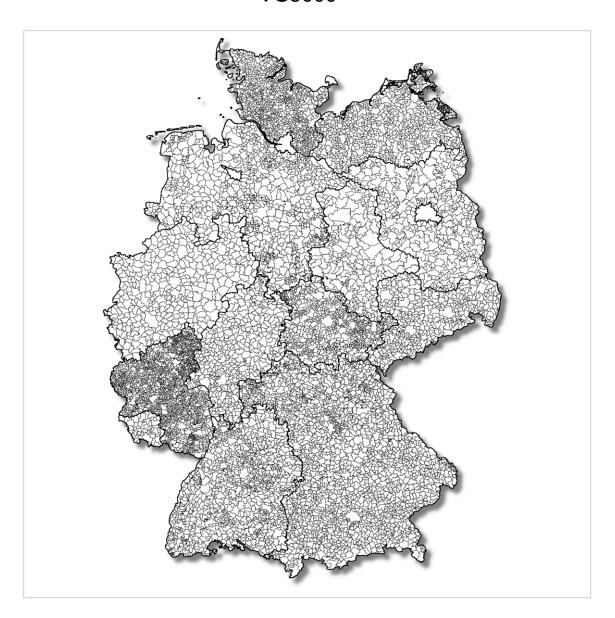
GeoBasis-DE

Geodaten der deutschen Landesvermessung

Bundesamt für Kartographie und Geodäsie

Documentation

Administrative Areas 1 : 5 000 000 VG5000



valid from the product as of 31.12.2018

Administrative Areas 1:5 000 000

VG5000

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1 Overview of the dataset

Product:	VG5000			
Content:	The dataset includes the administrative units of the hierarchical administrative levels from the country (state) down to the "Gemeinden" (municipalities) with: - administrative boundaries, - key-numbers, - names as well as - designations. The lines are of the type "SingleLine". The areas are of the type "MultiPolygone" (also "Multipart"). Each area can comprise several single areas, such as regular area with exclaves or inset areas, each of these MultiPolygones corresponding to a dataset in the attribute table. The dataset is available in two specifications: - Compakt The geometry of the administrative units lies redundancy-free in one level and is basically classified via separate attribute tables Levels The data are structured according to levels (country/state, Länder (federal states), Regierungsbezirke (administrative districts), Kreise (districts/counties), Verwaltungsgemeinschaften (administrative associations), Gemeinden (municipalities), whereby the areas contained			
Area:	Bundesrepublik Deutschland (Federal Republic of Germany)			
Spatial structure:	Complete data set without spatial breakdown			
Spatial reference:	 Geographic coordinates in decimal degrees, Ellipsoid GRS80, Datum ETRS89 Gauß-Krüger projection in the 3rd, 4th or 5th meridional strip Bessel Ellipsoid, Potsdam Datum, (central point Rauenberg) UTM projection in zone 32 or 33 Ellipsoid GRS80, Datum ETRS89 			

Position accuracy:	extremely generalized		
Currentness:	1-year revision cycle with the statuses 31.12. and 01.01. of each year		
Data formats:	SHAPE		
Data supply*:	 Dataset via Download or Disk Web Map Service (WMS) Web Feature Service (WFS) 		
Modification against last Dataset:	In 2019, the previous Territorial key - RS was renamed into ARS in official statistics. For the VG5000, the forms with ARS were already used from the data set as of December 31, 2018. Affected attributes ARS, SDV_ARS and ARS_0.		
Historical data:	available from 2018 (until 2020 only 31.12.)		
Data volume:	Specification Compact: 16 MBSpecification Levels: 22 MB		
Data source:	Municipal directories and originals of acquisition on the basis of the Land Offices of Statistics, the Federal Statistical Office as well as the Land Survey Offices		

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

2 General information

The dataset includes the administrative units of the Federal Republic of Germany from the national down to the municipal level.

