Miljøministeriet
Geodatastyrelsen

Method for modelling and documentation of distribution models for basic data and geographic information

Document prepared in connection with the project in GST: Method analysis for INSPIRE and synergy with the Basic Data Initiative (Delivery 2)

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1.6	23/01/2015	Flemming Nissen	Final English version

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Context and reading instructions

This guide to modelling and documentation of distribution models for geographic information is number 3 in a series of modelling documents that comprises five in total, aimed at different target audiences. Document 2 is a standard for modelling basic data:

1. Introduction to modelling (target audience: decision-makers)
2. Model rules (target audience: domain experts and business managers)
3. Modelling and documentation method for geographic information (target audience: business and IT technicians)
4. Tool and dataflow instructions for modelling (target audience: IT technicians)
5. Example

Introduction

In January 2013, the Danish Geodata Agency (GST) initiated a project with participation from the Danish Agency for Digitisation (DIGST) and the Danish Ministry of Housing, Urban and Rural Affairs (MBBL) concerning the use of INSPIRE's standards and guidelines in connection with projects in the Basic Data Initiative that are part of realising the public digitisation strategy.

The Basic Data Initiative contributes significantly to the development of the Danish infrastructure for geographic information, and we should therefore ensure that operators in the Basic Data Initiative know how INSPIRE's standards and guidelines can best be used. The challenge lies in the large data overlap between the two initiatives, which necessitates a connection and synergy between them. Both initiatives work with distribution of data, but the Basic Data Initiative has a broader scope as it is also involved in the collection of data, c.f. individual quality improvement projects.

Reuse of INSPIRE's well-founded modelling and method basis, which is based on ISO and OGC standards, provides a number of possibilities. The perspective is model-driven development, which collates the maintenance of data models and documentation in one location and allows for the fully automatic generation of logical/physical schemas. This creates the basis for optimisation and may contribute to ensuring transparency in development and decisions.

The first delivery for the project provides the method framework for data descriptions (delivery 1 is available as a PowerPoint presentation). This document constitutes the second delivery: Method recommended for work with distributing data structures for geographic information in particular. The third delivery is a document containing recommendations for URI-based IDs for geographic information.

The method is described below along with:

- The steps executed
- Type of documentation: Unified Modelling Language (UML)
- Checklist

The method is described in brief. This should thus not be considered a "textbook" with detailed instructions on how to execute each step. The graphical notation standard is UML package and class diagrams from the Object Management Group (OMG). General UML symbols are not described in greater detail in this document.

The method was prepared by the project group during work meetings in February and March 2013. The method was edited by Strand & Donslund and GST through iterations. The method was completed in April after an information meeting was held in March where all subprojects involving geographic information under the Basic Data Initiative were represented. After further testing, adjustments were made to reduce modelling links to INSPIRE. Since then the method has been integrated into a set of documents for several target audiences.

Target audience

The primary target audience is:

- Participants in the Basic Data Initiative's subprojects that work with geographic information and modelling
- INSPIRE/authorities responsible for geographic information and basic data (including GST)
- GST. It is expected that the method will generally be used in projects that involve distribution of data

The general target audience is the Danish Ministry of the Environment and the Basic Data Initiative as well as external consultants and suppliers.

Using standards and references

A number of guidelines for preparing data specifications have been published to support the technical INSPIRE regulations. These guidelines are based on the ISO 19100 standards concerning digital geographic information including e.g. Geography Markup Language (GML), Web Map Services (WMS) and Web Feature Services (WFS). These ISO standards are typically quite abstract, but the guidelines published in connection

with INSPIRE help to operationalise them. The guidelines have created the basis for current work that presents methodological guidance as to how the INSPIRE and ISO standards can be used as a basis for modelling and specifications as regards geographic information under the auspices of the Basic Data Initiative.

The following standards and guidelines are normative:

[D2.5] INSPIRE Generic Conceptual Model (D 2.5) – http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3_3.pdf (or most recent version)

[D2.7] Guidelines for the encoding of spatial data (D 2.7) – http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.7_v3.2.pdf (or most recent version)

[ISO 19103] ISO 19103:2005 Geographic information – Conceptual schema language (new version shortly after publication)

[ISO 19107] ISO 19107:2003 Geographic information – Spatial schema

[ISO 19109] ISO 19109:2005 Geographic information – Rules for application schema (new version shortly after publication)

[ISO 19110] ISO 19110:2005 Geographic information – Methodology for feature cataloguing

[ISO 19118] ISO 19118:2011 Geographic information – Encoding

[ISO 19131] ISO 19131:2007 Geographic information – Data product specifications

[ISO 19136] ISO 19136:2007 Geographic information – Geography Markup Language (GML)

[TG-DL] Technical Guidance for the implementation of INSPIRE Download Services (version 3.0) http://inspire.jrc.ec.europa.eu/documents/Network_Services/Technical_Guidance_Download_Services_3.0.pdf

Demarcation

The method covers the data descriptions of object type level, but not:

- Metadata for data set/object type level
- Specification of services/interfaces incl. metadata in the data distributor
- Information models for updating
- Specifications for updating
- Information models for storage
- Events (definition, distribution)

Other activities

To implement the method the following must then be worked with:

- Tool testing including versioning and any model exchange
- Pilot projects that produce illustrative examples of the use of the method as a by-product
- Deployment of the method

OIO EA[1] is used as a reference framework for the method cf. Figure 1. There is a focus on the conceptual/logical information modelling of data distributed for use by users and the generation of schemas for actual exchange.

