

Implementation of ISO/IEC 9805 : 1990

**Information technology —
Open Systems Interconnection
— Protocol specification for
the Commitment, Concurrency
and Recovery service element**

National foreword

This British Standard reproduces verbatim ISO/IEC 9805 : 1990 and implements it as the UK national standard.

This British Standard is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/21 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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**Implementation of Technical Corrigendum 1
published and effective from 15 July 1992
to BS ISO/IEC 9805 : 1990**

**Information technology – Open Systems
Interconnection – Protocol specification
for Commitment, Concurrency and
Recovery service element**

AMD 7154
ISO/IEC 9805 : 1990/
Cor. 1 : 1991

AMD 7154
July 1992

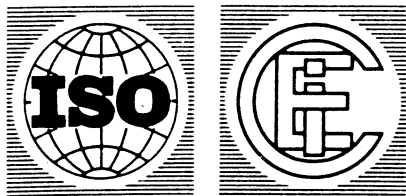
National foreword

In line 1, after 'ISO/IEC 9805 : 1990' insert ', including Technical Corrigendum 1,'.

AMD 7154
July 1992

ISO text

Insert the attached as appropriate.



INTERNATIONAL STANDARD ISO/IEC 9805 : 1990 TECHNICAL CORRIGENDUM 1

Published 1991-12-15

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
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Information technology — Open Systems Interconnection — Protocol specification for the Commitment, Concurrency and Recovery service element TECHNICAL CORRIGENDUM 1

*Technologies de l'information — Interconnexion de systèmes ouverts — Spécification du protocole pour l'élément de service
d'engagement, concurrence et reprise
RECTIFICATIF TECHNIQUE 1*

Technical corrigendum 1 to International Standard ISO/IEC 9805 : 1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 27

Clause 9

After subclause 9.6, "Branch recovery", insert new subclauses 9.7, "Order commitment and begin branch procedure", and 9.8, "Rollback and begin branch procedure", as follows:

"9.7 Order commitment and begin branch procedure

The order commitment and begin branch procedure uses the P-SYNC-MAJOR service.

9.7.1 Use of P-SYNC-MAJOR req/ind parameters

9.7.1.1 Synchronization point serial number: The use of this value is not covered by this International Standard.

9.7.1.2 User Data: The User Data parameter is used to carry the C-COMMIT-RI APDU in one presentation data value and, in a subsequent presentation data value, the C-BEGIN-RI APDU. User data (if any) on the request primitives are included in the corresponding APDU and are expressed using one or more presentation contexts specified by the requestor on the request primitives.

UDC 681.3 : 621.39

Ref. No. ISO/IEC 9805 : 1990/Cor.1 : 1991 (E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, communication procedure, control procedures, protocols.

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9.7.2 Use of the P-SYNC-MAJOR rsp/cnf parameter

The User Data parameter is used to carry the C-COMMIT-RC APDU. If the C-BEGIN response is issued at the same time as the C-COMMIT response, the C-BEGIN-RC APDU is carried in a subsequent presentation data value in the User Data of the P-SYNC-MAJOR rsp/cnf. User data (if any) on the CCR response primitive(s) are included in the corresponding APDU(s) and are expressed using one or more presentation contexts specified by the responder.

NOTE — If the C-BEGIN response is issued after the C-COMMIT response, the C-BEGIN-RC will be mapped on P-TYPED-DATA req/ind.

9.8 Rollback and begin branch procedure

The rollback and begin branch procedure uses the P-RESYNCHRONIZE(restart) service.

9.8.1 Use of the P-RESYNCHRONIZE req/ind parameters

9.8.1.1 Resynchronize type: This parameter is set to the value of "restart".

9.8.1.2 Synchronization Point Serial Number: The requirements specified in 9.5.1.2 apply.

9.8.1.3 Tokens: The use of this parameter is not covered in this International Standard.

9.8.1.4 User Data: The User Data parameter is used to carry the C-ROLLBACK-RI APDU in one presentation data value and, in a subsequent presentation data value, the C-BEGIN-RI APDU. User data (if any) on the request primitives are included in the corresponding APDU and are expressed using one or more presentation contexts specified by the requestor on the request primitives.

