Granule Metadata (Legacy)

Granule Metadata

ECHO

The ECHO Granule Schema includes specific information about the granule that is not included in the collection schema. Most of this information maps to ISO in a straightforward way:

/Granule/Collection/ShortName and VersionId: These elements identify the collection that the granule belongs to. The ShortName is translated into /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:aggregationInfo/gmd:MD_AggregateInformation/gmd:aggregateDataSetName/gmd:CI_Citation/gmd:title/gco:CharacterString and /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:aggregationInfo/gmd:MD_AggregateInformation/gmd:aggregateDataSetIdentifier/gmd:MD_Identifier/gmd:code/gco:CharacterString. The VersionId is translated to /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:aggregationInfo/gmd:MD_AggregateInformation/gmd:aggregateDataSetName/gmd:CI_Citation/gmd:edition/gco:CharacterString

/Granule/AdditionalAttributes/AdditionalAttribute: This element provides a name and values for an AdditionalAttribute that is defined in the collection information for the granule. There can be any number of values. It is transposed directly into the ISO record as a RecordType/Record combination. The position in the ISO record will depend on a heretofore undefined type for the additional attribute. See discussion of additional attributes below.

/Granule/MeasuredParameters/MeasuredParameter: The MeasuredParameters in ECHO granule metadata provide two types of information: the name of the parameter measured, and some standard quality information about that parameter (note that the values of the parameters in these examples are the XPaths to the elements. They are there to help understand where elements go in the translation):

```
<MeasuredParameter>
  <ParameterName>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/ParameterName[1]</ParameterName>
  <QAStats>

<QAPercentMissingData>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAStats[1]/QAPercentMissingData[1
]</QAPercentMissingData>

<QAPercentOutOfBoundsData>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAStats[1]/QAPercentOutOfBoun
dsData[1]</QAPercentOutOfBoundsData>
  </QAStats>
  <QAFlags>

<AutomaticQualityFlag>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/AutomaticQualityFlag[1
]</AutomaticQualityFlag>

<AutomaticQualityFlagExplanation>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/AutomaticQu
alityFlagExplanation[1]</AutomaticQualityFlagExplanation>

<OperationalQualityFlag>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/OperationalQualityFl
ag[1]</OperationalQualityFlag>

<OperationalQualityFlagExplanation>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/Operation
alQualityFlagExplanation[1]</OperationalQualityFlagExplanation>

<ScienceQualityFlag>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/ScienceQualityFlag[1]</S
cienceQualityFlag>

<ScienceQualityFlagExplanation>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/ScienceQualit
yFlagExplanation[1]</ScienceQualityFlagExplanation>
  </QAFlags>
</MeasuredParameter>
```

This information goes into two locations in the ISO metadata.

The name of the parameter goes into the contentInfo section:

```
<gmd:contentInfo>
  <gmd:MD_CoverageDescription>
    <gmd:attributeDescription/>
    <gmd:contentType/>
    <gmd:dimension>
      <gmd:MD_Band>
        <gmd:sequenceIdentifier>
          <gco:MemberName>
            <gco:aName>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/ParameterName[1]</gco:aName>
            <gco:attributeType/>
          </gco:MemberName>
        </gmd:sequenceIdentifier>
      </gmd:MD_Band>
    </gmd:dimension>
    <gmd:dimension>
      <gmd:MD_Band>
        <gmd:sequenceIdentifier>
          <gco:MemberName>
            <gco:aName>/Granule/MeasuredParameters[1]/MeasuredParameter[2]/ParameterName[1]</gco:aName>
            <gco:attributeType/>
          </gco:MemberName>
        </gmd:sequenceIdentifier>
      </gmd:MD_Band>
    </gmd:dimension>
  </gmd:MD_CoverageDescription>
</gmd:contentInfo>
```

