

Contents of the Topographic database according to themes

Specific entities are available of the data content of the Topographic database. These include individual objects, object groups and other combinations of data. No separate elements are readily available.

Data content of the Topographic database are described below according to themes. More comprehensive and detailed information about the object group in Finnish:

http://www.maanmittauslaitos.fi/sites/default/files/Maastotietokohteet_2013.pdf

1. Road network

Road network includes drivable roads, streets, walkways, paths, railways, ferries and ferry boats. As for motor roads, the data concerning their middle lines and class amongst other things have been stored. The road and street names as well as address numbers are also presented as feature information. In addition, road network contains address points that are in accordance with the official address system of municipalities. Road network is the most precise comprehensive dataset over Finland that covers the whole country.

Purpose:

Road network is suitable to be used in different logistic and positioning applications and also as source data for map products.

Maintenance:

Updating frequency: Continuous.

Quality:

The foundation for collecting data is the information that is the result of the National Land Survey's own operations and that which is received from partners. The positional accuracy of the data is approx. 5 meters. The control measurements performed in sample studies show that the positional accuracy in road network is approx. 3 meters.

The address data are feature data of the road lines. The address numbers have been attached to the nodes of the roads lines so that they include the address numbers that are nearest to them. When using the dataset the address numbers that are not included in the node have to be calculated based on the distance.

2. Buildings

The Topographic database includes buildings, water towers, bell towers, airways, approach lights, masts, monuments, observation towers, piers, chimneys, wind power generator and other such buildings and definitions. The buildings are depicted with lines or as areas according to the ground location of their foundations. The feature data is stored in the reference point inside the figure.

Maintenance:

Updating frequency: Continuous. The data is updated map sheet by map sheet in relation to the updating process at regular intervals every 5-10 years. As for some municipalities the dataset is updated annually.

Quality:

The updating work of the data concerning buildings is done in cooperation with the municipal building authorities. In addition, the building and apartment register of the Population Register Centre is also used. The positional accuracy of the data is approx. 5 meters.

3. Transmission line connections

The Topographic database includes power lines, transformers, transformer stations, high tension line poles and significant natural gas pipes and water pipes. Concerning urban areas, aerial power lines with 110 kW or more are included; in sparsely populated areas even airlines with 20-110 kW are included. Underwater cables with 20 kV or more are also included.

Maintenance:

Updating frequency: When needed. The data is updated map sheet by map sheet in connection with the updating process at regular intervals every 5-10 years.

Quality:

The updating process is based on cooperation with the organisations that own power lines. The data concerning the location and position of the natural gas pipes is drawn from the maps concerning expropriation proceedings. The positional accuracy of the data is 5 meters.

4. Administrative borders

The Topographic database includes national boundaries, limits of marine territorial waters, straight territorial sea baseline, rear boundary of boundary zone, limits of inner and outer archipelago, Regional State Administrative Agency boundaries, regional borders and municipal borders. The product also contains municipal administrative centres and national boundary markers.

Maintenance:

Updating frequency: Annually in the beginning of the year when the changes of the administrative borders become known.

Quality:

The municipal, regional and Regional State Administrative Agency boundaries are based on the real property boundaries of the Land Information System in Finland (KTJ) that are updated continuously. The municipal borders of the product are drawn from the database Municipal division.

5. Rocks and mineral soil areas

The Topographic database includes the following kinds of rocks and mineral soil areas: rocks, cliffs, rocky areas, block fields, sand areas and gravel pits. Rocks and mineral soil areas have been stored as areas or dot symbols.

Maintenance:

Updating frequency: When needed. The data is updated in connection with the regular updating process of the Topographic database every 5-10 years.

Quality:

Rocky areas are exposed rocky areas that largely lack loose soil and tree stand and the diameter of which is at minimum 5 meters. Smaller exposed rocky areas are stored as dots.

Cliffs are steep rocky slopes or cuttings that form a clear barrier to move forward.

Minimum measures: height 4 m, slope 45 degrees and length 10 m.

Rocky areas are areas of at least 1000 m² (0.1 ha) in size where rocks and boulders nearly cover the surface of the ground. Areas with boulders or groups of boulders that make passage difficult have been described as sparse stone pits. The height of the individual boulders has to be at least 0.5 m and their distance from each other at maximum 5 m. The minimum diameter of the area has to be on 100 m.

Sand areas are areas in natural state covered by fine sand, sand or gravel that are almost treeless and without ground vegetation. Their minimum area is 1000 m² (0.1 ha).

