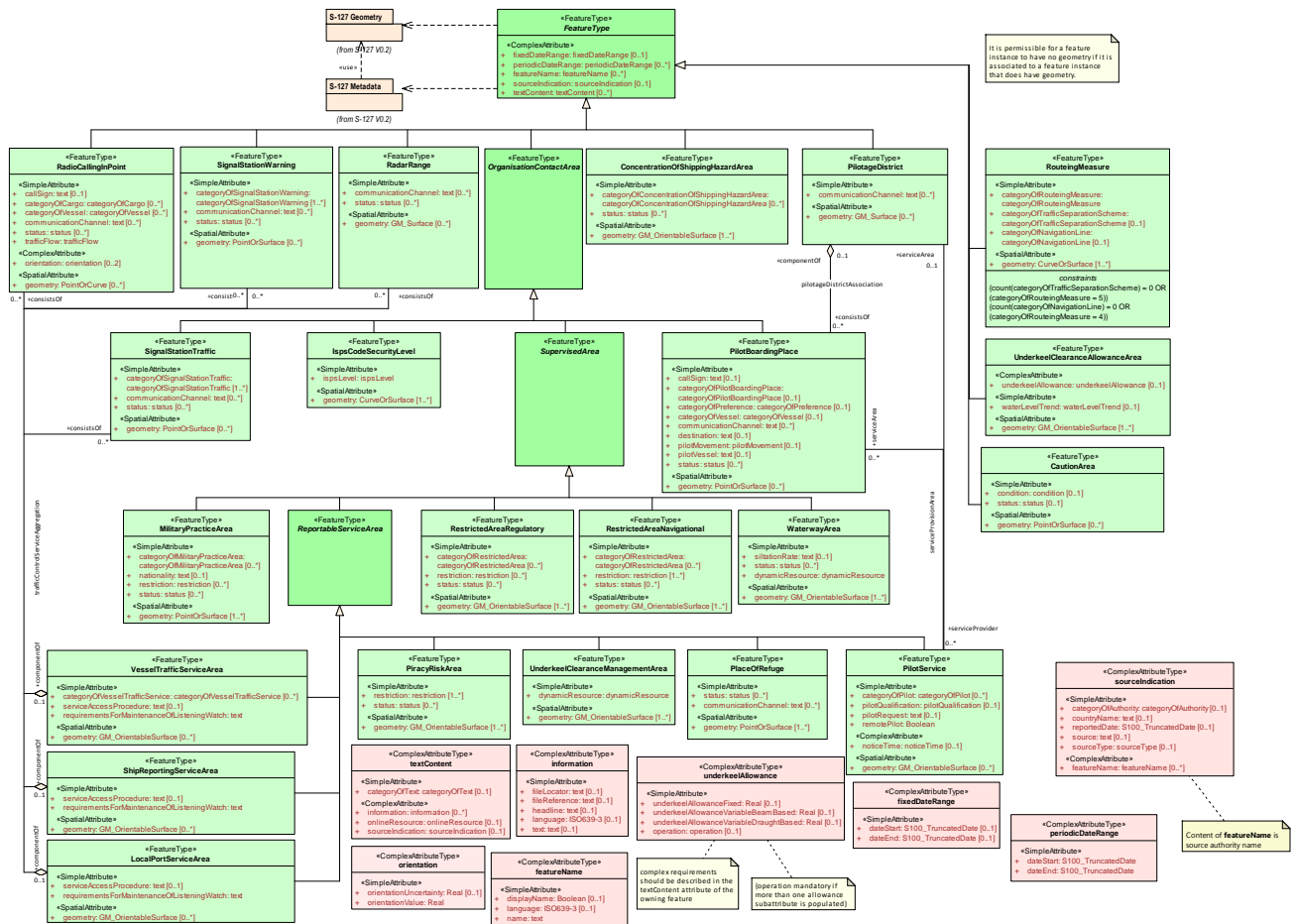


Figure 2: FeatureTypes

InfoTypesShowingAttributes diagram

Class diagram in package 'S-127 Domain Model'

InfoTypesShowingAttributes

Version 0.1

raphaelm created on 01-Jan-2018. Last modified 21-Aug-2018

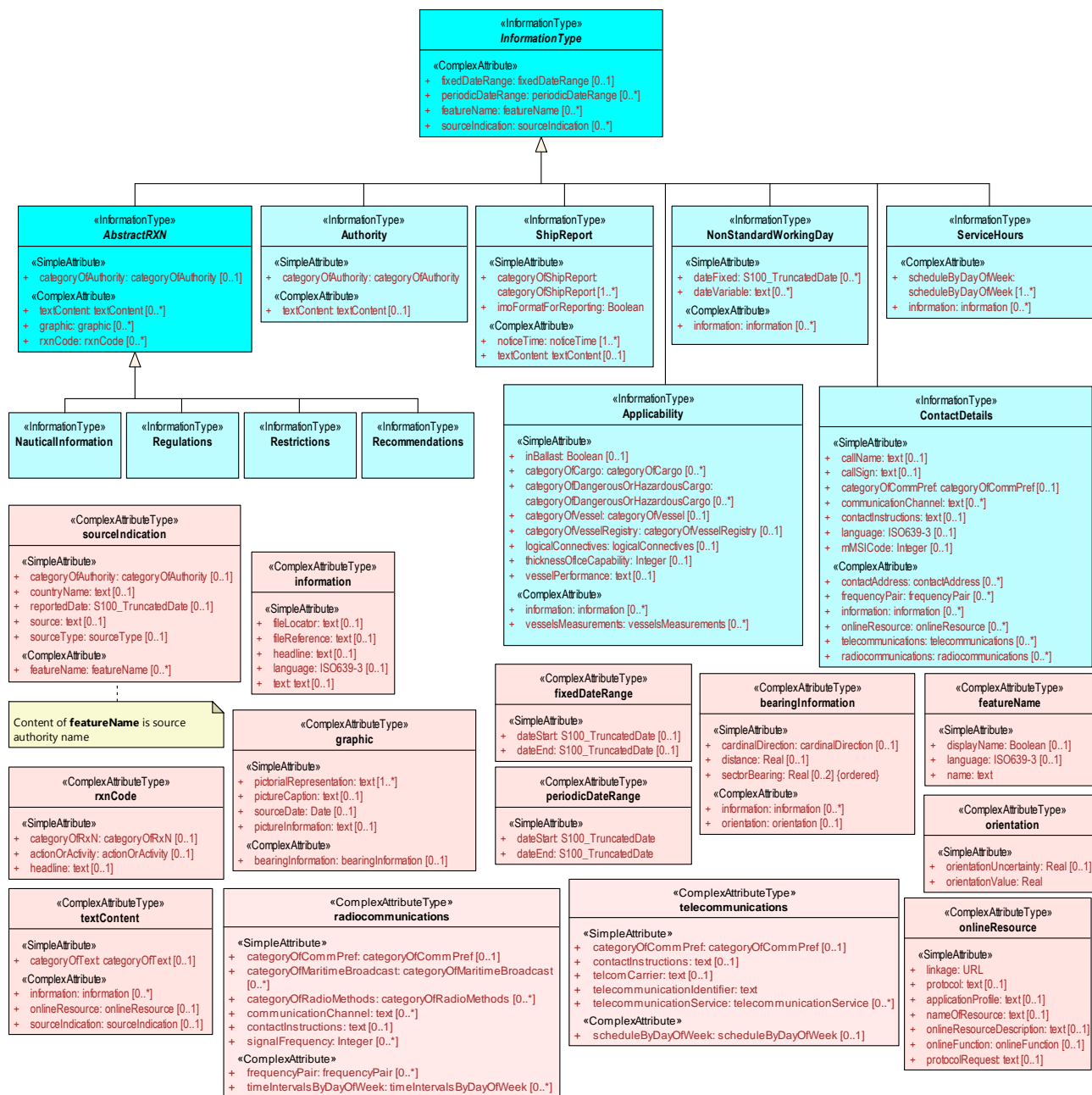


Figure 3: InfoTypesShowingAttributes

FeatureTypes - Compact diagram

Class diagram in package 'S-127 Domain Model'

Additional questions as of 10 february:

- NPUB and S-101 modeling of pilot services and pilot districts needs to be harmonized.
- Ukc feature modeling in S-127, especially `waterLevelTrend` and `UKA` based on beam or draught.
- Recommended route and DW route line features. Assess if there are use cases where there is a recommended route centreline or DW route centreline but no area feature for the route.
- Others as mentioned in notes in the diagram.

Existing definitions of `WaterwayArea`:

1. NIPWG Wiki & Hydro Dictionary: A line of water (river, channel, etc) which can be utilized for communication or transport.
2. IENC Domain in GI registry: An area in which uniform general information of the waterway exists.

This diagram needs to be broken up for the Word document.

FeatureTypes - Compact
Version 0.1

raphaelm created on 11-Feb-2018. Last modified 21-Aug-2018

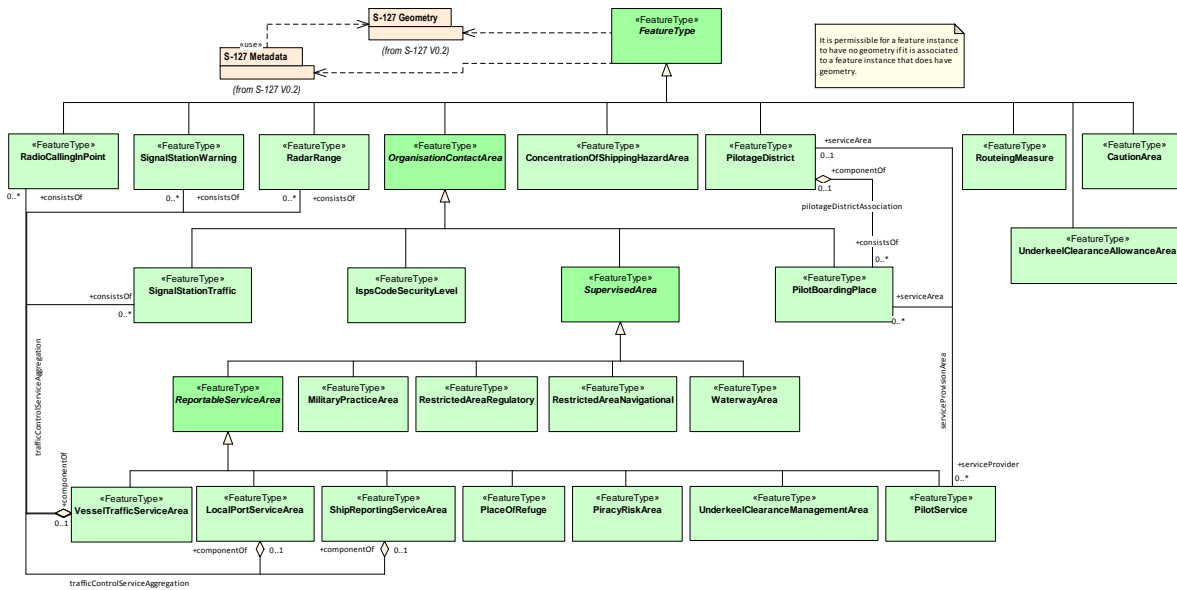


Figure 4: FeatureTypes - Compact

InfoTypesAbbreviated diagram

Class diagram in package 'S-127 Domain Model'

InfoTypesAbbreviated
Version 0.1

raphaelm created on 01-Jan-2018. Last modified 10-Jan-2018

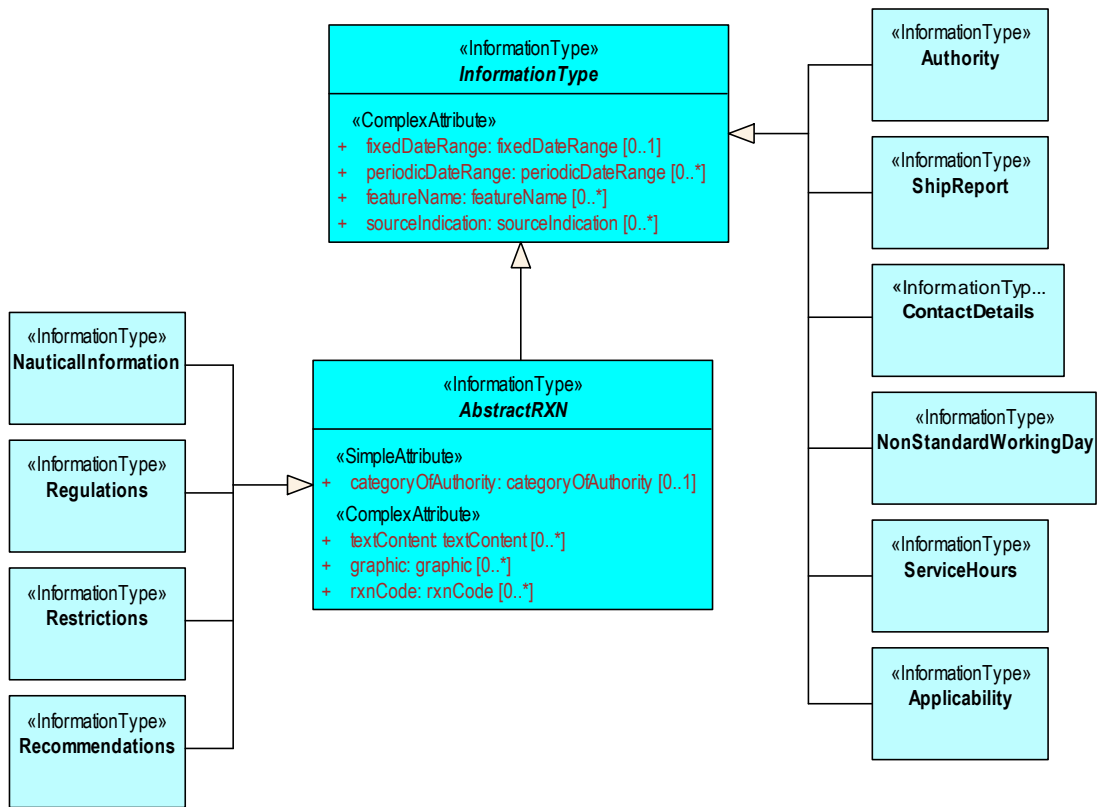


Figure 5: InfoTypesAbbreviated

Routeing measures - simplest diagram

Class diagram in package 'S-127 Domain Model'

Routeing measures - simplest
 Version 1.0
 raphaelm created on 12-Feb-2018. Last modified 21-Aug-2018

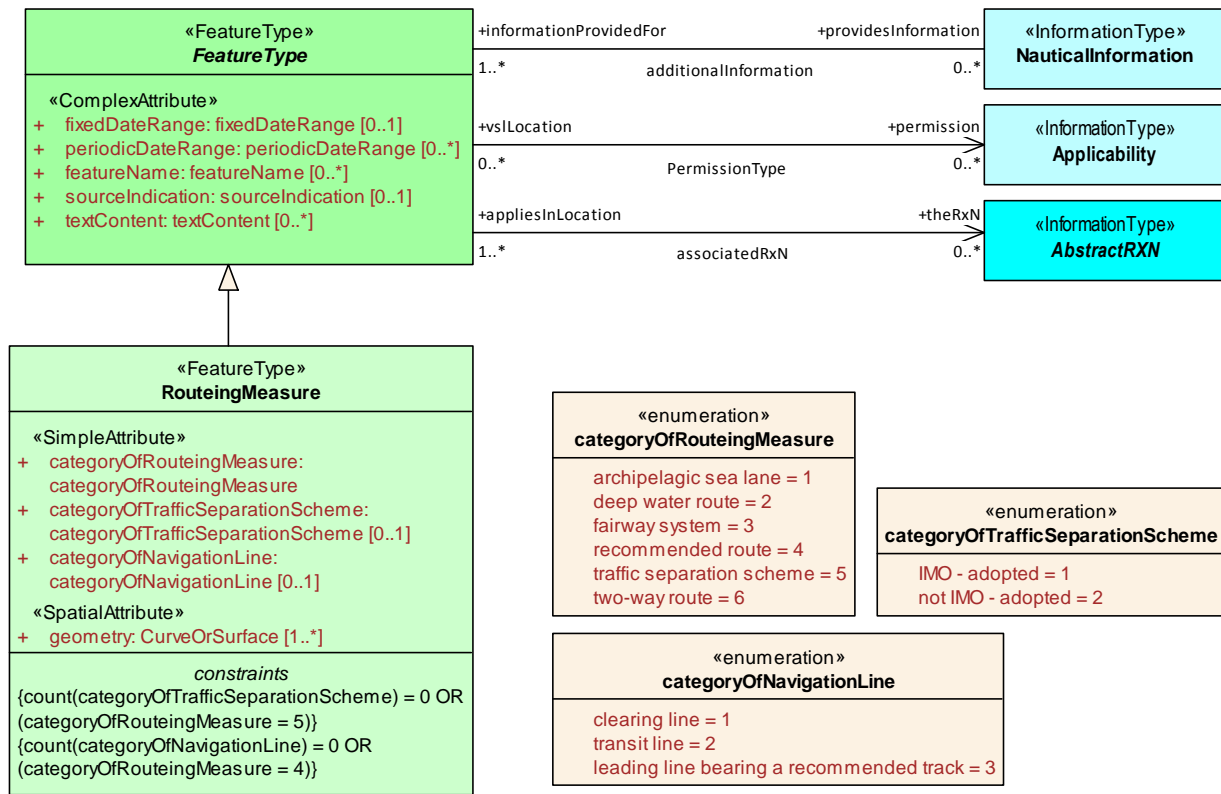


Figure 6: Routeing measures - simplest

Pilotage diagram

Class diagram in package 'S-127 Domain Model'

Pilotage
Version 1.0
raphaelm created on 11-Feb-2018. Last modified 21-Aug-2018

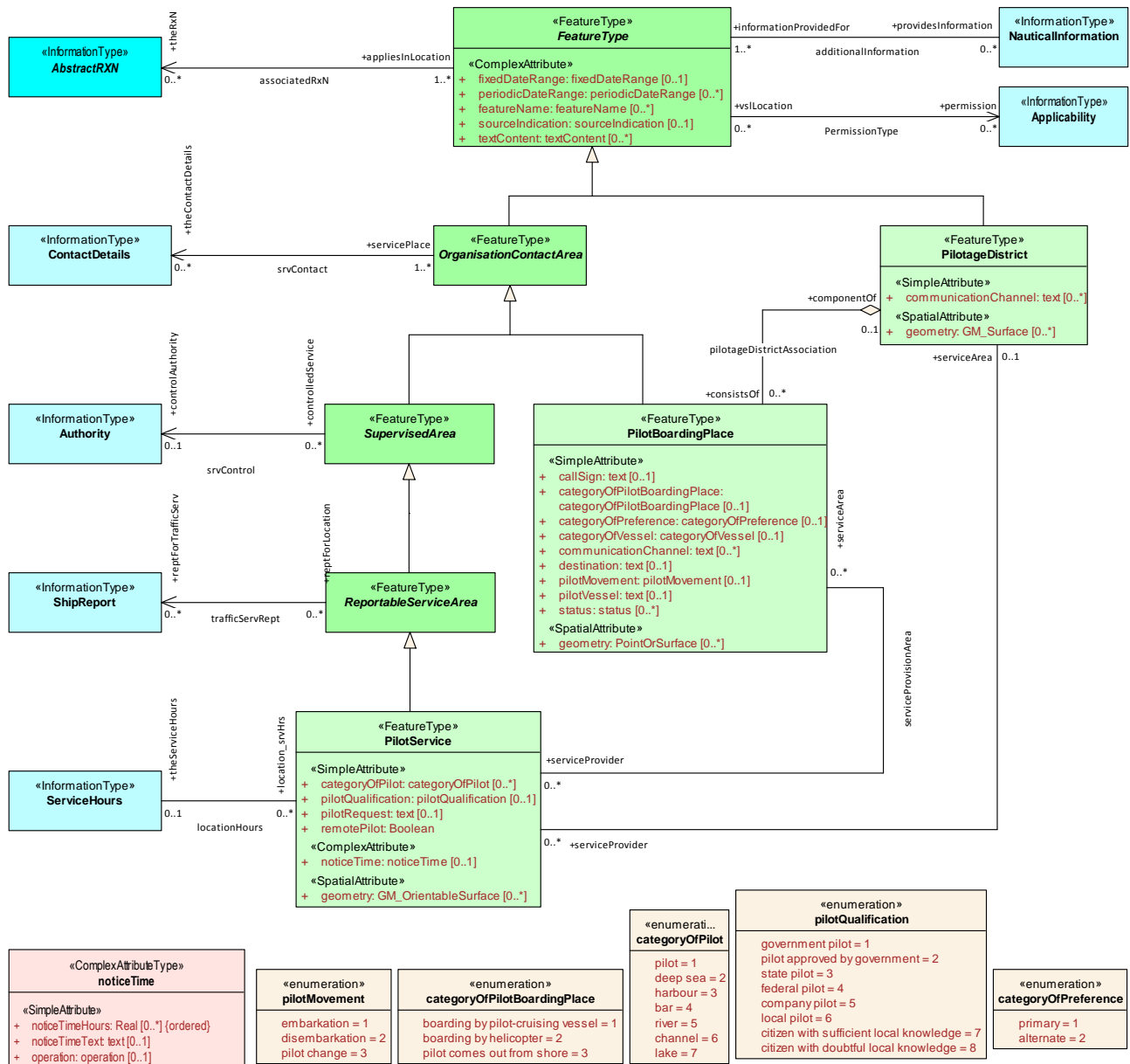


Figure 7: Pilotage

UKC-Waterlevels diagram

Class diagram in package 'S-127 Domain Model'

UKC-Waterlevels
Version 1.0
raphaelm created on 11-Feb-2018. Last modified 21-Aug-2018

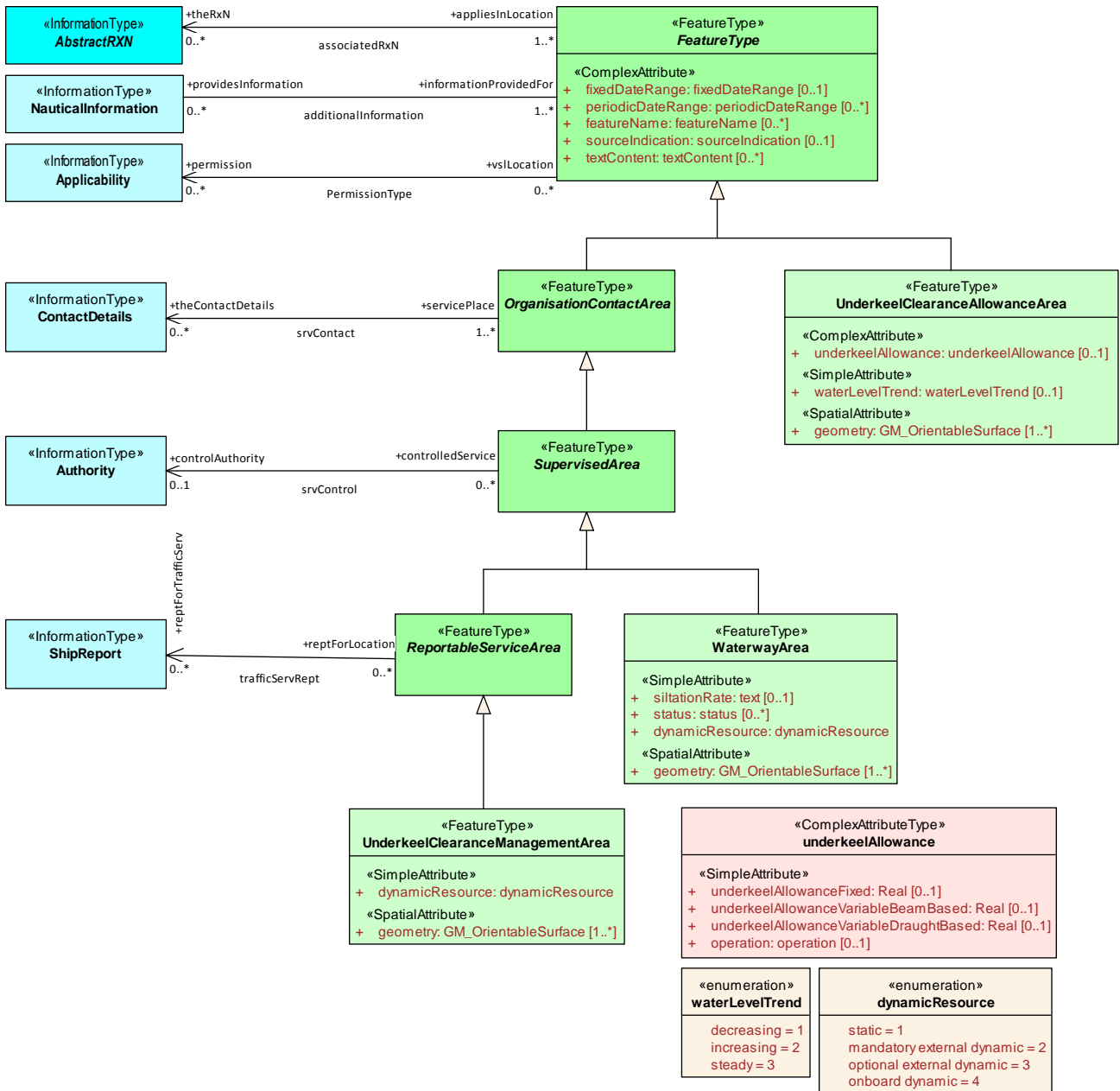


Figure 8: UKC-Waterlevels

UKC-Waterlevels-Expanded diagram

Class diagram in package 'S-127 Domain Model'

UKC-Waterlevels-Expanded
 Version 1.0
 raphaelm created on 12-May-2018. Last modified 20-Aug-2018

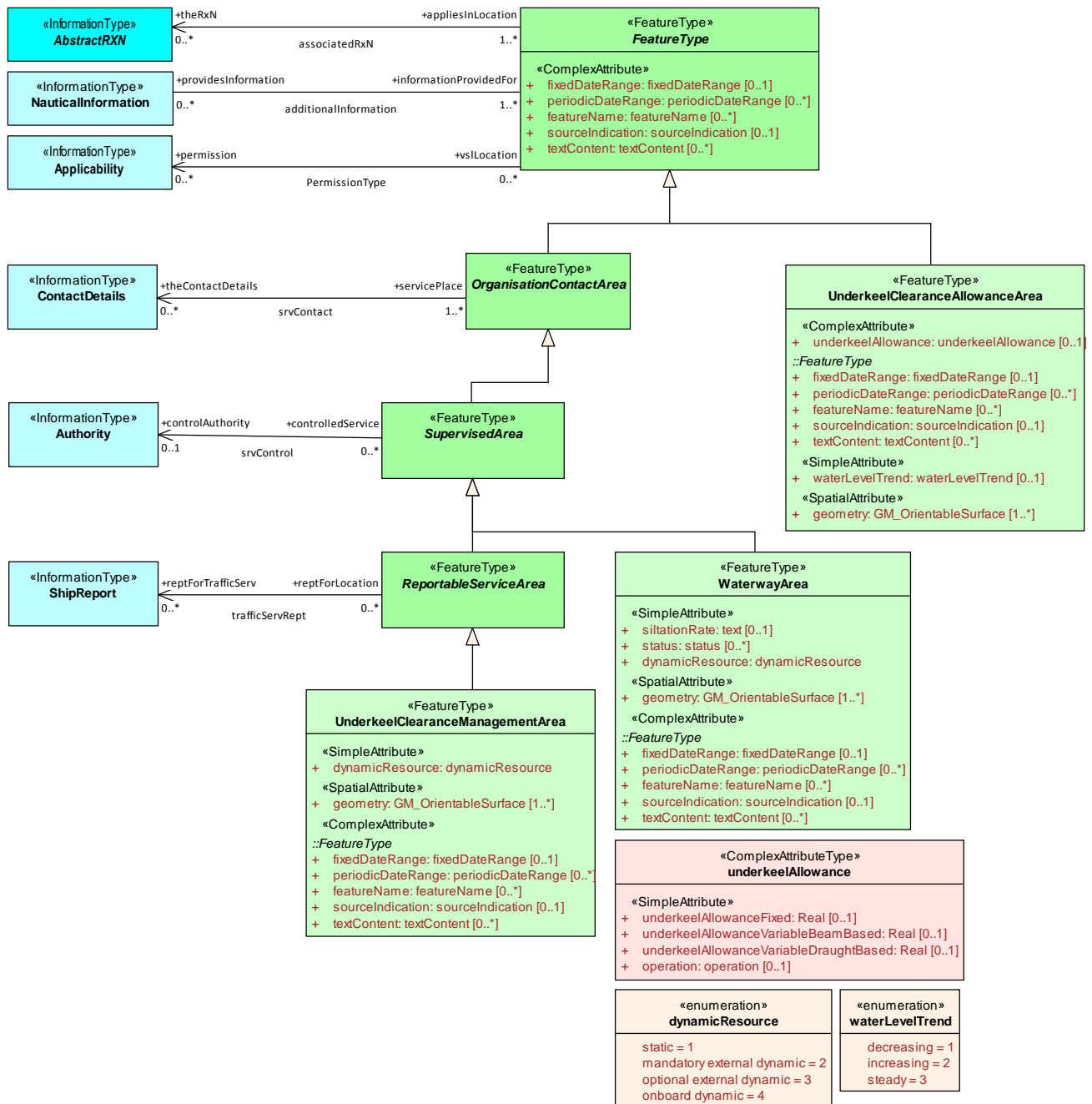


Figure 9: UKC-Waterlevels-Expanded

VTS diagram

Class diagram in package 'S-127 Domain Model'

