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Information technology — International
Standardized Profile AOD1n — Interactive
Manipulation of ODA Documents —

Part 3:
AOD13 — DTAM/Manipulation

*Technologies de l'information — Profil normalisé international AOD1n —
Manipulation interactive de documents ODA —
Partie 3: AOD13 — DTAM/Manipulation*



Reference number
ISO/IEC ISP 15121-3:1997(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. 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 a 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 15121-3 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 15121 consists of the following parts, under the general title *Information technology — International Standardized Profile AOD1n — Interactive Manipulation of ODA Documents*:

- *Part 1: AOD11 — DTAM/Read Only*
- *Part 2: AOD12 — DTAM/Insert*
- *Part 3: AOD13 — DTAM/Manipulation*

Annex A forms an integral part of this part of ISO/IEC ISP 15121. Annexes B and C are for information only.

Information technology — International Standardized Profile AOD1n — Interactive Manipulation of ODA Documents —

Part 3: AOD13 — DTAM/Manipulation

1 Scope

1.1 General

AODnn International Standard Profiles (ISPs) specify constraints on implementations of the Abstract Interface for the manipulation of ODA (Open Document Architecture) documents, ITU-T Rec. T.413 | ISO/IEC 8613-3, in order to facilitate different implementations of interactive remote document manipulation applications.

ISO/IEC ISP 15121 specifies such constraints when the Abstract Interface for the manipulation of ODA documents (AI) is used in combination with Document Transfer and Manipulation for Confirmed Document Manipulation (DTAM-DM), ITU-T Rec. T.435 and T.436. In this case, constraints on implementations of ITU-T Rec. T.435 and T.436 are also specified.

This part of ISO/IEC ISP 15121 (Interactive Manipulation of ODA Documents - DTAM/Manipulation) specifies such constraints for the implementation of applications that provide manipulation on remote ODA documents in an Open Systems Interconnection (OSI) environment.

1.2 Position within the Taxonomy

This part of ISO/IEC ISP 15121 is defined in the taxonomy for Interactive Manipulation of ODA Documents, described in EWOS/TA/94/272 (EWOS/EG/SMMI/94/128). It is the highest profile of those using DTAM (AOD1n).

This part of ISO/IEC ISP 15121 is intended for implementations where ODA documents can be reviewed and modified.

It is a superset of AOD11 and AOD12 profiles.

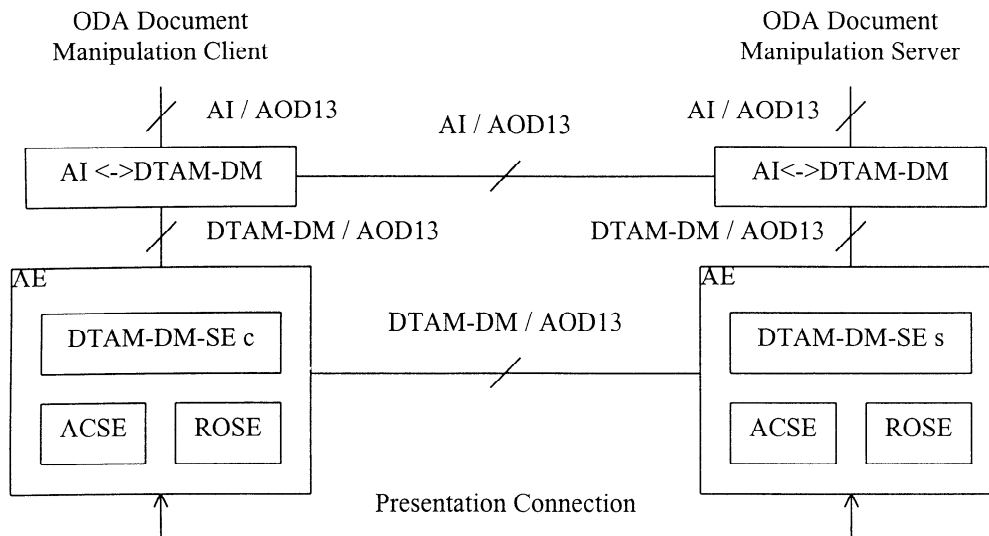
1.3 User Requirements and Scenario

1.3.1 Asymmetric document applications

The first model used in this part of ISO/IEC ISP 15121 is that of asymmetric remote document applications using services provided by the Abstract Interface for the manipulation of ODA documents (AI), in combination with DTAM confirmed document manipulation (DTAM-DM) service and protocol, in order to get access to a remote ODA document.