9.8.2 Use of the P-RESYNCHRONIZE rsp/cnf parameter

9.8.2.1 Synchronization Point Serial Number: The setting of this value is not covered in this International Standard.

9.8.2.2 User Data: The User Data parameter is used to carry the C-ROLLBACK-RC APDU. If the C-BEGIN response is issued at the same time as the C-ROLLBACK response, the C-BEGIN-RC APDU is carried in a subsequent presentation data value in the same User Data of the P-RESYNCHRONIZE rsp/cnf. If, following a collision of the rollback service with the rollback and begin branch service, the CCRPM has a stored C-BEGIN-RI APDU (see 7.8.8.1), the C-BEGIN-RI APDU is carried in a presentation data value subsequent to the C-ROLLBACK-RC APDU. User data (if any) on the CCR response primitive(s) are included in the corresponding APDU(s) and are expressed using one or more presentation contexts specified by the responder. User data (if any) on the C-BEGIN request is included in the C-BEGIN-RI APDU and is expressed using one or more presentation contexts specified by the requestor."

**Implementation of Technical Corrigendum 2
published and effective from 15 April 1993
to BS ISO/IEC 9805 : 1990**

**Information technology – Open Systems Interconnection –
Protocol specification for the Commitment, Concurrency and
Recovery service element**

National foreword (as amended by Technical Corrigendum 1)

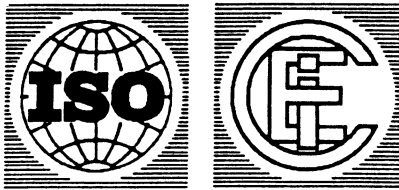
In line 1, delete 'Technical Corrigendum 1' and substitute 'Technical Corrigenda 1 and 2'.

AMD 7670/April 1993

ISO text

Insert the attached as appropriate.

AMD 7670/April 1993



INTERNATIONAL STANDARD ISO/IEC 9805 : 1990
TECHNICAL CORRIGENDUM 2

Published 1992-12-01

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
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Information technology – Open Systems Interconnection – Protocol specification for the Commitment, Concurrency and Recovery service element

TECHNICAL CORRIGENDUM 2

*Technologies de l'information – Interconnexion de systèmes ouverts – Spécification du protocole pour l'élément de service
d'engagement, concurrence et reprise*

RECTIFICATIF TECHNIQUE 2

Technical corrigendum 2 to International Standard ISO/IEC 9805:1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 8

Subclause 7.2.4.1

Replace the text with the following:

The requesting CCRPM forms a C-PREPARE-RI APDU from the parameter value of the C-PREPARE request primitive. If the C-PREPARE-RI is neither concatenated with other CCR APDUs, nor with APDUs from other ASEs, the CCRPM issues a P-TYPED-DATA request primitive with the APDU as a data value of the primitive's User Data parameter. If the C-PREPARE-RI APDU is concatenated with another CCR APDU or with an APDU from another ASE, the appropriate presentation service primitive is issued as specified in clause 10, with the C-PREPARE-RI APDU as a data value in the user data parameter.

UDC 681.3:621.39

Ref. No. ISO/IEC 9805:1990/Cor.2:1992 (E)

Descriptors : data processing, information interchange, network interconnection, open systems interconnection, communication procedure, control procedures, protocols.

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Subclause 7.2.4.2

Replace the text with the following:

The accepting CCRPM receives a C-PREPARE-RI APDU from its peer as user data on a P-TYPED-DATA indication primitive, if the APDU is unconcatenated. If the APDU is concatenated with other CCR APDUs or with APDUs from other ASEs, the C-PREPARE-RI APDU will be received as user data on the appropriate presentation primitive as specified in clause 10. In either case, the CCRPM issues a C-PREPARE indication primitive with the parameter value derived from the APDU.

