

INTERNATIONAL
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PROFILE

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

Part 1:

**Introduction to the Transaction Processing
Profiles**

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

Partie 1: Introduction aux profils de traitement transactionnel



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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. 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 12061-1 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)*

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