

C-ITS Release 1 list of standards

Introduction

This document presents the list of standards for ITS needed in Release 1 deployment in Cooperative ITS. Distinction is made between standards related to

- Applications, Messages and Data specifications
- Application and Message support
- Conformance testing

In addition a fourth clause summarizes the standards developed for other ITS domains (e. g. traffic and travel information, road data, traffic control, etc.) but with direct relevance for C-ITS.

This document replaces the Release 1 list, issued by CEN/TC278 in May 2013, and presented at the 10th ITS-CG meeting in Brussels.

I. Applications, Messages and Data specifications

1. CEN/ISO TS 17425, Intelligent Transport Systems - Co-operative systems - Data exchange specification for in-vehicle presentation of external road and traffic related data
2. CEN/ISO TS 17426, Intelligent Transport Systems - Cooperative Systems - Contextual speeds
3. CEN/ISO TS 17427, Intelligent Transport Systems - Cooperative Systems - Roles and responsibilities in the context of co-operative ITS based on architecture(s) for co-operative systems
4. CEN/ISO TS 18750, Intelligent Transport Systems - Cooperative ITS - Definition of a global concept for local dynamic maps
5. CEN/ISO TS 19091, Intelligent Transport Systems - Cooperative ITS - Using V2I and I2V Communications for Applications Related to Signalized Intersections (SPaT, MAP, SRM, SSM)
6. CEN/ISO TS 19321, Intelligent Transport Systems - Cooperative ITS - Dictionary of In-vehicle Information (IVI) data structures

II. Application and Message support

7. ISO 16788, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS IPv6 Security
8. ISO 16789, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS IPv6 Optimization
9. CEN/ISO TS 17419, Intelligent Transport Systems - Cooperative Systems - Classification and management of ITS applications in a global context



10. CEN/ISO TS 17423, Intelligent Transport Systems - Cooperative Systems - Application requirements for selection of communication profiles
11. TS 17429, Intelligent Transport Systems - Cooperative Systems - Profiles for processing and transfer of information between ITS stations for applications related to transport infrastructure management, control and guidance
12. ISO 17515-1, Intelligent Transport Systems - Communications access for land mobiles (CALM) - LTE
13. ISO 21210, Intelligent Transport Systems - Communications access for land mobiles (CALM) - IPv6 Networking
14. ISO 21215, Intelligent transport systems - Communications access for land mobiles (CALM) - M5
15. ISO 21217, Intelligent Transport Systems - Communications access for land mobiles (CALM) - Architecture
16. ISO 21218, Intelligent Transport Systems - Communications access for land mobiles (CALM) - Medium service access points
17. ISO 24102-1, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 1: Local management
18. ISO 24102-2, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 2: Remote management
19. ISO 24102-3, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 3: Service access points
20. ISO 24102-4, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 4: Station-internal management communication
21. ISO 24102-5, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 5: Fast service advertisement protocol (FSAP)
22. ISO 24102-6, Intelligent Transport Systems - Communications access for land mobiles (CALM) - ITS station management - Part 6: Flow management
23. ISO 25111, Intelligent Transport Systems - Communications access for land mobiles (CALM) - General requirements for using public networks
24. ISO 29281-1, Intelligent Transport Systems - Communications access for land mobiles (CALM) - Non-IP networking - Part 1: Fast networking & transport layer protocol (FNTP)

III. Conformance testing

25. ISO 18377, Intelligent Transport Systems - Communications access for land mobiles (CALM) - Conformance requirements
26. ETSI TS 102 985 1, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for non-IP networking (ISO 29281); Part 1: Protocol implementation conformance "statement (PICS) proforma
27. ETSI TS 102 985 2, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for non-IP networking (ISO 29281); Part 2: Test suite structure & test purposes (TSS&TP)

28. ETSI TS 102 985 3, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for non-IP networking (ISO 29281); Part 3: Abstract test suite and partial PIXIT (ATS) specification
29. ETSI TS 102 797 1, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for ITS station management (ISO 24102); Part 1: Protocol Implementation Conformance Statement (PICS) proforma
30. ETSI TS 102 797 2, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for ITS station management (ISO 24102); Part 2: Test suite structure & test purposes (TSS&TP)
31. ETSI TS 102 797 3, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for ITS station management (ISO 24102); Part 3: Abstract test suite (ATS) and partial PIXIT proforma
32. ETSI TS 102 760-1, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for Access Technology Support (ISO 21218); Part 1: Protocol Implementation Conformance Statement (PICS) proforma
33. ETSI TS 102 760-2, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for Access Technology Support (ISO 21218); Part 2: Test suite structure & test purposes (TSS&TP)
34. ETSI TS 102 760-3, Intelligent Transport Systems (ITS); Communications Access for Land Mobiles (CALM); Test specifications for Access Technology Support (ISO 21218); Part 3: Abstract test suite (ATS) and partial PIXIT proforma
35. CEN/ISO TS (new WI¹), Intelligent Transport Systems - Cooperative ITS - Test suite architecture
36. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 17429 - Part 1: Protocol Implementation Conformance Statement (PICS) proforma
37. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 17429 - Part 2: Test suite structure & test purposes (TSS&TP)
38. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 17429 - Part 3: Abstract test suite (ATS) and partial PIXIT proforma
39. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19091 - Part 1: Protocol Implementation Conformance Statement (PICS) proforma
40. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19091 - Part 2: Test suite structure & test purposes (TSS&TP)
41. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19091 - Part 3: Abstract test suite (ATS) and partial PIXIT proforma
42. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19321 - Part 1: Protocol Implementation Conformance Statement (PICS) proforma
43. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19321 - Part 2: Test suite structure & test purposes (TSS&TP)