VTS
Version 1.0
raphaelm created on 11-Feb-2018. Last modified 22-Aug-2018

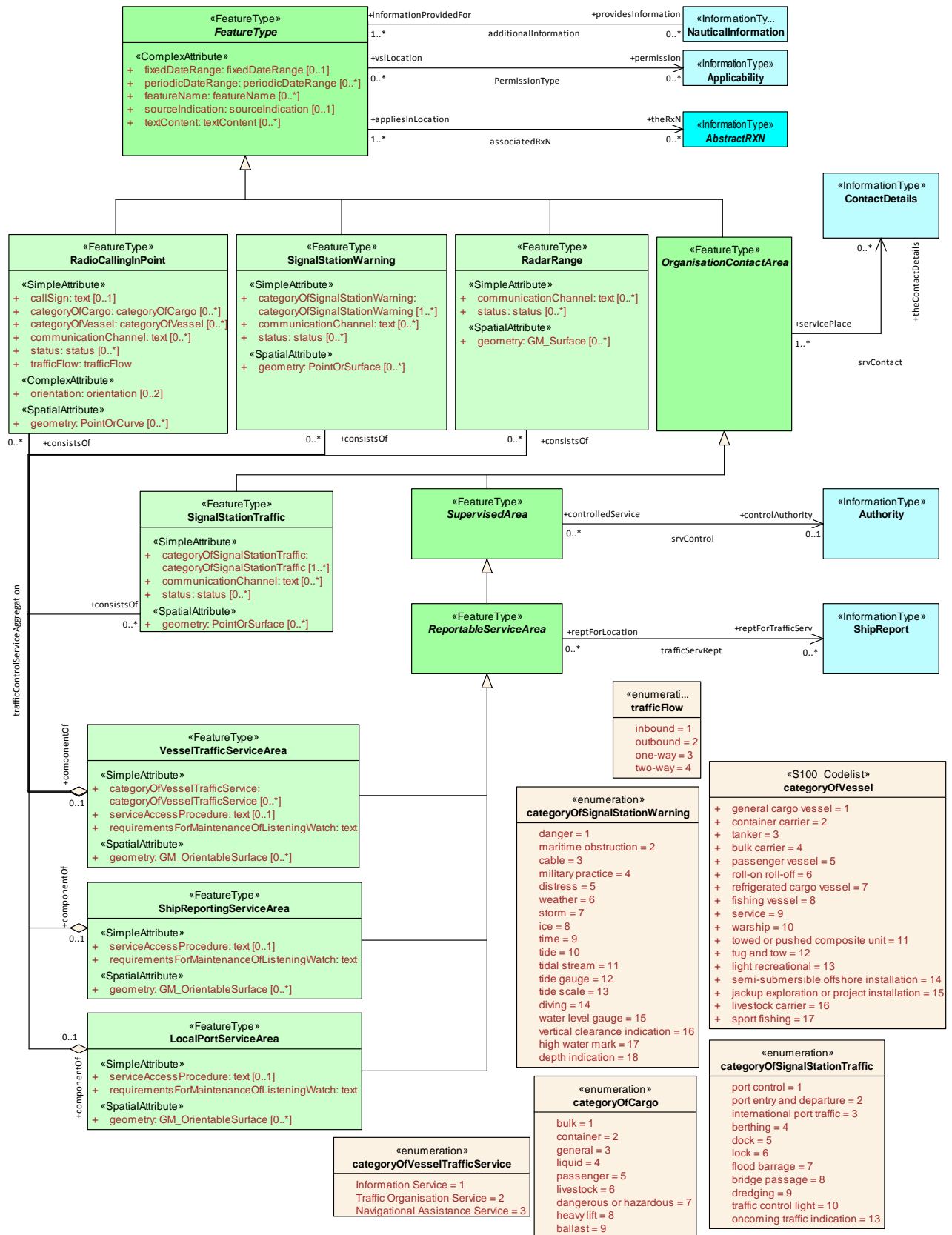


Figure 10: VTS

Other Areas diagram

Class diagram in package 'S-127 Domain Model'

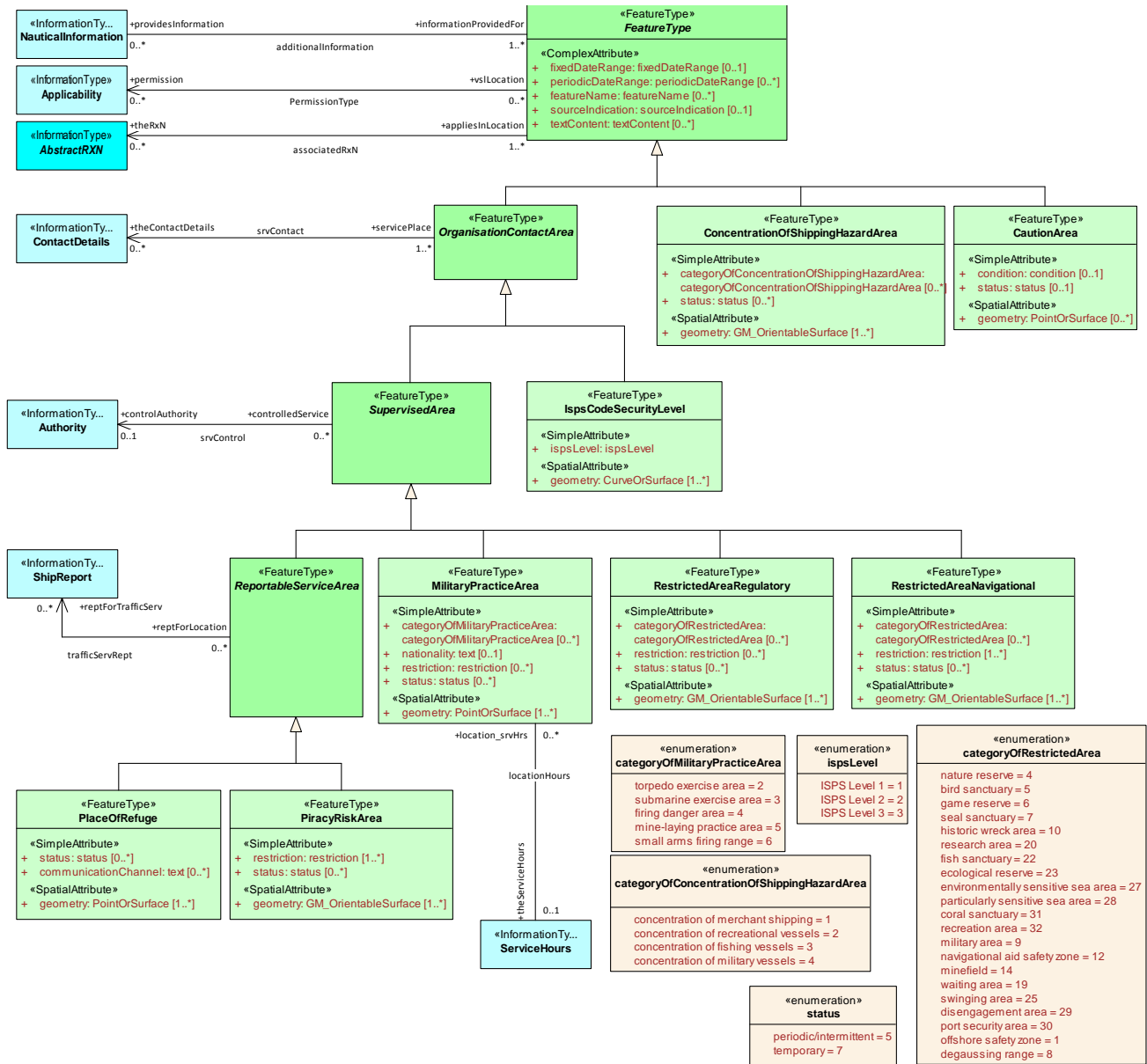


Figure 11: Other Areas

ServiceInfoAssociations diagram

Class diagram in package 'S-127 Domain Model'

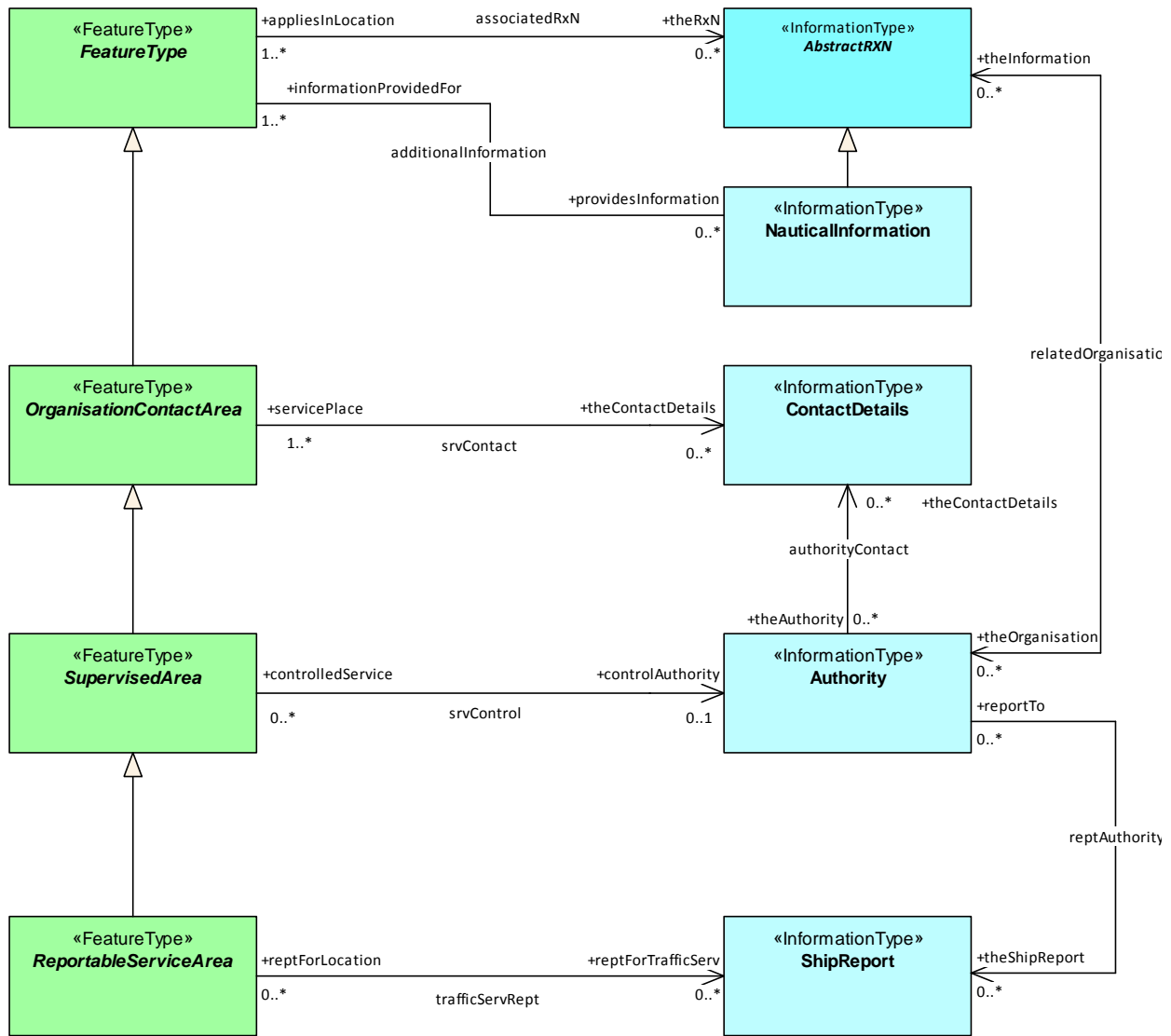


Figure 12: ServiceInfoAssociations

ServiceInfoAssociations - Ext - II diagram

Class diagram in package 'S-127 Domain Model'

ServiceInfoAssociations - Ext - II

Version 0.1

raphaelm created on 12-Feb-2018. Last modified 20-Aug-2018

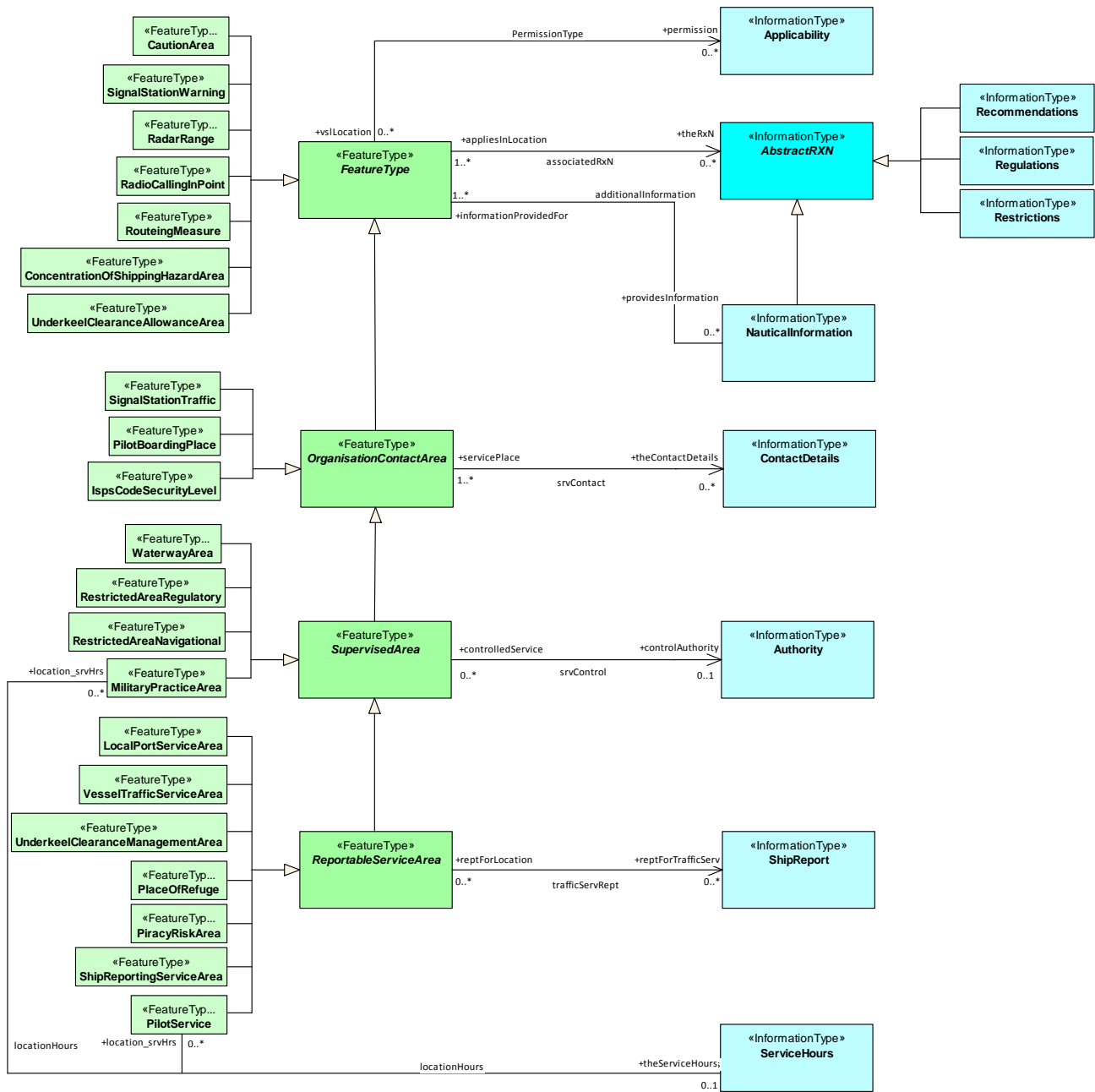


Figure 13: ServiceInfoAssociations - Ext - II

ServiceInfoAssociations - Extended diagram

Class diagram in package 'S-127 Domain Model'

ServiceInfoAssociations - Extended

Version 0.1

raphaelm created on 11-Feb-2018. Last modified 20-Aug-2018

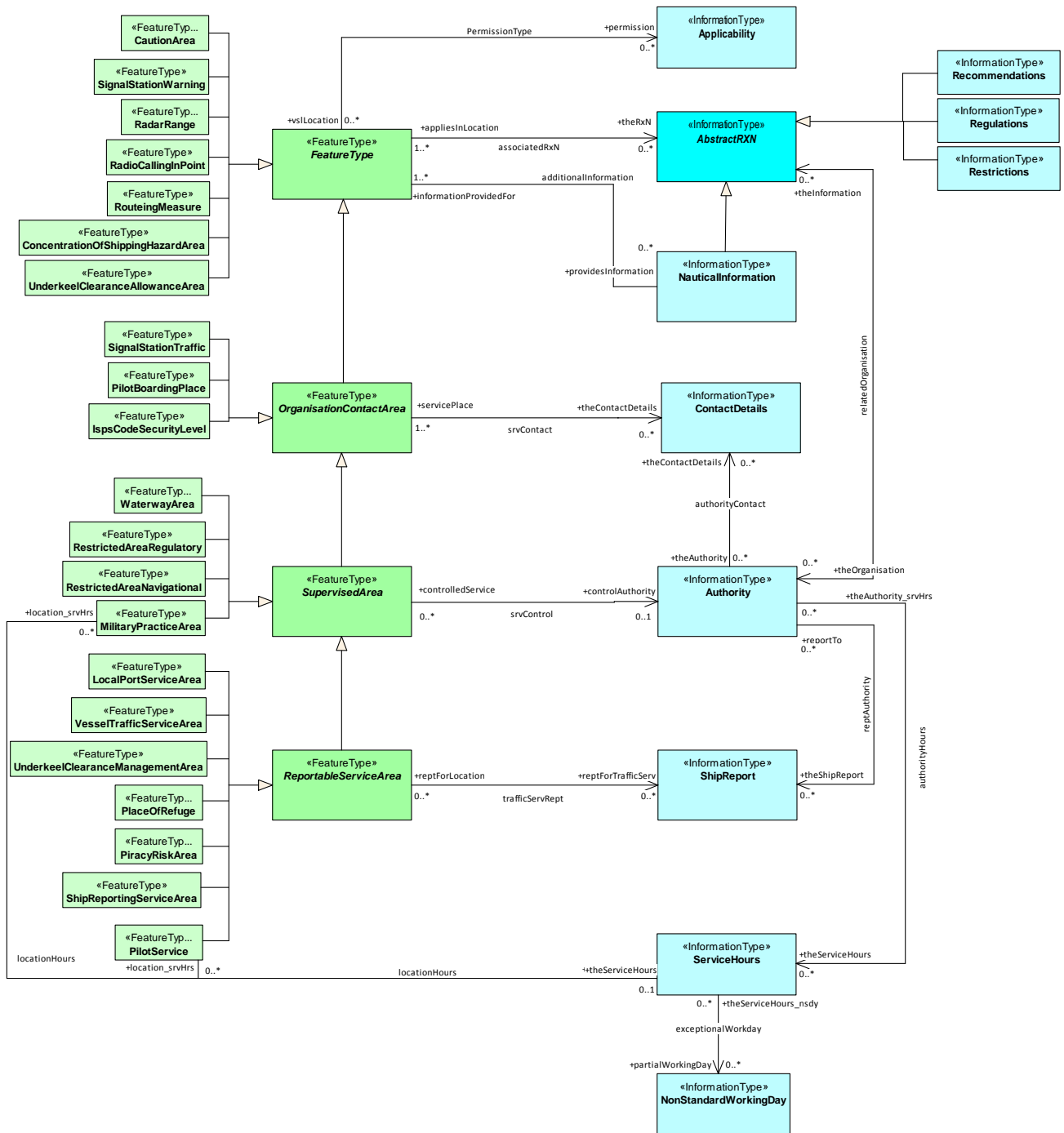


Figure 14: ServiceInfoAssociations - Extended

ContactDetails diagram

Class diagram in package 'S-127 Domain Model'

ContactDetails
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 21-Aug-2018

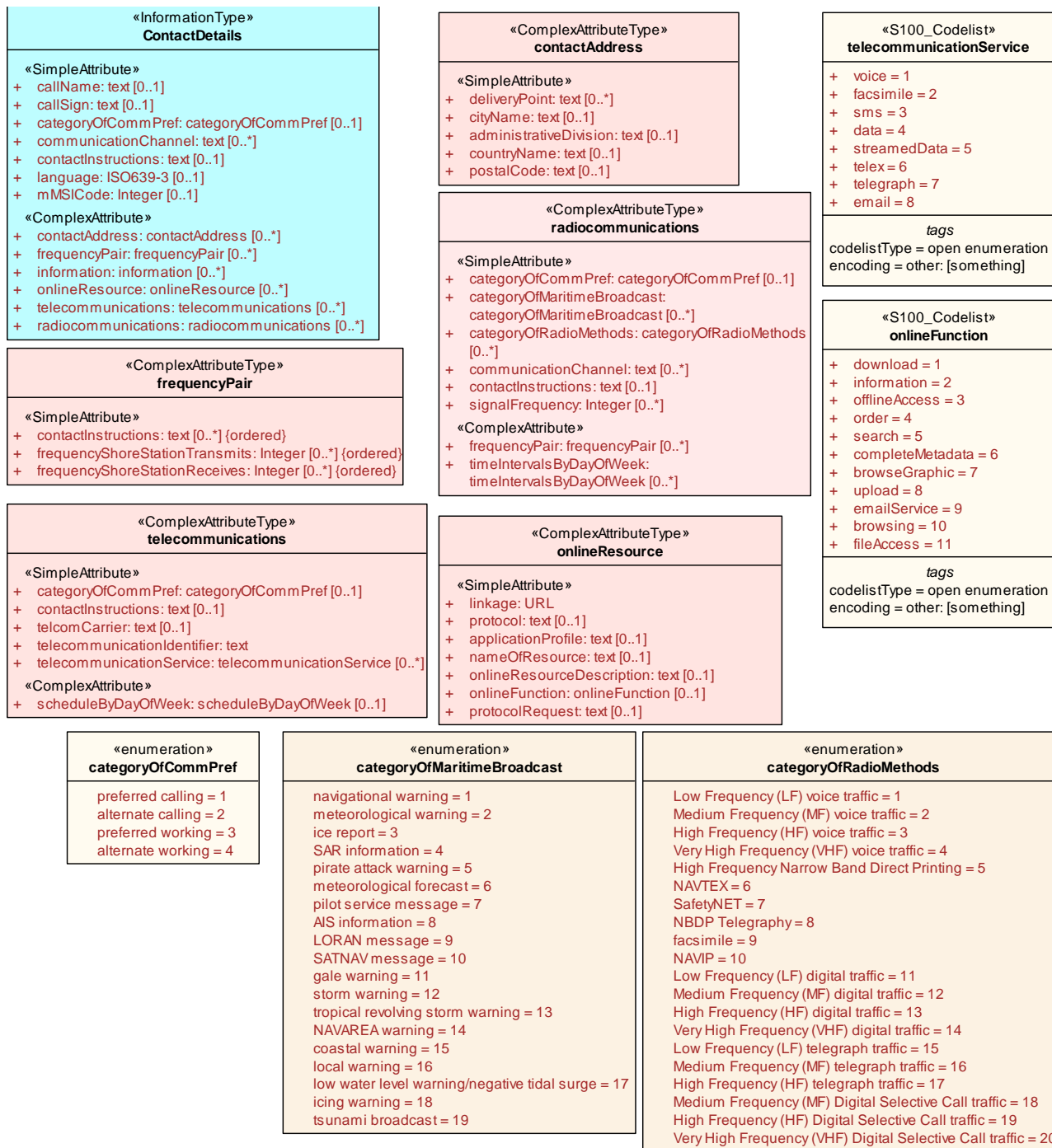


Figure 15: ContactDetails

ApplicabilityAssociations diagram

Class diagram in package 'S-127 Domain Model'

ApplicabilityAssociations

Version 0.1

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

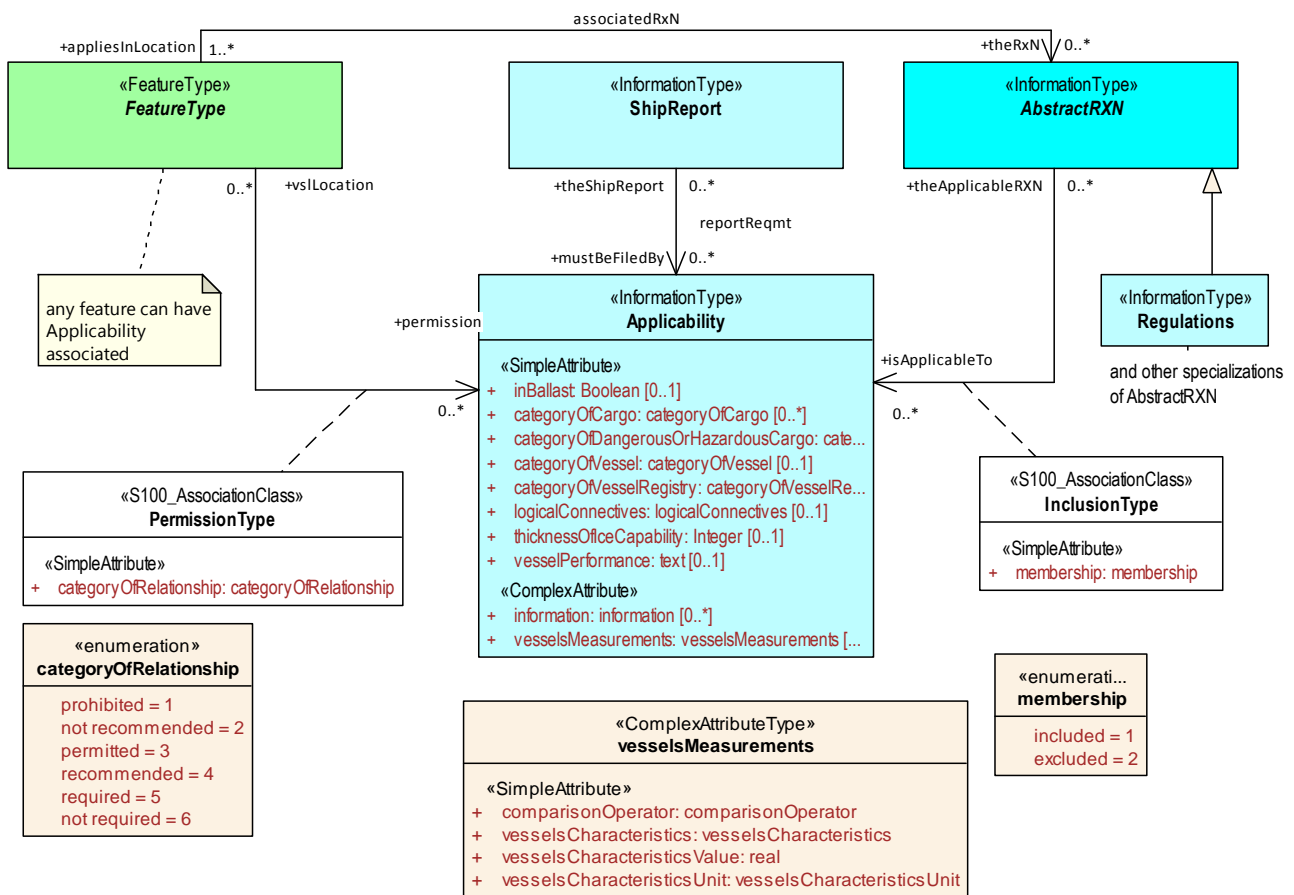


Figure 16: ApplicabilityAssociations

SupplementaryInformation diagram

Class diagram in package 'S-127 Domain Model'

SupplementaryInformation

Version 0.1

raphaelm created on 01-Jan-2018. Last modified 10-Jan-2018

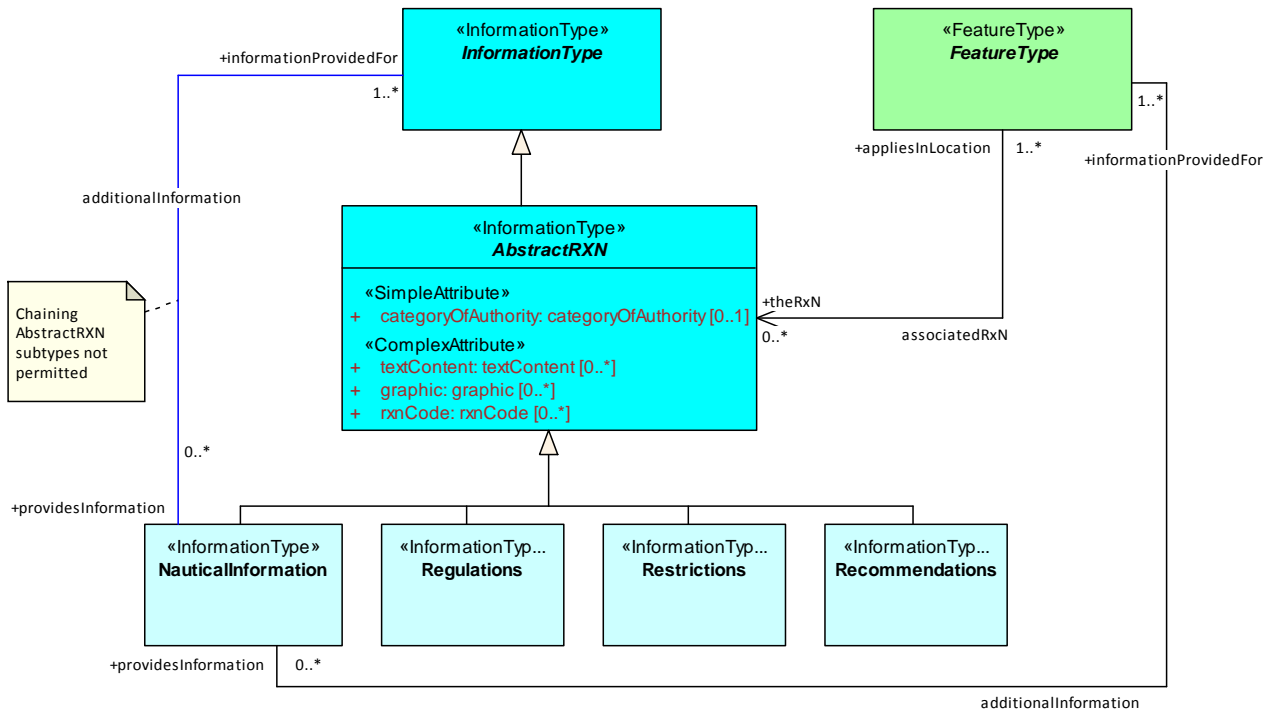


Figure 17: SupplementaryInformation

CategoryEnumsAndCodelists diagram

Class diagram in package 'S-127 Domain Model'

A convenience diagram showing the significant listed values and codelists of feature and information types. Not included are listed values for association classes, text content or source description, or Applicability (they are in other diagrams).

