SLOVENSKI STANDARD
SIST EN 60870-6-601:1997

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Telecontrol equipment and systems - Part 6: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - Section 601: Functional profile for providing the connection-oriented transport service in an end system connected via permanent access to a packet switched data network (IEC 870-6-601:1994)

Telecontrol equipment and systems -- Part 6: Telecontrol protocols compatible with ISO standards and ITU-T recommendations -- Section 601: Functional Profile for providing the Connection-Oriented Transport Service in End System connected via permanent access to a Packet Switched Data Network

Fernwirkeinrichtungen und -systeme -- Teil 6: Fernwirkprotokolle, die mit ISO-Normen und ITU-T-Empfehlungen kompatibel sind -- Hauptabschnitt 601: Funktionsprofil für den verbindungsorientierten Transportdienst in einem Endsystem mit Festlanschluß an ein paketvermittelndes Datennetz

Matériels et systèmes de téléconduite -- Partie 6: Protocoles de téléconduite compatibles avec les normes ISO et les recommandations de l'UIT-T -- Section 601: Profil fonctionnel pour fournir le service de transport en mode connexion dans un système d'extrémité connecté par un accès permanent à un réseau de commutation de paquets

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

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Foreword

The text of document 57(CO)74, future edition 1 of IEC 870-6-601, 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 60870-6-601 on 1995-02-15.

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) 1996-02-15
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-02-15

Endorsement notice

The text of the International Standard IEC 870-6-601:1994 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TELECONTROL EQUIPMENT AND SYSTEMS –

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FOREWORD

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3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.

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International Standard IEC 870-6-601 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:

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

IEC 870-6 is described in the introduction of *Part 6, Section 1: Application context and organization of standards.*

Annex A is for information only.

INTRODUCTION

This section of IEC 870-6 defines 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 Profile is fundamental in the organization of IEC 870-6. A description of Functional Profiles, their classification scheme, and the manner of defining them are laid down in Part 6, Section 1.

The present section is a Transport-class Profile providing the COnnection-mode Transport Service (COTS) over the COnnection-mode Network Service (CONS) for the specific case of permanent access to a Packet Switched Data Network (PSDN).

ISO defined a multi-part ISP for specification of COTS over CONS or CLNS profiles: the ISP 10609.

In the ISO taxonomy, it corresponds to Transport Profiles TB1111 for analog permanent access and TB1121 for digital permanent access to a PSDN.

It makes frequent reference to the International Standardized Profiles ISO/IEC ISP 10609-1, ISO/IEC ISP 10609-5 and ISO/IEC ISP 10609-9.

TELECONTROL EQUIPMENT AND SYSTEMS –

Part 6: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – Section 601: Functional Profile for providing the Connection-Oriented Transport Service in an End System connected via permanent access to a Packet Switched Data Network

1 Scope

This Functional Profile (FP) defines the provision of the OSI Connection-mode Transport Service between an End System ("The Reference End System") which uses a Permanent Analog or Digital Circuit to access a Packet Switched Data Network (PSDN) and another End System ("The Compatible End System") which is accessible, by permanent or switched methods, either directly from the same PSDN, or indirectly through the provided OSI Connection-mode Network Service.

This FP also defines the provision of the OSI Connection-mode Network Service between the Reference End System and the Compatible End System using the X.25 subnetwork procedures to a PSDN.

This FP is applicable to environments which support the OSI Network Service.

In the ISO taxonomy four options are defined as a function of the transport protocol classes operated:

- Group TB: includes transport protocol classes 0, 2 and 4,
- Group TC: includes transport protocol classes 0 and 2,
- Group TD: includes transport protocol class 0,
- Group TE: includes transport protocol class 2.

Implementation of the option TD (class 0 only) requires that the End System does not operate any of the multiplexing classes (class 2, 3, or 4) of the Transport Protocol procedures. Such End Systems will only interwork with End Systems that also implement class 0 Transport Protocol procedures. Implementation of the other options (groups TB, TC, TE) in one End System, enables that End System to interwork with any End System conforming to ISO 8073.

This FP recommends the implementation of classes 0, 2 and 4 in End Systems. In the ISO taxonomy such End Systems with permanent access to a PSDN are referenced with profiles TB1111 (for analog access) or TB1121 (for digital access).

NOTE – The FP specifies a set of protocols to be used in the Reference End System in order to provide the function defined above. It does not specify total End System capability. The requirements placed on an End System in this section of IEC 870-6 are solely those necessary for operation of the protocol set specified.