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Irish Standard
I.S. EN 60870-6-702:2014

Telecontrol equipment and systems - Part 6-702: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - Functional profile for providing the TASE.2 application service in end systems

I.S. EN 60870-6-702:2014

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**Telecontrol equipment and systems - Part 6-702: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - Functional profile for providing the TASE.2 application service in end systems
(IEC 60870-6-702:2014)**

Matériels et systèmes de téléconduite - Partie 6-702:
Protocoles de téléconduite compatibles avec les normes
ISO et les recommandations de l'UIT-T - Profil fonctionnel
pour fournir le service d'application TASE.2 dans les
systèmes finals
(CEI 60870-6-702:2014)

Fernwirkrichtungen und -systeme - Teil 6-702:
Fernwirkprotokolle, die mit ISO-Normen und ITU-T-
Empfehlungen kompatibel sind - Funktionsprofil für den
TASE.2-Anwendungsdienst in Endsystemen
(IEC 60870-6-702:2014)

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Foreword

The text of document 57/1454/FDIS, future edition 2 of IEC 60870-6-702, prepared by IEC/TC 57 "Power systems management and associated information exchange" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60870-6-702:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-05-19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-08-19

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In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 60870-6-802:2014 NOTE Harmonized as EN 60870-6-802:2014 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60870-6-503	-	Telecontrol equipment and systems - Part 6-503: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - TASE.2 Services and protocol	EN 60870-6-503	-
IEC/TS 62351-4	-	Power systems management and associated information exchange - Data and communications security - Part 4: Profiles including MMS	-	-
ISO/IEC 8327-2	-	Information technology - Open Systems Interconnection - Connection-oriented Session protocol: Protocol Implementation Conformance Statement (PICS) proforma	-	-
ISO/IEC 8650-2	-	Information technology - Open Systems Interconnection - Protocol specification for the Association Control Service Element: Protocol Implementation Conformance Statement (PICS) proforma	-	-
ISO/IEC 8823-2	-	Information technology - Open Systems Interconnection - Connection-oriented presentation protocol: Protocol Implementation Conformance Statement (PICS) proforma	-	-
ISO 9506-1	2003	Industrial automation systems - Manufacturing Message Specification - Part 1: Service definition	-	-
ISO 9506-2	2003	Industrial automation systems - Manufacturing Message Specification - Part 2: Protocol specification	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/ISP 14226-1	1996 ¹⁾	Industrial automation systems - International Standardized Profile AMM11: MMS General Applications Base Profile - Part 1: Specification of ACSE, Presentation and Session protocols for the use by MMS	-	-
ISO/ISP 14226-2	1996 ¹⁾	Industrial automation systems - International Standardized Profile AMM11: MMS General Applications Base Profile - Part 2: Common MMS requirements	-	-
RFC 2126	-	ISO Transport Service on top of TCP (ITOT)	-	-

¹⁾ Withdrawn.



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Edition 2.0 2014-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Telecontrol equipment and systems –
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Partie 6-702: Protocoles de téléconduite compatibles avec les normes ISO
et les recommandations de l'UIT-T – Profil fonctionnel pour fournir le service
d'application TASE.2 dans les systèmes finals**





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IEC 60870-6-702

Edition 2.0 2014-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Part 6-702: Telecontrol protocols compatible with ISO standards and ITU-T
recommendations – Functional profile for providing the TASE.2 application
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**Matériels et systèmes de téléconduite –
Partie 6-702: Protocoles de téléconduite compatibles avec les normes ISO
et les recommandations de l'UIT-T – Profil fonctionnel pour fournir le service
d'application TASE.2 dans les systèmes finals**

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CONTENTS

FOREWORD	5
INTRODUCTION	7
1 Scope	8
2 Normative references	8
3 Terms and definitions	9
4 Abbreviations	9
5 Profile protocol stacks	9
6 Conformance requirements	10
6.1 General	10
6.2 TASE.2 requirements	10
6.3 MMS requirements	10
6.4 Upper layers requirements	10
6.5 Lower Layer requirements	10
Annex A (normative) ISPICS requirements lists	11
A.1 General	11
A.2 Classification of requirements	11
A.2.1 General	11
A.2.2 Base column	11
A.2.3 F/S column	12
A.2.4 Status column	12
A.2.5 Profile column	12
A.3 TASE.2	13
A.4 MMS	18
A.4.1 General	18
A.4.2 MMS Identifier	19
A.4.3 MMSString	19
A.4.4 ObjectName	19
A.4.5 Supported MMS PDUs	19
A.4.6 PDU-specific requirements	25
A.5 ACSE	29
A.5.1 Supported functions	29
A.5.2 Initiator/responder capability	30
A.5.3 Supported APDUs	31
A.5.4 Supported APDU parameters	32
A.5.5 Supported parameter forms	33
A.6 Presentation	34
A.7 Session	35
Bibliography	36
Figure 1 – Applicability of functional profile	8
Table A.1 – Client/Server capability	13
Table A.2 – TASE.2 CBBs	13
Table A.3 – Association management	14

