

PRODUCT DESCRIPTION

GSD-Topographic Map, vector format

DOCUMENT VERSION: 3.9

Figure 1. Section from the GSD Terrain Map, vector.

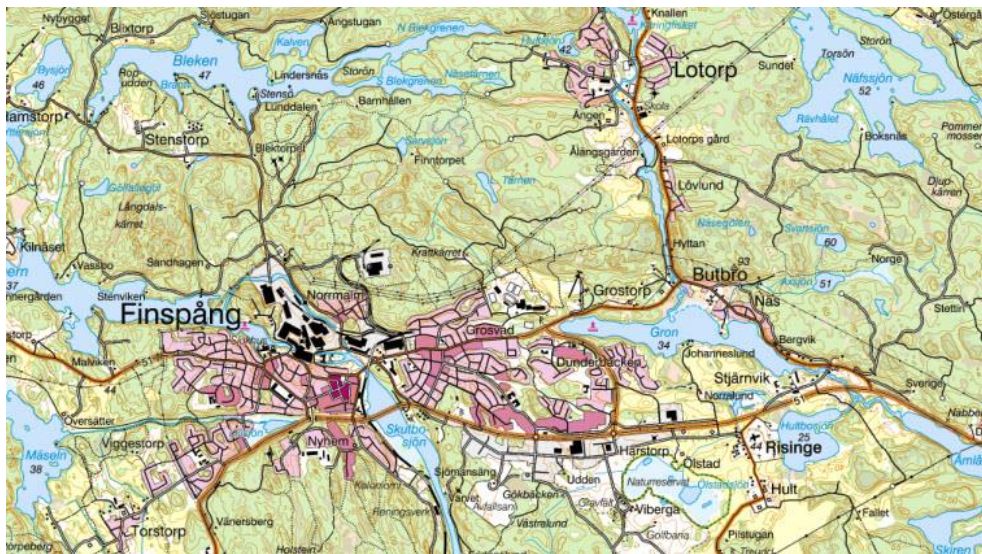


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I General description

This document is a description of how GSD-Topographic Map 1:50 000 is structured.

I.1 Contents

An overview listing is available at [Lantmäteriet's website – Terrängkartan](#).

I.2 Geographic coverage

The base covers the whole of Sweden except for the inner areas of the northernmost parts of Sweden.

Those areas of Norway and Finland that fall within the coverage area of GSD-Topographic Map in vector format are not included in the base.

The principal contour interval is 5 m, but the mountain regions of Sweden have a contour interval of 10 m or 20 m. Contours 5 meters is not set height contours.

I.3 Coordinate system

Plane coordinate system: SWEREF 99 TM

Height system: the Swedish national RH 2000 height system

For information in which other coordinate systems the product can be delivered in, see chapter Koordinatsystem in the document Fees and shipping information for geodata (at present only in Swedish) at [Lantmäteriet's website](#), select Maps and geographic information and Terms and Fees.

2 Quality statement

2.1 Data collection method

The greater part of the data that has been used in the Topographic Map has been collected in conjunction with production of GGD (Basic Geographic Data), field revision and various editorial activities.

Additional complementary information is obtained from other government authorities.

Digital contours, with a 5 m vertical interval, have been produced in conjunction with the production of the Property Map and the Topographic Map.

The contours have been generated by scanning the contour originals.

2.2 Currency

Depending on the object the information is revised either continuously or according to Lantmäteriet's plan for areal image acquisition.

2.3 Positional accuracy

The standard error in plane in the databases is approximately 10 m, but as a result of cartographic generalisation this figure can, in some cases, be exceeded.

No statistical quality information – standard error – is available for contours.

2.4 Logical structure

Area features in the bases form closed polygons. Symbols are stored with a feature code and orientation.

Line features for roads, administrative boundaries, restricted areas and electricity power transmission lines are, for the greater part, connected, although they do not form complete networks. Connections to other line features are not always mathematically correct. Connections between the bases are correctly shown at the printing scale, although it should be noted that different production years can give rise to some differences between bases.

3 Contents of the delivery

3.1 Folder structure

3.1.1 DOCUMENT

This folder contains documents that describe the product.

3.1.2 FONT

TrueType fonts are included in the files *GSDTerrk.ttf* or *GSDTk_MI.ttf* depending on the format in which the data is delivered.

For correct presentation of the Sami text are the files *GSDTxt.ttf*, *GSDTxb.ttf*, *GSDTxn.ttf*, *GSDTxni.ttf*, *GSDTxnb.ttf* delivered.

3.1.3 TERRANG

This folder includes one or more sub-folders containing data, together with a 5x5 km grid, *rutnat.**. The grid has an attribute, RUTA that contains an index quad. In addition to the files containing the map information, there is also in this folder a file containing a list of the total number of objects in each layer.

3.1.4 ARCMAP (ONLY WITH SHAPE FORMAT)

When data is in Shape format a LYR file is included in this folder.

3.2 Sets of files

3.2.1 SHAPE FORMAT

When the data is supplied in Shape format there are 5 files per layer.

Table 1. List of which five files are available for the shape format.

*.shp	Geometry file.
*.dbf	Attribute file in Dbase format.
*.shx	Index file.
*.prj	Projection file (only if SWEREF 99 TM is used).
*.cpg	Encoder file.

The Shape files have geometry index. The Dbase files have attribute index. Encoder file is needed for correct display of Swedish and Sami text.

Annotation (text) files are also supplied in ArcInfo Coverage format.

Table 2. Annotation

*	ArcInfo Coverage with set text plotting style (annotation).
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3.2.2 MAPINFO FORMAT

When the data is supplied in MapInfo format (tab) there are 4 files per layer.

Table 3. List of the four files available for the MapInfo format.

*.tab	Main file/table definitions.
*.dat	Attribute file.
*.map	Geometry file.
*.id	Index file for graphical features.

The tab files do not have geometry and attribute indexes.

3.3 Division into layers

The data of GSD-Topographic Map in Shape or MapInfo formats is divided into 38 layers, based on type of geometry and the theme to which it belongs. As far as possible, file names have been given a logical structure in which the first letter identifies the theme (for example, a for administrative information and v for roads) and the second letter identifies the type of geometry (l for lines, p/s for points/symbols, y for area and t for text). The second part of the name (after ”_”) is common to all files in a folder.

Sets of attributes vary between the different layers and are described in detail in Section 5.

4 Layout and plotting of data

4.1 Extent of coverage

All layers, with the exception of the MY layer, have been cut as 100x100 km quads in accordance with the national index system. The MY layer has been cut into 10x10 km quads. Those layers that form sub-sets of the contents of the MY layer (MA, MB, MO and MV) have also been cut into 10x10 km index quads. The cutting has been done to speed up plotting.

Only cartographically correct connections of features have been made between Topographic Map sheets.

The files for download are divided by county or Sweden layers. The county files are clipped with GSD-Property Map's borders with a buffer of 500 meters.

4.2 On-screen presentation

4.2.1 GENERAL INFORMATION

The plotting style chosen for this product is intended for plotting at a scale of 1:50 000. This scale should be seen as a suitable reference scale.

