

INTERNATIONAL STANDARDIZED PROFILE

ISO/IEC
ISP
12059-6

First edition
1995-12-15

Information technology — International Standardized Profiles — OSI Management — Common information for management functions —

Part 6:

Log control

*Technologies de l'information — Profils normalisés internationaux —
Gestion OSI — Information courante pour fonctions de gestion —*

Partie 6: Commande logarithmique



Reference number
ISO/IEC ISP 12059-6:1995(E)
AVA Documents
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Printed in Switzerland.

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. In addition to developing International Standards, ISO/IEC JTC 1 has created a special group on Functional Standardization for the elaboration of International Standardized Profiles.

An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75 % of the national bodies casting a vote.

International Standardized Profile ISO/IEC ISP 12059-6 was prepared with the collaboration of

- Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS);
- Open Systems Environment Implementors' Workshop (OIW).

ISO/IEC ISP 12059 consists of the following parts, under the general title *Information technology - International Standardized Profiles - OSI Management - Common information for management functions*:

- *Part 0: Common definitions for management function profiles*
- *Part 1: Object management*
- *Part 2: State management*
- *Part 3: Attributes for representing relationships*
- *Part 4: Alarm reporting*
- *Part 5: Event report management*
- *Part 6: Log control*

Annexes A and B form an integral part of this part of ISO/IEC ISP 12059.

Information technology - International Standardized Profiles - OSI Management - Common information for management functions -

Part 6:

Log control

1 Scope

1.1 General

This part of ISO/IEC ISP 12059 is based on CCITT Rec. X.735 | ISO/IEC 10164-6, Log control function. Each part of ISO/IEC ISP 12059 is a building block, containing a subset of system management function capability, and is used by ISO/IEC ISP 12060 parts to build interoperable profile specifications.

1.2 Position within the Taxonomy

This part of ISO/IEC ISP 12059 may be referenced by parts of ISO/IEC ISP 12060 for the specification of management function profiles. The position of this part of ISO/IEC ISP 12059 within the taxonomy is described in ISO/IEC ISP 12059-0.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12059. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this part of ISO/IEC ISP 12059 are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by ISPs to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and ITU-T maintains published editions of its current Recommendations.

2.1 Identical CCITT Recommendations | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model*.
- CCITT Recommendation X.701 (1992) | ISO/IEC 10040:1992, *Information technology - Open Systems Interconnection - Systems management overview*.
- CCITT Recommendation X.720 (1992) | ISO/IEC 10165-1:1993, *Information technology - Open Systems Interconnection - Structure of management information: Management information model*.
- CCITT Recommendation X.721 (1993) | ISO/IEC 10165-2:1992, *Information technology - Open Systems Interconnection - Structure of management information: Definition of management information*.
- CCITT Recommendation X.722 (1992) | ISO/IEC 10165-4:1992, *Information technology - Open Systems Interconnection - Structure of management information: Guidelines for the definition of managed objects*.
- CCITT 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*.

- CCITT Recommendation X.730 (1992) | ISO/IEC 10164-1:1993, *Information technology - Open Systems Interconnection - Systems Management: Object management function.*
- CCITT Recommendation X.731 (1992) | ISO/IEC 10164-2:1993, *Information technology - Open Systems Interconnection - Systems Management: State management function.*
- CCITT Recommendation X.733 (1992) | ISO/IEC 10164-4:1992, *Information technology - Open Systems Interconnection - Systems Management: Alarm reporting function.*
- CCITT Recommendation X.734 (1992) | ISO/IEC 10164-5:1993, *Information technology - Open Systems Interconnection - Systems Management: Event report management function.*
- CCITT Recommendation X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology - Open Systems Interconnection - Systems Management: Log control function.*
- CCITT Recommendation X.736 (1992) | ISO/IEC 10164-7:1992, *Information technology - Open Systems Interconnection - Systems Management: Security alarm reporting function.*

