



SLOVENSKI STANDARD
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Geografske informacije - Kakovost podatkov (ISO/DIS 19157:2011)

Geographic information - Data quality (ISO/DIS 19157:2011)

Geoinformation - Datenqualität (ISO/DIS 19157:2011)

Information géographique - Qualité de données (ISO/DIS 19157:2011)

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Geographic information - Data quality (ISO/DIS 19157:2011)

Information géographique - Qualité de données (ISO/DIS
19157:2011)

Geoinformation - Datenqualität (ISO/DIS 19157:2011)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 287.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents	Page
Foreword.....	3

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Foreword

This document (prEN ISO 19157:2011) has been prepared by Technical Committee ISO/TC 211 "Geographic information/Geomatics" in collaboration with Technical Committee CEN/TC 287 "Geographic Information" the secretariat of which is held by BSI.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 19113:2005, EN ISO 19114:2005.

Endorsement notice

The text of ISO/DIS 19157:2011 has been approved by CEN as a prEN ISO 19157:2011 without any modification.

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DRAFT INTERNATIONAL STANDARD ISO/DIS 19157

ISO/TC 211

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Geographic information — Data quality

Information géographique — Qualité de données

(Revision of ISO 19113:2002, ISO 19114:2006 and ISO/TS 19138:2006)

ICS 35.240.70

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ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

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Contents

Page

Foreword	vii
Introduction.....	viii
1 Scope	1
2 Conformance	1
3 Normative references.....	1
4 Terms and definitions	2
5 Abbreviated terms	4
5.1 Abbreviations.....	4
5.2 Package abbreviations.....	5
6 Overview of data quality	5
7 Components of data quality	6
7.1 Overview of the components	6
7.2 Data quality unit.....	7
7.3 Data quality scope	8
7.4 Data quality elements.....	9
7.4.1 General	9
7.4.2 Completeness	10
7.4.3 Logical consistency	10
7.4.4 Positional accuracy.....	11
7.4.5 Thematic accuracy	11
7.4.6 Temporal quality.....	11
7.4.7 Usability element	11
7.5 Descriptors of data quality elements	12
7.5.1 General	12
7.5.2 Measure	12
7.5.3 Evaluation method	13
7.5.4 Result.....	13
7.6 Metaquality elements	15
7.7 Descriptors of a metaquality element	16
8 Data quality measures	17
8.1 General	17
8.2 Standardised data quality measures.....	17
8.3 User defined data quality measures	17
8.4 Catalogue of data quality measures	17
8.5 List of components	18
8.6 Component details	19
8.6.1 Measure identifier	19
8.6.2 Name	19
8.6.3 Alias	19
8.6.4 Element name	19
8.6.5 Basic measure	20
8.6.6 Definition	20
8.6.7 Description	20
8.6.8 Parameter	20
8.6.9 Value type.....	20
8.6.10 Value structure	20
8.6.11 Source reference	20
8.6.12 Example.....	20

