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1997-04-01

Information technology — Open Systems Interconnection — Systems Management: Summarization Function

AMENDMENT 1: Implementation
conformance statement proformas

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*Technologies de l'information — Interconnexion de systèmes
ouverts (OSI) — Gestion-systèmes: Fonction de résumé*

ISO/IEC 10164-13:1995/Amd 1:1997

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AMENDEMENT 1: Proformes de déclaration de conformité de mise en
œuvre



Reference number
ISO/IEC 10164-13:1995/Amd.1:1997(E)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Amendment 1 to International Standard ISO/IEC 10164-13:1995 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*, in collaboration with ITU-T. The identical text is published as ITU-T Rec. X.738/Amd.1.

ISO/IEC 10164-13:1995/Amd 1:1997
<https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997>

Introduction

ITU-T Rec. X.738 | ISO/IEC 10164-13 provides many possible options for implementors to choose from in the development of a product. This means that an Operations System (OS) product from one vendor needing to interwork with an OS product from another vendor must be developed to some common and explicit agreement both developers use concerning the actual options to be developed in their software products for X.738-based messages. This amendment provides a means to specify message options in such a way that the later documentation of actual options chosen for a product can be more explicit. The result is that the time to carry out interoperability tests between an OS from one vendor and an OS from another vendor may be reduced because product developers can be provided with more explicit message specification.

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INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: SUMMARIZATION FUNCTION

AMENDMENT 1

Implementation conformance statement proformas

1) Subclause 2.1

Add the following reference:

- ITU-T Recommendation X.724 (1993) | ISO/IEC 10165-6:1994, *Information technology – Open Systems Interconnection – Structure of management information: Requirements and guidelines for implementation conformance statement proformas associated with OSI management* .”

2) Subclause 2.2

Add the following references:

- CCITT Recommendation X.291 (1992), *OSI conformance testing methodology and framework for protocol Recommendations for CCITT applications – Abstract test suite specification*.
ISO/IEC 9646-2:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstract test suite specification*.
- ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements*.
ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements*.”

3) Subclause 3.3

Insert the following terms:

- e) Managed Object Conformance Statement (MOCS);
- f) Management Information Conformance Statement (MICS);
- k) MICS proforma;
- l) MOCS proforma.”

Delete items c): “dependent conformance and d): “general conformance”.

Relabel the list items and re-arrange the list in alphabetic order.

4) Subclause 3.7

Add the following terms:

- b) PICS proforma;
- c) protocol implementation conformance statement.”

Replace the dash “–” of the term “alarm” with “a)”.

5) Subclause 3.9

Add the following new subclause, immediately after 3.8:

“3.9 Implementation conformance statement proforma definitions

This Recommendation | International Standard makes use of the following terms defined in ITU-T Rec. X.724 | ISO/IEC 10165-6:

- a) Management Conformance Summary (MCS);
- b) Managed Relationship Conformance Statement (MRCS);
- c) MCS proforma;
- d) MRCS proforma.”

The subclauses which follow the new subclause 3.9 should be renumbered accordingly.

6) Clause 4

Insert the following abbreviations in the existing list of abbreviations, by alphabetical order:

“ICS	Implementation Conformance Statement
MCS	Management Conformance Summary
MICS	Management Information Conformance Statement
MIDS	Management Information Definition Statement
MRCS	Managed Relationship Conformance Statement”

<https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997>

7) Clause 13

Replace clause 13 by the following:

“13 Conformance

Implementations claiming to conform to this Recommendation | International Standard shall comply with the conformance requirements as defined in the following subclauses.

13.1 Static conformance

The implementation shall conform to the requirements of this Recommendation | International Standard in the manager role, the agent role, or both roles. A claim of conformance to at least one role shall be made in Table B.1.

If a claim of conformance is made for support in the manager role, the implementation shall support at least one management operation or notification or action of the managed objects specified by this Recommendation | International Standard. The conformance requirements in the manager role for those management operations and notifications and actions are identified in Table B.3 and further tables referenced by Annex B.

If a claim of conformance is made for support in the agent role, the implementation shall support one or more instances of the managed object classes identified in Table B.4 and further tables referenced by Annex B.

