



Documentation

TopPlusOpen Presentation Graphics



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1 Overview of the dataset

Product:	TopPlusOpen Presentation Graphics
Content:	The TopPlusOpen product provides a free consistent map in different levels of details, ranging from a european overview map to the detailed city map in Germany.
Area:	The high resolution presentation graphics are provided in the following scales and for the area described. Presentation Graphics in UTM32 (EPSG:25832): TopPlusOpen-P5 1:5.000 X/Y-Values lower left 244000 / 5178000 X/Y-Values upper right 960000 / 6120000 TopPlusOpen-P10 1:10.000 X/Y-Values lower left 244000 / 5176000 X/Y-Values upper right 960000 / 6120000 TopPlusOpen-P17.5 1:17.500 X/Y-Values lower left 238000 / 5175000 X/Y-Values upper right 959000 / 6120000 TopPlusOpen-P25 1:25.000 X/Y-Values lower left 240000 / 5170000 X/Y-Values upper right 960000 / 6120000 TopPlusOpen-P50 1:50.000 X/Y-Values lower left 240000 / 5160000 X/Y-Values upper right 960000 / 6120000 TopPlusOpen-P100 1:100.000 X/Y-Values lower left 240000 / 5160000 X/Y-Values upper right 960000 / 6120000 Presentation Graphics in Lambert-Projection (EPSG:3035) : TopPlusOpen-P250 1:250.000 X/Y-Values lower left 1500000 / 900000 X/Y-Values upper right 6600000 / 5700000

Spatial structure:	Further details on spatial structure are listed in chapter 3.1.
Layer:	The presentation graphics are provided in print resolution with 508 dpi respectively 0,25 meter per pixel pro Pixel for following layers: Layer: p5, p5_grau Description: TopPlusOpen 1:5.000 Color version and grayscale version Layer: p10, p10_grau Description: TopPlusOpen 1:10.000 Color version and grayscale version Layer: p17.5, p17.5_grau Description: TopPlusOpen 1:17.500 Color version and grayscale version Layer: p25, p25_grau Description: TopPlusOpen 1:25.000 Color version and grayscale version Layer: p50, p50_grau Description: TopPlusOpen 1:50.000 Color version and grayscale version Layer: p100, p100_grau Description: TopPlusOpen 1:100.000 Color version and grayscale version Layer: p250, p250_grau Description: TopPlusOpen 1:250.000 Color version and grayscale version Area: Europe (for a detailed description, see area above) Further Details can be found in chapter 3.1.
Spatial reference:	The online services support the following reference systems: WMS = EPSG:3034, 3035, 3044, 3045, 3857, 4258, 4326, 4647, 4839, 5243, 5650, 5676, 5677, 5678, 5679, 25832, 25833, 31466, 31467, 31468, 31469 und CRS: 84
Currentness:	annual update

Resolution:	508 dpi for High-resolution Digital Raster Graphics														
Data formats:	- The online services provide the following graphic formats: WMS = JPEG, PNG, TIFF - With file-based download of individual raster data tiles: GeoTiff														
Data supply:	- Online-service via WMS or WMTS - Filebased Download of Rasterfiles														
Data volume:	Tile archive of the TopPlusOpen Raster Graphics as GeoTiff-Rasterfiles in EPSG:25832: <table> <tr> <td>TopPlusOpen 1:5.000 (TopPlusOpen-P5):</td><td>611 GB</td></tr> <tr> <td>TopPlusOpen 1:10.000 (TopPlusOpen-P10):</td><td>200 GB</td></tr> <tr> <td>TopPlusOpen 1:17.500 (TopPlusOpen-P17.5):</td><td>87 GB</td></tr> <tr> <td>TopPlusOpen 1:25.000 (TopPlusOpen-P25):</td><td>43 GB</td></tr> <tr> <td>TopPlusOpen 1:50.000 (TopPlusOpen-P50):</td><td>14 GB</td></tr> <tr> <td>TopPlusOpen 1:100.000 (TopPlusOpen-P100):</td><td>5 GB</td></tr> </table> Tile archive of the TopPlusOpen Raster Graphics as GeoTiff-Rasterfiles in EPSG:3035: <table> <tr> <td>TopPlusOpen 1:250.000 (TopPlusOpen-P250):</td><td>13 GB</td></tr> </table>	TopPlusOpen 1:5.000 (TopPlusOpen-P5):	611 GB	TopPlusOpen 1:10.000 (TopPlusOpen-P10):	200 GB	TopPlusOpen 1:17.500 (TopPlusOpen-P17.5):	87 GB	TopPlusOpen 1:25.000 (TopPlusOpen-P25):	43 GB	TopPlusOpen 1:50.000 (TopPlusOpen-P50):	14 GB	TopPlusOpen 1:100.000 (TopPlusOpen-P100):	5 GB	TopPlusOpen 1:250.000 (TopPlusOpen-P250):	13 GB
TopPlusOpen 1:5.000 (TopPlusOpen-P5):	611 GB														
TopPlusOpen 1:10.000 (TopPlusOpen-P10):	200 GB														
TopPlusOpen 1:17.500 (TopPlusOpen-P17.5):	87 GB														
TopPlusOpen 1:25.000 (TopPlusOpen-P25):	43 GB														
TopPlusOpen 1:50.000 (TopPlusOpen-P50):	14 GB														
TopPlusOpen 1:100.000 (TopPlusOpen-P100):	5 GB														
TopPlusOpen 1:250.000 (TopPlusOpen-P250):	13 GB														
Data source:	Various data, see list: https://sgx.geodatenzentrum.de/web_public/Datenquellen_TopPlus_Open_PG.pdf														

