General

Summary: Digital surface model (DSM, 'digital surface model') of the ground level including objects

in grid format with a ground resolution of 1 meter. This DSM was derived from LiDAR elevation data provided

within the framework of the Digital Elevation Model Flanders II (DHMV II).

This product is supplemented with an object 'flying day contour DHMV' that for each part of the DSM the

accurate recording data.

The product is collected over the period 2013-2015 and will be released gradually. The object 'stand

of cases DHMV II 'indicates where data is already available.

Purpose of manufacture: The raster format DSM is a derivative of the source data 'LiDAR Digital

Altitude model Flanders II - raw remote sensing data '. The grid format allows this product in

use a wide range of applications without the need for specific software.

The DSM is suitable for the representation and modeling of the ground level and the objects located on it

to be.

Additional information: More information about the Digital Altitude Model Flanders II can be found

can be found on the following website: https://www.agiv.be/producten/digitaal-hoogtemodel-vlaanderen

Status: under development

Contact details dataset (series)

Owner

Agency for Geographic Information Flanders

Koningin Maria Hendrikaplein 70 box 110

9000 Ghent

Belgium

Tel: +32 9 276 15 00

Fax: +32 9 276 15 05

E-mail: contactpunt@agiv.be

URL: http://www.agiv.be

Dataset preview (series)

1/7

Metadata INSPIRE compliant, Metadata GDI-Vl compliant, Flemish Open data

Other keywords

DSM, DIGITAL SURFACE MODEL, Digital Elevation Model Flanders II, DHMV II, DHM

Spatial schema dataset (series)

grid

Spatial resolution dataset (series)

Application scale: 1m

Language dataset (series)

Dutch

Category (ies)

Height

Limitation

Geographic boundary description: current boundary

Geographic boundary identifier: Flemish Region and Brussels-Capital Region

Minimum longitude: 2.54154 °

Maximum longitude: 5.92 °

Minimum latitude: 50.6756 °

Maximum latitude: 51.51 °

Describing rectangle:

Page 3

Temporal limit: 20/02/2013 to

Usage / Application

Horizontal and / or vertical reference system

Horizontal reference system: EPSG: 31370

Horizontal reference system: NGI: TAW

Quality

Operation (s)

General description of origin: Digital Elevation Model Flanders II (DHMV II)

Operations:

1. **Description:** Elevation data acquisition using LiDAR technology from an aircraft.

   The resulting point cloud has an average point density of at least 8 points per m² per

   flight lane, in which there is in flight a transverse overlap of at least 50% between adjacent ones

   flying strips are provided.

   Edited by: Eurosense Belfotop NV

   Edited by: Fugro Geospatial BV

2. **Description:** Processing of the point cloud into source data with the following characteristics:

   absolute planimetric accuracy: RMSExy less than or equal to 0.10m

   absolute altimetric accuracy: RMSEz less than or equal to 0.05m

   filtering between the classes: 'ground level', 'water' and 'not ground level'

Page 4

   Edited by: Eurosense Belfotop NV

   Edited by: Fugro Geospatial BV

3. **Description:** Creation of the DSM based on the 'ground level' and 'off ground level' highlights with

   using the interpolation algorithm "streaming TINs via spatial finalization & streaming Delaunay"

   (http://www.cs.berkeley.edu/~jrs/papers/tin2dem.pdf).

   Edited by: Agency for Geographic Information Flanders

4. **Description:** Creation of the raster file with the following specifications:

   format: geoTIFF

   data type: 32bit float

   pixel resolution: 1m

   NoData Value: -9999

   compression: no

   pyramids: no

   colormaps: no

- license

(Legal) usage restriction

  - copyright

Distribution

Distribution format

  - GeoTIFF (6.0)

4/7

Page 5

Distributor

Agency for Geographic Information Flanders

Koningin Maria Hendrikaplein 70 box 110

9000 Ghent

Belgium

Tel: +32 9 276 15 00

Fax: +32 9 276 15 05

E-mail: contactpunt@agiv.be

URL: http://www.agiv.be

Handover

1. **Delivery unit:** 1/1 NGI map sheet

   Online source:

   Connection point URL: http://www.geopunt.be/download?container=dhm-vlaanderen-ii-dsm-raster-

   1m & title = Digital% 20Height model% 20Vlaanderen% 20II, & DSM, & raster,% 201m

   Protocol: WWW: DOWNLOAD-1.0-http - download

   Name: Digital Elevation Model Flanders II, DSM, raster, 1 m

   Online source:

   Connection point URL: http://geo.agiv.be/ogc/wms/product/DHMV?

   Protocol: OGC: WMS

   Name: WMS

http://geo.agiv.be/ogc/wms/product/DHMV?REQUEST=GetMap&SERVICE=WMS&VERSION=1.3.0

Protocol: OGC: WMS-1.3.0-http-get-folder

Page 6

Name: DHMVII_vdc

Description: Digital Altitude Model Flanders II, flight day contour

Online source:

Connection point URL:

http://geo.agiv.be/ogc/wms/product/DHMV?request=getcapabilities&version=1.3.0&service=wms

Protocol: OGC: WMS-1.3.0-http-get-capabilities

Name: DHMVII_svz

Description: Digital Altitude Model Flanders II, current situation

Online source:

Connection point URL:

http://geo.agiv.be/ogc/wms/product/DHMV?REQUEST=GetMap&SERVICE=WMS&VERSION=1.3.0

Protocol: OGC: WMS-1.3.0-http-get-folder

Name: DHMVII_svz

Description: Digital Altitude Model Flanders II, current situation

Offline medium: onLine

Meta metadata

General

Metadata identifier (file identifier): 0da2e5e4-6886-426b-bb82-c0ffe6faeff6

Language metadata record: Dutch

Character set metadata record: UTF8

Hierarchical level: dataset

Metadata change date: 03/11/2014

Metadata standard **name:** ISO 19115/2003 / Cor.1: 2006

Version metadata standard: GDI-Flanders Best Practices - version 1.0

Metadata author

Contact point

Agency for Geographic Information Flanders

Koningin Maria Hendrikaplein 70 box 110

9000 Ghent

Fax: +32 9 261 52 99

E-mail: info@agiv.be

Entity (s)

height, grid

Definition: The height value is displayed according to regularly spaced cells.

Geometric Primitive: Other

Attributes:

Attribute name: height value

Definition: Interpolated elevation value derived from a LiDAR point cloud

Type: Number (5.2)

Entity (s)