

GeMS Attributes and Metadata:

A summary of how GeMS attributes are described in the FGDC metadata

In the GeMS metadata, every attribute has the following metadata elements:

Attribute_Label	The field name
Attribute_Definition	A description of the field, which can be drawn from the python file of definitions
Attribute_Definition_Source	A source for the description of the field, which can be drawn from the python file of definitions
Attribute_Domain_Value	Either "Unrepresentable_Domain" or "Enumerated_Domain" (described below).

Enumerated Domains and related attributes

Enumerated Domains also have a collection of the following metadata elements, one for each possible value:

Enumerated_Domain_Value	The attribute value
Enumerated_Domain_Value_Definition	What the attribute value means (its definition)
Enumerated_Domain_Value_Definition_Source	A source for the value definition

Sometimes these metadata elements are extracted from other tables in the GeMS database by the metadata script.

Example:

```
ATTRIBUTE
  ATTRIBUTE LABEL IdentityConfidence
  ATTRIBUTE DEFINITION
  Confidence that feature is correctly identified.
  ATTRIBUTE DEFINITION SOURCE GeMS
  ATTRIBUTE DOMAIN VALUES
    ENUMERATED DOMAIN
      ENUMERATED DOMAIN VALUE certain
      ENUMERATED DOMAIN VALUE DEFINITION
      Identity of a feature can be determined using relevant observations and scientific
      judgment; therefore, one can be reasonably confident in the credibility of this
      interpretation.
      ENUMERATED DOMAIN VALUE DEFINITION SOURCE
      Federal Geographic Data Committee [prepared for the Federal Geographic Data
      Committee by the U.S. Geological Survey], 2006, FGDC Digital Cartographic
      Standard for Geologic Map Symbolization: Reston, Va., Federal Geographic Data
      Committee Document Number FGDC-STD-013-2006, 290 p., 2 plates.
```

from the
Glossary
table

from the
DataSources
table

GeMS Attributes Appearing in the Metadata

These attributes should be populated (correct and complete) before running the metadata script. Either their values are included in the metadata content, or they are used by the script to link to (look up) other attribute values.

Attribute	Is an Enumerated Domain	Links between Tables / Feature Classes	Appears in Enumerated_Domain_Value_Definition	Appears in Enumerated_Domain_Value_Definition_Source
MapUnitPolys / MapUnit	Yes	Links to DescriptionOfMapUnits / MapUnit		
Any Type field (e.g., in the ContactsAndFaults or GeologicLines feature classes)	Yes	Links to Glossary / Term		
Any Confidence Field (e.g., ExistenceConfidence, IdentityConfidence, etc.)	Yes	Links to Glossary / Term		
Any DataSource Field (e.g., DataSourceID, DefinitionSourceID, DescriptionSourceID, etc.)	Yes	Links to DataSources / DataSources_ID		
DescriptionOfMapUnits / ParagraphStyle	Yes	Links to Glossary / Term		
DescriptionOfMapUnits / GeoMaterial	Yes	Links to GeoMaterialDict / Definition *		
DescriptionOfMapUnits / GeoMaterialConfidence	Yes			
DescriptionOfMapUnits / MapUnit		Yes		
DescriptionOfMapUnits / FullName			Yes	
DataSources / Source			Yes	Yes
DataSources / DataSources_ID		Yes		
Glossary / Term		Yes		
Glossary / Definition			Yes	

* Pre-existing GeoMaterialDict Table is available for GeMS databases; we don't have to populate it; just include it in the database.

Metadata summary: MapUnitPolys (polygon feature class) required

Attribute Label:	Attribute Domain Values:
MapUnit	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "FullName" attribute of the DescriptionofMapUnits table (linked by foreign key "MapUnit") Value_Definition_Source is "this report, table DescriptionofMapUnits"
IdentityConfidence	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "Definition" attribute of the Glossary table (linked by foreign key "Term") Value_Definition_Source drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID" connected to the "DefinitionSourceID" in the Glossary table)
Label	Unrepresentable domain
Symbol	Unrepresentable domain
DataSourceID	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value Definitions drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID") Value_Definition_Source is "this report, table DataSources"
Notes	Unrepresentable domain
MapUnitPolys_ID	Unrepresentable domain

