



SLOVENSKI STANDARD

SIST EN 60870-6-701:2002

01-april-2002

[Not translated]

Telecontrol equipment and systems -- Part 6-701: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - Functional profile for providing the TASE.1 application service in end systems

Fernwirkeinrichtungen und -systeme -- Teil 6-701: Fernwirkprotokolle, die mit ISO-Normen und ITU-T-Empfehlungen kompatibel sind - Funktionsprofil für den TASE.1-Anwendungsdienst in Endsystemen

Matériels et systèmes de téléconduite -- Partie 6-701: Protocoles de téléconduite compatibles avec les normes ISO et les recommandations de l'UIT-T - Profils fonctionnels pour fournir le service d'application TASE.1 dans des systèmes terminaux

Ta slovenski standard je istoveten z: EN 60870-6-701:1998

ICS:

33.200 Daljinsko krmiljenje, daljinske Telecontrol. Telemetering
meritve (telemetrija)

SIST EN 60870-6-701:2002

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60870-6-701:2002](#)

<https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-afc5fb6706e3/sist-en-60870-6-701-2002>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60870-6-701

October 1998

ICS 33.200

Descriptors: Open systems interconnection, telecontrol, application service element, functional profile, end system

English version

**Telecontrol equipment and systems
Part 6-701: Telecontrol protocols compatible with
ISO standards and ITU-T recommendations
Functional profile for providing the TASE.1
application service in end systems
(IEC 60870-6-701:1998)**

Matériels et systèmes de téléconduite

Partie 6-701: Protocoles de téléconduite
compatibles avec les normes ISO et les
recommandations de l'UIT-T

Profils fonctionnels pour fournir le
service d'application TASE.1 dans des
systèmes terminaux
(CEI 60870-6-701:1998)

Fernwirkeinrichtungen und -systeme

Teil 6-701: Fernwirkprotokolle, die mit
ISO-Normen und ITU-T-Empfehlungen
kompatibel sind

Funktionsprofil für den TASE.1-
Anwendungsdienst in Endsystemen
(IEC 60870-6-701:1998)

This European Standard was approved by CENELEC on 1998-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 57/357/FDIS, future edition 1 of IEC 60870-6-701, prepared by IEC TC 57, Power system control and associated communications, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60870-6-701 on 1998-10-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1999-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2001-07-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A and ZA are normative and annex B is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60870-6-701:1998 was approved by CENELEC as a European Standard without any modification.

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

<https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-afc5fb6706e3/sist-en-60870-6-701-2002>
IEC 60870-6-501 NOTE: Harmonized as EN 60870-6-501:1990(not modified).



Annex ZA (normative)**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60870-6-502	1995	Telecontrol equipment and systems Part 6: Telecontrol protocols compatible with ISO standards and ITU-T recommendations Section 502: TASE.1 Protocol definitions	EN 60870-6-502	1996
ISO/IEC 8326	1987	Information processing systems - Open systems interconnection - Basic connection oriented session service definition	-	-
ISO/IEC 8327	1987	Information processing systems - Open systems interconnection - Basic connection oriented session protocol specification	-	-
ISO/IEC 8327-2	1996	Information technologies - Open systems interconnection - Connection oriented session protocol - Protocol implementation conformance statement (PICS) proforma	-	-
ISO/IEC 8649	1996	Information technologies - Open systems interconnection - Service definition for the association control service element (ACSE)	-	-
ISO/IEC 8650	1988	Information processing systems - Open Systems Interconnection - Protocol specification for the Association Control Service Element (ACSE)	-	-
ISO/IEC 8650-2	1995	Information technology - Open systems interconnection - Protocol specification for the association control service element Protocol implementation conformance statement (PICS) proforma	-	-
ISO/IEC 8822	1994	Information technology - Open Systems Interconnection - Presentation service definition	-	-

Page 4
EN 60870-6-701:1998

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 8823-2	1995	Information technology - Open systems interconnection - Connection-oriented presentation protocol - Protocol implementation conformance statement (PICS) proforma	-	-
ISO/IEC 9072-2	1989	Information processing systems - Text communication - Remote operations Part 2: Protocol specification	-	-

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

[SIST EN 60870-6-701:2002](https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-afc5fb6706e3/sist-en-60870-6-701-2002)

<https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-afc5fb6706e3/sist-en-60870-6-701-2002>

NORME
INTERNATIONALE

CEI
IEC

INTERNATIONAL
STANDARD

60870-6-701

Première édition
First edition
1998-08

Matériels et systèmes de téléconduite –

Partie 6-701:

**Protocoles de téléconduite compatibles
avec les normes ISO et les recommandations
de l'UIT-T –**

**Profils fonctionnels pour fournir le service
d'application TASE.1 dans des systèmes terminaux**

[SIST EN 60870-6-701:2002](https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-af5fb6706e3/sist-en-60870-6-701-2002)

[https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-](https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-af5fb6706e3/sist-en-60870-6-701-2002)

Telecontrol equipment and systems –

Part 6-701:

**Telecontrol protocols compatible with
ISO standards and ITU-T recommendations –
Functional profile for providing the TASE.1
application service in end systems**

© IEC 1998 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission
Telefax: +41 22 919 0300

e-mail: inmail@iec.ch

3, rue de Varembé Geneva, Switzerland
IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

