

INTERNATIONAL
STANDARDIZED
PROFILE

ISO/IEC
ISP
12061-3

First edition
1995-06-15

**Information technology — Open Systems
Interconnection — International
Standardized Profiles: OSI Distributed
Transaction Processing —**

(Part 3: Standards.itech.ai)

Support of CCR APDUs

[ISO/IEC ISP 12061-3:1995](https://standards.itech.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

[https://standards.itech.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-](https://standards.itech.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

[9c805ce97123/iso-iec-isp-12061-3-1995](https://standards.itech.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Profils normalisés internationaux: Traitement transactionnel
réparti —*

Partie 3: Prise en charge des APDU de CCR



Reference number
ISO/IEC ISP 12061-3:1995(E)

Contents

| | Page |
|---------------------------------------|------|
| 1 SCOPE | 1 |
| 2 NORMATIVE REFERENCES | 1 |
| 3 DEFINITIONS and ABBREVIATIONS | 3 |
| 4 NOTATION | 3 |
| 5 SUPPORT OF CCR APDUS | 3 |
| 6 CONFORMANCE | 3 |
| | |
| ANNEX | |
| A CCR APDU SUPPORT | 4 |

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC ISP 12061-3:1995](https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

<https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f9c78-9c805ce97123/iso-iec-isp-12061-3-1995>

© ISO/IEC 1995

All rights reserved. Unless otherwise specified 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.

ISO/IEC Copyright Office • Case postale 56 • CH-1211 Genève 20 • Switzerland

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 12061-3 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 12061 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — International Standardized Profiles: OSI Distributed Transaction Processing*:

- *Part 1: Introduction to the Transaction Processing Profiles*
- *Part 2: Support of OSI TP APDUs*
- *Part 3: Support of CCR APDUs*
- *Part 4: Support of Session, Presentation and ACSE PDUs*
- *Part 5: Application supported transactions — Polarized control (ATP11)*
- *Part 6: Application supported transactions — Shared control (ATP12)*
- *Part 7: Provider supported unchained transactions — Polarized control (ATP21)*
- *Part 8: Provider supported unchained transactions — Shared control (ATP22)*
- *Part 9: Provider supported chained transactions — Polarized control (ATP31)*
- *Part 10: Provider supported chained transactions — Shared control (ATP32)*

Annex A forms an integral part of this part of ISO/IEC ISP 12061.

Introduction

The aim of Open Systems Interconnection is to allow, with a minimum of technical agreement outside the interconnection standards, the interconnection of computer systems:

- from different manufacturers,
- under different management,
- of different levels of complexity,
- of different technologies.

Transaction Processing is concerned with identifiable information which can be related as transactions, which may involve two or more Open Systems. In the framework of Open Systems Interconnection (OSI) a transaction is defined as "a set of related operations characterized by four properties: atomicity, consistency, isolation and durability."

The definition highlights that a distributed transaction is more than a simple exchange of messages, but that the exchanges form a protected indivisible set.

This multi-part International Standardized Profile contains the complete specification of the six profiles identified in ISO/IEC TR 10000-2.¹

Part 1 Introduces the overall structure of the specification of the OSI TP Profiles, including the definitions and abbreviations used through out the various parts of ISO/IEC 12061.

Part 2 contains the specification of the support of OSI TP APDUs for each of the profiles specified in parts 5 to 10.

Part 3 contains the specification of the support of the CCR APDUs for each of the profiles specified in parts 5 to 10.

Part 4 contains the specification of the support of ACSE, Presentation and Session APDUs for each of the profiles specified in parts 5 to 10.

Parts 5 to 10 specify the six profiles which are defined, based on the OSI TP standard. These six parts make reference to parts 2 to 4.

¹ISO/IEC TR 10000-2: 1992, Information Technology - Framework and Taxonomy of International Standardized Profiles - Part2: Taxonomy of OSI Profiles

Information technology — Open Systems Interconnection — International Standardized Profiles: OSI Distributed Transaction Processing —

Part 3: Support of CCR APDUs

1 Scope

This part of this ISO/IEC ISP 12061 specifies the status for the support of the CCR protocol for the profiles identified in ISO/IEC ISP 12061-1.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12061. 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 12061 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.

