

# Open Discussion

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Avian Diseases



# Validity

- Geometry
- Reference system → WGS84
- Attributes for thematic maps and ESDA
- Publishing method

# What is mandatory

- Id
- Geometry
  - Polygon
- Zone Type
- Designation Period
  - Begin Position
  - End Position
- Vetrinary Authority

# What is not mandatory?

- Legal Basis
- Controlled Activities (biosecurity / hygienic / surveillance / restriction ... *measures*)
  - **activity**: the type of activity that is implemented within the zone to control the disease;
  - **target population**: the animal population interested by the control activities;
  - **activity period**: the time period of the implementation of the control activities. It may be different from the zone designation period.
- Local Id: Code given by the data producer
- Geographic Name: Geographical name that is used to identify a zone

# i18n – Content internationalization

## 3.2.3 – Code List language

The language used in the codeList classes is described by the **i18N** approach. Each code in the codeList has a set of different localised names. A framework that should allow the inclusion also of the names in newest languages can possibly be developed.

<key> : <value>

Disease dictionary example

(EN)    *AI : avian influenza*  
(FR)    *AI : influenza aviaire*  
(CN)    *AI : 禽流感*  
(IT)    *AI : influenza aviaria*  
(VN)    *AI : cúm ga*

# Use case – To draw Avian Influenza infected zones

Use Case Description	
Name	<b>Draw Avian Influenza infected zones</b>
Primary actor	Spatial planner in the Member Country
Goal	To draw the zone's boundary and to store the related characteristics of an Avian Influenza infected zones.
System under consideration	Animal disease control
Description	<p>The spatial planner defines the extent of the zone and draw the boundary according to a protocol derived from the legislation of the Member Country.</p> <p>A set of zone's characteristics are stored in the attribute of the zone spatial object.</p> <p>Information about a set of appropriate control measures established by the Veterinary Authority within the zone can be stored in the attribute of the zone spatial object.</p>
Pre-condition	<p>Information about the Avian Influenza outbreaks are obtained/generated from local data sources.</p> <p>Ancillary spatial data (e.g. river branches, major roads, administrative boundaries, etc.) are available to the spatial planner.</p> <p>The spatial planner uses a GIS software and follow a protocol to draw the zone boundary and register the related characteristics of an Avian Influenza infected zones.</p>
Flow of Events – Basic Path	
Step 1	The spatial planner verifies the quality and format of the spatial information about the Avian Influenza outbreak and if necessary, performs the spatial transformation of this data in order to overlay the spatial information with the ancillary spatial data.
Step 2	According to the protocol derived from the legislation of the Member Country, the spatial planner displays the spatial data (e.g. ancillary data, outbreaks data) in a GIS software and performs the spatial function to edit the zone boundary and the zone characteristics.
Step 3	The spatial planner activates the procedure for the validation of the zone borders and the related characteristics. If one or more information are not validated by the Veterinary Authority, the process envisages to perform again step 2.
Step 5	At the end of the validation process, the spatial planner activates the procedure for transferring the zone data to WHAIS+.

# Use case – Finding zones

Use Case Description	
Name	<b>Finding zones in a Member Country</b>
Primary actor	Analyst
Goal	Identifying a list of zones and including the map in a report.
System U. C.	Risk analysis
Description	An analyst from a Veterinary Authority needs to perform a risk analysis for importing domestic animals from a given country. The analyst needs to acquire information about the spatial distribution of zones of a given disease in the interested area/region.
Pre-condition	WHAIS+ provides zone spatial data by means of a file transfer process or a web service. The analyst has the ancillary spatial data (e.g. administrative boundaries, major roads, etc.) for the interest area.
Post-condition	The maps derived from the analysis are included in a specific report.
Flow of Events – Basic Path	
Step 1	By using a GIS software, the analyst accesses the zone dataset provided by WHAIS+.
Step 2	The analyst queries the zones for a given set off criteria (e.g. disease, period of time).
Step 3	The analyst organises the layers for the analysis and develops the required maps from the queried data.
Step 4	The analyst activates the procedure for the validation of the output and for its inclusion in a specific report.

# Use case – Group of zones by epidemic

Use Case Description	
Name	<b>Group of zones by epidemic</b>
Primary actor	Epidemiologist and Analyst
Goal	To define a logical list of zones which are grouped or related together by a single characteristic.
System under consideration	Animal disease control
Description	The epidemiologist identifies a list of zones according to a given characteristic. It is not mandatory for a zone to be part of a group.
Pre-condition	Two or more zones for a given disease have been already defined in WHAIS+. The epidemiologist defines the characteristic/ criteria for grouping the zones.
Flow of Events – Basic Path	
Step 1	By using a GIS software, the analyst accesses the zone dataset provided by WHAIS+ and identifies the zones that should be grouped together.
Step 2	The analyst verifies if a group with the same characteristic is already stored in the acquired dataset in order to avoid duplications.
Step 3	The analyst queries the zones for the specific characteristic provided by the epidemiologist.
Step 4	The analyst, for each queried spatial object, assigns the group code in order to include them in the group. The group code is stored in the attribute of the zone spatial object.
Step 5	The epidemiologist validates the data modified by the analyst.
Step 6	At the end of the validation process, the spatial planner activates the procedure for transferring each zone with the updated values to WHAIS+.