The implementation shall support the transfer syntax derived from the encoding rules specified in CCITT Rec. X.209 | ISO/IEC 8825 named {joint-iso-ccitt asn1(1) basicEncoding(1)} for the abstract data types referenced by the definitions for which support is claimed.

13.2 Dynamic conformance

Implementations claiming to conform to this Recommendation | International Standard shall support the elements of procedure and definitions of semantics corresponding to the definitions for which support is claimed.

13.3 Management implementation conformance statement requirements

Any MCS proforma, MICS proforma, MOCS proforma, and MRCS proforma which conforms to this Recommendation | International Standard shall be technically identical to the proformas specified in Annex B through Annex O preserving table numbering and the index numbers of items, and differing only in pagination and page headers.

The supplier of an implementation which is claimed to conform to this Recommendation | International Standard shall complete a copy of the Management Conformance Summary (MCS) provided in Annex B as part of the conformance requirements together with any other ICS proformas referenced as applicable from that MCS. A ICS which conforms to this Recommendation | International Standard shall:

- describe an implementation which conforms to this Recommendation | International Standard;
- have been completed in accordance with the instructions for completion given in ITU-T Rec. X.724 | ISO/IEC 10165-6;
- include the information necessary to uniquely identify both the supplier and the implementation.

Claims of conformance to the management information defined in this Recommendation | International Standard in managed object classes defined elsewhere shall include the requirements of the MIDS proforma in the MOCS proforma for the managed object class.”

8) New annexes

Add the following new annexes immediately after Annex A:

[ISO/IEC 10164-13:1995/Amd 1:1997](https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997)
<https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997>

Annex B

MCS proforma¹⁾

(This annex forms an integral part of this Recommendation | International Standard)

B.1 Introduction

B.1.1 Purpose and structure

The Management Conformance Summary (MCS) is a statement by a supplier that identifies an implementation and provides information on whether the implementation claims conformance to any of the listed set of documents that specify conformance requirements to OSI management.

The MCS proforma is a document, in the form of a questionnaire that when completed by the supplier of an implementation becomes the MCS.

B.1.2 Instructions for completing the MCS proforma to produce an MCS²⁾

The supplier of the implementation shall enter an explicit statement in each of the boxes provided. Specific instruction is provided in the text which precedes each table.

B.1.3 Symbols, abbreviations and terms

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 and ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Status column:

- m Mandatory;
- o Optional;
- c Conditional;
- x Prohibited;
- Not applicable or out of scope.

NOTES

- 1 ‘c’, ‘m’, and ‘o’ are prefixed by a ‘c’ when nested under a conditional or optional item of the same table.
- 2 ‘o’ may be suffixed by ‘/N’ (where N is a unique number) for mutually exclusive or selectable options among a set of status values. Support of at least one of the choices (from the items with the same values of N) is required.

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 and ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Support column:

- Y Implemented;
- N Not implemented;
- No answer required;
- Ig The item is ignored (i.e. processed syntactically but not semantically).

B.1.4 Table format

Some of the tables in this Recommendation | International Standard have been split because the information is too wide to fit on the page. Where this occurs, the index number of the first block of columns are the index numbers of the corresponding rows of the remaining blocks of columns. A complete table reconstructed from the constituent parts should have the following layout:

Index	First block of columns	Second block of columns	Etc.
-------	------------------------	-------------------------	------

In this Recommendation | International Standard the constituent parts of the table appear consecutively, starting with the first block of columns.

1) Copyright release for MCS proforma

Users of this Recommendation | International Standard may freely reproduce the MCS proforma in this annex so that it can be used for its intended purpose, and may further publish the completed MCS.

2) Instructions for completing the MCS proforma are specified in ITU-T Rec. X.724 | ISO/IEC 10165-6.

When a table with sub-rows is too wide to fit on a page, the continuation tables(s) have been constructed with index numbers identical to the index numbers in the corresponding rows of the first table, and with sub-index numbers corresponding to the sub-rows within each indexed row. For example, if Table X.1 has 2 rows and the continuation of Table X.1 has 2 sub-rows for each row, the tables are presented as follows.