Subclause 7.3.4.1

Replace the text with the following:

The requesting CCRPM forms the C-READY-RI APDU from the parameter value of the C-READY request primitive. If the C-READY-RI is neither concatenated with other CCR APDUs, nor with APDUs from other ASEs, the CCRPM issues a P-TYPED-DATA request primitive with the APDU as a value of the primitive's User Data parameter. If the C-READY-RI APDU is concatenated with another CCR APDU or with an APDU from another ASE, the appropriate presentation service primitive is issued as specified in clause 10, with the C-READY-RI APDU as a data value in the user data parameter.

Page 10

Subclause 7.3.4.2

Replace the text with the following:

The accepting CCRPM receives a C-READY-RI APDU from its peer as user data on a P-TYPED-DATA indication primitive, if the APDU is unconcatenated. If the APDU is concatenated with other CCR APDUs or with APDUs from other ASEs, the C-READY-RI APDU will be received as user data on the appropriate presentation primitive as specified in clause 10. In either case, the CCRPM issues a C-READY indication primitive with the parameter value derived from the APDU.

Page 28

Table 33

Row 4, Presentation Service column, add "or P-DATA" after "P-TYPED-DATA".

Renumber existing subclause 10.1.3 as 10.1.4 and insert the following new subclause:

10.1.3 When C-PREPARE or C-READY are concatenated with an APDU from some other ASE, which that ASE specifies shall be mapped to P-DATA, the CCR APDU is carried as a presentation data value of P-DATA. If the ASE specifications permit all concatenated APDUs to be mapped to P-TYPED-DATA, P-TYPED-DATA shall be used.

Implementation of Amendment 2
published and effective from 15 April 1993
to BS ISO/IEC 9805 : 1990

Information technology – Open Systems Interconnection –
Protocol specification for the Commitment, Concurrency and
Recovery service element

National foreword (as amended by Technical Corrigenda 1 and 2)
In line 1, after 'Technical Corrigenda 1 and 2' insert 'and Amendment 2'.

AMD 7681/April 1993

ISO text

Insert the attached as appropriate.

AMD 7681/April 1993

INTERNATIONAL STANDARD

ISO/IEC
9805

First edition
1990-11-15

AMENDMENT 2
1992-12-15

Information technology – Open Systems Interconnection – Protocol specification for the Commitment, Concurrency and Recovery service element

AMENDMENT 2: Session mapping changes

*Technologies de l'information – Interconnexion de systèmes ouverts –
Spécification du protocole pour l'élément de service d'engagement, de
concurrence et de reprise*

*AMENDEMENT 2: Modification de la mise en correspondance avec la
session*



Reference number
ISO/IEC 9805:1990/Amd. 2:1992 (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 2 to International Standard ISO/IEC 9805:1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Annex C of this International Standard is for information only.

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Information technology – Open Systems Interconnection – Protocol specification for the Commitment, Concurrency and Recovery service element

Amendment 2: Session mapping changes

Introduction

{NO CHANGE}

1 Scope

{ADD THE FOLLOWING PARAGRAPH TO THE END OF THE CLAUSE}

This International Standard specifies the following protocol versions:

- a) Protocol Version 1 which does not make use of the Session Data Separation functional unit.
- b) Protocol Version 2 which makes use of the Session Data Separation functional unit to protect data not belonging to the CCR atomic action.

2 Normative references

{ADD THE FOLLOWING REFERENCES TO THIS CLAUSE}

ISO 8822:1988/Amd.5:-¹⁾, *Information processing systems - Open Systems Interconnection - Basic connection oriented presentation service definition, Amendment 5: Additional Session Synchronization Functionality to the Presentation Service User.*

ISO 8326:1987/Amd.4:-¹⁾, *Information processing systems - Open Systems Interconnection - Basic connection oriented session services definition, Amendment 4: Additional Resynchronization Functionality.*

ISO/IEC 9804:1990/Amd.2:-¹⁾, *Information technology - Open Systems Interconnection - Service specification for the Commitment, Concurrency and Recovery service element, Amendment 2: Session Mapping Changes.*

3 Definitions

{NO CHANGE}

4 Symbols and abbreviations

4.1 Data units

{NO CHANGE}

4.2 Types of application-protocol-data-units

{ADD THE FOLLOWING TO THE LIST}

C-INITIALIZE-RI (when using CCR Protocol Version 2)
C-INITIALIZE-RC (when using CCR Protocol Version 2)

¹⁾ To be published.

