SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA

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EuroGeoNames

First EuroGeoNames Workshop of the Consortium & Reference Group

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Presentation of the synopsis of the state of the art of geographical names data information from 15 Reference Group member countries

Synopsis was made by:

- Summarizing of detailed questionnaires and SI-EGN Final Report (for 15 countries)
- Checking reference documents (for 15 countries)
- Checking test data (for 4 countries)

Austria

Database:
- Stand-alone database (GEONAM), part of topographic data
- Text features with attributes, no link to other features
- Oracle database for attributes, Intergraph MGE for graphic

Origin:
- Names are derived from the map scale 1:50 000
- Update rate: 7 years (cartographic cycle), important changes event-driven

Austria

Feature categorization: no standard
- feature groups (settlements, regions, mountains, glaciers, hydrography)
- feature types (e.g. for settlement: cities, villages, etc.)

Attribute information / content:
- Feature object ID
- Name placement coordinates, sea level
- Text height, font type
- Date of last acquisition and edit
- Bounding box or rotation not available!

Formats:
- ASCII, ACESS, ArcInfo shape

Austria

Metadata: yes

Data access through Internet: not directly, but it allows the search functionality in AMAP-online

Lists of exonyms: yes

Test data: containing different feature types in an ACCESS-database.

Cyprus

Database:

Integrated databases for different scales linked to topographic/ cartographic data.

GN are stored and maintained in several products, maps and databases.

Data can be derived as a sorted extract.

Analogue repository which would be in future linked to topographic/ cartographic data.

- Oracle package

Data model: Description of data model was not provided.

Names are derived from the map scales:

1 : 5000
1 : 100 000
1 : 250 000
1 : 500 000

Feature categorization: national coding feature structure

Cyprus

Attribute information:

Feature coordinates	Height
Name placement coordinates	Statistical classification
Feature object ID	Number of inhabitants

Formats:
MS Word, MS Excel, ASCII, DXF, ESRI (ArcInfo Coverage, ArcInfo Export, ArcInfo Shape), Map Info, Oracle tables

Metadata: no

Data access through Internet: no

Lists of exonyms: yes

Czech Republic

Database:
- Distributed databases
- Text features with attributes
- Oracle package, Microstation

Names are derived from the map scales:
- 1 : 10 000

Czech Republic

Feature categorization: no standard, internal solution

Attribute information / content:
- Name placement coordinates
- Feature category
- Feature object
- No bounding box
- Rotation referred to map sheet
- Text height, font type

Formats:
- Excel, dgn

Czech Republic

Metadata: yes, ISO

Data access through Internet: no

Lists of exonyms: no - but soon

Finland

Database:

- One digital stand alone database – linked to topographic/cartographic data.
- Data source is topographic database (TDB)
- Geographical Names Register (GNR) comprises the Place Name Register (PNR) and the Map Name Register (MNR) integrated as a single database
- Data can be derived as a sorted extract and a complete gazetteer
- Oracle package

Data model - three elementary objects in GNR are id-connected:

- Place (feature location, feature type)
- Place name (spelling, language)
- Map name (all the data related to the named feature and cartographic rendering of the name -text placement, direction, font and size) – cartography information.

Finland

Names are derived from the map scales:

1 : 20 000 - Basic map is part of TDB

1 : 100 000

1 : 250 000

Feature categorization: national coding feature structure

- 7 feature groups
- 47 feature types

Names for physical features, populated places, administrative areas.

Attribute information:

Feature coordinates	Map scale indicators	Language status
Name placement coordinates	Statistical classification	Size + style character
Feature category	Language	Spelling
Feature object ID	Map sheet number	

Finland

Formats:
MS Word, MS Excel, ASCII, ESRI (ArcInfo Coverage, ArcInfo Export, ArcInfo Shape), Map Info

Metadata: yes, not ISO (general description of the product)

Data access through Internet: yes

Webserver search options: complete names, letter combinations

Lists of exonyms: yes

France

Database:

- Distributed database – GN are stored and maintaned in different databases.
- Some topographic features are linked to GN.
- SQL package

Data model:

Names are derived from the map scales:
1 : 25 000

Feature categorization: national coding feature structure

France

Attribute information:
Name placement coordinates
Feature category
Map scale indicators

Formats:
ASCII, HTML, Oracle

Metadata: no

Data access through Internet: yes
Webserver search options: complete names, letter combinations

Lists of exonyms: yes

Germany

Database:

- One digital stand-alone database - linked to topographic/cartographic data
- Integrated databases for different scales that can be linked with other topographic data
- Oracle, MySQL, MS Access packages

Data model:

17 tables - the connecting attribute is NNID – national name ID of the table GN_OBJECT. To this table all other tables are linked (direct and indirect) and from GN_OBJECT goes link to DLM 250.