With the exception of the administrative district level, the administrative levels have been created on a nationwide basis. To this end, the independent cities have additionally been adopted into the municipality and administrative association level, and likewise the non-associated municipalities into the administrative association level. By means of the IBZ attribute included in the data product it is possible to make a distinction between these levels (see **Annex B** for a list of the IBZ values). On the national and Land levels also the area of the respective territorial sea (12 nautical-mile-zone) is included.

Delimitation of boundaries in Lake Constance is of a technical nature (see Annex C.1.2).

The hierarchical structure of the administrative levels is represented by the Amtliche Regionalschlüssel (ARS) (territorial code). In addition, the Amtliche Gemeindeschlüssel (AGS) (Official Municipality Key) is kept with the data, which is derived from the ARS through omission of the administrative association.

ARS and AGS constitute the keys of the products of the statistical offices of the Federal Government and of the Länder. Thus, the integration of statistical data and data synchronization, respectively, can easily be performed (cf. also http://www.destatis.de).

The complex administrative structure is shown country-specifically in the PDF file Verwaltungsgliederung VG.pdf dargestellt (see Annex).

The lines are of the geometry type "SingleLine".

The areas are of the type "MultiPolygone" (also "Multipart"). Each area can comprise several single areas, such as regular area with exclaves or inset areas, each of these MultiPolygones corresponding to a dataset in the attribute table.

Each administrative unit has precisely one record entry with the GF value 8. In addition, an administrative unit may have a record entry with further GF values. For more information, see **item 0** for the attribute GF.

The appendices mentioned in this document with further information can be found in the file annex_vg.pdf (see Annex).

2.1 Territorial code

The territorial code (TC/ARS) is broken down as follows:

1st - 2nd digit = identification number of the Land

3rd digit = identification number of the administrative district

 $4^{th} - 5^{th}$ digit = identification number of the district (county)

6th - 9th digit = identification number of the administrative association

10th – 12th digit = community identification number

2.1.1 Key number of the administrative association

The leading digit of the administrative association key indicates the type of the community:

0 = municipality not adhering to an administrative association

5 = municipality adhering to an administrative association

9 = unincorporated area

With municipalities not adhering to an administrative association and unincorporated areas the leading digit (0 or 9) in the administrative association key is followed by the three-digit municipality key as the 7th, 8th and 9th digit in the territorial code. This way, the level of the administrative associations is represented on a nationwide basis.

2.2 Official municipality key

The official municipality key is analogously to the territorial code subdivided as follows:

 $1^{st} - 2^{nd}$ digit = identification number of the Land

3rd digit = identification number of the administrative district

 $4^{th} - 5^{th}$ digit = identification number of the district (county)

6th - 8th digit = community identification number

Through omission of the administrative association key the official municipality key can be formed from the territorial code. In the converse case knowledge of the key number of the administrative association is absolutely necessary.

2.3 Specifics in the administrative structure

Specifics in the administrative structure result in the following exceptions.

2.3.1 Unincorporated areas in Schleswig-Holstein

The two unincorporated areas located in Schleswig-Holstein belong to an association of administrations (Amt/supra-municipality). Given that this aspect cannot be implemented as a key number, these two unincorporated areas are treated as not belonging to a collectivity.

ARS (TC)	Unincorporated area	ARS (TC)	Amt (supra- municipality)	Kreis (district)
010539105105	Sachsenwald (Forstgutsbez.)	010535323	Hohe Elbgeest	Herzogtum Lauenburg
010609014014	Buchholz (Forstgutsbez.)	010605053	Leezen	Segeberg

2.3.2 Inter-district association of administrations (Schleswig-Holstein)

The municipalities Bosau and Tangstedt (Kreis Stormarn) in Schleswig-Holstein are members of an administrative community (Amt) in a neighbouring district. Given that this aspect cannot be implemented as a key number, these two municipalities are treated as communes not belonging to a collectivity.

