



# 99123001141000

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Modul	Sachverhalt
Leistungsschlüssel	99123001141000
Leistungsbezeichnung I	
Leistungsbezeichnung II	Geodata; acquisition
Typisierung	2/3 - Bund: Regelung (2 oder 3), Land/Kommune: Vollzug
Quellredaktion	Bayern
Freigabestatus Katalog	unbestimmter Freigabestatus
Freigabestatus Bibliothek	unbestimmter Freigabestatus
Begriffe im Kontext	
Leistungstyp	
Leistungsgruppierung	
Verrichtungskennung	
SDG-Informationsbereich	
Lagen Portalverbund	
Einheitlicher Ansprechpartner	
Fachlich freigegeben am	21.03.2025





Modul	Sachverhalt
Fachlich freigegen durch	Landesamt für Digitalisierung, Breitband und Vermessung
Handlungsgrundlage	https://www.gesetze-bayern.de/Content/Document/Ba yVermKatG/true https://www.gesetze-bayern.de/Content/Document/Ba yVermKatG/true https://www.gesetze-bayern.de/Content/Document/Ba yGDIG https://www.gesetze-bayern.de/Content/Document/Ba yGDIG
Teaser	The official geodata describe the topography, land and buildings for the whole of Bavaria in an application-neutral way. Many geodata can be ordered online, downloaded directly or visualized
Volltext	The official geodata describe the topography, land and buildings for the whole of Bavaria in an application-neutral manner. The Bavarian Surveying Administration records the basic geodata, describes it in information systems and displays it on maps. Uniformity, area coverage and high up-to-dateness for the whole of Bavaria are the quality features of the official basic geodata of the Bavarian Surveying Administration. The following product descriptions provide an overview of the wide range of geodata available from the Bavarian Surveying Administration: • **Real estate cadastre ( ALKIS®)** The real estate cadastre is the official register according to which properties are designated in the land register. It is the only constantly updated and comprehensive record of all properties in Bavaria. The land and buildings are described and graphically depicted in the real estate register. It provides information on the shape, size, boundaries and local location of the properties as well as the type and delimitation of use. It also contains the legally established land valuation results. The offices for digitization, broadband and surveying





99123001141000

#### Sachverhalt

are responsible for maintaining the real estate cadastre. All data is stored in the \*\*Official\*\* \*\*Real Estate Cadastre\*\*\*\*Information\*\* \*\*System\*\* , \*\*ALKIS®\*\* for short.

Components of ALKIS\*\*®\*\* are

• The \*\*parcel map\*\* , which is the descriptive part of the real estate cadastre.

• The \*\*owner data\*\* is the descriptive part and contains information on the owner.

• The \*\*actual use (TN)\*\* describes how land is currently used on site. Actual use is subdivided into the four nationally standardized super-groups of settlement, traffic, vegetation and water.

• The \*\*soil estimate data\*\* provides information on soil type, composition and yield capacity. They are collected by the "official agricultural experts" at the tax offices and passed on to the Bavarian Surveying Administration.

• The \*\*3D building models\*\* are available throughout Bavaria (approx. 8.5 million buildings) in a "block model" with a flat roof (Level of Detail 1, LoD1) and as a "block model" with standardized roof shapes (Level of Detail 2, LoD2). The floor plans correspond to the geometry of the buildings listed in the property register. The building height is largely determined from data from laser scanning flights.

• The \*\*house coordinates\*\* (also: georeferenced addresses) assign each building address its exact coordinates (street, house number, zip code, town; without specifying a proper name). The basis for recording the house coordinates are the exact building floor plans from the real estate cadastre and the postal codes of Deutsche Post AG. The Bavarian Surveying Administration holds more than 3 million current house coordinates.

• The \*\*house outlines\*\* represent georeferenced outline polygons of the building footprints. They are ideal for combining with the house coordinates.

• The \*\*parcel coordinate\*\* is a point-shaped representative instead of the parcel geometry and always lies within the parcel. The product essentially contains the information on the parcel that is relevant for the geopositioning of parcels.