2.2 Paired CCITT/ITU-T Recommendations | International Standards equivalent in technical content

- CCITT Recommendation X.208 (1988), *Specification of abstract syntax notation one (ASN.1).*
ISO/IEC 8824:1990, *Information technology - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1).*
- CCITT Recommendation X.290 (1992), *OSI Conformance testing methodology and framework for protocol recommendations for CCITT applications - General concepts.*
ISO/IEC 9646-1:1994, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts.*
- 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.296¹⁾, *OSI conformance testing methodology and framework - Implementation Conformance Statements.*
ISO/IEC 9646-7:1995, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework: Implementation conformance statements.*
- CCITT Recommendation X.700 (1992), *Management Framework Definition for Open Systems Interconnection (OSI) for CCITT applications.*
ISO/IEC 7498-4:1989, *Information technology - Open Systems Interconnection - Basic Reference Model - Part 4: Management Framework.*
- CCITT Recommendation X.710 (1991), *Common management information service definition for CCITT applications.*
ISO/IEC 9595:1991, *Information technology - Open Systems Interconnection - Common management information service definition.*

2.3 Additional references

- ISO/IEC 9545:1994, *Information technology - Open Systems Interconnection - Application Layer structure.*
- ISO/IEC TR 10000-1:1990²⁾, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework.*
- ISO/IEC TR 10000-2:1994²⁾, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and Taxonomy for OSI Profiles.*

1) Currently at stage of Draft Recommendation.

2) Under revision.

- ISO/IEC ISP 12059-0:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 0: Common definitions for management function profiles.*
- ISO/IEC ISP 12059-1:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 1: Object management.*
- ISO/IEC ISP 12059-2:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 2: State management.*
- ISO/IEC ISP 12059-4:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 4: Alarm reporting.*

3 Definitions

The terms used in this part of ISO/IEC ISP 12059 are defined in the referenced base standards.

4 Abbreviations

The abbreviations used in this part of ISO/IEC ISP 12059 are specified in ISO/IEC ISP 12059-0.

5 Conventions

5.1 Common conventions

The common conventions used in this part of ISO/IEC ISP 12059 are specified in ISO/IEC ISP 12059-0.

5.2 Document specific conventions

The following conditions are specified in the referenced base standard and used in this part of ISO/IEC ISP 12059:

- 6B/cn See CCITT Rec. X.735 | ISO/IEC 10164-6, Annex B, condition cn .
- 6C/cn See CCITT Rec. X.735 | ISO/IEC 10164-6, Annex C, condition cn .

6 Conformance requirements

This part of ISO/IEC ISP 12059 is referenced by parts of ISO/IEC ISP 12060. Those parts of ISO/IEC ISP 12060 that reference this part of ISO/IEC ISP 12059 each define the requirements for a particular AOM2xx profile, and state the conformance requirements for that profile.

Annex A

(normative)

ISPICS Requirements List (IPRL) for Log control

The following clarifies, where necessary, the column headings used in the IPRLs in this annex.

Index:	The row index of this item in the referenced ICS proforma.
Constraints and values:	Base standard constraints or any additional constraints defined in the common profile for this item.
Base Std:	The status value of the item as defined in the base standard.
Common Profile:	Common profile requirements defined for this item (relevant to any profile referencing this table).

The notation used in this annex is identified in clause 5t. The parameter names are those which are specified in CCITT Rec. X.735 | ISO/IEC 10164-6 and CCITT Rec. X.721 | ISO/IEC 10165-2.

A.1 Manager/Agent role

Table A.1 is based on Table B.4 of CCITT Rec. X.735 | ISO/IEC 10164-6 DAM 1.

Table A.1 – Management role support

Index	Systems management functional unit	Manager		Agent		Additional information
		Base Std.	Common Profile	Base Std.	Common Profile	
1	monitor log	6B/c2	o.1	6B/c2	o.1	
2	log control	6B/c2	o.1	6B/c2	o.1	

A.2 MAPDU support

Table A.2 is based on Table B.5 of CCITT Rec. X.735 | ISO/IEC 10164-6 DAM 1.