CategoryEnumsAndCodelists
Version 0.1

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

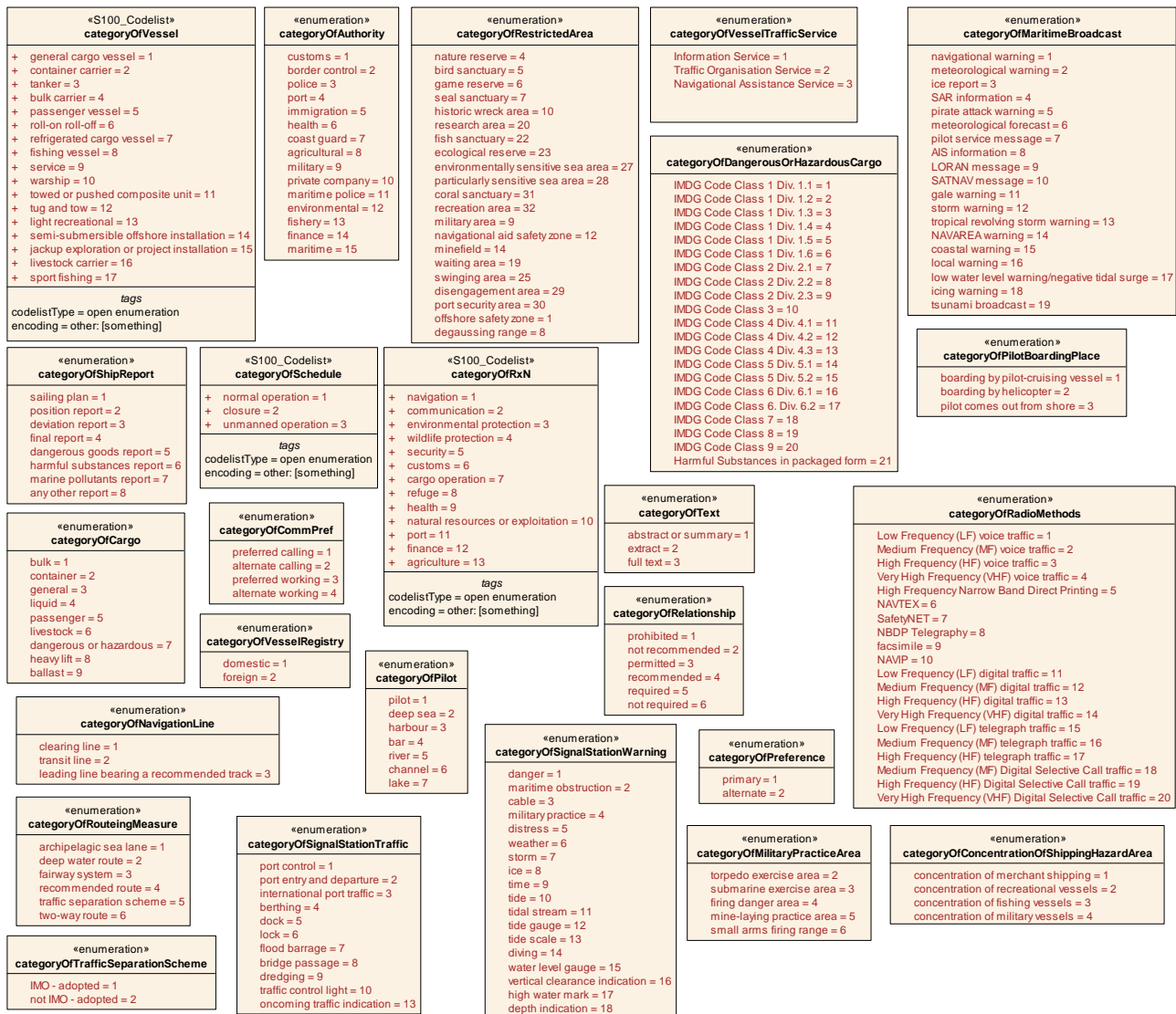


Figure 18: CategoryEnumsAndCodelists

OtherEnumsAndCodelists diagram

Class diagram in package 'S-127 Domain Model'

A convenience diagram showing the significant listed values and codelists of feature and information types. Not included are listed values for association classes, text content or source description, or Applicability (they are in other diagrams).

OtherEnumsAndCodelists

Version 0.1

raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018

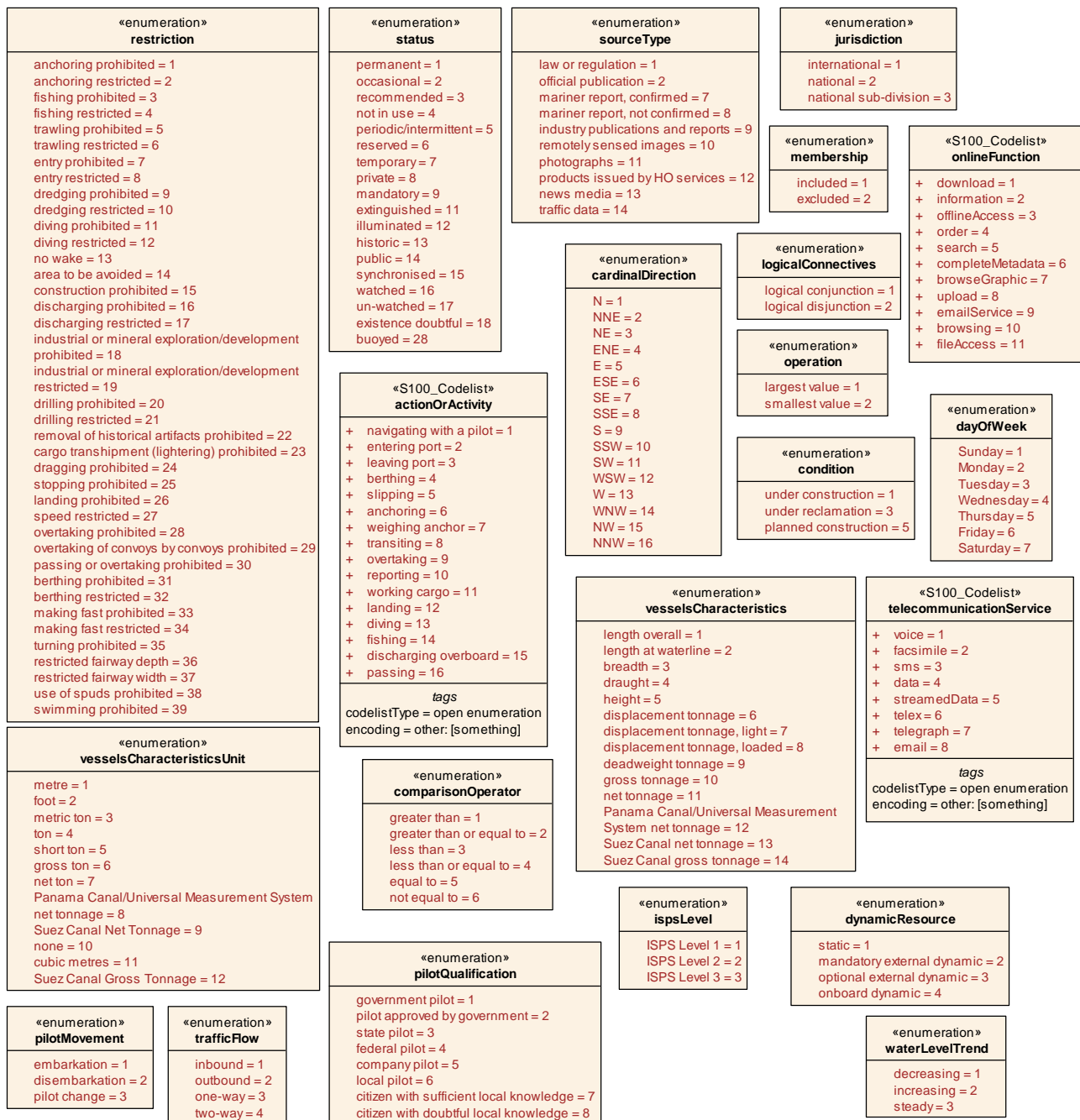


Figure 19: OtherEnumsAndCodelists

AuthoritiesAndContacts diagram

Class diagram in package 'S-127 Domain Model'

AuthoritiesAndContacts
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 21-Aug-2018

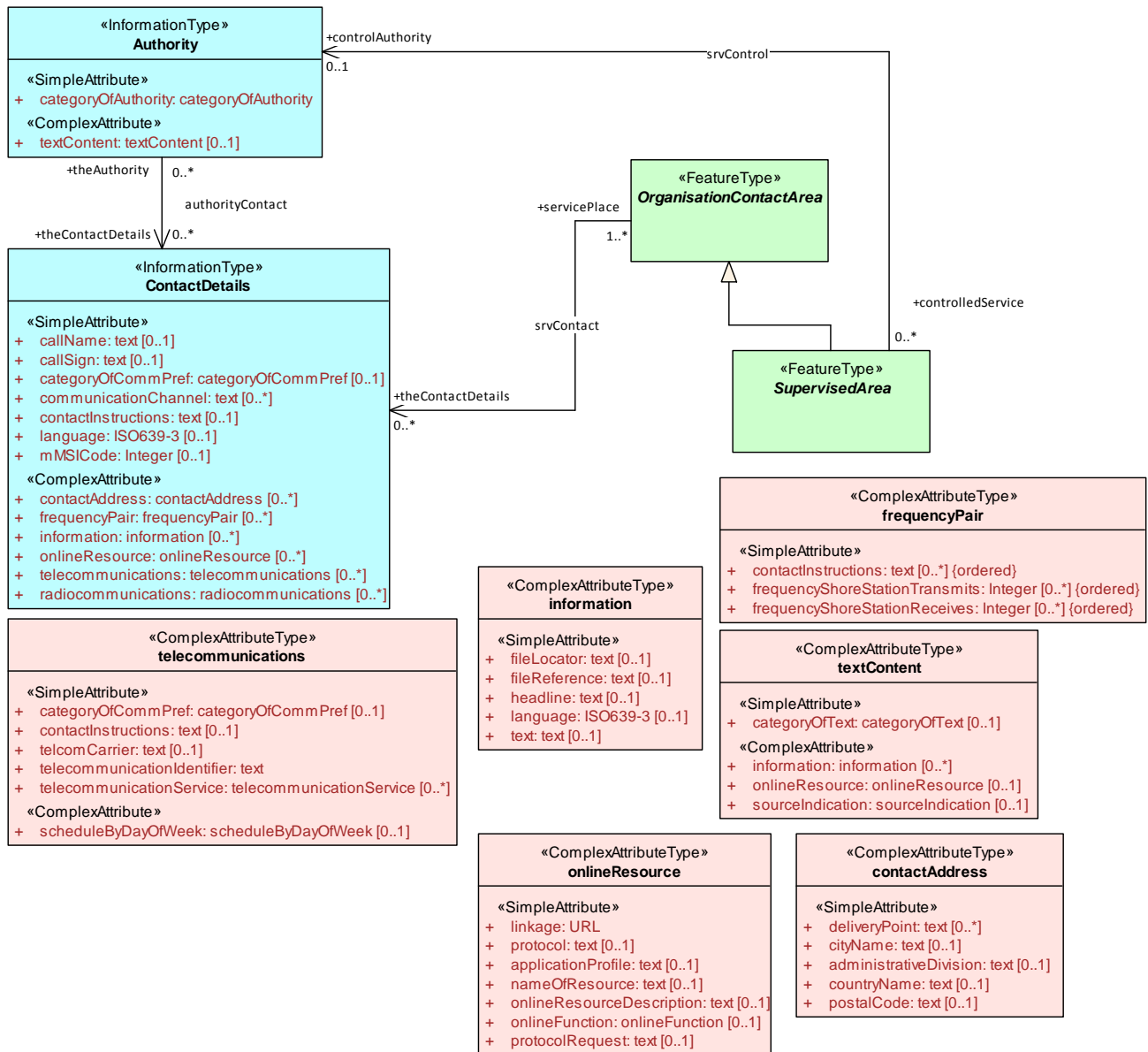


Figure 20: AuthoritiesAndContacts

RXNTypes diagram

Class diagram in package 'S-127 Domain Model'

RXNTypes

Version 0.1

raphaelm created on 01-Jan-2018. Last modified 23-May-2018

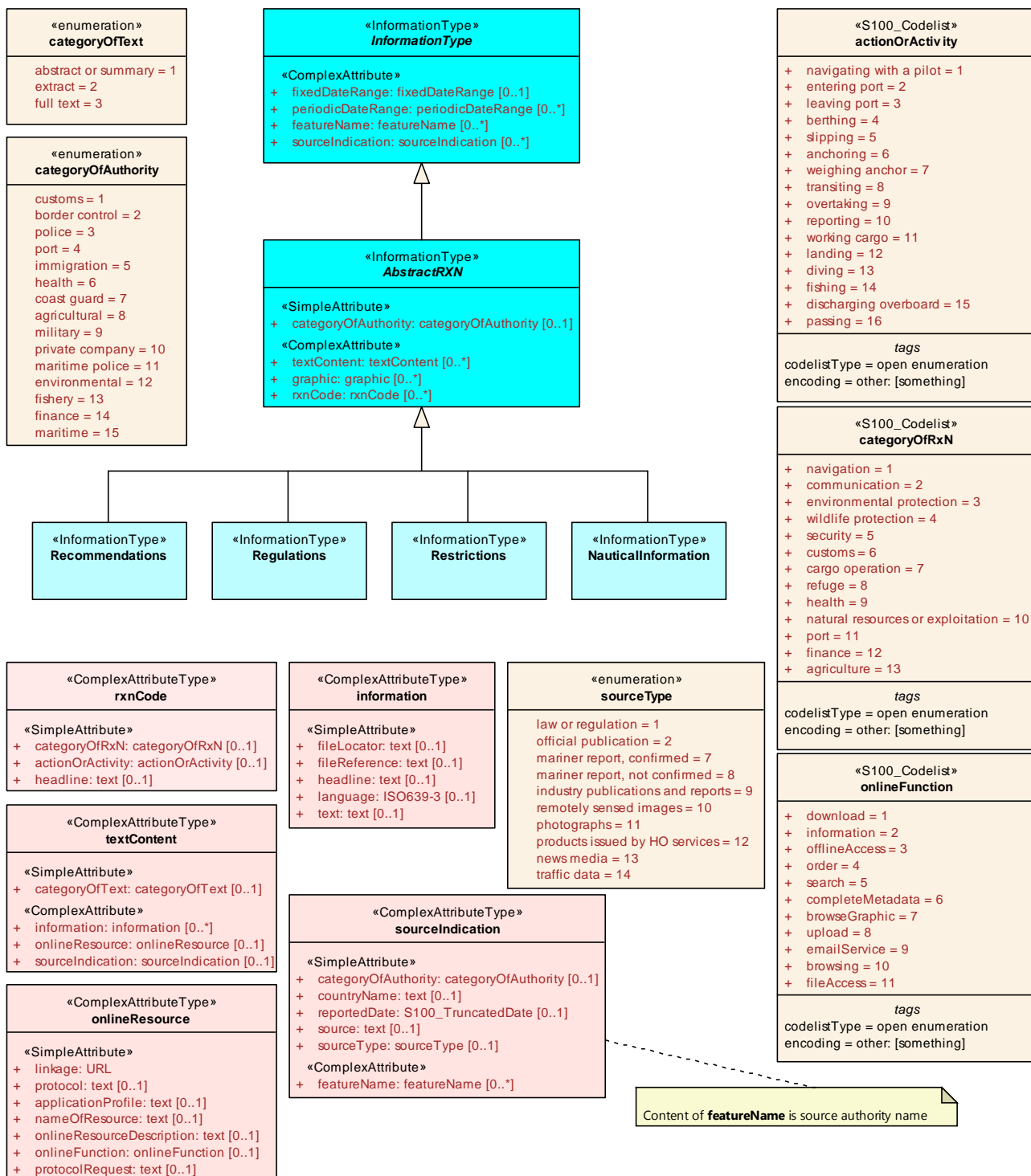


Figure 21: RXNTypes

Reporting diagram

Class diagram in package 'S-127 Domain Model'

Reporting
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 21-May-2018

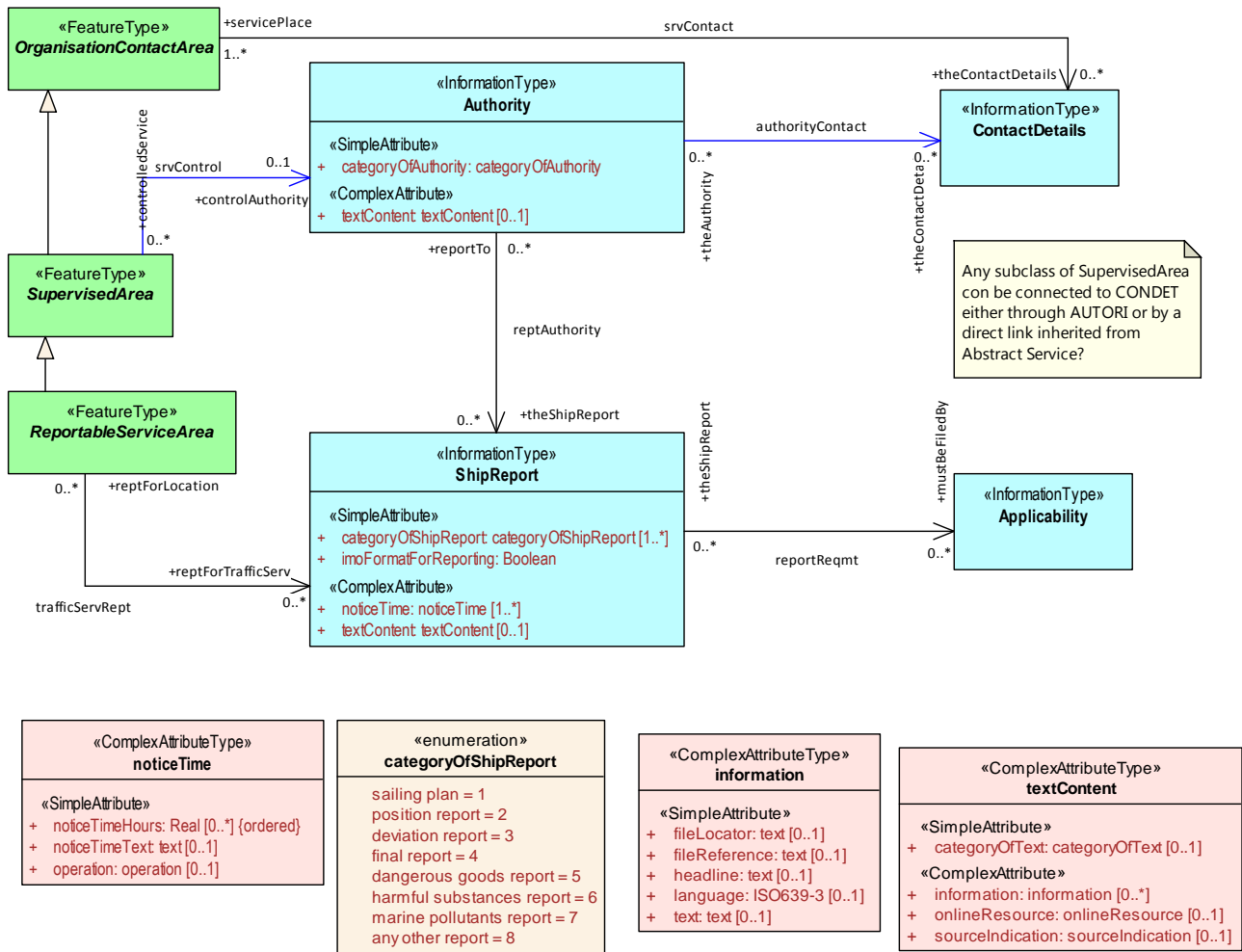


Figure 22: Reporting

RulesForFeatures diagram

Class diagram in package 'S-127 Domain Model'

RulesForFeatures
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 21-Aug-2018

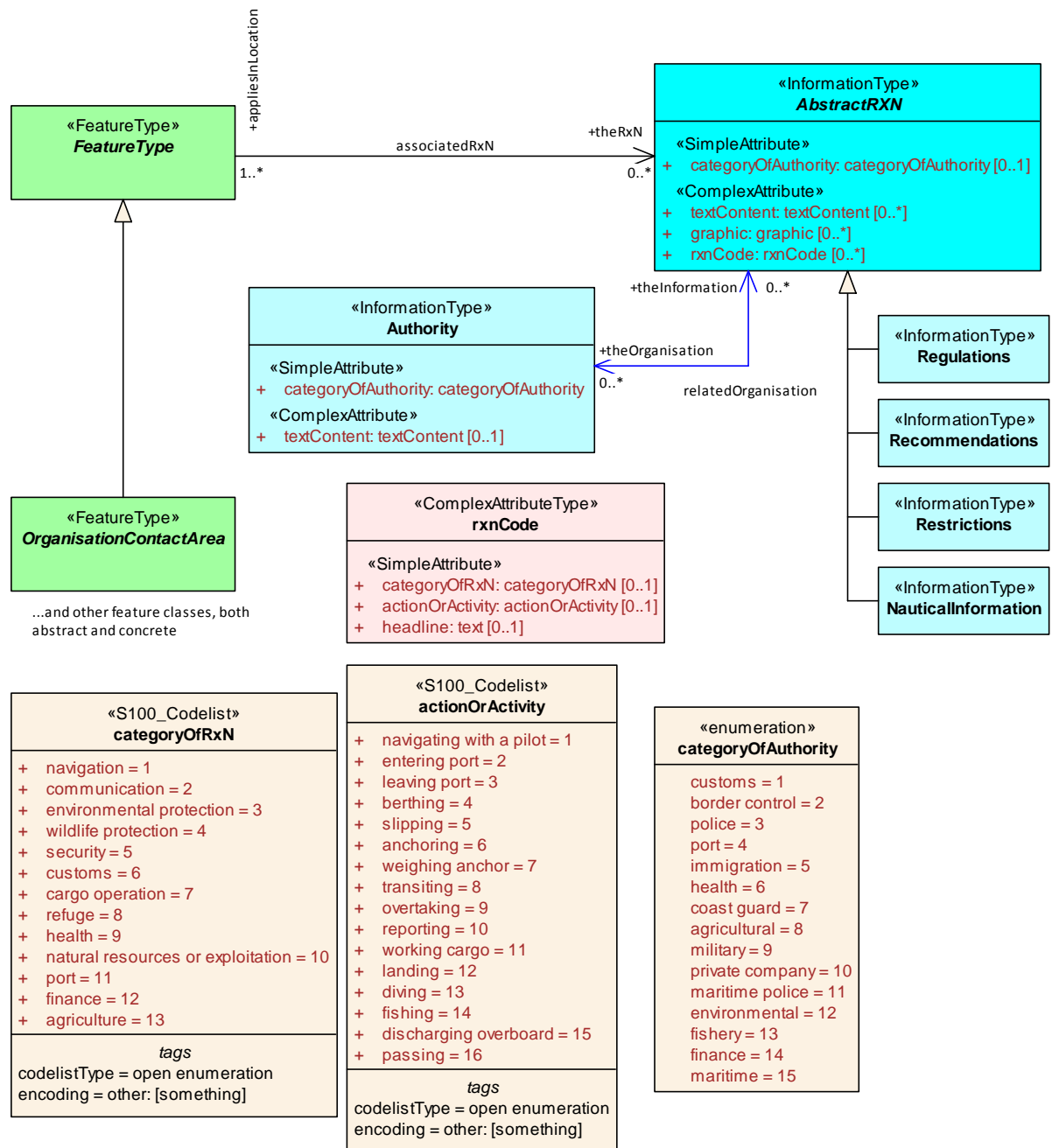


Figure 23: RulesForFeatures

ShipCharacteristicSubsets diagram

Class diagram in package 'S-127 Domain Model'

ShipCharacteristicSubsets
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018

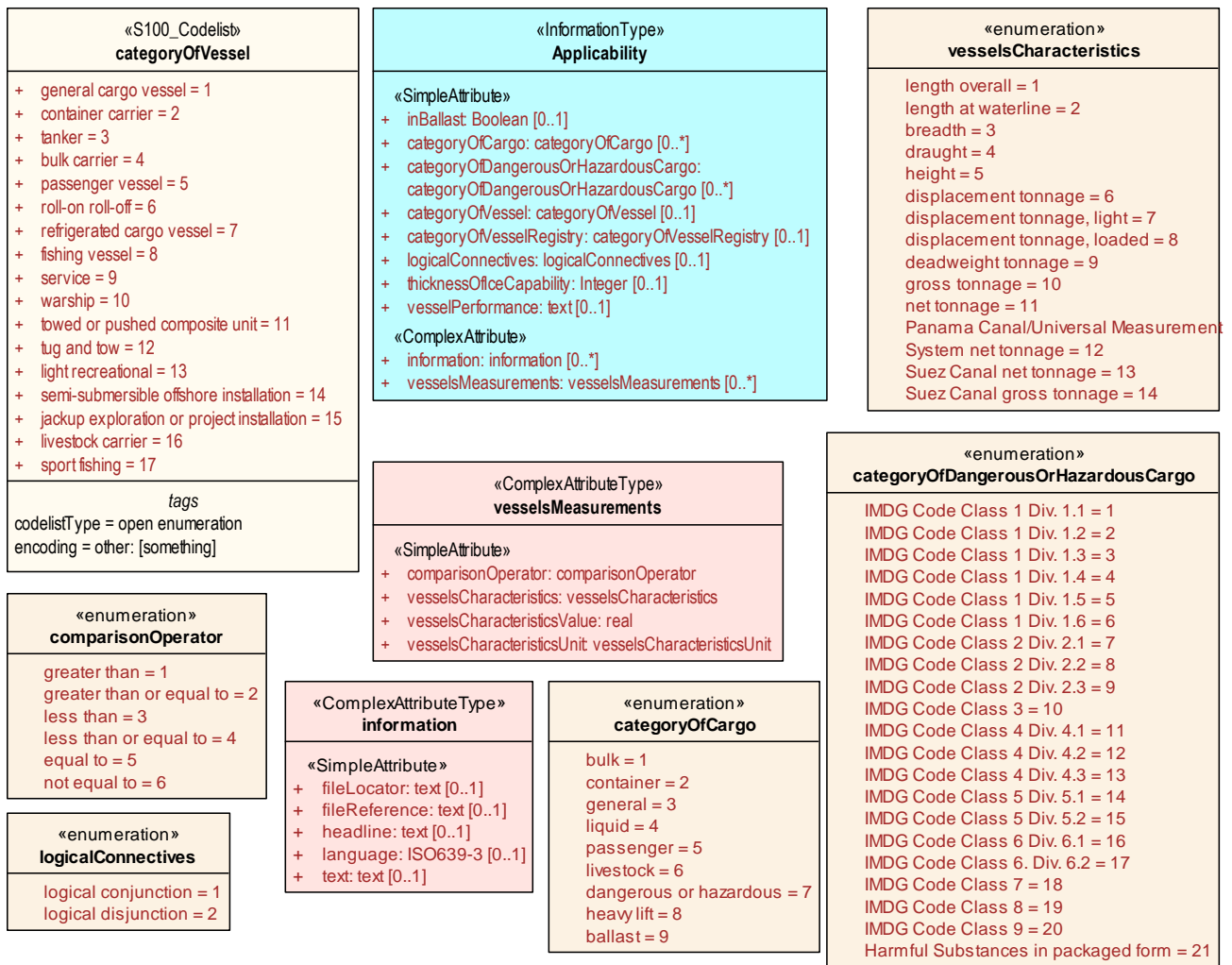


Figure 24: ShipCharacteristicSubsets

WorkingTimes diagram

Class diagram in package 'S-127 Domain Model'

WorkingTimes
Version 0.1
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

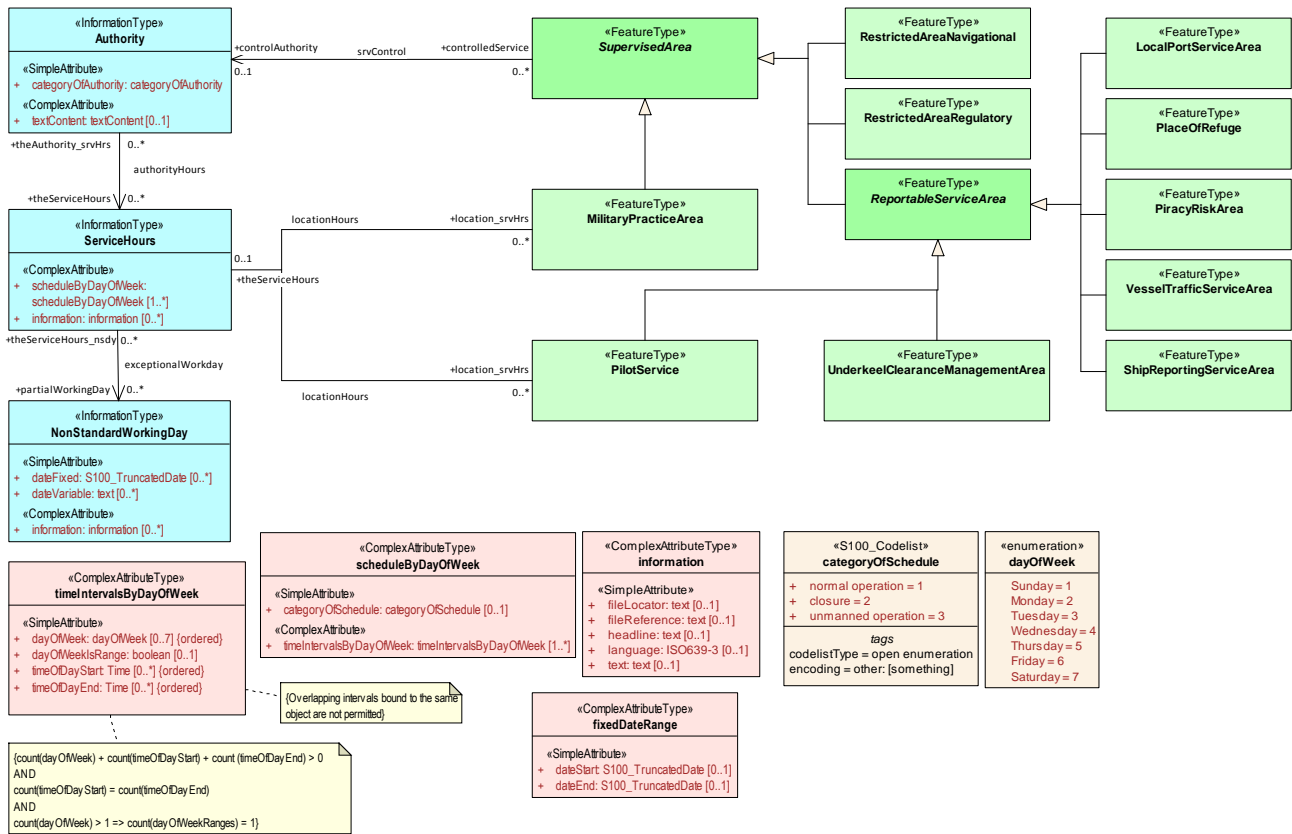


Figure 25: WorkingTimes

Feature and Information Type classes

FeatureType

Class «FeatureType» in package 'S-127 Domain Model'

Generalized feature type which carry all the common attributes




FeatureType
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018

OUTGOING STRUCTURAL RELATIONSHIPS	
<p>← Realization from «FeatureType» FeatureType to «metaclass» S100_GF_FeatureType [Direction is 'Source -> Destination'.]</p>	
INCOMING STRUCTURAL RELATIONSHIPS	
<p>⇒ Generalization from «FeatureType» RoutingMeasure to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>	
<p>⇒ Generalization from «FeatureType» SignalStationWarning to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>	
<p>⇒ Generalization from «FeatureType» RadioCallingInPoint to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>	




INCOMING STRUCTURAL RELATIONSHIPS

- ⇒ Generalization from «FeatureType» RouteingMeasureLine to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» ConcentrationOfShippingHazardArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» RadarRange to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» CautionArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» OrganisationContactArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» PilotageDistrict to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» RouteingMeasureArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ⇒ Generalization from «FeatureType» UnderkeelClearanceAllowanceArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]

CONNECTORS

-  **Dependency** Source -> Destination
From: FeatureType : Class, Public
To: S-127 Metadata : Package, Public
-  **Dependency** Source -> Destination
From: FeatureType : Class, Public
To: S-127 Geometry : Package, Public
-  **Dependency** Spatial Attributes Source -> Destination
From: FeatureType : Class, Public
To: S127_Geometry : Class, Public

ATTRIBUTES

-  **fixedDateRange : fixedDateRange Public**
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
-  **periodicDateRange : periodicDateRange Public**
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
-  **featureName : featureName Public**
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ sourceIndication : sourceIndication Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	
<p>◆ textContent : textContent Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	
ASSOCIATIONS	
<p>✍ Association (direction: Unspecified) additionalInformation</p> <p>Source: Public informationProvidedFor (Class) FeatureType «FeatureType» Cardinality: [1..*]</p>	<p>Target: Public providesInformation (Class) NauticalInformation «InformationType» Cardinality: [0..*]</p>
<p>✍ Association (direction: Unspecified) textAssociation</p> <p>A feature association for the binding between a geo feature and the cartographically positioned location for text.</p> <p>Source: Public identifies (Class) FeatureType «FeatureType» Cardinality: [1]</p> <p>A pointer to a specific feature(s).</p>	<p>Target: Public positions (Class) TextPlacement «FeatureType» Cardinality: [0..1]</p> <p>A pointer to a specific cartographically positioned location for text.</p>
<p>✍ Association (direction: Source -> Destination) associatedRxN</p> <p>Source: Public appliesInLocation (Class) FeatureType «FeatureType» Cardinality: [1..*]</p>	<p>Target: Public theRxN (Class) AbstractRXN «InformationType» Cardinality: [0..*]</p>
<p>✍ AssociationClass (direction: Source -> Destination) PermissionType</p> <p>Source: Public vsLocation (Class) FeatureType «FeatureType» Cardinality: [0..*]</p>	<p>Target: Public permission (Class) Applicability «InformationType» Cardinality: [0..*]</p>

OrganisationContactArea

Class «FeatureType» in package 'S-127 Domain Model'

A feature often associated with contact information for an organization that exercises a management role or offers a service in the location.

