

QUALITY RESULTS AND THEIR INTERPRETATION

1 Introduction

In the quality assessment, the elements of the data object being studied are compared to elements of a reference object. Possible targets of assessment include numerical values of elements (1, 184, 35009, etc.), truth values (yes / no), attribute data (e.g. street name) or position data (e.g. position of public transport stop).

This quality report presents results on the quality of Digiroad data objects, which have been compared to the NLS Topographic Database (reference = source material of data object) and the road register of the Finnish Transport Agency. Quality reports will be published in connection with subsequent Digiroad publications.

The result of the quality assessment is reported as a DQL value, which indicates the frequency of **errors** in the object being assessed when compared to corresponding objects in the reference material. The unit of the DQL value is %.

DQL = Declared Quality Level

2 Summary of Digiroad Quality Results

DATA OBJECT	AREA	REFERENCE	TARGET OF ASSESSMENT	DQL (%)
Road name	Finland	Update message from TD (24 Sep 2010)	Thematic accuracy: Incorrect road name	0,000
Address numbers	Finland	Update message from TD (24 Sep 2010)	Thematic accuracy: Incorrect address number	0,000
Direction of traffic flow	Finland	Update message from TD (24 Sep 2010)	Thematic accuracy: Incorrect direction of traffic flow	0,005
Traffic elements	Finland	Update message from TD (24 Sep 2010)	Completeness (missing)	0,006

Traffic elements	Finland	Update message from TD (24 Sep 2010)	Completeness (extra)	0,000
Road affected by thawing	Finland	Update message from road register	Thematic accuracy: Incorrect value of road affected by thawing	0,541
Speed restriction	15 municipalities	Update message from road register	Thematic accuracy: Incorrect speed restriction	0,013
Speed restriction	15 municipalities	Update message from road register	Completeness (missing)	0,696

3 Interpretation of Results

Road or street name:

In Digiroad data, the frequency of incorrect values in the road or street name data object is 0.000%. The data object was compared to the NLS Topographic Database (timestamp 24 September 2010).

Address numbers:

In Digiroad data, the frequency of incorrect values in the address numbers data object is 0.000%. The data object was compared to the NLS Topographic Database (timestamp 24 September 2010).

Direction of traffic flow:

In Digiroad data, the frequency of incorrect values in the direction of traffic flow data object is 0.005%. The data object was compared to the NLS Topographic Database (timestamp 24 September 2010). The frequency of errors was increased by clear errors detected in the reference material and corrected by the operator (e.g. discontinuities or incorrect direction in the middle of a road element).

Traffic elements:

The total number of road or street name, address numbers and direction of traffic flow data objects in the Digiroad data was compared with the corresponding number of elements in the NLS Topographic Database (timestamp 24 September 2010). The DQL value indicates that Digiroad contains no extra elements but there are 0,006% missing elements of the data objects in question.

Road affected by thawing:

In Digiroad data, the frequency of incorrect values in the roads affected by thawing object is 0.541%, when compared with the whole area of Finland. The data object was compared with the update message of the road address network of the Finnish Transport Agency.

Speed restriction:

The quality evaluation of speed restrictions has been made by sampling method: 15 municipalities were selected (Geta, Hankasalmi, Hausjärvi, Karkkila, Kirkkonummi, Kuortane, Laukaa, Länsi-Turunmaa, Nastola, Pelkosenniemi, Puumala, Ruokolahti, Siuntio, Tarvasjoki, Vaasa). In Digiroad data in these municipalities, the frequency of incorrect values in the speed restriction data object is 0.013%, while the frequency of missing values is 0,696% of the total length of the road. In other words, in a 100 km stretch of road, there is incorrect speed restriction data in an average of 0,013 km, and missing speed restriction data in an average of 0,696 km.