# **datum**

*Class «ComplexAttribute» in package 'IHO S-57 Schematic'*

datum provides a way of textually describing datums used within the dataset. This is part of the generic OGC API Record and is designed to be textually descriptive rather than machine readable. The textual description of the datum is contained in the crs subattribute and a categoryOfDatum denotes what type of datum it is. This is useful from a metadata perspective because a textual description of the datum and its nature (high water, low water, horizontal or vertical) is good for search engine optimisation.

datum

Version 1.0 Phase 1.0 Proposed

kusal created on 18/11/2021. Last modified 17/12/2021

| **ATTRIBUTES** |
| --- |
| crs : text Private  Multiplicity: ( [0..1], Allow duplicates: 0, Is ordered: False )  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| categoryOfDatum : Private  [ Is static True. Containment is Not Specified. ] |

# **OGCAPIRec**

*Class «FeatureType» in package 'IHO S-57 Schematic'*

OGC API Record template. From this generic template all the OGC API Records for each individual IHO product specification can be constructed with zero or more extensions specific to their domain.

Features have been mapped from the OGC API Records definitions to S-100 equivalent types and structures. These mappings are visualised in the Model diagram (IHO to OGC Mappings).

Each individual field in this generic record is separately documented in the simple attributes class. From the IHO Feature Catalogue perspective they are individual simple or complex attributes with multiplicities and their own identity/definition.

OGCAPIRec

Version 1.0 Phase 1.0 Proposed

kusal created on 28/10/2021. Last modified 17/12/2021

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Realization from «FeatureType» OGCAPIRec to (S57) Dataset  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» OGCAPIRec to (S57) Dataset  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» OGCAPIRec to (S57) Dataset  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» OGCAPIRec to «S-57» PRODUCTS.TXT  [ Direction is 'Source -> Destination'. ] |

| **INCOMING STRUCTURAL RELATIONSHIPS** |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Generalization from «FeatureType» S57\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Generalization from «FeatureType» S111\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Generalization from «FeatureType» S102\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from S100\_DatasetDiscoveryMetadata to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

| **ATTRIBUTES** |
| --- |
| type : text Private = record  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| title : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| description : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| keywords : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| language : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| externalID : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| created : dateTime Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| updated : dateTime Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| publisher : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| themes : text Private  Multiplicity: ( [0..\*], Allow duplicates: 0, Is ordered: False )  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| formats : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| contactPoint : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| license : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| rights : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| extent : Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| associations : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordID : int Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordCreated : dateTime Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordUpdated : dateTime Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| links : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| features : text Private  [ Stereotype is «IHO». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| productSpecification : int Private  [ Stereotype is «IHO». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| datum : text Private  Multiplicity: ( [0..\*], Allow duplicates: 0, Is ordered: False )  [ Stereotype is «IHO». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| crs : text Private  [ Is static True. Containment is Not Specified. ] |

# **S102\_OGCAPIRec**

*Class «FeatureType» in package 'IHO S-57 Schematic'*

S-102 bespoke extension to the generic OGC metadata record. This describes the type of coverage data in an S-102 dataset. This has been extracted from the S-102 product specification and is detailed in the enumeration.

S102\_OGCAPIRec

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 17/12/2021

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from «FeatureType» S102\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

| **ATTRIBUTES** |
| --- |
| griddingMethod : Public = 1  [ Is static True. Containment is Not Specified. ] |

# **S111\_OGCAPIRec**

*Class «FeatureType» in package 'IHO S-57 Schematic'*

S111 Surface Current data bespoke extension from standard metadata record. This adds five metadata fields - these have been copied from the S111 Product specification and describe the coverage data in more detail. S111 product specification is available from iho.int

S111\_OGCAPIRec

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 17/12/2021

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from «FeatureType» S111\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

| **ATTRIBUTES** |
| --- |
| typeOfCurrentData : Public  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| dataCodingFormat : int Public  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| methodCurrentProducts : text Public  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| minDatasetCurrentSpeed : real Public  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| maxDatasetCurrentSpeed : real Public  [ Is static True. Containment is Not Specified. ] |

# **S57\_OGCAPIRec**

*Class «FeatureType» in package 'IHO S-57 Schematic'*

OGC API Record type for S-57 ENC data. This extension adds several domain specific extensions. navigationalPurpose (mapped from the S-57 definition of purpose based on fixed scale ranges of individual datasets), compilationScale (ENC often does not have consistent scale across all areas of coverage and hence a selective approach to larger scale data is taken)

