

Topographic Database

The Topographic database is a dataset depicting the terrain of all of Finland. The key objects in the Topographic database are the road network, buildings and constructions, administrative borders, geographic names, land use, waterways and elevation.

Aerial photographs, scanning data and data provided by other data providers are utilised in updating the Topographic database. The updating is done in close cooperation with the municipalities. Field checks in the terrain are also needed to some extent, mostly as regards the classification of features.

The topographic database is used in the production of other map products and in various optimisation tasks.

The product belongs to the open data of the National Land Survey of Finland.



Purpose:
The Topographic database in vector format can be used as source data for various map products. The Topographic database is suitable for use as a base map for planning land use and for performing various optimisation tasks and analyses. The Topographic database is also suitable for use for instance in various applications for positioning, route search, maintenance and data collection that utilise GPS positioning.

Geographic location

Entire Finland

Reference system

ETRS89 / TM35FIN(E,N) (EPSG:3067)

N60 height (EPSG:5717)

Scale

10000

Spatial representation

Vector

Spatial representation info

Full surface graph

Data content

All features of the Topographic database are available in GML format and the Road network with addresses is available as a separate sub-element.

A description of the contents of the Topographic database by themes and a more precise description of the Road network with addresses sub-element:

[http://maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2020/06/Maastotietokannan%20sis%C3%A4ll%C3%B6n%20kuvitus%20\(1\).pdf](http://maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2020/06/Maastotietokannan%20sis%C3%A4ll%C3%B6n%20kuvitus%20(1).pdf)
([http://maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2020/06/Maastotietokannan%20sis%C3%A4ll%C3%B6n%20kuvitus%20\(1\).pdf](http://maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2020/06/Maastotietokannan%20sis%C3%A4ll%C3%B6n%20kuvitus%20(1).pdf))

Topographic database object model:

https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2019/12/maastotietokanta_kohdemalli_eng.xlsx
(https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2019/12/maastotietokanta_kohdemalli_eng.xlsx)

GML-schema of the Topographic database (in Finnish)

<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Maastotiedot.xsd>
(<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Maastotiedot.xsd>)

A more precise description of the topographic data features (in Finnish)

http://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2018/03/Maastotietokohteet_0.pdf
(http://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2018/03/Maastotietokohteet_0.pdf)

▼ Maintenance

Maintenance

Updating frequency: Continuous. The road network and geographic names are updated continuously, the administrative borders and the buildings yearly. The yearly updating data for the administrative borders are obtained from the material Municipal Division. Other features are updated one map sheet at a time in connection with a fixed-term updating process every 5–10 years. More precise information about updating can be found here (in Finnish): <https://www.maanmittauslaitos.fi/peruspaikkatietojen-yllapito> (<https://www.maanmittauslaitos.fi/peruspaikkatietojen-yllapito>).

The data set is maintained by the National Land Survey.

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▼ Quality information

Lineage

The Topographic database is the National Land Survey's most accurate nationwide dataset depicting the terrain of all of Finland. Its positional accuracy corresponds to that of scales 1:5,000–1:10,000.

The Topographic Data Quality Model contains information about which factors form the quality of numeric topographic data and how various quality factors are measured. Moreover, the quality model gives the quality requirements for instance for the positional accuracy, updating frequency, descriptive attribute data and coverage of topographic data. No quality requirements are set for geometric and topological data.

Different features in the Topographic database have different requirements for positional accuracy, for most man-made constructions the requirement is 3 metres. The positional accuracy of the features in the Topographic database is with a 95 percent probability in accordance with the minimum requirements stated in the quality model.

The up-to-date accuracy of the Topographic databases varies depending on the feature (see Maintenance).

The accuracy of descriptive data (attribute data) varies depending on the feature. For more accurate information, see descriptions of the different themes.

The size of coverage means the share of such features that are missing from the database or that can be found in the database but not in the terrain. Different features have different requirements for coverage.

The quality model (in Finnish):

http://www.maanmittauslaitos.fi/sites/default/files/Maastotietojen_laatumalli.pdf
(http://www.maanmittauslaitos.fi/sites/default/files/Maastotietojen_laatumalli.pdf).

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▼ Distribution and further information

Responsible party

National Land Survey of Finland

Conditions applying to access and use

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Distribution format

MIF

Shape

GML

GeoPackage

Distribution channels

[File service of open data \(https://tiedostopalvelu.maanmittauslaitos.fi/tp/kartta\)](https://tiedostopalvelu.maanmittauslaitos.fi/tp/kartta)

[Maastotietokannan kyselypalvelu \(OGC API Features\) \(https://www.maanmittauslaitos.fi/maastotietokannan-kyselypalvelu\)](https://www.maanmittauslaitos.fi/maastotietokannan-kyselypalvelu)

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