

10TH EXPERT GROUP MEETING ON

Statistical Data and Metadata eXchange

JANUARY 25-28, 2021

New Features to support Microdata

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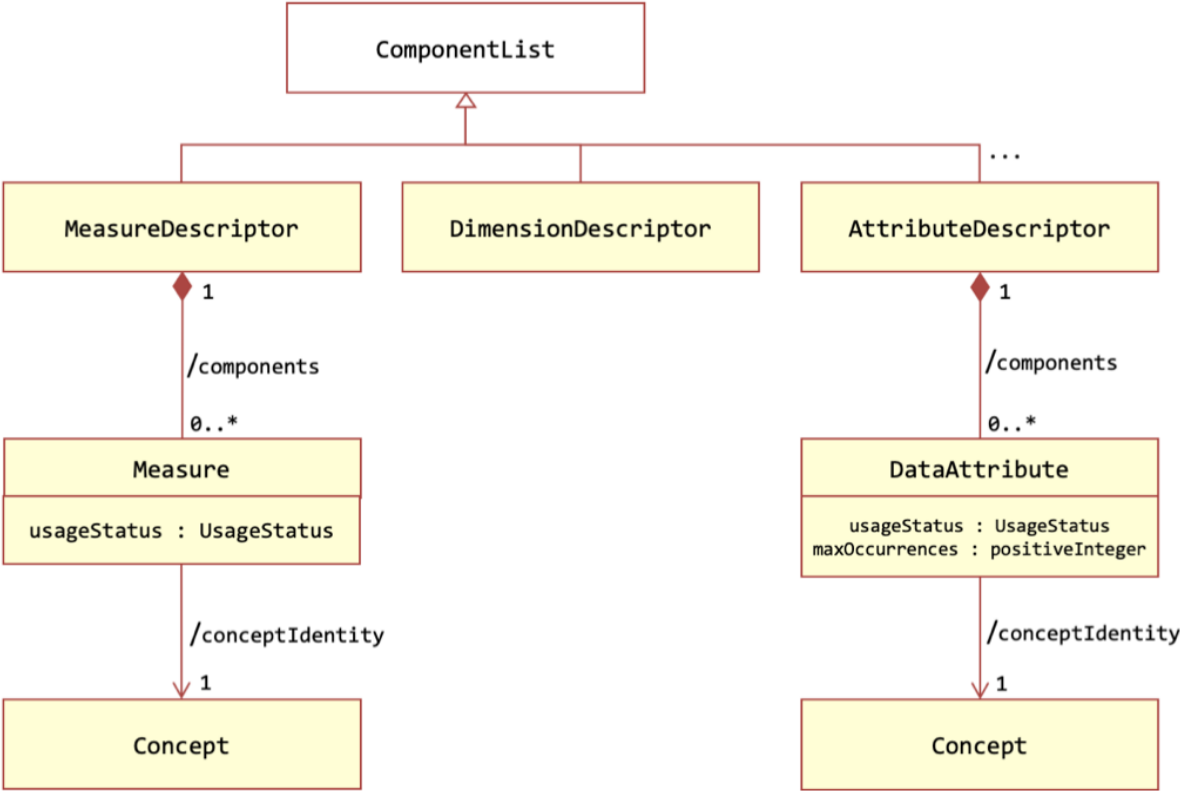
Overview

- Support multiple measures intuitively
 - Explicit Measure definition
 - Deprecate MeasureDimension
 - New DSD definition and dataset structure
- New data types for supporting microdata use-cases (applicable in Measures and Attributes)
 - Arrays
 - Multilingual texts

