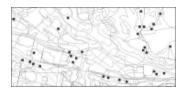
## Topographic map 1:100 000



Topographic map 1:100 000 of the National Land Survey is a data set depicting the terrain of all of Finland. It is compiled by generalising the data of the Topographic data base and the product Place names (ver-sion Map names 1:100 000). The key objects on the map are the

road network, administrative borders, protected area, population centres, nomenclature, waterways, land use and elevation.

The information concerning the administrative borders, the nomenclature and the main roads of the road network are updated once a year and the other elements every 2-10 years. The product is available as a version covering the whole of Finland and as versions covering a particular area or a particular set of data. Topographic map 1:100 000 uses TM35 map sheet division. The element describing the administrative borders is available as a version that covers the entire country. The product is a part of the NLS vector products.

Topographic map 1:100 000 is not available via the service interface.

The product is a part of the open data of the National Land Survey of Finland. More information: Acquisition of open

datahttp://www.maanmittauslaitos.fi/en/opendata/acquisition

#### Purpose:

Topographic map 1:100 000 can be used as an approach map and as a base map for planning. The product can also be used as raw material for different kinds of map products.

Geographic	location:
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**Entire Finland** 

## Responsible party:

National Land Survey of Finland

#### Scale:

1:100000

#### Spatial representation:

Vector

#### **Spatial representation**

## info:

Full surface graph

#### Data content:

Data content according to element:

#### Traffic network

The element includes motor roads, railroads and the Finnish Maritime Administration's boating routes generalised from the Topagraphic Database.

#### Cable connections

The element includes high-voltage power lines with over 110 kW, gas pipes and significant natural gas connections generalised from the Topographic database.

#### **Buildings**

The element includes the buildings and population centres generalised from the Topographic database.

#### Nomenclature

The element includes the map names from Map names register 1:100 000.

#### Administrative borders

The element includes the administrative regions generalised from the Topographic database as well as specific information on municipal regions created for Topographic map 1:100 000 such as names and numbers of municipalities and those of provinces and regional state administrative agencies. The updating information received yearly is based on the data set Municipal Division in Finland.

#### Elevation

The element includes contour lines generalised from the Topographic database. The distance between the lines is 10 meters.

#### Waters

The element includes running and stagnant waters generalised from the Topographic database.

#### **Fields**

The element includes agricultural lands generalised from the Topographic database (fields and or-chards).

#### Protected objects

The element includes wilderness areas, nature reserves, hiking grounds and protection forest boundaries generalised from the Topographic database.

#### Code explanations (in

Finnish): <a href="http://www.maanmittauslaitos.fi/sites/default/files/maastokartta\_100000\_koodiavain.pdf">http://www.maanmittauslaitos.fi/sites/default/files/maastokartta\_100000\_koodiavain.pdf</a>

#### More precise descriptions in the object model (in Finnish):

http://www.maanmittauslaitos.fi/sites/default/files/maasto100 kohdemalli o.pdf

#### Maintenance:

The nomenclature is updated yearly based on Map names 1:100 000 of the product Nomenclature. The administrative borders and the main roads of the traffic network are updated yearly on the basis of the Topographic database. Other built / man-made objects are updated on the basis of the Topographic data-base every 2–5 years. The update

interval for the other elements is at the most 10 years. The maintenance work is done by the National Land Survey. The update chart for Topographic map 1:100 000 (in Finnish):http://www.maanmittauslaitos.fi/sites/default/files/M100 ajantasa 0.pdf

## **Quality information**

#### Lineage:

Topographic map 1:100 000 is generalised from the Topographic database.

The positional accuracy and the coverage correspond to that of the Topographic database taking into ac-count the change caused by the generalisation of the data. The more specific information about the objects is mostly based on the Topographic database. A more precise description in the object model (in

Finnish): http://www.maanmittauslaitos.fi/sites/default/files/Maasto100 kohdemalli o

#### Positional accuracy:

The positional accuracy of the objects in the map database in relation to the corresponding objects in the terrain is equivalent to the positional accuracy of objects in the Topographic database minus the change caused by generalisation.

The scale of the change caused by generalisation depends on the generalisation parametres used. Because different generalisation functions cause different amounts of change in positional accuracy, the material cannot be given only one positional accuracy figure.

Generalisations used in case of area objects and objects represented by lines are dot filtering and simplifica-tion of small arcs. Furthermore, area objects have been integrated with adjacent objects that belong to the same object category. Narrow parts of areas are also integrated into adjacent areas. In case of objects repre-sented by lines, the adjacent lines with the same features have been integrated into each other. Short road, water and shore lines have also been integrated with the adjacent lines.

The most central parameters that affect positional accuracy are mentioned in the object model (in Finnish).

#### Up-to-date accuracy:

The up-to-date accuracy of the data varies depending on the object. It depends on the point of time when the data was entered into the Topographic database and when the objects were detached from it. Whether the product is up-to-date or not can also be influenced by the quality control of the objects. The quality of Topographic map 1:100 000 has been controlled in 2009 and the defects have been corrected in the database. The table containing information on the maintenance of Topographic map 1:100 000 is available in Finnish

at:http://www.maanmittauslaitos.fi/sites/default/files/maastokartta 100000 ajantasa

#### Quality control:

The quality control of Topographic map 1:100 000 is done according to the NLS quality

control of small scale map databases. The quality control describes the origin of the data, the object model, the production environment, the production process, the work instructions, the training, the supervision, the up-to-date accuracy, the positional accuracy and the quality control principles of the data.

Topographic map 1:100 000 has undergone a quality control that involved the allowable values and the inter-dependency of the map features as well as topology and geometry of the objects. The error percentage in the area tested was 0.05-0.17 which meant good quality level (error percentage under 0.5).

The quality control report (in

Finnish): http://www.maanmittauslaitos.fi/sites/default/files/M100laatutarkastus.pdf

#### Conformity:

Data product definition: [theme] 2010-01-07 The data product definition has not been published yet. false

## Distribution and further information

#### Distributor:

National Land Survey of Finland, customerservice@nls.fi

Retailers (in Finnish), <a href="http://www.maanmittauslaitos.fi/aineistot-palvelut/digitaaliset-tuotteet/hankinta-o">http://www.maanmittauslaitos.fi/aineistot-palvelut/digitaaliset-tuotteet/hankinta-o</a>

# Conditions applying to access and use:

data<a href="http://www.maanmittauslaitos.fi/en/opendata/acquisition">http://www.maanmittauslaitos.fi/en/opendata/acquisition</a>. Topographic map 1:100 000 is available as a version covering the whole of Finland and as versions covering a particular area or data content. The demarcation of an area is based on map sheets. The ad-ministrative borders are available as a separate product. Topographic map 1:100 000 is delivered ac-cording to the map sheet division 48 km x 96 km. CAUTION: Not intended for navigational use. The Finnish Transport Agency has not checked the information in this product, and is not responsible for its correctness or amendments made to the product.

#### Limitations on access:

The copyright and the other immaterial rights on Topographic map 1:100 000 are owned by the Na-tional Land Survey of Finland. The product is based on the data of the Topographic database. The Topographic database is maintained by using data from the municipalities. The Finnish Transport Agency and the Finnish Environment Institute have the copyright on the route information used in cre-ating Topographic map 1:100 000. The data material is not confidential. Public access to the material is not restricted by the INSPIRE Directive.

#### Reference system:

ETRS-TM35FIN

**Distribution format:** 

ArcInfo shape, MapInfo MIF