# Use case – To modify the spatial information of an Avian Influenza infected zone

Use Case Description	
Name	<b>Modify the spatial information of an Avian Influenza infected zones</b>
Primary actor	Spatial planner
Goal	If the spatial information of a zone that has been already sent to WHAIS+ needed to be modified, a new spatial object must be uploaded in the WHAIS+. All the previous information of the zone shall be versioned (the management and storage of the changes applied to the zone, allowing the chronologic reconstruction of the zones spatial distribution) and the new version of the zone is stored.
System under consideration	Animal disease control
Description	The spatial planner, among the zones already sent to WHAIS+, identifies the zone with the not correct value (either geometry or attribute) and edit the end date of zone validity in order to create an old version of the zone. After this operation the spatial planner performs the activities of the “To draw Avian Influenza infected zones” use case
Pre-condition	The correct information about the zone is provided to the spatial planner. Information about already defined zones are available in WHAIS+.
Flow of Events – Basic Path	
Step 1	By using a GIS software, the analyst accesses the zone dataset provided by WHAIS+
Step 2	The analyst queries the zones for a given identifier.
Step 3	The analyst verifies the zone information of the identified zone.
Step 4	The spatial planner modifies the end of validity of the identified zone (to create an old version of the identified zone) and save the edit.
Step 5	The analyst activates the procedure for the validation of the update value and, subsequently, activates the procedure for sending the zone data to WHAIS+.
Step 6	The spatial planner starts the process described in the “To draw Avian Influenza infected zones” use case

# Use case – Management of Avian Influenza infected zone validity period

Use Case Description	
Name	<b>Modify the spatial information of an Avian Influenza infected zones</b>
Primary actor	Spatial planner
Goal	If the spatial information of a zone that has been already sent to WHAIS+ needed to be modified, a new spatial object must be uploaded in the WHAIS+. All the previous information of the zone shall be versioned (the management and storage of the changes applied to the zone, allowing the chronologic reconstruction of the zones spatial distribution) and the new version of the zone is stored.
System under consideration	Animal disease control
Description	The spatial planner, among the zones already sent to WHAIS+, identifies the zone with the not correct value (either geometry or attribute) and edit the end date of zone validity in order to create an old version of the zone. After this operation the spatial planner performs the activities of the “To draw Avian Influenza infected zones” use case
Pre-condition	The correct information about the zone is provided to the spatial planner. Information about already defined zones are available in WHAIS+.
Flow of Events – Basic Path	
Step 1	By using a GIS software, the analyst accesses the zone dataset provided by WHAIS+
Step 2	The analyst queries the zones for a given identifier.
Step 3	The analyst verifies the zone information of the identified zone.
Step 4	The spatial planner modifies the end of validity of the identified zone (to create an old version of the identified zone) and save the edit.
Step 5	The analyst activates the procedure for the validation of the update value and, subsequently, activates the procedure for sending the zone data to WHAIS+.
Step 6	The spatial planner starts the process described in the “To draw Avian Influenza infected zones” use case

# ZoneGroup – Group zones by a common attribute

Represents collections of zones according to a given parameter. This feature type is essentially used to group zones according to the characteristics of the disease, affected population, disease pattern, etc.

- *1 group – 1 attribute/parameter?*

- **Group type**

The parameter used to group the zone could be epidemic, year, surveillance program, etc.

*year = 2010, 2016, 2018 ...*

*epidemic = H5N8, H7N9 ...*

- **Group name**

A name is used to identify the group. The name must be written in English.

*Virgo, H5N8-1, H5N8-wave1 ...*

# Document Citation


The Veterinary Authority defines a zone by means of a legal document.

- *In which language? Original name?*
- *Is important to store the original file? Or only the reference(link)?*
  
- **Name**  
The name of the document
  
- **Link**  
Url of the original online document

# Zone Style

Styles for the main Zoning classification values. Refer to Zone Type.