Figure 1: The method focus shown in the OIO EA table

The method is based on the principles set out in Delivery 1, but with subsequent adjustments related to the link to the INSPIRE models

1. Common methodology used for the development of public data deliveries via the data distributor based on INSPIRE's framework.
2. Development of the structure for the data distributed based on UML modelling with associated descriptive documentation for elements in the models
3. Consistent information models are being developed to distribution data in the data distributor for public data deliveries. I.e. consistency between object types in different domains is modelled.
4. National requirements not covered by INSPIRE are modelled as extensions (where possible, i.e. unless separate models have been built)
5. Greatest possible automation to support the projects, e.g. using tool-supported generation of schemas for data interfaces with associated documentation material based on UML models

Information modelling for distribution of data

An information model for distribution of data shows all the details of the data being exchanged in data services. For data overlapping with INSPIRE, the INSPIRE specifications must be used as inspiration for the overall structure.

[1] See also http://arkitekturguiden.digitaliser.dk/metode

There is an attribute completeness requirement that means that all information exchanged must be available in the distribution information model and vice versa.

Steps in the method

An overview of the steps in the method can be seen in Figure 2, and each step is described in more detail below.

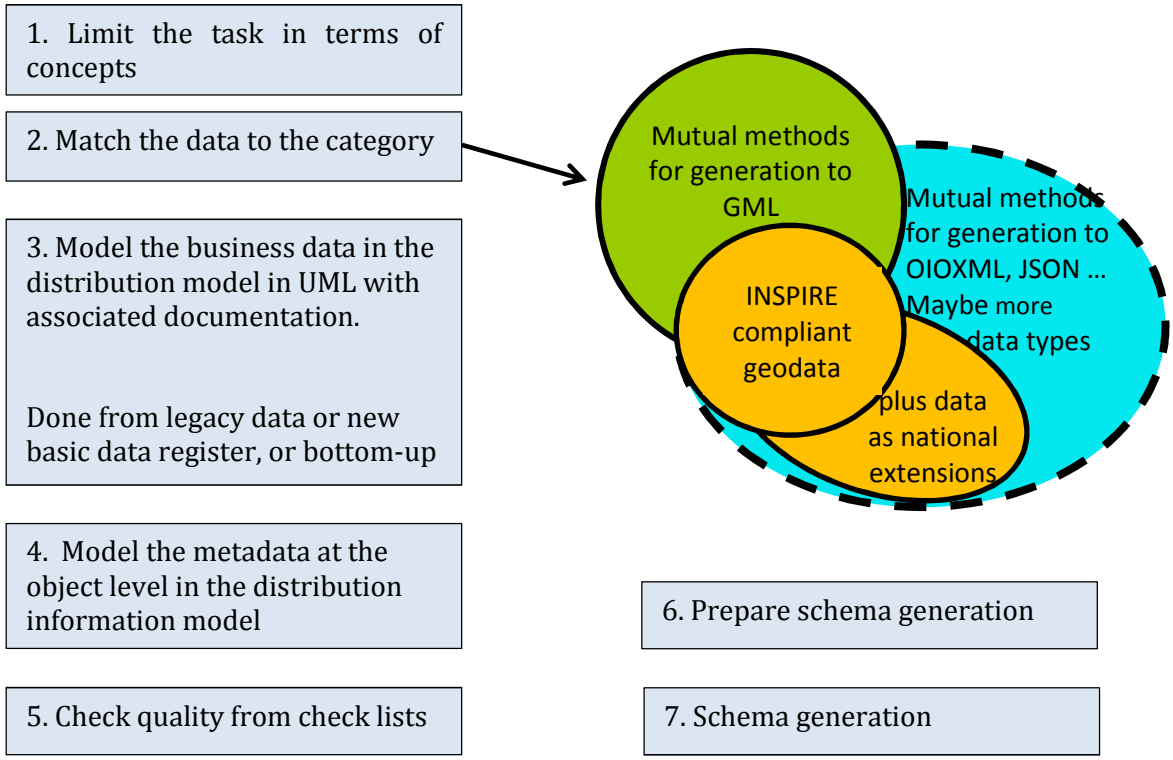


Figure 2: Overview of the steps in the method

Step 1: Limit the task in terms of concepts

Concepts to be modelled can either be identified from information models from the conceptual level, e.g. conceptual models in the Basic Data Initiative 1 and 2 or similar high-level models (*top-down*) or by systematically reviewing the content of the data register from which data are to be distributed (*bottom-up*).

It is also important in this step to map the other models that shall be referred to, e.g. the concept specified place must be able to refer to the concept (Danish) address.

Step 2: Match with data category

After identifying concepts (step 1), investigate whether the data to be distributed overlap conceptually with the INSPIRE specifications from appendices 1+2+3 (see also Appendix 1: Summary of each data category's method requirement). The authorities responsible for the themes are specified so this is often given.

<u>If there is overlap with INSPIRE</u>, specific object types must be specified. The requirement for national extensions must also be clarified. There may be a requirement for additional business data (extra attributes, extra relations for modelling in step 3a) or metadata at object level, e.g. as a requirement from the Basic Data Initiative (for modelling in step 4). In the event of conceptual overlap with INSPIRE, it is possible to choose not to follow the INSPIRE specification, e.g. due to specific national conditions. In this case, modelling is carried out as if it is other geographic information (see next section), but with inspiration

from INSPIRE. The problems with using the INSPIRE models directly include conditions relating to different semantics and attributes that have both an INSPIRE and a nationally-desired representation.

