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Toponymic data files: data collection procedures

Processing and maintenance of toponymic information for the maps at scale 1:50,000, Geographical Names Database of Latvia

Submitted by Latvia**

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Processing and maintenance of toponymic information for the maps is the main task of <u>Laboratory of Toponymy,</u> founded in 1994 at State Land Service of Republic of Latvia.

I.

The first assignment for the Laboratory was <u>compiling and elaboration of toponymic data for Satellite Map of Latvia Scale 1:50 000</u> (1994- 1999). Our specialists had to work out not only "layout" of geographical names for each map sheet, but also a method of doing that.

There were lists of official names only for few types of geographical features in Latvia (cities, towns, railway stations, airports, harbours, lighthouses) that time. The lack of official geonames lists and gazetteers led to necessity of quick (sometimes not very precise) solving of great deal of scientific and practice problems in spelling and standardization of domestic geographic names.

The <u>main sources of geographical names</u> besides the poor official information were interviewing of local municipalities personnel and local people. A lot of fieldwork has done to survey and check the names of natural features, farms, villages etc. for the map. The specialists of the Laboratory of Toponymy have made field collection of geographical names in every civil parish of Latvia. Information about the place name has obtained from two narrators, at least. Besides that literature, maps and card files has been looked through. Especially:

- linguistic dictionaries of place names, published in 1920-1940;
- the topographic map of Latvia, scale 1:75 000, published in 1920ies-1930ies;
- Card Index of Physiogeographical Place Names of Latvia at the Scientific Laboratory of Regional Geography and Toponymy, and the Card Index of Place Names at the Institute of Latvian Language, both of them - at the University of Latvia.

Since the employees of Laboratory of Toponymy are mainly geographers, finally all the place names, put on the layouts for the Satellite Map of Latvia, have checked by a philologist.

The coverage of place names of the Satellite Map of Latvia is being used as the basic toponymic information for the advanced topographic maps of Latvia.

II.

Since the work on *Topographic Map Scale 1:50 000* is going, Laboratory of Toponymy is responsible for evaluation of toponymic information for that. It includes:

- checking of existing geographical names information in local municipalities (mainly the names of villages, hamlets, farms);
- checking the spelling of names;
- preparing a layout of geographical names for each map sheet;
- preparing a list of geographical names for each map sheet.

The main problems are:

- lack of stable official village names list;
- changeability of village and farm names;
- mistakes in officially approved place names;
- unsolved problems in use and spelling of dialectal names.

III.

The amount of toponymic information, compiled and elaborated in Laboratory of Toponymy must be maintained not only as card indexes, notes or names on the maps, but as digital files as well. Theory and methodology of the electronic *Geographical Names Database of Latvia* was being worked out since 1998 by the Laboratory of Toponymy and soon after the first entries had been made.

Geographical Names Database is based on software *Microsoft SQL Server 7.0* and *Microsoft Access 2000* as user's interface is used.

The task of Geographical Names Database of Latvia is to create and maintain a data bank in digital form where information of geographical names and appropriate features are collected and maintained.

The main principles in forming of the database are:
- information should cover the entire territory of Republic of Latvia;
- each geographical name should be enchained to the concrete geographical object;
- each geographical object in Database corresponds to the record in database;
- possibility to link Geographical Names Database to other data bases.

The structure of Information in the Geographical Names Database of Latvia
Records of database include the names of:
- populated places;
- natural features;
- cultural, social and economic features such as airports, lighthouses, railway stations, churches, cemeteries, etc.

Information of the database is placed in 20 tables. Database contains names of more than one hundred kinds of geographical features. All kinds are divided in 16 groups.

The basic data tables are ***Features, Names, Sources*** and ***Maps***.

Features

This table contains detailed information about a geographical object (feature) such as: preferred name, kind of feature, location, numeric characterisation, date, etc. Each record has *Feature ID* – unique number for the feature identification.

Names

The table contains all geographical names included in the Database. *Name ID* – name identification number - allows connecting each name with the appropriate object.

The table contains detailed information about the name:
- status of the name (preferred name, official name, variant name, incorrect name);
- pronunciation if necessary;
- form of the name (literary, dialectal);
- range of use (mainly farmers, hunters, schoolchildren, etc.);
- origin of the name (etymology and semantics);
- historical forms and official time of use the name;
- frequency of use (frequently, rarely, only in literature).

Sources and Source list

These tables contain information of source where the place name is found. Main sources are:

- literature – published and unpublished;
- maps – contemporary and old ones;
- expedition (field work) notes.

Database contains a list of the main sources, such as the most important dictionaries, maps, etc. There is also a possibility to input data about extra sources – maps, books, etc., if necessary.

Maps

The table contains information imported from digital maps such as:

- name of a map and the map sheet (at present – the Satellite Map)
- type of geographical feature;
- co-ordinates of the feature;
- name of feature on the map, etc.

Currently this table contains information of populated places imported from Satellite Map of Latvia, scale 1:50 000.

The coverage of place names of the digital Satellite Map of Latvia (*Arc Info*, scale 1:50 000) is the basic toponymic information for the Geographical Names Database of Latvia now. Some fields of information, containing approximately 60 000 names, are already imported from this map in the database. Checking and advanced processing of that data is going.

Currently toponymic data imported from the Satellite Map in Geographical Names Database contains co-ordinates of names on the map sheet. Therefore is very difficult to apply that data on maps in different scale. For solving the problem, special application for *Arc View* is made. Using the application each name in Satellite Map data is connected with the corresponding geographical feature co-ordinates. A new table, including the name, co-ordinates of the feature and other parameters is created. The table will be imported into the Geographical Names Database. Thereby the Database will receive co-ordinates of the geographical features.

Using the Geographical Names Database of Latvia

User can apply combinations of various criteria for searching the names. Type of feature is a common key as well as administrative location, numeric characteristics of feature or other criteria. It is possible to sort geographical names of one or more administrative districts in alphabetical order. The query results are possible to see on the screen as a card index or a database table, as well as to print it out, or export data to another database.

At present several projects are going to be realized by the Laboratory of Toponymy using the database:

- gazetteer of Villages of Latvia;
- dictionary of Sēlpils Civil Parish, etc.

The Data Base will become the main source of toponymic information for the maps at scale 1:50 000 in the future.

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