ISO/DIS 19157

9	Data quality evaluation.....	21
9.1	The process for evaluating data quality	21
9.1.1	Introduction	21
9.1.2	The process flow.....	21
9.1.3	Process steps.....	22
9.2	Data quality evaluation methods.....	22
9.2.1	Classification of data quality evaluation methods	22
9.2.2	Direct evaluation	23
9.2.3	Indirect evaluation	23
9.3	Aggregation and derivation	24
10	Data quality reporting.....	24
10.1	General.....	24
10.2	Particular cases	25
10.2.1	Reporting Aggregation (aggregated results).....	25
10.2.2	Reporting Derivation (derived results)	25
10.2.3	Reference to the original data quality result.....	26
Annex A	(normative) Abstract test suites.....	27
A.1	Test case identifier: Quality evaluation process	27
A.2	Test case identifier: Data quality metadata.....	27
A.3	Test case identifier: Metadata conformity.....	27
A.4	Test case identifier: Standalone quality report	28
A.5	Test case identifier: Data quality measures.....	28
Annex B	(informative) Data quality concepts and their use	29
B.1	Framework of data quality concepts	29
B.2	The structure of datasets and components for quality description	30
B.3	When to use quality evaluation procedures	31
B.4	Reporting quality information	32
B.4.1	Why report data quality	32
B.4.2	When to report quality information.....	32
B.4.3	How to report quality information	33
Annex C	(normative) Data dictionary for data quality	35
C.1	Data dictionary overview	35
C.1.1	Introduction	35
C.1.2	Name/role name	35
C.1.3	Definition	35
C.1.4	Obligation/Condition	35
C.1.5	Maximum occurrence.....	36
C.1.6	Data type.....	36
C.1.7	Domain.....	36
C.2	Quality package data dictionaries.....	37
C.2.1	Data quality information.....	37
C.2.2	Measures information	45
C.3	CodeLists and enumerations	49
C.3.1	Introduction	49
C.3.2	DQ_EvaluationMethodTypeCode <<CodeList>>	49
C.3.3	DQM_ValueStructure <<CodeList>>	49
Annex D	(normative) List of standardised data quality measures.....	50
D.1	Introduction	50
D.2	Completeness	50
D.2.1	Commission	50
D.2.2	Omission.....	53
D.3	Logical consistency	54
D.3.1	Conceptual consistency	54
D.3.2	Domain consistency.....	59
D.3.3	Format consistency	61
D.3.4	Topological consistency	62
D.4	Positional accuracy	69

D.4.1	Absolute or external accuracy	69
D.4.2	Gridded data position accuracy	92
D.5	Temporal quality	93
D.5.1	Accuracy of a time measurement	93
D.5.2	Temporal consistency	96
D.5.3	Temporal validity	96
D.6	Thematic accuracy	96
D.6.1	Classification correctness	96
D.6.2	Non-quantitative attribute correctness	101
D.6.3	Quantitative attribute accuracy	102
D.7	Aggregation Measures	105
Annex E	(informative) Evaluating and reporting data quality	108
E.1	Introduction	108
E.2	Dataset description	108
E.2.1	Data product specification	108
E.2.2	Representation of the real world, the universe of discourse and the dataset	109
E.3	Quality evaluation process	112
E.3.1	Specify data quality unit(s)	112
E.3.2	Specify data quality measures	112
E.3.3	Specify data quality evaluation procedures	112
E.3.4	Determine the output of the data quality evaluation (Result)	113
E.4	Reporting data quality	118
E.4.1	Reporting as metadata	118
E.4.2	Reporting in a standalone quality report	127
E.5	Additional examples	127
E.5.1	General	127
E.5.2	Reporting descriptive results as metadata	128
E.5.3	Reporting metaquality as metadata	128
E.5.4	How to report sampling procedure	130
Annex F	(informative) Sampling methods for evaluating	132
F.1	Introduction	132
F.2	Lot and item	132
F.3	Sample size	132
F.4	Sampling strategies	133
F.4.1	Introduction	133
F.4.2	Probabilistic versus judgemental sampling	134
F.4.3	Feature-guided versus area-guided sampling	134
F.5	Probability-based sampling	136
F.5.1	General considerations	136
F.5.2	Existing standard for inspection by sampling	136
F.5.3	Sampling process	139
Annex G	(normative) Data quality basic measures	140
G.1	Purpose of data quality basic measures	140
G.2	Counting-related data quality basic measures	140
G.3	Uncertainty-related data quality basic measures	141
G.3.1	General	141
G.3.2	One-dimensional random variable, Z	141
G.3.3	Two-dimensional random variable X and Y	143
G.3.4	Three-dimensional random variable X , Y , Z	144
Annex H	(informative) Management of data quality measures	145
H.1	Introduction	145
H.2	Storage of data quality measures	145
H.2.1	General	145
H.2.2	Catalogue of data quality measures	146
H.2.3	Register of data quality measures	146
Annex I	(informative) Guidelines for the use of Quality Elements	149
I.1	Overview	149