Names are derived from the map scales:

1 : 250 000 - Digital Landscape Model 1 : 250 000 (DLM 250)

Germany

Feature categorization: national coding feature structure
- 6 feature groups (settlement, traffic, vegetation, water bodies, relief, areas)
- 50 feature types

Geographical names are collected as attributes for almost all feature types except object theme vegetation.

Attribute information:
Feature coordinates
Feature category
Feature object ID
Statistical classification
Gender

Formats:
ASCII, ESRI (ArcInfo Coverage, ArcInfo Export, ArcInfo Shape), Intergraph, Map Info, dbf-files

Germany

Metadata: yes, ISO and CEN

Data access through Internet: yes

Webserver search options: complete names, letter combinations, coordinates/bounding box, name categories

Lists of exonyms: yes

Test data:

- Access file

Data are in 17 tables of GN-DE Data Model and contains all attributes.

Hungary

Database:

- One digital stand alone database - not linked to topographic/cartographic data
- MS Access package

Data model:

The main table of the database contains different codes that are defined and characterized in different linked tables.

Names are derived from the map scales:

1 : 50 000 – covers the whole territory of Hungary (this map is important source but there are also many other: maps of scale 1 : 40 000, old maps, etc.)

1 : 10 000 - covers the whole territory of Hungary

Hungary

Feature categorization: national coding feature structure

- Feature groups (settlements, parts of the settlement, the landscape, large units of the land, woods, nature conservation areas, relief and hydrography, name of remarked points (ruin, look out tower etc.), names of the most important objects of traffic)
- 40 feature types

Attribute information:

Feature coordinates	Height
Feature category	Number of inhabitants
Feature object ID	Name sources
Name status	Variant names

Hungary

Formats:
MS Word, MS Excel

Metadata: yes

Data access through Internet: yes

Webserver search options: complete names, name categories, county

Lists of exonyms: yes

Latvia

Database:
- Part of topographic database, linked with topographic data, point information for features
- SQL Server / User Interface MS ACCESS
- Graphic data stored in Arcview

Data model:
- Names are linked to objects
- More than one name can exist for an object
- Concerned tables:

  objects (includes the preferred name)
  names (objectID, …)

Names are derived from the map scales:
1 : 50 000 and also collected from field work, literature, etc.

Latvia

Feature categorization: national coding feature structure

Attribute information (stored in objects or names):

Feature coordinates	Map scale indicators	Pronunciation
Feature category	Statistical classification	Number of inhabitants
Feature object ID	Name status	Geological structure

Formats:
MS Access

Metadata: yes, not ISO (description of tables)

Data access through Internet: no

Lists of exonyms: no

Lithuania

Database:

- Several stand alone databases and integrated databases for different scales – linked to topographic/cartographic data
- Data can be derived as a sorted extract
- Unknown package

Data model:

Names are part of topographic database - single place name is usually stored as an attribute value of an object of object themes.
Data model is not specified because they are several of them.

Lithuania

Names are derived from the map scales:
1 : 10 000
1 : 50 000

Feature categorization: national coding feature structure
Feature groups: settlements, hydrography center lines, land cover and road center lines.

Attribute information:
Name placement coordinates
Feature category
Feature object ID

Formats:
HTML, DXF, ESRI (not defined)

Lithuania

Metadata: yes, not ISO

Data access through Internet: no

Lists of exonyms: yes

Test data:

- Access files (ArcGIS 9.1 and 9.2 Personal Geodatabase) – data are for all tables and attributes of Data model
- e00 format – layers of topographic database objects of which one of the attributes is name

Netherlands

Database:

- One digital stand-alone database – linked to topographic/cartographic data
  Geographical names are part of topographic database
- Oracle package

Data model:

Topographic database standard simplify geo-information interchange between many companies.

The Basic Scheme for Geo-information:

- Common conceptual framework of the sector models
- GeoFeature is the super class, one of its attributes is »name«.
- Each basic class has a typeNameClass attribute for identifying an object of the class.

Genaral data model + several data models (based on general).

Netherlands

Names are derived from the map scales:
1 : 25 000

Feature categorization: NATO categorisation
- 1 feature super class: contains properties that all features have in common (location)
- 14 feature groups: nine classes of physical features (road, railway, water, terrain, building, engineering structure, water retaining structure, conduit, layout element), administered areas, functional areas, planning areas, geographical areas, the measurement class.

Description of all feature groups is in general data model. In use are just 10 feature groups. All features gropups are easily transformed to NATO categorisation.

Attribute information:

Feature coordinates	Feature category
Name placement coordinates	Name status

Formats:
ASCII, GML, DWG, ESRI (ArcInfo Shape)

Netherlands

Metadata: no but some metadata (quality, etc.) are available for all data.

Data access through Internet: some topographic data are available in web – GN are included.