44. CEN/ISO TS (new WI¹) Part 1, Intelligent Transport Systems - Cooperative ITS - Test specifications for CEN/ISO TS 19321 - Part 3: Abstract test suite (ATS) and partial PIXIT proforma

¹ NOTE: The new work items related to testing will be developed by a CEN Project Team under Grant Agreement with the EC. Finalization is expected by Q2/2015.

IV. Standards for other ITS domains but with direct relevance for C-ITS

45. ISO 24978, Intelligent Transport Systems - ITS Safety and emergency messages using any available wireless media - Data registry procedures
46. EN 15509 - Road transport and traffic telematics - Electronic fee collection - Interoperability application profile for DSRC
47. CEN/ISO 17573, Road transport and traffic telematics - Electronic fee collection - System architecture for vehicle-related tolling
48. ISO 17575 series, Intelligent Transport Systems - Application Interface Definition for Electronic Fee Collection (EFC) based on Global Navigation Satellite Systems and Cellular Networks (GNSS/CN)
49. EN 16312, Intelligent Transport Systems - Automatic Vehicle and Equipment Registration (AVI/AEI) - Interoperable application profile for AVI/AEI and Electronic Register Identification using dedicated short range communication
50. EN ISO 14816, Road transport and traffic telematics - AVI/AEI - Numbering and Data Structures
51. ISO TS 15638 series, Intelligent Transport Systems - Framework for cooperative telematics applications for regulated commercial freight vehicles (TARV)
52. ISO 14827-1, Intelligent Transport Systems - Data interfaces between centres for transport information and control systems - Part 1: Message definition requirements
53. ISO 14827-2, Intelligent Transport Systems - Data interfaces between centres for transport information and control systems - Part 2: DATEX-ASN
54. ISO 14827-3, Intelligent Transport Systems - Data interfaces between centres for transport information and control systems - Part 3: Data interfaces between centres for Intelligent Transport Systems (ITS) using XML
55. CEN TS 16157-1, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 1: Context and framework
56. CEN TS 16157-2, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 2: Location referencing
57. CEN TS 16157-3, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 3: Situation Publication
58. CEN TS 16157-4, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 4: Variable Message Sign (VMS) Publications
59. CEN TS 16157-5, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 5: Measured and Elaborated Data Publications



60. CEN TS 16157-6, Road transport and traffic telematics - DATEX II data exchange specifications for traffic management and information - Part 6: Parking Publication
61. ISO TS 18234-1, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 1: Introduction, Numbering and Versions (TPEG1-INV)
62. ISO TS 18234-2, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 2: Syntax, Semantics and Framing (TPEG1-SSF)
63. ISO TS 18234-3, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 3: Service and Network Information
64. ISO TS 18234-7, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 7: Parking Information application (TPEG1-PKI)
65. ISO TS 18234-9, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 9: Traffic Event Compact application (TPEG1-TEC)
66. ISO TS 18234-10, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 10: Conditional Access Information application (TPEG1-CAI)
67. ISO TS 18234-11, Intelligent Transport Systems - Traffic and Travel Information (TTI) via Transport Protocol Experts Group, Generation 1 (TPEG1) binary data format - Part 11: Location Referencing Container
68. ISO TR 13185-1, Intelligent Transport Systems - Vehicle interface for provisioning and support of ITS services - Part 1: General information and use cases definition
69. ISO TS 13185-2, Intelligent Transport Systems - Vehicle interface for provisioning and support of ITS services - Part 2: Protocol requirements and specification for vehicle ITS station gateway interface
70. ISO TS 13185-3, Intelligent Transport Systems - Vehicle interface for provisioning and support of ITS services - Part 3: Configuration process requirements and specification for vehicle ITS station gateway
71. ISO TS 17931, Intelligent Transport Systems - Extension of map database specifications for Local Dynamic Map for applications of Cooperative ITS