Table A.4 – Data value	14
Table A.5 – Data sets	14
Table A.6 – Accounts	15
Table A.7 – DS transfer sets	15
Table A.8 – Time series transfer set objects	16
Table A.9 – Transfer account transfer set objects	16
Table A.10 – Information message objects	16
Table A.11 – Special transfer set objects	17
Table A.12 – SBO devices	17
Table A.13 – Programs	17
Table A.14 – Event enrollments	18
Table A.15 – Event conditions	18
Table A.16 – Object models	18
Table A.17 – Environment and general management	19
Table A.18 – MMS modifiers	20
Table A.19 – Parameter CBBs	21
Table A.20 – VMD support	21
Table A.21 – Domain management	22
Table A.22 – Program invocation management	22
Table A.23 – Variable access	23
Table A.24 – Semaphore management	23
Table A.25 – Operator communication	23
Table A.26 – Event management	24
Table A.27 – Journal management	24
Table A.28 – File access	24
Table A.29 – File management	25
Table A.30 – Data exchange management	25
Table A.31 – AccessControl	25
Table A.32 – Additional PDUs	25
Table A.33 – GetNameList conformance statement	26
Table A.34 – VariableAccessSpecification conformance statement	26
Table A.35 – VariableSpecification conformance statement	27
Table A.36 – Read conformance statement	27
Table A.37 – Write conformance statement	27
Table A.38 – InformationReport conformance statement	28
Table A.39 – GetVariableAccessAttributes conformance statement	28
Table A.40 – DefineNamedVariableList conformance statement	28
Table A.41 – GetNamedVariableListAttributes conformance statement	29
Table A.42 – DeleteNamedVariableList conformance statement	29
Table A.43 – Protocol versions	29
Table A.44 – Other protocol versions	30
Table A.45 – Technical corrigenda implemented	30
Table A.46 – Global statement of conformance	30

Table A.47 – Protocol mechanisms	30
Table A.48 – Association establishment procedure	30
Table A.49 – Normal release procedure	31
Table A.50 – Abnormal release procedure	31
Table A.51 – Functional units.....	31
Table A.52 – ACSE Supported APDUs.....	31
Table A.53 – A-associate-request APDU.....	32
Table A.54 – A-associate-response APDU	32
Table A.55 – A-release-request APDU	32
Table A.56 – A-release-response APDU	33
Table A.57 – Abort APDU	33
Table A.58 – AE title syntax name-form	33
Table A.59 – Authentication value form.....	33
Table A.60 – Presentation PRL	34
Table A.61 – Session PRL	35

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TELECONTROL EQUIPMENT AND SYSTEMS –

Part 6-702: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – Functional profile for providing the TASE.2 application service in end systems

FOREWORD

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International Standard 60870-6-702 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

This second edition cancels and replaces the first edition published in 1998 and constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- Accounts, Programs, Event Enrollment, and Event Condition objects were moved from being normative to informative. As a result, the conformance tables have been updated.
- The services associated with Accounts, Programs, Event Enrollment, and Event Conditions are now out-of-scope.
- The TASE.2 conformance blocks 6, 7, 8, and 9 have been made out-of-scope.

These changes were made in order to remove TASE.2 blocks that were seldom used and whose capabilities are typically implemented by some other means besides TASE.2. This was done to promote interoperability of implementations from an application perspective.

The text of this standard is based on the following documents:

FDIS	Report on voting
57/1454/FDIS	57/1478/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60870 series, published under the general title *Telecontrol equipment and systems*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This part of IEC 60870 is one of the IEC 60870-6 series defining functional profiles to be used in telecommunication networks for electric power systems. It is largely based on existing ISO/IEC International Standards and International Standardized Profiles (ISP).

The notion of functional profiles is fundamental in the organization of the IEC 60870-6 series. A description of functional profiles, their classification scheme and the manner of defining them are laid down in IEC 60870-6-1.