* Please note that not all forms of delivery can be provided with each reference system and data format. If you have any questions, feel free to contact the Service Centre (DLZ).

2 Description of the dataset and online services

2.1 Content

The TopPlusOpen product provides a free consistent worldwide map in different levels of details, ranging from a global overview map to the detailed city map in Germany.

The product presents free official geospatial data of the Federal Republic of Germany and of the OpenData states Berlin, Brandenburg, Hamburg, North Rhine-Westphalia, Saxony and Thuringia. Furthermore Mecklenburg-Western Pomerania and Rhineland-Palatinate are providing their official geospatial data for the TopPlusOpen as part of a cooperation agreement. The named federal states are represented exclusively by official data.

For all other federal states and in foreign countries OpenStreetMap data mainly is used in corresponding zoom levels. From the BKG's point of view those data satisfy all quality standards and can be combined almost seamlessly with official data.

The web services for the TopPlusOpen Presentation Graphics are provided by the standardised WMS interface and are highly performant.

The TopPlusOpen Presentation Graphics offer free and consistent map data for Germany and adjacent foreign countries in the scales 1:5 000 (P5), 1:10 000 (P10), 1:17 500 (P17.5), 1:25 000 (P25), 1:50 000 (P50), 1:100 000 (P100) und 1:250 000 (P250), which is optimally suitable for printing.

2.2 Reference Systems

The presentation graphics 1:5 000 up to 1:100 000 are originally available in the reference system UTM32 (EPSG:25832), the presentation graphic for the scale 1:250 000 is originally available in the reference system LAEA (EPSG:3035). All presentation graphics can also be obtained in the above-mentioned reference systems.

2.3 Data Source

A detailed list of all used data sources can be found here:

https://sqx.geodatenzentrum.de/web_public/Datenquellen_TopPlus_Open.pdf

A visual overview over the used data sources is provided by following illustrations:

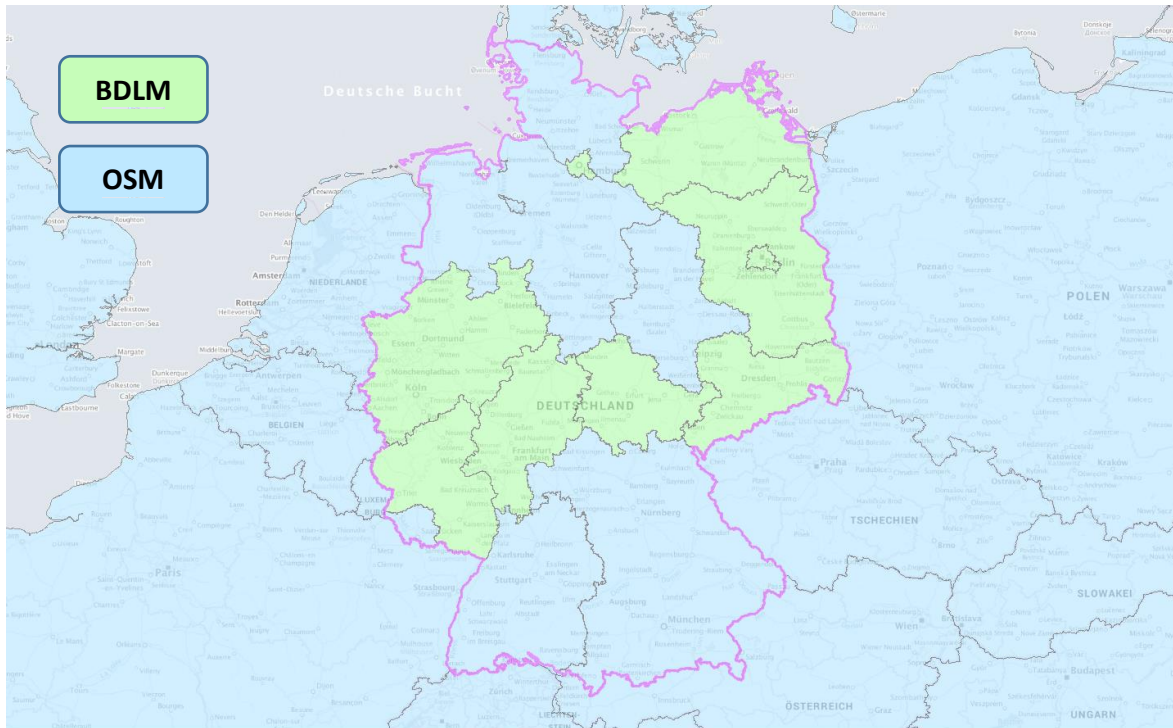


Illustration 1 – Main data sources for scales 1:5 000 - 1:50 000

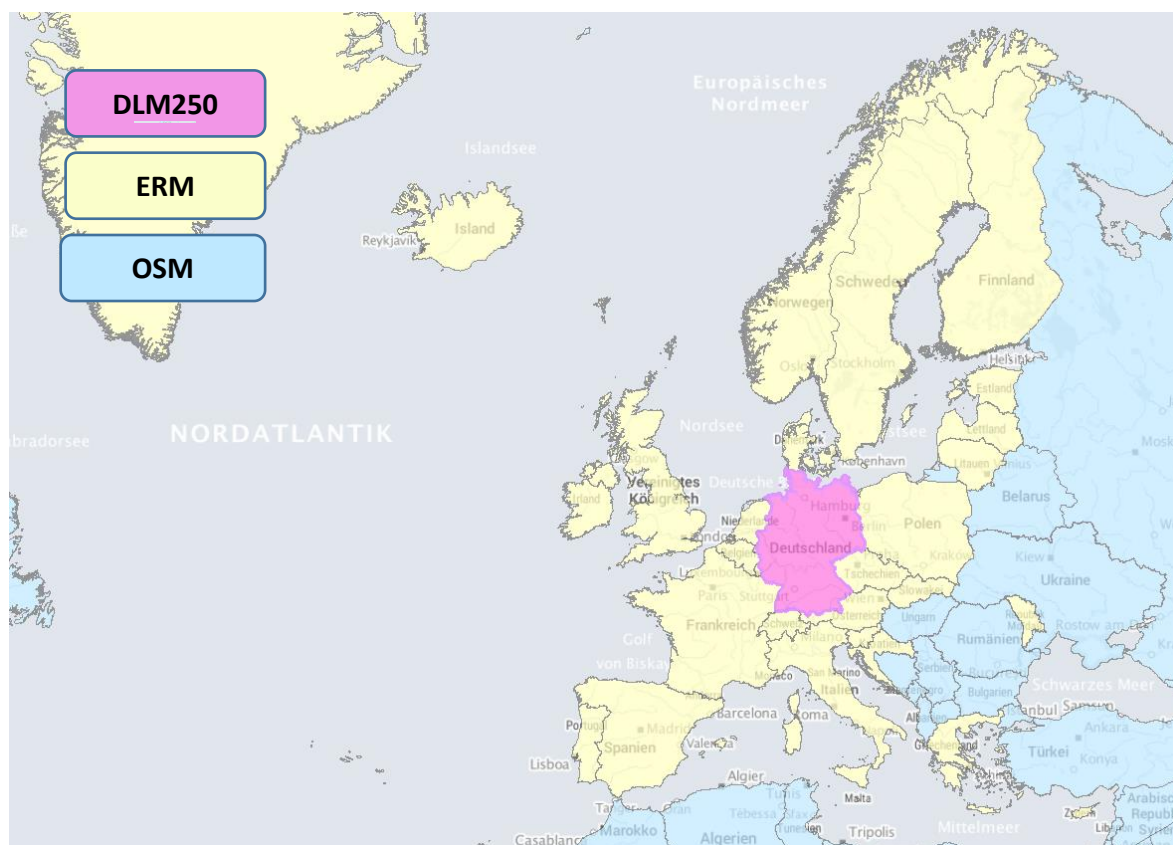


Illustration 2 – Main data sources for scales 1:100 000 - 1:250 000

3 Data acquisition

3.1 Ordering of data and services

The data can be obtained free of charge from our website.