If other geographic information is involved (where there is no overlap with INSPIRE and the INSPIRE model cannot be used directly) the same method steps may be used, but to create independent models (UML and documentation). However, data types from INSPIRE may be reused. The basic UML stereotypes are also used to automate the schema generation process (see Appendix 4: Stereotypes).

Step 3a: Modelling business data graphically in UML (parallel with Step 3b)
Here all business data must be expressed as attributes and relations by realising the domain as a model. This is done using the content of an existing basic data register, i.e. bottom-up based on documentation e.g. in the form of logical or physical data models, i.e. storage models. However, an entirely new basic data register could also be established where the desired user requirements are available. It is recommended that at least two UML diagrams are used to give an overview of the developed model(s): class diagram and package diagram. To give a better communicative overview of the information model, several class diagrams may be included. These diagrams may either hide details or e.g. break down the model thematically. See example under "UML diagrams below". It is completely up to the individual projects to decide how the models are best communicated.

It is necessary to set up an UML project in Enterprise Architect with the inclusion of e.g. the existing ISO standards and INSPIRE data models.

A new package (or several) is created for the data that shall be modelled. The class diagram is then constructed from the results of steps 1 and 2:

Modelling primarily takes place in Danish, but where material is reused from INSPIRE, English is used. This means that models may therefore exist in which there is a mix of English and Danish.

There may be a need to create

- new classes with their own attributes for all geographic information that uses stereotypes from ISO/INSPIRE/the Basic Data Initiative's model rules, e.g. <<featuretype>> and <<datatype>> (see Appendix 4: Stereotypes).
- new classes that inherit from INSPIRE concepts, but that have supplementary attributes and possibly relations
  and/or new code lists
- expanded code lists that possibly inherit from INSPIRE code lists.
- naming of data types, code lists and enumerations (numeric encoding) must follow the Basic Data Initiative's model rules
- new relations between new classes – remember that the focus is on distribution and not validation/updating.
- new relations between new classes and other models' classes where there is a need to refer to data modelled in another submodel or a completely different model.

The classes are ordinarily named with an uppercase first letter using UpperCamelCase, whereas attributes and relation ends are named using lowerCamelCase.

Attributes are allocated an ISO standard data type (ISO 19103), geometry type (ISO 19107) or a data type defined as a class in the same or another package. For a selection of basic data types in ISO 19103 and 19107, refer to Appendix 5: Basic data types.

Attributes are named and labelled using the relevant stereotypes, e.g. <<voidable>> (see Appendix 3: Stereotypes).

Class diagrams can then be created to support the communication of the information model. E.g. a diagram can be made that shows associations to other classes in other packages, one with subtypes if there are several, one without attributes or one with other elements that it may be advantageous to specify separately.

The package structure is then modelled and kept in a new package diagram.
If there is overlap with INSPIRE, the packages using the relevant INSPIRE concepts must be included in the diagram.

The following standards and guidelines are relevant and must be used in this step:

- D2.5 – Stereotypes and modelling patterns
- ISO 19103 – Basic data types
- ISO 19107 – Geographic information types
- ISO 19109 – Basic modelling patterns

Step 3b: Documents business data (parallel with Step 3a)
When the models are documented in UML, the new elements must be documented as specified in "Model rules for basic data 1.0.0 Appendix 3 (Documentation of the data model)".

The following standards and guidelines are relevant and must be used in this step:

- D2.5 – Description of documentation requirements

Step 4: Modelling metadata at object level
Metadata at object level is modelled on an equal footing with other business data and using the same method, but is given a separate step to ensure focus and consistency.

When it comes to basic data in the Basic Data Initiative, the basis must be the general basic data properties. This may e.g. be an attribute such as valid time.

If there is a need to add additional object-specific metadata, this is done in the UML class diagrams and they are documented on equal footing with other attributes.

Technical note for later: the method assumes for the moment that everything from the UML model is distributed. There may be a need to highlight or ignore e.g. INSPIRE attributes later that do not make sense in a Danish basic data context. It is likely that there will also be a need to manage conflicting/overlapping attributes using a type of overwriting. UML does not have a built-in construction for this. One option may be to create a tagged value for the relevant class `"supressedAttributes"` using a comma-separated list of the attributes that you do not want distributed. However, it is important to emphasise that the current tool which generates schemas cannot read and carry out an instruction based on this tagged value. This must be implemented if this functionality is desired.

Step 5: Performing quality checks using checklists
Use the checklist below. Please note that there are methodological and business checks.

When the information model is prepared or changed, the following must be checked:

- Is any relation to the INSPIRE models correct? And are the INSPIRE models at least used for inspiration where relevant?
- Is any relation to other geographic information/basic data models correct?
- Is the description true and fair in a business sense?
- Has the method been adhered to?
- Has UML been used correctly?

- Does the package diagram provide a good visualisation of any dependence on INSPIRE and other geographic information/basic data concepts with reader-friendly and supportive structuring?
- Does the class overview diagram provide a good visualisation with a reader-friendly and supportive structuring of the data modelled?
- Are there class detail diagrams for all concepts in the class overview diagram?
- Are (the new) concepts meaningfully named and sufficiently documented?
- Are (the new) relations meaningfully named and sufficiently documented?
- Are (the new) attributes meaningfully named and sufficiently documented?
- Is UML generalisation/specialisation used appropriately for the concepts described?
- Were data types from Appendix 6 used (and, where necessary, user-defined data types)?
- Is there a sufficient differentiation between when the stereotype data type or feature type is used cf. Appendix 4?