Remark: It is not a requirement that every instance of the feature be associated with a management, reporting, or service organization.

OrganisationContactArea
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» OrganisationContactArea to «FeatureType» FeatureType
 [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Generalization from «FeatureType» PilotBoardingPlace to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «FeatureType» IspsCodeSecurityLevel to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «FeatureType» SupervisedArea to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «FeatureType» SignalStationTraffic to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «FeatureType» RouteingSystem to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]

ASSOCIATIONS

✍ Association (direction: Source -> Destination) srvContact

Contact details for a service or facility

Source: Public servicePlace (Class) OrganisationContactArea
 «FeatureType»
 Cardinality: [1..*]

Pointer to service or facility

Target: Public theContactDetails (Class)
 ContactDetails «InformationType»
 Cardinality: [0..*]

A pointer to a Contact Details object

ReportableServiceArea

Class «FeatureType» in package 'S-127 Domain Model'

A service feature generally involving one or more reports from the requester, including communications not strictly considered “reporting.”

Remark: It is not a requirement for every instance to require a report.


ReportableServiceArea
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends SupervisedArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» ReportableServiceArea to «FeatureType» SupervisedArea
 [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

INCOMING STRUCTURAL RELATIONSHIPS
⇒ Generalization from «FeatureType» PilotService to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» PiracyRiskArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» LocalPortServiceArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» ShipReportingServiceArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» PlaceOfRefuge to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» UnderkeelClearanceManagementArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» VesselTrafficServiceArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]

ASSOCIATIONS
<p> Association (direction: Source -> Destination) trafficServRept</p> <p>Source: Public reptForLocation (Class) ReportableServiceArea «FeatureType» Cardinality: [0..*]</p> <p>Target: Public reptForTrafficServ (Class) ShipReport «InformationType» Cardinality: [0..*]</p>

SupervisedArea

Class «FeatureType» in package 'S-127 Domain Model'

A location which may be supervised by a responsible or controlling authority.

Remarks:

It is not a requirement that every feature instance be associated with an authority.

Alternative names: ControlledArea, Controlled Location, Supervised Location.


Note that having AbstractService as well as SupervisedArea allows the subclasses to link to CONDET both directly and via AUTORI, which may not be desirable because it gives encoders two ways to reach almost the same result.

SupervisedArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends OrganisationContactArea

OUTGOING STRUCTURAL RELATIONSHIPS
⇐ Generalization from «FeatureType» SupervisedArea to «FeatureType» OrganisationContactArea [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

INCOMING STRUCTURAL RELATIONSHIPS
⇒ Generalization from «FeatureType» RestrictedAreaNavigational to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» ReportableServiceArea to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» MilitaryPracticeArea to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» WaterwayArea to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]
⇒ Generalization from «FeatureType» RestrictedAreaRegulatory to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]

ASSOCIATIONS
<p> Association (direction: Source -> Destination) srvControl</p> <p>Source: Public controlledService (Class) SupervisedArea «FeatureType» Cardinality: [0..*]</p> <p>Target: Public controlAuthority (Class) Authority «InformationType» Cardinality: [0..1]</p>




CautionArea

Class «FeatureType» in package 'S-127 Domain Model'

Generally, an area where the mariner has to be made aware of circumstances influencing the safety of navigation.

CautionArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 20-Aug-2018. Last modified 22-Aug-2018
Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS
⇐ Generalization from «FeatureType» CautionArea to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]

ATTRIBUTES
<p> condition : condition Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> status : status Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> geometry : PointOrSurface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

ATTRIBUTES

ConcentrationOfShippingHazardArea

Class «FeatureType» in package 'S-127 Domain Model'

An area where hazards, caused by concentrations of shipping, may occur. Hazards are risks to shipping, which stem from sources other than shoal water or obstructions.

ConcentrationOfShippingHazardArea

Version 1.0 Phase 1.0 Proposed

raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018

Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» ConcentrationOfShippingHazardArea to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]

ATTRIBUTES

categoryOfConcentrationOfShippingHazardArea : categoryOfConcentrationOfShippingHazardArea Public
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

status : status Public
Alias: STATUS
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:
VS : Invariant
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

geometry : GM_OrientableSurface Public
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

IspCodeSecurityLevel

Class «FeatureType» in package 'S-127 Domain Model'

The area to which an International Ship and Port Facility Security (ISPS) level applies. The ISPS Code is a comprehensive set of measures to enhance the security of ships and port facilities, developed in response to the perceived threats to ships and port facilities in the wake of the 9/11 attacks in the United States.

IspCodeSecurityLevel

Version 1.0 Phase 1.0 Proposed

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

Extends OrganisationContactArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» IspCodeSecurityLevel to «FeatureType» OrganisationContactArea
[Direction is 'Source -> Destination'.]

ATTRIBUTES
<p>◆ ispsLevel : ispsLevel Public [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ geometry : CurveOrSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

LocalPortServiceArea

Class «FeatureType» in package 'S-127 Domain Model'


A service established to provide port information without interaction between the customer and the service provider. This information could be inter alia berthing information, availability of port services, shipping schedules, meteorological and hydrological data.

LocalPortServiceArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 20-Aug-2018. Last modified 20-Aug-2018
Alias LPSSRV
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «FeatureType» LocalPortServiceArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]</p>

INCOMING STRUCTURAL RELATIONSHIPS
<p>⇒ Aggregation from «FeatureType» RadarRange to «FeatureType» LocalPortServiceArea A feature association for the binding between a traffic control service and auxiliary features. [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>⇒ Aggregation from «FeatureType» SignalStationWarning to «FeatureType» LocalPortServiceArea [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>⇒ Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» LocalPortServiceArea A feature association for the binding between a traffic control service and auxiliary features. [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>⇒ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» LocalPortServiceArea A feature association for the binding between a traffic control service and auxiliary features. [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>◆ serviceAccessProcedure : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) A description of the procedure to access the marine service. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ requirementsForMaintenanceOfListeningWatch : text Public</p>


ATTRIBUTES
Description of continuous listening watch requirements. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 geometry : GM_OrientableSurface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]





MilitaryPracticeArea


Class «FeatureType» in package 'S-127 Domain Model'

An area within which naval, military, or aerial exercises are carried out. Also called an exercise area.

MilitaryPracticeArea
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends SupervisedArea

OUTGOING STRUCTURAL RELATIONSHIPS
 Generalization from «FeatureType» MilitaryPracticeArea to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]

ATTRIBUTES
 categoryOfMilitaryPracticeArea : categoryOfMilitaryPracticeArea Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 nationality : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 restriction : restriction Public Alias: RESTRN Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 geometry : PointOrSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

ASSOCIATIONS	
 Association (direction: Unspecified) locationHours Working hours for a service or facility described by a geographic location Remarks: This association links a geo feature to a Service Hours object. Distinction: authyHours, which links an information type (Authority) to a Service Hours object.	
Source: Public location_srvHrs (Class) MilitaryPracticeArea «FeatureType» Cardinality: [0..*] The location for which service hours are given	Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..1] Service hours for an authority or service provider


PilotageDistrict



Class «FeatureType» in package 'S-127 Domain Model'


An area within which a pilotage direction exists. Such directions are regulated by a competent harbour authority which dictates circumstances under which they apply.

PilotageDistrict
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
 Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS
 Generalization from «FeatureType» PilotageDistrict to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS
 Aggregation from «FeatureType» PilotBoardingPlace to «FeatureType» PilotageDistrict A feature association for the binding between a pilotage district and its component pilot boarding places. [Name is pilotageDistrictAssociation. Direction is 'Unspecified'.]

ATTRIBUTES
 communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 geometry : GM_Surface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

ASSOCIATIONS
 Association (direction: Unspecified) serviceProvisionArea Association linking the location from which a service is provided and the area(s) served. Remarks: This is a feature association linking a provider described by a geographic feature with the area served (another geographic feature). Contrast to srvControl, which is an information association linking the area served to an information object describing the provider.

ASSOCIATIONS	
Source: Public serviceProvider (Class) PilotService «FeatureType» Cardinality: [0..*] Pointer to a feature from where a provider supplies a service.	Target: Public serviceArea (Class) PilotageDistrict «FeatureType» Cardinality: [0..1] The area served by a service provider.

PilotBoardingPlace





Class «FeatureType» in package 'S-127 Domain Model'


A location offshore where a pilot may board a vessel in preparation to piloting it through local waters.

PilotBoardingPlace
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends OrganisationContactArea

OUTGOING STRUCTURAL RELATIONSHIPS
← Aggregation from «FeatureType» PilotBoardingPlace to «FeatureType» PilotageDistrict A feature association for the binding between a pilotage district and its component pilot boarding places. [Name is pilotageDistrictAssociation. Direction is 'Unspecified'.]
← Generalization from «FeatureType» PilotBoardingPlace to «FeatureType» OrganisationContactArea [Direction is 'Source -> Destination'.]

ATTRIBUTES
♦ callSign : text Public Alias: CALSGN Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) The designated call-sign of a radio station. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
♦ categoryOfPilotBoardingPlace : categoryOfPilotBoardingPlace Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
♦ categoryOfPreference : categoryOfPreference Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
♦ categoryOfVessel : categoryOfVessel Public Alias: CATVSL Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
♦ communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
♦ destination : text Public Alias: DSTNTN

ATTRIBUTES	
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	
The place or general direction to which a vessel is going or directed. Remarks: In addition to a placename of a port, harbour area or terminal, the place could include generalities such as “The north-west”, or “upriver”.	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 pilotMovement : pilotMovement Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 pilotVessel : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	
Description of the pilot vessel. The pilot vessel is a small vessel used by a pilot to go to or from a vessel employing the pilot's services.	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 status : status Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 geometry : PointOrSurface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

ASSOCIATIONS	
 Association (direction: Unspecified) serviceProvisionArea	
Association linking the location from which a service is provided and the area(s) served. Remarks: This is a feature association linking a provider described by a geographic feature with the area served (another geographic feature). Contrast to srvControl, which is an information association linking the area served to an information object describing the provider.	
Source: Public serviceProvider (Class) PilotService «FeatureType» Cardinality: [0..*]	Target: Public serviceArea (Class) PilotBoardingPlace «FeatureType» Cardinality: [0..*]
Pointer to a feature from where a provider supplies a service.	The area served by a service provider.

PilotService


Class «FeatureType» in package 'S-127 Domain Model'

The service provided by a person who directs the movements of a vessel through pilot waters, usually a person who has demonstrated extensive knowledge of channels, aids to navigation, dangers to navigation, etc., in a particular area and is licensed for that area.

Remarks: The name of this object may be the same as the Pilot District of the associated PILBOPs.

PilotService
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS

ASSOCIATIONS	
<p>Source: Public serviceProvider (Class) PilotService «FeatureType» Cardinality: [0..*]</p> <p>Pointer to a feature from where a provider supplies a service.</p>	<p>Target: Public serviceArea (Class) PilotageDistrict «FeatureType» Cardinality: [0..1]</p> <p>The area served by a service provider.</p>
<p> Association (direction: Unspecified) locationHours</p> <p>Working hours for a service or facility described by a geographic location Remarks: This association links a geo feature to a Service Hours object. Distinction: authyHours, which links an information type (Authority) to a Service Hours object.</p>	
<p>Source: Public location_srvHrs (Class) PilotService «FeatureType» Cardinality: [0..*]</p> <p>The location for which service hours are given</p>	<p>Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..1]</p> <p>Service hours for an authority or service provider</p>

PiracyRiskArea

Class «FeatureType» in package 'S-127 Domain Model'

An area where there is a raised risk of piracy or armed robbery.

Remarks:

Piracy consists of any of the following acts:

- (a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
 - (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or air-craft;
 - (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;
 - (b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
 - (c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).
- (United Nations Convention on the Law of the Sea – Article 101)
Armed robbery takes place within the jurisdiction of a State.


Regular bulletins come from the IMB Piracy Reporting Centre – Kuala Lumpur.



References: UNCLOS Article 101; M-3: Chapter C Section 2.2

Distinction: CautionArea

PiracyRiskArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS
<p> Generalization from «FeatureType» PiracyRiskArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p> restriction : restriction Public Alias: RESTRN Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)</p>


ATTRIBUTES	
Constraints: VS : Invariant	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	Constraints: VS : Invariant
	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 geometry : GM_OrientableSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]




PlaceOfRefuge

Class «FeatureType» in package 'S-127 Domain Model'

A place where a ship in need of assistance can take action to enable it to stabilize its condition and reduce the hazards to navigation, and to protect human life and the environment.
 (Reference: IMO Res. A.949(23))

PlaceOfRefuge
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS	
 Generalization from «FeatureType» PlaceOfRefuge to «FeatureType» ReportableServiceArea	[Direction is 'Source -> Destination'.]

ATTRIBUTES	
 status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	Constraints: VS : Invariant
	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 geometry : PointOrSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]
 communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

RadarRange

Class «FeatureType» in package 'S-127 Domain Model'

Indicates the coverage of a sea area by a radar surveillance station. Inside this area a vessel may request shore-based radar assistance, particularly in poor visibility.

RadarRange
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias RADRNG
Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Aggregation from «FeatureType» RadarRange to «FeatureType» ShipReportingServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>← Generalization from «FeatureType» RadarRange to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>
<p>← Aggregation from «FeatureType» RadarRange to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]</p>
<p>← Aggregation from «FeatureType» RadarRange to «FeatureType» LocalPortServiceArea A feature association for the binding between a traffic control service and auxiliary features. [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
ATTRIBUTES
<p>◆ communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>◆ geometry : GM_Surface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

RadioCallingInPoint

Class «FeatureType» in package 'S-127 Domain Model'

A designated position at which vessels are required to report to a Traffic Control Centre. Also called reporting point or radio reporting point.

S-127 Remarks: category of cargo and vessel attributes added as on NIPWG Wiki.

RadioCallingInPoint
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS

- ← Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» VesselTrafficServiceArea
A feature association for the binding between a traffic control service and auxiliary features.
[Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]
- ← Generalization from «FeatureType» RadioCallingInPoint to «FeatureType» FeatureType
[Direction is 'Source -> Destination'.]
- ← Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» ShipReportingServiceArea
A feature association for the binding between a traffic control service and auxiliary features.
[Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]
- ← Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» LocalPortServiceArea
A feature association for the binding between a traffic control service and auxiliary features.
[Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]

ATTRIBUTES

- ◆ callSign : text Public
Alias: CALSGN
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

The designated call-sign of a radio station.
[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
- ◆ categoryOfCargo : categoryOfCargo Public
Alias: CATCGO
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
- ◆ categoryOfVessel : categoryOfVessel Public
Alias: CATVSL
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
- ◆ communicationChannel : text Public
Alias: COMCHA
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
- ◆ status : status Public
Alias: STATUS
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:
VS : Invariant
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
- ◆ trafficFlow : trafficFlow Public
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>orientation : orientation Public Multiplicity: ([0..2], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>geometry : PointOrCurve Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

RestrictedAreaNavigational

Class «FeatureType» in package 'S-127 Domain Model'

A specified area of land or water designated by an appropriate authority within which access or navigation is restricted in accordance with certain specified conditions.

A navigational restricted area is an area where the restrictions have a direct impact on the navigation of a vessel in the area.

RestrictedAreaNavigational
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias RESARE
Extends SupervisedArea

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «FeatureType» RestrictedAreaNavigational to «FeatureType» SupervisedArea [Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>categoryOfRestrictedArea : categoryOfRestrictedArea Public Alias: CATREA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>restriction : restriction Public Alias: RESTRN Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>geometry : GM_OrientableSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)</p>

ATTRIBUTES

[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

RestrictedAreaRegulatory

Class «FeatureType» in package 'S-127 Domain Model'

A specified area of land or water designated by an appropriate authority within which access or navigation is restricted in accordance with certain specified conditions.

A regulatory restricted area is an area where the restrictions have no direct impact on the navigation of a vessel in the area, but impact on the activities that can take place within the area.

RestrictedAreaRegulatory
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias RESARE
Extends SupervisedArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» RestrictedAreaRegulatory to «FeatureType» SupervisedArea
[Direction is 'Source -> Destination'.]

ATTRIBUTES

categoryOfRestrictedArea : categoryOfRestrictedArea Public
Alias: CATREA
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:

VS : Invariant

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

restriction : restriction Public
Alias: RESTRN
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:

VS : Invariant

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

status : status Public
Alias: STATUS
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:

VS : Invariant

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

geometry : GM_OrientableSurface Public
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)


[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

RouteingMeasure

Class «FeatureType» in package 'S-127 Domain Model'

An area or line designating the limits or central line of a routeing measure (or part of a routeing measure). Routeing measures include traffic separation schemes, deep-water routes, two-way routes, archipelagic sea lanes, and fairway systems.

RouteingMeasure
Version 1.0 Phase 1.0 Proposed
raphaelm created on 12-Feb-2018. Last modified 20-Aug-2018
Extends FeatureType

CONSTRAINTS
<p> Invariant. count(categoryOfTrafficSeparationScheme) = 0 OR (categoryOfRouteingMeasure = 5) [Approved, Weight is 0.]</p>
<p> Invariant. count(categoryOfNavigationLine) = 0 OR (categoryOfRouteingMeasure = 4) [Approved, Weight is 1.]</p>
OUTGOING STRUCTURAL RELATIONSHIPS
<p> Generalization from «FeatureType» RouteingMeasure to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>
ATTRIBUTES
<p> categoryOfRouteingMeasure : categoryOfRouteingMeasure Public [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> categoryOfTrafficSeparationScheme : categoryOfTrafficSeparationScheme Public Alias: CATTSS Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> categoryOfNavigationLine : categoryOfNavigationLine Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> geometry : CurveOrSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

ShipReportingServiceArea

Class «FeatureType» in package 'S-127 Domain Model'

A service established by a relevant authority consisting of one or more reporting points or lines at which ships are required to report their identity, course, speed and other data to the monitoring authority.

ShipReportingServiceArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 20-Aug-2018. Last modified 20-Aug-2018
Alias SRSSRV
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» ShipReportingServiceArea to «FeatureType» ReportableServiceArea
 [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» ShipReportingServiceArea
 A feature association for the binding between a traffic control service and auxiliary features.
 [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]

⇒ Aggregation from «FeatureType» RadarRange to «FeatureType» ShipReportingServiceArea
 A feature association for the binding between a traffic control service and auxiliary features
 [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]

⇒ Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» ShipReportingServiceArea
 A feature association for the binding between a traffic control service and auxiliary features.
 [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]

⇒ Aggregation from «FeatureType» SignalStationWarning to «FeatureType» ShipReportingServiceArea
 [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]

ATTRIBUTES

◆ serviceAccessProcedure : text Public
 Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)
 A description of the procedure to access the marine service.
 [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

◆ requirementsForMaintenanceOfListeningWatch : text Public
 Description of continuous listening watch requirements.
 [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

◆ geometry : GM_OrientableSurface Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

SignalStationTraffic

Class «FeatureType» in package 'S-127 Domain Model'

A traffic signal station is a place on shore from which signals are made to regulate the movement of traffic.

SignalStationTraffic
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias SISTAT
 Extends OrganisationContactArea

OUTGOING STRUCTURAL RELATIONSHIPS

OUTGOING STRUCTURAL RELATIONSHIPS

- ↩ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» ShipReportingServiceArea
 A feature association for the binding between a traffic control service and auxiliary features.
 [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]
- ↩ Generalization from «FeatureType» SignalStationTraffic to «FeatureType» OrganisationContactArea
 [Direction is 'Source -> Destination'.]
- ↩ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» VesselTrafficServiceArea
 A feature association for the binding between a traffic control service and auxiliary features
 [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]
- ↩ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» LocalPortServiceArea
 A feature association for the binding between a traffic control service and auxiliary features.
 [Name is trafficControlServiceAggregation. Direction is 'Source -> Destination'.]

ATTRIBUTES

- ◆ categoryOfSignalStationTraffic : categoryOfSignalStationTraffic Public
 Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
- ◆ communicationChannel : text Public
 Alias: COMCHA
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
- ◆ status : status Public
 Alias: STATUS
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 Constraints:
 VS : Invariant
 [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
- ◆ geometry : PointOrSurface Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

SignalStationWarning

Class «FeatureType» in package 'S-127 Domain Model'

A warning signal station is a place on shore from which warning signals are made to ships at sea.

SignalStationWarning
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias SISTAW
 Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «FeatureType» SignalStationWarning to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>
<p>← Aggregation from «FeatureType» SignalStationWarning to «FeatureType» ShipReportingServiceArea [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>← Aggregation from «FeatureType» SignalStationWarning to «FeatureType» LocalPortServiceArea [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>← Aggregation from «FeatureType» SignalStationWarning to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]</p>

ATTRIBUTES
<p>categoryOfSignalStationWarning : categoryOfSignalStationWarning Public Alias: CATSIW Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>status : status Public Alias: STATUS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>geometry : PointOrSurface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

UnderkeelClearanceAllowanceArea

Class «FeatureType» in package 'S-127 Domain Model'

An area for which an authority has stated underkeel allowance requirements.

UnderkeelClearanceAllowanceArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 10-Jan-2018. Last modified 20-Aug-2018
Extends FeatureType

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «FeatureType» UnderkeelClearanceAllowanceArea to «FeatureType» FeatureType [Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>underkeelAllowance : underkeelAllowance Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>waterLevelTrend : waterLevelTrend Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>geometry : GM_OrientableSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

UnderkeelClearanceManagementArea

Class «FeatureType» in package 'S-127 Domain Model'

An area for which an authority permits use of dynamic underkeel clearance information or provides dynamic information related to underkeel clearances.

UnderkeelClearanceManagementArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Realization from «FeatureType» UnderkeelClearanceManagementArea to «metaclass» DynamicFeature [Direction is 'Source -> Destination'.]</p>
<p>← Generalization from «FeatureType» UnderkeelClearanceManagementArea to «FeatureType» ReportableServiceArea [Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>dynamicResource : dynamicResource Public [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>geometry : GM_OrientableSurface Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

WaterwayArea

Class «FeatureType» in package 'S-127 Domain Model'

An area in which uniform general information of the waterway exists.

WaterwayArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends SupervisedArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Realization from «FeatureType» WaterwayArea to «metaclass» DynamicFeature
[Direction is 'Source -> Destination'.]

← Generalization from «FeatureType» WaterwayArea to «FeatureType» SupervisedArea
[Direction is 'Source -> Destination'.]

ATTRIBUTES

◆ siltationRate : text Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

A description of the rate at which the depth in an area decreases.
[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

◆ status : status Public
Alias: STATUS
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Constraints:
VS : Invariant
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

◆ dynamicResource : dynamicResource Public

Whether dynamic water level information is available.
Remarks: If the value of this attribute is TRUE, the source of dynamic water level information, if known, should be encoded in the textContent attribute.
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

◆ geometry : GM_OrientableSurface Public
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)
[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

VesselTrafficServiceArea

Class «FeatureType» in package 'S-127 Domain Model'

The area of any service implemented by a relevant authority primarily designed to improve safety and efficiency of traffic flow and the protection of the environment. It may range from simple information messages, to extensive organisation of the traffic involving national or regional schemes.

VesselTrafficServiceArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends ReportableServiceArea

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «FeatureType» VesselTrafficServiceArea to «FeatureType» ReportableServiceArea
[Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

INCOMING STRUCTURAL RELATIONSHIPS
<p>⇒ Aggregation from «FeatureType» RadioCallingInPoint to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features. [Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]</p>
<p>⇒ Aggregation from «FeatureType» RadarRange to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]</p>
<p>⇒ Aggregation from «FeatureType» SignalStationTraffic to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is TrafficControlServiceAggregation. Direction is 'Source -> Destination'.]</p>
<p>⇒ Aggregation from «FeatureType» SignalStationWarning to «FeatureType» VesselTrafficServiceArea A feature association for the binding between a traffic control service and auxiliary features [Name is trafficControlServiceAggregation. Direction is 'Unspecified'.]</p>

ATTRIBUTES
<p>categoryOfVesselTrafficService : categoryOfVesselTrafficService Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Constraints: VS : Invariant [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>geometry : GM_OrientableSurface Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>
<p>serviceAccessProcedure : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) A description of the procedure to access the marine service. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>requirementsForMaintenanceOfListeningWatch : text Public Description of continuous listening watch requirements. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

AbstractRXN

Class «InformationType» in package 'S-127 Domain Model'

An abstract superclass for information types that encode rules, recommendations, and general information in text or graphic form.

Remarks: Subtypes of AbstractRxN carry the same attributes, but differ in the nature of information they encode. There are currently four such subtypes: Regulations, Restrictions, Recommendations, and NauticalInformation.

AbstractRXN
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «InformationType» AbstractRXN to «InformationType» InformationType
 [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Generalization from «InformationType» Restrictions to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «InformationType» NauticalInformation to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «InformationType» Regulations to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

⇒ Generalization from «InformationType» Recommendations to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

CONNECTORS

↗ **Dependency** Source -> Destination
 From: DynamicFeature : Metaclass, Public
 To: AbstractRXN : Class, Public

ATTRIBUTES

◆ categoryOfAuthority : categoryOfAuthority Public
 Alias: CATAUT
 Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

◆ textContent : textContent Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]


◆ graphic : graphic Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

◆ rxnCode : rxnCode Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

ASSOCIATIONS

↗ AssociationClass (direction: Source -> Destination) InclusionType
 Source: Public theApplicableRXN (Class) AbstractRXN
 «InformationType»
 Cardinality: [0..*]
 Target: Public isApplicableTo (Class) Applicability
 «InformationType»
 Cardinality: [0..*]

↔ Association (direction: Bi-Directional) relatedOrganisation


ASSOCIATIONS	
Source: Public theOrganisation (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theInformation (Class) AbstractRXN «InformationType» Cardinality: [0..*]
 Association (direction: Source -> Destination) associatedRxN	
Source: Public appliesInLocation (Class) FeatureType «FeatureType» Cardinality: [1..*]	Target: Public theRxN (Class) AbstractRXN «InformationType» Cardinality: [0..*]








InformationType

Class «InformationType» in package 'S-127 Domain Model'




Generalized information type which carry all the common attributes


InformationType
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018

OUTGOING STRUCTURAL RELATIONSHIPS
 Realization from «InformationType» InformationType to «metaclass» S100_GF_InformationType [Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS
 Generalization from «InformationType» NonStandardWorkingDay to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» Applicability to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» ShipReport to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» ContactDetails to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» Authority to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» ServiceHours to «InformationType» InformationType [Direction is 'Source -> Destination'.]
 Generalization from «InformationType» AbstractRXN to «InformationType» InformationType [Direction is 'Source -> Destination'.]