Recommended plotting sequence of the layers is presented in Appendix 1. The best plotting results will be obtained if both the MY and ML layers are used.

AREAS

All land areas are included in the MY layer and other land layers only contain sub-sets of the MY contents.

The coverage of the MX and MS layers is also included in the MY layer although with coding which differs from the coding that they have in these layers (see the respective layers in Section 5).

SYMBOLS

The TrueType fonts in the GSDTrrk.ttf or GSDTk_MI.ttf file must be installed to ensure correct presentation of symbols. The attribute SRIKT has been used when setting the plotting style for symbols to give them the correct orientation.

TEXT

When setting text, the attribute KKOD has steered font and colour. Other attributes that have been used are TJUST (anchor point) and TRIKT (orientation). Text strings are not plotted with spaced characters; instead, spacing is given in the attribute TSPARR where the size of the delivered strings relative to the original strings is given as a percentage figure.

4.2.2 THE SHAPE FORMAT

The standard GSD-Topographic Map plotting style is used for all layers. For use of the data in ArcMap there are plotting style settings in the LYR file in the arcgis folder.

In the LYR files it is possible to steer whether or not features should be re-scaled when the scale in the program is changed. This has been done in the LYR file that comes with deliveries. In addition, the LYR file contains settings that steer which layers will be shown at different scales (see Appendix 1).

Text is supplied as lines and points, with the text as an attribute, and as text with a set plotting style in the ArcInfo Coverage format.

4.2.3 THE MAPINFO FORMAT

This product is delivered with the standard GSD-Road Map plotting style. This means that, on delivery, all objects in all of the layers contain values for the parameters that steer colour, size and shape when they are plotted.

MapInfo 4, or later versions, must be used if symbols are to be rotated when they are plotted. The text is supplied as lines and points with text as attribute.

4.2.4 INSTALLING FONTS

The fonts supplied with this delivery must be installed, irrespective of the software that you use, to ensure correct presentation, symbols and text. This is done via Control Panel-Fonts.

5 Description of layers and list of codes

This section is a description, layer by layer, of the details that are included in them and with which attributes the details are defined.

The description of the layers is as follows:

- The column *Layer name* (Sw = *Skiktnamn*) contains the layer name/file name that is given to files when they are delivered. XXXXX = the sheet code/area name.
- The column *Category code* (Sw = *Kkod*) contains the feature's numerical code.
- The column *Description* (Sw = *Beskrivning*) contains a clarification of the detail type.

Attributes are defined as follows:

- The *No.* column (Sw = *Nr*) contains the running numbers for the layer's attributes.
- The *Attribute* column (Sw = *Attribut*) contains the name of the attribute.
- The *Type* column (Sw = *Typ*) contains the data that is used - integer/decimal/character.
- The *Length* column (Sw = *Längd*) contains the number of characters allocated to this field.
- The column *Description* (Sw = *Beskrivning*) contains a short description of the attribute.

5.1 Administrative divisions

5.1.1 AL LINE LAYER WITH ADMINISTRATIVE BOUNDARIES

The division of the area into administrative units.

Restrictions:

- Line features do not form a complete network, which means that there may be breaks in the boundaries.

Table 4. Contents in AL line layer with administrative boundaries.

Layer name	Category code	Description
AL_xxxx	21	National boundary
AL_xxxx	23	County boundary
AL_xxxx	24	Municipal boundary

Table 5. Set of attributes in AL line layer with administrative boundaries.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Description of category code

5.1.2 AS POINT SYMBOLS WITH ADMINISTRATIVE DIVISIONS

Point symbols for boundary cairns (surveyed).

Table 6. Contents in AS point symbols with administrative divisions.

Layer name	Category code	Description
AS_xxxx	65	Boundary cairn

Table 7. Set of attributes in AS point symbols with administrative divisions.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Description of category code
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.


5.1.3 ADMINISTRATIVE TEXT

Cartographically placed administrative names and informatory text for areas where the Property Map serves as the cadastral index map. There are also names for municipalities and municipal enclaves.

Table 8. Contents in administrative text.

Layer name	Category code	Description	Text colour	Font	Size/ points
AT_xxxx	35	Municipality, size classification = 1	Black	2	06

Table 9. Attributes for administrative text.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Type ArclInfo	Length ArclInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Text	50	Category code, clear text
3	TEXT	Text	40	Text	40	Text	320	
4	TEXTTYP	Text	1	Text	1	Text	1	Indicates text type: normal or informatory, O/U
5	TRIKT	Decimal	6,2	Decimal	6,2	Decimal	6,2	Orientation of the text (0-360 anti-clockwise)
6	TJUST	Decimal	1,0	Integer	1	Integer	1	Text anchor point (1–9). Anchor point in decimal point. <i>Figure 2. Figure showing nine possible anchor points for text.</i>
								
7	TSPARR	Decimal	3,0	Integer	3	Integer	3	Text spacing in percentage of length of original string (0-100 %)

5.2 Built-up areas and buildings

5.2.1 BL LINE LAYER WITH BUILDINGS, BUILT-UP AREAS AND OTHER FACILITIES AND AREAS

Buildings that is stored in the form of edge lines which form closed figures. The buildings do not overlap each other. Separate buildings may be shown within industrial areas.

Restrictions:

- In densely built-up areas, buildings have been given a simplified representation as built-up areas. These can be found in the MB/ML layer (closed polygons) and in the ML layer (limiting lines).

Table 10. Contents in BL line layer with buildings, built-up areas and other facilities and areas.

Layer name	Category code	Description
BL_xxxx	75	Area for facilities and recreation, pecked line
BL_xxxx	76	Area for facilities and recreation, full line
BL_xxxx	309	Jetty, centre line
BL_xxxx	337	Larger dam construction, outer limits
BL_xxxx	339	Pier, centre line
BL_xxxx	391	Reindeer fence
BL_xxxx	725	Take-off and landing runway, not surfaced

Table 11. Set of attributes in BL line layer with buildings, built-up areas and other facilities and areas.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.2.2 BS POINT LAYER WITH BUILDING SYMBOLS

Point symbols for different types of buildings that are not defined using their edge lines.

Table 12. Contents in BS point layer with building symbols.

