

## Digiroad Release 1/2017

### Published Data Objects

The Digiroad Release 1/2017 includes the following data objects:

- Road link
- Manoeuvre
- Public transport stop
- Traffic light
- Pedestrian crossing
- Directional traffic sign
- Railway level crossing
- Barrier
- Speed limit
- Maximum allowed -restrictions
- Lit road
- Paved road
- Traffic volume
- Road affected by thawing
- Width
- Vehicle specific restriction
- Vehicle with hazardous load (VAK)
- Bus lane
- E-road number
- Exit number
- Speed limit during winter
- Service
  - o Customs
  - o Frontier crossing
  - o Rest area
  - o Airport
  - o Ferry terminal
  - o Taxi stand
  - o Railway station
  - o Parking area
  - o Car shipping terminal
  - o Coach or lorry parking
  - o Parking building
  - o Bus station
- forest road turnaround point (pilot phase)

## Changes in the Data Structure

The structure of DR\_LINKKI shapefile has slightly changed. Starting from release 1/2017, road link geometry **includes road address data maintained by the Finnish Transport Agency** (earlier exported from data by the National Land Survey). Start distance (start measure from the beginning of the road part) and end distance (end measure from the beginning of the road part) of each road link from the beginning of the road part in the road address have been added to the address data, as well as data on carriageway (ajorata)– both previously unpublished. The information in brackets is the name of these columns in the DR\_LINKKI file.

Starting from this release, the DR\_LINKKI file also **includes geometry of links that are currently planned or under construction** – in case the info is available in the data by the National Land Survey. Link status can be seen in the field LINK\_TILA (0=in use, 1 = under construction, 3 = planned). In addition to this, the DR\_LINKKI file can also include other information, in case the Finnish Transport Agency or municipalities have provided such data. This complementary geometry has been defined with the field geom\_lahde (1 = MML, 2 = other, not specified).

Starting from the Digiroad Release 2/2016, the link ID (LINK\_ID) is used as a unique road link ID. Therefore, MML-ID by the National Land Survey (NLS) will not be used as a reference point between the road links and attribute data but all the attribute data can be linked to the road link geometry with the link ID (LINK\_ID) and measure (M-value). MML-ID will continue to be published as part of the attribute data of the road links.

All the directions of digitisation in the road links have been unified according to the cardinal directions. The starting point of a road link is always the southern endpoint of the link. However, the starting point of a link in the fully East-West direction is the western endpoint. Due to the unification of the directions of digitisation, the first house number on the right and left side may be larger than the final house number on the right and left side.

The term *Road link* replaces the old term *Traffic element* i.e. the road links constitute the basis of the geometry of the Digiroad data sets. The geometry data is obtained from the National Land Survey of Finland.

The datasets are delivered in zip-files that include:

- All data, excluding public transport bus stops, are divided according to the extraction areas in Esri shape files
- Public transport bus stops, covering the whole area of Finland in a single Esri shape file

The coordinate system is ETRS-TM35FIN (EPSG: 3067).

Part of the data objects is currently published through WMS and WFS interfaces (beta). In addition to that changes in speed limits and maximum allowed -restrictions are available via TN-ITS API.

There are no separate quality reports attached to this Release.

## Road Link Data

- The geometry and address data are obtained from the National Land Survey of Finland with a time stamp of 7<sup>th</sup> of March 2017.
- The link ID (LINK\_ID) by the Finnish Transport Agency will be used as a unique road link ID. The MML-ID will continue to be published as part of the attribute data of the road links but will not be used for connecting the road link and data object.
- The Road link is the linear reference for dynamic segmentation. Reference chains are no longer used.
- The Road links will include the following attribute data:
  - o Functional class
  - o Direction of traffic flow
  - o Road link type
  - o Administrative class
  - o Bridge, Underpass or Tunnel
  - o Location and elevation precision
  - o Start/End M value
  - o Road name in Finnish
  - o Road name in Swedish
  - o Road name in Sami
  - o First and last house number on right and left
  - o Municipal number
  - o Road number and a number of the part of a road (based on road address network by FTA)
  - o Carriageway number (based on road address network by FTA)
  - o Start and end distance from the beginning of the road part (based on road address network by FTA)
  - o Link ID
  - o MML-ID
  - o Last modified timestamp
  - o Direction of digitization in relation to the data provided by the National Land Survey
  - o link status
  - o data source
- Tracks (by the National Land Survey) is included in the new geometry. The functional class of the track and the road link type are both marked as "track".
- **Planned roads and roads under construction have now been added to the publication.**

- **The data on the road number and the road part number are now included in the publication.** The data is based on the road address network provided by the Finnish Transport Agency.

## Digiroad R

Digiroad R has changed so that now instead of segment table now each point segment and linear segment are found from their own data object –shape file which means that each time extraction is made, the geometry will be generated to each data object.

## Digiroad K

Digiroad K has changed so that now the road link geometry is not disconnected by the point segments. Only linear segments are disconnected. All the point segments and linear segments are published now as data object shape files instead of segment shape files.

## Road addresses have been updated according to spring 2017 data

In this publication, addresses concerning roads have been updated according to data available on February 1<sup>st</sup> 2017. **For the first time, the data has been updated based on the road address data provided by the Finnish Transport Agency** (primary source). In the future the data will be solely based on information provided by the FTA.

Data production process is still in development in the FTA and because of this, about 0,6 % of road addresses are missing in such roadways where address data is applicable and such data that is utilized in the road register.

## Next Release

The next Digiroad Release is scheduled for late April or early May 2017. The road link geometry in the next publication will be updated to the situation as of late April 2017.

## Contact Digiroad Operator

Digiroad Operator has combined the email support for administrators and users. From now on support will be provided at [info@digiroad.fi](mailto:info@digiroad.fi). Support is available also by phone +358 40 507 2301 (9 a.m. to 4 p.m. EET).