

ISO/TS 4398:2022-09 (E)

Intelligent transport systems - Guided transportation service planning data exchange

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Abbreviated terms	5
5	Modelling concepts	6
5.1	General	6
5.2	Concepts infrastructure	6
5.2.1	Introduction	6
5.2.2	Connections between tracks	7
5.2.3	Temporal availability of infrastructure elements and speed profiles	9
5.2.4	Defining track usage of a train in stations	9
5.3	Concepts timetable	10
5.3.1	Overview	10
5.3.2	Train types, categories and passenger usage	10
5.3.3	How to reference infrastructure[12]	11
5.3.4	Midnight overrun[13]	12
5.3.5	Reversing trains and formations[14]	12
5.3.6	Train coupling and sharing[15]	13
5.4	Concepts: rolling stock	13
5.4.1	Formations	13
5.4.2	Vehicles	14
6	RailDax high level description	14
6.1	General overview	14
6.2	XML methodology	15
6.3	RailDax high level UML	15
6.3.1	Overview	15
6.3.2	Infrastructure	16
6.3.3	Timetable	32
6.3.4	Rolling stock	41
6.3.5	Metadata	53
7	Use cases	53
7.1	General	53
7.2	Operational timetable planning for tenders, long- and short-term planning	54
7.2.1	Description	54
7.2.2	Data flows and interfaces	54
7.2.3	Characteristics of data	54
7.3	Runtime calculations	55
7.3.1	Description	55
7.3.2	Data flows and interfaces	55
7.3.3	Characteristics of data	55
7.4	Passenger assets of rolling stock for operational planning	56
7.4.1	Description	56

7.4.2	Data flow and interfaces	56
7.4.3	Characteristics of data	56
7.5	Schematic track plans for infrastructure planning	57
7.5.1	Description	57
7.5.2	Data flow and interfaces	58
7.5.3	Characteristics of data	58
7.6	Operational timetable simulation	58
7.6.1	Description	58
7.6.2	Data flow and interfaces	58
7.6.3	Characteristics of data	59
7.7	Network statement of an infrastructure manager annex asset descriptions	59
7.7.1	Description	59
7.7.2	Data flow and interfaces	59
7.7.3	Characteristics of data	60
Annex A (informative) Mapping		61
Annex B (informative) Index of element names		66
Bibliography		73