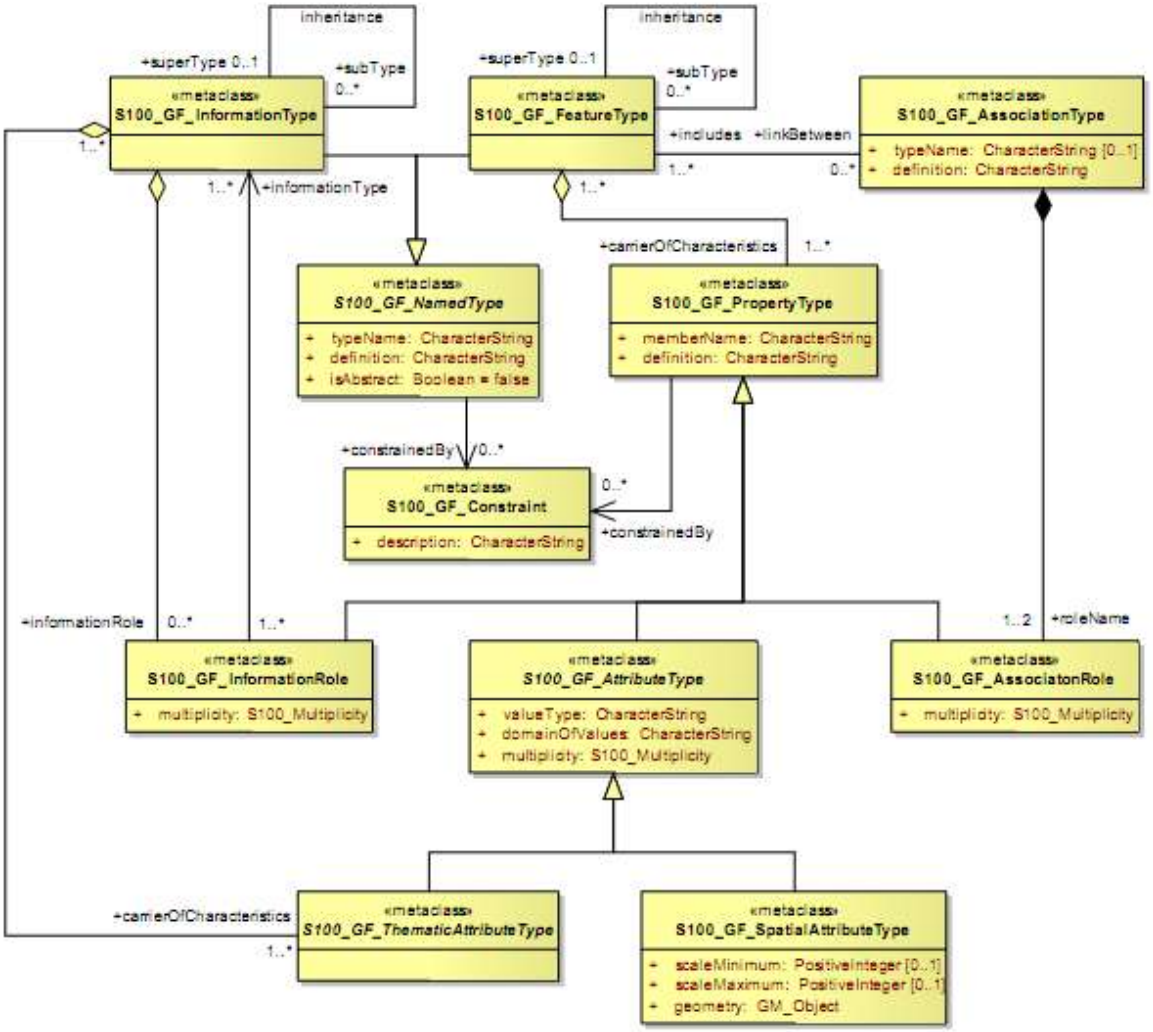
SNPWG 13

TSMAD report

TSMAD 21 met in the first week of December last year, in Victoria, BC, Canada. The meeting was much focused on development of S-101 with a number of proposals being discussed as well as a few items on the implementation of the S-100 registry. Of particular interest to SNPWG was work in progress feature catalogue (FC) builder that was demonstrated and this tool will be the vehicle from which future FCs will be built (see http://www.iho-ohi.net/mtg_docs/com_wg/TSMAD/TSMAD21/TSMAD21-4.4.3A_S100_FC_Builder.pdf). In addition, Jeppesen presented a paper with the support of SNPWG to request a change to the General Feature Model (GFM) to allow attributes to qualify the associations between information types. Below is the current model, as well as the new model to be added to the next version of S-100. The major change has been highlighted.

GFM changes

Old version, attributes on the associations were not possible, and it was not possible to use association for information types as it all had to go through a feature class.