- ISO/IEC 8327: 1987¹, *Information processing systems - Open Systems Interconnection - Basic connection oriented session protocol specification*
<https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995>
- ISO/IEC 8327:1987 /Amd 3:1992, *Information processing systems - Open Systems Interconnection - Basic connection oriented session protocol specification - Amendment 3: Additional synchronization functionality.*
- ISO/IEC 8327-2:—² *Information technology - Open Systems Interconnection - Basic connection oriented session PICS Proforma - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma.*
- ISO/IEC 8650:1988, *Information processing systems - Open Systems Interconnection - Protocol specification for the Association Control Service Element.*
- ISO/IEC 8650-2:1995, *Information technology - Open Systems Interconnection - Protocol specification for the Association Control Service Element - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma.*
- ISO/IEC 8823:1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation protocol specification.*

¹Under revision

²To be published

| | |
|-----------------------------------|--|
| ISO/IEC 8823:1988 /Amd 5:1992, | <i>Information processing systems - Open Systems Interconnection - Connection oriented presentation protocol specification - Amendment 5: Additional synchronisation functionality to the presentation service user.</i> |
| ISO/IEC 8823-2:— ² | <i>Information technology - Open Systems Interconnection - Connection oriented presentation protocol specification - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma.</i> |
| ISO/IEC 8825:1990, | <i>Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).</i> |
| ISO/IEC 9805:1990, | <i>Information technology - Open Systems Interconnection - Protocol Specification for the Commitment, Concurrency and Recovery service element.</i> |
| ISO/IEC 9805-2:— ² | <i>Information technology - Open Systems Interconnection - Commitment, Concurrency and Recovery protocol - Part 2: Protocol Implementation Conformance Statement (PICS) Proforma.</i> |
| ISO/IEC 9805:1990 /Amd 2:1992, | <i>Information technology - Open Systems Interconnection - Protocol Specification for the Commitment, Concurrency and Recovery service element - Amendment 2: Session mapping changes.</i> |
| ISO/IEC 10026-1:1992, | <i>Information technology - Open Systems Interconnection - Distributed Transaction Processing - Part 1: OS/TP Model.</i> |
| ISO/IEC 10026-2:1992, | <i>Information technology - Open Systems Interconnection - Distributed Transaction Processing - Part 2: OSI TP Service.</i> |
| ISO/IEC 10026-3:1992, | <i>Information technology - Open Systems Interconnection - Distributed Transaction Processing - Part 3: OSI TP Protocol specification.</i> |
| ISO/IEC 10026-4:1995, | <i>Information technology - Open Systems Interconnection - Distributed Transaction Processing - Part 4: Protocol Implementation Conformance Statement (PICS) Proforma.</i> |
| ISO/IEC ISP 11188-1:1995, | <i>Information technology - International Standardized Profile - Common upper layer requirements - Part 1: Basic connection oriented requirements.</i> |

3 Definitions and abbreviations

The definitions and abbreviations listed in ISO/IEC 12061-1 apply.

4 Notation

The notation introduced in ISO/IEC ISP 12061-1 applies.

5 Support of CCR apdus

Annex A specifies the support of CCR protocol.

It applies to profiles 21, 22, 31 and 32. It does not apply to profiles 11 and 12.

6 Conformance

To conform to the OSI CCR protocol used in any of the profiles defined in this ISP, an implementation shall implement, according to the specifications given in ISO/IEC 9805:

- All mandatory features identified in annex A.
- All selected optional features, as identified in the completed CCR PICS.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC ISP 12061-3:1995](https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

<https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995>

Annex A (normative)

CCR APDU support

A.1 Date of statement

No restrictions applied to clause A.1 of ISO/IEC 9805-2 by this ISP.

A.2 Implementation details

No restrictions applied to clause A.2 of ISO/IEC 9805-2 by this ISP.

A.3 ISO/IEC 9805-1

The answer shall be "Version 2".

A.4 Amendments implemented

Table 1 - AMENDMENTS IMPLEMENTED

| ITEM # | Amendment | Profiles | | | | | | Notes |
|--------|----------------------------|----------|----|----|----|----|----|-------|
| | | 11 | 21 | 31 | 12 | 22 | 32 | |
| 1 | ISO/IEC 9805-1 Amendment 1 | NA | NA | NA | NA | NA | NA | |
| 2 | ISO/IEC 9805-1 Amendment 2 | NA | M | M | NA | M | M | |

A.5 Technical corrigenda implemented

The answer shall be "None".
 At the time of approval of the final text of this ISP no technical corrigenda was approved for ISO/IEC 9805. When this condition changes, the present ISP will be amended.

A.6 Global statement of conformance

A.6.1 Mandatory features implemented

The answer shall be "Yes".

A.7 Initiator/responder capabilities

A.7.1 Atomic-action-branch establishment

Table 2 - ATOMIC-ACTION-BRANCH ESTABLISHMENT BY PROFILE

| ITEM # | Roles | ISO/IEC 9805-2 | Profiles | | | | | | Notes |
|--------|-------------|----------------|----------|------|------|----|------|------|-------|
| | | | 11 | 21 | 31 | 12 | 22 | 32 | |
| 1 | SUPERIOR | O | NA | C101 | C101 | NA | C101 | C101 | 1 |
| 2 | SUBORDINATE | O | NA | C102 | C102 | NA | C102 | C102 | 1 |
| 3 | MASTER | O | NA | C103 | C103 | NA | C103 | C103 | |

