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English Version

**Railway applications - Driver's cab train Display Controller (TDC)
- Part 3: Other train systems FIS**

Bahnanwendungen - Train Display Controller (TDC) im
Führerraum - Teil 3: Spezifikation der Funktionalen
Schnittstelle (FIS) Andere Zugsysteme

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European Committee for Electrotechnical Standardization
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European foreword

This document (CLC/TR 50542-3:2016) has been prepared by CLC/TC 9X "Electrical and electronic applications for railways".

This document is currently submitted to voting in accordance with the Internal Regulations, Part 2, Subclause 11.4.3.3 (simple majority) for acceptance as a CENELEC Technical Report.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Introduction

The perimeter of CLC/TR 50542-3 is the functional interface between the Other Train Systems (OTS) and the TDC.

The functional definition of this interface is a key feature in the process to increase market development, for instance:

- by introducing more suppliers for new rolling stock development and for driver's cab refurbishment.
- by easing the control of maintenance and the replacement processes.
- by decreasing the related equipment Life cycle cost.

In this document, the train borne systems and the TDC are considered only regarding their functionalities and not as physical devices.

The CLC/TR 50542 series consists of three documents:

- this document
- CLC/TR 50542-1, Railway applications — Driver's cab Train Display Controller (TDC) — Part 1: General architecture.
- CLC/TR 50542-2, Railway applications — Driver's cab Train Display Controller (TDC) — Part 2: Display systems FIS.

These documents should not be interpreted as standards but as a study on the future view of the system. They do not describe an existing solution for the TDS.

These documents are not written to be used in call for tenders because they are not sufficient. However they can serve as a basis for future development and standardization including new technologies. These documents are a first step, and may be completed later.

NOTE In case of existing discrepancies between CLC/TR 50542-1:2014 and CLC/TR 50542-3:2016, the present document prevails.

1 Scope

The scope of this document is the definition of the functional interface between TDC and other train systems. These “Other Train Systems” are the train systems interfacing with the TDC excluding the displays (CLC/TR 50542-2), ETCS/STM onboard (Subset-121) and already designed class B ATP systems.

The functional interface deals with data exchanged between TDC and these train systems.

The TDC is defined in document CLC/TR 50542-1.

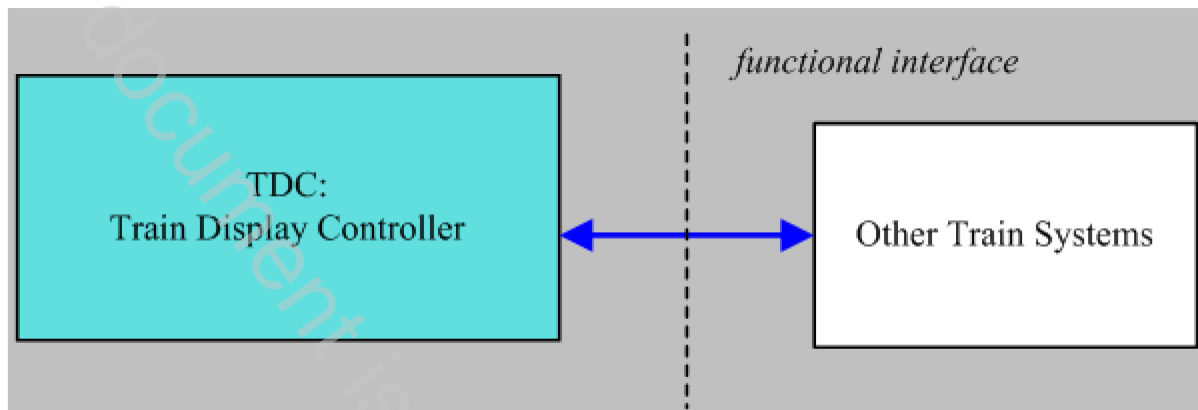


Figure 1 — TDC- OTS functional interface

NOTE The conversion of physical signals into numerical representation is out of scope.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CLC/TR 50542-1:2014, *Railway applications - Driver's cab train display controller (TDC) - Part 1: General architecture*

CLC/TR 50542-2:2016, *Railway applications — Driver's cab Train Display Controller (TDC) — Part 2: Display systems FIS*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply in addition to the terms defined in CLC/TR 50542-1:2014 and CLC/TR 50542-2:2016.

3.1

other train systems

train on board systems interfaced with the TDC excluding ETCS/STM onboard, class B ATP systems, and the displays

EXAMPLE Train borne systems could be the train systems interacting with the driver through the TDC (e.g. brake system, HVAC systems, traction system, CCTV).

Note 1 to entry: The interface between the TDC and the ETCS/STM onboard is described in Subset 121 (see Bibliography).

Note 2 to entry: The interface between the TDC and the displays is described in CLC/FprTR 50542–2:2016.