Lists of exonyms: yes

Test data for TOP10NL are provided as:
- GML file
- AutoCAD DWG format
- ArcInfo Shape format

Data are for 15 layers of topographic database (1 superclass and 14 basic classes).
Geographical name is an attribute of some layers of topographic base.

Norway

Database:

- Stand alone database – linked to topographic/cartographic data
  Central place name register (SSR) includes all place names (GN). The fundamental information type is name unit. The name unit is linked to a name object (geographical object/physical object).
- Data can be derived as a sorted extract and a complete gazetteer
- Oracle package

Data model:

Each geographical object has one or more name units, each name unit one or more spelling and each spelling one or more occurrences.

Norway

Names are derived from the map scales:
1 : 5000 → 1 : 5 mio, also from maps of sea areas

Feature categorization: national coding feature structure
Feature groups: terrain form, water outline elements, land type, coastal information, settlement, communication, properties, administrative areas and other.
290 feature types.

Attribute information:

Feature coordinates	Map scale indicators	Name sources
Feature category	Statistical classification	Language
Feature object ID	Name status	Cadastral ID

Place name ID (combine with feature object ID)

Cartographic attributes are not included in specification.

Norway

Formats:
MS Excel, norwegian exchange format SOSI

Metadata: yes, ISO

Data access through Internet: yes

Webserver search options: complete names, letter combinations

No programs or webservers are accepted with queries direct to the place names database. The result of query have to be controlled by using an Application Programmable Interface (API).

Lists of exonyms: yes

Slovakia

Database:

- Integrated databases for different scales – linked to topographic/ cartographic data
  All data are prepared together with army.
- Data can be derived as a sorted extract
- DBF package

Data model: Description of data model was not provided.

Names are derived from the map scales:

1 : 10 000
1 : 25 000
1 : 200 000

Slovakia

Feature categorization: NATO categorisation
Feature groups: non-residential objects, residential objects, administrative units, orographic units, water course names.

Attribute information:

Feature coordinates	Statistical classification
Feature category	Name status
Feature object	IDHeight

Formats:
MS Excel, ESRI (ArcInfo Coverage, ArcInfo Shape)

Metadata: yes, ISO

Data access through Internet: no

Lists of exonyms: yes

Slovenia

Database:

- One digital stand-alone database – not linked to topographic/ cartographic data
- Oracle package

Data model:

Logical model is based on three entity types: geographical feature (object), geographical name and appearance (inscription).
Entities are linked with unique name identifier.
Physical data model contains 2 tables: names and appearances (inscriptions).

Slovenia

Names are derived from the map scales:
1 : 5000
1 : 25 000
1 : 250 000

Feature categorization: national coding feature structure
- 5 feature groups: places, waters, relief feature, area and traffic feature
- 41 feature types.

Attribute information:

Name placement coordinates	Map scale indicators
Feature category	Language
Feature object ID	Map sheet number

Slovenia

Formats:
MS Excel, ASCII, ESRI (ArcInfo Export)

Metadata: yes, ISO, Dublin

Data access through Internet: no

Lists of exonyms: yes

Spain

Database:

- Mix between one digital stand alone database, linked to topographic/ cartographic data and distributed databases, not linked to topographic/ cartographic data
- Oracle, ACCESS
- Spanish gazetteer model - MNE is currently built up (in OGC WFS standard)

Origin:

- Names are derived from the map scale 1:25 000
- Update rate: 1-5 years

Spain

Feature categorization: national feature coding structure

Attribute information / content:
- Feature coordinates
- Feature category
- Map scale indicators
- Statistical classification
- Name status
- Language

Formats:
- MS Excel, MS Access, Visual Dbase

Spain

Metadata: yes, ISO 19115

Data access through Internet: yes
- GAZ Standard (for the data access on geoportal)
- OGC WFS
- Coordinates/bounding box

Lists of exonyms: yes

Turkey

Database:

- Mix between one digital stand-alone database and multi databases. Only names of populated places are linked to topographic/cartographic data
- Data can be derived as a sorted extract and a complete gazetteer
- MS Access package

Data model:

Two tables contain names (gazetteer) and feature codes (feature catalogue)

Names are derived from the map scales:

1 : 25 000 – populated places

1 : 250 000 – all other names

Turkey

Feature categorization: NATO categorisation

- 4 feature groups: populated places, transportation, orography, hidrography
- 77 feature types .

Attribute information:

Feature coordinates
Feature category
Feature object ID (is not permanent now but in future it will be)
Map scale indicators
Statistical classification (administrative units)
Height
Number of inhabitants

Turkey

Formats:
ASCII, ESRI (ArcInfo Coverage, ArcInfo Export, ArcInfo Shape, ArcInfo GeoDB), MS Access

Metadata: no

Data access through Internet: yes for populated places (to the level of villages)

Lists of exonyms: no

Proposal for a new data model at scale 1 : 250 000
Turkey is planning to transform their actual database and to unit all gazetteers into one database.