Layer name	Category code	Description
BS_xxxx	362	Guest harbour
BS_xxxx	365	Lighthouse
BS_xxxx	369	Lock gate
BS_xxxx	373	Mast
BS_xxxx	524	Pier
BS_xxxx	525	Small dam
BS_xxxx	526	Dam
BS_xxxx	709	Point, size classification= 2, not specified
BS_xxxx	731	Farm
BS_xxxx	732	Country house
BS_xxxx	733	House, size classification= 3
BS_xxxx	734	House, size classification= 4
BS_xxxx	735	House, size classification= 1
BS_xxxx	736	House, size classification= 2
BS_xxxx	737	Palace
BS_xxxx	739	Tank and silo
BS_xxxx	740	Sawmill, symbol pointing left
BS_xxxx	741	Church
BS_xxxx	747	Church, smaller
BS_xxxx	748	Detached bell tower
BS_xxxx	749	Point, size classification= 1, not specified

Layer name	Category code	Description
BS_XXXX	753	Windmill
BS_XXXX	754	Timber yard
BS_XXXX	755	Sawmill, symbol pointing right
BS_XXXX	756	Wind power turbine/farm
BS_XXXX	757	Chimney
BS_XXXX	759	Tower
BS_XXXX	762	Cemetery
BS_XXXX	763	Sports ground
BS_XXXX	766	Football pitch
BS_XXXX	767	Rifle range
BS_XXXX	768	Smaller rifle range
BS_XXXX	769	Trotting track
BS_XXXX	770	Hut
BS_XXXX	775	Wind shelter
BS_XXXX	777	Bathing
BS_XXXX	778	Camping site

Table 13. Set of attributes in BS point layer with building symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.2.3 BY AREA LAYER WITH BUILDINGS

Buildings that form closed figures. The edge lines that are included in the BL layer have been used to create the figures.

Table 14. Contents in BY area layer with buildings.

Layer name	Category code	Description
BY_xxxx	690	Large building
BY_xxxx	728	Landing and starting runway, surfaced

Table 15. Set of attributes in BY area layer with buildings.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.3 Ancient sites and monuments

5.3.1 FL LINE LAYER WITH ANCIENT SITES AND MONUMENTS

Limiting lines for archaeological sites and other culture-historical remains.

Table 16. Contents in FL line layer with ancient sites and monuments.

Layer name	Category code	Description
FL_xxxx	14	Limits for ancient monument or site, edge line
FL_xxxx	97	Ancient monument/site, centre line
FL_xxxx	694	Ruin, edge line
FL_xxxx	695	Ruin, centre line
FL_xxxx	727	Larger mine shaft/open pit

Table 17. Set of attributes in FL line layer with ancient sites and monuments.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.3.2 FS POINT LAYER WITH SYMBOLS FOR ANCIENT SITES AND MONUMENTS

Point symbols for smaller ancient site and monument objects. The layer also contains symbols that are for information purposes.

Table 18. Contents in FS point layer with symbols for ancient sites and monuments.

Layer name	Category code	Description
FS_xxxx	341	Milestone
FS_xxxx	746	Ruin
FS_xxxx	751	Open mine shaft/pit
FS_xxxx	773	Ancient site/monument, information symbol
FS_xxxx	774	Remains of building
FS_xxxx	783	Building of culture-historical value, information symbol

Layer name	Category code	Description
FS_XXXX	784	Memorial stone, information symbol
FS_XXXX	786	Ancient site/monument, smaller (point)
FS_XXXX	787	Other culture-historical remains, smaller (point)

Table 19. Set of attributes in FS point layer with symbols for ancient sites and monuments.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.4 Geodesy

5.4.1 GL LINE LAYER WITH THE EARTH'S SHAPE AND FORM

Lines for the earth's shape and form.

Table 20. Contents in GL line layer with the earth's shape and form.

Layer name	Category code	Description
GL_xxxx	921	Polar Circle

Table 21. Set of attributes in GL line layer with earth's shape and form.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.4.2 GS POINT LAYER WITH THE EARTH'S SHAPE AND FORM

Points that have been used for triangulation and levelling.

Table 22. Contents in GS point layer with the earth's shape and form.

Layer name	Category code	Description
GS_xxxx	811	Triangulation station
GS_xxxx	821	Benchmark
GS_xxxx	825	Spot height

Table 23. Set of attributes in GS point layer with the earth's shape and form.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.5 Hydrography

5.5.1 HL LINE LAYER WITH HYDROGRAPHY

Smaller watercourses < 6 m wide. Wider watercourses are classified as water bodies and are included in land and vegetation cover data layer.

Table 24. Contents in HL line layer with hydrography.

Layer name	Category code	Description
HL_XXXX	288	Chute or float-way
HL_XXXX	441	Watercourse, cartographic classification =1
HL_XXXX	455	Watercourse, cartographic classification =2
HL_XXXX	456	Watercourse, cartographic classification =3
HL_XXXX	458	Watercourse, underground
HL_XXXX	513	Rapids
HL_XXXX	516	Waterfall

Table 25. Set of attributes in HL line layer with hydrography.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.5.2 HS POINT LAYER WITH HYDROGRAPHIC SYMBOLS

Point symbols for direction of flow.

Table 26. Contents in HS point layer with hydrographic symbols.

Layer name	Category code	Description
HS_XXXX	511	Direction of flow arrow

Table 27. Set of attributes in HS point layer with hydrographic symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.6 Railways

5.6.1 JL LINE LAYER WITH RAILWAYS

Railway networks. Underpasses and tunnels have a separate code.

Restrictions:

- Line features for railways are, for the main part, connected. They have not, however, all been connected to form networks.

Table 28. Contents in JL line layer with railways.

Layer name	Category code	Description
JL_XXXX	270	Railway under construction
JL_XXXX	271	Standard gauge, single track, not electrified
JL_XXXX	272	Standard gauge, single track, electrified
JL_XXXX	273	Standard gauge, double track, electrified
JL_XXXX	274	Narrow gauge, single track not electrified
JL_XXXX	275	Narrow gauge, single track, electrified
JL_XXXX	276	Narrow gauge, double track, electrified
JL_XXXX	278	Previously railway line
JL_XXXX	279	Industrial siding/ historic railway
JL_XXXX	286	Railway in underpass/tunnel
JL_XXXX	293	Tramline, Underground/Metro

Table 29. Set of attributes in JL line layer with railways.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.6.2 JS POINT LAYER WITH RAILWAY SYMBOLS

Point symbols associated with railway networks. Points on lines in the JL layer.

Table 30. Contents in JS point layer with railway symbols.

Layer name	Category code	Description
JS_xxxx	351	Station
JS_xxxx	355	Railway tunnel entry
JS_xxxx	357	Station on narrow gauge railway, tramline, Underground/Metro

Table 31. Set of attributes in JS point layer with railway symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.7 Electricity power transmission lines

5.7.1 KL LINE LAYER WITH ELECTRICITY POWER TRANSMISSION LINES

Electricity power transmission networks and limiting lines for transformer stations.

Restrictions:

- Line feature for electricity power transmission lines are, for the greater part, connected. They have not, however, been fully connected to form networks.

Table 32. Contents in KL line layer with electricity power transmission lines.

Layer name	Category code	Description
KL_xxxx	2611	Electricity power transmission line, main
KL_xxxx	2612	Electricity power transmission line, regional
KL_xxxx	2670	Area for transformer station
KL_xxxx	2720	Pipeline

Table 33. Set of attributes in KL line layer with electricity power transmission lines.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.7.2 KS POINT LAYER WITH TRANSFORMER SYMBOLS

Point symbols for transformers.

Table 34. Contents in KS point layer with transformer symbols.

