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## Digital Terrain Model Grid Width 1000 m *DGM1000*



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## 1 Dataset survey

<b>Product</b>	: DGM1000
<b>Contents</b>	: The Digital Terrain Model 1000 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 low resolution model to 30" x 50" (ca 1 km x 1 km) in geographical coordinates.
<b>Area</b>	: Federal Republic of Germany
<b>Spatial classification</b>	: No additional spatial classification
<b>Georeferencing</b>	: <ul style="list-style-type: none"><li>- Geographical coordinates Ellipsoid WGS84 (here identical with GRS80), Datum WGS84 (here identical with GRS80) Height system mean sea level (NN)</li><li>- Gauß-Krüger projection in the 3<sup>rd</sup> meridional strip Bessel ellipsoid, Potsdam Datum (central point Rauenberg) Height system mean sea level (NN)</li><li>- Lambert projection Ellipsoid WGS84 (here identical with GRS80), Datum WGS84 (here identical with GRS80) Height system mean sea level (NN)</li></ul> (further georeferencings on request)
<b>Updatedness</b>	: 1985 -1990 No updating
<b>Production method</b>	: Digitization at the scale 1: 50 000 with visual estimation of mean heights on the basis of a 30" x 50" grid entered into the TM 50
<b>Resolution</b>	: Planimetry: in geographical coordinates 30" latitude x 50" longitude, in a Gauss-Krüger or Lambert projection ca 1 km x 1 km Altimetry: 1 m
<b>Data formats</b>	: <ul style="list-style-type: none"><li>- ASCII (X,Y,Z)</li><li>- ArcInfo GRIDASCII</li><li>- ArcInfo EXPORT</li><li>- ArcInfo GRID</li></ul> Further formats on request
<b>Data carrier</b>	: CD-ROM, DAT 4mm

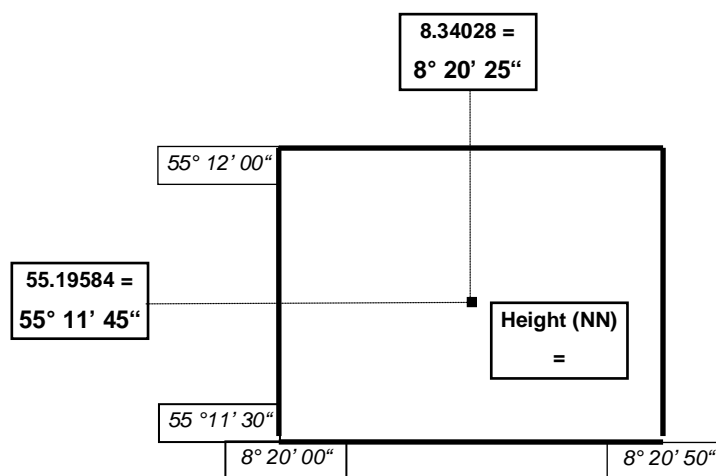
## 2 Description of the dataset contents

The Digital Terrain Model 1000 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. Waters are acquired in the model through the height of the ground, which accounts for heights of up to -50m appearing in the dataset.

The grid width amounts with this low resolution model to 30" latitude x 50" longitude in geographical coordinates, in a Gauß-Krüger or Lambert projection to ca 1 km x 1 km.

The total data quantity comprises 453948 height points.

Example: Point with indication of height from the DGM1000: 55.19584 8.34028 6



## 3 Data volume

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

Specification	Data volume in MB
XYZ	ca 11 MB (depending on the spatial reference system)
GRIDASCII	ca 2,5 MB
EXPORT	ca 115 MB
GRID	ca 0,7 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)

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 EXPORT format

Special exchange format for ArcInfo geodatasets (binary format).  
In standard form ".e00" is used as file extension.

### 5.4 ArcInfo Grid format

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

For the transfer of data from grids the GRIDASCII or the EXPORT 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](http://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 **online ordering system** under [www.geodatenzentrum.de](http://www.geodatenzentrum.de) → *ordering*.

You may also send your order to the following address:

Bundesamt für Kartographie und Geodäsie  
Referat GI1  
Richard-Strauss-Allee 11  
D-60598 Frankfurt am Main

Tel.: (069) 63 33 - 349 oder 400  
Fax: (069) 63 33 - 441  
E-Mail: [geodateninfo@bkg.bund.de](mailto:geodateninfo@bkg.bund.de)

Further information and services are given under [www.geodatenzentrum.de](http://www.geodatenzentrum.de).