Digital Terrain Model Grid Width 200 m

DGM200



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Contents

DGM200 – page

1 Dataset survey 3

2 Description of the dataset contents 4

3 Data volume 4

4 Hints on the supply of data 4

5 Description of the data formats 5

5.1 ASCII format X, Y, Z 5
5.2 ArcInfo GRIDASCII format 5
5.3 ArcInfo Grid format 5

6 Test data 6

7 Ordering and other services 6

1 Dataset survey

Product	:	DGM200
Contents	:	The Digital Terrain Model DGM200 describes the terrain forms of the earth's surface by means of a point quantity arranged in a regular grid, which is geo-referenced to planimetry and altimetry. The grid width amounts with this model to 200 m x 200 m.
Area	:	Territory of the Federal Republic of Germany up to the normal sheet limits of the maps TK50 M745 (for more information see chapter 2)
Spatial classification	:	None
Georeferencing	:	- Gauss-Krüger projection in the 3rd meridional strip Bessel ellipsoid, Potsdam Datum (origin Rauenberg) Height system mean sea level (NN) - Lambert projection Ellipsoid WGS84 (here identical with GRS80), Datum WGS84 (here identical with GRS80) Height system mean sea level (NN) (further georeferencings on request)
Up-to-dateness	:	1985 –1990 (corresponding to the data sources DGM50 M745) no updating
Source	:	Dataset of the Digital Terrain Model DGM50 M745
Production method	:	Resampling of the DGM50 M745 dataset with 200 m mesh widths
Resolution	:	Planimetry: 200 m Altimetry: 1 m
Accuracy	:	according to the accuracy of DGM50 M745: Planimetry: ± 26 m Altimetry: ± 20 m absolute
Data formats	:	- ASCII (X,Y,Z) - ArcInfo GRIDASCII - ArcInfo GRID
Data carrier	:	CD-ROM

2 Description of the dataset contents

The Digital Terrain Model DGM200 describes the terrain forms of the earth's surface by means of a point quantity arranged in a regular grid, which is georeferenced to planimetry and altimetry.

The grid width amounts with this model to 200 m x 200 m.

The dataset was derived by resampling from the Terrain Model DGM50 M745, thus the areal coverage corresponds to that of the DGM50 M745.

The DGM200 covers the territory of the Federal Republic of Germany up to the boundaries of the regular sheet limits of the maps M745 as a maximum, i.e. not included are the areas situated beyond these limits of the following map sheets:

L3708, L4102, L4302, L5102, L5302, L8530, L8532, L8336, L5542, L4954, L4754, L2550, L2350, L2150, L1546.

The followingt map sheets are completely lacking:

- L0916 (northern end of Sylt)
- L2406 (west of Norden and Norderney, respectively)
- L2952 (east of Schwedt (Oder))
- L3754 (east of Frankfurt (Oder))
- L4154 (east of Peitz)

At the borders to DK, NL, BE, LU, FR, CH, and AT the map sheets in the regular sheet limits are always completely equipped with height values, i.e. also for the areas outside the federal territory. At the borders to CZ and PL height values exist only for a complete coverage up to the federal borders as far as they are situated within the regular sheet limits. The remaining areas are classified by "NODATA".

Due to the small size, the dataset of the DGM200 is not further subdivided in portions.

The height accuracy amounts to ± 20 m.

3 Data volume

The data volume of the total dataset amounts in the single data formats to:

Specification	**Data volume in MB**	
XYZ	ca 290 MB	(40 MB compressed gzip / WinZip)
GRIDASCII	ca 60 MB	(10 MB compressed gzip / WinZip)
GRID	ca 14 MB	

4 Hints on the supply of data

Besides the total dataset any other spatial segments (preferably rectangular segments/tiles) from the total set can be ordered, too.

The data may also be provided in georeferencings other than those specified under point 1 (e.g. other meridional strips with the Gauß-Krüger projection).

5 Description of the data formats

5.1 ASCII format X, Y, Z

The ASCII file contains per height point a dataset consisting of the planimetric coordinates and the allocated height value. In standard form the single data are separated by a comma from each other. Other separators may be possible on request (e.g. blanks).
Also in standard form ".xyz" is used as file extension.

Dataset format:
<x.value>, <y.value>, <z.value>
one height point per line

Example:
```
55.19584,8.34028,6
55.19584,8.35417,7
...
```

5.2 ArcInfo GRIDASCII format

This format supported above all by the ArcInfo system can be applied to height data with quadratic grid cells. It is more compact than the XYZ format given that it is not necessary to file also the relevant coordinates with each single height point. From the information contained in the file header (number of lines and columns, coordinates of the left lower corner and meshwidth) each gridpoint coordinate can be determined.
As file extension ".dat" is used in standard form.

Dataset format:
<File header>
<Height values linewise starting from upper left, blanks as separators >

File header:

NCOLS	- number of columns
NROWS	- number of lines
XLLCORNER	- x.coordinate left lower corner
YLLCORNER	- y.coordinate left lower corner
CELLSIZE	- cell size in meters
NODATA_VALUE	- value in case of not existing height value (e.g. -9999)

Example: Dataset header of the DGM200 (Lambert projection)

ncols	3275
nrows	4353
xllcorner	-340000
yllcorner	-422600
cellsize	200
NODATA_value	-9999

XLLCORNER and YLLCORNER refer to the southwesternmost raster cell. The southwestern corner of the respective sheet or area is situated in the centre of this cell. This means, that in each case CELLSIZE/2 must be added up.

5.3 ArcInfo Grid format

Special format used by ArcInfo for cell-based geographical datasets.

For the transfer of data from grids the GRIDASCII format should be given preference since with these formats all information is summarized in one single file, whereas the original grid format consists of several files distributed over different inventories.

6 Test data

Test data are available for downloading under www.geodatenzentrum.de → *test data*. With respect to their editing these data correspond in their contents and structure to the final data delivered at a later stage, thus offering a very practical advantage for testing such data.

7 Ordering and other services

Orders can be placed through our o**nline ordering system** under www.geodatenzentrum.de → *ordering*.

You may also send your order to the following address:

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Further information and services are given under www.geodatenzentrum.de.