NOTES

1. At least one of the superior or subordinate roles must be implemented.

101 If capable of acting as a root node or intermediate node then M else I.

102 If capable of acting as a leaf node or intermediate node then M else I.

103 If capable of acting as a root node then M else I.

A.7.2 Support for the concatenation mechanism

Table 3 - SUPPORT FOR THE CONCATENATION MECHANISM

| ITEM # | Roles | ISO/IEC 9805-2 | Profiles | | | | | | |
|--------|----------|-------------------|----------|----|----|----|----|----|-------|
| | | | 11 | 21 | 31 | 12 | 22 | 32 | Notes |
| 1 | SENDER | O | NA | O | M | NA | O | M | |
| 2 | RECEIVER | M | NA | M | M | NA | M | M | |

A.7.3 Other implementation capabilities

No restriction is applied to clause A.7.3 of ISO/IEC 9805-2 by this ISP.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC ISP 12061-3:1995](https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995)

<https://standards.iteh.ai/catalog/standards/sist/8ab0271d-1256-485f-9c78-9c805ce97123/iso-iec-isp-12061-3-1995>

A.8 CCR protocol - general

This subclause details TP's requirements of the CCR protocol. The protocol tables described below, except for the CCR APDU Usage by Profile, **do not apply** to TP profiles 11 and 12.

A.9 CCR protocol

A.9.1 CCR apdus

This table specifies the support level of each APDU with respect to each profile.

Table 4 - CCR APDU USAGE BY PROFILE

| ITEM # | Protocol Data Units | ISO/IEC 9805-2 | Profiles | | | | | | Notes |
|--------|---------------------|----------------|----------|---------------|---------------|----|---------------|---------------|-------|
| | | | 11 | 21 | 31 | 12 | 22 | 32 | |
| 1 | C-INITIALIZE-RI | C | NA | M | M | NA | M | M | |
| 2 | C-INITIALIZE-RC | C | NA | M | M | NA | M | M | |
| 3 | C-BEGIN-RI | C | NA | C104 /C105 | C104 /C105 | NA | C104 /C105 | C104 /C105 | |
| 4 | C-BEGIN-RC | O/C | NA | C105 /C104 | C105 /C104 | NA | C105 /C104 | C105 /C104 | |
| 5 | C-PREPARE-RI | O/C | NA | C104 /C105 | C104 /C105 | NA | C104 /C105 | C104 /C105 | |
| 6 | C-READY-RI | C | NA | C105 /C104 | C105 /C104 | NA | C105 /C104 | C105 /C104 | |
| 7 | C-COMMIT-RI | C | NA | C104 /C105 | C104 /C105 | NA | C104 /C105 | C104 /C105 | |
| 8 | C-COMMIT-RC | C | NA | C105 /C104 | C105 /C104 | NA | C105 /C104 | C105 /C104 | |
| 9 | C-ROLLBACK-RI | M | NA | M | M | NA | M | M | |
| 10 | C-ROLLBACK-RC | M | NA | M | M | NA | M | M | |
| 11 | C-RECOVER-RI | M | NA | M | M | NA | M | M | |
| 12 | C-RECOVER-RC | M | NA | M | M | NA | M | M | |

104. If capable of acting in the role of superior then M, else NA.

105. If capable of acting in the role of subordinate then M, else NA.

A.9.2 C-initialize-ri

Table 5 - C-INITIALIZE-RI

| ITEM# | ISO/IEC 9805-2 | | PROFILE | | | |
|-------|----------------|--------|------------|--------|---------------|-------|
| | PARAMETER | STATUS | PROFILE ID | STATUS | T/L/V ALLOWED | NOTES |
| 1 | Version-number | D | | M | 1 | |

A.9.3 C-initialize-rc

Table 6 - C-INITIALIZE-RC

| ITEM# | ISO/IEC 9805-2 | | PROFILE | | | |
|-------|----------------|--------|------------|--------|---------------|-------|
| | PARAMETER | STATUS | PROFILE ID | STATUS | T/L/V ALLOWED | NOTES |
| 1 | Version-number | D | | M | 1 | |

A.9.4 C-begin-ri

Table 7 - C-BEGIN-RI

| ITEM# | BASE STANDARD ISO/IEC 9805-2 | | PROFILE | | | |
|-------|------------------------------|--------|------------|--------|----------------|-------|
| | PARAMETER | STATUS | PROFILE ID | STATUS | T/L/V ALLOWED | NOTES |
| 1 | Atomic Action Identifier | M | | M | See Table 6 | |
| 2 | Branch-Suffix - Octet String | O/M | | O/M | 1 .. 64 octets | 1,2 |
| | Branch-Suffix - Integer | O/M | | O/M | 0..2**31-1 | 1 |
| 3 | User Data | O/M | | NA | | |

NOTES

- At least one of these forms must be supported.
- The length restrictions apply to the encoded parameter values.