ATTRIBUTES
 fixedDateRange : fixedDateRange Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

ATTRIBUTES	
	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
 periodicDateRange : periodicDateRange Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
 featureName : featureName Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
 sourceIndication : sourceIndication Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]


ASSOCIATIONS	
 Association (direction: Unspecified) additionalInformation	
Source: Public informationProvidedFor (Class) InformationType «InformationType» Cardinality: [1..*]	Target: Public providesInformation (Class) NauticalInformation «InformationType» Cardinality: [0..*]


Applicability


Class «InformationType» in package 'S-127 Domain Model'

Describes the relationship between vessel characteristics and: (i) the applicability of an associated information object or feature to the vessel; or, (ii) the use of a facility, place, or service by the vessel; or, (iii) passage of the vessel through an area.




Applicability
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
Alias APPLIC
Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS	
 Generalization from «InformationType» Applicability to «InformationType» InformationType	[Direction is 'Source -> Destination'.]

CONNECTORS	
 Dependency Source -> Destination	
From: DynamicFeature : Metaclass, Public	
To: Applicability : Class, Public	

ATTRIBUTES	
 inBallast : Boolean Public Alias: BALAST Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	
Whether the vessel is in ballast.	

ATTRIBUTES	
	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>categoryOfCargo : categoryOfCargo Public Alias: CATCGO Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
<p>categoryOfDangerousOrHazardousCargo : categoryOfDangerousOrHazardousCargo Public Alias: CATDHC Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
<p>categoryOfVessel : categoryOfVessel Public Alias: CATVSL Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
<p>categoryOfVesselRegistry : categoryOfVesselRegistry Public Alias: CATRGY Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
<p>logicalConnectives : logicalConnectives Public Alias: LOGCON Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
<p>thicknessOfIceCapability : Integer Public Alias: ICECAP Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The thickness of ice that the ship can safely transit Unit: centimetres Resolution: 1 Format: xxx Example: 080 for ice which has a thickness of 80 cm</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>information : information Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
<p>vesselPerformance : text Public Alias: PRFMNC Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A description of the required handling characteristics of a vessel including hull design, main and auxilliary machinery, cargo handling equipment, navigation equipment and manoeuvring behaviour.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>vesselsMeasurements : vesselsMeasurements Public Alias: VSLMSM Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
ASSOCIATIONS	


ASSOCIATIONS	
 Association (direction: Source -> Destination) reportReqmt Source: Public theShipReport (Class) ShipReport «InformationType» Cardinality: [0..*]	Target: Public mustBeFiledBy (Class) Applicability «InformationType» Cardinality: [0..*]
 AssociationClass (direction: Source -> Destination) PermissionType Source: Public vsLocation (Class) FeatureType «FeatureType» Cardinality: [0..*]	Target: Public permission (Class) Applicability «InformationType» Cardinality: [0..*]
 AssociationClass (direction: Source -> Destination) InclusionType Source: Public theApplicableRXN (Class) AbstractRXN «InformationType» Cardinality: [0..*]	Target: Public isApplicableTo (Class) Applicability «InformationType» Cardinality: [0..*]

Authority



Class «InformationType» in package 'S-127 Domain Model'

A person or organisation having political or administrative power and control. (Oxford Dictionary of English)





Authority
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias AUTORI
 Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS
 Generalization from «InformationType» Authority to «InformationType» InformationType [Direction is 'Source -> Destination'.]

CONNECTORS
 Dependency Source -> Destination From: DynamicFeature : Metaclass, Public To: Authority : Class, Public

ATTRIBUTES
 categoryOfAuthority : categoryOfAuthority Public Alias: CATAUT [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 textContent : textContent Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

ASSOCIATIONS
 Association (direction: Bi-Directional) relatedOrganisation


ASSOCIATIONS	
Source: Public theOrganisation (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theInformation (Class) AbstractRXN «InformationType» Cardinality: [0..*]
 Association (direction: Source -> Destination) reptAuthority	
Source: Public reportTo (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theShipReport (Class) ShipReport «InformationType» Cardinality: [0..*]
The organisation or place to which a report is sent.	
 Association (direction: Source -> Destination) authorityContact	
Source: Public theAuthority (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]
A pointer to an Contact Details object	
 Association (direction: Source -> Destination) authorityHours	
Source: Public theAuthority_srvHrs (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..*]
 Association (direction: Source -> Destination) srvControl	
Source: Public controlledService (Class) SupervisedArea «FeatureType» Cardinality: [0..*]	Target: Public controlAuthority (Class) Authority «InformationType» Cardinality: [0..1]

ContactDetails

Class «InformationType» in package 'S-127 Domain Model'




Information on how to reach a person or organisation by postal, internet, telephone, telex and radio systems.



ContactDetails
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias CONDET
 Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS
 Generalization from «InformationType» ContactDetails to «InformationType» InformationType [Direction is 'Source -> Destination'.]

CONNECTORS
 Dependency Source -> Destination From: DynamicFeature : Metaclass, Public To: ContactDetails : Class, Public

ATTRIBUTES	
<p>◆ callName : text Public Alias: CALNAM Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The designated call name of a station, e.g. radio station, radar station, pilot. This is the name used when calling a radio station by radio i.e. "Singapore Pilots".</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ callSign : text Public Alias: CALSGN Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The designated call-sign of a radio station.</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ categoryOfCommPref : categoryOfCommPref Public Alias: CATFRP Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ communicationChannel : text Public Alias: COMCHA Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ contactAddress : contactAddress Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	
<p>◆ frequencyPair : frequencyPair Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	
<p>◆ contactInstructions : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>supplemental instructions on how or when to contact the individual, organisation, or service</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ information : information Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	
<p>◆ language : ISO639-3 Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The language is encoded by a character code following ISO 639-3</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ mMSICode : Integer Public Alias: MMSICO Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The Maritime Mobile Service Identity (MMSI) Code is formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations, and group calls. These identities are formed in such a way that the identity or part thereof can be used by telephone and telex subscribers connected to the general telecommunications network principally to call ships automatically.</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	

ATTRIBUTES
<p> onlineResource : onlineResource Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>Information about online sources from which a resource or data can be obtained (ISO 19115, adapted) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p> telecommunications : telecommunications Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>information for contact by means of a telecommunications service. Distinctions: emailAddress, internetAddress, callName, callSign, COMCHA [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p> radiocommunications : radiocommunications Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>

ASSOCIATIONS		
<p> Association (direction: Source -> Destination) srvContact</p> <p>Contact details for a service or facility</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>Source: Public servicePlace (Class) OrganisationContactArea «FeatureType» Cardinality: [1..*]</p> <p>Pointer to service or facility</p> </td> <td style="width: 50%;"> <p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to a Contact Details object</p> </td> </tr> </table>	<p>Source: Public servicePlace (Class) OrganisationContactArea «FeatureType» Cardinality: [1..*]</p> <p>Pointer to service or facility</p>	<p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to a Contact Details object</p>
<p>Source: Public servicePlace (Class) OrganisationContactArea «FeatureType» Cardinality: [1..*]</p> <p>Pointer to service or facility</p>	<p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to a Contact Details object</p>	
<p> Association (direction: Source -> Destination) authorityContact</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>Source: Public theAuthority (Class) Authority «InformationType» Cardinality: [0..*]</p> </td> <td style="width: 50%;"> <p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to an Contact Details object</p> </td> </tr> </table>	<p>Source: Public theAuthority (Class) Authority «InformationType» Cardinality: [0..*]</p>	<p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to an Contact Details object</p>
<p>Source: Public theAuthority (Class) Authority «InformationType» Cardinality: [0..*]</p>	<p>Target: Public theContactDetails (Class) ContactDetails «InformationType» Cardinality: [0..*]</p> <p>A pointer to an Contact Details object</p>	

NauticalInformation

Class «InformationType» in package 'S-127 Domain Model'

Nautical information about a related area or facility.

Constraint: If **Regulations.textContent** is populated, there cannot be **textualDescription** or **information** attributes directly bound to the **Regulations..** A similar constraint applies to the information types **Recommendations**, **Restrictions**, and **NauticalInformation**.

NauticalInformation
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias NATINF
 Extends AbstractRXN

OUTGOING STRUCTURAL RELATIONSHIPS
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OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «InformationType» NauticalInformation to «InformationType» AbstractRXN [Direction is 'Source -> Destination'.]</p>

CONNECTORS
<p>↗ Dependency Source -> Destination From: DynamicFeature : Metaclass, Public To: NauticalInformation : Class, Public</p>

ASSOCIATIONS
<p>↗ Association (direction: Unspecified) additionalInformation Source: Public informationProvidedFor (Class) FeatureType «FeatureType» Cardinality: [1..*] Target: Public providesInformation (Class) NauticalInformation «InformationType» Cardinality: [0..*]</p>
<p>↗ Association (direction: Unspecified) additionalInformation Source: Public informationProvidedFor (Class) InformationType «InformationType» Cardinality: [1..*] Target: Public providesInformation (Class) NauticalInformation «InformationType» Cardinality: [0..*]</p>

NonStandardWorkingDay



Class «InformationType» in package 'S-127 Domain Model'

Days when many services are not available. Often days of festivity or recreation when normal working hours are limited, esp. a national or religious festival, etc.

NonStandardWorkingDay
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias NSWKDY
 Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Generalization from «InformationType» NonStandardWorkingDay to «InformationType» InformationType [Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>◆ dateFixed : S100_TruncatedDate Public Alias: FIXDAT Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) The date when a festival or national holiday recurs on the same day each year in the Gregorian calendar. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ dateVariable : text Public Alias: VARDAT Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>

ATTRIBUTES		
<p>A day which is not fixed in the Gregorian calendar. Examples: The fourth Thursday in November; new moon day of Kartika (Diwali); Easter Sunday. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>		
<p> information : information Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>		
ASSOCIATIONS		
<p> Association (direction: Source -> Destination) exceptionalWorkday</p> <table border="0"> <tr> <td>Source: Public theServiceHours_nsd (Class) ServiceHours «InformationType» Cardinality: [0..*]</td> <td>Target: Public partialWorkingDay (Class) NonStandardWorkingDay «InformationType» Cardinality: [0..*]</td> </tr> </table>	Source: Public theServiceHours_nsd (Class) ServiceHours «InformationType» Cardinality: [0..*]	Target: Public partialWorkingDay (Class) NonStandardWorkingDay «InformationType» Cardinality: [0..*]
Source: Public theServiceHours_nsd (Class) ServiceHours «InformationType» Cardinality: [0..*]	Target: Public partialWorkingDay (Class) NonStandardWorkingDay «InformationType» Cardinality: [0..*]	


Recommendations

Class «*InformationType*» in package 'S-127 Domain Model'

Recommendations for a related area or facility.

Constraint: If **Regulations.textContent** is populated, there cannot be **textualDescription** or **information** attributes directly bound to the **Regulations**.. A similar constraint applies to the information types **Recommendations**, **Restrictions**, and **NauticalInformation**.

Recommendations
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias RCMDTS
 Extends AbstractRXN

OUTGOING STRUCTURAL RELATIONSHIPS
<p> Generalization from «InformationType» Recommendations to «InformationType» AbstractRXN [Direction is 'Source -> Destination'.]</p>

Regulations

Class «*InformationType*» in package 'S-127 Domain Model'

Regulations for a related area or facility.

Constraint: If **Regulations.textContent** is populated, there cannot be **textualDescription** or **information** attributes directly bound to the **Regulations**.. A similar constraint applies to the information types **Recommendations**, **Restrictions**, and **NauticalInformation**.

Regulations
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias REGLTS
 Extends AbstractRXN

OUTGOING STRUCTURAL RELATIONSHIPS

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «InformationType» Regulations to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

Restrictions

Class «InformationType» in package 'S-127 Domain Model'

Restrictions for a related area or facility.

Constraint: If **Regulations.textContent** is populated, there cannot be **textualDescription** or **information** attributes directly bound to the **Regulations..** A similar constraint applies to the information types **Recommendations**, **Restrictions**, and **NauticalInformation**.

Restrictions
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias RESDES
 Extends AbstractRXN

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «InformationType» Restrictions to «InformationType» AbstractRXN
 [Direction is 'Source -> Destination'.]

ServiceHours

Class «InformationType» in package 'S-127 Domain Model'

The time when a service is available and known exceptions.

ServiceHours
 Version 1.0 Phase 1.0 Proposed
 eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias SRVHRS
 Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS





← Generalization from «InformationType» ServiceHours to «InformationType» InformationType
 [Direction is 'Source -> Destination'.]

ATTRIBUTES

◆ scheduleByDayOfWeek : scheduleByDayOfWeek Public
 Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

◆ information : information Public
 Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)
 [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

ASSOCIATIONS



ASSOCIATIONS	
<p> Association (direction: Source -> Destination) exceptionalWorkday</p> <p>Source: Public theServiceHours_nsd (Class) ServiceHours «InformationType» Cardinality: [0..*]</p> <p>Target: Public partialWorkingDay (Class) NonStandardWorkingDay «InformationType» Cardinality: [0..*]</p>	
<p> Association (direction: Unspecified) locationHours</p> <p>Working hours for a service or facility described by a geographic location Remarks: This association links a geo feature to a Service Hours object. Distinction: authyHours, which links an information type (Authority) to a Service Hours object.</p> <p>Source: Public location_srvHrs (Class) PilotService «FeatureType» Cardinality: [0..*]</p> <p>Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..1]</p> <p>The location for which service hours are given</p> <p>Service hours for an authority or service provider</p>	
<p> Association (direction: Unspecified) locationHours</p> <p>Working hours for a service or facility described by a geographic location Remarks: This association links a geo feature to a Service Hours object. Distinction: authyHours, which links an information type (Authority) to a Service Hours object.</p> <p>Source: Public location_srvHrs (Class) MilitaryPracticeArea «FeatureType» Cardinality: [0..*]</p> <p>Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..1]</p> <p>The location for which service hours are given</p> <p>Service hours for an authority or service provider</p>	
<p> Association (direction: Source -> Destination) authorityHours</p> <p>Source: Public theAuthority_srvHrs (Class) Authority «InformationType» Cardinality: [0..*]</p> <p>Target: Public theServiceHours (Class) ServiceHours «InformationType» Cardinality: [0..*]</p>	




ShipReport




Class «InformationType» in package 'S-127 Domain Model'

This describes how a ship should report to a maritime authority, including when to report, what to report and whether the format conforms to the IMO standard.

ShipReport
Version 1.0 Phase 1.0 Proposed
evind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
Alias SHPREP
Extends InformationType

OUTGOING STRUCTURAL RELATIONSHIPS
<p> Generalization from «InformationType» ShipReport to «InformationType» InformationType [Direction is 'Source -> Destination'.]</p>
ATTRIBUTES
<p> categoryOfShipReport : categoryOfShipReport Public Alias: CATREP</p>

ATTRIBUTES	
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)	
Constraints: VS : Invariant	[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]
 imoFormatForReporting : Boolean Public Alias: IMOREP Whether a report must be in an IMO standard format	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 noticeTime : noticeTime Public Alias: NTCTIM Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
 textContent : textContent Public Alias: TXTCON Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

ASSOCIATIONS	
 Association (direction: Source -> Destination) reportReqmt Source: Public theShipReport (Class) ShipReport «InformationType» Cardinality: [0..*]	Target: Public mustBeFiledBy (Class) Applicability «InformationType» Cardinality: [0..*]
 Association (direction: Source -> Destination) reptAuthority Source: Public reportTo (Class) Authority «InformationType» Cardinality: [0..*]	Target: Public theShipReport (Class) ShipReport «InformationType» Cardinality: [0..*]
 Association (direction: Source -> Destination) trafficServRept Source: Public reptForLocation (Class) ReportableServiceArea «FeatureType» Cardinality: [0..*]	Target: Public reptForTrafficServ (Class) ShipReport «InformationType» Cardinality: [0..*]
The organisation or place to which a report is sent.	

InclusionType


AssociationClass «S100_AssociationClass» in package 'S-127 Domain Model'

Association class specifying the relationship between the subset of vessels described by an APPLIC data object and a regulation (restriction, recommendation, or nautical information).

InclusionType
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias INCTYP

ATTRIBUTES

ATTRIBUTES

 membership : membership Public
Alias: MBRSHP

Indicates whether a vessel is included or excluded from the regulation / restriction / recommendation / nautical information.
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]


PermissionType

AssociationClass «S100_AssociationClass» in package 'S-127 Domain Model'

Association class for associations describing whether the subsets of vessels determined by the ship characteristics specified in APPLIC may (or must, etc.) transit, enter, or use a feature.

PermissionType
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
Alias PERMIS

ATTRIBUTES

 categoryOfRelationship : categoryOfRelationship Public

This attribute expresses the level of insistence for or against an action or activity by a vessel of the subset described by the APPLIC object at one end in relation to the feature at the other end of the association.
[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

Complex attributes

bearingInformation

Class «ComplexAttributeType» in package 'S-127 Domain Model'

A bearing is the direction one object is from another object.
At least one of the sub-attributes must be present.

bearingInformation
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias BRGINF

CONSTRAINTS

 Invariant. count(sectorBearing) = 0 or 2

[Proposed, Weight is 0.]

ATTRIBUTES

 cardinalDirection : cardinalDirection Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 distance : Real Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

ATTRIBUTES
[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ information : information Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>◆ orientation : orientation Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>◆ sectorBearing : Real Public Multiplicity: ([0..2], Allow duplicates: 0, Is ordered: True) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

contactAddress

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Direction or superscription of a letter, package, etc., specifying the name of the place to which it is directed, and optionally a contact person or organisation who should receive it. (Oxford English Dictionary, 2nd Ed., adapted).

contactAddress
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ deliveryPoint : text Public Alias: DELPNT Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) Details of where post can be delivered such as the apartment, name and/or number of a street, building or PO Box. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ cityName : text Public Alias: CITYNM Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) The name of a town or city. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ administrativeDivision : text Public Alias: ADMDIV Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) Administrative division is a generic term for an administrative region within a country at a level below that of the sovereign state. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ countryName : text Public Alias: CONTRY Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) The name of a nation. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

ATTRIBUTES

- postalCode : text Public
Alias: POSCOD
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

Known in various countries as a postcode, or ZIP code, the postal code is a series of letters and/or digits that identifies each postal delivery area.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

featureName

Class «ComplexAttributeType» in package 'S-127 Domain Model'

The complex attribute provides the name of an entity, defines the national language of the name, and provides the option to display the name at various system display settings.

featureName

Version 1.0 Phase 1.0 Proposed

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES

- displayName : Boolean Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

A statement expressing if a feature name is to be displayed in certain display settings or not.
Indication: Boolean. A True value is an indication that the name is intended to be displayed.

Remarks:

Where it is allowable to encode multiple instances of feature name for a single feature instance, only one feature name instance can indicate that the name is to be displayed (**display name** set to *True*).

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

- language : ISO639-3 Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

The language is encoded by a character code following ISO 639-3

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

- name : text Public

The individual name of a feature.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

fixedDateRange

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Describes a single fixed period, as the date range between its sub-attributes.



Remarks: Sub-attributes date end and date start must have the calendar year encoded using 4 digits for the calendar year (CCYY). Month (MM) and day (DD) are optional.

(This definition merges the planned S-100 temporal model with the current S-101 DCEG definition of fixed date range.)

fixedDateRange

Version 1.0 Phase 1.0 Proposed

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018




ATTRIBUTES	
<p>  dateStart : S100_TruncatedDate Public Alias: DATSTA Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) </p> <p>The start date or time of the interval.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>  dateEnd : S100_TruncatedDate Public Alias: DATEND Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) </p> <p>The end date or time of the interval.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

frequencyPair

Class «ComplexAttributeType» in package 'S-127 Domain Model'

A pair of frequencies for transmitting and receiving radio signals. The shore station transmits and receives on the frequencies indicated

frequencyPair
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias FRQPAR

ATTRIBUTES	
<p>  contactInstructions : text Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True) </p> <p>Instructions provided on how to contact a particular person, organisation or service, or any additional information needed.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>  frequencyShoreStationTransmits : Integer Public Alias: FRQTXM Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True) </p> <p>The shore station transmitter frequency expressed in kHz to one decimal place. Units: kHz, Resolution: 0.1, Format: XXXXXX Examples: 4379.1 kHz becomes 043791 13162.8 kHz becomes 131628</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>  frequencyShoreStationReceives : Integer Public Alias: FRQRXV Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True) </p> <p>The shore station receiver frequency expressed in kHz to one decimal place. Units: kHz, Resolution: 0.1, Format: XXXXXX Examples: 4379.1 kHz becomes 043791 13162.8 kHz becomes 131628</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

graphic

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Pictorial information such as a photograph, sketch, or other graphic, optionally accompanied by descriptive information about the graphic and the location relative to its subject from which it was made.

graphic
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias GRAPHC

ATTRIBUTES
<p>◆ pictorialRepresentation : text Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ pictureCaption : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) Short description of the purpose of the image. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ sourceDate : Date Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ pictureInformation : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) A set of information to provide credits to picture creator, copyright owner etc. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ bearingInformation : bearingInformation Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>

information

Class «ComplexAttributeType» in package 'S-127 Domain Model'


Provides textual information that cannot be provided using other allowable attributes for the feature, in a defined language. The information may be provided as a string in sub-attribute **text**, or by encoding the file name of a single external text file that contains the text in sub-attribute **file reference**.

Remarks:

- The sub-attribute **text** should be used, for example, to hold the information that is shown on paper charts by cautionary and explanatory notes. No formatting of text is possible within the sub-attribute **text**. If formatted text is required then an associated text file referenced by the sub-attribute **file reference** must be used.
- The sub-attribute **file reference** is generally used for long text strings or those that require formatting, however there is no restriction on the type of text (except for lexical level) that can be held in files referenced by sub-attribute **file reference**.

information
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

CONSTRAINTS

 Invariant. count(text + fileReference) > 0

[Approved, Weight is 0.]

ATTRIBUTES

 fileLocator : text Public
Alias: FILLOC
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

The string encodes the location of a fragment of text or other information in a support file.

Remarks:

- Application schemas must describe how the associated file is identified. The associated file will commonly be named in a **file reference** co-attribute of the same complex attribute.
- Each DCEG must specify requirements for the format of the associated file and the semantics of **file locator**. For example, the value of **file locator** may be an HTML ID in an HTML file, line number in a text file) or a bookmark in a PDF file.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 fileReference : text Public
Alias: FILREF
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

The string encodes the file name of a single external text file that contains the text.

Remarks:

The attribute **file reference** is generally used for long text strings or those that require formatting, however there is no restriction on the type of text (except for lexical level) that can be held in files referenced by sub-attribute **file reference**.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 headline : text Public
Alias: HEADLN
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

Words set at the head of a passage or page to introduce or categorize

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 language : ISO639-3 Public
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

ISO 639-3 value

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 text : text Public
Alias: INFORM
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

A non-formatted digital text string.

Remarks:

The attribute should be used, for example, to hold the information that is shown on paper charts by short cautionary and explanatory notes. Therefore text populated in text must not exceed 300 characters.

Text may be in English or in a national language defined by the attribute **language**.

No formatting of text is possible within the sub-attribute **text**. If formatted text, or text strings exceeding 300 characters, is required, then the attribute **file reference** must be used.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

noticeTime

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Span of time, prior to the time the service is needed, for preparations to be made to fulfil the requirement.

noticeTime
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 22-Aug-2018
Alias NTCTIM

ATTRIBUTES
<p>◆ noticeTimeHours : Real Public Alias: NTCHRS Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True)</p> <p>Constraints: sequential : Pre-condition</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ noticeTimeText : text Public Alias: NTCTXT Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ operation : operation Public Alias: OPERAT Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p style="text-align: right;">[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>

onlineResource

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Information about online sources from which a resource or data can be obtained (ISO 19115, adapted).

onlineResource
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias ONLRES

ATTRIBUTES
<p>◆ linkage : URL Public Alias: internetAddress, LINKGE</p> <p>location (address) for on-line access using a URL/URI address or similar addressing scheme. (Adapted from ISO 19115:2014.)</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ protocol : text Public Alias: PROTCL Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>connection protocol to be used. Example: ftp, http get KVP, http POST, etc. (ISO 19115)</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ applicationProfile : text Public Alias: APPPRF Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>name of an application profile that can be used with the online resource (ISO 19115)</p>

ATTRIBUTES	
	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ nameOfResource : text Public Alias: NAMRES Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>name of the online resource (ISO 19115, adapted)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ onlineResourceDescription : text Public Alias: DESCRP Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Detailed text description of what the online resource is/does.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ onlineFunction : onlineFunction Public Alias: ONLFUN Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>code for function performed by the online resource (ISO 19115)</p>	[Stereotype is «S100_Codelist». Is static False. Containment is Not Specified.]
<p>◆ protocolRequest : text Public Alias: PROTRQ Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Request used to access the resource. Structure and content depend on the protocol and standard used by the online resource, such as Web Feature Service standard. (ISO 19115, adapted)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

orientation

Class «ComplexAttributeType» in package 'S-127 Domain Model'

The angular distance measured from true north to the major axis of the feature.

orientation
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias ORIENT

ATTRIBUTES	
<p>◆ orientationUncertainty : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ orientationValue : Real Public</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

periodicDateRange

Class «ComplexAttributeType» in package 'S-127 Domain Model'

This complex attribute describes the active period for a seasonal feature or information type.

periodicDateRange
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ dateStart : S100_TruncatedDate Public Alias: DATSTA</p> <p>The start date or time of the interval.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ dateEnd : S100_TruncatedDate Public Alias: DATEND</p> <p>The end date or time of the interval.</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]



radiocommunications

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Detailed radiocommunications description with channels, frequencies, preferences and time schedules

radiocommunications
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ categoryOfCommPref : categoryOfCommPref Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ categoryOfMaritimeBroadcast : categoryOfMaritimeBroadcast Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ categoryOfRadioMethods : categoryOfRadioMethods Public Alias: CATRMT Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ communicationChannel : text Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ contactInstructions : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>supplemental instructions on how or when to contact the individual, organisation, or service</p>	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ frequencyPair : frequencyPair Public</p>	

ATTRIBUTES
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]
 signalFrequency : Integer Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 timeIntervalsByDayOfWeek : timeIntervalsByDayOfWeek Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]




rxnCode

Class «ComplexAttributeType» in package 'S-127 Domain Model'

A summary of the impact of the most common types of regulation, restriction, recommendation and nautical information on a vessel.

Remark: This attribute converts the subject, topic, and effects of regulations, etc., from plain text or natural language into a set of categories.

rxnCode
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
 categoryOfRxn : categoryOfRxn Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 actionOrActivity : actionOrActivity Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
 headline : text Public Alias: HEADLN Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) Words set at the head of a passage or page to introduce or categorize [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

underkeelAllowance

Class «ComplexAttributeType» in package 'S-127 Domain Model'

A fixed figure, or a figure derived by calculation, which is added to draught in order to maintain the minimum underkeel clearance taking into account the vessel's static and dynamic characteristics, sea state and weather forecast, the reliability of the chart and variance from predicted height of tide or water level.

underkeelAllowance
Version 1.0 Phase 1.0 Proposed
raphaelm created on 02-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ underkeelAllowanceFixed : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A fixed allowance given by an authority, which is added to draught in order to maintain a minimum underkeel clearance. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ underkeelAllowanceVariableBeamBased : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A percentage value, given by an authority, which is applied to ship's beam in order to calculate underkeel allowance. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ underkeelAllowanceVariableDraughtBased : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A percentage value, given by an authority, which is applied to ship's draught in order to calculate underkeel allowance. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ operation : operation Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>OPERAT is intended to be used in conjunction with other attributes (or sub-attributes of a complex attribute) to indicate how their values must be combined in order to describe a condition. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

scheduleByDayOfWeek

Class «ComplexAttributeType» in package 'S-127 Domain Model'

The nature and timings of a daily schedule by days of the week.

scheduleByDayOfWeek
Version 1.0 Phase 1.0 Proposed
raphael.malyankar created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ categoryOfSchedule : categoryOfSchedule Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Describes the type of schedule, e.g., opening, closure, etc. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ timeIntervalsByDayOfWeek : timeIntervalsByDayOfWeek Public Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>

sourceIndication

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Proposed definition: Information about the source document, publication, or reference from which object data or textual material included or referenced in a dataset are derived. (S-57 SORIND, adapted.)

Remarks:

- sourceIndication is intended for encoding meta-information that helps the end-user evaluate the reliability or importance of object data or textual material. Its use should be limited to situations where end users may need to evaluate reliability or importance themselves.
- The content of the featureName sub-attribute, if populated, must be the name of the authority or organization which published or distributed the source document.

sourceIndication
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>categoryOfAuthority : categoryOfAuthority Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p>countryName : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>featureName : featureName Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>reportedDate : S100_TruncatedDate Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>source : text Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The publication, document, or reference work from which information comes or is acquired. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>sourceType : sourceType Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Type of source [Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>

telecommunications

Class «ComplexAttributeType» in package 'S-127 Domain Model'

A means or channel of communicating at a distance by electrical or electromagnetic means such as telegraphy, telephony, or broadcasting.

telecommunications
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias TELCOM

ATTRIBUTES
<p>categoryOfCommPref : categoryOfCommPref Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>

ATTRIBUTES	
	[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]
<p>◆ contactInstructions : text Public Alias: CONINS Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>instructions on how and when to contact an individual or organisation [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ telcomCarrier : text Public Alias: TELCRR Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The name of provider or type of carrier for a telecommunications service [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ telecommunicationIdentifier : text Public Alias: TELEID</p> <p>Identifier used for contact by means of a telecommunications service, such as a telephone number [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ telecommunicationService : telecommunicationService Public Alias: TELSRV Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>Type of telecommunications service [Stereotype is «S100_Codelist». Is static False. Containment is Not Specified.]</p>	
<p>◆ scheduleByDayOfWeek : scheduleByDayOfWeek Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>	

textContent

Class «ComplexAttributeType» in package 'S-127 Domain Model'

Textual material, or a pointer to a resource providing textual material. May be accompanied by basic information about its source and relationship to the source.