Table A.2 – Log control MAPDUs

Index	MAPDU (agent sending) (manager receiving)	Base Std.	Common Profile	Additional information
1	objectCreation (agent sending)	6B/c3	6B/c3	
2	objectDeletion (agent sending)	6B/c3	6B/c3	
3	attributeValueChange (agent sending)	6B/c3	6B/c3	
4	stateChange (agent sending)	6B/c3	6B/c3	
5	processingErrorAlarm (agent sending)	6B/c3	6B/c3	
6	objectCreation (manager receiving)	6B/c4	6B/c4	
7	objectDeletion (manager receiving)	6B/c4	6B/c4	
8	attributeValueChange (manager receiving)	6B/c4	6B/c4	
9	stateChange (manager receiving)	6B/c4	6B/c4	
10	processingErrorAlarm (manager receiving)	6B/c4	6B/c4	

A.2.1 Object creation notification

The requirements are specified in Annex A of ISO/IEC ISP 12059-1: Object Management.

No object specific notification parameters are specified beyond the requirements stated in ISO/IEC 12059-1.

A.2.2 Object deletion notification

The requirements are specified in Annex A of ISO/IEC ISP 12059-1: Object Management.
No object specific notification parameters are specified beyond the requirements stated in ISO/IEC ISP 12059-1.

A.2.3 Attribute value change notification

The requirements are specified in Annex A of ISO/IEC ISP 12059-1: Object Management.
No object specific notification parameters are specified beyond the requirements stated in ISO/IEC ISP 12059-1.

A.2.4 State change notification

The requirements are specified in Annex A of ISO/IEC ISP 12059-2: State Management.
No object specific notification parameters are specified beyond the requirements stated in ISO/IEC ISP 12059-2.

A.2.5 Processing error alarm notification

The requirements are specified in Annex A of ISO/IEC ISP 12059-4: Alarm Reporting.
The following additional restrictions on parameter support are specified by this part of ISO/IEC ISP 12059:
Table A.3 is based on Table B.12 of CCITT Rec. X.733 | ISO/IEC 10164-4 DAM 1.

Table A.3 – Processing error alarm MAPDU (Agent sending) - AlarmInfo

Index	Parameter name	Constraints and values	12059 - 4 Common Profile	12059 - 6 Common Profile	Additional information
7	thresholdInfo	for threshold attributes	oc22	mc22	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	

c22 is defined in ISO/IEC ISP 12059-4.
c24 is defined in ISO/IEC ISP 12059-4.

A.3 Managed object support

A.3.1 Introduction

The following MOCS tables define the requirements for the log managed object class and the event log record managed object class.

A.3.2 Log managed object class

A.3.2.1 Log packages support

Table A.4 is based on Table C.3 of CCITT Rec. X.735 | ISO/IEC 10164-6 DAM 1.

Table A.4 – Log packages

Index	Package template label	Value of object identifier for package	Constraints and values	Base Std.	Common Profile	Additional information
1	topPackage	-	-	m	m	
2	packagesPackage	{dmi-pkg 16 }	-	6C/c1	6C/c1	
3	allomorphicPackage	{dmi-pkg 17 }	-	6C/c2	6C/c2	
4	logPackage	-	-	m	m	
5	finiteLogSizePackage	{dmi-pkg 12 }	-	o	o	
6	logAlarmPackage	{dmi-pkg 13 }	-	o	o	
7	availabilityStatusPackage	{dmi-pkg 22 }	-	6C/c3	6C/c3	
8	durationPackage	{dmi-pkg 26 }	-	o	o	
9	dailySchedulingPackage	{dmi-pkg 25 }	-	o	o	
10	weeklySchedulingPackage	{dmi-pkg 29 }	-	o	o	
11	externalSchedulerPackage	{dmi-pkg 27 }	-	o	o	

A.3.2.2 Log attributes support

Table A.5 is based on Table C.4 of CCITT Rec. X.735 | ISO/IEC 10164-6 DAM 1.