This profile for telecontrol application service element (TASE.2, also known as inter-control centre communications protocol, ICCP) is an application-class profile (A-profile) providing communications capabilities to control centre applications. The TASE.2 in the application layer is specified in IEC 60870-6-503. The present standard refines the application layer protocol to meet interoperability requirements and specifies requirements on the presentation and session layers support for TASE.2. TASE.2 operates in a connection mode, so this A-profile needs to interface to a transport-class profile of the T-profile variety.

Since the TASE.2 is an MMS-based protocol, this functional profile (FP) is based on MMS profiles. In the OSI international standardized profile taxonomy there is a category for MMS A-profiles. The present standard makes frequent use of the AMM11 profile.

TELECONTROL EQUIPMENT AND SYSTEMS –

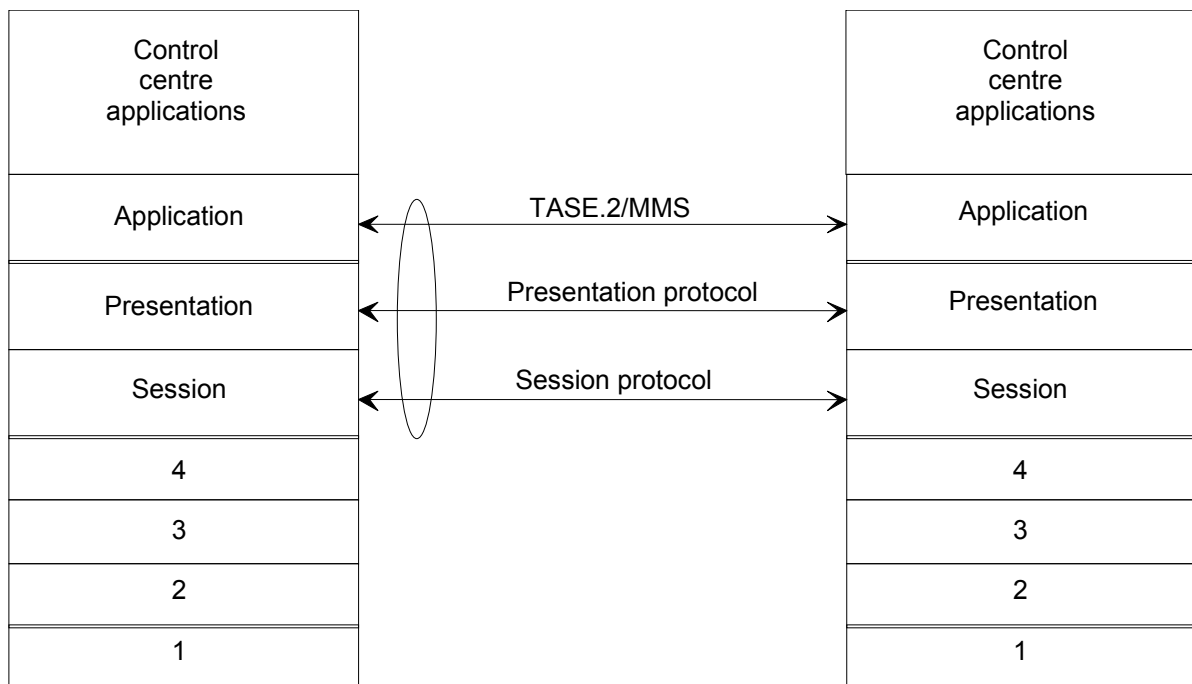
Part 6-702: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – Functional profile for providing the TASE.2 application service in end systems

1 Scope

This part of IEC 60870 is a functional profile (FP) and defines the provision of the TASE.2 communications services between two control centre end systems. It is supported by the transport services implemented in accordance with transport-profiles defined for the type of network that interconnects the control centre end systems. This is demonstrated in Figure 1.

This FP also defines the provision of the OSI connection-mode presentation and session services between the end systems.

ISO/ISP 14226 specifies the AMM11 profiles for MMS. The parts of ISO/ISP 14226 that cover the profile that are used as a basis for this FP are ISO/ISP 14226-1 and ISO/ISP 14226-2. This FP is in alignment with ISO/ISP 14226, as far as possible, and maintains this compatibility by reference. There are TASE.2 requirements in addition to ISO/ISP 14226. These requirements are specified in this FP.



IEC 2021/14

Figure 1 – Applicability of functional profile

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

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