SLOVENSKI STANDARD
SIST EN 61970-453:2014

01-september-2014

Nadomešča:
SIST EN 61970-453:2008

Aplikacijski programski vmesnik za sistem upravljanja z energijo (EMS-API) - 453. del: Profil razporeditve diagramov

Energy Management System Application Program Interface (EMS-API) - Part 453: Diagram Layout Profile

Interface de programmation d'application pour système de gestion d'énergie (EMS-API) - Partie 453: Profil de disposition du diagramme

Ta slovenski standard je istoveten z: **EN 61970-453:2014**

ICS:

29.240.30	Krmilna oprema za elektroenergetske sisteme	Control equipment for electric power systems
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

SIST EN 61970-453:2014 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61970-453

June 2014

ICS 33.200

Supersedes EN 61970-453:2008

English Version

Energy management system application program interface (EMS-API) - Part 453: Diagram layout profile (IEC 61970-453:2014)

Interface de programmation d'application pour système de gestion d'énergie (EMS-API) - Partie 453: Profil de disposition du diagramme (CEI 61970-453:2014)

Schnittstelle für Anwendungsprogramme für Netzführungssysteme (EMS-API) - Teil 453: Diagramm Entwurfsprofile (IEC 61970-453:2014)

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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 57/1409/FDIS, future edition 2 of IEC 61970-453, 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 61970-453:2014.

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)	2015-01-01
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-04-01

This document supersedes EN 61970-453:2008.

EN 61970-453:2014 includes the following significant technical changes with respect to EN 61970-453:2008:

a) The SVG elements and its data model have been replaced by the Diagram Layout Package, which is now an integral part of the IEC 61970-301 (CIM) model.

b) The exchange is in accordance with and is a part of the IEC 61970 profile concept.

c) A glue point object has been introduced to model explicit connections between graphics elements.

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Endorsement notice

The text of the International Standard IEC 61970-453:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61968-11	NOTE	Harmonised as EN 61968-11.
IEC 61970-1	NOTE	Harmonised as EN 61970-1.
IEC/TS 61970-2	NOTE	Harmonised as CLC/TS 61970-2.
IEC 61970-452	NOTE	Harmonised as EN 61970-452.

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

Publication	Year	Title	EN/HD	Year
IEC 60050	-	International Electrotechnical Vocabulary (IEV)	-	-
IEC 61970-301	-	Energy management system application program interface (EMS-API) - Part 301: Common information model (CIM) base	EN 61970-301	-
IEC 61970-501	-	Energy management system application program interface (EMS-API) - Part 501: Common Information Model Resource Description Framework (CIM RDF) schema	EN 61970-501	-
IEC/TR 62541-1	-	OPC unified architecture - Part 1: Overview and concepts	CLC/TR 62541-1	-

IEC 61970-453

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Energy management system application program interface (EMS-API) – Part 453: Diagram layout profile

Interface de programmation d'application pour système de gestion d'énergie (EMS-API) – Partie 453: Profil de disposition de diagramme

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ENERGY MANAGEMENT SYSTEM APPLICATION PROGRAM INTERFACE (EMS-API) –

Part 453: Diagram layout profile

FOREWORD

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International Standard IEC 61970-453 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 2008. This edition constitutes a technical revision.

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

a) The SVG elements and its data model have been replaced by the Diagram Layout Package, which is now an integral part of the IEC 61970-301 (CIM) model.
b) The exchange is in accordance with and is a part of the IEC 61970 profile concept.
c) A glue point object has been introduced to model explicit connections between graphics elements.

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

FDIS	Report on voting
57/1409/FDIS	57/1430/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 61970 series, published under the general title *Energy management system application program interface (EMS-API)*, 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This standard is part of the IEC 61970 series that define an application program interface (API[1]) for an Energy Management System (EMS[2]).

The IEC 61970-3x series specify a Common Information Model (CIM[3]): a logical view of the physical aspects of EMS information. The IEC 61970-3x series includes IEC 61970-301, *Common Information Model (CIM) Base*.

This standard is one of the IEC 61970-4x series that define utility control centre component interface specifications (CIS[4]). IEC 61970-4x specifies the functional requirements for interfaces that a component (or application) shall implement to exchange information with other components (or applications) and/or to access publicly available data in a standard way. The component interfaces describe the specific message contents and services that can be used by applications for this purpose. The implementation of these messages in a particular technology is described in the IEC 61970-5x series.

Energy Management Systems employ a variety of schematic and quasi-geographic presentations in their user interfaces. These are sometimes generated automatically, but more often are hand-drawn and require considerable labour to create and maintain. Most of this labour goes into the arrangement, or 'layout' of the power system elements within the overall diagram. When network models are exchanged, as defined in IEC 61970-452 and IEC 61968-13 standards, it is desirable to be able to exchange these layouts.

IEC 61970-453 specifies guidelines for the exchange of diagram layout information for schematic data that is encoded using IEC 61970-552.

1 Footnote 1 applies to the French version only.

2 Footnote 2 applies to the French version only.

3 Footnote 3 applies to the French version only.

4 Footnote 4 applies to the French version only.