Layer name	Category code	Description
JS_xxxx	351	Station

Table 35. Set of attributes in KS point layer with transformer symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.8 Land area polygons

5.8.1 MY AREA LAYER WITH LAND AREAS – CLOSED POLYGONS

Contains closed area polygons for land data. All classes in the closed polygon land data layer are included in the MY layer. Data in this layer has been cut based on 10x10 km index quads. This means that areas that extend across sheet lines have been divided into several areas.

Table 36. Contents in MY area layer with land areas – closed polygons.

Layer name	Category code	Description
MY_xxxx	1	Water body
MY_xxxx	2	Forest, coniferous and mixed
MY_xxxx	4	Arable land
MY_xxxx	5	Other open land
MY_xxxx	7	Fruit farm
MY_xxxx	8	Bare mountain above tree line
MY_xxxx	10	Mountain birch
MY_xxxx	12	Group of buildings with courtyard
MY_xxxx	13	High-rise buildings
MY_xxxx	14	Low-rise buildings
MY_xxxx	15	Industrial area
MY_xxxx	16	Leisure homes
MY_xxxx	17	Other open land with isolated trees
MY_xxxx	18	Water body with unclear shoreline
MY_xxxx	19	Deciduous forest
MY_xxxx	20	Unmapped area

Table 37. Set of attributes in MY area layer with land areas – closed polygons.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.2 MV AREA LAYER WITH WATER

Closed polygons for lakes and watercourses wider than approximately 6 m. Lakes and watercourses that extend across the sheet lines of the Property Map (10x10 km quads) are divided into several parts (one part per 10x10 km quad). All features in this layer can also be found in the MY layer.

Table 38. Contents in MV area layer with water.

Layer name	Category code	Description
MV_XXXX	1	Water body
MV_XXXX	18	Water body with unclear shoreline

Table 39. Set of attributes in MV area layer with water.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.3 MO AREA LAYER WITH OPEN LAND AND FOREST

Closed polygons for open land and forest. Polygons that extend across the sheet lines of the Property Map (10x10 km quads) are divided into several parts (one part per 10x10 km quad). All of the features in this layer can also be found in the MY layer.

Table 40. Contents in MO area layer with open land and forest.

Layer name	Category code	Description
MO_XXXX	2	Forest, coniferous and mixed
MO_XXXX	5	Other open land
MO_XXXX	8	Bare mountain above tree line
MO_XXXX	10	Mountain birch

Layer name	Category code	Description
MO_XXXX	17	Other open land with isolated trees
MO_XXXX	19	Deciduous forest

Table 41. Set of attributes in MO area layer with open land and forest.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.4 MA AREA LAYER WITH CULTIVATED LAND

Closed polygons for cultivated land. Polygons that extend across the sheet lines of the Property Map (10x10 km quads) are divided into several parts (one part per 10x10 km quad). All of the features in this layer can also be found in the MY layer.

Table 42. Contents in MA area layer with cultivated land.

Layer name	Category code	Description
MA_XXXX	4	Cultivated land
MA_XXXX	7	Fruit farm

Table 43. Set of attributes in MA area layer with cultivated land.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.5 MB AREA LAYER WITH BUILDINGS AND BUILT-UP AREAS

Closed polygons for buildings and built-up areas. Polygons that extend across the Property Map's division into 10x10 km quads are divided into several parts (one part per 10x10 km quad). All of the features in this layer can also be found in the MY layer.

Table 44. Contents in MB area layer with buildings and built-up areas.

Layer name	Category code	Description
MB_xxxx	12	Group of buildings with courtyard
MB_xxxx	13	High-rise buildings
MB_xxxx	14	Low-rise buildings
MB_xxxx	15	Industrial area
MB_xxxx	16	Leisure homes

Table 45. Set of attributes in MB area layer with buildings and built-up areas.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.6 MS AREA LAYER WITH MARSHLAND AND ROCK OUTCROPS

Closed polygons for marshland and rock outcrops. The polygons are suitable for building in topology. The areas covered by these polygons can also be found, with another code, in the MY layer.

Table 46. Contents in MS area layer with marshland and rock outcrops.

Layer name	Category code	Description
MS_xxxx	31	Marshland, liable to flooding
MS_xxxx	32	Marshland, normal
MS_xxxx	33	Rock outcrop
MS_xxxx	35	Marshland, peat cutting area
MS_xxxx	37	Marshland, limestone bog

Table 47. Set of attributes in MS area layer with marshland and rock outcrops.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.7 MX AREA LAYER WITH TERRAIN WITH LARGE STONE BLOCKS AND BOULDERS

Closed polygons for terrain with large stone blocks and boulders. The polygons are suitable for building in topology. The areas covered by these polygons can also be found, with another code, in the MY layer.

Table 48. Contents in MX area layer with terrain with large stone blocks and boulders.

Layer name	Category code	Description
MX_XXXX	34	Area with large stone blocks and boulders

Table 49. Set of attributes in MX area layer with terrain with large stone blocks and boulders.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.8 ML LINE LAYER WITH LAND AND VEGETATION COVER DATA

Limiting lines for land types. The lines are double-coded based on both Id points for the abutting area polygons.

Table 50. Contents in ML line layer with land and vegetation cover data.

Layer name	Category code	Description
ML_XXXX	102	Water body - Forest
ML_XXXX	104	Water body - Arable land
ML_XXXX	105	Water body - Other open land
ML_XXXX	107	Water body - Fruit farm
ML_XXXX	108	Water body Bare mountain above tree line
ML_XXXX	110	Water body - Mountain birch

Layer name	Category code	Description
ML_xxxx	112	Water body - Group of buildings with courtyard
ML_xxxx	113	Water body - High-rise buildings
ML_xxxx	114	Water body - Low-rise buildings
ML_xxxx	115	Water body - Industrial area
ML_xxxx	116	Water body - Leisure homes
ML_xxxx	117	Water body - Other open land with isolated trees
ML_xxxx	118	Water body - Water with unclear shoreline
ML_xxxx	119	Water body - Deciduous forest
ML_xxxx	120	Water body - Unmapped area
ML_xxxx	204	Forest - Arable land
ML_xxxx	205	Forest - Other open area
ML_xxxx	207	Forest - Fruit farm
ML_xxxx	208	Forest Bare mountain above tree line
ML_xxxx	210	Forest - Mountain birch
ML_xxxx	212	Forest - Group of buildings with courtyard
ML_xxxx	213	Forest - High-rise buildings
ML_xxxx	214	Forest - Low-rise buildings
ML_xxxx	215	Forest - Industrial area
ML_xxxx	216	Forest - Leisure homes
ML_xxxx	217	Forest - Other open area with isolated trees
ML_xxxx	218	Forest - Water with unclear shoreline
ML_xxxx	219	Forest - Deciduous forest
ML_xxxx	220	Forest - Unmapped area