Step 6: Preparing schema generation

Automatic schema generation requires a number of standard values and properties to be added to the UML models. These are called tagged values in UML. The values are described in Appendix 5: Tagged values. It is worth noting that there are several values. However, there are only a few that must be set in addition to the values set as standard. At minimum, the following must be set on the application schema package (see Appendix 5):

- xsdEncodingRule
- targetNamespace
- xmlns
- xsdDocument

We recommend using the UML profile developed for INSPIRE as it contains tagged values with standard values for all model elements.

The following standards and guidelines are relevant and must be used in this step:

- D2.7 – Recommendations and requirements for encoding rules
- ISO 19136 – GML

Step 7: Schema generation

Schema generation itself (for e.g. GML) is carried out using a specific piece of software that requires configuration, but that can otherwise be run automatically. The software is Open Source and is called ShapeChange:

http://shapechange.net/

The resultant GML schemas can be used and imported into other software that distributes data (e.g. Safe FME or GO Publisher). Feature catalogues can also be generated that are descriptive tables containing the individual elements in the model. When the documentation is carried out in UML (see Step 3b for business data and the same in Step 4 for metadata), the documented text is represented in these tables.

The following standards and guidelines are relevant and must be used in this step:

- ISO 19136 – GML
- TG-DL – Guidelines for implementing download services

We recommend creating a text specification with UML diagrams, associated explanation and feature catalogue (tables). It may e.g. be based on ISO 19131.

Possible later method extensions

If there is a need to “select” in a distribution information model such that e.g. not all attributes are exchanges in a given service or received schema (see also technical note under Step 4). For data services it is perhaps not relevant as the user can filter undesired data structures.

Appendix 1: Summary of each data category's method requirement

In delivery 1 the different modelling situations were created with the following colour codes:

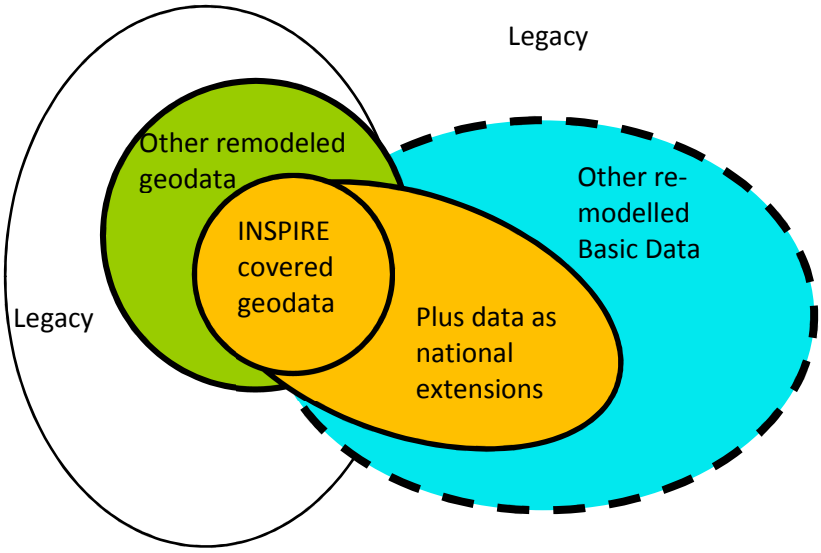


Figure 3: Data categories

The method requirement for remodelling in the individual categories is summarised in the table below:

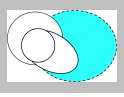
Category	Method requirements	UML requirements	Generation requirements	Possibly extra method requirem.
INSPIRE compliant geodata 	None	None, rather a "Cook book " connected to the use and extensions	Tags and Scripts to GML	--
Plus national extensions 	Approach	Separate packages; classes by inheritance and more values in codelists, relationships	Existing scripts for GML is reusable Possible extension for general Basic Data - properties	General properties for Basic Data as UML package
Other geodata 	Same approach based on existing models	Same sort of models with same stereotypes as INSPIRE. No national extensions.	INSPIRE tagged values and scripts is reusable	Ditto
Other Basic Data 	Same approach - UML methodical. NOTE: Clarifies by the Basic Data initiative	Same sort of models, but possibly other stereotypes. Possibly more data types than ISO 19103. NOTE: Clarifies by the Basic Data initiative	A method is to be put up corresponding to GML + scripts for wanted standards. NOTE: Clarifies by the Basic Data initiative	General properties for Basic Data. Requirements from other standards. NOTE: Clarifies by the Basic Data initiative

Figure 4: Method requirement for the individual categories

Please note that there are requirements from the Basic Data Initiative for both the yellow INSPIRE category (in the form of a national extension) and for other geographic information (green) covered by the Basic Data Initiative.

Appendix 2: UML diagrams

Class diagram

Depending on the area being modelled, it may be advantageous to use several UML class diagrams for communication. E.g. one that shows all details incl. object types, code lists, enumerations, etc. and one that provides details about elements related to a specific object type. There could also be one that only shows object types and no other model elements. Example of a diagram from the INSPIRE model for Administrative Unit is given in the Figure below.

