

ISO 19168-1:2025-01 (E)

Geographic information - Geospatial API for features - Part 1: Core

Contents		Page
Foreword		v
Introduction		vii
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
3.1	Terms and definitions	2
3.2	Abbreviated terms	3
4	Conformance	3
5	Conventions	4
5.1	Identifiers	4
5.2	Link relations	4
5.3	Use of HTTPS	5
5.4	HTTP URIs	5
5.5	API definition	5
5.5.1	General remarks	5
5.5.2	Role of OpenAPI	5
5.5.3	References to OpenAPI components in normative statements	6
5.5.4	Paths in OpenAPI definitions	6
5.5.5	Reusable OpenAPI components	6
6	Overview	7
6.1	Design considerations	7
6.2	Encodings	7
6.3	Examples	8
7	Requirements class "Core"	9
7.1	Overview	9
7.2	API landing page	10
7.2.1	Operation	10
7.2.2	Response	10
7.2.3	Error situations	11
7.3	API definition	11
7.3.1	Operation	11
7.3.2	Response	12
7.3.3	Error situations	12
7.4	Declaration of conformance classes	12
7.4.1	Operation	12
7.4.2	Response	13
7.4.3	Error situations	13
7.5	HTTP 1.1	13
7.5.1	HTTP status codes	13
7.6	Unknown or invalid query parameters	14
7.7	Web caching	15
7.8	Support for cross-origin requests	15
7.9	Encodings	15
7.10	String internationalization	16

7.11	Coordinate reference systems	16
7.12	Link headers	17
7.13	Feature collections	17
7.13.1	Operation	17
7.13.2	Response	17
7.13.3	Error situations	23
7.14	Feature collection	24
7.14.1	Operation	24
7.14.2	Response	24
7.14.3	Error situations	24
7.15	Features	24
7.15.1	Operation	24
7.15.2	Parameter limit	25
7.15.3	Parameter bbox	26
7.15.4	Parameter datetime	27
7.15.5	Parameters for filtering on feature properties	29
7.15.6	Combinations of filter parameters	29
7.15.7	Response	30
7.15.8	Error situations	32
7.16	Feature	32
7.16.1	Operation	32
7.16.2	Response	33
7.16.3	Error situations	33
8	Requirements classes for encodings	33
8.1	Overview	33
8.2	Requirements class "HTML"	34
8.3	Requirements class "GeoJSON"	34
8.4	Requirements class "Geography Markup Language (GML), Simple Features Profile, Level 0"	36
8.5	Requirements class "Geography Markup Language (GML), Simple Features Profile, Level 2"	38
9	Requirements class "OpenAPI 3.0"	39
9.1	Basic requirements	39
9.2	Complete definition	40
9.3	Exceptions	40
9.4	Security	40
9.5	Features	40
10	Media types	41
11	Security Considerations	41
11.1	General	41
11.2	Multiple access routes	42
11.3	Multiple servers	42
11.4	Path manipulation on GET	42
11.5	Path manipulation on PUT and POST	42
	Annex A (normative) Abstract test suite	43
	Bibliography	59