In this model, the manipulating application will be called *ODA document manipulation client*, while the system to which ODA clients will remotely access for document interactive manipulation will be called *ODA document manipulation server*. The ODA server application will store the documents and will perform the operations on them.

Figure 1 illustrates the environment within which this first model of this part of ISO/IEC ISP 15121 is applicable.



Legend:

- ACSE Association Control Service Element
- AE Application Entity
- AI Abstract Interface for the manipulation of ODA documents
- AI/AOD13 Abstract Interface for the manipulation of ODA documents following AOD13 profile
- DTAM-DM Document Transfer And Manipulation - Confirmed Document Manipulation
- DTAM-DM/AOD13 Document Transfer And Manipulation - Confirmed Document Manipulation following AOD13 profile
- DTAM-DM-SE c Document Transfer And Manipulation - Confirmed Document Manipulation Service Element - Consumer
- DTAM-DM-SE s Document Transfer And Manipulation - Confirmed Document Manipulation Service Element - Supplier
- ROSE Remote Operations Service Element

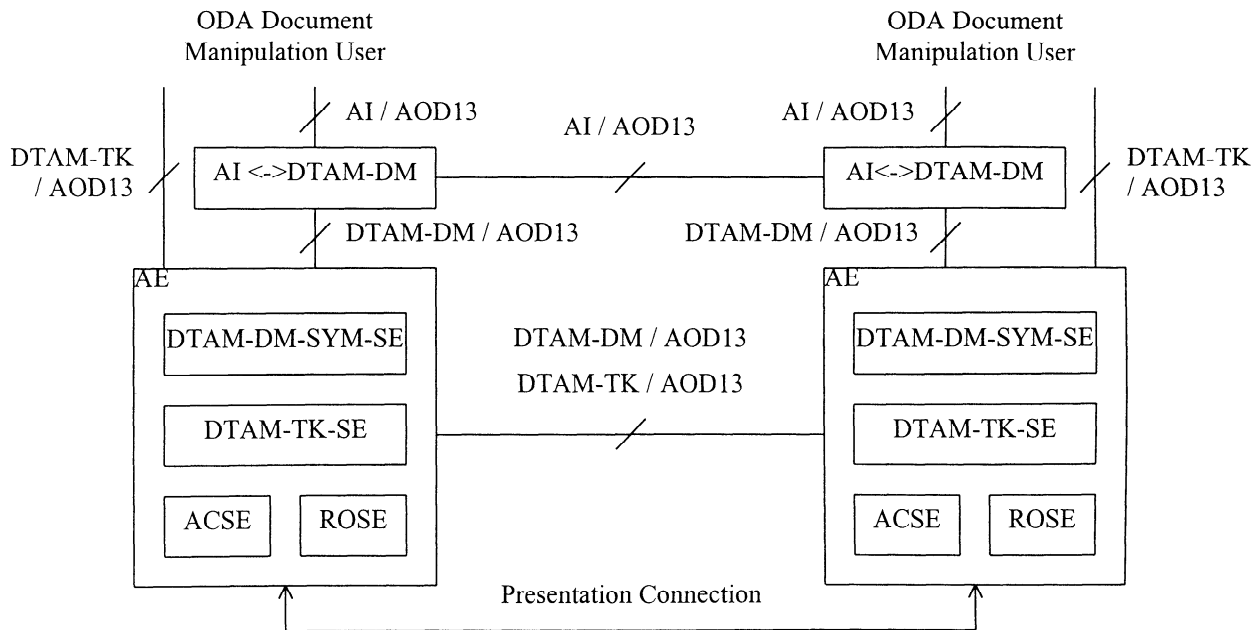
Figure 1 - AOD13 Asymmetric document applications environment

1.3.2 Symmetric document applications

The second model used in this part of ISO/IEC ISP 15121 is that of symmetric remote document applications using services provided by the Abstract Interface for the manipulation of ODA documents (AI), in combination with DTAM confirmed document manipulation (DTAM-DM) and DTAM-Token Exchange (DTAM-TK) services and protocols, in order to get access to a remote ODA document.

In this model, the manipulating applications will be called *ODA document manipulation users*, that will remotely access for document interactive manipulation. One (or both) ODA user application(s) will store the documents, and both user applications will be able to perform the operations on them. Additionally, a token will be exchanged between the applications.

Figure 2 illustrates the environment within which this second model of this part of ISO/IEC ISP 15121 is applicable.



