

ISO/TS 19321:2024-07 (E)

Intelligent transport systems - Cooperative ITS - Dictionary of in-vehicle information (IVI) data structures

Contents

Page

- Foreword..... v
- Introduction..... vi
- 1 Scope..... 1
- 2 Normative references..... 1
- 3 Terms and definitions..... 1
- 4 Abbreviated terms..... 3
- 5 In-vehicle information data structure..... 4
 - 5.1 Structural model..... 4
 - 5.1.1 General model..... 4
 - 5.1.2 Conceptual zones..... 5
 - 5.2 Location referencing..... 7
 - 5.2.1 General..... 7
 - 5.2.2 Geographic location referencing..... 7
 - 5.2.3 Map-based location referencing..... 8
- 6 IVI Containers..... 8
 - 6.1 Management Container..... 8
 - 6.1.1 Definition..... 8
 - 6.1.2 Usage — Management Container..... 9
 - 6.2 Location Containers..... 10
 - 6.2.1 General..... 10
 - 6.2.2 Geographic Location Container..... 10
 - 6.2.3 Map Location Container..... 12
 - 6.3 Application Containers..... 12
 - 6.3.1 General..... 12
 - 6.3.2 General IVI Container..... 13
 - 6.3.3 Road Configuration Container..... 16
 - 6.3.4 Text Container..... 17
 - 6.3.5 Layout Container..... 18
 - 6.3.6 Automated Vehicle Container..... 19
 - 6.3.7 Road Surface Container..... 20
 - 6.3.8 Infrastructure Support Container..... 21
- 7 Description of data frames and data elements..... 22
 - 7.1 General..... 22
 - 7.2 Data frames..... 22
 - 7.2.1 AbsolutePosition..... 22
 - 7.2.2 AbsolutePositionWAltitude..... 22
 - 7.2.3 AnyCatalogue..... 23
 - 7.2.4 AutomatedVehicleRule..... 23
 - 7.2.5 CompleteVehicleCharacteristics..... 24
 - 7.2.6 ComputedSegment..... 24
 - 7.2.7 DeltaPosition..... 24
 - 7.2.8 InfrastructureSupportInformation..... 24
 - 7.2.9 ISO14823Attribute..... 25
 - 7.2.10 ISO14823Code..... 25
 - 7.2.11 LaneInformation..... 25
 - 7.2.12 LaneCharacteristics..... 26
 - 7.2.13 LayoutComponent..... 26

7.2.14	LoadType	26
7.2.15	MapReference	27
7.2.16	PlatooningRule	27
7.2.17	PolygonalLine	28
7.2.18	RoadSurfaceDynamicCharacteristics	28
7.2.19	RoadSurfaceStaticCharacteristics	28
7.2.20	RSCode	29
7.2.21	Segment	29
7.2.22	SegmentExtended	29
7.2.23	SupportItem	30
7.2.24	Text	30
7.2.25	TractorCharacteristics	30
7.2.26	TrailerCharacteristics	30
7.2.27	TrainCharacteristics	31
7.2.28	VcCode	31
7.2.29	VehicleCharacteristicsFixValues	31
7.2.30	VehicleCharacteristicsRanges	32
7.2.31	Zone	32
7.2.32	Data frames which are lists	32
7.3	Data Elements	34
7.3.1	BankingAngle	34
7.3.2	ComparisonOperator	34
7.3.3	Condition	34
7.3.4	DefinitionAccuracy	34
7.3.5	Depth	35
7.3.6	Direction	35
7.3.7	DriverCharacteristics	35
7.3.8	FrictionCoefficient	35
7.3.9	GapBetweenVehicles	35
7.3.10	GoodsType	35
7.3.11	IviIdentificationNumber	36
7.3.12	IviLaneWidth	36
7.3.13	IviPurpose	36
7.3.14	IviStatus	36
7.3.15	IviType	37
7.3.16	LaneDelimitation	37
7.3.17	LaneId	37
7.3.18	LaneMarkingStatus	37
7.3.19	LaneStatus	37
7.3.20	LaneType	38
7.3.21	MarkingColour	38
7.3.22	MaterialType	38
7.3.23	MaxLenghtOfPlatoon	38
7.3.24	MaxNoOfVehicles	39
7.3.25	PriorityLevel	39
7.3.26	Provider	39
7.3.27	RSCUnit	39
7.3.28	SaeAutomationLevel	40
7.3.29	Temperature	40
7.3.30	TreatmentType	40
7.3.31	VcClass	40
7.3.32	VcOption	40
7.3.33	WearLevel	40
7.3.34	Zid	40
Annex A (normative) ASN.1 modules		41
Annex B (informative) Visual examples of Location Container		42
Bibliography		49