4.3 Other abbreviations

{NO CHANGE}

5 Conventions

{NO CHANGE}

6 Overview of the CCR protocol

6.1 Service Support

{NO CHANGE}

6.2 Constraints on ACSE services

{CHANGE PARAGRAPH 6.2.2 TO READ AS FOLLOWS.}

6.2.2 When establishing the association, the following Presentation and Session Requirements must be specified on the A-ASSOCIATE service:

presentation kernel functional unit

session kernel functional unit

session typed data functional unit

session major synchronize functional unit (when using CCR Protocol Version 1)

session minor synchronize functional unit

session resynchronize functional unit

session data separation functional unit

{ADD A NEW CLAUSE 6.2.4, AS FOLLOWS}

6.2.4 If CCR Protocol Version 2 is being used, the ACSE User information on an A-ASSOCIATE request shall contain the C-INITIALIZE-RI APDU. In addition, the ACSE User information on an A-ASSOCIATE response must contain the C-INITIALIZE-RC APDU.

6.3 Use of the presentation service

{CHANGE PARAGRAPH 6.3.1 TO READ AS FOLLOWS.}

6.3.1 CCR uses the following presentation (ISO 8822) services:

P-DATA

P-TYPED-DATA

P-SYNC-MAJOR (when using CCR Protocol Version 1)

P-SYNC-MINOR

P-RESYNCHRONIZE(restart) (when using CCR Protocol Version 1)

P-RESYNCHRONIZE(abandon) (when using CCR Protocol Version 2)

6.4 Relationship to the session-service and the transport-service*{CHANGE THE FIRST SENTENCE OF CLAUSE 6.4.3 TO READ.}*

"If CCR Protocol Version 1 is being used and the Transport-expedited service is used by the session layer, the CCR service-user:"

{CHANGE THE NOTE UNDER CLAUSE 6.4.3 TO READ AS FOLLOWS}

NOTE - With CCR Protocol Version 1, the use of the session resynchronization service for C-ROLLBACK is liable to cause purging of user data outside the atomic action. If the Transport-expedited service is used by session and the above restrictions are not followed, the C-BEGIN can be purged and user-data preceding it. This will not occur if CCR Protocol Version 2 is used.

6.5 Operation of the CCRPM*{NO CHANGE}**{ADD A NEW CLAUSE 6.6, AS FOLLOWS}***6.6 Rules of Extensibility for CCR Protocol Version 2**

For the C-INITIALIZE-RI APDU, a receiving CCRPM shall

- a) ignore any undefined element;
- b) where named bits are used, treat any bit as insignificant when no name is assigned to it.

7 Elements of procedures*{ADD "i)" TO THE PROCEDURE LIST AS FOLLOWS}*

- i) initialization, if CCR Protocol Version 2 is being used

7.1 Begin branch procedure**7.1.1 Purpose***{NO CHANGE}***7.1.2 APDUs used***{NO CHANGE}***7.1.3 Prerequisite requirements***{NO CHANGE}***7.1.4 Procedure operation***{NO CHANGE}***7.1.5 Use of the C-BEGIN-RI APDU fields***{ADD THE FOLLOWING TEXT BETWEEN THE FIRST AND SECOND PARAGRAPH}*

If CCR Protocol Version 2 is being used, then the CCRPM shall represent the "Atomic Action Identifier - Master's Name" parameter of the C-BEGIN request in the abstract syntax by using either the "name" form or the "sender" value of the "side" form of the

"masters-name" field. The latter form may only be used if the Master's Name is the AE-title of the requestor, as passed on the A-ASSOCIATE service used to establish the supporting association.

{ADD THE FOLLOWING TEXT BETWEEN THE THIRD AND FOURTH PARAGRAPHS}

If CCR Protocol Version 2 is being used and if the "masters-name" field in the "atomic-action-identifier" field is the "sender" value of the "side" form, the "Atomic Action Identifier - Master's Name" parameter of the C-BEGIN indication shall be the requestor's AE-title that was passed in the A-ASSOCIATE service used to establish the supporting association.