Legend:

- ACSE Association Control Service Element
- AE Application Entity
- AI Abstract Interface for the manipulation of ODA documents
- AI/AOD13 Abstract Interface for the manipulation of ODA documents following AOD13 profile
- DTAM-DM Document Transfer And Manipulation - Confirmed Document Manipulation
- DTAM-DM/AOD13 Document Transfer And Manipulation - Confirmed Document Manipulation following AOD13 profile
- DTAM-DM-SYM-SE Document Transfer And Manipulation - Confirmed Document Manipulation Symmetric Service Element
- DTAM-TK Document Transfer And Manipulation - Token Exchange
- DTAM-TK/AOD13 Document Transfer And Manipulation - Token Exchange following AOD13 profile
- DTAM-TK-SE Document Transfer And Manipulation - Token Exchange Service Element
- ROSE Remote Operations Service Element

Figure 2 - AOD13 Symmetric document applications environment

2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 15121. 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 15121 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 Recommendations | International Standards

- ITU-T Recommendation T.413 (1994) | ISO/IEC 8613-3: 1995, *Information technology - Open Document Architecture (ODA) and interchange format: Abstract interface for the manipulation of ODA documents.*
- ITU-T Recommendation T.422 (1995) | ISO/IEC 8613-12: 1996, *Information technology - Open Document Architecture (ODA) and interchange format: Identification of document fragments.*

2.2 Additional References

- ITU-T Recommendation T.435 (1995), *Document Transfer And Manipulation (DTAM) - Services and Protocols - Abstract service definition and procedures for confirmed document manipulation.*
- ITU-T Recommendation T.436 (1995), *Document Transfer And Manipulation (DTAM) - Services and Protocols - Protocol specifications for confirmed document manipulation.*
- ISO/IEC ISP 11188-1: 1995, *Information technology - International Standardized Profile - Common upper layer requirements - Part 1: Basic connection oriented requirements.*
- ISO/IEC ISP 11188-2: 1996, *Information technology - International Standardized Profile - Common upper layer requirements - Part 2: Basic connection oriented requirements for ROSE-based profiles.*
- ISO/IEC ISP 11188-3: 1996, *Information technology - International Standardized Profile - Common upper layer requirements - Part 3: Minimal OSI upper layer facilities.*
- ISO/IEC ISP 15121-1: 1997, *Information technology - International Standardized Profile AOD1n - Interactive Manipulation of ODA Documents - Part 1: DTAM/Read Only.*
- ISO/IEC ISP 15121-2: 1997, *Information technology - International Standardized Profile AOD1n - Interactive Manipulation of ODA Documents - Part 2: AOD12 - DTAM/Insert.*

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3 Definitions

For the purposes of this part of ISO/IEC ISP 15121, the definitions given in ISO/IEC ISP 15121-1 apply.

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4 Abbreviations

For the purposes of this part of ISO/IEC ISP 15121, the abbreviations given in ISO/IEC ISP 15121-1 apply.

5 Conformance

This part of ISO/IEC ISP 15121 states requirements upon implementations to achieve interworking. A claim of conformance to this part of ISO/IEC ISP 15121 is a claim that all requirements in the relevant base standards and recommendations are satisfied, that all the requirements in ISO/IEC ISP 11188-2 and ISO/IEC ISP 11188-3 are satisfied, and that all requirements in clauses 6, 7, 8 and 9, and annex A of this part of ISO/IEC ISP 15121 are satisfied. Clauses 6, 7, 8 and 9, and annex A state the equivalence between these requirements and those of the base standards and recommendations.

6 Constraints for the Abstract Interface for the manipulation of ODA documents and for DTAM confirmed document manipulation service

6.1 Support for services provided by AOD13 (Interactive Manipulation of ODA Documents - DTAM/Insert)

The tables in this subclause specify the AI and DTAM-DM operations that are supported by this part of ISO/IEC ISP 15121.

6.1.1 'Support for services provided by AOD13' tables conventions

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.1.1 apply.

6.1.2 Abstract interface for the manipulation of ODA documents

The following table specifies the AI operations that are supported by this part of ISO/IEC ISP 15121. The symbols used in the table are defined in subclause 6.1.1.

AI Service	P
List	o
Open	m
Close	m
Get	m
Search	m
Create	m
Delete	m
Modify	m
Replace	o
Copy	m
Move	o
Reserve	o
Unreserve	o
BeginGroup	o
EndGroup	o

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6.1.3 DTAM confirmed document manipulation

The DTAM-DM ‘Extended Level’ is required to support ISO/IEC ISP 15121-3.