Layer name	Category code	Description
ML_xxxx	405	Arable land - Other open land
ML_xxxx	407	Arable land - Fruit farm
ML_xxxx	408	Arable land - Bare mountain above tree line
ML_xxxx	410	Arable land - Mountain birch
ML_xxxx	412	Arable land - Group of buildings with courtyard
ML_xxxx	413	Arable land - High-rise buildings
ML_xxxx	414	Arable land - Low-rise buildings
ML_xxxx	415	Arable land - Industrial area
ML_xxxx	416	Arable land - Leisure homes
ML_xxxx	417	Arable land - Other open area with isolated trees
ML_xxxx	418	Arable land - Water with unclear shoreline
ML_xxxx	419	Arable land - Deciduous forest
ML_xxxx	420	Arable land - Unmapped area
ML_xxxx	507	Other open land - Fruit farm
ML_xxxx	508	Other open land - Bare mountain above tree line
ML_xxxx	510	Other open land - Mountain birch
ML_xxxx	512	Other open land - Group of buildings with courtyard
ML_xxxx	513	Other open land - High-rise buildings
ML_xxxx	514	Other open land - Low-rise buildings
ML_xxxx	515	Other open land - Industrial area
ML_xxxx	516	Other open land - Leisure homes
ML_xxxx	517	Other open area - Other open area with isolated trees

Layer name	Category code	Description
ML_XXXX	518	Other open area - Water with unclear shoreline
ML_XXXX	519	Other open area - Deciduous forest
ML_XXXX	520	Other open land - Unmapped area
ML_XXXX	712	Fruit farm - Group of buildings with courtyard
ML_XXXX	713	Fruit farm - High-rise buildings
ML_XXXX	714	Fruit farm - Low-rise buildings
ML_XXXX	715	Fruit farm - Industrial area
ML_XXXX	716	Fruit farm - Leisure homes
ML_XXXX	717	Fruit farm - Other open area with isolated trees
ML_XXXX	718	Fruit farm - Water with unclear shoreline
ML_XXXX	719	Fruit farm - Deciduous forest
ML_XXXX	720	Fruit farm - Unmapped area
ML_XXXX	810	Bare mountain above tree line - Group of buildings with courtyard
ML_XXXX	813	Bare mountain above tree line - High-rise buildings
ML_XXXX	814	Bare mountain above tree line - Low-rise buildings
ML_XXXX	815	Bare mountain above tree line - Industrial area
ML_XXXX	816	Bare mountain above tree line - Leisure homes
ML_XXXX	817	Bare mountain above tree line - Other open area with isolated trees
ML_XXXX	818	Bare mountain above tree line - Water with unclear shoreline
ML_XXXX	819	Bare mountain above tree line - Deciduous forest

Layer name	Category code	Description
ML_xxxx	820	Bare mountain above tree line - Unmapped area
ML_xxxx	1013	Mountain birch - High-rise buildings
ML_xxxx	1014	Mountain birch - Low-rise buildings
ML_xxxx	1015	Mountain birch - Industrial area
ML_xxxx	1016	Mountain birch - Leisure homes
ML_xxxx	1017	Mountain birch - Other open area with isolated trees
ML_xxxx	1018	Mountain birch - Water with unclear shoreline
ML_xxxx	1019	Mountain birch - Deciduous forest
ML_xxxx	1020	Mountain birch - Unmapped area
ML_xxxx	1213	Group of buildings with courtyard - High-rise buildings
ML_xxxx	1214	Group of buildings with courtyard - Low-rise buildings
ML_xxxx	1215	Group of buildings with courtyard - Industrial area
ML_xxxx	1216	Group of buildings with courtyard - Leisure homes
ML_xxxx	1217	Group of buildings with courtyard - Other open area with isolated trees
ML_xxxx	1218	Group of buildings with courtyard - Water with unclear shoreline
ML_xxxx	1219	Group of buildings with courtyard - Deciduous forest
ML_xxxx	1220	Group of buildings with courtyard - Unmapped area
ML_xxxx	1314	High-rise buildings - Low-rise buildings
ML_xxxx	1315	High-rise buildings - Industrial area

Layer name	Category code	Description
ML_XXXX	1316	High-rise buildings - Leisure homes
ML_XXXX	1317	High-rise buildings - Other open area with isolated trees
ML_XXXX	1318	High-rise buildings - Water with unclear shoreline
ML_XXXX	1319	High-rise buildings - Deciduous forest
ML_XXXX	1320	High-rise buildings - Unmapped area
ML_XXXX	1415	Low-rise buildings - Industrial area
ML_XXXX	1416	Low-rise buildings - Leisure homes
ML_XXXX	1417	Low-rise buildings - Other open area with isolated trees
ML_XXXX	1418	Low-rise buildings - Water with unclear shoreline
ML_XXXX	1419	Low-rise buildings - Deciduous forest
ML_XXXX	1420	Low-rise buildings - Unmapped area
ML_XXXX	1516	Industrial area - Leisure homes
ML_XXXX	1517	Industrial area - Other open area with isolated trees
ML_XXXX	1518	Industrial area - Water with unclear shoreline
ML_XXXX	1519	Industrial area - Deciduous forest
ML_XXXX	1520	Industrial area - Unmapped area
ML_XXXX	1617	Industrial area - Other open area with isolated trees
ML_XXXX	1618	Industrial area - Water with unclear shoreline
ML_XXXX	1619	Industrial area - Deciduous forest
ML_XXXX	1718	Other open area with isolated trees - Water with unclear shoreline

Layer name	Category code	Description
ML_XXXX	1719	Other open area with isolated trees - Deciduous forest
ML_XXXX	1720	Other open area with isolated trees - Unmapped area
ML_XXXX	1819	Water with unclear shoreline - Deciduous forest
ML_XXXX	1820	Water with unclear shoreline - Unmapped area
ML_XXXX	1920	Deciduous forest - Unmapped area

Table 51. Set of attributes in ML line layer with land and vegetation cover data.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.9 SL LINE LAYER WITH VEGETATION COVER

Belts of forest and windbreaks.

Table 52. Contents in SL line layer with vegetation cover.

Layer name	Category code	Description
SL_XXXX	447	Belt of forest/windbreak

Table 53. Set of attributes in SL line layer with vegetation cover.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.8.10 SS POINT LAYER WITH VEGETATION COVER

Symbols for isolated trees.

Table 54. Contents in SS point layer with vegetation cover.

Layer name	Category code	Description
SS_xxxx	451	Isolated trees

Table 55. Set of attributes in SS point layer with vegetation cover.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.9 Nature conservancy

5.9.1 NL LINE LAYER WITH NATURE CONSERVANCY

Limiting lines for nature conservancy features.

Table 56. Contents in NL line layer with nature conservancy.

Layer name	Category code	Description
NL_xxxx	11	National park
NL_xxxx	12	Nature reserve
NL_xxxx	19	Other reserve
NL_xxxx	54	National park with boundary coinciding with other boundary
NL_xxxx	55	Nature reserve with boundary coinciding with other boundary
NL_xxxx	56	Other reserve with boundary coinciding with other boundary
NL_xxxx	57	Wildlife sanctuary with boundary coinciding with other boundary
NL_xxxx	70	Nature reserve, centre line
NL_xxxx	72	Wildlife sanctuary
NL_xxxx	73	Cultural reserve
NL_xxxx	74	Cultural reserve with boundary coinciding with other boundary
NL_xxxx	79	Nature reserve, centre line, coinciding with other boundary
NL_xxxx	98	Prohibited area for terrain vehicle

Table 57. Set of attributes in NL line layer with nature conservancy.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.9.2 NS POINT LAYER WITH NATURE CONSERVANCY SYMBOLS

Point symbols for smaller nature conservancy features. The layer also contains symbols that are only for information purposes.