ARS (TC)	Municipality	Kreis (district)	ARS (TC)	Amt (supra- municipality)	Kreis (district)
010550007007	Bosau	Ostholstein	010575739	Großer Plöner See	Plön
010620076076	Tangstedt	Stormarn	010605034	Itzstedt	Segeberg

2.3.3 Unincorporated areas in Bayern (Bavaria)

In the past, the unregistered areas in Bavaria were also summarized in statistical lists, as a rule by districts. In this case the respective municipality key in the ARS (TC) and the AGS (OMK) figure was disclosed each with 444 at the end. In the described VG (AB) product the Bavarian unincorporated areas are shown individually.

2.3.4 Former Regierungsbezirke (administrative districts)

In Niedersachsen, Rheinland-Pfalz and Sachsen the 3rd digit of the ARS (TC) and the AGS (OMK) (administrative district), respectively, serves only to clearly identify the district level. In these Länder (states) administratively there are no more administrative districts existant. The attribute FK_S3 characterizes these cases by the value K.

2.3.5 Common German-Luxembourgish territory

For reasons of generalization the common territory is not available in the dataset. This concerns the German-Luxembourgish boundary line in the rivers Our, Sauer and Moselle. Within the area of the Luxembourgish city of Vianden the otherwise jointly managed territory is interrupted. A list of the parts of the joint territory is given in **Annex D**.

2.4 Undetermined boundary sections

Not mutually agreed sections of national and state (Länder) boundary sections are labelled at the line geometry by the attribute value RDG 2 (legally not defined boundary). The relevant boundary sections constitute a technical delimitation and are illustrated in **Annex C**.

2.5 Communalized waters

Administrative units whose territory also extends over the North Sea or the Baltic Sea or Lake Constance are not shown on these waters. On the national and Land levels also the area of the respective territorial sea (12 nautical-mile-zone) is included. A distinction between the two parts of the management units concerned is possible via the attribute GF (geofactor).

3 Description of the dataset

3.1 Specification

The VG product is available in the two data structures "Compact" and "Levels". In **Annex A** a short overview of the two structures including the respective allocation of structures of the attributes is contained.

3.1.1 Specification Compact

The dataset describes for the whole area the administrative units of each of the lowest administrative levels. All superior administrative units can be derived from the lowest administrative units. The geometry of the administrative units lies redundancy-free in one level and is basically classified via separate attribute tables.

In the attribute tables AT1 and AT9, respectively, the attributes of the areas of the respective lowest levels and the units to be accordingly derived are contained. The corresponding table depends in each case on the value of the attribute BSG of the area of the relevant lowest level.

BSG 1 → table AT1 for (the normal case) Germany BSG 9 → table AT9 for Lake Constance (Bodensee)

The hierarchical administrative structure can be seen from the Amtliche Regionalschlüssel (ARS) (Territorial Code) (TC) (see **item 2.1**). Through the territorial code, linkage of the areas with the respective lowest administrative level is also possible.

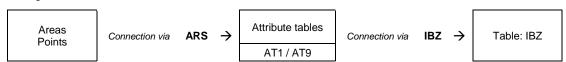
Via the attribute IBZ it is possible to establish a connection from the attribute tables to the information of the administrative structure given in the table IBZ (see **table 3.3**). The attributes BEZ and BEM are not included in the attribute tables, but in the IBZ table.

Each municipality has a point, representing the heart of the municipality.

The attributes of the points are in the attribute tables VG5000_AT1 resp. VG5000_IBZ analogous to the areas.

In addition, the boundary lines of the respective highest level are included in the dataset.

Linking scheme of areas and tables:



3.1.2 Specification levels

The dataset is divided into the different administrative levels of Germany:

Staat (country)
 Länder (states)
 Administrative districts
 Districts
 Administrative associations
 Municipalities
 STA
 LAN
 RBZ
 KRS
 VWG
 GEM

Each of these levels forms an object class containing the area geometry of the administrative units. Except for the administrative district level, all other levels constitute in each case a nationwide dataset, in which the areas contained directly carry the attributive information.

Also, in the dataset are comprised:

Boundary lines

In each case the respective highest level is included.