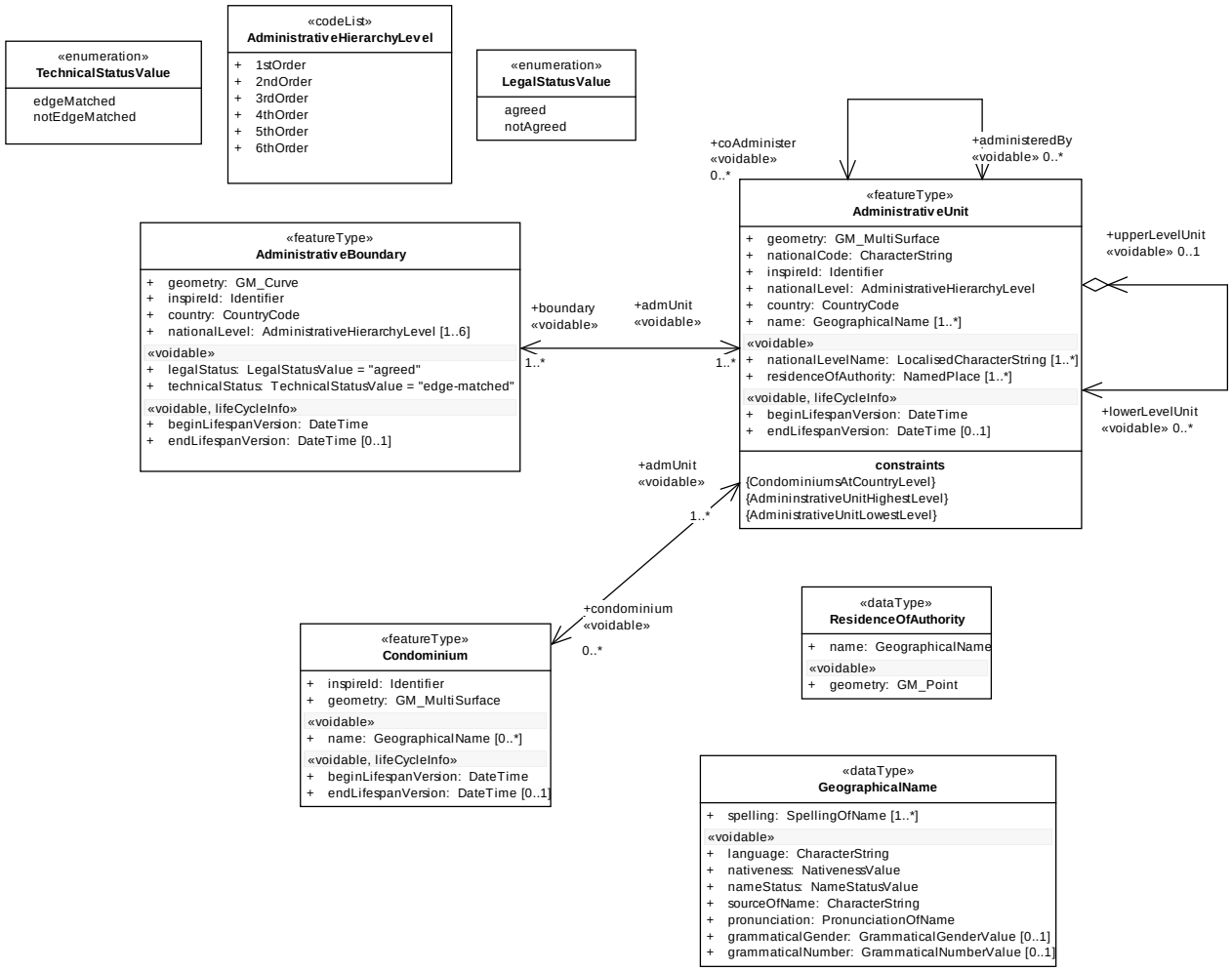


Figure 5: INSPIRE example of a class diagram showing all details

An example of a diagram with fewer details, in this case only object types, is shown below. This example also comes from the INSPIRE models. The examples from Administrative Unit shown here are relatively simple. The communication of the information model via several class diagrams makes more sense in situations where the models are more complex and contain several elements.