Table A.5 – Log attributes

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by Create		Get		Replace	
				Base Std.	Common Profile	Base Std.	Common Profile	Base Std.	Common Profile
1	objectClass	{dmi-att 65 }	-	m	m	m	m	-	-
2	nameBinding	{dmi-att 63 }	-	m	m	m	m	-	-
3	packages	{dmi-att 66 }	-	6C/c4	6C/c4	6C/c4	6C/c4	-	-
4	allomorphs	{dmi-att 50 }	-	6C/c5	6C/c5	6C/c5	6C/c5	-	-
5	logId	{dmi-att 2 }	-	o	m	m	m	-	-
6	discriminatorConstruct	{dmi-att 56 }	see A.3.2.4	m	m	m	m	m	m
7	administrativeState	{dmi-att 31 }	-	m	m	m	m	m	m
8	operationalState	{dmi-att 35 }	-	x	x	m	m	x	x
9	availabilityStatus	{dmi-att 33 }	Permitted: Log availability Required: Unsched log availability If A.4/7 off-duty required	x	x	m	m	x	x
10	logFullAction	{dmi-att 58 }	"wrap" and "halt"	m	m	m	m	m	m
11	maxLogSize	{dmi-att 62 }	-	6C/c6	6C/c6	6C/c6	6C/c6	6C/c6	6C/c6
12	currentLogSize	{dmi-att 54 }	-	-	-	6C/c6	6C/c6	-	-
13	numberOfRecords	{dmi-att 64 }	-	-	-	6C/c6	6C/c6	-	-
14	capacityAlarmThreshold	{dmi-att 52 }	set of integer (0:100) treat as counter threshold	6C/c7	6C/c7	6C/c7	6C/c7	6C/c7	6C/c7
15	startTime	{dmi-att 68 }	-	6C/c8	6C/c8	6C/c8	6C/c8	6C/c8	6C/c8
16	stopTime	{dmi-att 69 }	DMI default	6C/c8	6C/c8	6C/c8	6C/c8	6C/c8	6C/c8
17	intervalsOfDay	{dmi-att 57 }	DMI default	6C/c9	6C/c9	6C/c9	6C/c9	6C/c9	6C/c9
18	weekMask	{dmi-att 71 }	DMI default	6C/c10	6C/c10	6C/c10	6C/c10	6C/c10	6C/c10
19	schedulerName	{dmi-att 67 }	-	o	6C/c11	6C/c11	6C/c11	x	x

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Table A.5 (concluded) – Log attributes

Index	Add		Remove		Set To Default		Additional information
	Base Std.	Common Profile	Base Std.	Common Profile	Base Std.	Common Profile	
1	-	-	-	-	-	-	
2	-	-	-	-	-	-	
3	-	-	-	-	-	-	
4	-	-	-	-	-	-	
5	-	-	-	-	-	-	
6	-	-	-	-	m	m	
7	-	-	-	-	-	-	
8	-	-	-	-	-	-	
9	x	x	x	x	-	-	
10	-	-	-	-	-	-	
11	-	-	-	-	-	-	
12	-	-	-	-	-	-	
13	-	-	-	-	-	-	
14	6C/c7	6C/c7	6C/c7	6C/c7	-	-	
15	-	-	-	-	-	-	
16	-	-	-	-	6C/c8	6C/c8	
17	6C/c9	6C/c9	6C/c9	6C/c9	6C/c9	6C/c9	
18	6C/c10	6C/c10	6C/c10	6C/c10	6C/c10	6C/c10	
19	-	-	-	-	-	-	

A.3.2.3 Log notifications support

Table A.6 is based on Table C.5 of CCITT Rec. X.735 | ISO/IEC 10164-6 DAM 1.

Table A.6 - Log object notifications

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Base Std.	Common Profile		Additional information
					Con-firmed	Non-con-firmed	
1	stateChange	{ dmi-not 14 }	-	m	o.11	o.11	
2	objectCreation	{ dmi-not 6 }	-	m	o.12	o.12	
3	objectDeletion	{ dmi-not 7 }	-	m	o.13	o.13	
4	attributeValueChange	{ dmi-not 1 }	-	m	o.14	o.14	
5	processingErrorAlarm	{ dmi-not 10 }	-	m	o.15	o.15	

