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 Termsanddefinitions 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