Table 58. Contents in NS point layer with nature conservancy symbols.

Layer name	Category code	Description
NS_xxxx	781	Natural monument of biological interest, information
NS_xxxx	782	Natural monument of geological interest, information
NS_xxxx	785	Natural monument of geological or biological interest

Table 59. Set of attributes in NS point layer with nature conservancy symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.10 Military areas

5.10.1 QL LINE LAYER WITH MILITARY AREAS

Limiting lines for military areas.

Table 60. Contents in QL line layer with military areas.

Layer name	Category code	Description
QL_xxxx	16	Military restricted area
QL_xxxx	17	Military firing/artillery range
QL_xxxx	58	Military training area with boundary coinciding with other area
QL_xxxx	59	Military firing/artillery range with boundary coinciding with other area
QL_xxxx	96	Military training area

Table 61. Set of attributes in QL line layer with military areas.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.11 Roads

5.11.1 VL LINE LAYER WITH PUBLIC AND PRIVATE ROADS

Networks for both public and private roads Underpass/tunnels have separate codes for the respective road classes.

Restrictions:

- Line features for motor roads are, for the greater part, connected, but they do not form a complete network.

Table 62. Contents in VL line layer with public and private roads.

Layer name	Category code	Description
VL_xxxx	336	Ferry route
VL_xxxx	5011	Motorway
VL_xxxx	5014	Public road under construction
VL_xxxx	5022	Public road, Class I
VL_xxxx	5025	Public road, Class 2
VL_xxxx	5029	Public road, Class 3
VL_xxxx	5032	Entry and exit road Class 1
VL_xxxx	5033	Entry and exit road Class 2
VL_xxxx	5034	Entry and exit road Class 3
VL_xxxx	5044	Through road
VL_xxxx	5051	Main street
VL_xxxx	5056	Street
VL_xxxx	5058	Street within closed group of buildings
VL_xxxx	5061	Better quality road
VL_xxxx	5071	Motor road
VL_xxxx	5082	Poorer quality road
VL_xxxx	5091	Entry road
VL_xxxx	5811	Motorway, in underpass

Layer name	Category code	Description
VL_xxxx	5822	Public road Class 1, in underpass
VL_xxxx	5825	Public road Class 2, in underpass
VL_xxxx	5829	Public road Class 3, in underpass
VL_xxxx	5832	Exit and entry road Class 1, in underpass
VL_xxxx	5833	Exit and entry road Class2, in underpass
VL_xxxx	5834	Exit and entry road Class 3, in underpass
VL_xxxx	5844	Through street/route in underpass
VL_xxxx	5851	Main street, in underpass
VL_xxxx	5856	Street, in underpass
VL_xxxx	5858	Street within closed group of buildings, underpass
VL_xxxx	5861	Better quality road, in underpass
VL_xxxx	5871	Motor road, in underpass
VL_xxxx	5882	Poorer quality road, in underpass
VL_xxxx	5891	Entry road, in underpass

Table 63. Set of attributes in VL line layer with public and private roads.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.11.2 VO LINE LAYER WITH OTHER ROADS

Other roads, footpaths and trails. Hiking trails and illuminated tracks overlay other objects in the layer.

Table 64. Contents in VO line layer with other roads.

Layer name	Category code	Description
VO_XXXX	264	Footpath
VO_XXXX	265	Hiking trail
VO_XXXX	266	Illuminated track (running, skiing)
VO_XXXX	268	Hiking trail, along road
VO_XXXX	284	Cableway
VO_XXXX	332	Footbridge or crossing
VO_XXXX	5095	Tractor road/track
VO_XXXX	5098	Road in park, cycle path
VO_XXXX	5899	Underpass for other road or track

Table 65. Set of attributes in VO line layer with other roads.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.11.3 VS POINT LAYER WITH ROAD SYMBOLS

Point symbols that are associated with the road network.

Table 66. Contents in VS point layer with road symbols.

Layer name	Category code	Description
VS_xxxx	323	Opening bridge
VS_xxxx	343	Road tunnel
VS_xxxx	345	Road barrier
VS_xxxx	346	Turning place
VS_xxxx	776	Lay-by

Table 67. Set of attributes in VS point layer with road symbols.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	6.2	Decimal	6.2	Orientation of symbol. Unit: degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.12 Land contours

5.12.1 OH LINE LAYER WITH CONTOURS

Contains lines with contours and depressions, as well as cuttings.

Table 68. Contents in OH line layer with contours.

Layer name	Detail type	Category code	Description
OH_xxxx	HÖJDK5	568	Contour, normal
OH_xxxx	HÖJDK25	571	Contour, 25 m vertical interval
OH_xxxx	GROP5.K	575	Depression, normal
OH_xxxx	GROP25.K	576	Depression, 25 m vertical interval
OH_xxxx	SKÄRNING	598	Cutting

Table 69. Set of attributes in OH line layer with contours.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text

5.12.2 OS POINT LAYER WITH HEIGHT INFORMATION

Contains symbols for hachuring.

Table 70. Contents in OS point layer with height information.

Layer name	Detail type	Category code	Description
OS_xxxx	GROPSTRECK	577	Hachuring

Table 71. Set of attributes in OS point layer with height information.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Category code, clear text
3	SRIKT	Decimal	8,2	Decimal	8,2	Symbol orientation in degrees (0.00-360.00, increasing anti-clockwise) 0.00 = symbol without orientation.

5.12.3 OT TEXT LAYER WITH HEIGHT TEXT

Contains the height text supplied with contours.

The texts for height curves are presented in the following style:

Table 72. Font.

Font 5	Swiss 721 roman italic (italic)
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Table 73. Contents in OT text layer with height text.

Layer name	Category code	Description	Text colour	Font	Size/ points
OT_xxxx	98	Depth figure	Blue	5	05
OT_xxxx	99	Height figure on contour	Brown	5	05

Table 74. Set of attributes in OT text layer with height text.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Type ArclInfo	Length ArclInfo	Description
1	KKOD	Integer	5	Integer	5	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Text	50	Category code in clear text
3	TEXT	Text	40	Text	40	Text	320	Text string
4	TEXTTYP	Text	1	Text	1	Text	1	Indicates text type: normal or informative, O/U.
5	TRIKT	Decimal	6,2	Decimal	6,2	Decimal	6,2	Text orientation (0-360 anti-clockwise)
6	TJUST	Integer	1	Integer	1	Integer	1	Text anchor point (1–9). Anchor point in decimal point. <i>Figure 3. Figure showing nine possible anchor points for text.</i>



5.13 Text for place-names

5.13.1 POINT, LINE OR TEXT LAYERS WITH PLACE-NAMES

Contains cartographically placed text and is delivered either in two layers in Shape format and one layer in ArcInfo Coverage format or in two layers in MapInfo format:

Table 75. Textlayer in Shape-format.