Table A.6 (continued) — Log object notifications

Index	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Base Std.	Common Profile	Additional information
1	1.1	sourceIndicator	{dmi-att 26}	-	o	o	
	1.2	attributeIdentifierList	{dmi-att 8}	-	o	o	
	1.3	stateChangeDefinition	{dmi-att 28}	-	m	m	
	1.3.1	attributeId	-	-	m	m	
	1.3.2	oldAttributeValue	-	-	o	o	
	1.3.3	newAttributeValue	-	-	m	m	
	1.4	notificationIdentifier	{dmi-att 16}	-	6C/c12	6C/c12	
	1.5	correlatedNotifications	{dmi-att 12}	-	o	o	
	1.5.1	correlatedNotifications	-	-	c:m	c:m	
	1.5.2	sourceObjectInst	-	-	c:o	c:o	
	1.5.2.1	distinguishedName	-	-	c:o.4	c:o.4	
	1.5.2.2	nonSpecificForm	-	-	c:o.4	c:o.4	
	1.5.2.3	localDistinguishedName	-	-	c:o.4	c:o.4	
	1.6	additionalText	{dmi-att 7}	-	o	o	
	1.7	additionalInformation	{dmi-att 6}	-	-	-	

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Table A.6 (continued) — Log object notifications

Index	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Base Std.	Common Profile	Additional information
2	2.1	sourceIndicator	{dmi-att 26}	-	o	o	
	2.2	attributeList	{dmi-att 9}	-	o	o	
	2.3	notificationIdentifier	{dmi-att 16}	-	6C/c14	6C/c14	
	2.4	correlatedNotifications	{dmi-att 12}	-	o	o	
	2.4.1	correlatedNotifications	-	-	c:m	c:m	
	2.4.2	sourceObjectInst	-	-	c:o	c:o	
	2.4.2.1	distinguishedName	-	-	c:o.1	c:o.1	
	2.4.2.2	nonSpecificForm	-	-	c:o.1	c:o.1	
	2.4.2.3	localDistinguishedName	-	-	c:o.1	c:o.1	
	2.5	additionalText	{dmi-att 7}	-	o	o	
	2.6	additionalInformation	{dmi-att 6}	-	-	-	
3	3.1	sourceIndicator	{dmi-att 26}	-	o	o	
	3.2	attributeList	{dmi-att 9}	-	o	o	
	3.3	notificationIdentifier	{dmi-att 16}	-	6C/c15	6C/c15	
	3.4	correlatedNotifications	{dmi-att 12}	-	o	o	
	3.4.1	correlatedNotifications	-	-	c:m	c:m	
	3.4.2	sourceObjectInst	-	-	c:o	c:o	
	3.4.2.1	distinguishedName	-	-	c:o.2	c:o.2	
	3.4.2.2	nonSpecificForm	-	-	c:o.2	c:o.2	
	3.4.2.3	localDistinguishedName	-	-	c:o.2	c:o.2	
	3.5	additionalText	{dmi-att 7}	-	o	o	
	3.6	additionalInformation	{dmi-att 6}	-	-	-	
4	4.1	sourceIndicator	{dmi-att 26}	-	o	o	
	4.2	attributeIdentifierList	{dmi-att 8}	-	o	o	
	4.3	attributeValueChange Definition	{dmi-att 10}	-	m	m	
	4.3.1	attributeId	-	-	m	m	
	4.3.2	oldAttributeValue	-	-	o	o	
	4.3.3	newAttributeValue	-	-	m	m	
	4.4	notificationIdentifier	{dmi-att 16}	-	6C/c16	6C/c16	
	4.5	correlatedNotifications	{dmi-att 12}	-	o	o	
	4.5.1	correlatedNotifications	-	-	c:m	c:m	
	4.5.2	sourceObjectInst	-	-	c:o	c:o	
	4.5.2.1	distinguishedName	-	-	c:o.3	c:o.3	
	4.5.2.2	nonSpecificForm	-	-	c:o.3	c:o.3	
	4.5.2.3	localDistinguishedName	-	-	c:o.3	c:o.3	
	4.6	additionalText	{dmi-att 7}	-	o	o	
	4.7	additionalInformation	{dmi-att 6}	-	-	-	

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