3.2 Attributes

OBJID unique object identifier

BEGINN beginning of lifetime interval

Date at which this object was inserted or changed in the data set.

3.2.1 Lines

AGZ Type of boundary

Survey of values

- 1 = National border
- 2 = Federal State boundary
- 3 = Boundary of an administrative district
- 4 = Boundary of a Kreis (district/county)
- 5 = Boundary of an administrative association
- 6 = Boundary of a municipality
- 9 = Coastline

In each case the respective highest level is meant of the administrative unit limited by the boundary section.

This means: For example for the illustration of all district boundaries all higher boundaries are needed as well. (AGZ values 1, 2, 3 and 4)

The coast line (value 9) comprises the foreign shores of Lake Constance and the non-German national border running through this lake. For the values 5 and 6 see also the GM5 attribute.

RDG Legal definition of the boundary section

Survey of values

1 = defined

2 = not defined

9 = coast line

For the purpose of this attribute "defined" means that the relevant boundary section has been precisely defined in a legal act, or taken from a representation serving cartographic needs.

GM5 Boundary feature of the AGZ 5

Survey of values

8 = boundary not limiting an association

0 = boundary feature according to AGZ

The attribute GM5 describes the function of the boundaries of administrative associations (AGZ 5). All boundary sections with the value 8 exclusively limit municipalities not adhering to an association.

GMK Coast/sea boundary feature

Survey of values

7 = at sea (unusual representation)

8 = in addition at sea (usual representation)

9 = on coast

0 = without any particular feature

The attribute GMK describes the function of the boundary geometry on the coast or on the sea. The value 9 denotes the boundaries which in the dataset run on the on the coast of North Sea, Baltic Sea and Lake Constance.

With the value 8, additional boundary lines in the North Sea, Baltic Sea and Lake Constance are shown in the data set, which have been officially established and whose graphic representation is common. The remaining boundary lines on the waters, the graphical representation is not common are marked with the value 7.

3.2.2 Areas

In the specification Compact only the attributes GF, BSG and ARS exist with the areas. The other attributes are included in the attribute tables. The respective table depends on the attribute BSG (see **item 3.1.1**) and is connected with the area via the attribute ARS. Furthermore, the attributes BEZ and BEM are found in the IBZ table, linked via the attribute IBZ to the attribute tables (see **item 3.3**).

ADE Administrative level

Survey of values

1 = Country

2 = State

3 = Administrative district

4 = District

5 = Administrative association

6 = Municipality

In the specification Compact in each case only the lowest one of the existing administrative levels is specified (see also **item 3.1.1**).

GF Geofactor

Survey of values

8 = without structures

9 = with structures

The areas for which below the Land (state) level there exist no further levels are assigned the designation "without structure".

Basically:

Each administrative unit has precisely one record entry with the GF value 9.

BSG Particular areas

Survey of values

1 = Germany

9 = Lake Constance (Bodensee)

In the specification Compact this term defines the corresponding attribute table (see also **item 3.1.1**).

BSG 1 → Table AT1 for (the normal case) Germany

BSG 9 → Table AT9 for Lake Constance (Bodensee)

ARS Territorial Code (TC)

This key is the statistical key. It is structured hierarchically and reflects the different administrative levels as existing in the Federal Republic of Germany.

The territorial code (ARS) is broken down as follows:

1st - 2st digit = identification number of the Land

3rd digit = identification number of the administrative district

 $4^{th} - 5^{th}$ digit = identification number of the district (county)

6th - 9th digit = identification number of the administrative association

10th - 12th digit = community identification number

In the specification Compact the ARS serves as a logic field to the respective attribute table.

AGS Official municipality key

The key is structured hierarchically and is derived from the ARS shortened by the key number of the administrative association.

The AGS is broken down as follows:

1st - 2st digit = identification number of the Land

3rd digit = identification number of the administrative district

 $4^{th} - 5^{th}$ digit = identification number of the district (county)

6th - 8th digit = community identification number

SDV_ARS Seat of the administration (territorial code)

ARS of the municipality representing the seat of the municipality (for ADE identical with ARS)

GEN Geographical name

BEZ Designation of the administrative unit

In the specification Compact this attribute is included in the IBZ table (see IBZ).