Shape
Point layer (TX)
Line layer (TL)

Table 76. Textlayer in ArcInfo-coverage-format.

ArcInfo Coverage
Text layer (TX)

Table 77. Textlayer in MapInfo-format.

MapInfo
Text layer (TX)
Point/line layer (TG)

The placing of point text depends on the text string's anchor point. The text has been created starting from this point. For MapInfo, the point has been placed so that text position 1 (lower left-hand corner) can be used for all texts.

Line texts are defined by the centre line of the string. The length of the line is the same as the length the text will have in production. This is only partly the case for snaking text.

Texts that lie within the delivered area will be included in the delivery irrespective of whether their anchor points lie within or outside the area. In this way, you will always receive the same number of texts.

All text layers also come GIS-enabled where hyphenate text, which would otherwise come in two or more points, are written together into a coherent string of text in one point. These layers come in the folder *gistext*.

The texts are presented on printed maps with the following styles:

Table 78. Font.

Font 1	Swiss 721 roman
Font 2	Swiss 721 light (thin)
Font 4	Swiss 721 light italic (thin/italic)
Font 5	Swiss 721 roman italic (italic)
Font 9	Swiss 721 bold (bold)

Table 79. Contents in layers with map text

Layer name	Category code	Description	Text colour	Font	Size/ points
TX_xxxx, TL_xxxx, TG_xxxx	1	Built-up area, individual farms, houses	Black	1	06
TX_xxxx, TL_xxxx, TG_xxxx	2	Built-up area, village, larger farm, small municipal area	Black	1	07
TX_xxxx, TL_xxxx, TG_xxxx	3	Built-up area, village, municipal area	Black	1	08
TX_xxxx, TL_xxxx, TG_xxxx	4	Built-up area, locality, village (denser development)	Black	1	09
TX_xxxx, TL_xxxx, TG_xxxx	5	Locality 200 - 499 inhabitants, larger municipal area	Black	1	10
TX_xxxx, TL_xxxx, TG_xxxx	6	Locality 500 - 1 999 inhabitants.	Black	1	12
TX_xxxx, TL_xxxx, TG_xxxx	7	Locality 2 000 - 9 999 inhabitants.	Black	1	14
TX_xxxx, TL_xxxx, TG_xxxx	8	Locality 10 000 - 49 999 inhabitants.	Black	1	16
TX_xxxx, TL_xxxx, TG_xxxx	9	Locality 50 000 or more inhabitants.	Black	1	20
TX_xxxx, TL_xxxx, TG_xxxx	14	Country house, size classification = 1	Black	1	06
TX_xxxx, TL_xxxx, TG_xxxx	15	Palace	Black	1	09
TX_xxxx, TL_xxxx, TG_xxxx	16	Country house, size classification = 2	Black	1	08
TX_xxxx, TL_xxxx, TG_xxxx	17	Church, size classification = 1	Black	1	07
TX_xxxx, TL_xxxx, TG_xxxx	18	Church, size classification = 2	Black	9	09
TX_xxxx, TL_xxxx, TG_xxxx	24	Airport, size classification = 1	Black	1	07
TX_xxxx, TL_xxxx, TG_xxxx	25	Airport, size classification = 2	Black	1	09
TX_xxxx, TL_xxxx, TG_xxxx	27	Other facility, size classification = 1	Black	1	06


Layer name	Category code	Description	Text colour	Font	Size/ points
TX_xxxx, TL_xxxx, TG_xxxx	28	Other facility, size classification = 2	Black	1	07
TX_xxxx, TL_xxxx, TG_xxxx	42	Proclaimed nature area, size classification = 1	Black	5	06
TX_xxxx, TL_xxxx, TG_xxxx	43	Proclaimed nature area, size classification = 2	Black	5	07
TX_xxxx, TL_xxxx, TG_xxxx	44	Proclaimed nature area, size classification = 3	Black	5	08
TX_xxxx, TL_xxxx, TG_xxxx	45	Proclaimed nature area, size classification = 4	Black	5	10
TX_xxxx, TL_xxxx, TG_xxxx	46	Proclaimed nature area, size classification = 5	Black	5	12
TX_xxxx, TL_xxxx, TG_xxxx	47	Proclaimed nature area, size classification = 6	Black	5	14
TX_xxxx, TL_xxxx, TG_xxxx	48	Proclaimed nature area, size classification = 7	Black	5	16
TX_xxxx, TL_xxxx, TG_xxxx	49	Proclaimed nature area, size classification = 8	Black	5	20
TX_xxxx, TL_xxxx, TG_xxxx	51	Natural feature, terrain and marshland, size classification = 1	Black	5	05
TX_xxxx, TL_xxxx, TG_xxxx	52	Natural feature, terrain and marshland, size classification = 2	Black	5	06
TX_xxxx, TL_xxxx, TG_xxxx	53	Natural feature, terrain and marshland, size classification = 3	Black	5	07
TX_xxxx, TL_xxxx, TG_xxxx	54	Natural feature, terrain and marshland, size classification = 4	Black	5	08
TX_xxxx, TL_xxxx, TG_xxxx	55	Natural feature, terrain and marshland, size classification = 5	Black	5	10

Layer name	Category code	Description	Text colour	Font	Size/ points
TX_xxxx, TL_xxxx, TG_xxxx	56	Natural feature, terrain and marshland, size classification = 6	Black	5	12
TX_xxxx, TL_xxxx, TG_xxxx	57	Natural feature, terrain and marshland, size classification = 7	Black	5	14
TX_xxxx, TL_xxxx, TG_xxxx	58	Natural feature, terrain and marshland, size classification = 8	Black	5	16
TX_xxxx, TL_xxxx, TG_xxxx	59	Natural feature, terrain and marshland, size classification = 9	Black	5	20
TX_xxxx, TL_xxxx, TG_xxxx	61	Informatory text, size classification = 1	Black	4	06
TX_xxxx, TL_xxxx, TG_xxxx	62	Informatory text, size classification = 2	Black	4	07
TX_xxxx, TL_xxxx, TG_xxxx	63	Informatory text, size classification = 3	Black	4	08
TX_xxxx, TL_xxxx, TG_xxxx	64	Informatory text, size classification = 4	Black	4	10
TX_xxxx, TL_xxxx, TG_xxxx	65	Informatory text, size classification = 5	Black	4	12
TX_xxxx, TL_xxxx, TG_xxxx	66	Informatory text, size classification = 6	Black	4	16
TX_xxxx, TL_xxxx, TG_xxxx	67	Informatory text, size classification = 7	Black	4	20
TX_xxxx, TL_xxxx, TG_xxxx	71	Lighthouse, size classification = 1	Black	1	06
TX_xxxx, TL_xxxx, TG_xxxx	72	Lighthouse, size classification = 2	Black	1	07
TX_xxxx, TL_xxxx, TG_xxxx	73	Ancient monument, larger building	Black	1	06
TX_xxxx, TL_xxxx, TG_xxxx	74	Ancient site/monument	Black	5	06
TX_xxxx, TL_xxxx, TG_xxxx	75	Remains of building	Black	5	06