Web services:

<https://gdz.bkg.bund.de/index.php/default/webdienste/topplus-produkte.html>

Digital geospatial data:

<https://gdz.bkg.bund.de/index.php/default/digitale-geodaten/topplus-produkte.html>

TopPlusOpen presentation graphics are available in the following forms of deployment:

- **Web Map Service TopPlusOpen-P5:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p5?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:5 000 in color and greyscale.
- **Web Map Service TopPlusOpen-P10:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p10?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:10 000 in color and greyscale.
- **Web Map Service TopPlusOpen-P17.5:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p17?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:17 500 in color and greyscale.
- **Web Map Service TopPlusOpen-P25:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p25?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:25 000 in color and greyscale.
- **Web Map Service TopPlusOpen-P50:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p50?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:50 000 in color and greyscale.
- **Web Map Service TopPlusOpen-P100:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p100?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:100 000 in color and greyscale.
- **Web Map Service TopPlusOpen-P250:**
https://sgx.geodatenzentrum.de/wms_topplus_open_p250?SERVICE=WMS&REQUEST=GetCapabilities
Contains the presentation graphic 1:250 000 in color and greyscale.
- **Tile archive:**
https://daten.gdz.bkg.bund.de/produkte/topplus_open/
Individual tiles of the TopPlusOpen presentation graphic can be downloaded as GeoTiff-files.

3.1.1 Notes on the tile archives of the Raster Graphics of TopPlusOpen

The dimension of an image file is 8000 x 8000 pixels. The name of the tiles is based on the position of the lower left corner in the respective coordinate system and has the following structure:

PRODUCT_EAST_NORTH_SIZE

PRODUCT	- designates the product (e.g. topplus-p10)
RIGHT VALUE	- Right value (East) of the lower left corner of the tile in km (with leading number of zones for UTM)
NORTH VALUE	- North value of the bottom left corner of the tile in km
SIZE	- side length of the tile in km

In order to avoid an excessive number of files within a single directory, all tiles with the same East value (for UTM: East value with zone specification) are saved single directories.

3.2 Examples of requests to the services

3.2.1 WMS TopPlusOpen

GetCapabilities (GET):

https://sgx.geodatenzentrum.de/wms_topplus_open_p5?request=GetCapabilities&service=wms

GetMap (GET), Layer „p5“:

https://sgx.geodatenzentrum.de/wms_topplus_open_p5?service=wms&version=1.3.0&request=GetMap&Layers=p5&STYLES=default&CRS=EPSG:25832&bbox=500000,5700000,500200,5700200&width=150&Height=150&Format=image/png

4 Terms of use and copyright

The geodata offered here are available via geodata services for download and for online use free of charge according to the Open Data Datenlizenz Deutschland – Namensnennung – Version 2.0. Especially, each user has to place the source reference to all geodata, metadata and geodata services recognisably and optically linked. Alterations, processings, new designs or other adaptations have to be affixed with an indication of the alteration in the source reference. Source reference and indication of alteration have to be formulated as follows.

Without alterations:

Cartographic representation: © Federal Agency for Cartography and Geodesy <year of last data download>, Data sources

With alterations:

Cartographic representation: © Federal Agency for Cartography and Geodesy <year of last data download> (data changed), Data sources

The source reference has to be linked with the URL "<https://www.bkg.bund.de>" for the representation at a website. In addition, a link to the word „data sources“ with the following URL is permitted when using the view services:

https://sgx.geodatenzentrum.de/web_public/Datenquellen_TopPlus_Open.pdf.

Otherwise the date of data acquisition has to be added to the URL, e.g.:

https://sgx.geodatenzentrum.de/web_public/Datenquellen_TopPlus_Open.pdf.

Example of a presentation on a website or in an app (with links):

[Cartographic representation: © Federal Agency for Cartography and Geodesy 2021, data sources](#)

Example of a representation on a printed map (without linking)

Cartographic representation: © Federal Agency for Cartography and Geodesy 2021, Data sources:

https://sgx.geodatenzentrum.de/web_public/Datenquellen_TopPlus_Open_08.12.2021.pdf

5 Contact

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