



Data format description of Official Building Polygons of Germany (HU-DE)

For the data distribution from the data stock of the Central Office for House Coordinates and Building Polygons (ZSHH)

Version 2.4

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Valid as of the data distribution from the HU-DE data stock of 2018

Description of the data format

The distribution format for Building Polygons (HU) is the AdV Shape format as described in the AdV specifications on the data format "Shape" (AdV Shape Profile, version 1.0.0, updated 31 January 2014). Further information on the AdV Shape format can be found at www.adv-online.de.

2. Data contents

HU are objects with spatially referenced surrounding polygons that describe the building outlines of the real estate cadastre. Here the object fields of buildings and structures defined in ALKIS (definition according to ALKIS-OK) are applied.

The surrounding of the Shape file contains no configuration geometries, no roofs and no underground buildings.

Permitted geometries of the surroundings are polygons and multi-polygons according to the description of the OGC standard of the OGC specification

„06-103r4_Implementation_Specification_for_Geographic_Information_-_Simple_feature_access_-_Part_1_Common_Architecture_v1.2.1.pdf“.

For the data stock of the Building Polygons all the objects modelled as areas from the following object groups are used:

- AX_Gebaeude
- AX_Turm
- AX_BauwerkOderAnlageFuerIndustrieUndGewerbe
- AX_VorratsbehaelterSpeicherbauwerk
- AX_BauwerkOderAnlageFuerSportFreizeitUndErholung
- AX_SonstigesBauwerkOderSonstigeEinrichtung
- AX_HistorischesBauwerkOderSonstigeEinrichtung



A detailed list of all the defined structure definitions for ALKIS and ALK can be found under the following link:

<http://repository.gdi-de.org/schemas/adv/citygml/Codelisten/BuildingFunctionTypeAdv.xml>

If the objects in this list are recorded in ALKIS (ALK) in the respective Land, their building polygons are to be derived and supplied to ZSHH.

The HU objects have exactly one mandatory attribute “AGS” (official municipality key): “LLRKKGGG” (Land, administrative region, rural/urban district, municipality) = 8 characters without semicolon

Example of notation: 05382004

Land (LL)	05	Nordrhein-Westfalen
Administrative region (R)	3	Köln
Rural/urban district (KK)	82	Rhein-Sieg-Kreis
Municipality (GGG)	004	Alfter

The coordinates are specified by default in the spatial reference system ETRS89/UTM <zn> in metres. The notation of the UTM coordinates is obtained from the descriptions of the currently valid GeoInfoDok on the spatial reference system ETRS89/UTM <zn> in the respective zone <zn> 32 or 33 (currently the main document of version 6.0.1, chapter 7.1.2, no. 3).

3. Data files, file names

The Shape format consists of three separate files: the main file, index file and dBASE file. These files have the specified file extensions “.shp”, “.shx” and “.dbf”. The file name is the same for all three files.

Example:

Main-File: Gebaeude-NRW.shp
 Index-File: Gebaeude-NRW.shx
 dBASE-File: Gebaeude-NRW.dbf

The dBASE file meets the format requirements for dBASE files and one attribute in the “AGS” (official municipality key) column is provided per HU object, in which the municipality identifier is placed as a text in the form “LLRKKGGG”.

The attribute of the municipality identifier “AGS” is in the 1st column of the .dbf file. Each line of the .dbf file corresponds to an entry of a building in the .shp file. Empty entries for AGS do not occur.



4. Distribution possibilities

The Official Building Polygons are by default spatially selected and distributed according to the following criteria:

- administrative unit (smallest unit: whole municipality) or
- geometric boundary (rectangle, polygons).

5. Update

The Official Building Polygon data stock is updated through the submission of complete data, which the Länder provide by 1 April of the current year.

The current central data stock is generally available for delivery as of 1 July of the current year.

For more details on this information, please do not hesitate to contact ZSHH.

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