Readme

Digital Altitude Model Flanders II

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1 Background information

The Digital Elevation Model Flanders (DHMV) is the collective name for all area-wide elevation data of Flanders available to the AGIV. The DHMV II constitutes the update of the DHMV I created in the period 2001-2004. About the For years, the acquisition technology has evolved significantly, many changes have occurred in Flemish landscape and new applications increasingly require a larger one detail degree.

The DHMV II is characterized by a high level of detail and includes data for the territory of the Flemish Region, including a buffer of 5 km and the Brussels-Capital Region. This product takes the first step towards Flanders in 3D.

The DHMV II is organized entirely in-house by the AGIV and will be maximized opened for use by partners within the Flemish government and beyond.

For easy use by a wide audience, the following are standard derivatives made available as free open data:

- Digital terrain model (DTM) of the ground level in grid format with a ground resolution of 1 m.
- Digital terrain model (DTM) of the ground level in grid format with a ground resolution of 5 m.
- Digital surface model (DSM, 'digital surface model') of the ground level included objects in grid format with a ground resolution of 1 m.
- Digital surface model (DSM, 'digital surface model') of the ground level included objects in grid format with a ground resolution of 5 m.

For more information about this product range, please visit the AGIV website: *https://www.agiv.be/producten/digitaal-hoogtemodel-vlaanderen .*

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2 Item specifications

2.1 Cutting

The standard derivatives (DTM and DSM) are offered via transfer service in smaller units, respectively, representing data per 1/1 NGI map sheet (topographic map sheet of the National Geographic Institute at scale 1 / 50,000) (32 km x 20 km). Articles include geographic relationship exactly match and do not overlap. Every product becomes gradual open as the data becomes available per map sheet.

The data is presented in GeoTIFF format with the following parameters:

PARAMETER	VALUE	REMARKS
Pixel size	1 m / 5 m	Depending on the type of product
Datatype	floating point 32 bit	
Compression	deflate	
NoData Value	-9999	
pyramids	Yes	calculated by default for an accelerated display
colormaps	No	no standard legend has been applied
CRS	EPSG 31370	Belgian Lambert 1972 projection
	TAW	Second General Leveling

2.2 Projection and georeferencing

All geographic data is in **Belgian Lambert 72** projection.

Both projection and georeference are documented in the geoTIFF file.

The height values are referred to the **Second General Leveling** and are expressed in meters with centimeter precision.

2.3 Article naming

The title or code of each article is composed as follows:

ARTICLE NAME

Title

Digital Elevation Model Flanders <version number>, <type>, <size>, <resolution>, <description of geographic area>

- <version number> = **II**
- <type>
  - o **DTM** : Digital Terrain Model or digital terrain model
  - o **DSM** : Digital Surface Model or digital surface model
- <size>
  - o **grid**
- <resolution>
  - o **X m** (resolution expressed in meters)
- <description of geographic area>
  - o map sheet **XX** : 1/1 NGI map sheet number of the geographic area; 2 Numbers

Code

DHMV <version number> <codeType> <codeFormat> <resolution> _ <codeGeographicArea>

- <version number> = **II**
- <type>
  - o **DTM** : DTM
  - o **DSM** : DSM

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- <size>
  - o **RAS** : grid
- <resolution>
  - o **Xm** (resolution expressed in meters)
- <codeGeographicArea>
  - ok **XX** : 1/1 NGI map sheet number of the geographic area; 2 digits

For instance:

Title: Digital Elevation Model Flanders II, DTM, grid, 1 m, map sheet 07

Code: DHMVIIDTMRAS1m_k07

Title: Digital Elevation Model Flanders II, DSM, raster, 1 m, map sheet 07

Code: DHMVIIDSMRAS1m_k07

2.4 Additional information

A georeferenced file, **flight day contour** , is added for each part of the corresponding article displays the recording date (s). Where flying lanes of different date overlapping, multiple recording dates can contribute to the creation of the article.

No distinction is made between the different products in the flight day contour (DTM or DSM).

OBJECT	NAME
Title	Flight day contour <codeDatasetgroup>, <geographic area description> • <title Data set group> = **DHMV II** • <description of geographic area> o map sheet **XX** : 1/1 NGI map sheet number of the geographic area; 2 Numbers
Code	<codeDatasetgroup> _vdc_ <codeGeographicArea> • <codeDatasetgroup> = **DHMVII** • <codeGeographicArea> ok **XX** : 1/1 NGI map sheet number of the geographic area; 2 digits

For instance:

Title: flight day contour DHMV II, map sheet 07

Code: DHMVII_vdc_k07

The flight day contour is presented as a polygon file:

Filename	Format	Description
<codeObject> .shp	shp	file containing the geometry of the object
<codeObject> .shx	shx	file with the index of the geometry
<codeObject> .dbf	dbf	file with the attributes of the object
<codeObject> .prj	prj	file about the reference system for ArcGIS
<codeObject> .shp.xml	xml	file with metadata for ArcGIS.

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3 Contents of the download package

3.1 Download package naming convention

The name of the download package per article is the same as the code of the article:

Package name = "<codeArticle> .zip"

→ example: "DHMVIIDTMRAS1m_k07.zip"

3.2 Download package folder structure

The download package per article contains the following folders:

<package name> .zip
└ <package name>
├──── <documents>
└──── <format folder>
└──── <data>

3.3 Documents and files in "root"

Following article documents are directly under the root of the download package:

Filename	Format	Description
Readme_ <codeDatasetgroup> .pdf	pdf	Readme text with Background information, usage information and an overview of the content of the download package
Meta_ <titleDataset> 1 .pdf	pdf	Metadata of the dataset in PDF format
Meta_ <titleDataset> 1 .xml	xml	Metadata of the dataset in XML format

Use_ <codeDataset> .pdf	pdf	Terms of use of the dataset
<codeObject> .zip	shp	Zip package with the flight day contour for everyone part of the accompanying article the recording dates displays.

Metadata provide information about the content of the relevant dataset, about the spatial phenomena or geographic objects included in it, and also contain information about the quality of and administrative data about the dataset. The included metadata are prepared according to the ISO standard for metadata (ISO 19115: 2003 (E) /Cor.1:2006 (E)), and the implementation regulations for this (ISO / PDTS 19139 (E)), as well as the standard for object catalogs (ISO 19110: 2005 (E)). The ISO standard for metadata is becoming international and within almost all European countries uses and has also been designated by INSPIRE as the metadata standard. It AGIV has implemented a profile of these ISO standards in the new metadata bank of GIS Flanders (***www.agiv.be)***.

3.4 Format folder GeoTIFF

The subfolder "GeoTIFF" contains the raster file.

Lake technical information about it geoTIFF format finds you on: *http://partners.adobe.com/public/developer/tiff/index.html*.

ı In format <safe_product>: the title of the dataset, but with all illegal characters replaced by "_". With illegal characters *[-?:*, \ / * "" <> |] +

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4 Geographic software

If you do not have a geographic application to use the geographic data, then you can visit the website of the Agency for Geographic Information Flanders via following links:

- *https://www.agiv.be/advies/links/software*

- *https://www.agiv.be/advies/links/freeware*

Here you will find references to software that is distributed via the internet and with which the geographic data in this package can be consulted or used.

The AGIV does not provide software support.

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5 Support

If you have any problems with the use of the files, you can contact:

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