

ISO 19116:2025-04 (E)

Geographic information - Positioning services

Contents

Page

Foreword.....	v
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Symbols, abbreviated terms, backwards compatibility, UML notation, and packages.....	6
4.1 Symbols and abbreviated terms.....	6
4.2 Backwards compatibility.....	7
4.3 UML notation.....	7
4.4 Package abbreviations.....	7
5 Conformance.....	7
5.1 Overview.....	7
5.2 Conformance requirements.....	8
5.3 Structure of requirements clauses.....	8
6 Positioning services model.....	8
6.1 Overview.....	8
6.2 Static data structures of a positioning service.....	9
6.3 Basic and extended information from a positioning service.....	10
7 Basic information: definition and description.....	11
7.1 Overview.....	11
7.2 System information.....	12
7.2.1 Overview.....	12
7.2.2 PS_System.....	13
7.2.3 System capability.....	14
7.2.4 Positioning technology.....	14
7.2.5 Referencing method.....	15
7.2.6 Instrument identification.....	15
7.3 Session information.....	16
7.3.1 Overview.....	16
7.3.2 PS_Session.....	16
7.4 Observation information.....	17
7.4.1 Overview.....	17
7.4.2 PS_ObservationMode.....	18
7.4.3 PS_LinkToReferenceSystem.....	21
7.4.4 PS_MeasurementType.....	21
7.4.5 Observation.....	21
7.4.6 Coordinate transfer (offset) values.....	23
7.4.7 Offset vector.....	25
7.4.8 PS_OffsetSourceType.....	25
7.5 Quality information.....	25
7.5.1 Overview.....	25
7.5.2 PS_QualityMode.....	27
7.6 Positioning services operations.....	28
7.6.1 Definition of positioning services operations.....	28
7.6.2 Requirements for positioning service operations.....	29
7.6.3 Applying the positioning services operations.....	31

8	Reliability of positioning results	31
8.1	Overview.....	31
8.2	Reliability model.....	32
9	Technology-specific information	34
9.1	Overview.....	34
9.2	Operating conditions.....	34
9.2.1	PS_OperatingConditions.....	34
9.2.2	PS_ComputationalConditions.....	35
9.2.3	PS_PositionFixMode.....	35
9.2.4	PS_PositioningMode.....	35
9.2.5	PS_ProcessingMode.....	36
9.2.6	Performance indicators.....	36
9.2.7	Measurement conditions.....	36
9.3	Raw measurement data.....	37
Annex A	(normative) Conformance	38
Annex B	(informative) Implementing accuracy reports for positioning services	40
Annex C	(informative) Overview of positioning services	44
Annex D	(informative) GNSS operating conditions	46
Annex E	(informative) Reliability evaluation methods	51
Annex F	(informative) Examples for extending positioning service results	57
Annex G	(informative) Use case examples	59
Bibliography	62