IBZ Identificator

The identificator is a product-specific identification number for the BEZ attribute. In the specification Compact the IBZ attribute acts as a link to the information on the administrative structure in the IBZ table (see **item 3.3**)

BEM Note

The note constitutes a differential description for the BEZ attribute. In the specification Compact this attribute is included in the IBZ table (see IBZ).

NBD Generation of names

Survey of values

ja = designation is part of the name nein = designation is not part of the name

The attribute indicates whether the BEZ attribute should be used for the full name formation.

IBZ	BEZ	GEN	NBD	full name	not
42	Kreis	Oberbergischer Kreis	nein	Oberbergischer Kreis	Kreis Oberbergischer Kreis
43	Landkreis	Salzlandkreis	nein	Salzlandkreis	Landkreis Salzlandkreis
42	Kreis	Dithmarschen	ja	Kreis Dithmarschen	
43	Landkreis	Prignitz	ja	Landkreis Prignitz	

In the specification Compact the BEZ attribute is linked via the IBZ table.

NUTS European statistics key

for further details, see Annex E

Prepared NUTS regions are found in the NUTS1000 product

(see www.geodatenzentrum.de → Open Data → Administrative areas (VG) or Verwaltungsgebiete).

ARS_0 filled territorial code

basically 12-digit ARS (filled in with zeros on the right side)

AGS_0 filled Official Municipality Key

basically 8-digit AGS (filled in with zeros on the right side)

WSK Effectiveness

The attribute describes the legally relevant date for the effectiveness of the change. This date is not communicated by all sources, so that there is no entitlement to completeness.

Further attributes include structural key number fractions of the keys ARS and AGS:

SN L = Land (state)

SN R = administrative district

 $SN_K = district$

SN_V1 = administrative association – front part SN_V2 = administrative association – rear part

SN_G = municipality

FK_S3 Function of the 3rd key digit

R = administrative district

K = district

In the case of Länder (states) with administrative districts the attribute is assigned the value R. Länder without an administrative district or 3-digit district key are also assigned the value R, and the 3rd key digit the value 0, respectively. In the case of the Länder with a 3-digit district key number the third key digit only serves to unambiguously mark the Kreis (district) level, and the attribute is assigned the value K. In these Länder there exist no longer any administrative districts.

3.3 Information on the administrative structure

In the specification Compact additional information on the administrative structure is included in the IBZ table. Moreover, the IBZ table comprises the attributes BEZ and BEM, which are linked with the attribute tables through the IBZ attribute.

For each administrative unit the Länder-specific structure and designation are given. This part of the dataset can be seen as a table, in which each line and a quantity of successive lines, respectively, contains the relevant information on the administrative unit.

The IBZ table is a component only of the specification Compact and comprises the following attributes:

IBZ Identificator

The identificator is a product-specific identification number for the BEZ attribute, through which the IBZ table is connected to the attribute tables.

ISS Identificator of the substructure

ISS acts as a pointer to the IBZ column of another line of the IBZ table. If there exists no other substructure the pointer has the value 97.

LGS Length of the key

Number of the digits counted from the left of the territorial code not filled with zeros to 12 digits, which identifies the units.

AWS Number of digits to be omitted

Number of digits to be rounded down from the right from the 12-digit territorial code filled with zeros (ARS_0) to obtain the non-filled territorial code (ARS), which identifies the units.

BEZ Designation of the administrative unit

BEM Note

The note constitutes a differential description for the BEZ attribute.

