

ISO 14825:2011-07 (E)

Intelligent transport systems - Geographic Data Files (GDF) - GDF5.0

Contents		Page
Foreword		vi
Introduction		vii
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
3.1	General terms	2
3.2	Mathematical terms	3
3.3	Geodetical terms	4
3.4	GDF terms	6
4	Symbolization and notation elements	9
4.1	GDF symbolizations	9
4.2	UML notation	9
5	Overall conceptual data model	15
5.1	Conceptual data models in GDF	15
5.2	The general data model of GDF	15
5.3	The Attribute model	24
5.4	The Relationship model	27
5.5	Linear referencing	27
5.6	The Feature representation scheme	28
5.7	Time modelling	28
5.8	Data management: organisation of Feature data into Layers and Sections	29
6	Feature Catalogue	33
6.1	Generic specifications	33
6.2	Roads and Ferries	34
6.3	Administrative Areas	51
6.4	Named Areas	59
6.5	Land Cover And Use	63
6.6	Terrain Elevation	93
6.7	Structures	98
6.8	Railways	99
6.9	Waterways	100
6.10	Road Furniture	104
6.11	Services	107
6.12	Public Transport	108
6.13	Linear Referencing Features	112
6.14	Linear Datum Features	114
6.15	General Features	116
7	Attribute Catalogue	118
7.1	Generic specifications	118
7.2	Attributes	166
8	Relationship Catalogue	314
8.1	Generic Specifications	314
8.2	Relationship Types	342

9	Feature representation rules	387
9.1	Generic specifications	387
9.2	Roads and Ferries	403
9.3	Administrative Areas	406
9.4	Named Areas	408
9.5	Land Cover And Use	409
9.6	Terrain Elevation	410
9.7	Structures	410
9.8	Railways	413
9.9	Waterways	414
9.10	Road Furniture	415
9.11	Services	415
9.12	Public Transport	415
9.13	Linear Referencing Features	416
9.14	Linear Datum Features	416
9.15	General Features	417
10	Metadata Catalogue	418
10.1	Generic specification	418
10.2	Headers and terminators	420
10.3	Data Dictionary	436
10.4	Table of Contents	448
10.5	Source Material	453
10.6	Geodetic Parameters	459
10.7	Update Information	468
10.8	General Comment	468
11	Logical Data Structures	469
11.1	Introduction	469
11.2	Logical GDF Album	474
11.3	Datasets	476
11.4	Layers	500
11.5	Sections	501
11.6	Time Domain Syntax	519
11.7	Update Information	530
11.8	Common Data Types	532
12	Media Record Specifications	541
12.1	General specifications	541
12.2	Field specifications	555
12.3	Additional Constraints for Topological Features	598
12.4	Additional Constraints for Non-Explicit Topological Features: Order of Coordinate triplets in Feature Records	599
12.5	Mandatory Records	599
12.6	Record Format Specifications: Global Records	599
12.7	Record Format Specifications: Data Records	650
12.8	Record Format Specifications: Update Information Records	684
13	XML schema specifications	687
13.1	Introduction	687
13.2	Data content	691
13.3	GDF XML schema	693
13.4	Schema GDF_Main.xsd	694
13.5	Schema GDF_data_dict.xsd	758
13.6	Schema GDF_userDefined.xsd	945
14	SQL encoding specifications	950
14.1	SQL design	950
14.2	Data content	953
14.3	Topology Type	978
14.4	Data partitioning	980

14.5	General GDF data	1018
14.6	Features	1022
14.7	Relationships	1059
14.8	Attributes	1063
14.9	Object Referencing	1071
14.10	Update registry	1074
14.11	Abbreviation	1080
14.12	Entity/Table indexes	1081
14.13	Entity Relationship diagram conventions	1086
14.14	SQL/MM base tables for Topology and Network	1095
	Annex A (normative) Semantic codes	1099
	Annex B (informative) Metadata codes	1127
	Annex C (informative) Services	1165
	Annex D (normative) Syntax for Time Domains	1173
	Annex E (normative) Sectioning GDF Datasets	1195
	Annex F (informative) Rules for the formation of Level 2 Features from Roads and Ferries	1198
	Annex G (informative) Geopolitical Structure examples	1208
	Annex H (informative) Specification of possible use of notation and phonetic Attributes for character strings	1226
	Bibliography	1229