The minimum size of a gravel pit in the Topographic database is 1000 m² (0.1 ha). Slopes and contour lines have not been stored concerning these areas.

6. Elevation

The Topographic database includes contour lines and depth contours as well as objects related to them (their height and depth values as well as gradient lines). The contour lines and their height values have been stored at 5 meter intervals as lines that close in. Auxiliary contours (at 2.5 meter intervals) have been stored in even areas and also elsewhere when needed to more precisely describe smaller elevation of the Earth's surface. The height accuracy of the contour lines is approx. 2 m. Contour line data are not stored in the areas of dumps, stone pits, mineral resource extraction and landfills.

Comprehensive depth contour data are not available and the distance between the depth contour lines somewhat differ from those of contour lines indicating elevation.

The Finnish Environment Institute provides depth data on the lakes where it has performed measurements. The depth contours and values by the Finnish Transport Agency are not included in the dataset.

The height values marked in the objects of the Topographic database as feature data have been produced from the product Elevation model 10 m concerning the whole of Finland.

Maintenance:

Updating frequency: When needed. The data is updated in connection with the regular updating process of the Topographic database approx. every 5-10 years.

Quality:

Depth contour lines (concerning areas where they have been available) have been stored starting from the mean water level 1.5 m, 3 m, 6 m, 10 m, 15 m, 20 m and then after every 5 meters if it has been possible on the strength of the dataset. Otherwise only the depth contours 20 m, 50 m and 100 m are stored starting from the depth of 10 meters. The depth data of the Topographic database may not be used for navigation.

7. Geographic names

Concerning geographic names the Topographic database includes terrain names, settlement names and names for individual objects and well as their cartographic data. The attributes of these names include i.e. the reference point coordinates and the coordinates for the lower left corner of the text.

Maintenance:

Updating frequency: Continuous. The data is updated map sheet by map sheet in connection with the updating process at regular intervals after every 5-10 years. The information on changes received from various sources is updated continuously.

8. Fields

The Topographic database includes fields and meadows that have been cultivated at the moment of mapping. Fields have not been classified e.g. according to their fertility.

Maintenance:

Updating frequency: When needed. The data is updated every 5-10 years in connection with the regular updating process of the Topographic database.

Quality:

Fields are areas with sowed or planted field plants. These plants include e.g. strawberry. The minimum area 1000 m² (0,1 ha).

A new cleared patch is classified as field after it has been sowed or planted with field plants. Fields that are not used have been marked as meadows if they have not been overgrown with trees.

9. Swamps

The Topographic database includes swamps, wetlands and extraction areas for organic material. The minimum area of a swamp or a peat extraction area is 1000 m² and that of wetlands is 5000 m². Swamp is classified as an area with swamp vegetation where the thickness of the peat layer is at least 0,3 m, although as for Northern Lapland even swamps with a thinner peat layer are included.

Maintenance:

Updating frequency: When needed. The data is updated every 5-10 years in connection with the regular updating process of the Topographic database.

Quality:

In the Topographic database, cultivated swamps have been marked as fields and those with trees are marked with symbols for forest land. Swamps have been classified in those that are easy to traverse or difficult to traverse and also to swamps that are forested and treeless. Swamps that have been marked as difficult to traverse are difficult, dangerous and impossible to cross.

10. Waterways

The Topographic database includes sea areas, lakes, ponds, ditches, water pits and springs.

Maintenance:

Updating frequency: When needed. The data is updated every 5-10 years in connection with the regular updating process of the Topographic database.

Quality:

Water areas the size of which is at least 1000 m²:n (0,1 ha) are marked as lakes. A water pit means an area of standing water of less than 1000 m² but more than 100 m². Channels are also included in the class of lake water.

Rivers that are more than 5 meters wide have been stored as areas, smaller rivers have been marked with a line.

All watercourses of the width of at least 2 meters are included. Concerning forest land, the Topographic database also includes watercourses that are less than 2 meters wide, but as for agricultural areas, only such watercourses that are relevant to the continuity of the ditch network are included. Concerning watercourses, the information on the direction of their water flow is also stored.

The Finnish Environment Institute provides depth data from the inland water areas where it has performed measurements. This data is not comprehensive. The Topographic database does not include the depth data by the Finnish Transport Agency that concerns sea areas or lakes with commercial traffic.

The depth information of the Topographic database may not be used for navigation.