Table X.1 – Title

Index	A	B	C	D	Support		G
					E	F	
1	a	b	–				
2	a	b	–				

Table X.1 (continued) – Title

Index	Subindex	H	I	J	K	L
1	1.1	h	i	j		
	1.2	h	i	j		
2	2.1	h	i	j		
	2.2	h	i	j		

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A complete table reconstructed from the constituent parts should have the following layout:

[ISO/IEC 10164-13:1995/Amd 1:1997](https://standards.itech.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997)

<https://standards.itech.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997>

Index	A	B	C	D	E	F	G	Support		H	I	J	K	L
								Subindex						
1	a	b	–					1.1		h	i	j		
								1.2		h	i	j		
2	a	b	–					2.1		h	i	j		
								2.2		h	i	j		

References made to cells within tables shall be interpreted as references within reconstructed tabled. In the example, above, the reference X.1/1d corresponds to the blank cell in the column G for row with Index 1, and X.1/1.2b corresponds to the blank cell in column L for row with Sub-index 1.2.

B.2 Identification of the implementation

B.2.1 Date of statement

The supplier of the implementation shall enter the date of this statement in the box below. Use the format DD-MM-YYYY.

Date of statement

B.2.2 Identification of the implementation

The supplier of the implementation shall enter information necessary to uniquely identify the implementation and the system(s) in which it may reside, in the box below.

B.2.3 Contact

The supplier of the implementation shall provide information on whom to contact if there are any queries concerning the content of the MCS, in the box below.

B.3 Identification of the Recommendation | International Standard in which the management information is defined

The supplier of the implementation shall enter the title, reference number and date of the publication of the Recommendation | International Standard which specifies the management information to which conformance is claimed, in the box below.

<https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-43bc-b9f1-2e2e9b7e0e9/iso-iec-10164-13-1995-amd-1-1997>

Recommendation | International Standard to which conformance is claimed

B.3.1 Technical corrigenda implemented

The supplier of the implementation shall enter the reference numbers of implemented technical corrigenda which modify the identified Recommendation | International Standard, in the box below.

B.3.2 Amendments implemented

The supplier of the implementation shall state the titles and reference numbers of implemented amendments to the identified Recommendation | International Standard, in the box below.

B.4 Management conformance summary

The supplier of implementation shall state the capabilities and features supported and provide summary of conformance claims to Recommendations | International Standards using the tables in this annex.

The supplier of the implementation shall specify the roles that are supported, in Table B.1.

Table B.1 – Roles

Index	Roles supported	Status	Support	Additional information
1	Manager role support	o.1		
2	Agent role support	o.1		

The supplier of the implementation shall specify support for the systems management functional units in Table B.2.

Table B.2 – Systems management functional units

Index	Capability	Manager		Agent		Additional information
		Status	Support	Status	Support	
1	Scan stimulation functional unit	c1		c2		
2	Summarization event reporting functional unit	c1		c2		
c1: if B.1/1a then o else –						
c2: if B.1/2a then o else –						

The supplier of the implementation shall specify support for management information in the manager role, in Table B.3.

Table B.3 – Manager role minimum conformance requirement
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Index	Item	Status	Support	Additional information
1	Operations on managed objects	c3		
2	Buffered scan report notification	c4		
3	Scan report notification	c4		
4	Statistical report notification	c4		
5	Activate dynamic simple scan report action	c5		
6	Activate scan report action	c5		
7	Activate statistical report action	c5		
8	Report buffer action	c5		
9	Object creation notification from at least one summarization managed objects	c3		
10	Object deletion notification from at least one summarization managed objects	c3		
11	Attribute value change notification from at least summarization managed objects	c3		
12	State change notification from at least one summarization managed objects	c3		
c3: if B.1/1a then o.2 else –				
c4: if B.2/2a then o.3 else (if B.1/1a then o.2 else –)				
c5: if B.2/1a then o.4 else (if B.1/1a then o.2 else –)				

The supplier of the implementation shall specify support for management information in the agent role, in Table B.4.