Remarks:

- **textContent** is intended to allow text passages from other publications to be included in, or referenced by, instances of feature or information types.
- Exactly one of sub-attributes **onlineResource** or **information** must be completed in one instance of **textContent**.
- Product specifications may restrict the use or content of **onlineResource** for security. For example, a product specification may forbid populating **onlineResource**.
- Product specification authors must consider whether applications using the data product may be prevented from accessing off-system resources by security policies.

textContent


Version 1.0 Phase 1.0 Proposed

raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018

Alias TXTCON


CONSTRAINTS

CONSTRAINTS

 Invariant. count(information + onlineresource) > 0

[Approved, Weight is 0.]


ATTRIBUTES

 categoryOfText : categoryOfText Public

Alias: CATTXT


Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

 information : information Public


Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

 onlineResource : onlineResource Public

Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

 sourceIndication : sourceIndication Public

Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

timeIntervalsByDayOfWeek

Class «ComplexAttributeType» in package 'S-127 Domain Model'


Time intervals by days of the week.

timeIntervalsByDayOfWeek

Version 1.0 Phase 1.0 Proposed

raphael.malyankar created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES

 dayOfWeek : dayOfWeek Public

Alias: DYOFWK

Multiplicity: ([0..7], Allow duplicates: 0, Is ordered: True)

Encodes either range(s) of days or discrete days.

Constraints:

sequential : Pre-condition

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

 dayOfWeekIsRange : boolean Public

Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

Indicates whether the values in dayOfWeek indicate a range of days (true) or discrete days (false).


Mandatory if co-attribute dayOfWeek has cardinality > 1..

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

 timeOfDayStart : Time Public

Alias: TMDYST





Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True)

ATTRIBUTES
<p>Starting time of day, possibly for a period within the day. Distinction: Time start (TIMSTA) (S-101) which has a format YYYYMMDDThhmmss (mandatory) in the baseline S-101 DCEG as of October 2015.</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p> timeOfDayEnd : Time Public Alias: TMDYEN Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: True)</p> <p>Ending time of day, possibly for a period within the day. Distinction: Time end (TIMEND) (S-101) which has a format YYYYMMDDThhmmss (mandatory) in the baseline S-101 DCEG as of October 2015.</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

vesselsMeasurements

Class «ComplexAttributeType» in package 'S-127 Domain Model'

vesselsMeasurements
Version 1.0 Phase 1.0 Proposed
eivind.mong created on 01-Jan-2018. Last modified 20-Aug-2018
Alias VSLMSM

ATTRIBUTES
<p> comparisonOperator : comparisonOperator Public Alias: COMPOP</p> <p>[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> vesselsCharacteristics : vesselsCharacteristics Public Alias: VSLCAR</p> <p>[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>
<p> vesselsCharacteristicsValue : real Public Alias: VSLVAL</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p> vesselsCharacteristicsUnit : vesselsCharacteristicsUnit Public Alias: VSLUNT</p> <p>[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]</p>

Codelists

actionOrActivity

Class «S100_Codelist» in package 'S-127 Domain Model'

The action or activity of a vessel

actionOrActivity
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias ACTION

ATTRIBUTES	
<p>◆ navigating with a pilot : Public = 1</p> <p>Carrying a qualified pilot as part of the vessel navigation team.</p>	[Is static False. Containment is Not Specified.]
<p>◆ entering port : Public = 2</p> <p>navigating a vessel into a port</p>	[Is static False. Containment is Not Specified.]
<p>◆ leaving port : Public = 3</p> <p>Navigating a vessel out of a port.</p>	[Is static False. Containment is Not Specified.]
<p>◆ berthing : Public = 4</p> <p>Attaching a vessel to a wharf or jetty.</p>	[Is static False. Containment is Not Specified.]
<p>◆ slipping : Public = 5</p> <p>Detaching a vessel from a wharf or jetty.</p>	[Is static False. Containment is Not Specified.]
<p>◆ anchoring : Public = 6</p> <p>Attaching a vessel to the seabed by means of an anchor and cable.</p>	[Is static False. Containment is Not Specified.]
<p>◆ weighing anchor : Public = 7</p> <p>Detaching a vessel from the seabed by recovering an anchor and cable.</p>	[Is static False. Containment is Not Specified.]
<p>◆ transiting : Public = 8</p> <p>Navigating a vessel along a route or through a narrow gap, such as under a bridge or through a lock.</p>	[Is static False. Containment is Not Specified.]
<p>◆ overtaking : Public = 9</p> <p>Navigating a vessel past another traveling broadly in the same direction.</p>	[Is static False. Containment is Not Specified.]
<p>◆ reporting : Public = 10</p> <p>Providing details such as the name, location or intentions of a vessel</p>	[Is static False. Containment is Not Specified.]
<p>◆ working cargo : Public = 11</p> <p>Loading or unloading cargo</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ landing : Public = 12</p> <p>Placing crew or passengers on shore.</p>	[Is static False. Containment is Not Specified.]
<p>◆ diving : Public = 13</p> <p>Placing a swimmer with an air supply below the sea surface.</p>	[Is static False. Containment is Not Specified.]
<p>◆ fishing : Public = 14</p> <p>Hunting or catching fish.</p>	[Is static False. Containment is Not Specified.]
<p>◆ discharging overboard : Public = 15</p> <p>Releasing anything into the sea; often ballast water; or spoil from dredging elsewhere.</p>	[Is static False. Containment is Not Specified.]
<p>◆ passing : Public = 16</p> <p>Navigating a vessel past another traveling broadly in the opposite direction.</p>	[Is static False. Containment is Not Specified.]

categoryOfRxN

Class «S100_Codelist» in package 'S-127 Domain Model'

The principal subject matter of regulations, restrictions, recommendations or nautical information

categoryOfRxN
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ navigation : Public = 1</p> <p>Pertaining to navigation</p>	[Is static False. Containment is Not Specified.]
<p>◆ communication : Public = 2</p> <p>Pertaining to communications</p>	[Is static False. Containment is Not Specified.]
<p>◆ environmental protection : Public = 3</p> <p>Pertaining to environmental protection</p>	[Is static False. Containment is Not Specified.]
<p>◆ wildlife protection : Public = 4</p> <p>Pertaining to wildlife protection</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ security : Public = 5</p> <p>Pertaining to security</p>	[Is static False. Containment is Not Specified.]
<p>◆ customs : Public = 6</p> <p>Pertaining to customs</p>	[Is static False. Containment is Not Specified.]
<p>◆ cargo operation : Public = 7</p> <p>Pertaining to cargo operations</p>	[Is static False. Containment is Not Specified.]
<p>◆ refuge : Public = 8</p> <p>Pertaining to a place of safety or refuge</p>	[Is static False. Containment is Not Specified.]
<p>◆ health : Public = 9</p> <p>pertaining to health</p>	[Is static False. Containment is Not Specified.]
<p>◆ natural resources or exploitation : Public = 10</p> <p>Pertaining to natural resources or exploitation</p>	[Is static False. Containment is Not Specified.]
<p>◆ port : Public = 11</p> <p>Pertaining to a port</p>	[Is static False. Containment is Not Specified.]
<p>◆ finance : Public = 12</p> <p>Pertaining to finance</p>	[Is static False. Containment is Not Specified.]
<p>◆ agriculture : Public = 13</p> <p>Pertaining to agriculture</p>	[Is static False. Containment is Not Specified.]

categoryOfSchedule

Class «S100_Codelist» in package 'S-127 Domain Model'

Describes the type of schedule, e.g., opening, closure, etc.

categoryOfSchedule
Version 1.0 Phase 1.0 Proposed

ATTRIBUTES
<p>◆ normal operation : Public = 1</p> <p>The service, office, is open, fully manned, and operating normally, or the area is accessible as usual.</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ closure : Public = 2</p> <p>The service, office, or area is closed.</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ unmanned operation : Public = 3</p> <p>The service is available but not manned.</p> <p>[Is static False. Containment is Not Specified.]</p>

categoryOfVessel

Class «S100_Codelist» in package 'S-127 Domain Model'

Classification of vessels by function or use.

categoryOfVessel
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATVSL

ATTRIBUTES
<p>◆ general cargo vessel : Public = 1</p> <p>a vessel designed to carry general cargo</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ container carrier : Public = 2</p> <p>a vessel designed to carry ISO containers</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ tanker : Public = 3</p> <p>a vessel designed to carry bulk liquid or gas, including LPG and LNG</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ bulk carrier : Public = 4</p> <p>a vessel designed to carry bulk solid material</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ passenger vessel : Public = 5</p> <p>a vessel designed to carry passengers; often a cruise ship</p> <p>[Is static False. Containment is Not Specified.]</p>

ATTRIBUTES	
<p>roll-on roll-off : Public = 6</p> <p>a vessel designed to allow road vehicles to be driven on and off; often a ferry</p>	[Is static False. Containment is Not Specified.]
<p>refrigerated cargo vessel : Public = 7</p> <p>a vessel designed to carry refrigerated cargo</p>	[Is static False. Containment is Not Specified.]
<p>fishing vessel : Public = 8</p> <p>a vessel designed to catch or hunt fish</p>	[Is static False. Containment is Not Specified.]
<p>service : Public = 9</p> <p>a vessel which provides a service such as a tug, anchor handler, survey or supply vessel</p>	[Is static False. Containment is Not Specified.]
<p>warship : Public = 10</p> <p>a vessel designed for the conduct of military operations</p>	[Is static False. Containment is Not Specified.]
<p>towed or pushed composite unit : Public = 11</p> <p>either a tug and tow, or any combination of a tug providing propulsion to barges or vessels secured ahead or alongside</p>	[Is static False. Containment is Not Specified.]
<p>tug and tow : Public = 12</p> <p>a combination of tug(s) and non-powered tow(s)</p>	[Is static False. Containment is Not Specified.]
<p>light recreational : Public = 13</p> <p>A pleasure boat or watercraft, or an excursion vessel used for short cruises such as whale watching</p>	[Is static False. Containment is Not Specified.]
<p>semi-submersible offshore installation : Public = 14</p> <p>An installation which is designed to float at all times and which is normally anchored in position when deployed in the offshore gas and oil industry.</p>	[Is static False. Containment is Not Specified.]
<p>jackup exploration or project installation : Public = 15</p> <p>An exploration or project installation with legs which can be raised and lowered. The legs are raised when the installation is repositioned. When stationary the legs are lowered to the sea floor and the working platform is raised clear of the sea surface</p>	[Is static False. Containment is Not Specified.]
<p>livestock carrier : Public = 16</p> <p>A vessel designed to carry large quantities of live animals.</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>◆ sport fishing : Public = 17</p> <p>A vessel used in fishing for pleasure or competition.</p> <p>[Is static False. Containment is Not Specified.]</p>

onlineFunction

Class «S100_Codelist» in package 'S-127 Domain Model'

code for function performed by the online resource (ISO 19115)

onlineFunction
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias ONLFUN

ATTRIBUTES
<p>◆ download : Public = 1</p> <p>online instructions for transferring data from one storage device or system to another. (ISO 19115:2014)</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ information : Public = 2</p> <p>online information about the resource (ISO 19115:2014)</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ offlineAccess : Public = 3</p> <p>online instructions for requesting the resource from the provider (ISO 19115:2014)</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ order : Public = 4</p> <p>online order process for obtaining the resource (ISO 19115:2014).</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ search : Public = 5</p> <p>online search interface for seeking out information about the resource (ISO 19115:2014).</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ completeMetadata : Public = 6</p> <p>complete metadata provided (ISO 19115:2014).</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ browseGraphic : Public = 7</p> <p>browse graphic provided (ISO 19115:2014).</p> <p>[Is static False. Containment is Not Specified.]</p>

ATTRIBUTES	
<p>upload : Public = 8</p> <p>online resource upload capability provided (ISO 19115:2014).</p>	[Is static False. Containment is Not Specified.]
<p>emailService : Public = 9</p> <p>online email service provided (ISO 19115:2014)</p>	[Is static False. Containment is Not Specified.]
<p>browsing : Public = 10</p> <p>online browsing provided (ISO 19115:2014)</p>	[Is static False. Containment is Not Specified.]
<p>fileAccess : Public = 11</p> <p>online file access provided (ISO 19115:2014).</p>	[Is static False. Containment is Not Specified.]

telecommunicationService

Class «S100_Codelist» in package 'S-127 Domain Model'

Classification of methods of communication over a distance by electrical or electromagnetic means.

telecommunicationService
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias TELSRV

ATTRIBUTES	
<p>voice : Public = 1</p> <p>The transfer or exchange of information by using sounds that are being made by mouth and throat when speaking</p>	[Is static False. Containment is Not Specified.]
<p>facsimile : Public = 2</p> <p>a system of transmitting and reproducing graphic matter (as printing or still pictures) by means of signals sent over telephone lines</p>	[Is static False. Containment is Not Specified.]
<p>sms : Public = 3</p> <p>Short Message Service, a form of text messaging communication on phones and mobile phones</p>	[Is static False. Containment is Not Specified.]
<p>data : Public = 4</p> <p>facts or information used usually to calculate, analyze, or plan something</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>streamedData : Public = 5</p> <p>Data that is constantly received by and presented to an end-user while being delivered by a provider.</p>	[Is static False. Containment is Not Specified.]
<p>telex : Public = 6</p> <p>a system of communication in which messages are sent over long distances by using a telephone system and are printed by using a special machine (called a teletypewriter)</p>	[Is static False. Containment is Not Specified.]
<p>telegraph : Public = 7</p> <p>an apparatus, system, or process for communication at a distance by electric transmission over wire</p>	[Is static False. Containment is Not Specified.]
<p>email : Public = 8</p> <p>Messages and other data exchanged between individuals using computers in a network.</p>	[Is static False. Containment is Not Specified.]

Enumerations

cardinalDirection

Enumeration in package 'S-127 Domain Model'

Principal and intermediate compass points.

cardinalDirection
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CARDIR

ATTRIBUTES	
<p>N : Public = 1</p> <p>North</p>	[Is static False. Containment is Not Specified.]
<p>NNE : Public = 2</p> <p>Northnortheast</p>	[Is static False. Containment is Not Specified.]
<p>NE : Public = 3</p> <p>Northeast</p>	[Is static False. Containment is Not Specified.]
<p>ENE : Public = 4</p> <p>Eastnortheast</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ E : Public = 5</p> <p>East</p>	[Is static False. Containment is Not Specified.]
<p>◆ ESE : Public = 6</p> <p>Eastsoutheast</p>	[Is static False. Containment is Not Specified.]
<p>◆ SE : Public = 7</p> <p>Southeast</p>	[Is static False. Containment is Not Specified.]
<p>◆ SSE : Public = 8</p> <p>Southsoutheast</p>	[Is static False. Containment is Not Specified.]
<p>◆ S : Public = 9</p> <p>South</p>	[Is static False. Containment is Not Specified.]
<p>◆ SSW : Public = 10</p> <p>Southsouthwest</p>	[Is static False. Containment is Not Specified.]
<p>◆ SW : Public = 11</p> <p>Southwest</p>	[Is static False. Containment is Not Specified.]
<p>◆ WSW : Public = 12</p> <p>Westsouthwest</p>	[Is static False. Containment is Not Specified.]
<p>◆ W : Public = 13</p> <p>West</p>	[Is static False. Containment is Not Specified.]
<p>◆ WNW : Public = 14</p> <p>Westnorthwest</p>	[Is static False. Containment is Not Specified.]
<p>◆ NW : Public = 15</p> <p>Northwest</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>◆ NNW : Public = 16</p> <p>Northnorthwest</p> <p>[Is static False. Containment is Not Specified.]</p>

categoryOfAuthority

Enumeration in package 'S-127 Domain Model'

The type of person, government agency or organisation granted powers of managing or controlling access to and/or activity in an area.

categoryOfAuthority
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATAUT

ATTRIBUTES
<p>◆ customs : Public = 1</p> <p>The agency or establishment for collecting duties, tolls. (Merriam-Websters online Dictionary 23rd February 2006, amended).</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ border control : Public = 2</p> <p>The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries (adapted from Merriam-Websters online Dictionary 23rd February 2006).</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ police : Public = 3</p> <p>The department of government, or civil force, charged with maintaining public order. (Adapted from OED)</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ port : Public = 4</p> <p>Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department (NP 100 8th Edition 14 Oct 2004)</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ immigration : Public = 5</p> <p>The authority controlling people entering a country.</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ health : Public = 6</p> <p>The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique.</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ coast guard : Public = 7</p> <p>Organisation keeping watch on shipping and coastal waters according to governmental law; normally the authority with responsibility for search and rescue.</p> <p>[Is static False. Containment is Not Specified.]</p>

ATTRIBUTES	
<p>◆ agricultural : Public = 8</p> <p>The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country.</p>	[Is static False. Containment is Not Specified.]
<p>◆ military : Public = 9</p> <p>A military authority which provides control of access to or approval for transit through designated areas or airspace.</p>	[Is static False. Containment is Not Specified.]
<p>◆ private company : Public = 10</p> <p>A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a calibration area.</p>	[Is static False. Containment is Not Specified.]
<p>◆ maritime police : Public = 11</p> <p>A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinerie, and Guardia Civil.</p>	[Is static False. Containment is Not Specified.]
<p>◆ environmental : Public = 12</p> <p>An authority with responsibility for the protection of the environment.</p>	[Is static False. Containment is Not Specified.]
<p>◆ fishery : Public = 13</p> <p>An authority with responsibility for the control of fisheries.</p>	[Is static False. Containment is Not Specified.]
<p>◆ finance : Public = 14</p> <p>an authority with responsibility for the control and movement of money.</p>	[Is static False. Containment is Not Specified.]
<p>◆ maritime : Public = 15</p> <p>A national or regional authority charged with administration of maritime affairs.</p>	[Is static False. Containment is Not Specified.]

categoryOfCargo

Enumeration in package 'S-127 Domain Model'

Classification of the different types of cargo that a ship may be carrying.

categoryOfCargo
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018
Alias CATCGO

ATTRIBUTES	
<p>◆ bulk : Public = 1</p> <p>Normally dry cargo which is transported to and from the vessel on conveyors or grabs</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ container : Public = 2</p> <p>One of a number of standard sized cargo carrying units, secured using standard corner attachments and bars</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ general : Public = 3</p> <p>Break bulk cargo normally loaded by crane</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ liquid : Public = 4</p> <p>Any cargo loaded by pipeline</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ passenger : Public = 5</p> <p>A fee paying traveller</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ livestock : Public = 6</p> <p>Live animals carried in bulk</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ dangerous or hazardous : Public = 7</p> <p>Dangerous or hazardous cargo as described by the IMO International Maritime Dangerous Goods code</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ heavy lift : Public = 8</p> <p>Indivisible heavy items of weight generally over 100 tons, and width or height greater than 100 meters.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p>◆ ballast : Public = 9</p> <p>Material carried by a ship to ensure its stability.</p> <p>[Is static False. Containment is Not Specified.]</p>	

categoryOfConcentrationOfShippingHazardArea

Enumeration in package 'S-127 Domain Model'

Classification of shipping hazards due to traffic volume or density.

categoryOfConcentrationOfShippingHazardArea

Version 1.0 Phase 1.0 Proposed

raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ concentration of merchant shipping : Public = 1</p> <p>Concentration of vessels whose primary purpose is to engage in commerce, including ferries. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ concentration of recreational vessels : Public = 2</p> <p>Concentration of powered or sailing vessels principally engaged in recreation, leisure, or sporting competition. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ concentration of fishing vessels : Public = 3</p> <p>Concentration of vessels whose primary purpose is to hunt, trap or process fish. The concentration could be on the fishing ground, in transit or in the approaches to home bases or fish markets. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ concentration of military vessels : Public = 4</p> <p>Concentration of vessels principally engaged in military activities. This includes activities based on mandate of international organisations (e.g. UN). The concentration is in areas others than military exercise areas. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfCommPref

Enumeration in package 'S-127 Domain Model'

Classification of frequencies for communication based on preference.

categoryOfCommPref
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATFRP

ATTRIBUTES
<p>◆ preferred calling : Public = 1</p> <p>the first choice channel or frequency to be used when calling a radio station [Is static False. Containment is Not Specified.]</p>
<p>◆ alternate calling : Public = 2</p> <p>a channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference [Is static False. Containment is Not Specified.]</p>
<p>◆ preferred working : Public = 3</p> <p>the first choice channel or frequency to be used when working with a radio station [Is static False. Containment is Not Specified.]</p>
<p>◆ alternate working : Public = 4</p>

ATTRIBUTES
<p>a channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>

categoryOfDangerousOrHazardousCargo

Enumeration in package 'S-127 Domain Model'

Classification of dangerous goods or hazardous materials based on the International Maritime Dangerous Goods Code (IMDG Code).

categoryOfDangerousOrHazardousCargo
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATDHC

ATTRIBUTES
<p>◆ IMDG Code Class 1 Div. 1.1 : Public = 1</p> <p>Explosives, Division 1: substances and articles which have a mass explosion hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 1 Div. 1.2 : Public = 2</p> <p>Explosives, Division 2: substances and articles which have a projection hazard but not a mass explosion hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 1 Div. 1.3 : Public = 3</p> <p>Explosives, Division 3: substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 1 Div. 1.4 : Public = 4</p> <p>Explosives, Division 4: substances and articles which present no significant hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 1 Div. 1.5 : Public = 5</p> <p>Explosives, Division 5: very insensitive substances which have a mass explosion hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 1 Div. 1.6 : Public = 6</p> <p>Explosives, Division 6: extremely insensitive articles which do not have a mass explosion hazard</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 2 Div. 2.1 : Public = 7</p> <p>Gases, flammable gases</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ IMDG Code Class 2 Div. 2.2 : Public = 8</p>

ATTRIBUTES	
Gases, non-flammable, non-toxic gases	[Is static False. Containment is Not Specified.]
 IMDG Code Class 2 Div. 2.3 : Public = 9 Gases, toxic gases	[Is static False. Containment is Not Specified.]
 IMDG Code Class 3 : Public = 10 flammable liquids	[Is static False. Containment is Not Specified.]
 IMDG Code Class 4 Div. 4.1 : Public = 11 flammable solids, self-reactive substances and desensitized explosives	[Is static False. Containment is Not Specified.]
 IMDG Code Class 4 Div. 4.2 : Public = 12 substances liable to spontaneous combustion	[Is static False. Containment is Not Specified.]
 IMDG Code Class 4 Div. 4.3 : Public = 13 substances which, in contact with water, emit flammable gases	[Is static False. Containment is Not Specified.]
 IMDG Code Class 5 Div. 5.1 : Public = 14 oxidizing substances	[Is static False. Containment is Not Specified.]
 IMDG Code Class 5 Div. 5.2 : Public = 15 organic peroxides	[Is static False. Containment is Not Specified.]
 IMDG Code Class 6 Div. 6.1 : Public = 16 toxic substances	[Is static False. Containment is Not Specified.]
 IMDG Code Class 6. Div. 6.2 : Public = 17 infectious substances	[Is static False. Containment is Not Specified.]
 IMDG Code Class 7 : Public = 18 Radioactive material	[Is static False. Containment is Not Specified.]
 IMDG Code Class 8 : Public = 19 Corrosive substances	

ATTRIBUTES	
	[Is static False. Containment is Not Specified.]
<p>◆ IMDG Code Class 9 : Public = 20</p> <p>Miscellaneous dangerous substances and articles</p>	[Is static False. Containment is Not Specified.]
<p>◆ Harmful Substances in packaged form : Public = 21</p> <p>Harmful substances are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code). Packaged form is defined as the forms of containment specified for harmful substances in the IMDG Code. (MARPOL (73/78) Annex III)</p>	[Is static False. Containment is Not Specified.]

categoryOfMaritimeBroadcast



Enumeration in package 'S-127 Domain Model'

Classification of maritime broadcast based on the nature of information conveyed.

categoryOfMaritimeBroadcast
Version 1.0 Phase 1.0 Proposed
raphaelm created on 28-May-2018. Last modified 20-Aug-2018
Alias CATMAB

ATTRIBUTES	
<p>◆ navigational warning : Public = 1</p> <p>message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended</p>	[Is static False. Containment is Not Specified.]
<p>◆ meteorological warning : Public = 2</p> <p>warning of adverse weather conditions</p>	[Is static False. Containment is Not Specified.]
<p>◆ ice report : Public = 3</p> <p>report of the ice situation and restrictions to shipping</p>	[Is static False. Containment is Not Specified.]
<p>◆ SAR information : Public = 4</p> <p>broadcast message with information about an ongoing SAR operation</p>	[Is static False. Containment is Not Specified.]
<p>◆ pirate attack warning : Public = 5</p> <p>warning of possible attack by pirates</p>	[Is static False. Containment is Not Specified.]
<p>◆ meteorological forecast : Public = 6</p> <p>broadcast message containing meteorological forecast</p>	

ATTRIBUTES	
	[Is static False. Containment is Not Specified.]
<p>◆ pilot service message : Public = 7</p> <p>broadcast message about pilot service</p>	[Is static False. Containment is Not Specified.]
<p>◆ AIS information : Public = 8</p> <p>broadcast message about AIS information</p>	[Is static False. Containment is Not Specified.]
<p>◆ LORAN message : Public = 9</p> <p>broadcast message about the LORAN service</p>	[Is static False. Containment is Not Specified.]
<p>◆ SATNAV message : Public = 10</p> <p>broadcast message about Satellite Navigation service</p>	[Is static False. Containment is Not Specified.]
<p>◆ gale warning : Public = 11</p> <p>warning of winds of Beaufort force 8 or 9</p>	[Is static False. Containment is Not Specified.]
<p>◆ storm warning : Public = 12</p> <p>warning of winds of Beaufort force 10 or over</p>	[Is static False. Containment is Not Specified.]
<p>◆ tropical revolving storm warning : Public = 13</p> <p>warning of hurricanes in the North Atlantic and eastern North Pacific, typhoons in the Western Pacific, cyclones in the Indian Ocean and cyclones of similar nature in other regions</p>	[Is static False. Containment is Not Specified.]
<p>◆ NAVAREA warning : Public = 14</p> <p>navigational warning or in-force bulletin promulgated as part of a numbered series by a NAVAREA coordinator (Maritime Safety Information Manual 2009)</p>	[Is static False. Containment is Not Specified.]
<p>◆ coastal warning : Public = 15</p> <p>navigational warning promulgated as part of a numbered series by a National coordinator (Maritime Safety Information Manual 2009)</p>	[Is static False. Containment is Not Specified.]
<p>◆ local warning : Public = 16</p> <p>warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority (Maritime Safety Information Manual 2009)</p>	[Is static False. Containment is Not Specified.]
<p>◆ low water level warning/negative tidal surge : Public = 17</p>	






ATTRIBUTES	
warning of actual or expected low water level	[Is static False. Containment is Not Specified.]
 icing warning : Public = 18 warning of accretion of ice on ships	[Is static False. Containment is Not Specified.]
 tsunami broadcast : Public = 19 broadcasts about tsunamis, including watches, advisories, and other types of messages relating to tsunamis or potential tsunamis	[Is static False. Containment is Not Specified.]

categoryOfMilitaryPracticeArea

Enumeration in package 'S-127 Domain Model'

Classification of area by military use.

categoryOfMilitaryPracticeArea
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 02-Jan-2018. Last modified 20-Aug-2018
 Alias CATMPA

ATTRIBUTES	
 torpedo exercise area : Public = 2 An area within which exercises are carried out with torpedoes.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 submarine exercise area : Public = 3 An area within which submarine exercises are carried out.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 firing danger area : Public = 4 Areas for bombing and missile exercises.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 mine-laying practice area : Public = 5 An area within which mine-laying exercises are carried out.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 small arms firing range : Public = 6 An area for shooting pistols, rifles and machine guns, etc. at a target.	[Stereotype is «enum». Is static False. Containment is Not Specified.]

categoryOfNavigationLine

Enumeration in package 'S-127 Domain Model'

Classification of route guidance given to vessels

categoryOfNavigationLine
Version 1.0 Phase 1.0 Proposed
raphaelm created on 09-Jan-2018. Last modified 20-Aug-2018
Alias CATNAV

ATTRIBUTES
<p>◆ clearing line : Public = 1</p> <p>A straight line that marks the boundary between a safe and a dangerous area or that passes clear of a navigational danger. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ transit line : Public = 2</p> <p>A line passing through one or more fixed marks. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ leading line bearing a recommended track : Public = 3</p> <p>A line passing through one or more clearly defined features, along the path of which a vessel can approach safely up to a certain distance off. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfPilot

Enumeration in package 'S-127 Domain Model'

Classification of pilots and pilot services by type of waterway where piloting services are provided.

categoryOfPilot
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Alias CATPLT

ATTRIBUTES
<p>◆ pilot : Public = 1</p> <p>Pilot licenced to conduct vessels during approach from sea to a specified place which may be a handover place, an anchorage or alongside. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ deep sea : Public = 2</p> <p>Pilot licenced to conduct vessels over extensive sea areas. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ harbour : Public = 3</p> <p>Pilot who is licenced to conduct vessels from a specified place, such as a handover area or anchorage into a harbour. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

ATTRIBUTES
<p>◆ bar : Public = 4</p> <p>Pilot licensed to conduct vessels over a bar to or from a handover with a river pilot (for example as used in USA). [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ river : Public = 5</p> <p>Pilot licensed to conduct vessels from and to specified places, along the course of a river (for example as used in Rio Amazonas and Rio de La Plata). [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ channel : Public = 6</p> <p>Pilot licensed to conduct vessels from and to specified places, along the course of a channel. (for example as used in Rio Amazonas and Rio de La Plata). [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ lake : Public = 7</p> <p>Pilot licensed to conduct vessels from and to specified places on a great lake. (for example as used in the Lago de Maracaibo in Venezuela). [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfPilotBoardingPlace

Enumeration in package 'S-127 Domain Model'

Classification of pilot boarding place by method used to board pilots.

categoryOfPilotBoardingPlace
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Alias CATPIL

ATTRIBUTES
<p>◆ boarding by pilot-cruising vessel : Public = 1</p> <p>Pilot boards from a cruising vessel. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ boarding by helicopter : Public = 2</p> <p>Pilot boards by helicopter which comes out from the shore. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ pilot comes out from shore : Public = 3</p> <p>Pilot boards from a vessel which comes out from the shore on request. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfPreference

Enumeration in package 'S-127 Domain Model'

The selection of a first choice compared to other options.