The following table specifies the DTAM-DM operations as defined in the ‘Extended Level’ in ITU-T Rec. T.435, and those supported by this part of ISO/IEC ISP 15121. The symbols used in the table are defined in subclause 6.1.1.

DTAM-DM Service	B	P
DTAM-DMBind	m	m
DTAM-DMUnBind	m	m
DM-DOCUMENT-OPEN	m	m
DM-DOCUMENT-SAVE	m	x

DM-DOCUMENT-DISCARD	m	x
DM-DOCUMENT-CLOSE	m	m
DM-DOCUMENT-LIST	o	o
DM-GET	m	m
DM-SEARCH	m	m
DM-CREATE	m	m
DM-DELETE	m	m
DM-MODIFY	m	m
DM-COPY	m	m
DM-MOVE	m	o
DM-REPLACE	m	o
DM-RESERVE	m	o
DM-UNRESERVE	m	o
DM-POINT	o	x
DM-MACRO-CALL	f.s.	o
DM-GROUP-BEGIN	f.s.	o
DM-GROUP-END	f.s.	o

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6.1.4 'Equivalence between AI and DTAM-DM services' table conventions

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.1.4 apply.

6.1.5 Equivalence between AI and DTAM-DM services

This table specifies the equivalence between all the AI and DTAM-DM operations supported by this part of ISO/IEC ISP 15121. The symbols used in the table are defined in subclause 6.1.4.

When one AI operation is said to be equivalent to one DTAM-DM operation, this means that the AI operation will be mapped into the DTAM-DM operation when sending the operation request, the result or an error, and that the DTAM-DM operation will be mapped into the AI operation when receiving the operation request, the result or an error.

For operations not included in this table, the specifications provided in ISO/IEC ISP 15121-1, table in subclause 6.1.5, and the specifications provided in ISO/IEC ISP 15121-2, table in subclause 6.1.5 applies.

AI Service	DTAM-DM Service
Delete	DM-DELETE
Modify	DM-MODIFY
Replace	DM-REPLACE
Move	DM-MOVE
BeginGroup	DM-GROUP-BEGIN
EndGroup	DM-GROUP-END

6.2 Support for AI and DTAM-DM operation arguments and results

The text provided in ISO/IEC ISP 15121-1, subclause 6.2 applies.

See ISP AOD11, text in subclause 6.2.

6.2.1 'Support for AI and DTAM-DM operation arguments and results' tables conventions

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.2.1 apply.

6.2.2 Equivalence between AI and DTAM-DM arguments and results

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.2.2 apply.

6.2.3 General Restrictions

Permanent document identifiers shall be used in AOD13 in the List / DM-DOCUMENT-LIST operations result, and in Open / DM-DOCUMENT-OPEN operations argument. Once a document is opened using a permanent document identifier, a non-permanent document identifier shall be returned in the Open / DM-DOCUMENT-OPEN result.

The base standards define the document identifier as optional in the Get / DM-GET, Search / DM-SEARCH, Create / DM-CREATE, Copy / DM-COPY, Reserve / DM-RESERVE, Unreserve / DM-UNRESERVE, Delete / DM-DELETE, Modify / DM-MODIFY, Replace / DM-REPLACE and Move / DM-MOVE operations argument. When only one document is opened at a time, no document identifier shall be necessary for the argument because all those operations shall be performed on the opened document. When more than one document is opened at a time, then, the non-permanent document identifier returned by the Open / DM-DOCUMENT-OPEN result shall be used as document identifier in those operations.

The non-permanent document identifier returned by the Open / DM-DOCUMENT-OPEN result shall be used in the Close / DM-Close operation argument. Once the document is closed, the new permanent document identifier shall be returned in the Close / DM-Close operation result.

6.2.4 AI List / DTAM-DM DM-DOCUMENT-LIST

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.2.4 apply.

6.2.5 AI Open / DTAM-DM DM-DOCUMENT-OPEN

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.2.5 apply.

6.2.6 AI Close / DTAM-DM DM-DOCUMENT-CLOSE

The specifications provided in ISO/IEC ISP 15121-1, subclause 6.2.6 apply.

6.2.7 AI Get / DTAM-DM DM-GET

The specifications provided in ISO/IEC ISP 15121-2, subclause 6.2.7 apply.