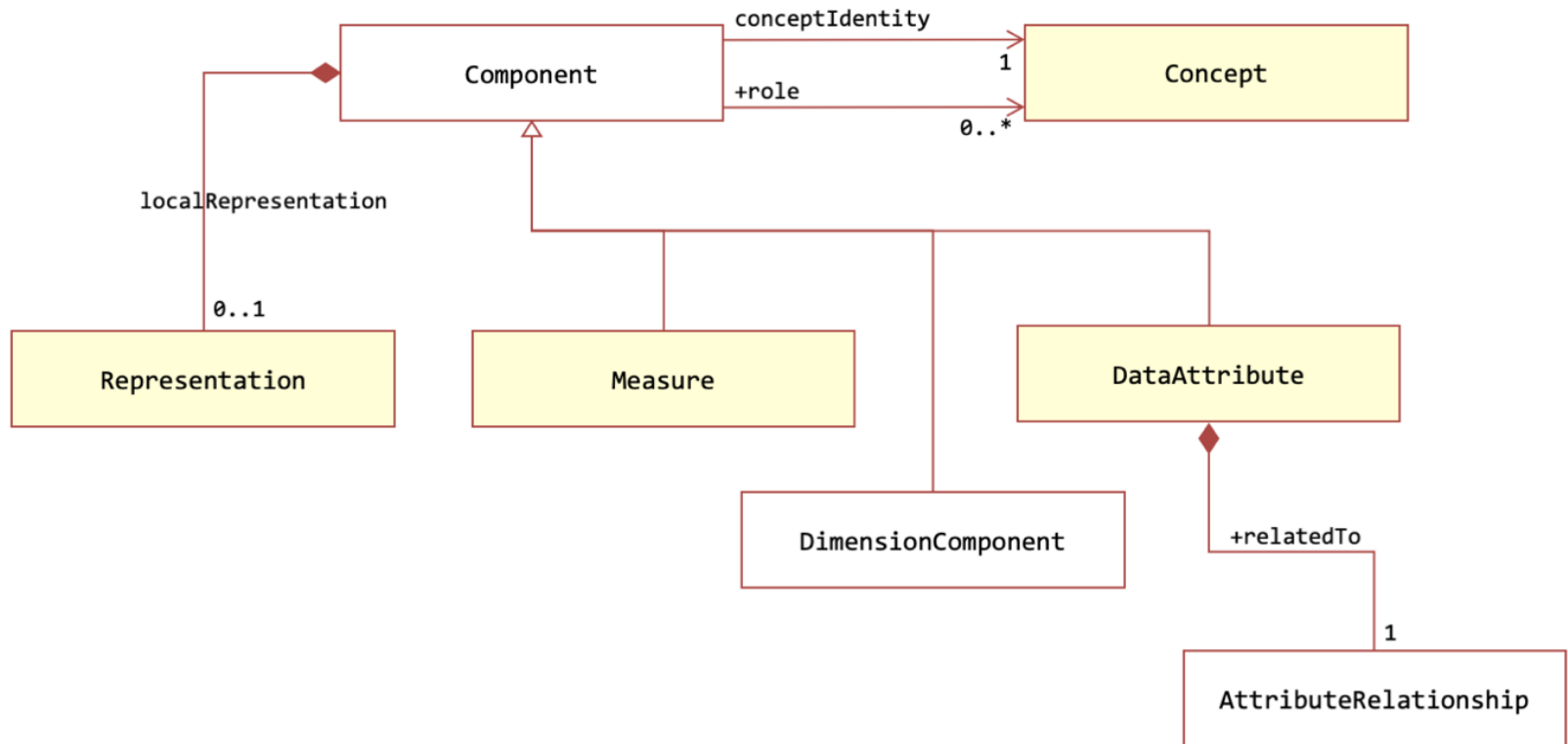
Multiple Measures

- New MeasureDescriptor
 - Multiple Measures may be defined (0..*)
 - Measures are defined like any other Component (id, ConceptRef, Representation) + a usageStatus (mandatory|conditional)
 - Deprecated MeasureDimension
- New Attribute relationship
 - Attributes may be related to one or more Measures
 - Does not affect Dataset structure (only provides semantics)

