INTERNATIONAL STANDARDIZED PROFILE

ISO/IEC

ISP

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Information technology — International Standardized Profiles ADFnn — Document Filing and Retrieval (DFR) —

Part 6:

ADF21 — Remote Store Management —
Simple Management Profile

Technologies de l'information — Profils normalisés internationaux ADFnn — Classement et recherche documentaire —

Partie 6: ADF21 — Gestion d'approvisionnement à distance — Profil de gestion simple

Contents

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 12069-6 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 12069 consists of the following parts, under the general title *Information technology — International Standardized Profiles ADFnn — Document Filing and Retrieval (DFR)*:

— *Part 1: Introduction to the DFR ISP*

— *Part 2: Specification of ROSE, RTSE, ACSE, Presentation and Session protocols for use by DFR*

— *Part 3: ADF11 — Common Document Filing and Retrieval — Read Only Profile*

— *Part 4: ADF12 — Common Filing and Retrieval — Archiving Profile*

— *Part 5: ADF13 — Common Filing and Retrieval — Document Store Manipulation Profile*

— *Part 6: ADF21 — Remote Store Management — Simple Management Profile*

— *Part 7: ADF22 — Remote Store Management — Full Management Profile*

Annex A forms an integral part of this part of ISO/IEC ISP 12069.

Information technology – International Standardized Profiles ADFnn – Document Filing and Retrieval (DFR) – Part 6: ADF21 – Remote Store Management – Simple Management Profile

1 Scope

1.1 General

This part of ISO/IEC ISP 12069 contains the overall specifications for the support of document filing and retrieval functionality between a DFR user and a DFR server using DFR access protocol. This specification forms the simple management capability of Remote Store Management application functions.

For this part of ISO/IEC ISP 12069, specifications defined in ISO/IEC ISP 12069–1 and ISO/IEC ISP 12069–2 apply. If any specification of another part of ISO/IEC ISP 12069 is used, it is explicitly indicated.

The ADF21 profile specified in this part of ISO/IEC ISP 12069 is intended for combination with applications that manipulate inside documents.

1.2 Position within the taxonomy

This part of ISO/IEC ISP 12069 is the sixth part of the DFR ISPs. The structure of the DFR ISPs is described in ISO/IEC ISP 12069–1.

It may be combined with any T–Profile (see ISO/IEC TR 10000) specifying the OSI connection-mode Transport service.

1.3 Scenario

ADF21 is intended to work in combination with remote document manipulation applications, which use communication protocols to accomplish this remote manipulation when simple management capabilities of a DFR document store are required . This situation is illustrated in Figure 1.

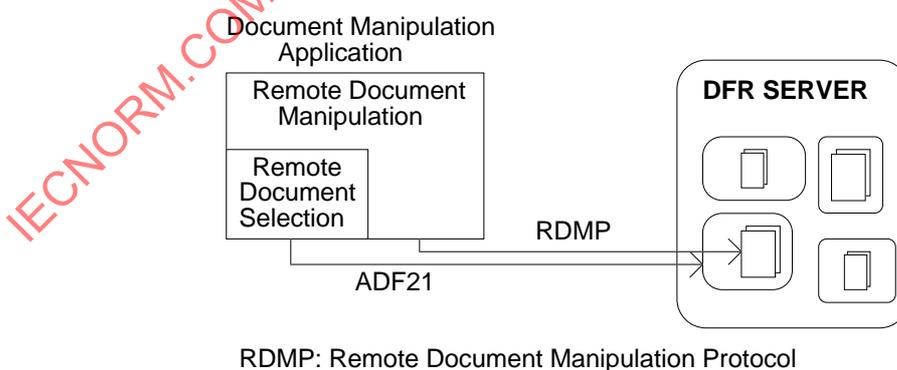RDMP: Remote Document Manipulation Protocol

Figure 1: Scenario for the use of ADF21

The only service and protocol for the manipulation of documents which is standardized or currently planned for standardization is specified in DTAM–DM (Document Transfer And Manipulation –

confirmed Document Manipulation, ITU–T Recs. T.435 and T.436); therefore, it is considered that ADF21 works with DTAM–DM.

2   Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12069. 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 12069 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 TR 10000–1:1995, *Information technology – Framework and taxonomy of International Standardized Profiles – Part 1: General principles and documentation framework*.

ISO/IEC TR 10000–2:1995, *Information technology – Framework and taxonomy of International Standardized Profiles – Part 2: Principles and Taxonomy of ISO profiles*.