S57\_OGCAPIRec

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 17/12/2021

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from «FeatureType» S57\_OGCAPIRec to «FeatureType» OGCAPIRec  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» S57\_OGCAPIRec to «ADMARE» Feature  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» S57\_OGCAPIRec to (S57) Dataset  [ Direction is 'Source -> Destination'. ] |

|  |
| --- |
| Realization from «FeatureType» S57\_OGCAPIRec to (S57) Dataset  [ Direction is 'Source -> Destination'. ] |

| **ATTRIBUTES** |
| --- |
| navigationalPurpose : Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| compilationScale : int Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| namedPlaces : text Private  Multiplicity: ( [0..\*], Allow duplicates: 0, Is ordered: False )  [ Is static True. Containment is Not Specified. ] |

# **SimpleAttributes**

*Class «SimpleAttributes» in package 'IHO S-57 Schematic'*

SimpleAttributes

Version 1.0 Phase 1.0 Proposed

kusal created on 25/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| type : text Private  Mandatory OGC field. Value set to "record" which denotes a feature (record) as an OGC API Records feature  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| title : text Private  Title of the dataset. plain text - this is often the dataset filename in the S-100 context.  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| description : text Private  Description of the dataset. This can (and should) be as descriptive as possible as it is part of the output records from the harvesting process. Many IHO datasets do not specifically include such fields in their dataset metadata and this should be harvested from existing IHO CATALOG.XML fields  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| keywords : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| language : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| externalID : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| created : date Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| updated : date Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| publisher : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| themes : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| formats : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| contactPoint : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| license : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| rights : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| extent : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| associations : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordID : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordCreated : date Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| recordUpdated : date Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| links : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| crs : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| compilationScale : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| features : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| namedPlaces : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| productSpecification : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| navigationalPurpose : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| methodCurrentProducts : text Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| minDatasetCurrentSpeed : real Private  [ Is static True. Containment is Not Specified. ] |

|  |
| --- |
| maxDatasetCurrentSpeed : real Private  [ Is static True. Containment is Not Specified. ] |

# **categoryOfDatum**

*Enumeration in package 'IHO S-57 Schematic'*

categoryOfDatum

Version 1.0 Phase 1.0 Proposed

kusal created on 18/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| vertical - sounding : Public = 1  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| vertical - heights : Public = 2  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| vertical - elevations : Public = 3  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| vertical - clearances : Public = 4  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| horizontal : Public = 5  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

# **dataCodingFormat**

*Enumeration in package 'IHO S-57 Schematic'*

dataCodingFormat

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| fixedStations : Public = 1  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| regularGrid : Public = 2  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| unGeoRectifiedGrid : Public = 3  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| movingPlatform : Public = 4  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

# **griddingMethod**

*Enumeration in package 'IHO S-57 Schematic'*

griddingMethod

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| basicWeightedMean : Public = 1  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| shoalestDepth : Public = 2  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| tpuWeightedMean : Public = 3  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| cube : Public = 4  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| nearestNeighbour : Public = 5  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| naturalNeighbour : Public = 6  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| polynomialTendency : Public = 7  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| spline : Public = 8  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| kriging : Public = 9  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

# **navigationalPurpose**

*Enumeration in package 'IHO S-57 Schematic'*

navigationalPurpose

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| overview : Public = 1  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| general : Public = 2  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| coastal : Public = 3  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| approach : Public = 4  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| harbour : Public = 5  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| berthing : Public = 6  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

# **typeOfCurrentData**

*Enumeration in package 'IHO S-57 Schematic'*

typeOfCurrentData

Version 1.0 Phase 1.0 Proposed

kusal created on 01/11/2021. Last modified 25/11/2021

| **ATTRIBUTES** |
| --- |
| historicalObservation : Public = 1  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| realtimeObservation : Public = 2  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| astronomicalPrediction : Public = 3  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| analysisOrHybridMethod : Public = 4  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| hydrodynamicModelHindcast : Public = 5  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |

|  |
| --- |
| hydrodynamicModelForecast : Public = 6  [ Stereotype is «enum». Is static True. Containment is Not Specified. ] |