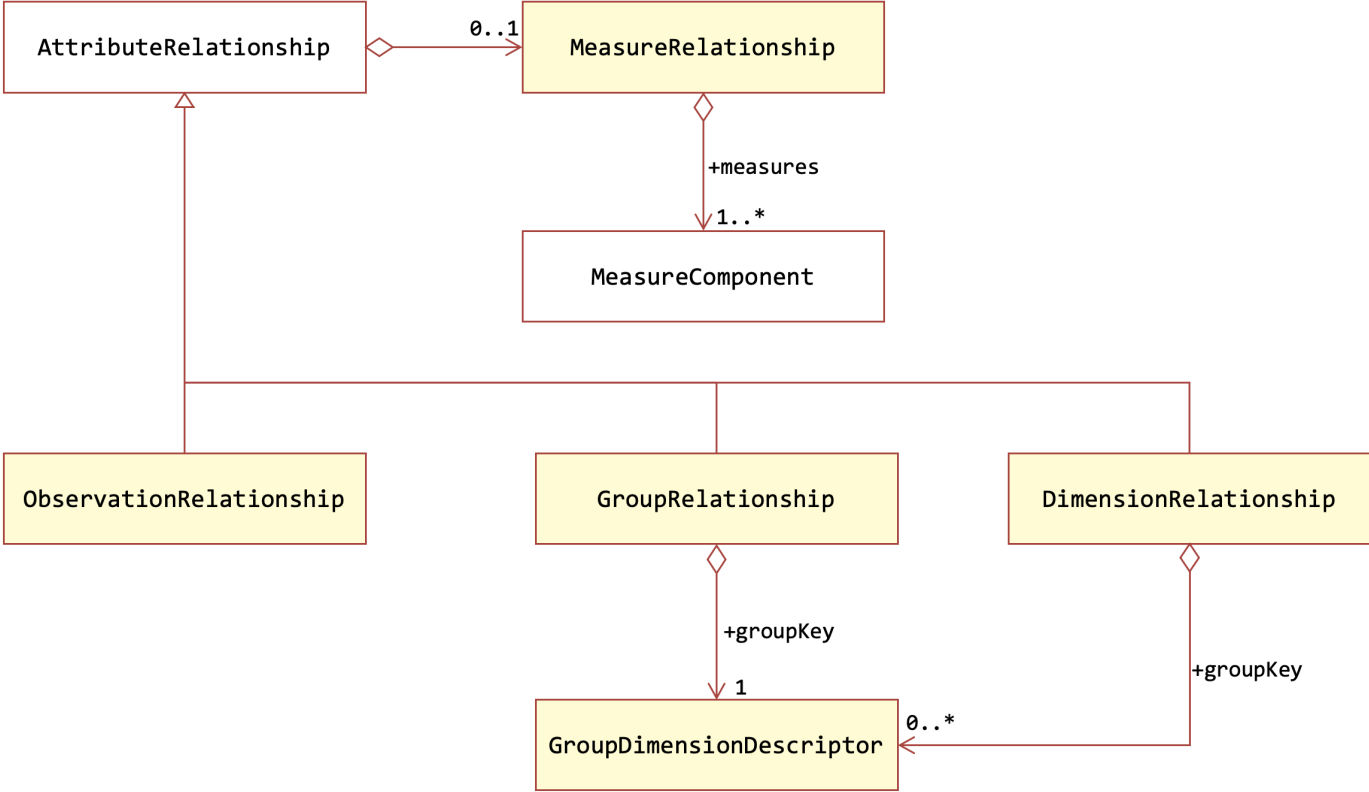
The MeasureDescriptor



The Measure Component



The MeasureRelationship



Attribute positioning in Dataset

AttributeRelationship	Position in data message
Dimension(s)	At the lowest level that any of the related Dimensions are positioned
Group	<Group>
Observation	<Obs>

Attribute position not affected by the MeasureRelationship

The new Measure definition (1)

```
<str:MeasureList id="MeasureDescriptor">
  <str:Measure id="TEXT_RESPONSE" usageStatus="Conditional">
    <str:ConceptIdentity>
      <Ref id="TEXT_RESPONSE" maintainableParentID="CONCEPTS" agencyID="SDMX"
        maintainableParentVersion="1.0.0" />
    </str:ConceptIdentity>
    <str:LocalRepresentation>
      <str:TextFormat textType="String" isMultiLingual="true" />
    </str:LocalRepresentation>
    <str:ConceptRole>
      <Ref id="PRIMARY" maintainableParentID="CONCEPT_ROLES" agencyID="SDMX"
        maintainableParentVersion="1.0.0" />
    </str:ConceptRole>
  </str:Measure>
  ...
  <str:Measure>...
</str:MeasureList>
```


The new Measure definition (2)

```
<str:MeasureList id="MeasureDescriptor">
  <str:Measure id="MULTI_SELECT" usageStatus="Mandatory"
    maxOccurrences="3">
    <str:ConceptIdentity>
      <Ref id="MULTI_SELECT" maintainableParentID="CONCEPTS"
        agencyID="SDMX" maintainableParentVersion="1.0.0" />
    </str:ConceptIdentity>
    <str:LocalRepresentation>
      <str:Enumeration>
        <Ref agencyID="SDMX" id="CL_ANSWERS" version="1.0.0" />
      </str:Enumeration>
    </str:LocalRepresentation>
  </str:Measure>
</str:MeasureList>
```

The new Attribute definition (1)

```
<str:Attribute assignmentStatus="Mandatory" id="OBS_STATUS">
  <str:ConceptIdentity>
    <Ref id="OBS_STATUS" agencyID="SDMX" maintainableParentID="CONCEPTS"
      maintainableParentVersion="1.0.0" />
  </str:ConceptIdentity>
  <str:LocalRepresentation>
    <str:Enumeration maxOccurrences="5">
      <Ref agencyID="ESTAT" id="CL_OBS_STATUS" version="1.0.0" />
    </str:Enumeration>
  </str:LocalRepresentation>
  <str:AttributeRelationship>
    <str:Observation/>
  </str:AttributeRelationship>
</str:Attribute>
```

