

TECHNICAL SPECIFICATION

IEC TS 61970-2

First edition
2004-07

Energy management system application program interface (EMS-API) –

Part 2: Glossary

© IEC 2004 — Copyright - all rights reserved

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, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

R

For price, see current catalogue

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Glossary of abbreviations	11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2: Glossary

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical specification when

- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 61970-2, which is a technical specification, has been prepared by IEC Technical Committee 57: Power systems management and associated information exchange.

The specific standards documents for which this glossary applies are listed in IEC 61970-11.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
57/666/CDV	57/725/RVC

Full information on the voting for the approval of this technical specification 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.

IEC 61970 consists of the following parts, under the general title *Energy Management System Application Program Interface (EMS-API)*:

- Part 1: Guidelines and general requirements¹
- Part 2: Glossary
- Part 301: Common Information Model (CIM) Base
- Part 302: Common information model (CIM) financial, energy scheduling and reservations¹
- Part 401: Component Interface Specification (CIS) framework
- Part 402: Component Interface Specification (CIS) – Common services¹
- Part 403: Component Interface Specification (CIS) – Generic data access¹
- Part 404: Component Interface Specification (CIS) – High speed data access²
- Part 405: Component Interface Specification (CIS) – Generic eventing and subscription²
- Part 407: Component Interface Specification (CIS) – Time series data access²
- Part 453: Exchange of graphics schematics definitions (common graphics exchange)²
- Part 501: Common Information Model (CIM) XML codification for programmable reference and model data exchange²

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this Technical Specification may be issued at a later date.

¹ Under consideration.

² Under consideration.

INTRODUCTION

This Technical specification is part of the IEC 61970 series, which defines an Application Program Interface (API) for an Energy Management System (EMS). This standard is based upon the work of the EPRI Control Center API (CCAPI) research project (RP-3654-1). The principle objectives of the EPRI CCAPI project are to:

- reduce the cost and time needed to add new applications to an EMS;
- protect the investment in existing applications that are working effectively in an EMS.

The principal task of the CCAPI project is to develop a set of guidelines, or specifications, to enable the creation of “plug-in” applications³ in the control center environment.

This part of the IEC 61970 series provides a glossary of terms and abbreviations that are specific to the IEC 61970 series or may require interpretation as to how they were used in it.

³ A plug-in application is defined to be a piece of software that may be installed on a system with minimal effort and no modification of source code; i. e., the way software packages are installed on a desktop computer. The CCAPI Project goal is to at least approach that ideal by reducing the often significant efforts currently required to install third-party applications in an EMS.

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

Part 2: Glossary

1 Scope

This Technical specification provides a glossary for the volume of work produced as part of the IEC 61970 series of documents. Terms and abbreviations that are either specific to the series, or that require explanation because of the way that they are used in it, are supplied.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61970-1, *Energy Management System Application Program Interface (EMS-API) – Part 1: Guidelines and general requirements*