7.1.6 Use of the C-BEGIN-RC APDU field *{NO CHANGE}*

7.1.7 Collisions *{CHANGE THE PARENTHEetical PHRASE IN THE NOTE TO READ AS FOLLOWS.}*

(except when issued with C-ROLLBACK or, when using CCR Protocol Version 1, when issued with C- COMMIT)

7.2 Prepare subordinate procedure *{NO CHANGE}*

7.3 Offer commitment procedure *{NO CHANGE}*

7.4 Order commitment

7.4.1 Purpose *{NO CHANGE}*

7.4.2 APDUs used *{NO CHANGE}*

7.4.3 Prerequisite requirements *{CHANGE THE SECOND SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}*

The requestor shall also either be the owner of the session major/activity token, if using CCR Protocol Version 1, or the synchronize-minor token, if using CCR Protocol Version 2.

7.4.4 Order commitment procedure *{NO CHANGE}*

7.4.4.1 C-COMMIT request primitive *{REPLACE THE SECOND SENTENCE BY THE FOLLOWING TEXT}*

If CCR Protocol Version 1 is being used, it issues a P-SYNC-MAJOR request primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-SYNC-MINOR request primitive with the APDU as a data value of the primitive's User Data parameter.

7.4.4.2 C-COMMIT-RI APDU*{REPLACE THE FIRST SENTENCE BY THE FOLLOWING TEXT}*

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-COMMIT-RI APDU from its peer as user data on a P-SYNC-MAJOR indication primitive. If CCR Protocol Version 2 is being used, the accepting CCRPM receives a C-COMMIT-RI APDU from its peer as user data on a P-SYNC-MINOR indication primitive.

7.4.4.3 C-COMMIT response primitive*{REPLACE THE SECOND SENTENCE BY THE FOLLOWING TEXT}*

If CCR Protocol Version 1 is being used, it issues a P-SYNC-MAJOR response primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-SYNC-MINOR response primitive with the APDU as a data value of the primitive's User Data parameter.

7.4.4.4 C-COMMIT-RC APDU*{REPLACE THE FIRST SENTENCE BY THE FOLLOWING TEXT}*

If CCR Protocol Version 1 is being used, the requesting CCRPM forms a C-COMMIT-RC APDU from its peer as user data on a P-SYNC-MAJOR indication primitive. If CCR Protocol Version 2 is being used, the requesting CCRPM receives a C-COMMIT-RC APDU from its peer as user data on a P-SYNC-MINOR indication primitive.

7.4.5 Use of the C-COMMIT-RI APDU fields*{NO CHANGE}***7.4.6 Use of the C-COMMIT-RC APDU field***{NO CHANGE}***7.4.7 Collision***{NO CHANGE}***7.5 Rollback****7.5.1 Purpose***{NO CHANGE}***7.5.2 APDUs used***{NO CHANGE}***7.5.3 Prerequisite requirements***{NO CHANGE}***7.5.4 Rollback procedure***{NO CHANGE TO THE INTRODUCTORY TEXT UNDER 7.5.4}}***7.5.4.1 C-ROLLBACK request primitive***{CHANGE SECOND SENTENCE OF FIRST PARAGRAPH TO READ AS FOLLOWS.}*

If CCR Protocol Version 1 is being used, it issues a P-RESYNCHRONIZE(restart) request primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-RESYNCHRONIZE(abandon)

request primitive with the APDU as a data value of the primitive's User Data parameter.

7.5.4.2 C-ROLLBACK-RI APDU

{CHANGE FIRST SENTENCE OF FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-ROLLBACK-RI APDU from its peer as user data on a P-RESYNCHRONIZE(restart) indication primitive. If CCR Protocol Version 2 is being used, the accepting CCRPM receives a C-ROLLBACK-RI APDU from its peer as user data on a P-RESYNCHRONIZE(abandon) indication primitive.