R

*Pour prix, voir catalogue en vigueur
For price, see current catalogue*

CONTENTS

	Page
FOREWORD	5
INTRODUCTION	7
Clause	
1 Scope	9
2 Normative references	9
3 Definitions	11
4 Abbreviations	11
5 Profile protocol stacks	11
6 Conformance requirements	13
6.1 TASE.1 requirements	13
6.2 Upper layers requirements	13
Annex A (normative) ISPICS requirements lists	15
A.1 General	15
A.2 Classification of requirements	15
A.3 TASE.1	19
A.4 ROSE	19
A.5 ACSE	19
A.6 Presentation	25
A.7 Session	29
Annex B (informative) Bibliography	37

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TELECONTROL EQUIPMENT AND SYSTEMS –

**Part 6-701: Telecontrol protocols compatible with ISO standards
and ITU-T recommendations –
Functional profile for providing the TASE.1 application service
in end systems**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60870-6-701 has been prepared by IEC technical committee 57: Power system control and associated communications.

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

FDIS	Report on voting
57/357/FDIS	57/372/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.

Annex A forms an integral part of this standard.

Annex B is for information only.

INTRODUCTION

This standard is one of the IEC 60870-6 series defining functional profiles to be used in telecommunication networks for electrical 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 publications of IEC 60870-6. A description of functional profiles, their classification scheme, and the manner of defining them are laid down in IEC 60870-6-1 [1]*.

The present standard TASE.1 application profile is an application-class profile providing inter control system communication to control system applications. The TASE.1 protocol in the application layer is specified in IEC 60870-6-501 [2], and the TASE.1 application services are specified in IEC 60870-6-502. The present standard refines the TASE.1 to meet interoperability requirements and specifies requirements on the presentation and session layers. The TASE.1 operates in a connection mode so this A-profile interfaces to a transport-class profile of the T-profile variety.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 60870-6-701:2002](#)

<https://standards.iteh.ai/catalog/standards/sist/af468bd3-cfb6-4bdb-83e6-afc5fb6706e3/sist-en-60870-6-701-2002>

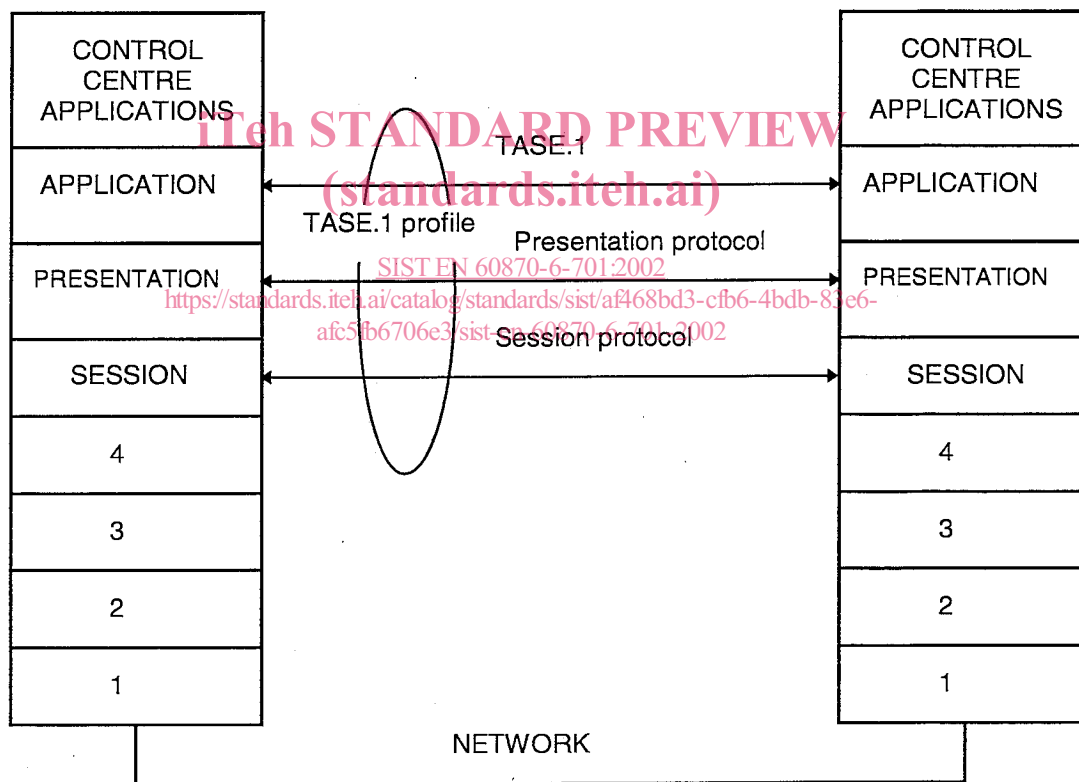
* The numbers in square brackets refer to the bibliography given in annex B.

TELECONTROL EQUIPMENT AND SYSTEMS –

Part 6-701: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – Functional profile for providing the TASE.1 application service in end systems

1 Scope

This part of IEC 60870 describes the functional profile (FP) which defines the provision of the TASE.1 communication services between two control centre end systems. This functional profile is supported by the transport services implemented in accordance with transport profiles defined for the type of network that interconnect the control centre end systems. Figure 1 illustrates the applicability of the functional profile.



IEC 1171/98

Figure 1 – Applicability of the functional profile

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60870. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60870 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.