class Basic Observations - overview

From ISO 19156 Observations, measurements and samples - Conceptual observation schema

From ISO 19103 Conceptual schema language – Any type

«interface» Observation
+ phenomenonTime: TM_Object
+ resultTime: TM_Object
+ validTime: TM_Period [0..*]

constraints
(/rec/obs-cpt/Observation/observedProperty-con)
(/rec/obs-cpt/Observation/observinghost-con)
(/rec/obs-cpt/Observation/observingProcedure-con)
(/rec/obs-cpt/Observation/result-con)
(/rec/obs-cpt/Observation/uom)
(/req/obs-cpt/Observation/uom)

Procedure
«interface» ObservingProcedure

«interface» ObservableProperty

«interface» Observer

«interface» Deployment

«interface» Host
context: GenericName

«interface» Any

+observingProcedure
+observedProperty
+observableProperty
+observer
+deployment
+host
+relatedHost
+ultimateFeatureOfInterest
+proximateFeatureOfInterest
+metadata
+result
+member
+relatedObservation
context: GenericName

DomainProxy
Domain
Range

From ISO 19156 Observations, measurements and samples - Abstract observation core

«FeatureType» AbstractObservationCharacteristics
+ observationType: AbstractObservationType [0..*]
+ parameter: NamedValue [0..*]
+ phenomenonTime: TM_Object [0..*]
+ resultTime: TM_Object [0..*]
+ resultQuality: Any [0..*]
+ validTime: TM_Period [0..*]

«FeatureType» AbstractObservation

constraints
(/req/obs-core/AbstractObservation/featureOfInterest-con)
(/req/obs-core/AbstractObservation/observationType-sem)
(/req/obs-core/AbstractObservation/parameterName-card)
(/req/obs-core/AbstractObservation/resultTime-type)
(/req/obs-core/Observation/observedProperty-con)
(/req/obs-core/Observation/observerhost-con)
(/req/obs-core/Observation/observingProcedure-con)
(/req/obs-core/Observation/result-con)
(/req/obs-cpt/Observation/observedProperty-card)
(/req/obs-cpt/Observation/observingProcedure-card)
(/req/obs-cpt/Observation/phenomenonTime-card)
(/req/obs-cpt/Observation/result-card)
(/req/obs-cpt/Observation/resultTime-card)

«DataType» NamedValue
+ name: GenericName
+ value: Any

«CodeList» AbstractObservationType
tags
asDictionary = true
extensibility = any

«use»

«FeatureType» AbstractObservingProcedure

«FeatureType» AbstractObservableProperty

«FeatureType» AbstractObserver

«FeatureType» AbstractDeployment
+ deploymentReason: CharacterString [0..*]
+ deploymentTime: TM_Object [0..*]

«FeatureType» AbstractHost

«FeatureType» Observation

«FeatureType» ObservationCollection
+ collectionType: AbstractObservationCollectionType [0..*]

constraints
(/req/obs-basic/ObservationCollection/collectionType-con)

+membercharacteristics 0..*
+collection 0..1
+relatedCollection 0..*
context: GenericName

«FeatureType» ObservationCharacteristics

«FeatureType» ObservingCapability

«CodeList» ObservationTypeByResultType

constraints
(/req/obs-basic/ObservationTypeByResultType/ObservationTypeByResultType-con)
(/req/obs-basic/ObservationTypeByResultType/ObservationTypeByResultType-sem)

tags
asDictionary = true
extensibility = open
vocabulary = http://www.opengis.net/def/observation-type/OGC/0/by-result-type

«FeatureType» ObservingProcedure
+ link: URI [0..*]

«FeatureType» ObservableProperty
+ link: URI [0..*]

«FeatureType» Observer
+ link: URI [0..*]
+ location: Geometry [0..1]

«FeatureType» Deployment
+ link: URI [0..*]

«FeatureType» Host
+ link: URI [0..*]
+ location: Geometry [0..1]

«FeatureType» GenericDomainFeature
+ link: URI [0..*]
+ location: Geometry [0..*]

«uses»

«CodeList» AbstractObservationCollectionType
tags
asDictionary = true
extensibility = any

«CodeList» ObservationCollectionType

constraints
(/req/obs-basic/CollectionTypeByMemberCharacteristicsSemantics/homogeneous-con)
(/req/obs-basic/CollectionTypeByMemberCharacteristicsSemantics/summarizing-con)

tags
asDictionary = true
extensibility = open
vocabulary = http://www.opengis.net/def/observation-collection-type/OGC/0/by-member-characteristics-semantics