and the quality information goes into a data quality section for each parameter (the types of the quality reports here are illustrative. They will likely change):

```
<gmd:dataQualityInfo>
  <gmd:DQ_DataQuality>
    <gmd:scope>
      <gmd:DQ_Scope>
        <gmd:level>
          <gmd:MD_ScopeCode
codeList="http://www.ngdc.noaa.gov/metadata/published/xsd/schema/resources/Codelist/gmxCodelists.xml#MD_Sco
peCode"
            codeListValue="attribute">attribute</gmd:MD_ScopeCode>
        </gmd:level>
        <gmd:levelDescription>
          <gmd:MD_ScopeDescription>
            <gmd:other>

<gco:CharacterString>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/ParameterName[1]</gco:CharacterStr
ing>
            </gmd:other>
          </gmd:MD_ScopeDescription>
        </gmd:levelDescription>
      </gmd:DQ_Scope>
    </gmd:scope>
    <gmd:report>
      <gmd:DQ_CompletenessOmission>
        <gmd:measureIdentification>
          <gmd:MD_Identifier>
            <gmd:code>
              <gco:CharacterString>QAPercentMissingData</gco:CharacterString>
            </gmd:code>
          </gmd:MD_Identifier>
        </gmd:measureIdentification>
        <gmd:result>
          <gmd:DQ_QuantitativeResult>
            <gmd:valueUnit/>
            <gmd:value>

<gco:Record>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAStats[1]/QAPercentMissingData[1]</gco:Rec
ord>
            </gmd:value>
          </gmd:DQ_QuantitativeResult>
        </gmd:result>
      </gmd:DQ_CompletenessOmission>
    </gmd:report>
```

```
    <gmd:report>
      <gmd:DQ_CompletenessOmission>
        <gmd:measureIdentification>
          <gmd:MD_Identifier>
            <gmd:code>
              <gco:CharacterString>QAPercentOutOfBoundsData</gco:CharacterString>
            </gmd:code>
          </gmd:MD_Identifier>
        </gmd:measureIdentification>
        <gmd:result>
          <gmd:DQ_QuantitativeResult>
            <gmd:valueUnit/>
            <gmd:value>

<gco:Record>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAStats[1]/QAPercentOutOfBoundsData[1]</gco
:Record>
            </gmd:value>
          </gmd:DQ_QuantitativeResult>
        </gmd:result>
      </gmd:DQ_CompletenessOmission>
    </gmd:report>
    <gmd:report>
      <gmd:DQ_CompletenessOmission>
        <gmd:measureIdentification>
          <gmd:MD_Identifier>
            <gmd:code>
              <gco:CharacterString>AutomaticQualityFlag</gco:CharacterString>
            </gmd:code>
          </gmd:MD_Identifier>
        </gmd:measureIdentification>
        <gmd:measureDescription>

<gco:CharacterString>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/AutomaticQualityFlagExp
lanation[1]</gco:CharacterString>
        </gmd:measureDescription>
        <gmd:result>
          <gmd:DQ_QuantitativeResult>
            <gmd:valueUnit/>
            <gmd:value>

<gco:Record>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/AutomaticQualityFlag[1]</gco:Rec
ord>
            </gmd:value>
          </gmd:DQ_QuantitativeResult>
        </gmd:result>
      </gmd:DQ_CompletenessOmission>
    </gmd:report>
    <gmd:report>
      <gmd:DQ_CompletenessOmission>
        <gmd:measureIdentification>
          <gmd:MD_Identifier>
            <gmd:code>
              <gco:CharacterString>OperationalQualityFlag</gco:CharacterString>
            </gmd:code>
          </gmd:MD_Identifier>
        </gmd:measureIdentification>
        <gmd:measureDescription>

<gco:CharacterString>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/OperationalQualityFlagE
xplanation[1]</gco:CharacterString>
        </gmd:measureDescription>
        <gmd:result>
          <gmd:DQ_QuantitativeResult>
            <gmd:valueUnit/>
            <gmd:value>

<gco:Record>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/OperationalQualityFlagExplanatio
n[1]</gco:Record>
            </gmd:value>
          </gmd:DQ_QuantitativeResult>
        </gmd:result>
      </gmd:DQ_CompletenessOmission>
```

```
    </gmd:report>
    <gmd:report>
      <gmd:DQ_CompletenessOmission>
        <gmd:measureIdentification>
          <gmd:MD_Identifier>
            <gmd:code>
              <gco:CharacterString>ScienceQualityFlag</gco:CharacterString>
            </gmd:code>
          </gmd:MD_Identifier>
        </gmd:measureIdentification>
        <gmd:measureDescription>

<gco:CharacterString>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/ScienceQualityFlagExpla
nation[1]</gco:CharacterString>
        </gmd:measureDescription>
        <gmd:result>
          <gmd:DQ_QuantitativeResult>
            <gmd:valueUnit/>
            <gmd:value>

<gco:Record>/Granule/MeasuredParameters[1]/MeasuredParameter[1]/QAFlags[1]/ScienceQualityFlagExplanation[1]
</gco:Record>
            </gmd:value>
          </gmd:DQ_QuantitativeResult>
        </gmd:result>
      </gmd:DQ_CompletenessOmission>
    </gmd:report>
  </gmd:DQ_DataQuality>
</gmd:dataQualityInfo>
```