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**DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS**

**OSI APPLICATIONS – COMMITMENT,
CONCURRENCY AND RECOVERY**

**INFORMATION TECHNOLOGY –
OPEN SYSTEMS INTERCONNECTION –
PROTOCOL FOR THE COMMITMENT,
CONCURRENCY AND RECOVERY SERVICE
ELEMENT: PROTOCOL IMPLEMENTATION
CONFORMANCE STATEMENT (PICS)
PROFORMA**

ITU-T Recommendation X.853

(Previously “CCITT Recommendation”)

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. Some 179 member countries, 84 telecom operating entities, 145 scientific and industrial organizations and 38 international organizations participate in ITU-T which is the body which sets world telecommunications standards (Recommendations).

The approval of Recommendations by the Members of ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, 1993). In addition, the World Telecommunication Standardization Conference (WTSC), which meets every four years, approves Recommendations submitted to it and establishes the study programme for the following period.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC. The text of ITU-T Recommendation X.853 was approved on 21st of November 1995. The identical text is also published as ISO/IEC International Standard 9805-2.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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ITU-T X-SERIES RECOMMENDATIONS
DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

(February 1994)

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Summary

This Recommendation | International Standard provides the Protocol Implementation Conformance Statement (PICS) proforma for the OSI Commitment, Concurrency and Recovery (CCR) protocol specified in ITU-T Rec. X.852 | ISO/IEC 9805-1. The PICS proforma represents, in tabular form, the mandatory and optional elements of the CCR protocol. The PICS proforma is used to indicate the features and choices of a particular implementation of the CCR protocol.

Introduction

This Recommendation | International Standard is one of a set of Recommendations and International Standards produced to facilitate the interconnection of information processing systems. It is related to other Recommendations and International Standards in the set as defined by the Reference Model for Open Systems Interconnection (see ITU-T Rec. X.200 | ISO/IEC 7498-1). The Reference Model subdivides the area of standardization for interconnection into series of layers of specification, each of manageable size.

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

- a) from different manufacturers;
- b) under different managements;
- c) of different levels of complexity; and
- d) of different technologies.

The Recommendations | International Standards for the application-service-element for Commitment Concurrency, and Recovery (CCR) are:

- ITU-T Rec. X.851 | ISO/IEC 9804, CCR service definition;
- ITU-T Rec. X.852 | ISO/IEC 9805-1, CCR protocol specification;
- ITU-T Rec. X.853 | ISO/IEC 9805-2, CCR Protocol Implementation Conformance Statement (PICS) proforma.

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given OSI protocol. Such a statement is called a Protocol Implementation Conformance Statement.

The PICS proforma, Annex A, has been designed to be a self contained section of this Recommendation | International Standard for use in testing and procurement.

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INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – PROTOCOL FOR THE COMMITMENT, CONCURRENCY AND RECOVERY SERVICE ELEMENT: PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS) PROFORMA

1 Scope

This Recommendation | International Standard defines a Protocol Implementation Conformance Statement (PICS) proforma for the detailed expression of the conformance requirements of ITU-T Rec. X.852 | ISO/IEC 9805-1. This PICS proforma is in compliance with the relevant requirements for a PICS proforma given in ITU-T Rec. X.296 | ISO/IEC 9646-7. Detail of the use of this proforma is provided in this Recommendation | International Standard. Implementors of implementations claiming conformance to ITU-T Rec. X.852 | ISO/IEC 9805-1 shall complete the proforma as part of the conformance requirements. The level of detail required in the proforma exceeds that of the protocol specification by requiring details to uniquely identify the implementation and the supplier.

NOTE – PICS are related to base standards and only base standards. PICS structure might be expanded and refined for other documents (e.g. ISPs) using the base standards (e.g. ISPICS).

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendation | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model.*
- ITU-T Recommendation X.210 (1993) | ISO/IEC 10731:1994, *Information technology – Open Systems Interconnection – Basic Reference Model – Conventions for the definition of OSI services.*
- ITU-T Recommendation X.215 (1995) | ISO/IEC 8326:1996, *Information technology – Open Systems Interconnection – Session service definition.*
- ITU-T Recommendation X.216 (1994) | ISO/IEC 8822:1994, *Information technology – Open Systems Interconnection – Presentation service definition.*
- ITU-T Recommendation X.225 (1995) | ISO/IEC 8327-1:1996, *Information technology – Open Systems Interconnection – Connection-oriented session protocol: Protocol specification.*
- ITU-T Recommendation X.226 (1994) | ISO/IEC 8823-1:1994, *Information technology – Open Systems Interconnection – Connection-oriented presentation protocol: Protocol specification.*
- ITU-T Recommendation X.247 (1994) | ISO/IEC 8650-2:1995, *Information technology – Open Systems Interconnection – Protocol specification for the Association Control Service Element: Protocol Implementation Conformance Statement (PICS) proforma.*



ISO/IEC 9805-2 : 1996 (E)

- ITU-T Recommendation X.851 (1993) | ISO/IEC 9804:1994, *Information technology – Open Systems Interconnection – Service definition for the commitment, concurrency and recovery service element.*
- ITU-T Recommendation X.852 (1993) | ISO/IEC 9805-1:1994, *Information technology – Open Systems Interconnection – Protocol for the commitment, concurrency and recovery service element: Protocol specification.*

2.2 Paired 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.217 (1992), *Service definition for the Association Control Service Element.*
ISO 8649:1988, *Information processing systems – Open Systems Interconnection – Service definition for the Association Control Service Element.*
- CCITT Recommendation X.227 (1992), *Connection-oriented protocol specification for the Association Control Service Element.*
ISO 8650:1988, *Information processing systems – Open Systems Interconnection – Protocol specification for the Association Control Service Element.*
- ITU-T Recommendation X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T 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.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 Definitions

For the purposes of this Recommendation | International Standard, the following definitions apply.

- 3.1 Terms defined in ITU-T Rec. X.852 | ISO/IEC 9805-1.
- 3.2 The following terms are defined in ITU-T Rec. X.290 | ISO/IEC 9646-1:
- Protocol Implementation Conformance Statement (PICS);
 - PICS proforma.

4 Abbreviations

For the purposes of this Recommendation | International Standard, the following abbreviations apply:

FU	Function Unit
ISP	International Standardized Profile
ISPICS	ISP Implementation Conformance Statement
PICS	Protocol Implementation Conformance Statement
Rcv	Receiver
Sdr	Sender