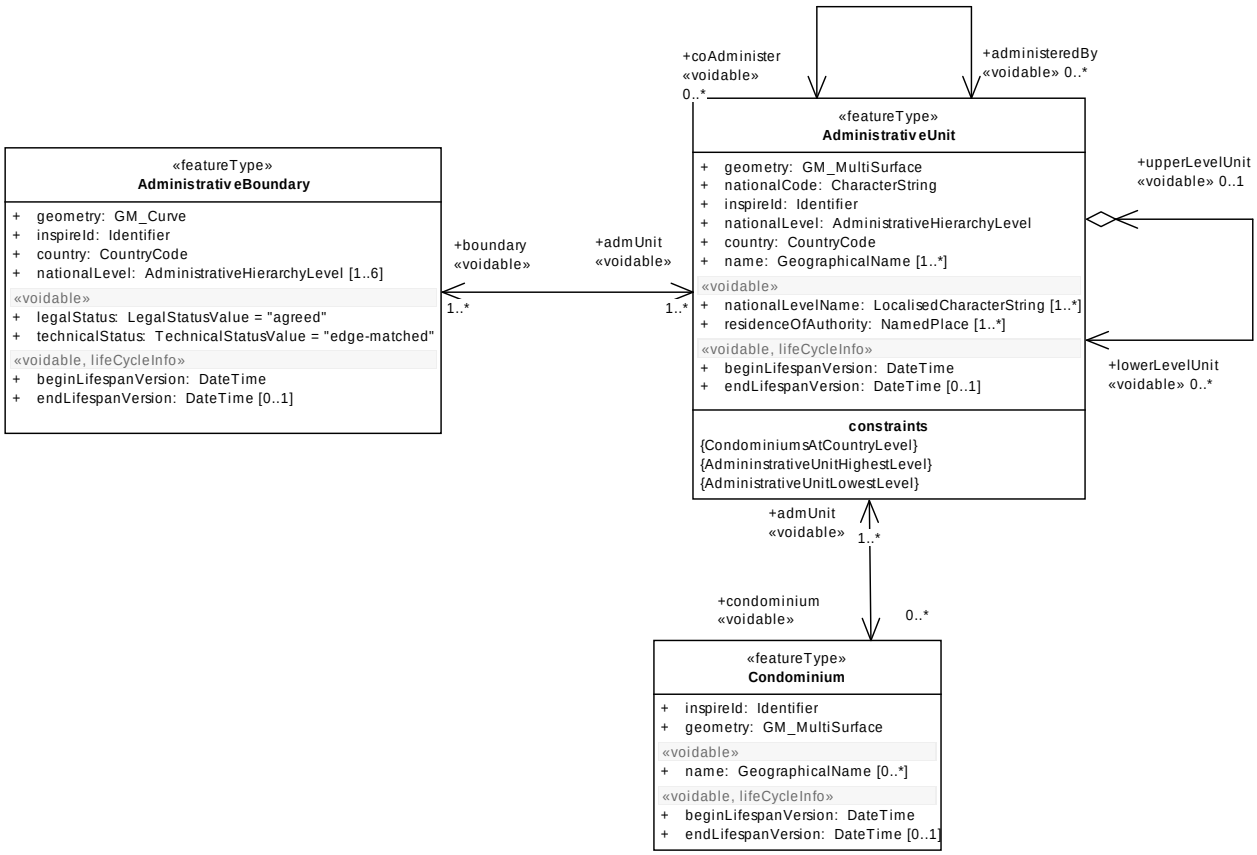


Figure 6: INSPIRE example of a diagram that only shows object types

Figure 7 shows an example of a national extension of Administrative Unit. The new class to the left shows the five attributes that constitute the national extension in this example, but the rest of the content was inherited from Administrative Unit.

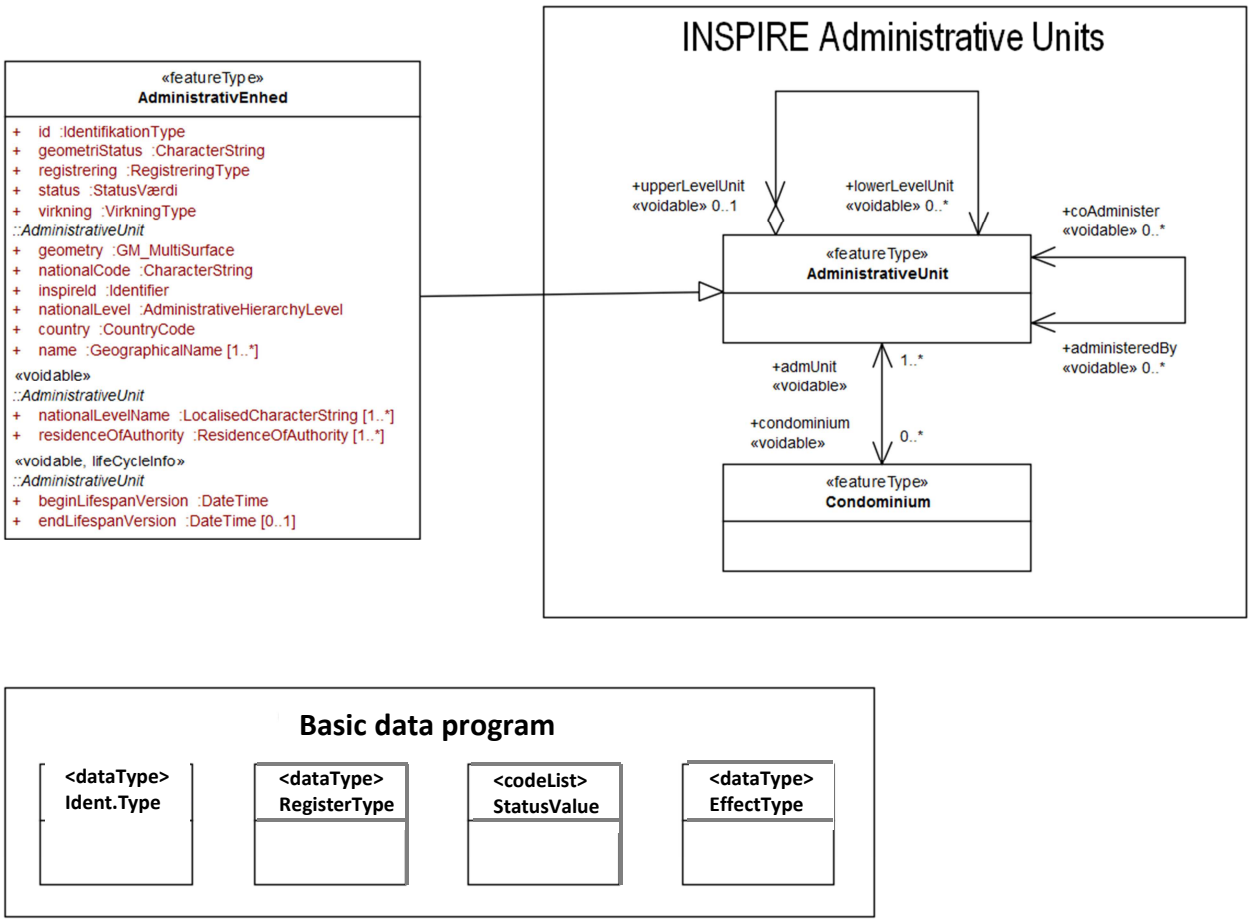


Figure 7: Illustrative example of a class diagram using the method for a national extension

Package diagram

This diagram adheres to the overall structure and specifies which existing models it is referring to. Example of a package diagram from the INSPIRE model for Administrative Unit is given in the Figure below.