Metadata summary: ContactsAndFaults (line feature class) required

Attribute Label:	Attribute Domain Values:
Type	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "Definition" attribute of the Glossary table (linked by foreign key "Term") Value_Definition_Source drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID" connected to the "DefinitionSourceID" in the Glossary table)
IsConcealed	Unrepresentable domain
LocationConfidenceMeters	Unrepresentable domain
ExistenceConfidence	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "Definition" attribute of the Glossary table (linked by foreign key "Term") Value_Definition_Source drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID" connected to the "DefinitionSourceID" in the Glossary table)
IdentityConfidence	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "Definition" attribute of the Glossary table (linked by foreign key "Term") Value_Definition_Source drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID" connected to the "DefinitionSourceID" in the Glossary table)
Label	Unrepresentable domain
Symbol	Unrepresentable domain
DataSourceID	<p>Enumerated Domain:</p> <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the "Source" attribute of the DataSources table (linked by foreign key "DataSources_ID") Value_Definition_Source is "this report, table DataSources"
Notes	Unrepresentable domain
ContactsAndFaults_ID	Unrepresentable domain

Metadata summary: DescriptionOfMapUnits (non-spatial table) required

Attribute Label:	Attribute Domain Values:
MapUnit	Unrepresentable domain Used by the metadata script to link “MapUnit” attribute of the MapUnitPolygons feature class to this table.
Name	Unrepresentable domain
FullName	Unrepresentable domain FullName values appear in the metadata as Enumerated_Domain_Value_Definition for the “MapUnit” attribute of the MapUnitPolys feature class.
Age	Unrepresentable domain
Description	Unrepresentable domain
HierarchyKey	Unrepresentable domain
ParagraphStyle	Enumerated Domain: <ul style="list-style-type: none"> ○ Value drawn from this table. ○ Value_Definition drawn from the “Definition” attribute of the Glossary table (linked by foreign key “Term”) ○ Value_Definition_Source drawn from the “Source” attribute of the DataSources table (linked by foreign key “DataSources_ID” connected to the “DefinitionSourceID” in the Glossary table)
Label	Unrepresentable domain
Symbol	Unrepresentable domain
AreaFillRGB	Unrepresentable domain
AreaFillPatternDescription	Unrepresentable domain
DescriptionSourceID	Enumerated Domain: <ul style="list-style-type: none"> ○ Value drawn from this table. ○ Value_Definition drawn from the “Source” attribute of the DataSources table (linked by foreign key “DataSources_ID”) ○ Value_Definition_Source is “this report, table DataSources”

GeoMaterial	Enumerated Domain: <ul style="list-style-type: none"> Value drawn from this table. Value_Definition drawn from the “Definition” attribute of the GeoMaterialDict table (linked by foreign key “GeoMaterial”) Value_Definition_Source is “GeMS documentation”
GeoMaterialConfidence	Enumerated Domain: <ul style="list-style-type: none"> Value are described by the GeMS metadata script: Medium, High, and Low. Value_Definition are described by the GeMS metadata script Value_Definition_Source is “GeMS documentation”
DescriptionOfMapUnits_ID	Unrepresentable domain

Metadata summary: DataSources (non-spatial table) required

Attribute Label:	Attribute Domain Values:
Source	Unrepresentable domain Source values appear in the metadata as Enumerated_Domain_Value_Definition for any data source attribute of any feature class or table. Source values also appear in the metadata as Enumerated_Domain_Value_Definition_Source for any attribute whose values are defined in the Glossary table (e.g., “Type” attributes, any confidence attributes)
Notes	Unrepresentable domain
URL	Unrepresentable domain
DataSources_ID	Unrepresentable domain Used by the metadata script to link any data source attribute to this table.

Metadata summary: Glossary (non-spatial table) required

Attribute Label:	Attribute Domain Values:
Term	<p>Unrepresentable domain</p> <p>Used by the metadata script to link this table with any attribute whose values are defined in the Glossary table (e.g., “Type” attributes, any confidence attributes)</p>
Definition	<p>Unrepresentable domain</p> <p>Definition values appear in the metadata as Enumerated_Domain_Value_Definition for any attribute whose values are defined in the Glossary table (e.g., “Type” attributes, any confidence attributes)</p>
DefinitionSourceID	<p>Enumerated Domain:</p> <ul style="list-style-type: none">○ Value drawn from this table.○ Value_Definition drawn from the “Source” attribute of the DataSources table (linked by foreign key “DataSources_ID”)○ Value_Definition_Source is “this report, table DataSources” <p>Used by the metadata script to link any Glossary term to the DataSources table (by way of the “DataSources_ID” attribute of the DataSources table).</p>
Glossary_ID	<p>Unrepresentable domain</p>