Table B.4 – Agent role minimum conformance requirement

Index	Item	Status	Support	Additional information
1	Heterogeneous scanner managed object	c6		
2	Buffered scanner managed object	c6		
3	Simple scanner managed object	c6		
4	Mean scanner managed object	c6		
5	Mean variance scanner managed object	c6		
6	Min max scanner managed object	c6		
7	Percentile scanner managed object	c6		
8	Dynamic simple scanner managed object	c6		
c6: if B.1/2a then o.5 else –				

Table B.5 – Logging of event records

Index		Status	Support	Additional information
1	Does the implementation support logging of event records in agent role?	c7		
c7: if B.1/2a then o else –				

NOTE 1 – Conformance to this Recommendation | International Standard does not require conformance to CCITT Rec. X.735 | ISO/IEC 10164-6. <https://standards.iteh.ai/catalog/standards/sist/c2ae417c-8d75-436c-b911-f2c2c9b7e0c9/iso-iec-10164-13-1995-amd-1-1997>

The supplier of the implementation shall provide information on claims of conformance to any of the Recommendation | International Standards summarized in Tables B.6 to B.9. For each Recommendation | International Standard that the supplier of the implementation claims conformance to, the corresponding conformance statement(s) shall be completed, or referenced by, the MCS. The supplier of the implementation shall complete the Support, Table numbers and Additional information columns.

In Tables B.6 to B.9, the Status column is used to indicate whether the supplier of the implementation is required to complete the referenced tables or referenced items. Conformance requirements are as specified in the referenced tables or referenced items and are not changed by the value of the MCS Status column. Similarly, the Support column is used by the supplier of the implementation to indicate completion of the referenced tables or referenced items.

NOTE 2 – Conformance to the MAPDUs defined in this Recommendation | International Standard can be claimed by completing the corresponding tables in the MICS and MOCS annexes of the referenced Recommendation | International Standard.

Table B.6 – PICS support summary

Index	Identification of the document that includes the PICS proforma	Table numbers of PICS proforma	Description	Constraints and values	Status	Support	Table numbers of PICS	Additional information
1	CCITT Rec. X.730 ISO/IEC 10164-1	Annex E all tables	Systems management application context	–	o ^{a)}			
a) The supplier of implementation shall indicate the application contexts supported.								

Table B.7 – MOCS support summary

Index	Identification of the document that includes the MOCS proforma	Table numbers of MOCS proforma	Description	Constraints and values	Status	Support	Table number of MOCS	Additional information
1	CCITT Rec. X.730 ISO/IEC 10164-1	Annex C all tables	objectCreation objectDeletion attributeValue Change records	–	c8			
2	CCITT Rec. X.731 ISO/IEC 10164-2	Annex C all tables	stateChange Record	–	c8			
3	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex D all tables	heterogeneous Scanner	–	c9			
4	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex E all tables	bufferedScanner	–	c10			
5	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex F all tables	simpleScanner	–	c11			
6	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex G all tables	meanScanner	–	c12			
7	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex H all tables	meanVariance Scanner	–	c13			
8	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex I all tables	minMaxScanner	–	c14			
9	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex J all tables	percentileScanner	–	c15			
10	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex K all tables	dynamicSimple Scanner	–	c16			
11	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex L all tables	bufferedScan ReportRecord	–	c17			
12	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex M all tables	scanReportRecord	–	c18			
13	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex N all tables	statisticalReport Record	–	c19			
c8: if (B.4/1a or B.4/2a or B.4/3a or B.4/4a or B.4/5a or B.4/6a or B.4/7a) and B.5/1a then m else – c9: if B.4/1a then m else – c10: if B.4/2a then m else – c11: if B.4/3a then m else – c12: if B.4/4a then m else – c13: if B.4/5a then m else – c14: if B.4/6a then m else – c15: if B.4/7a then m else – c16: if B.4/8a then m else – c17: if B.1/2a and B.4/2a and B.5/1a then m else – c18: if B.1/2a and (B.4/1a or B.4/3a) and B.5/1a then m else – c19: if B.1/2a and (B.4/4a or B.4/5a or B.4/6a or B.4/7a) and B.5/1a then m else –								