ISO/DIS 19157

I.2	Data quality element categories.....	149
I.2.1	General.....	149
I.2.2	Ordering in data quality evaluation.....	149
I.3	The relationships between the data quality elements	151
I.3.1	General.....	151
I.3.2	Data quality elements related to missing attribute values	151
I.3.3	Relationships between the different aspects of accuracy	151
I.3.4	Dependency between completeness and accuracy.....	152
I.4	Data quality elements – example of use.....	153
I.4.1	Completeness	153
I.4.2	Logical consistency	153
I.4.3	Positional accuracy	155
I.4.4	Temporal quality	155
I.4.5	Thematic accuracy.....	156
I.5	Discussions on difficult cases	156
I.5.1	Relation between misclassification and completeness at feature type level.....	156
I.5.2	Quality elements related to unique identifiers.....	157
Annex J (informative)	Aggregation of data quality results	158
J.1	Introduction	158
J.2	100% pass/fail	158
J.3	Weighted pass/fail	158
J.4	Maximum/minimum value	159
Bibliography	160

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SIST EN ISO 19157:2015

<https://standards.iteh.ai/catalog/standards/sist/a9880e15-b738-429f-8372-2a76828d4099/sist-en-iso-19157-2015>

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 19157 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

This International Standard cancels and replaces ISO 19113:2002, ISO 19114:2003 and ISO/TS 19138:2006.

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Introduction

Geographic data is increasingly being shared, interchanged and used for purposes other than their producers' intended ones. Information about the quality of available geographic data is vital to the process of selecting a dataset in that the value of data is directly related to its quality. A user of geographic data may have multiple datasets from which to choose. Therefore, it is necessary to compare the quality of the datasets to determine which best fulfils the requirements of the user.

The purpose of describing the quality of geographic data is to facilitate the comparison and selection of the dataset best suited to application needs or requirements. Complete descriptions of the quality of a dataset will encourage the sharing, interchange and use of appropriate datasets. Information on the quality of geographic data allows a data producer to evaluate how well a dataset meets the criteria set forth in its product specification and assists data users in evaluating a product's ability to satisfy the requirements for their particular application. For the purpose of this evaluation, clearly defined procedures are used in a consistent manner.

To facilitate comparisons, it is essential that the results of the quality reports are expressed in a comparable way and that there is a common understanding of the data quality measures that have been used. These data quality measures provide descriptors of the quality of geographic data through comparison with the universe of discourse. The use of incompatible measures makes data quality comparisons impossible to perform. This International Standard standardises the components and structures of data quality measures and defines commonly used data quality measures.

This International Standard recognizes that a data producer and a data user may view data quality from different perspectives. Conformance quality levels may be set using the data producer's product specification or a data user's data quality requirements. If the data user requires more data quality information than that provided by the data producer, the data user may follow the data producer's data quality evaluation process flow to get the additional information. In this case the data user requirements are treated as a product specification for the purpose of using the data producer process flow.

The objective of this International Standard is to provide principles for describing the quality for geographic data and concepts for handling quality information for geographic data, and a consistent and standard manner to determine and report a dataset's quality information. It aims also to provide guidelines for evaluation procedures of quantitative quality information for geographic data.

Geographic information — Data quality

1 Scope

This International Standard establishes the principles for describing the quality of geographic data. It

- defines components for describing data quality;
- specifies components and content structure of a register for data quality measures;
- describes general procedures for evaluating the quality of geographic data;
- establishes principles for reporting data quality.

This International Standard also defines a set of data quality measures for use in evaluating and reporting data quality. It is applicable to data producers providing quality information to describe and assess how well a dataset conforms to its product specification and to data users attempting to determine whether or not specific geographic data is of sufficient quality for their particular application.

This International Standard does not attempt to define minimum acceptable levels of quality for geographic data.

2 Conformance

Any product claiming conformance to this International Standard shall pass all the requirements described in the abstract test suite presented in Annex A as follows:

- a) A data quality evaluation process shall pass the tests outlined in A.1;
- b) Data quality metadata shall pass the tests outlined in A.2 and A.3;
- c) A standalone quality report shall pass the tests outlined in A.4;
- d) A data quality measure shall pass the tests outlined in A.5.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TS 19103:2005, *Geographic information — Conceptual schema language*

ISO 19107:2003, *Geographic information — Spatial schema*

ISO 19108:2002, *Geographic information — Temporal schema*

ISO 19109:2005, *Geographic information — Rules for application schemas*