ISO/IEC 10166–1:1991, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures*.

ISO/IEC 10166–1:1991/Amd.1:1995, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures – Amendment 1: Minor Enhancements*.

ISO/IEC 10166–1:1991/Amd.2:1996, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures – Amendment 2: Combined usage of DFR and DTAM*.

ISO/IEC 10166–1:1991/Cor.1:1994, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures – Technical Corrigendum 1*.

ISO/IEC 10166–1:1991/Cor.2:1994, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures – Technical Corrigendum 2*.

ISO/IEC 10166–1:1991/Cor.3:1994, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 1: Abstract service definition and procedures – Technical Corrigendum 3*.

ISO/IEC 10166–2:1991, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 2: Protocol specification*.

ISO/IEC 10166–2:1991/Amd.1:1995, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 2: Protocol specification – Amendment 1: Minor enhancements for additional error*.

ISO/IEC 10166–2:1991/Amd.2:1996, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 2: Protocol specification – Amendment 2: Combined usage of DFR and DTAM*.

ISO/IEC 10166–2:1991/Cor.1:1994, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 2: Protocol specification – Technical Corrigendum 1*.

ISO/IEC 10166–2:1991/Cor.2:1995, *Information technology – Text and office systems – Document Filing and Retrieval (DFR) – Part 2: Protocol specification – Technical Corrigendum 2*.

ISO/IEC 10031–2:1991, *Information technology – Text and office systems – Distributed-office-applications model – Part 2: Distinguished-object-reference and associated procedures*.

ISO/IEC 9646–7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements*.

ISO/IEC 8326:1996, *Information technology – Open Systems Interconnection – Session service definition*.

ISO/IEC 8327–1:1996, *Information technology – Open Systems Interconnection – Connection-oriented Session protocol: Protocol specification*.

ISO/IEC 8649:1996, *Information technology – Open Systems Interconnection – Service definition for the Association Control Service Element*.

ISO/IEC 8650 (all parts), *Information technology – Open Systems Interconnection – Connection-oriented protocol for the Association Control Service Element*.

ISO/IEC 8822:1994, *Information technology – Open Systems Interconnection – Presentation service definition*.

ISO/IEC 8823 (all parts), *Information technology – Open Systems Interconnection – Connection-oriented presentation protocol*.

ISO/IEC 8824:1990, *Information technology – Open Systems Interconnection – Specification of Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 8825:1990, *Information technology – Open Systems Interconnection – Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 9072–1:1989, *Information processing systems – Text communication – Remote Operations – Part 1: Model, notation and service definition*.

ISO/IEC 9072–2:1989, *Information processing systems – Text communication – Remote Operations – Part 2: Protocol specification*.

ISO/IEC ISP 11188–1:1995, *Information technology – International Standardized Profile – Common upper layer requirements – Part 1: Basic connection-oriented requirements*.

ISO/IEC ISP 12069–1:1996, *Information technology – International Standardized Profiles ADFnn – Document Filing and Retrieval (DFR) – Part 1: Introduction to the DFR ISP*.

ISO/IEC ISP 12069–2:1996, *Information technology – International Standardized Profiles ADFnn – Document Filing and Retrieval (DFR) – Part 2: Specification of ROSE, RTSE, ACSE, Presentation and Session protocols for use by DFR*.

ISO/IEC ISP 12069–3:1996, *Information technology – International Standardized Profiles ADFnn – Document Filing and Retrieval (DFR) – Part 3: ADF11 – Common Document Filing and Retrieval – Read Only Profile*.

3   Definitions

For the purposes of this part of ISO/IEC ISP 12069, the definitions given in ISO/IEC ISP 12069–1 and ISO/IEC ISP 12069–2 apply.

4   Abbreviations

For the purposes of this part of ISO/IEC ISP 12069, the abbreviations given in ISO/IEC ISP 12069–1 and ISO/IEC ISP 12069–2 apply.

The following additional abbreviation is used within this part of ISO/IEC ISP 12069:

DTAM–DM   Document Transfer And Manipulation – confirmed Document Manipulation

5   Conformance

This part of ISO/IEC ISP 12069 states requirements upon implementation to achieve interworking. A claim of conformance to this ADF21 is a claim that all requirements in the relevant base standards and recommendations are satisfied, that all the requirements in ISO/IEC ISP 12069–1, ISO/IEC ISP 12069–2 and other parts referenced in this part of ISO/IEC ISP 12069 are satisfied, and that all requirements in clause 6 and annex A of this part of ISO/IEC ISP 12069 are satisfied.