Layer name	Category code	Description	Text colour	Font	Size/ points
TX_XXXX, TL_XXXX, TG_XXXX	76	Elevation value	Black	5	06
TX_XXXX, TL_XXXX, TG_XXXX	78	National boundary cairn	Black	1	07
TX_XXXX, TL_XXXX, TG_XXXX	79	Road number	Black	1	06
TX_XXXX, TL_XXXX, TG_XXXX	82	Watercourse, size classification = 1	Blue	5	06
TX_XXXX, TL_XXXX, TG_XXXX	83	Watercourse, size classification = 2	Blue	5	07
TX_XXXX, TL_XXXX, TG_XXXX	84	Watercourse, size classification = 3	Blue	5	08
TX_XXXX, TL_XXXX, TG_XXXX	85	Watercourse, size classification = 4	Blue	5	10
TX_XXXX, TL_XXXX, TG_XXXX	86	Watercourse, size classification = 5	Blue	5	12
TX_XXXX, TL_XXXX, TG_XXXX	87	Watercourse, size classification = 6	Blue	5	14
TX_XXXX, TL_XXXX, TG_XXXX	88	Watercourse, size classification = 7	Blue	5	16
TX_XXXX, TL_XXXX, TG_XXXX	89	Watercourse, size classification = 8	Blue	5	20
TX_XXXX, TL_XXXX, TG_XXXX	182	Lake, size classification = 1	Blue	5	06
TX_XXXX, TL_XXXX, TG_XXXX	183	Lake, size classification = 2	Blue	5	07
TX_XXXX, TL_XXXX, TG_XXXX	184	Lake, size classification = 3	Blue	5	08
TX_XXXX, TL_XXXX, TG_XXXX	185	Lake, size classification = 4	Blue	5	10
TX_XXXX, TL_XXXX, TG_XXXX	186	Lake, size classification = 5	Blue	5	12
TX_XXXX, TL_XXXX, TG_XXXX	187	Lake, size classification = 6	Blue	5	14
TX_XXXX, TL_XXXX, TG_XXXX	188	Lake, size classification = 7	Blue	5	16
TX_XXXX, TL_XXXX, TG_XXXX	189	Lake, size classification = 8	Blue	5	20

Layer name	Category code	Description	Text colour	Font	Size/ points
TX_xxxx, TL_xxxx, TG_xxxx	192	Part of water body, size class = 1	Blue	5	06
TX_xxxx, TL_xxxx, TG_xxxx	193	Part of water body, size class = 2	Blue	5	07
TX_xxxx, TL_xxxx, TG_xxxx	194	Part of water body, size class = 3	Blue	5	08
TX_xxxx, TL_xxxx, TG_xxxx	195	Part of water body, size class = 4	Blue	5	10
TX_xxxx, TL_xxxx, TG_xxxx	196	Part of water body, size class = 5	Blue	5	12
TX_xxxx, TL_xxxx, TG_xxxx	197	Part of water body, size class = 6	Blue	5	14
TX_xxxx, TL_xxxx, TG_xxxx	198	Part of water body, size class = 7	Blue	5	16
TX_xxxx, TL_xxxx, TG_xxxx	199	Part of water body, size class = 8	Blue	5	20

Table 80. Set of attributes in text layer.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Type ArclInfo	Length ArclInfo	Description
1	KKOD	Decimal	5,0	Integer	5	Integer	5	Category code
2	KATEGORI	Text	50	Text	50	Text	50	Category code in clear text
3	TEXT	Text	40	Text	40	Text	320	Text string
4	TEXTTYP	Text	1	Text	1	Text	1	Indicates text type: normal or informative, O/U
5	TRIKT	Decimal	6,2	Decimal	6,2	Decimal	6,2	Orientation of the text (0-360 anti-clockwise)
6	TJUST	Integer	1	Integer	1	Integer	1	Text anchor point (1–9). Anchor point in decimal point. <i>Figure 4. Figure showing nine possible anchor points for text.</i> 
7	TSPARR	Integer	3	Integer	3	Integer	3	Text spacing in percentage of length of original string (0-100 %)

Appendix I: Recommended plotting sequence of the layers

Following plotting sequence is suggested, irrespective of software. When ArcMap is used the layers can be linked to the accompanying LYR-file. The LYR-file governs the plotting sequence and within which scale intervals the layers are shown.

Table 81. Recommended plotting sequence of the layers.

Description of layer	Layer name	Geometry	Scale range in the LYR file	Turned on
Administrative text	AT	Text	1:50 050 and larger	X
Contour lines, values	OT	Text	1:50 050 and larger	X
Text	TX	Text	1:100 050 and larger	X
Text, points (not MapInfo)	TX	Point	1:300 000 – 1: 100 050	X
Text, lines	TL	Line	1:300 000 – 1: 100 050	
Administrative symbols	AS	Point	1:50 050 and larger	X
Railway symbols	JS	Point	1:50 050 and larger	X
Road symbols	VS	Point	1:50 050 and larger	X
Electricity power transmission lines, symbols	KS	Point	1:50 050 and larger	X
Nature conservancy symbols	NS	Point	1:50 050 and larger	X
Ancient monuments and sites, symbols	FS	Point	1:50 050 and larger	X
Geodesy symbols	GS	Point	1:50 050 and larger	X
Hydrographic symbols	HS	Point	1:50 050 and larger	X
Buildings, symbols	BS	Point	1:50 050 and larger	X
Hachuring	OS	Point	1:50 050 and larger	X
Belt of forest/windbreak	SL	Line	1:50 050 and larger	X
Isolated trees	SS	Point	1:50 050 and larger	X
Administrative boundaries	AL	Line	Always shown	X

Description of layer	Layer name	Geometry	Scale range in the LYR file	Turned on
Earth's shape and form	GL	Line	1:50 050 and larger	X
Buildings	BY	Area	1:50 050 and larger	X
Buildings and facilities	BL	Line	1:50 050 and larger	
Electricity power transmission lines	KL	Line	1:100 050 and larger	X
Railways	JL	Line	Always shown	X
Other roads	VO	Line	1:50 050 and larger	X
Public and private roads	VL	Line	1:300 000 and larger	X
Hydrography, lines	HL	Line	1:100 050 and larger	X
Ancient sites and monuments	FL	Line	1:50 050 and larger	X
Military areas, lines	QL	Line	1:50 050 v and larger	X
Nature conservancy areas, lines	NL	Line	1:50 050 and larger	X
Contours	OH	Line	1:50 050 and larger	X
Land and vegetation cover, limiting lines	ML	Line	Not shown	X
Terrain with large stone blocks and boulders	MX	Area	1:50 050 and larger	X
Marshland	MS	Area	1:100 050 and larger	X
Water bodies	MV	Area	Not shown	
Open land and forest	MO	Area	Not shown	
Buildings and built-up areas	MB	Area	Not shown	
Cultivated land	MA	Area	Not shown	
Land areas	MY	Area	Always shown	X