Example of the hierarchical structure of the Land of Brandenburg:

IBZ	ISS	LGS	AWS	BEZ	BEM
10	20	0	12	Bundesrepublik	
20	40	2	10	Land	
20	43	2	10	Land	
40	80	5	7	Kreisfreie Stadt	
43	50	5	7	Landkreis	
43	52	5	7	Landkreis	
43	85	5	7	Landkreis	
50	63	9	3	Amt	
50	64	9	3	Amt	
52	63	9	3	Verbandsgemeinde	
80	60	9	3	Amtsfreie Gemeinde	kreisfrei
85	61	9	3	Amtsfreie Gemeinde	gemeinschaftsfrei
85	62	9	3	Amtsfreie Gemeinde	gemeinschaftsfrei
60	97	12	0	Stadt	kreisfrei
61	97	12	0	Stadt	
62	97	12	0	Gemeinde	
63	97	12	0	Stadt	gemeinschaftsangehörig
64	97	12	0	Gemeinde	gemeinschaftsangehörig

4 Description of the data formats

4.1 SHAPE format

The SHAPE data format constitutes as a de facto industry standard a very widespread and suitable data exchange format for the exchange of geodata.

Each dataset consists of the following files in UTF-8 character coding (Unicode).

4.1.1 Specification Compact

Administrative areas	VG5000_F.SHP VG5000_F.SHX VG5000_F.PRJ VG5000_F.DBF VG5000_F.CPG	Geometry Geometry index Projection Attributes Character set
Boundary lines	VG5000_L.SHP VG5000_L.SHX VG5000_L.PRJ VG5000_L.DBF VG5000_L.CPG	Geometry Geometry index Projection Attributes Character set
Attribute tables	VG5000_AT1.DBF VG5000_AT9.DBF VG5000_AT1.CPG VG5000_AT9.CPG	AT table Germany AT table Lake Constance Character set of table AT1 Character set of table AT9
IBZ tables	VG5000_IBZ.DBF VG5000_IBZ.CPG	Table of the hierarchical structure Character set of table IBZ
Information tables	VG_DATEN.DBF VG_WERTE.DBF VG_DATEN.CPG VG_WERTE.CPG	Data structure and attributes (see also Annex A.1) Values of the attributes (see also Annex A.2) Character set of the data table Character set of the value table

For the purpose of a quick overview the data of all dBase tables (DBF tables) are provided additionally in the Excel-97-2003 format in the file

Struktur und Attribute VG5000.XLS.

4.1.2 Specification Levels

Administrative areas	VG5000_###.SHP VG5000_###.SHX VG5000_###.PRJ VG5000_###.DBF VG5000_###.CPG	Geometry Geometry index Projection Attributes Character set
	### stands for the resp	pective administrative level (see item 3.1.2)
Boundary lines	VG5000_LI.SHP VG5000_LI.SHX VG5000_LI.PRJ VG5000_LI.DBF VG5000_LI.CPG	Geometry Geometry index Projection Attributes Character set
Information tables	VG_DATEN.DBF VG_WERTE.DBF VG_DATEN.CPG VG_WERTE.CPG	Data structure and attributes (see also Annex A.1) Values of the attributes (see also Annex A.2) Character set of the data table Character set of the value table

For the purpose of a quick overview the data of all dBase tables (DBF tables) are provided additionally in the Excel-97-2003 format in the file

Struktur und Attribute VG5000.XLS.

5 Annexes

Further information can be found in the above-mentioned enclosed appendix for documentation, which can be found in the attached file annex vg.pdf.

There is also a country-by-country representation of the complex administrative structure in the file <code>verwaltungsgliederung_vg.pdf</code> (administrative structure). At the end of the file there is also a brief overview of the data model of the VG data.

They can be found on our homepage $\underline{www.bkg.bund.de}$ under the heading "Products & Services" \rightarrow "Digitale Geodaten".

Administrative Areas 1:5 000 000

VG5000

6 Data acquisition

The database can be obtained free of charge on our website www.bkg.bund.de under the heading "Products and Services" → "Open Data". Historical data is also available in our

archive.

Terms of use and copyright 7

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. The source reference has to be linked with the URL "http://www.bkg.bund.de" for the representation at a

website.

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8 Contact

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