6   Constraints supported by ADF21

This clause describes the characteristics which are supported by this part of ISO/IEC ISP 12069.

The specifications of annex A are required for applications conforming to ADF21.

6.1   Support Classification

For this part of ISO/IEC ISP 12069, the constraints provided in subclause 3.2 of ISO/IEC ISP 12069–1 apply.

6.2   Support classification of service

The support classification for each operation is detailed in Table 1.

Table 1: Support classification for DFR Operations

Operation	Support Classification
DfrBind	m
DfrUnbind	m
Create	i
Delete	i
Copy	i
Move	i
Read	i
Modify	i
List	m
Search	m
Reserve	o
Abandon	o

Support classification: m: mandatory; o: optional; i: out of scope

Annex A

(normative)

Profile requirements list for this part of ISO/IEC ISP 12069

In the event of a discrepancy becoming apparent in the body of this part of ISO/IEC ISP 12069 and the tables in this annex, this annex is to take precedence.

In each table, "static client" means static capability required for an ADF21 user implementation, "static server" means static capability required for an ADF21 server implementation, and "dynamic" means the dynamic behavior between ADF21 user and server implementations.

Table A.1 defines specific conditions (in addition to those specified in Table A-1 of ISO/IEC ISP 12069–3) that are used to determine dynamic conditional support classification (see 3.2.2. of ISO/IEC ISP 12069–1).

Table A.1: Specific Conditions

Symbol	Condition	Support classification	
		TRUE	**FALSE**
PR	Reservation is requested by the client	m2	x
PT	DFR is used in combination with DTAM–DM	m2	x

A.1   DfrBind

This clause specifies restrictions on the DfrBind operation.

A.1.1   DfrBindArgument Parameters

This subclause specifies restrictions on the arguments used in the invocation of the DfrBind operation.

The specifications provided in A.1.1 of ISO/IEC ISP 12069–3 apply with the following modifications:

- The entries for the "dTAM-manipulation-capabilities" and "dTAM-protocol-version" elements are replaced by the following entries:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
dTAM-manipulation-capabilities	Manipulation Capabilities	-	o	o	c1 (PT)	[c.f. ITU–T Rec. T.435]
dTAM-protocol-version	BITSTRING	-	o	o	c1 (PT)	[c.f. ITU–T Rec. T.435]

A.1.2   DfrBindResult Parameters

This subclause specifies restrictions on the result parameters of the DfrBind operation.

The specifications provided in A.1.2 of ISO/IEC ISP 12069–3 apply with the following modifications:

- The entries for the "server-selected-dTAM-capabilities" and "server-selected-dTAM-protocol-version" elements are replaced by the following entries:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
server-selected-dTAM-capabilities	SEQUENCE OF OdaApplication Capabilities	-	o	o	c1 (PT)	[c.f. ITU–T Rec. T.435]
server-selected-dTAM-protocol-version	BITSTRING	-	o	o	c1 (PT)	[c.f. ITU–T Rec. T.435]

A.1.3 DfrBind Error

This subclause specifies restrictions on the result error of the DfrBind operation.

The specifications provided in A.1.3 of ISO/IEC ISP 12069–3 apply with the following modifications:

- The entry for the "dtam-dm-error" element is replaced by the following entry:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
dtam-dm-error	Manipulation-Problem	-	o	o	C1 (PT)	[c.f. ITU–T Rec. T.435]

A.2 DfrUnbind

This clause specifies restrictions on the DfrUnbind operation.

The specifications provided in A.2 of ISO/IEC ISP 12069–3 apply.

A.3 Create

This operation is not supported by this part of ISO/IEC ISP 12069.

A.4 Delete

This operation is not supported by this part of ISO/IEC ISP 12069.

A.5 Copy

This operation is not supported by this part of ISO/IEC ISP 12069.

A.6 Move

This operation is not supported by this part of ISO/IEC ISP 12069.

A.7   Read

This operation is not supported by this part of ISO/IEC ISP 12069.

A.8   Modify

This operation is not supported by this part of ISO/IEC ISP 12069.

A.9   List

This clause specifies restrictions on the List operation.

A.9.1   ListArgument Parameters

This subclause specifies restrictions on the arguments used in the invocation of the List operation.

