IEC 61968-13

Edition 2.0 2021-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Application integration at electric utilities – System interfaces for distribution management – Part 13: Common distribution power system model profiles

Intégration d'applications pour les services électriques – Interfaces système pour la gestion de la distribution – Partie 13: Profils de modèle commun de système électrique de distribution

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CONTENTS

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APPLICATION INTEGRATION AT ELECTRIC UTILITIES – SYSTEM INTERFACES FOR DISTRIBUTION MANAGEMENT –

Part 13: Common distribution power system model profiles

FOREWORD

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International Standard IEC 61968-13 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 was pre-tested during 2016 ENTSO-E interoperability tests [1][1]. The interoperability test report mentions: "Some vendors demonstrated that the transformation between distribution network and CGMES is possible. This is a first step towards the efforts to have closer integration between CGMES and profiles for exchanging distribution data (CDPSM)."

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1 Numbers in square brackets refer to the bibliography.

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

a) Alignment with "CIM100" UML version fixed in July 2018:
iec61970cim17v24_iec61968cim13v05_iec62325cim03v14.eap
Namespace associated to this version was: http://iec.ch/TC57/2017/CIM-schema-cim100#

b) Test of Data Sets against "CIM100" version given in a).

c) Test of Data Sets against a newer "CIM100" version of May 2019:
iec61970cim17v34_iec61968cim13v12_iec62325cim03v17a.eap
Namespace associated to this version was: http://iec.ch/TC57/CIM100#

d) Alignment with "CIM100" after CDV stage in order to align 61968-13 with the latest CIM version iec61970cim17v38_iec61968cim13v12_iec62325cim03v17a. A new alignment was done in March/April 2020 on a new CIM100:
iec61970cim17v38_iec62968cim13v13_iec62325cim03v17a.eap. This document has been properly updated with latest developments to minimize the need for any convergence.

e) Test of Data Sets were validated against the profiles derived from these two newer versions of CIM100 in order to guarantee consistency. Validation include syntax validation, and load flow calculation.

f) Informative extensions included (NEK, EDF) which are based on some utility needs, which shall be discussed and which could be integrated in the IEC CIM model. These extensions have been put in a dedicated annex. These extensions will be discussed in IEC TC 57, and eventually be put in the official CIM Model. These extensions are managed through specific namespaces and do not block any interoperability test. Amendments to IEC 61968-13 or new parts to IEC 61968-13 will potentially address these "extensions" in the near future (when integrated into the IEC CIM Model).

g) Namespaces and associated URI modified.

h) Use of last CIM Feeder modelling and unbalanced networks modelling artefacts.

i) New annex illustrating CDPSM usage by EDF in H2020 TDX-ASSIST European project.

j) New annex illustrating CDPSM usage by the Norwegian AutoFOS project. The extension is governed by the Norwegian National Committee (NEK).

k) New paragraph and annex illustrating Observability Area concept.

l) Tools that were used are MODSARUS®[2] (Copyright © 2019, EDF R&D contact: modsarus@edf.fr) for Use Case definition (according to IEC 62559-2, IEC SRD 62913-1 methodology) and CDPSM UML profiling. Riseclipse tool was used for Data Set Validation (RiseClipse Web https://rise-clipse.pam-retd.fr/ Rise Clipse Code: https://wdi.supelec.fr/software/RiseClipse/). CIMTool (https://wiki.cimtool.org/) was also used to verify tools compatibility (profiling and data set validation). A modified version of jCleanCim (http://www.tanjakostic.org/jCleanCim/) was used to generate this documentation. Other tools like CimConteXtor and CimSyntaxGen could be used to produce the profiles and documentation. (https://www.cimcontextor.net/).

m) Replacement of Figure 6 on Network Model Management. Introduction of a new informative annex on CDPSM to CGMES conversion, replacing Figure 7 of the CDV document.

2 MODSARUS is the trademark of a product supplied by EDF. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
57/2311/FDIS	57/2336/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61968 series, published under the general title *Application integration at electric utilities – System interfaces for distribution management*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
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