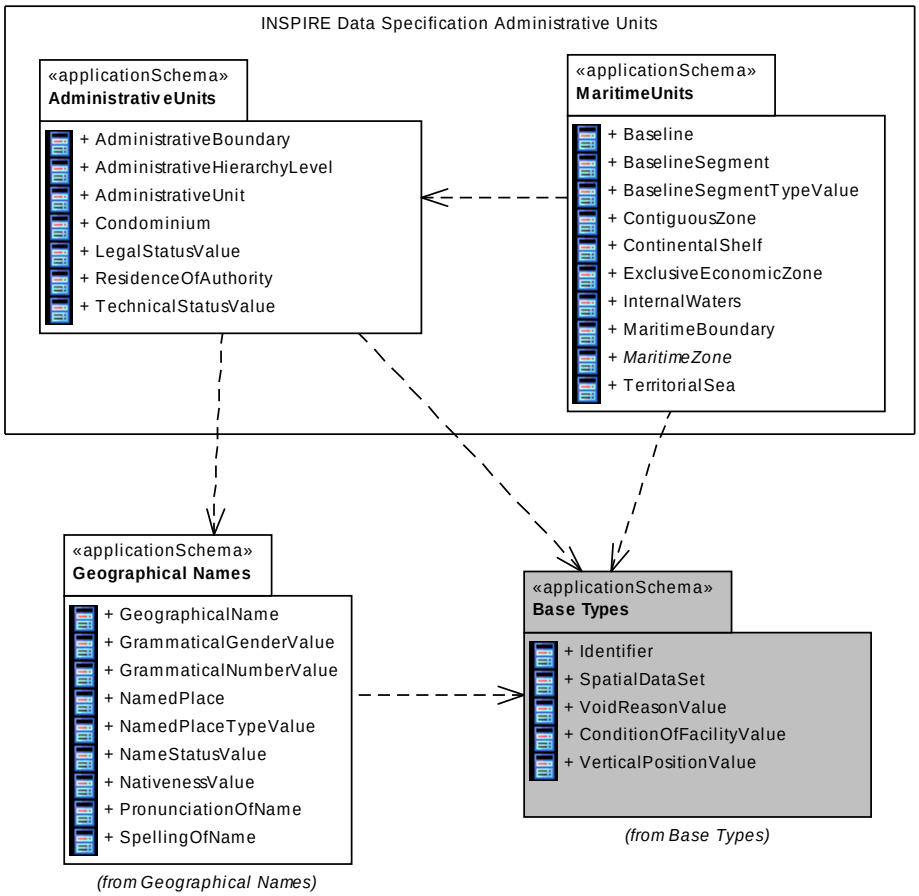


Figure 8: INSPIRE example of package diagram

During method testing work was done with modelling for DAGI (Danish Administrative Geographic Unit) and Danske Stednavne (Danish Placenames).

Appendix 3: Stereotypes

The following are all stereotypes defined by ISO and INSPIRE.

Stereotype	UML element	Description
applicationSchema	Package	An application schema that follows the rules defined in ISO 19109 ad D2.5.
leaf	Package	A package that is not an application schema and does not contain other packages (may contain e.g. data types)
featureType	Class	Defines a geographic information object type.
placeholder	Class	Defines a class as a placeholder for another (not yet defined) class.
type	Class	Defines an object type with an identity that is not a geographic information object type.
dataType	Class	Defines a structured data type without an identity that may be used e.g. as a type specification for attributes.
union	Class	Defines a data type with values that are data belonging to just one of a number of different types.
enumeration	Class	Defines a data type as a final quantity of named values.
codeList	Class	An enumeration that can be expanded with values as required.
import	Dependency	The model elements from the supplier package are imported.
voidable	Attribute, role (by association)	Specifies that a property (attribute or role) does not need to be defined for all objects in a class regardless of multiplicity.
lifeCycleInfo	Attribute, role (by association)	Specifies that a property (attribute or role) provides information about the life cycle of objects in a class or association.
version	Role (by association)	Specifies that it is not all objects in a class but certain versions of objects with a fixed roles in an association.

Appendix 4: Tagged values

The value in [ ] indicates the standard from which the tagged value originates.

The below lists all tagged values that may be read and interpreted when generating GML. Most do not need to be set and the standard values may be used. To generate GML it is necessary as a minimum to set: xsdEncodingRule, targetNamespace, xmlns, xsdDocument on the application schema package. The rest does not necessarily need to be set.

Tagged values are set automatically using the developed INSPIRE UML profile for Enterprise Architect. This is where xsdEncodingRule is set to iso19136_2007_INSPIRE_Extension. This can be retained or changed back to the standard value iso19136_2007.

Tagged values for all model elements

Tagged value	Stereotype	Description
Documentation	any stereotype	Any documentation [UML]. The normal UML comment field must be used for longer descriptive definitions.
xsdEncodingRule	any stereotype	Which XML Schema encoding rule should be used. The standard value is iso19136_2007.
Alias	any stereotype	A possible alias for the name of the model element.