The specifications provided in A.9.1 of ISO/IEC ISP 12069–3 apply, with the following modifications:

- The entries for the "reservation" and "error-handling" elements are replaced by the following entries:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
reservation	Reservation	-	o	o	c1 (PR)	see A.9.1.5
error-handling	ErrorHandling Mode	all-or-nothing	o	m	c1	see A.9.1.4

A.9.1.1   Limits

This subclause specifies restrictions on the "Limits" parameter.

The specifications provided in A.9.1.1 of ISO/IEC ISP 12069–3 apply.

A.9.1.2   OrderingRule

This subclause specifies restrictions on the "OrderingRule" parameter.

The specifications provided in A.9.1.2 of ISO/IEC ISP 12069–3 apply.

A.9.1.3   OrderingAttributes

This subclause specifies restrictions on the "OrderingAttributes" parameter.

The specifications provided in A.9.1.3 of ISO/IEC ISP 12069–3 apply.

A.9.1.4   ErrorHandling

This subclause specifies restrictions on the "ErrorHandlingMode" parameter.

The specifications provided in A.9.1.4 of ISO/IEC ISP 12069–3 apply, with the following modifications:

- The entries for the "until-first-warning", "report-all-warnings", "report-n-warnings" elements are replaced by the following entries:

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Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
until-first-warning	NULL	-	m	m	m2	
report-all-warnings	NULL	-	m	m	m2	
report-n-warnings	INTEGER	-	m	m	m2	

A.9.1.5 Reservation

This subclause specifies restrictions on the "Reservation" parameter.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Reservation [SEQUENCE]						
reservation-duration	GeneralizedTime	-	o	m	c1	-
reservation-level	ENUMERATED	-	m	m	m2	(size: 1 octet) 0: unreserved 1: exclusive write 2: exclusive access 3: read-only1 4: read-only2
reservation-status	ENUMERATED	0	o	m	c1	(size: 1 octet) 0: uncommitted 1: committed
reservation-referent	BOOLEAN	FALSE	o	m	c1	-

A.9.2   ListResult Parameters

This subclause specifies restrictions on the result parameters of the List operation.

The specifications provided in A.9.2 of ISO/IEC ISP 12069–3 apply.

A.9.3   List Error

This subclause specifies restrictions on the result error of the List operation.

The specifications provided in A.9.3 of ISO/IEC ISP 12069–3 apply with the following modifications:

- The entry for the "ReservationError" element is replaced by the following entry:

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Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Reservation Error	ReservationError	-	m	m	m2	see A.13.12

A.10   Search

This clause specifies restrictions on the Search operation.

A.10.1   SearchArgument Parameters

This subclause specifies restrictions on the arguments used in the invocation of the Search operation.

The specifications provided in A.10.1 of ISO/IEC ISP 12069–3 apply with the following modifications:

    - The entry for the "reservation" element is replaced by the following entry:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
reservation	Reservation	-	o	o	c1 (PR)	see A.9.1.5

A.10.2   SearchResult Parameters

This subclause specifies restrictions on the result parameters of the Search operation.

The specifications provided in A.10.2 of ISO/IEC ISP 12069–3 apply.

A.10.3   Search Error

This subclause specifies restrictions on the result error of the Search operation.

The specifications provided in A.10.3 of ISO/IEC ISP 12069–3 apply with the following modifications:

    - The entry for the "ReservationError" element is replaced by the following entry:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Reservation Error	ReservationError	-	m	m	m2	see A.13.12

A.11   Reserve

This clause specifies restrictions on the Reserve operation.

A.11.1   ReserveArgument Parameters

This subclause specifies restrictions on the arguments used in the invocation of the Reserve operation.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
ReserveArgument [SEQUENCE]						
entry	DfrEntryName	-	m	m	m2	see A.7.1.2 in ISO/IEC ISP 12069–3
task-id	OCTET STRING	-	o	O	C1 (PA)	(maximum size: 16 octets)
reservation	Reservation	-	m	M	m2	see A.9.1.5
error-handling	ErrorHandlingMode	-	-	-	x	
priority	ENUMERATED	1	o	M	c1	(size: 1 octet) 0: low 1: medium 2: high
privileges	Privileges	-	o	O	c1 (PS)	see A.11.1.1

A.11.1.1 Privileges

This subclause specifies restrictions on the "Privileges" parameter.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Privileges [SEQUENCE]						
operation-pac	EXTERNAL	-	o	O	c1 (PS)	
proxy-pac	EXTERNAL	-	o	O	c1 (PS)	

A.11.2 ReserveResult Parameters

There are no result parameters of the Reserve operation.