- *Could be possible a default colour definition?*

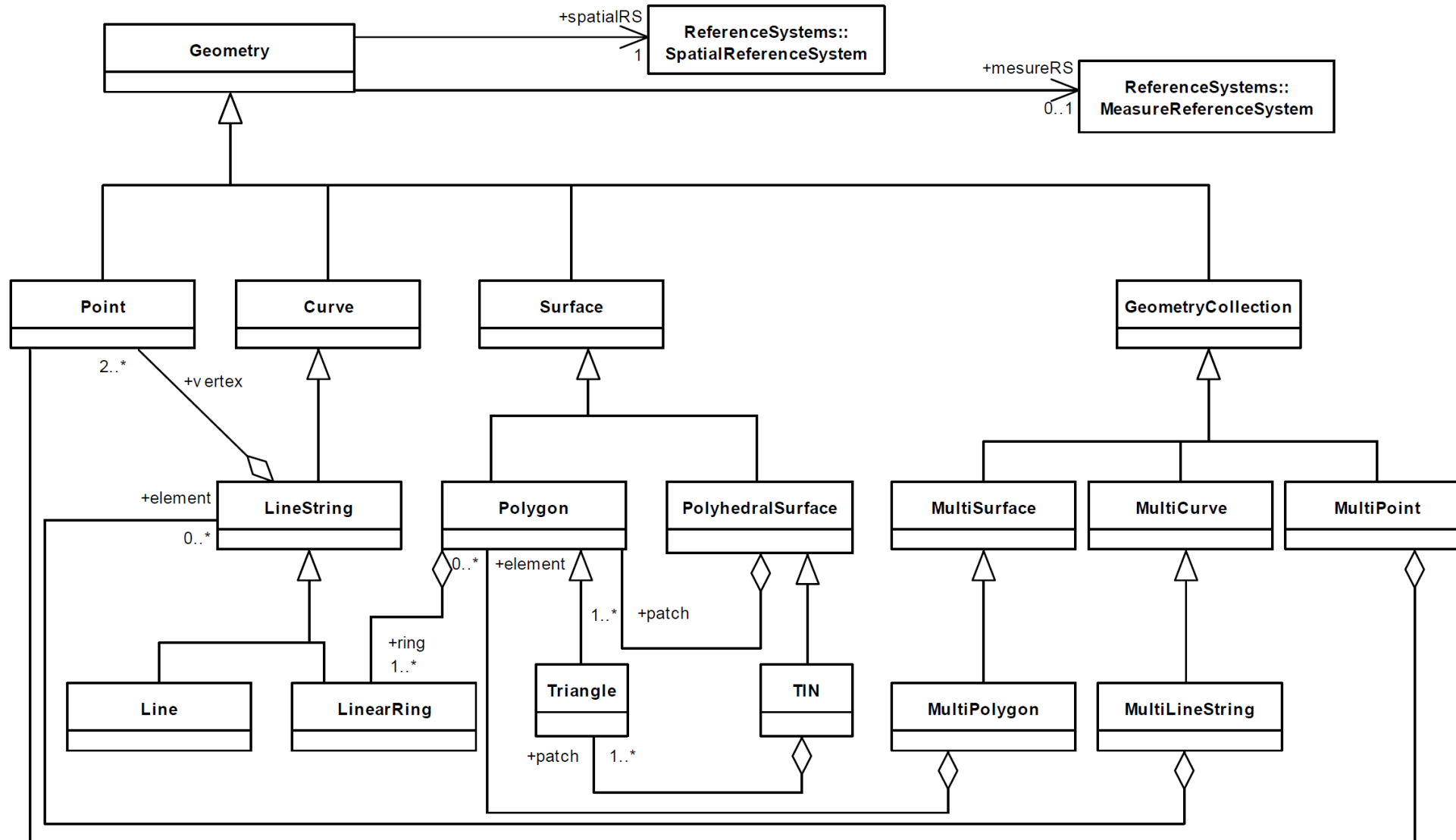
Style name	Zoning.InfectedZone.Default			
Spatial	Style name	Zoning.ContainmentZone.Default		
Abstract	Spatial	Style name	Zoning.FreeZone.Default	
Example	Abstract	Spatial	Style name	Zoning.ProtectionZone.Default
		Abstract	Spatial object type	zoneType = ProtectionZone
		Abstract		The geometry is rendered using a mango (#FFD37F) fill with a transparency of 50% and a solid mango (#FFD37F) outline with a stroke width of 2 pixels
		Example	Example	

# Data quality

Quality of the dataset

- 1. Number of excess items**
- 2. Number of missing elements**
- 3. Number of items not compliant with the rules of the conceptual schema**
- 4. Mean value of positional uncertainties**

# Simple feature



# Zone Dataset

Represents a collection of instances of the zone defined by the spatial object type Zoning. This class is essentially used to associate the metadata information to the collection of zones.

- *Unique dataset by country?*
- *Send the entire dataset every time? Or only changes?*

# Zone Dataset Metadata

Contains metadata information. This way of handling metadata is used to carry information about the zone dataset and is, therefore, not necessarily linked to Zoning feature class.

- *Metadata?*



## 7 Metadata

This chapter provides a structure for describing digital *zone* dataset and defines metadata elements and the common set of metadata terminology. The core metadata elements are listed below (mandatory and recommended optional) as required for describing a dataset. An “M” indicates that the element is mandatory. An “O” indicates that the element is optional. A profile of the ISO 19115 Geographic information — Metadata standard was used.

1. Citation (dataset title): name by which the resource is known. [M]
2. Abstract: brief narrative summary of the content of the resource. The description may include (but is not limited to) abstract, keywords, area or location covered by the dataset, information about the source data used in creating the dataset. [M]
3. Purpose: the purpose for which the dataset has been issued (e.g. new dataset, re-issue, update, etc.). [M]
4. Date: reference date for the cited resource. [M]
5. PointOfContact: name and position information for an individual or organization that is responsible for the resource. [M]
6. Language: language used in the dataset. [M]
7. characterSet: full name of the character coding standard used for the dataset. [O]
8. dataExt: geographical extent of the dataset described with bounding box. [M]
9. ReferenceSystem: spatial reference system used by the source data [M]