Remark: Renamed preferenceOfPilotBoardingPlace according to February 2018 discussion on NIPWG Wiki.

categoryOfPreference
Version 1.0 Phase 1.0 Proposed
raphaelm created on 09-Feb-2018. Last modified 20-Aug-2018
Alias PRFPIL

ATTRIBUTES
<p>◆ primary : Public = 1</p> <p>The preferred first choice used in normal conditions.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ alternate : Public = 2</p> <p>The preferred choice in extraordinary conditions. Remark: Tentative.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfRadioMethods

Enumeration in package 'S-127 Domain Model'

Categories of radiocommunications based on frequency band and radio traffic method.

categoryOfRadioMethods
Version 1.0 Phase 1.0 Proposed
raphaelm created on 28-May-2018. Last modified 20-Aug-2018
Alias CATRMT

ATTRIBUTES
<p>◆ Low Frequency (LF) voice traffic : Public = 1</p> <p>Frequency in a frequency range between 30 and 300 kHz used for voice traffic</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ Medium Frequency (MF) voice traffic : Public = 2</p> <p>Frequency in a frequency range between 300 and 3 000kHz used for voice traffic</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ High Frequency (HF) voice traffic : Public = 3</p> <p>Frequency in a frequency range between 3 and 30 MHz used for voice traffic</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ Very High Frequency (VHF) voice traffic : Public = 4</p> <p>Frequency in a frequency range between 30 and 300 MHz used for voice traffic</p> <p>[Is static False. Containment is Not Specified.]</p>
<p>◆ High Frequency Narrow Band Direct Printing : Public = 5</p>

ATTRIBUTES	
High Frequency Narrow Band Direct Printing	[Is static False. Containment is Not Specified.]
<p>NAVTEX : Public = 6</p> <p>Narrow-band direct-printing telegraphy system for transmission of maritime safety information.</p>	[Is static False. Containment is Not Specified.]
<p>SafetyNET : Public = 7</p> <p>SafetyNET is an international automatic direct-printing satellite-based service for the promulgation of navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages - maritime safety information (MSI) - to ships.</p>	[Is static False. Containment is Not Specified.]
<p>NBDP Telegraphy : Public = 8</p> <p>Narrow Band Direct Printing Telegraphy. A communications system consisting of teletypewriters connected to a telephonic network to send and receive wireless signals.</p>	[Is static False. Containment is Not Specified.]
<p>facsimile : Public = 9</p> <p>A method or device for transmitting documents, drawings, photographs, or the like, by means of radio or telephone for exact reproduction elsewhere.</p>	[Is static False. Containment is Not Specified.]
<p>NAVIP : Public = 10</p> <p>A Russian system transmitting navigational information, send by radio and containing information relevant to coastal waters of foreign countries and high seas.</p>	[Is static False. Containment is Not Specified.]
<p>Low Frequency (LF) digital traffic : Public = 11</p> <p>Frequency in a frequency range between 30 and 300 kHz used for digital traffic</p>	[Is static False. Containment is Not Specified.]
<p>Medium Frequency (MF) digital traffic : Public = 12</p> <p>Frequency in a frequency range between 300 and 3000kHz used for digital traffic</p>	[Is static False. Containment is Not Specified.]
<p>High Frequency (HF) digital traffic : Public = 13</p> <p>Frequency in a frequency range between 3 and 30 MHz used for digital traffic</p>	[Is static False. Containment is Not Specified.]
<p>Very High Frequency (VHF) digital traffic : Public = 14</p> <p>Frequency in a frequency range between 30 and 300 MHz used for digital traffic</p>	[Is static False. Containment is Not Specified.]
<p>Low Frequency (LF) telegraph traffic : Public = 15</p> <p>Frequency in a frequency range between 30 and 300 kHz used for telegraph traffic</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>◆ Medium Frequency (MF) telegraph traffic : Public = 16</p> <p>Frequency in a frequency range between 300 and 3 000kHz used for telegraph traffic [Is static False. Containment is Not Specified.]</p>
<p>◆ High Frequency (HF) telegraph traffic : Public = 17</p> <p>Frequency in a frequency range between 3 and 30 MHz used for telegraph traffic [Is static False. Containment is Not Specified.]</p>
<p>◆ Medium Frequency (MF) Digital Selective Call traffic : Public = 18</p> <p>Frequency in a frequency range between 300 and 3000kHz used for Digital Selective Call traffic [Is static False. Containment is Not Specified.]</p>
<p>◆ High Frequency (HF) Digital Selective Call traffic : Public = 19</p> <p>Frequency in a frequency range between 3 and 30 MHz used for Digital Selective Call traffic [Is static False. Containment is Not Specified.]</p>
<p>◆ Very High Frequency (VHF) Digital Selective Call traffic : Public = 20</p> <p>Frequency in a frequency range between 30 and 300 MHz used for Digital Selective Call traffic [Is static False. Containment is Not Specified.]</p>

categoryOfRelationship

Enumeration in package 'S-127 Domain Model'

Expresses constraints or requirements on vessel actions or activities in relation to a geographic feature, facility, or service.

categoryOfRelationship
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATREL

ATTRIBUTES
<p>◆ prohibited : Public = 1</p> <p>use of facility, waterway or service is forbidden [Is static False. Containment is Not Specified.]</p>
<p>◆ not recommended : Public = 2</p> <p>use of facility, waterway or service is not recommended [Is static False. Containment is Not Specified.]</p>
<p>◆ permitted : Public = 3</p> <p>use of facility, waterway, or service is permitted but not required [Is static False. Containment is Not Specified.]</p>

ATTRIBUTES	
<p>recommended : Public = 4</p> <p>use of facility, waterway, or service is recommended</p>	[Is static False. Containment is Not Specified.]
<p>required : Public = 5</p> <p>use of facility, waterway, or service is required</p>	[Is static False. Containment is Not Specified.]
<p>not required : Public = 6</p> <p>use of facility, waterway or service is not required</p>	[Is static False. Containment is Not Specified.]

categoryOfRestrictedArea

Enumeration in package 'S-127 Domain Model'

The official legal status of each kind of restricted area defines the kind of restriction(s), e.g., the restriction for a 'game preserve' may be 'entering prohibited', the restriction for an 'anchoring prohibition area' is 'anchoring prohibited'.

categoryOfRestrictedArea
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATREA

ATTRIBUTES	
<p>nature reserve : Public = 4</p> <p>A tract of land or water managed so as to preserve it's flora, fauna, physical features, etc.</p>	[Is static False. Containment is Not Specified.]
<p>bird sanctuary : Public = 5</p> <p>A place where birds are bred and protected.</p>	[Is static False. Containment is Not Specified.]
<p>game reserve : Public = 6</p> <p>A place where wild animals or birds hunted for sport or food are kept undisturbed for private use.</p>	[Is static False. Containment is Not Specified.]
<p>seal sanctuary : Public = 7</p> <p>A place where seals are protected.</p>	[Is static False. Containment is Not Specified.]
<p>historic wreck area : Public = 10</p> <p>An area around certain wrecks of historical importance to protect the wrecks from unauthorized interference by diving, salvage or deposition (including anchoring).</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ research area : Public = 20</p> <p>an area where marine research takes place.</p>	[Is static False. Containment is Not Specified.]
<p>◆ fish sanctuary : Public = 22</p> <p>A place where fish are protected.</p>	[Is static False. Containment is Not Specified.]
<p>◆ ecological reserve : Public = 23</p> <p>A tract of land or water managed so as to preserve the relation of plants and living creatures to each other and to their surroundings.</p>	[Is static False. Containment is Not Specified.]
<p>◆ environmentally sensitive sea area : Public = 27</p> <p>A generic term which may be used to describe a wide range of areas, considered sensitive for a variety of environmental reasons.</p>	[Is static False. Containment is Not Specified.]
<p>◆ particularly sensitive sea area : Public = 28</p> <p>An area that needs special protection through action by IMO because of its significance for regional ecological, socio-economic or scientific reasons and because it may be vulnerable to damage by international shipping activities.</p>	[Is static False. Containment is Not Specified.]
<p>◆ coral sanctuary : Public = 31</p> <p>A place where coral is protected. (TSMAD 29)</p>	[Is static False. Containment is Not Specified.]
<p>◆ recreation area : Public = 32</p> <p>An area within which recreational activities regularly take place and therefore vessel movement may be restricted. (Adapted from S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.76, November 2000).</p>	[Is static False. Containment is Not Specified.]
<p>◆ military area : Public = 9</p> <p>An area controlled by the military in which restrictions may apply.</p>	[Is static False. Containment is Not Specified.]
<p>◆ navigational aid safety zone : Public = 12</p> <p>An area around a navigational aid which vessels are prohibited from entering.</p>	[Is static False. Containment is Not Specified.]
<p>◆ minefield : Public = 14</p> <p>An area laid and maintained with explosive mines for defence or practice purposes.</p>	[Is static False. Containment is Not Specified.]
<p>◆ waiting area : Public = 19</p> <p>An area reserved for vessels waiting to enter a harbour.</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ swinging area : Public = 25</p> <p>An area where vessels turn.</p>	[Is static False. Containment is Not Specified.]
<p>◆ disengagement area : Public = 29</p> <p>An area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when the nautical conditions impose it.</p>	[Is static False. Containment is Not Specified.]
<p>◆ port security area : Public = 30</p>	[Is static False. Containment is Not Specified.]
<p>◆ offshore safety zone : Public = 1</p> <p>The area around an offshore installation within which vessels are prohibited from entering without permission. Special regulations protect installations within a safety zone and vessels of all nationalities are required to respect the zone.</p>	[Is static False. Containment is Not Specified.]
<p>◆ degaussing range : Public = 8</p> <p>an area, usually about two cables diameter, within which ships' magnetic fields may be measured sensing instruments and cables are installed on the sea bed in the range and there are cables leading from the range to a control position ashore.</p>	[Is static False. Containment is Not Specified.]

categoryOfRouteingMeasure

Enumeration in package 'S-127 Domain Model'

Classification of routeing measures by type.

categoryOfRouteingMeasure
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ archipelagic sea lane : Public = 1</p> <p>Sea lanes designated by an archipelagic State for the passage of ships and aircraft.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ deep water route : Public = 2</p> <p>A route within defined limits which has been accurately surveyed for clearance of sea bottom and submerged obstacles as indicated on the chart.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ fairway system : Public = 3</p> <p>That part of a river, harbour and so on, where the main navigable channel for vessels of larger size lies. It is also the usual course followed by vessels entering or leaving harbours, called "ship channel".</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>◆ recommended route : Public = 4</p> <p>A navigation line, range system, or a recommended track, lane, or route. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ traffic separation scheme : Public = 5 Alias: trafficSeparationScheme</p> <p>A scheme which aims to reduce the risk of collision in congested and/or converging areas by separating traffic moving in opposite, or nearly opposite, directions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ two-way route : Public = 6</p> <p>A route within defined limits inside which two way traffic is established, aimed at providing safe passage of ships through waters where navigation is difficult or dangerous. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfShipReport

Enumeration in package 'S-127 Domain Model'

Classification of ship reports based on IMO standard report formats.

Remarks: Through Resolution A.851(20), the IMO encourages authorities to require standard formats and procedures for ship reporting specified at ID 1 to 7 above but recognises that some authorities require amended formats and these cases are covered by ID 8 "any other report".

(Appendix to IMO Resolution A.851(20) GENERAL PRINCIPLES FOR SHIP REPORTING SYSTEMS AND SHIP REPORTING REQUIREMENTS, INCLUDING GUIDELINES FOR REPORTING INCIDENTS INVOLVING DANGEROUS GOODS, HARMFUL SUBSTANCES AND/OR MARINE POLLUTANTS.)

categoryOfShipReport
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATREP

ATTRIBUTES
<p>◆ sailing plan : Public = 1</p> <p>before or as near as possible to the time of departure from a port within a system or when entering the area covered by a system [for instance A, B, J, X etc] [Is static False. Containment is Not Specified.]</p>
<p>◆ position report : Public = 2</p> <p>when necessary to ensure effective operation of the system [Is static False. Containment is Not Specified.]</p>
<p>◆ deviation report : Public = 3</p> <p>when the ship's position varies significantly from the position that would have been predicted from previous reports, when changing the reported route, or as decided by the master [Is static False. Containment is Not Specified.]</p>
<p>◆ final report : Public = 4</p>

ATTRIBUTES	
on arrival at the destination or on leaving the area covered by the system	[Is static False. Containment is Not Specified.]
<p>♦ dangerous goods report : Public = 5</p> <p>when an incident takes place involving the loss or likely loss overboard of packaged dangerous goods, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges, into the sea</p>	[Is static False. Containment is Not Specified.]
<p>♦ harmful substances report : Public = 6</p> <p>when an incident takes place involving the discharge or probable discharge of oil (Annex I of MARPOL 73/78) or noxious liquid substances in bulk (Annex II of MARPOL 73/78)</p>	[Is static False. Containment is Not Specified.]
<p>♦ marine pollutants report : Public = 7</p> <p>in the case of the loss or likely loss overboard of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges identified in the International Maritime Goods Code as marine pollutants (Annex III of MARPOL 73/78).</p>	[Is static False. Containment is Not Specified.]
<p>♦ any other report : Public = 8</p> <p>any other report should be made in accordance with the system procedures as notified in accordance with paragraph 9 of the general principles</p>	[Is static False. Containment is Not Specified.]

categoryOfSignalStationTraffic

Enumeration in package 'S-127 Domain Model'

Classification of station based on the traffic service provided

categoryOfSignalStationTraffic
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Alias CATSIT

ATTRIBUTES	
<p>♦ port control : Public = 1</p> <p>A signal station for the control of vessels within a port.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>♦ port entry and departure : Public = 2</p> <p>A signal station for the control of vessels entering or leaving a port.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>♦ international port traffic : Public = 3</p> <p>A signal station displaying International Port Traffic signals.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]

ATTRIBUTES
<p>berthing : Public = 4</p> <p>A signal station for the control of vessels when berthing. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>dock : Public = 5</p> <p>A signal station for the control of vessels entering or leaving a dock. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>lock : Public = 6</p> <p>A signal station for the control of vessels entering or leaving a lock. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>flood barrage : Public = 7</p> <p>A signal station for the control of vessels wishing to pass through a flood control barrage. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>bridge passage : Public = 8</p> <p>A signal station for the control of vessels wishing to pass under a bridge. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>dredging : Public = 9</p> <p>A signal station indicating when dredging is in progress. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>traffic control light : Public = 10</p> <p>Visual signal lights placed in a waterway to indicate to shipping the movements authorised at the time at which they are shown. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>oncoming traffic indication : Public = 13</p> <p>indicates the oncoming traffic on an inland waterway. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

categoryOfSignalStationWarning

Enumeration in package 'S-127 Domain Model'

Classification of station based on the warning service provided

categoryOfSignalStationWarning
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Alias CATSIW

ATTRIBUTES

ATTRIBUTES	
<p>♦ danger : Public = 1</p> <p>A signal or message warning of the presence of a danger to navigation. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ maritime obstruction : Public = 2</p> <p>A signal or message warning of the presence of a maritime obstruction. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ cable : Public = 3</p> <p>A signal or message warning of the presence of a cable. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ military practice : Public = 4</p> <p>A signal or message warning of activity in a military practice area. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ distress : Public = 5</p> <p>A station that may receive or transmit distress signals. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ weather : Public = 6</p> <p>A visual signal displayed to indicate a weather forecast. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ storm : Public = 7</p> <p>A signal or message conveying information about storm conditions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ ice : Public = 8</p> <p>A signal or message conveying information about ice conditions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ time : Public = 9</p> <p>An accurate signal marking a specified time or time interval. It is used primarily for determining errors of timepieces. Such signals are usually sent from an observatory by radio or telegraph, but visual signals are used at some ports. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ tide : Public = 10</p> <p>A signal or message conveying information on tidal conditions in the area in question. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>♦ tidal stream : Public = 11</p> <p>A signal or message conveying information on condition of tidal currents in the area in question. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	

ATTRIBUTES	
<p>◆ tide gauge : Public = 12</p> <p>A device for measuring the height of tide. A graduated staff in a sheltered area where visual observations can be made; or it may consist of an elaborate recording instrument making a continuous graphic record of tide height against time. Such an instrument is usually actuated by a float in a pipe communicating with the sea through a small hole which filters out shorter waves.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ tide scale : Public = 13</p> <p>A visual scale which directly shows the height of the water above chart datum or a local datum.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ diving : Public = 14</p> <p>A signal or message warning of diving activity.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ water level gauge : Public = 15</p> <p>A device for measuring and conveying information about the water level (non-tidal) in the area in question.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ vertical clearance indication : Public = 16</p> <p>An indication of the vertical clearance of a bridge, overhead cable, etc.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ high water mark : Public = 17</p> <p>An indication of the official high water level.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p>◆ depth indication : Public = 18</p> <p>An indication of the local depth.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	

categoryOfText

Enumeration in package 'S-127 Domain Model'

Classification of completeness of textual information in relation to the source.

categoryOfText
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATTXT

ATTRIBUTES	
<p>◆ abstract or summary : Public = 1</p> <p>A statement summarizing the important points of a text.</p> <p>[Is static False. Containment is Not Specified.]</p>	

ATTRIBUTES	
<p>◆ extract : Public = 2</p> <p>An excerpt or excerpts from a text.</p>	[Is static False. Containment is Not Specified.]
<p>◆ full text : Public = 3</p> <p>The whole text</p>	[Is static False. Containment is Not Specified.]

categoryOfTrafficSeparationScheme

Enumeration in package 'S-127 Domain Model'

International classification of traffic separation scheme

categoryOfTrafficSeparationScheme
Version 1.0 Phase 1.0 Proposed
raphaelm created on 09-Jan-2018. Last modified 20-Aug-2018
Alias CATTSS

ATTRIBUTES	
<p>◆ IMO - adopted : Public = 1</p> <p>A defined Traffic Separation Scheme that has been adopted as an IMO routeing measure.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ not IMO - adopted : Public = 2</p> <p>A defined Traffic Separation Scheme that has not been adopted as an IMO routeing measure.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]

categoryOfVesselTrafficService

Enumeration in package 'S-127 Domain Model'

Classification of vessel traffic services based on the nature of the control or services provided.

categoryOfVesselTrafficService
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATTRC

ATTRIBUTES	
<p>◆ Information Service : Public = 1</p> <p>A service to ensure that essential information becomes available in time for on-board navigational decision-making (Source: IMO Resolution A.857(20))</p>	[Is static False. Containment is Not Specified.]
<p>◆ Traffic Organisation Service : Public = 2</p> <p>A service to assist on-board navigational decision-making and to monitor its effects (Source: IMO Resolution A.857(20))</p>	

ATTRIBUTES
[Is static False. Containment is Not Specified.]
<p>◆ Navigational Assistance Service : Public = 3</p> <p>A service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area (Source: IMO Resolution A.857(20))</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>

categoryOfVesselRegistry

Enumeration in package 'S-127 Domain Model'

The locality of vessel registration or enrolment relative to the nationality of a port, territorial sea, administrative area, exclusive zone or other location.

categoryOfVesselRegistry
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias CATRGY

ATTRIBUTES
<p>◆ domestic : Public = 1</p> <p>The vessel is registered or enrolled under the same national flag as the port, harbour, territorial sea, exclusive economic zone, or administrative area in which the object that possesses this attribute applies or is located.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ foreign : Public = 2</p> <p>The vessel is registered or enrolled under a national flag different from the port, harbour, territorial sea, exclusive economic zone, or other administrative area in which the object that possesses this attribute applies or is located.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>

comparisonOperator

Enumeration in package 'S-127 Domain Model'

Numerical comparison.

Remarks: The definition of COMPOP provides the relation between the value given in the model and the real ship's value.

comparisonOperator
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias COMPOP

ATTRIBUTES
<p>◆ greater than : Public = 1</p> <p>The value of the left value is greater than that of the right.(http://en.wikipedia.org/wiki/Logical_connective)</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>

ATTRIBUTES
<p>◆ greater than or equal to : Public = 2</p> <p>The value of the left expression is greater than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical_connective) [Is static False. Containment is Not Specified.]</p>
<p>◆ less than : Public = 3</p> <p>The value of the left expression is less than that of the right. (http://en.wikipedia.org/wiki/Logical_connective) [Is static False. Containment is Not Specified.]</p>
<p>◆ less than or equal to : Public = 4</p> <p>The value of the left expression is less than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical_connective) [Is static False. Containment is Not Specified.]</p>
<p>◆ equal to : Public = 5</p> <p>The two values are equivalent. (adapted http://en.wikipedia.org/wiki/Logical_connective) [Is static False. Containment is Not Specified.]</p>
<p>◆ not equal to : Public = 6</p> <p>The two values are not equivalent. (adapted http://en.wikipedia.org/wiki/Logical_connective) [Is static False. Containment is Not Specified.]</p>

condition

Enumeration in package 'S-127 Domain Model'

The various conditions of buildings and other constructions.

condition
Version 1.0 Phase 1.0 Proposed
raphaelm created on 22-Aug-2018. Last modified 22-Aug-2018

ATTRIBUTES
<p>◆ under construction : Public = 1</p> <p>a structure that is in the process of being built. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ under reclamation : Public = 3</p> <p>an area of the sea that is being reclaimed as land, usually by the dumping of earth and other material. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ planned construction : Public = 5</p> <p>an area where a future construction is planned. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

dayOfWeek

Enumeration in package 'S-127 Domain Model'

Days of the week.

dayOfWeek
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 22-Aug-2018
Alias DYOFWK

ATTRIBUTES	
<p>◆ Sunday : Public = 1</p> <p>The first day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Monday : Public = 2</p> <p>The second day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Tuesday : Public = 3</p> <p>The third day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Wednesday : Public = 4</p> <p>The fourth day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Thursday : Public = 5</p> <p>The fifth day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Friday : Public = 6</p> <p>The sixth day of the week.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Saturday : Public = 7</p> <p>saturday the day of the week before Sunday and following Friday (together with Sunday forming part of the weekend)</p>	[Is static False. Containment is Not Specified.]

dynamicResource

Enumeration in package 'S-127 Domain Model'

Whether a vessel must use a shore-based or other resource to obtain up-to-date information.

dynamicResource
Version 1.0 Phase 1.0 Proposed

raphaelm created on 09-Feb-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ static : Public = 1</p> <p>The information is static, or a source of up-to-date information is unavailable or unknown. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ mandatory external dynamic : Public = 2</p> <p>An external source of up-to-date information is available and interaction with it to obtain up-to-date information is required. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ optional external dynamic : Public = 3</p> <p>An external source of up-to-date information is available but interaction with it to obtain up-to-date information is not required. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ onboard dynamic : Public = 4</p> <p>Up-to-date information may be computed using only onboard resources. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

ispsLevel

Enumeration in package 'S-127 Domain Model'

Classification of ISPS security levels according to the ISPS Code.

ispsLevel
Version 1.0 Phase 1.0 Proposed
raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018
Alias ISPSLV

ATTRIBUTES
<p>◆ ISPS Level 1 : Public = 1</p> <p>The level for which minimum appropriate protective security measures shall be maintained at all times. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ ISPS Level 2 : Public = 2</p> <p>The level for which appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a security incident. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ ISPS Level 3 : Public = 3</p> <p>The level for which further specific protective security measures shall be maintained for a limited period of time when a security incident is probable or imminent, although it may not be possible to identify the specific target. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

jurisdiction

Enumeration in package 'S-127 Domain Model'

The jurisdiction applicable to an administrative area.

jurisdiction
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias JRSDTN

ATTRIBUTES	
<p>◆ international : Public = 1</p> <p>involving more than one country; covering more than one national area.</p>	[Is static False. Containment is Not Specified.]
<p>◆ national : Public = 2</p> <p>an area administered or controlled by a single nation.</p>	[Is static False. Containment is Not Specified.]
<p>◆ national sub-division : Public = 3</p> <p>an area smaller than the nation in which it lies.</p>	[Is static False. Containment is Not Specified.]

logicalConnectives

Enumeration in package 'S-127 Domain Model'

Expresses whether all the constraints described by its co-attributes must be satisfied, or only one such constraint need be satisfied.

Remarks:

- This attribute is intended to be used with co-attributes that encode limits on vessel dimensions, type of cargo, and other characteristics.
- The combination of constraints described by logicalConnective and its co-attributes defines a subset of vessels to which information described by a feature or information type instance applies (or does not apply, is required, recommended, etc.).
- The relationship between the vessel subset and the information is indicated by an association - see PermissionType and InclusionType).
- The two listed values of logicalConnective are two of the basic operations of Boolean logic. The third basic operation (not) is not used.

Example:

An Applicability object with attributes as below:

logicalConnectives=1

vesselsMeasurements [vesselsCharacteristics=10/vesselsCharacteristicsValue=50.0/ComparisonOperator=1]

vesselsMeasurements [vesselsCharacteristics=6/vesselsCharacteristicsValue=10.0/ComparisonOperator=1]

implies the limitation applies only when LOA (code 10) is greater than 50.0 and draught (code 6) is greater than 10.0

logicalConnectives
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias LOGCON

ATTRIBUTES

ATTRIBUTES
<p>◆ logical conjunction : Public = 1</p> <p>all the conditions described by the other attributes of the object, or sub-attributes of the same complex attribute, are true [Is static False. Containment is Not Specified.]</p>
<p>◆ logical disjunction : Public = 2</p> <p>at least one of the conditions described by the other attributes of the object, or sub-attributes of the same complex attributes, is true [Is static False. Containment is Not Specified.]</p>

membership

Enumeration in package 'S-127 Domain Model'

Indicates whether a vessel is included or excluded from the regulation / restriction / recommendation / nautical information

membership
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias MBRSHP

ATTRIBUTES
<p>◆ included : Public = 1</p> <p>Vessels with these characteristics are included in the regulation/restriction/recommendation/nautical information. [Is static False. Containment is Not Specified.]</p>
<p>◆ excluded : Public = 2</p> <p>Vessels with these characteristics are excluded from the regulation/restriction/recommendation/nautical information. [Is static False. Containment is Not Specified.]</p>

operation

Enumeration in package 'S-127 Domain Model'

Suggested definition: Indicates whether the minimum or maximum value should be used to describe a condition or in application processing.

Remarks:

- Attribute operation is intended to be used in conjunction with other attributes (or sub-attributes of a complex attribute) to indicate how their values must be combined in order to describe a condition.
- Null attributes are ignored.

Example: Complex attribute underkeelAllowance with UKCFIX=2.5, UKCVAR=10.00, operation=1 indicates that the under-keel allowance required is the greater of 2.5 metres or 10% of the ship's draught.

Remarks: OPERAT is intended to be used in conjunction with other attributes (or sub-attributes of a complex attribute) to indicate how their values must be combined in order to describe a condition. Null attributes are ignored.