A.11.3 Reserve Error

This subclause specifies restrictions on the result error of the Reserve operation.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Error [CHOICE]						
Abandoned	Abandoned	-	c	c	c2 (PA)	see A.13.8
NameError	NameError	-	m	M	m2	see A.13.2

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
Reservation Error	ReservationError	-	m	M	m2	see A.13.12
Security Error	SecurityError	-	o	O	c1 (PS)	see A.13.5
Service Error	ServiceError	-	m	m	m2	see A.13.6

A.12   Abandon

This clause specifies restrictions on the Abandon operation.

The specifications provided in A.12 of ISO/IEC ISP 12069–3 apply.

A.13   Error

This clause explains details on the parameters which report errors that have been detected in each operation.

The table below shows the list of errors responding to each operation.

	Bind	Unbind	List	Search	Reserve	Abandon
AttributeError	-	-	m	m	-	-
NameError	-	-	m	m	m	-
AccessError	-	-	m	m	-	-
UpdateError	-	-	-	i	-	-
ReferentAccessError	-	-	-	-	-	-
InterServerAccessError	-	-	-	-	-	-
ReservationError	-	-	o	o	m	-
VersionManagementError	-	-	-	-	-	-
SecurityError	m	-	o	o	o	-
ServiceError	m	-	m	m	m	-
AbandonFailed	-	-	-	-	-	m
Abandoned	-	-	m	m	o	-
ExternalServerError	-	-	-	o	-	-

A.13.1   AttributeError

This subclause specifies restrictions on the parameters of the "AttributeError" error.

The specifications provided in A.13.1 of ISO/IEC ISP 12069–3 apply.

A.13.2 NameError

This subclause specifies restrictions on the parameters of the "NameError" error.

The specifications provided in A.13.2 of ISO/IEC ISP 12069–3 apply.

A.13.3 AccessError

This subclause specifies restrictions on the parameters of the "AccessError" error.

The specifications provided in A.13.3 of ISO/IEC ISP 12069–3 apply.

A.13.3.1 Access Problem

This subclause specifies restrictions on the types of problems related to the "AccessError" error.

The specifications provided in A.13.3.1 of ISO/IEC ISP 12069–3 apply with the following modifications:

- The entry for the "reserved-by-a-user" element is replaced by the following entry:

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
AccessProblem [CHOICE]						
reserved-by-a-user	INTEGER	-	m	m	m2	2

A.13.4 ReferentAccessError

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

This error does not affect any operation supported by this part of ISO/IEC ISP 12069.

A.13.5 SecurityError

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

The specifications provided in A.13.5 of ISO/IEC ISP 12069–3 apply.

A.13.6 ServiceError

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

The specifications provided in A.13.6 of ISO/IEC ISP 12069–3 apply.

A.13.7 AbandonFailed

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

The specifications provided in A.13.7 of ISO/IEC ISP 12069–3 apply.

A.13.8 Abandoned

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

The specifications provided in A.13.8 of ISO/IEC ISP 12069–3 apply.

A.13.9 ExternalServerError

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

The specifications provided in A.13.9 of ISO/IEC ISP 12069–3 apply.

A.13.10 VersionManagementError

This subclause specifies restrictions on the parameters of the "ReferentAccessError" error.

This error does not affect any operation supported by this part of ISO/IEC ISP 12069.

A.13.11 UpdateError

This subclause specifies restrictions on the parameters of the "UpdateError" error.

This error does not affect any operation supported by this part of ISO/IEC ISP 12069.

A.13.12 ReservationError

This subclause specifies restrictions on the parameters of the "ReservationError" error.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
ReservationError [SEQUENCE]						
entry	DfrEntryName	-	m	m	m1	see A.7.1.2 in ISO/IEC ISP 12069–3
problem	Reservation Problem	-	m	m	m1	see A.13.12.1

A.13.12.1   Reservation Problems

This subclause specifies restrictions on the types of problems related to the "ReservationError" error.

Element	Data Type	Default	Static Client	Static Server	Dynamic	Comments
ReservationProblem [ENUMERATED]						
cannot-reserve	-	-	m	m	m2	0
already-reserved	-	-	m	m	m2	1
not-yet-reserved	-	-	m	m	m2	2
cannot-unreserve	-	-	m	m	m2	3
reservation-not-changed	-	-	m	m	m2	4

A.13.13 InterServerAccessError

This subclause specifies restrictions on the parameters of the "InterServerAccessError" error.

This error does not affect any operation supported by this part of ISO/IEC ISP 12069.