## Sachverhalt

• Digital Landscape\*\*Model (Basis-DLM)\*\* The Digital Landscape Model (Basis-DLM) describes the earth's surface in a structured form. It contains selected objects from the topographic maps according to a uniform nationwide catalog. Each object is assigned its geographical location, geometric type (point, line or area) and attribute descriptions. The Basis-DLM is part of the

\*\*Official\*\*\*\*Topographic-Cartographic\*\*\*\*Informati on System\*\* ,\*\* ATKIS®\*\* for short, and forms the basis for the production of topographic maps.

• \*\*Topographic maps (TK)\*\*

Topographic maps depict the visible part of the earth's surface. The terrain is depicted in the form of contour lines and shading. \*\*Digital topographic maps (DTK)\*\* are available in the scales 1:25 000, 1:50 000, 1:100 000 and 1:500 000.

The \*\*official topographic maps (ATK)\*\* are available in bookshops in the scales 1:25 000 and 1:100 000. The \*\*ATK25\*\* with its detailed representation is ideal for individual leisure activities, as it contains all signposted hiking trails and cycle paths. The strengths of the \*\*ATK100\*\* lie in the representation of large areas. Cyclists as well as

motorcyclists and motorists can use these maps to keep an overview.

The \*\*area map (UK50)\*\* at a scale of 1:50,000 is geared towards the coherent representation of areas of tourist interest and contains hiking and cycling trails as well as selected sights and leisure information.

• \*\*Digital Local Map (DOK)\*\*

The Digital Local Map (DOK) is a "city and town map" of the whole of Bavaria at a scale of 1:10,000. It is provided in raster data format. In addition to topographical objects, the DOK contains all street names and points of interest (schools, museums, etc.) as well as all individual houses (derived from the parcel map).

• Original surveys\*\*and position sheets\*\* The original surveys are the first cadastral maps of Bavaria and were created between 1808 and 1864. They are available in different scales. Around 24,000

4





### Sachverhalt

map sheets and around 3,000 town and village sheets exist throughout Bavaria.

In addition to the cadastral surveys, the area of Bavaria was topographically surveyed in the first half of the 19th century and mapped in so-called position sheets at a scale of 1:25,000.

• \*\*Digital terrain model (DTM)\*\*

The digital terrain model is a three-dimensional model representation of the earth's surface without vegetation and buildings. The DTM is derived from laser scanning flights and describes the terrain in a regular grid. In DTM1, for example, the grid width is 1 m, whereby each grid point is assigned a terrain height in addition to its position coordinates. The available grid widths range from 1 m to 25 m.

• \*\*Digital contour map (DHK)\*\*

The digital contour map represents the shape of the terrain using contour lines.

The layer spacing of the contour lines is a maximum of 5 m; in flat terrain, the layer spacing is smaller to represent small shapes.

Selected elevation points are displayed in addition to the contour lines.

• \*\*Digital surface model (DOM)\*\*

The digital surface model with a ground resolution of currently 40 cm/pixel is a three-dimensional model representation of the earth's surface including the objects on it (e.g. vegetation and buildings). Each grid point is assigned an X, Y and Z value. The update takes place in the cycle of the Bavarian aerial survey.

\*\*Aerial images\*\*

Aerial images are high-resolution vertical photographic images of the earth's surface. As a photographic image of the landscape, they contain a wealth of information and can therefore be used in a variety of ways. Thanks to their high information density, aerial photographs are an inexhaustible and valuable source for planning, documenting and researching our living space and enable historical comparisons.

Until 2002, the state area was mainly surveyed in black and white. Since 2002, systematic \*\*aerial surveys of





#### Sachverhalt

Bavaria\*\* have been carried out exclusively in color. \*\*CIR aerial photographs\*\* (color infrared aerial photographs) have also been available since 2009 with the introduction of digital recording technology. These consist of the near infrared waveband and the red and green color channels. The CIR aerial images are used, for example, for nature and environmental protection tasks, for mapping biotopes and for interpreting and monitoring vegetation.

Since 2017, aerial surveys have been carried out every two years.