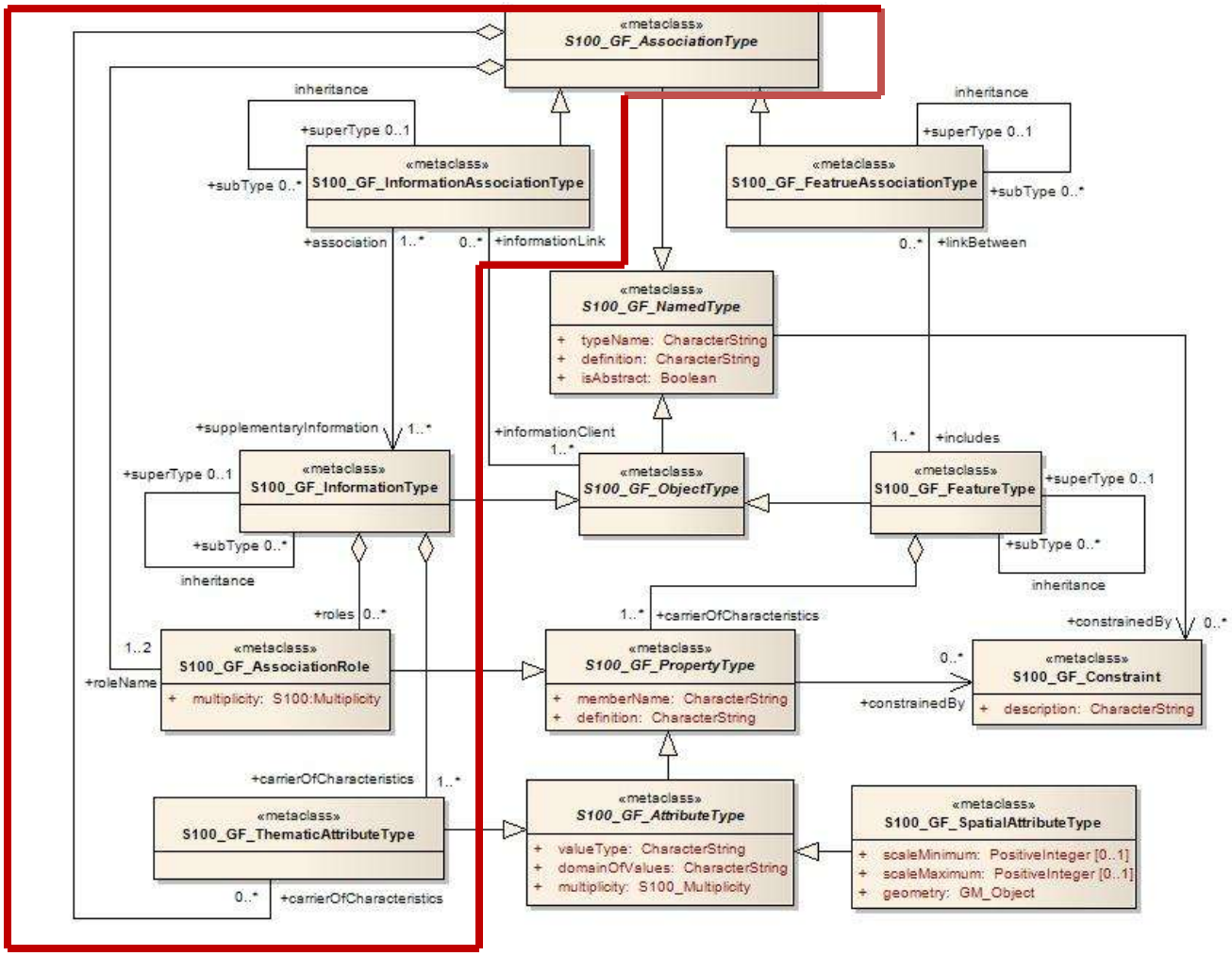


SNPWG 13

New version: With the modifications in the new GFM linking information types to other information types is now possible through the S100_GF_InformationAssociationType, thus enabling SNPWG to continue with an important paradigm in the overall model. The major changes are;

- Subclass S100_GF_AssociationType from Named Type.
  This should indicate that associations are identifiable structures as feature or information types.
  Association can carry thematic attributes and have roles.
- There are two classes derived from S100_GF_AssociationType:
  S100_GF_FeatureAssociationType and S100_GF_InformationAssociationType.
  The motivation for this is to indicate the different semantics of the two kinds of associations.
  Feature associations describe the relationship between two feature types where information associations describe the association between a feature or information type and an information type that carries additional information for the client.
- The two classes for roles are combined into one: S100_GF_AssociationRole.
  Since we have now to classes for the different association the role only describes the end of those associations. This was the originally intend of having roles.
- A class S100_GF_ObjectType is introduced in the model. It is the parent class of feature and information types and describes the set of types that can act as an information client in an information association.

SNPWG 13


«metaclass»
S100_GF_AssociationType
inheritance
+superType 0..1
+subType 0..*
«metaclass»
S100_GF_InformationAssociationType
+association
1..*
0..*
+informationLink
inheritance
+superType 0..1
«metaclass»
S100_GF_FeatrueAssociationType
+subType 0..*
0..*
+linkBetween
«metaclass»
S100_GF_NamedType
+ typeName: CharacterString
+ definition: CharacterString
+ isAbstract: Boolean
+supplementaryInformation
1..*
+informationClient
1..*
1..*
+includes
+superType 0..1
«metaclass»
S100_GF_InformationType
+subType 0..*
inheritance
«metaclass»
S100_GF_ObjectType
«metaclass»
S100_GF_FeatureType
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+subType 0..*
inheritance
+roles
0..*
1..*
+carrierOfCharacteristics
+constrainedBy
0..*
1..2
+roleName
«metaclass»
S100_GF_AssociationRole
+ multiplicity: S100:Multiplicity
«metaclass»
S100_GF_PropertyType
+ memberName: CharacterString
+ definition: CharacterString
0..*
+constrainedBy
«metaclass»
S100_GF_Constraint
+ description: CharacterString
+carrierOfCharacteristics
1..*
«metaclass»
S100_GF_ThematicAttributeType
0..*
+carrierOfCharacteristics
«metaclass»
S100_GF_AttributeType
+ valueType: CharacterString
+ domainOfValues: CharacterString
+ multiplicity: S100_Multiplicity
«metaclass»
S100_GF_SpatialAttributeType
+ scaleMinimum: PositiveInteger [0..1]
+ scaleMaximum: PositiveInteger [0..1]
+ geometry: GM_Object