Tagged values for packages

Tagged value	Stereotype	Description
targetNamespace	<<applicationSchema>>	Target XML namespace for the application schema [ISO 19136]. Must be set to generate GML.
xmlns	<<applicationSchema>>	Namespace prefix used as short name for target namespace [ISO 19136]. Must be set to generate GML.
version	<<applicationSchema>>	Version of the application schema [ISO 19136]. We recommend increasing the version number when new versions are published. Should be set to generate GML.
xsdDocument	<<applicationSchema>>, no stereotype	Name of the resultant XML schema document [ISO 19136]. Must be set to generate GML.
gmlProfileSchema	<<applicationSchema>>	URL of any schema placement of a GML profile (where relevant) [ISO 19136]. Not necessary to set.

Tagged values for classes

Tagged value	Stereotype	Description
noPropertyType	no stereotype, <<featureType>>, <<type>>, <<dataType>>, <<union>>	Prevents the creation of a standard property type that supports inline or by-reference encoding [ISO 19136]. Inline encoding is only supported for data types. The standard is false and should normally not be set.

byValuePropertyType	no stereotype, <<featureType>>, <<type>>	Creation of a property type that requires the instance to be coded inline [ISO 19136]. The standard is false and should normally not be set.
isCollection	no stereotype, <<featureType>>, <<type>>	Expresses that the type is a collection [ISO 19136].
asDictionary	<<codeList>>	If the value is 'false', the code list will be coded using the values in the schema itself. If the value is 'true', all values will be maintained in an external register and thus not in the schema itself. The standard value depends on the encoding rule being used and normally does not need to be set [ISO 19136, GML 3.3].
defaultCodeSpace	<<codeList>>	URI for the register containing the code list values [ISO 19136].
codeList	<<codeList>>	URI for the register containing the code list values. This is similar to 'defaultCodeSpace', but less specific compared to GML generation. Alias is 'vocabulary'.
resourceURI	<<codeList>>	Alias to 'vocabulary'.
xmlSchemaType	<<type>>	Set if a specific XML data type name is to be used [ISO 19136].
gmlMixin	no stereotype, <<type>>, <<featureType>>	Mixin types that are not encoded as independent types/elements in XML, but whose properties are copied to underclasses. This is a ShapeChange extension.
extensibility	<<codeList>>	This is a specific value for INSPIRE and thus not necessary. It specifies whether the code list can be extended by external parties or only the "owner". If the value is 'none', only the owner can extend the list; if the value is 'narrower', the code list can be extended using concepts within an umbrella concept. E.g. if "building" appears in the list, an external party may extend the list with "greenhouse"; if the value is 'any', the code list may be extended at any time by external parties. If the value is not set, this means 'any' [INSPIRE]
vocabulary	<<codeList>>	See resourceURI [INSPIRE]

Tagged values for properties (attributes)

Tagged value	Stereotype	Description
sequenceNumber	any stereotype	Unique number that is used to sort properties (attributes) [ISO 19136].
inlineOrByReference	any stereotype	Check whether inline or by-reference encoding should be used. Values are 'inline', 'byReference' and 'inlineOrByReference'. The standard value is 'inlineOrByReference' [ISO 19136].

isMetadata	any stereotype	Indicates whether a property (attribute) is metadata about the instance of the object [ISO 19136]. Values are 'true' or 'false'; the standard value is 'false'. Does not need to be set.
obligation	any stereotype	An INSPIRE value that should not be taken into consideration. Concerns whether a value should appear in legal text or only in guidelines [INSPIRE]
xsdAsAttribute	any stereotype	If the value is true, the property (attribute) has a multiplicity of max. 1 and the value of the attribute is simple. If the value is true, the property (attribute) is converted to an XML attribute instead of an XML element.

Appendix 5: Basic data types

The following shows a selection of basic data types as defined in ISO 19103 and 19107. Reference is made to the standards for reviewing all defined data types.

Name	Standard	Description
Date	ISO 19103	Date with day, month and year. Complies with ISO 8601
DateTime	ISO 19103	Combined date and time. Complies with ISO 8601
Time	ISO 19103	Time with hours, minutes and seconds. Complies with ISO 8601
Number	ISO 19103	Basic type for all numbers
Decimal	ISO 19103	Exact decimal number
Integer	ISO 19103	Exact integer
Real	ISO 19103	A non-exact number. ISO/IEC 11404:1996 8.1.10
CharacterString	ISO 19103	Text string. ISO/IEC 11404:2007 10.1.5
Boolean	ISO 19103	Boolean value
LocalisedCharacterString	ISO 19103	Text string containing language code
URI	ISO 19103	Uniform Resource Identifier
Area	ISO 19103	Area
Length	ISO 19103	Length
Volume	ISO 19103	Volume
UnitOfMeasure	ISO 19103	Amount with unit of measure
GM_Object	ISO 19107	Any geometric object
GM_Point	ISO 19107	A point
GM_Curve	ISO 19107	A curve – line
GM_Surface	ISO 19107	A surface 2D
GM_Solid	ISO 19107	3D geometry
GM_MultiPoint	ISO 19107	Aggregation comprising a number of points
GM_MultiCurve	ISO 19107	Aggregation comprising a number of lines
GM_MultiSurface	ISO 19107	Aggregation comprising a number of surfaces
GM_MultiSolid	ISO 19107	Aggregation comprising a number of 3D objects