Oriented\*\*aerial images\*\*

Orientation elements have also been available for aerial images from the Bavarian aerial survey since 2003. The oriented aerial images can be used, for example, for stereoscopic evaluation (3D recording), as the exact position of the aerial camera with its orientation was determined precisely at the time of recording.

• \*\*Digital orthophotos (DOP)\*\*

Digital orthophotos are rectified aerial images. They represent the landscape true to nature and allow a true-to-scale and positionally correct reproduction of the depicted terrain including buildings. They are available in true colors (red, green, blue), the ground resolution is 20 cm/pixel. Digital color infrared orthophotos (CIR-DOP), in which the various types of vegetation are clearly visible, can also be produced using the digital aerial cameras that have been used since 2009. They are available for the whole of Bavaria.

\*\*Historical aerial photographs\*\*
The Bavarian State Aerial Photographic Archive in Neustadt a.d.Aisch contains approx. 900,000 analog and approx. 500,000 digital aerial photographs. Around 64,000 of these are from British and American reconnaissance flights between 1941 and 1945, the so-called Allied aerial photographs. They are available in different image qualities for large parts of Bavaria (not covering the entire area).
By comparing aerial images from different aerial survey eras, time series of a specific area can be





### **Sachverhalt**

displayed.

 \*\*Satellite Positioning Service (SAPOS®)\*\* SAPOS<sup>®</sup> is the official nationwide satellite positioning service of the surveying authorities. It improves the accuracy of the reception of signals from the American GPS, Russian GLONASS and European GALILEO systems through a nationwide network of observation stations. SAPOS® offers various accuracy levels between 3 meters and 1 centimeter. The SAPOS® reference stations are managed in the \*\*Official\*\*\*\*Fixed\*\*\*\*Point Information System\*\*, \*\*AFIS®\*\* for short. AFIS® contains information on the geodetic spatial reference, in particular on the position, height and gravity reference points of the German National Survey.

• \*\*Bavarian Agricultural Vehicle Positioning Service (LFPS)\*\*

The Bavarian Agricultural Vehicle Positioning Service (LFPS Bayern) is a correction data service that is specially tailored to the needs of modern agriculture. Satellite-supported parallel driving systems in modern agricultural machinery receive the correction data required for real-time positioning via LFPS. The farmer thus achieves an accuracy of approx. 3 cm. The exact positioning enables him to collect and evaluate location-specific data and to operate the agricultural machinery accurately and precisely. Thanks to the exact, official spatial reference, once positions have been determined, they can also be found exactly in the future.

Erforderliche Unterlagen	
Voraussetzungen	You would like to acquire geodata.
Kosten	Prices and fees for the use of digital and analog products are based on the Fee and Price List of the Bavarian Surveying Administration (GebPL) in the currently valid version (see under "Legal bases"). Information on free geodata (OpenData) can be found under "Further links".
Verfahrensablauf	A large part of the geodata of the Bavarian Surveying





Modul	Sachverhalt
	Administration can be ordered online via various ordering applications and viewing services and downloaded or visualized directly.
	For further information, please contact the customer service of the Bavarian Surveying Administration
	Telephone: 089 2129-1111 Fax: 089 2129-1113 E-mail: service@geodaten.bayern.de
Bearbeitungsdauer	
Frist	
weiterführende Informationen	https://www.gdi.bayern.de/ https://geodaten.bayern.de/opengeodata/ https://geodaten.bayern.de/opengeodata/ https://geodaten.bayern.de/vermessung/luftbilder/rec herchestation.html https://www.ldbv.bayern.de/vermessung/luftbilder/rec herchestation.html https://geodaten.bayern.de/opengeodata/ https://geodaten.bayern.de/opengeodata/ https://geodaten.bayern.de/opengeodata/ https://www.ldbv.bayern.de/mam/ldbv/dateien/geb%C 3%BChren_und_preisliste.pdf https://www.ldbv.bayern.de/mam/ldbv/dateien/geb%C 3%BChren_und_preisliste.pdf
Hinweise	
Rechtsbehelf	
Kurztext	
Ansprechpunkt	
Zuständige Stelle	
Formulare	
Ursprungsportal	BayernPortal, BayernPortal