The new Attribute definition (2)

```
<str:Attribute assignmentStatus="Conditional" id="COMMENT">
  <str:ConceptIdentity>
    <Ref id="COMMENT" agencyID="SDMX" maintainableParentID="CONCEPTS"
      maintainableParentVersion="1.0.0" />
  </str:ConceptIdentity>
  <str:LocalRepresentation>
    <str:TextFormat textType="String" maxOccurrences="5" />
  </str:LocalRepresentation>
  <str:AttributeRelationship>
    <str:Observation/>
    <str:MeasureRelationship>
      <str:Measure>
        <Ref id="TEXT_RESPONSE" />
      </str:Measure>
    </str:MeasureRelationship>
  </str:AttributeRelationship>
</str:Attribute>
```

New Dataset – multiple Measures

```
<mes:DataSet dataScope="DataStructure">  
  <Series DIM1="DIM1_VAL" DIM2="DIM2_VAL" SERIES_ATTR1="SATTR1_VAL" >  
    <Obs TIME_PERIOD="2001"  
      MEASURE1="M1_VAL" MEASURE2="M2_VAL" MEASURE3="M3_VAL"  
      OBS_ATTR1="OATTR1_VAL" OBS_ATTR2="OATTR2_VAL" >  
    </Obs>  
    <Obs TIME_PERIOD="2002"  
      MEASURE1="M1_VAL" MEASURE2="M2_VAL" MEASURE3="M3_VAL"  
      OBS_ATTR1="OATTR1_VAL" OBS_ATTR2="OATTR2_VAL" >  
    </Obs>  
  </Series>
```

New Dataset – Array data type

```
<mes:DataSet dataScope="DataStructure">  
  <Series DIM1="DIM1_VAL" DIM2="DIM2_VAL" SERIES_ATTR1="SATTR1_VAL" >  
    <Obs TIME_PERIOD="2001"  
      MEASURE1="M1_VAL" MEASURE2="M2_VAL"  
      OBS_ATTR1="OATTR1_VAL" OBS_ATTR2="OATTR2_VAL" >  
      <MULTI_SELECT>  
        <value>ANSWER_1</value>  
        <value>ANSWER_2</value>  
      </MULTI_SELECT>  
    </Obs>  
    <Obs>...</Obs>  
    <SERIES_ATTR2>  
      <value>SATTR2_VAL_1</value>  
      <value>SATTR2_VAL_2</value>  
    </SERIES_ATTR2>  
  </Series>
```

Array of values for a Measure

Array of values for a Series Attribute

New Dataset – Multilingual text

```
<mes:DataSet dataScope="DataStructure">
  <Series DIM1="DIM1_VAL" DIM2="DIM2_VAL" SERIES_ATTR1="SATTR1_VAL" >
    <Obs TIME_PERIOD="2001"
      MEASURE1="M1_VAL" MEASURE2="M2_VAL"
      OBS_ATTR1="OATTR1_VAL" OBS_ATTR2="OATTR2_VAL" >
      <TEXT_RESPONSE>
        <text xml:lang="en">TEXT_RESPONSE value in English</text>
        <text xml:lang="fr">Valeur TEXT_RESPONSE en français</text>
      </TEXT_RESPONSE>
      <COMMENT>
        <text xml:lang="en">English comment for TEXT_RESPONSE</text>
        <text xml:lang="fr">Commentaire en français pour TEXT_RESPONSE</text>
      </COMMENT>
    </Obs>
  </Series>
  <str:MeasureRelationship>
    <str:Measure>
      <Ref id="TEXT_RESPONSE" />
    </str:Measure>
  </str:MeasureRelationship>
```

Measure

Observation Attribute related to a Measure

New Dataset – Array of Multilingual text

```
<mes:DataSet dataScope="DataStructure">
  <Series DIM1="DIM1_VAL" DIM2="DIM2_VAL" SERIES_ATTR1="SATTR1_VAL" >
    <Obs TIME_PERIOD="2001"
      MEASURE1="M1_VAL" MEASURE2="M2_VAL"
      OBS_ATTR1="OATTR1_VAL" OBS_ATTR2="OATTR2_VAL" >
      <TEXT_RESPONSE>
        <value>
          <text xml:lang="en">TEXT_RESPONSE value 1 in English</text>
          <text xml:lang="fr">Valeur 1 TEXT_RESPONSE en français</text>
        </value>
        <value>
          <text xml:lang="en">TEXT_RESPONSE value 2 in English</text>
          <text xml:lang="fr">Valeur 2 TEXT_RESPONSE en français</text>
        </value>
      </TEXT_RESPONSE>
    </Obs>
  </Series>
```

1st value of a multilingual Measure

2nd value of a multilingual Measure

Q&A