ICS 33.200 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2015

| STN | **Zariadenia a systémy diaľkového ovládania. Časť 6-802: Protokoly diaľkového ovládania kompatibilné s normami ISO a odporúčaniami ITU-T. Modely objektu TASE.2.** | **STN EN 60870-6-802**<br><br>33 4600 |
|---|---|---|

Telecontrol equipment and systems - Part 6-802: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - TASE.2 Object models

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/15

Obsahuje: EN 60870-6-802:2014, IEC 60870-6-802:2014

Oznámením tejto normy sa od 19.08.2017 ruší
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# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

**EN 60870-6-802**

October 2014

ICS 33.200

Supersedes EN 60870-6-802:2002

English Version

## Telecontrol equipment and systems - Part 6-802: Telecontrol protocols compatible with ISO standards and ITU-T recommendations - TASE.2 Object models (IEC 60870-6-802:2014)

Matériels et systèmes de téléconduite - Partie 6-802: Protocoles de téléconduite compatibles avec les normes ISO et les recommandations de l'UIT-T - Modèles d'objets TASE.2 (CEI 60870-6-802:2014)

Fernwirkeinrichtungen und -systeme - Teil 6-802: Fernwirkprotokolle, die mit ISO-Normen und ITU-T-Empfehlungen kompatibel sind - TASE.2-Objektmodelle (IEC 60870-6-802:2014)

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

The text of document 57/1455/FDIS, future edition 3 of IEC 60870-6-802, 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 60870-6-802:2014.

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| – latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2017-08-19 |

This document supersedes EN 60870-6-802:2002.

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.

## Endorsement notice

The text of the International Standard IEC 60870-6-802:2014 was approved by CENELEC as a European Standard without any modification.

# 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.

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60870-5-101 | 2003 | Telecontrol equipment and systems - Part 5-101: Transmission protocols - Companion standard for basic telecontrol tasks | EN 60870-5-101 | 2003 |
| IEC 60870-6-503 | 2014 | 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 | 2014 |
| 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 | - | - |

IEC 60870-6-802

Edition 3.0 2014-07

# INTERNATIONAL STANDARD

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IEC 60870-6-802:2014-07(en-fr)

# IEC 60870-6-802

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# Part 6-802: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – TASE.2 Object models

## FOREWORD

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International Standard IEC 60870-6-802 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

This third edition cancels and replaces the second edition published in 2002 and its amendment 1 (2005). This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

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

d) The MMS Mappings for Accounts, Programs, Event Enrollment and Event Condition objects have been changed from normative to informative.

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

| FDIS | Report on voting |
|---|---|
| 57/1455/FDIS | 57/1479/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

The primary purpose of Telecontrol Application Service Element (TASE.2) is to transfer data between control systems and to initiate control actions. Data is represented by object instances. This part of IEC 60870 proposes object models from which to define object instances. The object models represent objects for transfer. The local system may not maintain a copy of every attribute of an object instance.

The object models presented herein are specific to "control centre" or "utility" operations and applications; objects required to implement the TASE.2 protocol and services are found in IEC 60870-6-503. Since needs will vary, the object models presented here provide only a base; extensions or additional models may be necessary for two systems to exchange data not defined within this standard.

It is by definition that the attribute values (i.e. data) are managed by the owner (i.e. source) of an object instance. The method of acquiring the values is implementation dependent; therefore accuracy is a local matter.

The notation of the object modelling used for the objects specified in Clause 5 is defined in IEC 60870-6-503. This part of IEC 60870 is based on the TASE.2 services and protocol. To understand the modelling and semantics of this standard, some basic knowledge of IEC 60870-6-503 would be advisable.

The notation of the object modelling used for the objects specified in Clause B.2 is defined in IEC 60870-6-503. This part of IEC 60870-6 is based on the TASE.2 services and protocol. To understand the modelling and semantics of this part of IEC 60870-6, some basic knowledge of IEC 60870-6-503 would be advisable.

Clause 5 describes the control centre-specific object models and their application. They are intended to provide information to explain the function of the data.

Clause 6 defines a set of MMS type descriptions for use in exchanging the values of instances of the defined object models. It is important to note that not all attributes of the object models are mapped to types. Some attributes are described simply to define the processing required by the owner of the data and are never exchanged between control centres. Other attributes are used to determine the specific types of MMS variables used for the mapping, and therefore do not appear as exchanged values themselves. A single object model may also be mapped onto several distinct MMS variables, based on the type of access and the TASE.2 services required.

Clause 7 describes the mapping of instances of each object type MMS variables and named variable lists for implementing the exchange.

Clause 8 describes device-specific codes and semantics to be used with the general objects.

Clause 9 is the standards conformance table.

An informative Annex A is included which describes some typical interchange scheduling scenarios, along with the use of TASE.2 objects to implement the schedule exchange.

# TELECONTROL EQUIPMENT AND SYSTEMS –

# Part 6-802: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – TASE.2 Object models

## 1 Scope

This part of IEC 60870 specifies a method of exchanging time-critical control centre data through wide-area and local-area networks using a full ISO compliant protocol stack. It contains provisions for supporting both centralized and distributed architectures. The standard includes the exchange of real-time data indications, control operations, time series data, scheduling and accounting information, remote program control and event notification.

## 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.

IEC 60870-5-101:2003, *Telecontrol equipment and systems – Part 5-101: Transmission protocols – Companion standard for basic telecontrol tasks*

IEC 60870-6-503:2014, *Telecontrol equipment and systems – Part 6-503: Telecontrol protocols compatible with ISO standards and ITU-T recommendations – TASE.2 Services and protocol*

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*