Example: Complex attribute underkeelAllowance with UKCFIX=2.5, UKCVAR=10.00, OPERAT=1 indicates that the under-keel allowance required is the greater of 2.5 metres or 10% of the ship's draught.

operation

Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias OPERAT

ATTRIBUTES
<p>◆ largest value : Public = 1</p> <p>The numerically largest value computed from the applicable attributes or sub-attributes [Is static False. Containment is Not Specified.]</p>
<p>◆ smallest value : Public = 2</p> <p>The numerically smallest value computed from the applicable attributes or sub-attributes [Is static False. Containment is Not Specified.]</p>

pilotMovement

Enumeration in package 'S-127 Domain Model'

Classification of pilot activity by arrival, departure, or change of pilot. It may also describe the place where the pilot's advice begins, ends, or is transferred to a different pilot.

pilotMovement
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ embarkation : Public = 1</p> <p>The place where vessels not being navigated according to a pilot's instructions pick up a pilot while in transit from sea to a port or constricted waters for future navigation under pilot instructions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ disembarkation : Public = 2</p> <p>The place where vessels being navigated under a pilot's instructions in transit from sea to a port or constricted waters drop the pilot and proceed without being subject to pilot instructions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ pilot change : Public = 3</p> <p>The place where vessels being navigated under a pilot's instructions drop off the pilot and pick up a different pilot for future navigation under pilot's instructions. [Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

pilotQualification

Enumeration in package 'S-127 Domain Model'

Classification of pilots and pilot services by type of license qualification or type of organization providing services.

pilotQualification
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 08-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ government pilot : Public = 1</p> <p>A pilot service carried out by government pilots.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ pilot approved by government : Public = 2</p> <p>A pilot service carried out by pilots who are approved by government.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ state pilot : Public = 3</p> <p>A pilot that is licensed by the State (USA) and/or their respective pilot association, required for all foreign vessels and all American vessels under registry, bound for a port with compulsory State pilotage. A federal licence is not sufficient to pilot such vessels into the port.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ federal pilot : Public = 4</p> <p>A pilot who carries a Federal endorsement, offering services to vessels that are not required to obtain compulsory State pilotage. Services are usually contracted for in advance.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ company pilot : Public = 5</p> <p>A pilot provided by a commercial company.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ local pilot : Public = 6</p> <p>A pilot with local knowledge but who does not hold a qualification as a pilot.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ citizen with sufficient local knowledge : Public = 7</p> <p>A pilot service carried out by a citizen with sufficient local knowledge.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]
<p>◆ citizen with doubtful local knowledge : Public = 8</p> <p>A pilot service carried out by a citizen whose local knowledge is uncertain.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]

restriction

Enumeration in package 'S-127 Domain Model'








The official legal statute of each kind of restricted area.

restriction
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias RESTRN

ATTRIBUTES	
<p>◆ anchoring prohibited : Public = 1</p> <p>An area within which anchoring is not permitted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ anchoring restricted : Public = 2</p> <p>a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ fishing prohibited : Public = 3</p> <p>An area within which fishing is not permitted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ fishing restricted : Public = 4</p> <p>a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ trawling prohibited : Public = 5</p> <p>An area within which trawling is not permitted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ trawling restricted : Public = 6</p> <p>a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ entry prohibited : Public = 7</p> <p>An area within which navigation and/or anchoring is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ entry restricted : Public = 8</p> <p>a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ dredging prohibited : Public = 9</p> <p>An area within which dredging is not permitted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ dredging restricted : Public = 10</p> <p>a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ diving prohibited : Public = 11</p> <p>An area within which diving is not permitted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ diving restricted : Public = 12</p> <p>a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ no wake : Public = 13</p> <p>Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels.</p>	[Is static False. Containment is Not Specified.]
<p>◆ area to be avoided : Public = 14</p> <p>An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships.</p>	[Is static False. Containment is Not Specified.]
<p>◆ construction prohibited : Public = 15</p> <p>The erection of permanent or temporary fixed structures or artificial islands is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ discharging prohibited : Public = 16</p> <p>An area in which discharging or dumping is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ discharging restricted : Public = 17</p> <p>A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ industrial or mineral exploration/development prohibited : Public = 18</p> <p>An area in which industrial or mineral exploration and development are prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ industrial or mineral exploration/development restricted : Public = 19</p> <p>A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions.</p>	[Is static False. Containment is Not Specified.]
<p>◆ drilling prohibited : Public = 20</p> <p>An area in which excavating a hole on the seabed with a drill is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ drilling restricted : Public = 21</p>	

ATTRIBUTES	
A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions.	[Is static False. Containment is Not Specified.]
<p>◆ removal of historical artifacts prohibited : Public = 22</p> <p>An area in which the removal of historical artifacts is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ cargo transshipment (lightering) prohibited : Public = 23</p> <p>An area in which cargo transshipment (lightering) is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ dragging prohibited : Public = 24</p> <p>An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ stopping prohibited : Public = 25</p> <p>An area in which a vessel is prohibited from stopping.</p>	[Is static False. Containment is Not Specified.]
<p>◆ landing prohibited : Public = 26</p> <p>An area in which landing is prohibited.</p>	[Is static False. Containment is Not Specified.]
<p>◆ speed restricted : Public = 27</p> <p>An area in which speed is restricted.</p>	[Is static False. Containment is Not Specified.]
<p>◆ overtaking prohibited : Public = 28</p> <p>a specified area designated by appropriate authority, within which overtaking is generally prohibited</p>	[Is static False. Containment is Not Specified.]
<p>◆ overtaking of convoys by convoys prohibited : Public = 29</p> <p>a specified area designated by appropriate authority, within which overtaking between convoys prohibited</p>	[Is static False. Containment is Not Specified.]
<p>◆ passing or overtaking prohibited : Public = 30</p> <p>a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited</p>	[Is static False. Containment is Not Specified.]
<p>◆ berthing prohibited : Public = 31</p> <p>a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth.</p>	[Is static False. Containment is Not Specified.]
<p>◆ berthing restricted : Public = 32</p>	

ATTRIBUTES	
<p>a specified area designated by appropriate authority, within which berthing is restricted.</p>	[Is static False. Containment is Not Specified.]
<p> making fast prohibited : Public = 33</p> <p>a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank.</p>	[Is static False. Containment is Not Specified.]
<p> making fast restricted : Public = 34</p> <p>a specified area designated by appropriate authority, within which making fast to the bank is restricted</p>	[Is static False. Containment is Not Specified.]
<p> turning prohibited : Public = 35</p> <p>a specified area designated by appropriate authority, within which all turning is generally prohibited</p>	[Is static False. Containment is Not Specified.]
<p> restricted fairway depth : Public = 36</p> <p>an area within which the fairway depth is restricted.</p>	[Is static False. Containment is Not Specified.]
<p> restricted fairway width : Public = 37</p> <p>an area within which the fairway width is restricted.</p>	[Is static False. Containment is Not Specified.]
<p> use of spuds prohibited : Public = 38</p> <p>The use of anchoring spuds (telescopic piles) is prohibited</p>	[Is static False. Containment is Not Specified.]
<p> swimming prohibited : Public = 39</p> <p>An area in which swimming is prohibited.</p>	[Is static False. Containment is Not Specified.]


sourceType

Enumeration in package 'S-127 Domain Model'

The type of source.

Remark: Definition and listed values 1-2 need to be updated and 3-6 retired, all in the GI registry.

sourceType
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias SORTYP

ATTRIBUTES	
<p> law or regulation : Public = 1</p>	

ATTRIBUTES	
treaty, convention, or international agreement; law or regulation issued by a national or other authority	[Is static False. Containment is Not Specified.]
<p>♦ official publication : Public = 2</p> <p>publication not having the force of law, issued by an international organisation or a national or local administration</p>	[Is static False. Containment is Not Specified.]
<p>♦ mariner report, confirmed : Public = 7</p> <p>Reported by mariner(s) and confirmed by another source</p>	[Is static False. Containment is Not Specified.]
<p>♦ mariner report, not confirmed : Public = 8</p> <p>reported by mariner(s) but not confirmed</p>	[Is static False. Containment is Not Specified.]
<p>♦ industry publications and reports : Public = 9</p> <p>shipping and other industry publication, including graphics, charts and web sites</p>	[Is static False. Containment is Not Specified.]
<p>♦ remotely sensed images : Public = 10</p> <p>information obtained from satellite images</p>	[Is static False. Containment is Not Specified.]
<p>♦ photographs : Public = 11</p> <p>information obtained from photographs</p>	[Is static False. Containment is Not Specified.]
<p>♦ products issued by HO services : Public = 12</p> <p>information obtained from products issued by Hydrographic Offices</p>	[Is static False. Containment is Not Specified.]
<p>♦ news media : Public = 13</p> <p>information obtained from news media</p>	[Is static False. Containment is Not Specified.]
<p>♦ traffic data : Public = 14</p> <p>information obtained from the analysis of traffic data</p>	[Is static False. Containment is Not Specified.]

status

Enumeration in package 'S-127 Domain Model'

The condition of an object at a given instant in time

status

ATTRIBUTES	
<p>◆ permanent : Public = 1</p> <p>Intended to last or function indefinitely</p>	[Is static False. Containment is Not Specified.]
<p>◆ occasional : Public = 2</p> <p>Acting on special occasions; happening irregularly</p>	[Is static False. Containment is Not Specified.]
<p>◆ recommended : Public = 3</p> <p>Presented as worthy of confidence, acceptance, use, etc.</p>	[Is static False. Containment is Not Specified.]
<p>◆ not in use : Public = 4</p> <p>Use has ceased, but the facility still exists intact; disused.</p>	[Is static False. Containment is Not Specified.]
<p>◆ periodic/intermittent : Public = 5</p> <p>Recurring at intervals</p>	[Is static False. Containment is Not Specified.]
<p>◆ reserved : Public = 6</p> <p>Set apart for some specific use</p>	[Is static False. Containment is Not Specified.]
<p>◆ temporary : Public = 7</p> <p>Meant to last only for a time</p>	[Is static False. Containment is Not Specified.]
<p>◆ private : Public = 8</p> <p>Administered by an individual or corporation, rather than a State or a public body.</p>	[Is static False. Containment is Not Specified.]
<p>◆ mandatory : Public = 9</p> <p>Compulsory; enforced.</p>	[Is static False. Containment is Not Specified.]
<p>◆ extinguished : Public = 11</p> <p>No longer lit</p>	[Is static False. Containment is Not Specified.]
<p>◆ illuminated : Public = 12</p>	

ATTRIBUTES	
Lit by floodlights, strip lights, etc.	[Is static False. Containment is Not Specified.]
<p>♦ historic : Public = 13</p> <p>Famous in history; of historical interest</p>	[Is static False. Containment is Not Specified.]
<p>♦ public : Public = 14</p> <p>Belonging to, available to, used or shared by, the community as a whole and not restricted to private use.</p>	[Is static False. Containment is Not Specified.]
<p>♦ synchronised : Public = 15</p> <p>Occur at a time, coincide in point of time, be contemporary or simultaneous</p>	[Is static False. Containment is Not Specified.]
<p>♦ watched : Public = 16</p> <p>Looked at or observed over a period of time especially so as to be aware of any movement or change.</p>	[Is static False. Containment is Not Specified.]
<p>♦ un-watched : Public = 17</p> <p>Usually automatic in operation, without any permanently-stationed personnel to superintend it.</p>	[Is static False. Containment is Not Specified.]
<p>♦ existence doubtful : Public = 18</p> <p>A feature that has been reported but has not been definitely determined to exist.</p>	[Is static False. Containment is Not Specified.]
<p>♦ buoyed : Public = 28</p> <p>Marked by buoys</p>	[Is static False. Containment is Not Specified.]




trafficFlow

Enumeration in package 'S-127 Domain Model'

General direction of traffic.

trafficFlow
Version 1.0 Phase 1.0 Proposed
raphaelm created on 09-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>♦ inbound : Public = 1</p> <p>IHO Definition: Traffic flow in a general direction toward a port or similar destination.</p>	[Stereotype is «enum». Is static False. Containment is Not Specified.]

ATTRIBUTES	
 outbound : Public = 2 Traffic flow in a general direction away from a port or similar point of origin. [Stereotype is «enum». Is static False. Containment is Not Specified.]	
 one-way : Public = 3 Traffic flow in one general direction only. [Stereotype is «enum». Is static False. Containment is Not Specified.]	
 two-way : Public = 4 Traffic flow in two generally opposite directions. [Stereotype is «enum». Is static False. Containment is Not Specified.]	

vesselsCharacteristics

Enumeration in package 'S-127 Domain Model'






Characteristics of vessels.

Remarks:

This is an enumeration of different properties of vessels which are often used in specifying whether they are subject to rules or restrictions.

The properties covered by this attribute are those of the vessel itself, such as dimensional and tonnage properties. The type of vessel and the cargo carried by a vessel are characterized by different attributes (see categoryOfVessel, categoryOfCargo, categoryOfDangerousOrHazardousCargo).

vesselsCharacteristics
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias VSLCAR

ATTRIBUTES	
 length overall : Public = 1 The maximum length of the ship (L.O.A.). (http://en.wikipedia.org/wiki/Ship_measurements ; 24 July 2010) [Is static False. Containment is Not Specified.]	
 length at waterline : Public = 2 The ship's length measured at the waterline (L.W.L.). (http://en.wikipedia.org/wiki/Ship_measurements ; 24 July 2010) [Is static False. Containment is Not Specified.]	
 breadth : Public = 3 The width or beam of the vessel. (Adapted from http://en.wikipedia.org/wiki/Ship_measurements ; 24 July 2010) [Is static False. Containment is Not Specified.]	
 draught : Public = 4 The depth of water necessary to float a vessel fully loaded. (http://en.wikipedia.org/wiki/Ship_measurements ; 24 July 2010) [Is static False. Containment is Not Specified.]	
 height : Public = 5	

ATTRIBUTES	
<p>The height of the highest point of a vessel's structure (e.g. radar aerial, funnel, cranes, masthead) above her waterline. (UKHO NP100/2009)</p>	[Is static False. Containment is Not Specified.]
<p>◆ displacement tonnage : Public = 6</p> <p>A measurement of the weight of the vessel, usually used for warships. (Merchant ships are usually measured based on the volume of cargo space; see tonnage). Displacement is expressed either in long tons of 2,240 pounds or metric tonnes of 1,000 kg. Since the two units are very close in size (2,240 pounds = 1,016 kg and 1,000 kg = 2,205 pounds), it is common not to distinguish between them. To preserve secrecy, nations sometimes misstate a warship's displacement. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ displacement tonnage, light : Public = 7</p> <p>The weight of the ship excluding cargo, fuel, ballast, stores, passengers, and crew, but with water in the boilers to steaming level. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ displacement tonnage, loaded : Public = 8</p> <p>The weight of the ship including cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage, which brings the vessel down to her load draft. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ deadweight tonnage : Public = 9</p> <p>The difference between displacement, light and displacement, loaded. A measure of the ship's total carrying capacity. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ gross tonnage : Public = 10</p> <p>The entire internal cubic capacity of the ship expressed in tons of 100 cubic feet to the ton, except certain spaces which are exempted such as: peak and other tanks for water ballast, open fore-castle bridge and poop, access of hatchways, certain light and air spaces, domes of skylights, condenser, anchor gear, steering gear, wheel house, galley and cabin for passengers. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ net tonnage : Public = 11</p> <p>Obtained from the gross tonnage by deducting crew and navigating spaces and allowances for propulsion machinery. (http://en.wikipedia.org/wiki/Ship_measurements; 24 July 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ Panama Canal/Universal Measurement System net tonnage : Public = 12</p> <p>the Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010)</p>	[Is static False. Containment is Not Specified.]
<p>◆ Suez Canal net tonnage : Public = 13</p> <p>the Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsoom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010)</p>	

ATTRIBUTES	
	[Is static False. Containment is Not Specified.]
<p>◆ Suez Canal gross tonnage : Public = 14</p> <p>Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate.</p>	[Is static False. Containment is Not Specified.]

vesselsCharacteristicsUnit

Enumeration in package 'S-127 Domain Model'

the unit used for vessel characteristics attribute

vesselsCharacteristicsUnit
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias VSLUNT

ATTRIBUTES	
<p>◆ metre : Public = 1</p> <p>The metre (or meter) is the base unit of length in the International System of Units (SI). It is defined as the distance travelled by light in vacuum in 1/299,792,458 of a second.</p>	[Is static False. Containment is Not Specified.]
<p>◆ foot : Public = 2</p> <p>A foot (plural: feet) is a non-SI unit of length in a number of different systems including English units, Imperial units, and United States customary units. The most commonly used foot today is the international foot. There are three feet in a yard and 12 inches in a foot.</p>	[Is static False. Containment is Not Specified.]
<p>◆ metric ton : Public = 3</p> <p>The tonne or metric ton (U.S.), often redundantly referred to as a metric tonne, is a unit of mass equal to 1,000 kg (2,205 lb) or approximately the mass of one cubic metre of water at four degrees Celsius. It is sometimes abbreviated as mt in the United States, but this conflicts with other SI symbols. The tonne is not a unit in the International System of Units (SI), but is accepted for use with the SI. In SI units and prefixes, the tonne is a megagram (Mg). The Imperial and US customary units comparable to the tonne are both spelled ton in English, though they differ in mass. Pronunciation of tonne (the word used in the UK) and ton is usually identical, but is not too confusing unless accuracy is important as the tonne and UK long ton differ by only 1.6%.</p>	[Is static False. Containment is Not Specified.]
<p>◆ ton : Public = 4</p> <p>Long ton (weight ton or imperial ton) is the name for the unit called the "ton" in the avoirdupois or Imperial system of measurements, as used in the United Kingdom and several other Commonwealth countries. It has been mostly replaced by the tonne, and in the United States by the short ton. One long ton is equal to 2,240 pounds (1,016 kg) or 35 cubic feet (0.9911 m3) of salt water with a density of 64 lb/ft³ (1.025 g/ml). It has some limited use in the United States, most commonly in measuring the displacement of ships, and was the unit prescribed for warships by the Washington Naval Treaty—for example battleships were limited to a mass of 35,000 long tons (36,000 t; 39,000 ST).</p>	[Is static False. Containment is Not Specified.]
<p>◆ short ton : Public = 5</p>	

ATTRIBUTES

The short ton is a unit of weight equal to 2,000 pounds (907.18474 kg). In the United States it is often called simply ton without distinguishing it from the metric ton (tonne, 1,000 kilograms) or the long ton (2,240 pounds / 1,016.0469088 kilograms); rather, the other two are specifically noted. There are, however, some U.S. applications for which unspecified tons normally means long tons (for example, Navy ships) or metric tons (world grain production figures).

Both the long and short ton are defined as 20 hundredweights, but a hundredweight is 100 pounds (45.359237 kg) in the U.S. system (short or net hundredweight) and 112 pounds (50.80234544 kg) in the Imperial system (long or gross hundredweight).

[Is static False. Containment is Not Specified.]

◆ gross ton : Public = 6

Gross tonnage (GT) is a function of the volume of all ship's enclosed spaces (from keel to funnel) measured to the outside of the hull framing. There is a sliding scale factor. So GT is a kind of capacity-derived index that is used to rank a ship for purposes of determining manning, safety and other statutory requirements and is expressed simply as GT, which is a unitless entity, even though its derivation is tied to the cubic meter unit of volumetric capacity.

Tonnage measurements are now governed by an IMO Convention (International Convention on Tonnage Measurement of Ships, 1969 (London-Rules)), which applies to all ships built after July 1982. In accordance with the Convention, the correct term to use now is GT, which is a function of the moulded volume of all enclosed spaces of the ship.

[Is static False. Containment is Not Specified.]

◆ net ton : Public = 7

Net tonnage (NT) is based on a calculation of the volume of all cargo spaces of the ship. It indicates a vessel's earning space and is a function of the moulded volume of all cargo spaces of the ship.

[Is static False. Containment is Not Specified.]

◆ Panama Canal/Universal Measurement System net tonnage : Public = 8

The Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity.

[Is static False. Containment is Not Specified.]

◆ Suez Canal Net Tonnage : Public = 9

The Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate.

[Is static False. Containment is Not Specified.]

◆ none : Public = 10

Can be used for net and gross tonnages, including Panama Canal/Universal Measurement System net tonnage and The Suez Canal Net Tonnage.

[Is static False. Containment is Not Specified.]

◆ cubic metres : Public = 11

cubic metres

[Is static False. Containment is Not Specified.]

◆ Suez Canal Gross Tonnage : Public = 12

The Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate.




[Is static False. Containment is Not Specified.]

waterLevelTrend

Enumeration in package 'S-127 Domain Model'

The tendency of water level to change in a particular direction.

waterLevelTrend
Version 1.0 Phase 1.0 Proposed
raphaelm created on 11-Feb-2018. Last modified 20-Aug-2018

ATTRIBUTES	
 decreasing : Public = 1 Becoming smaller in magnitude.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 increasing : Public = 2 Becoming larger in magnitude.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 steady : Public = 3 Constant.	[Stereotype is «enum». Is static False. Containment is Not Specified.]

Meta-Features and Information Types

DataQuality

Class in package 'S-127 Meta Features'

Abstract feature type for data quality meta-features

DataQuality
Version 1.0 Phase 1.0 Mandatory
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Generalization from QualityOfTemporalVariation to DataQuality
[Direction is 'Source -> Destination'.]

ATTRIBUTES

◆ information : information Public
Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)

Use of attribute **information** is discouraged for nautical publications data quality meta-features.
[Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]

◆ geometry : GM_OrientableSurface Public
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)

Permitted spatial primitives
[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]

QualityOfTemporalVariation

Class in package 'S-127 Meta Features'

Abstract type for meta-feature which can describe temporal variation.

QualityOfTemporalVariation
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Extends DataQuality

OUTGOING STRUCTURAL RELATIONSHIPS

⇐ Generalization from QualityOfTemporalVariation to DataQuality
[Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Generalization from «FeatureType» QualityOfNonBathymetricData to QualityOfTemporalVariation
[Direction is 'Source -> Destination'.]

ATTRIBUTES

◆ categoryOfTemporalVariation : categoryOfTemporalVariation Public




ATTRIBUTES
<p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Constraints: VS : Invariant</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

DataCoverage

Class «FeatureType» in package 'S-127 Meta Features'

A geographical area that describes the coverage and extent of spatial objects.

DataCoverage
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias M_COVR


ATTRIBUTES
<p> maximumDisplayScale : Integer Public</p> <p>Constraints: C1 : Invariant VS : Invariant</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p> minimumDisplayScale : Integer Public</p> <p>Constraints: C1 : Invariant VS : Invariant</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p> geometry : GM_OrientableSurface Public</p> <p>Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False)</p> <p>Permitted spatial primitives</p> <p>[Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]</p>

QualityOfNonBathymetricData

Class «FeatureType» in package 'S-127 Meta Features'

An area within which a uniform assessment of the quality of the non-bathymetric data exists.

QualityOfNonBathymetricData
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Alias M_ACCY
 Extends QualityOfTemporalVariation

OUTGOING STRUCTURAL RELATIONSHIPS
<p> Generalization from «FeatureType» QualityOfNonBathymetricData to QualityOfTemporalVariation</p> <p>[Direction is 'Source -> Destination'.]</p>

ATTRIBUTES
<p>◆ horizontalDistanceUncertainty : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The best estimate of the horizontal accuracy of horizontal clearances and distances. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ horizontalPositionUncertainty : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The best estimate of the accuracy of a position. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ directionUncertainty : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The best estimate of the accuracy of a bearing [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ sourceIndication : sourceIndication Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>
<p>◆ surveyDateRange : surveyDateRange Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Complex». Is static False. Containment is Not Specified.]</p>

SpatialQuality

Class «InformationType» in package 'S-127 Meta Features'

SpatialQuality
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

OUTGOING STRUCTURAL RELATIONSHIPS
<p>⇐ Realization from «InformationType» SpatialQuality to «metaclass» S100_GF_InformationType [Direction is 'Source -> Destination'.]</p>
INCOMING STRUCTURAL RELATIONSHIPS
<p>⇒ Generalization from «InformationType» SpatialQualityPoints to «InformationType» SpatialQuality [Direction is 'Source -> Destination'.]</p>
ATTRIBUTES
<p>◆ categoryOfTemporalVariation : categoryOfTemporalVariation Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Constraints: VS : Invariant [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>

ATTRIBUTES

◆ horizontalPositionUncertainty : Real Public
 Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

The best estimate of the accuracy of a position.

[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]

◆ qualityOfHorizontalMeasurement : qualityOfHorizontalMeasurement Public
 Alias: QUAPOS
 Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)

[Stereotype is «S100_Enum». Is static False. Containment is Not Specified.]

ASSOCIATIONS

✍ Association (direction: Source -> Destination) spatialAssociation

Source: Public definedFor (Class) GM_OrientableCurve
 Cardinality: [1..*]

A pointer to a specific spatial type(s).

Target: Public defines (Class) SpatialQuality
 «InformationType»
 Cardinality: [0..1]

A pointer to an information type providing spatial quality information.

SpatialQualityPoints

Class «InformationType» in package 'S-127 Meta Features'

Definition required

SpatialQualityPoints
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
 Extends SpatialQuality

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from «InformationType» SpatialQualityPoints to «InformationType» SpatialQuality
 [Direction is 'Source -> Destination'.]

ASSOCIATIONS

✍ Association (direction: Source -> Destination) spatialAssociation

Source: Public definedFor (Class) GM_Point
 Cardinality: [1..*]

A pointer to a specific spatial type(s).

Target: Public defines (Class) SpatialQualityPoints
 «InformationType»
 Cardinality: [0..1]

A pointer to an information type providing spatial quality information.

Complex attributes for meta-features and complex types

surveyDateRange

Class «ComplexAttributeType» in package 'S-127 Meta Features'

The complex attribute describes the period of the hydrographic survey, as the time between its sub-attributes.

surveyDateRange
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ dateStart : S100_TruncatedDate Public Alias: DATSTA Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The start date or time of the interval.</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	
<p>◆ dateEnd : S100_TruncatedDate Public Alias: DATEND</p> <p>The end date or time of the interval.</p> <p style="text-align: right;">[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>	

Enumerations for meta-features and information types

qualityOfHorizontalMeasurement

Enumeration in package 'S-127 Meta Features'

The degree of reliability attributed to a position

qualityOfHorizontalMeasurement
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018
Alias QUAPOS

ATTRIBUTES	
<p>◆ surveyed : Public = 1</p> <p>The position(s) was(were) determined by the operation of making measurements for determining the relative position of points on, above, or beneath the earth's surface. Survey implies a regular, controlled, survey of any date.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p>◆ unsurveyed : Public = 2</p> <p>Survey data does not exist or is very poor</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p>◆ inadequately surveyed : Public = 3</p> <p>Position data is of very poor quality</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p>◆ approximate : Public = 4</p> <p>A position that is considered to be less than third-order accuracy, but is generally considered to be within 30.5 meters of its correct geographic location. Also, may apply to a feature whose position does not remain fixed.</p>	

ATTRIBUTES	
	[Is static False. Containment is Not Specified.]
<p>◆ position doubtful : Public = 5</p> <p>A feature whose position has been reported but which is considered to be doubtful</p>	[Is static False. Containment is Not Specified.]
<p>◆ unreliable : Public = 6</p> <p>A feature's position obtained from questionable or unreliable data.</p>	[Is static False. Containment is Not Specified.]
<p>◆ reported (not surveyed) : Public = 7</p> <p>A feature whose position has been reported and its position confirmed by some means other than a formal survey such as an independent report of the same feature.</p>	[Is static False. Containment is Not Specified.]
<p>◆ reported (not confirmed) : Public = 8</p> <p>A feature whose position has been reported and its position has not been confirmed.</p>	[Is static False. Containment is Not Specified.]
<p>◆ estimated : Public = 9</p> <p>The most probable position of a feature determined from incomplete data or data of questionable accuracy.</p>	[Is static False. Containment is Not Specified.]
<p>◆ precisely known : Public = 10</p> <p>A position that is of a known value, such as the position of an anchor berth or other defined feature.</p>	[Is static False. Containment is Not Specified.]
<p>◆ calculated : Public = 11</p> <p>A position that is computed from data.</p>	[Is static False. Containment is Not Specified.]

categoryOfTemporalVariation

Enumeration in package 'S-127 Meta Features'

An assessment of the likelihood of change over time.

categoryOfTemporalVariation
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
<p>◆ Extreme Event : Public = 1</p> <p>Alias: event</p> <p>Indication of the possible impact of a significant event (for example hurricane, earthquake, volcanic eruption, landslide, etc), which is considered likely to have changed the seafloor or landscape significantly.</p>	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p>◆ Likely to Change and Significant Shoaling Expected : Public = 2</p> <p>Continuous or frequent change (for example river siltation, sand waves, seasonal storms, ice bergs, etc.) that is likely to result in new significant shoaling.</p> <p>Properties: S127:suppress = 1</p>	[Is static False. Containment is Not Specified.]
<p>◆ Likely to Change But Significant Shoaling Not Expected : Public = 3</p> <p>Continuous or frequent change (for example sand wave shift, seasonal storms, ice bergs, etc.) that is not likely to result in new significant shoaling.</p> <p>Properties: S127:suppress = 1</p>	[Is static False. Containment is Not Specified.]
<p>◆ Likely to Change : Public = 4</p> <p>Continuous or frequent change to non-bathymetric features (for example river siltation, glacier creep/recession, sand dunes, buoys, marine farms, etc.).</p>	[Is static False. Containment is Not Specified.]
<p>◆ Unlikely to Change : Public = 5</p> <p>Significant change to the seafloor is not expected.</p>	[Is static False. Containment is Not Specified.]
<p>◆ Unassessed : Public = 6</p> <p>Temporal variation not assessed or cannot be determined</p> <p>Properties: S127:suppress = 1</p>	[Is static False. Containment is Not Specified.]

Cartographic feature

TextPlacement

Class «FeatureType» in package 'S-127 Cartographic Features'


The Text Placement feature is used in association with the Feature Name attribute or a light description to optimise text positioning in ECDIS.

Remarks:

- The **Text Placement** feature is used by the ECDIS to position the associated text, which has been populated using an attribute(s) for the related feature. This attribute is identified by populating the attribute **text type**. Alternatively, the text to be displayed may be encoded using the attribute **text**.
- Only one of the attributes **text** or **text type** are allowable for each instance of **Text Placement**.
- **Text Placement** should only be associated with features of type point, and used in areas where it is important that text clear navigationally relevant areas, e.g. shipping channels and dredged areas.

TextPlacement
Version 1.0 Phase 1.0 Proposed
raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES
<p>◆ flipBearing : Real Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The bearing at which text is re-located to the opposite side of a feature when screen display is oriented away from true north. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ scaleMinimum : Integer Public Alias: SCAMIN Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Constraints: positive :</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ textJustification : textJustification Public</p> <p>The anchor point of a text string. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ text : text Public Alias: INFORM Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A non-formatted digital text string. Remarks: The attribute should be used, for example, to hold the information that is shown on paper charts by short cautionary and explanatory notes. Therefore text populated in text must not exceed 300 characters. Text may be in English or in a national language defined by the attribute language. No formatting of text is possible within the sub-attribute text. If formatted text, or text strings exceeding 300 characters, is required, then the attribute file reference must be used. [Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ textType : textType Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>[Stereotype is «S100_Simple». Is static False. Containment is Not Specified.]</p>
<p>◆ geometry : GM_Point Public</p>

ATTRIBUTES	
Multiplicity: ([1..*], Allow duplicates: 0, Is ordered: False) [Stereotype is «S100_Spatial». Is static False. Containment is Not Specified.]	
ASSOCIATIONS	
 Association (direction: Unspecified) textAssociation A feature association for the binding between a geo feature and the cartographically positioned location for text.	
Source: Public identifies (Class) FeatureType «FeatureType» Cardinality: [1]	Target: Public positions (Class) TextPlacement «FeatureType» Cardinality: [0..1]
A pointer to a specific feature(s).	A pointer to a specific cartographically positioned location for text.




Enumerations for cartographic feature

textJustification

Enumeration in package 'S-127 Cartographic Features'

The anchor point of a text string.

textJustification
 Version 1.0 Phase 1.0 Proposed
 raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES	
 left : Public = 1 The anchor point is at the start of the text string.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 centred : Public = 2 The anchor point is at the centre of the text string.	[Stereotype is «enum». Is static False. Containment is Not Specified.]
 right : Public = 3 The anchor point is at the end of the text string.	[Stereotype is «enum». Is static False. Containment is Not Specified.]

textType

Enumeration in package 'S-127 Cartographic Features'

The attribute from which a text string is derived.

(S-122) Remark: S-122 does not include light features and therefore listed value '2: light characteristic' is omitted from the S-122 application schema.

textType
 Version 1.0 Phase 1.0 Proposed

raphaelm created on 01-Jan-2018. Last modified 20-Aug-2018

ATTRIBUTES

◆ feature name : Public = 1

The type of attribute that will be passed via the text string

[Stereotype is «enum». Is static False. Containment is Not Specified.]