7.5.4.3 C-ROLLBACK response primitive

{CHANGE SECOND SENTENCE OF FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, it issues a P-RESYNCHRONIZE(restart) response primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-RESYNCHRONIZE(abandon) response primitive with the APDU as a data value of the primitive's User Data parameter.

7.5.4.4 C-ROLLBACK-RC APDU

{CHANGE FIRST SENTENCE OF FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, the requesting CCRPM receives a C-ROLLBACK-RC APDU from its peer as user data on a P-RESYNCHRONIZE(restart) confirm primitive. If CCR Protocol Version 2 is being used, the requesting CCRPM receives a C-ROLLBACK-RC APDU from its peer as user data on a P-RESYNCHRONIZE(abandon) confirm primitive.

7.5.5 Use of the C-ROLLBACK-RI APDU fields

{NO CHANGE}

7.5.6 Use of the C-ROLLBACK-RC APDU fields

{NO CHANGE}

7.5.7 Disruptive effect

{CHANGE THE FIRST SENTENCE TO READ AS FOLLOWS.}

Because the C-ROLLBACK service is mapped on the P-RESYNCHRONIZE service, CCR APDUs other than a C-ROLLBACK-RI from the association-initiator are discarded (by the underlying session service-provider).

7.5.8 Collision with a C-ROLLBACK-RI APDU

{NO CHANGE}

7.6 Branch recovery procedure

7.6.1 Purpose

{NO CHANGE}

7.6.2 APDUs used

{NO CHANGE}

7.6.3 Prerequisite requirements

{NO CHANGE}

7.6.4 Branch recovery procedure {NO CHANGE}

7.6.5 Use of the C-RECOVER-RI APDU fields {ADD THE FOLLOWING TWO PARAGRAPHS AT THE END OF THE CLAUSE}

For the requesting CCRPM (Version 2 only): If the Atomic Action Identifier or Branch Identifier parameters of the C-RECOVER request contain the AE-title of the requestor, as passed on the A-ASSOCIATE service used to establish the supporting association, the CCRPM shall represent this in the abstract syntax by using either the "name" form or the "sender" value of the "side" form of the corresponding APDU field. Similarly, if the parameters contain the AE-title of the acceptor passed on the A-ASSOCIATE service used to establish the supporting association, the CCRPM shall represent this in the abstract syntax by using either the "name" form or the "receiver" value of the "side" form of the corresponding APDU field.

For the accepting CCRPM (Version 2 only): If the "masters-name" field in the "atomic-action-identifier" or the "superiors-name" field in the "branch-identifier" is the "sender" value of the "side" form, the corresponding parameter value shall be the C-RECOVER requestor's AE-title passed on the A-ASSOCIATE service used to establish the supporting association. Similarly, if the "receiver" value of the "side" form is used, the corresponding parameter shall be the C-RECOVER acceptor's AE-title passed in the A-ASSOCIATE service used to establish the supporting association.

7.6.6 Use of the C-RECOVER-RC APDU fields {ADD THE FOLLOWING TWO PARAGRAPHS AND NOTE AT THE END OF THE CLAUSE}

For the accepting CCRPM (Version 2 only): If the Atomic Action Identifier or Branch Identifier parameters of the C-RECOVER response contain the AE-title of the acceptor, as passed on the A-ASSOCIATE service used to establish the supporting association, the CCRPM shall represent this in the abstract syntax by using either the "name" form or the "sender" value of the "side" form of the corresponding APDU field. Similarly, if the parameters contain the AE-title of the requestor, as passed on the A-ASSOCIATE service used to establish the supporting association, the CCRPM shall represent this in the abstract syntax by using either the "name" form or the "receiver" value of the "side" form of the corresponding APDU field.

For the requesting CCRPM (Version 2 only): If the "masters-name" field in the "atomic-action-identifier" or the "superiors-name" field in the "branch-identifier" is the "sender" value of the "side" form, the corresponding parameter value shall be the C-RECOVER acceptor's AE-title passed on the A-ASSOCIATE service used to establish the supporting association. Similarly, if the "receiver" value of the "side" form is used, the corresponding parameter shall be the C-RECOVER requestor's AE-title passed in the A-ASSOCIATE service used to establish the supporting association.

Note -- The "sender" and "receiver" values identify the peer's by their roles in the transmission of a particular APDU, not the procedure. Thus, a value of "sender" on a C-RECOVER-RI corresponds to a value of "receiver" on the replying C-RECOVER-RC.

7.7 Order commitment and begin branch procedure

7.7.1 Purpose

{NO CHANGE}

7.7.2 APDUs used

{NO CHANGE}

7.7.3 Prerequisite requirements

{NO CHANGE}

7.7.4 Procedure operation

{NO CHANGE TO THE INTRODUCTORY TEXT UNDER 7.7.4}

7.7.4.1 C-COMMIT request primitive + C-BEGIN request primitive

{CHANGE THE SECOND SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, it issues a P-SYNC-MAJOR request primitive with the APDUs as data values of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-SYNC-MINOR request primitive with the APDUs as data values of the primitive's User Data parameter.

7.7.4.2 C-COMMIT-RI APDU + C-BEGIN-RI APDU

{CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-COMMIT-RI and a C-BEGIN-RI APDU from its peer as user data on a P-SYNC-MAJOR indication primitive. If CCR Protocol Version 2 is being used, the accepting CCRPM receives a C-COMMIT-RI and a C-BEGIN-RI APDU from its peer as user data on a P-SYNC-MINOR indication primitive.

7.7.4.3 C-COMMIT response primitive

{CHANGE THE SECOND SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, it issues a P-SYNC-MAJOR response primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-SYNC-MINOR response primitive with the APDU as a data value of the primitive's User Data parameter.

7.7.4.4 C-COMMIT-RC APDU

{CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-COMMIT-RC APDU from its peer as user data on a P-SYNC-MAJOR confirm primitive. If CCR Protocol Version 2 is being used, the accepting CCRPM receives a C-COMMIT-RC APDU from its peer as user data on a P-SYNC-MINOR confirm primitive.

7.7.5 Use of the C-COMMIT-RI APDU and C-BEGIN-RI APDU fields

{NO CHANGE}

7.7.6 Use of the C-COMMIT-RC APDU field *{NO CHANGE}*

7.7.7 Collisions *{NO CHANGE}*

7.8 Rollback and begin branch procedure

7.8.1 Purpose *{NO CHANGE}*

7.8.2 APDUs used *{NO CHANGE}*

7.8.3 Prerequisite requirements *{NO CHANGE}*

7.8.4 Procedure operation *{NO CHANGE TO THE INTRODUCTORY TEXT UNDER 7.8.4}*

7.8.4.1 C-ROLLBACK request primitive + C-BEGIN request primitive *{CHANGE THE SECOND SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}*

If CCR Protocol Version 1 is being used, it issues a P-RESYNCHRONIZE (restart) request primitive with the APDUs as data values of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-RESYNCHRONIZE (abandon) request primitive with the APDUs as data values of the primitive's User Data parameter.

7.8.4.2 C-ROLLBACK-RI APDU + C-BEGIN-RI APDU *{CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}*

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-ROLLBACK-RI and a C-BEGIN-RI APDU from its peer as user data on a P-RESYNCHRONIZE(restart) indication primitive. If CCR Protocol Version 2 is being used, the accepting CCRPM receives a C-ROLLBACK-RI and a C-BEGIN-RI APDU from its peer as user data on a P-RESYNCHRONIZE(abandon) indication primitive.

7.8.4.3 C-ROLLBACK response primitive *{CHANGE THE SECOND SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}*

If CCR Protocol Version 1 is being used, it issues a P-RESYNCHRONIZE (restart) response primitive with the APDU as a data value of the primitive's User Data parameter. If CCR Protocol Version 2 is being used, it issues a P-RESYNCHRONIZE (abandon) response primitive with the APDU as a data value of the primitive's User Data parameter.

7.8.4.4 C-ROLLBACK-RC APDU *{CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ AS FOLLOWS.}*

If CCR Protocol Version 1 is being used, the accepting CCRPM receives a C-ROLLBACK-RC APDU from its peer as user data on a P-RESYNCHRONIZE(restart)