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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 1:1995](https://standards.iso.org/standards/catalog/standards/sist/7ce74891-7d46-42c4-bf57-983fe1ab3cc8/iso-iec-10166-1-1991-amd-1-1995)

<https://standards.iso.org/standards/catalog/standards/sist/7ce74891-7d46-42c4-bf57-983fe1ab3cc8/iso-iec-10166-1-1991-amd-1-1995>
Technologies de l'information — Bureau — Classement et récupération de documents —

Partie 1: Procédures et définition de service abstrait

AMENDEMENT 1: Améliorations mineures



Reference number
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Foreword

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Amendment 1 to International Standard ISO/IEC 10166-1:1991 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee 18, *Document processing and related communication*.

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Part 1:

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Page 3

Clause 2

Add the following text to the end of clause 2:

ITU-T T.435(1994), *Document Transfer and Manipulation (DTAM) - Services and Protocols - Abstract Service Definitions and Procedures for Document Manipulation.*

iTeh STANDARD PREVIEW (standards.iteh.ai)

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Subclause 7.1.1

ISO/IEC 10166-1:1991/Amd 1:1995

Change the ASN.1 definition of **DfrBindArgument** as follows:

```

DfrBindArgument ::= SEQUENCE {
    initiator-name           [0]    DistinguishedName,
    credentials              [1]    Credentials,
    retrieve-restrictions    [2]    Restrictions OPTIONAL,
                                -- default is none --
    dfr-configuration-request [3]    BOOLEAN DEFAULT FALSE,
    bind-security            [4]    BindSecurity OPTIONAL,
    priority                 [5]    Priority DEFAULT medium,
    dor-for-produce-operations [6]    BOOLEAN DEFAULT TRUE,
    dor-for-consume-operations [7]    BOOLEAN DEFAULT TRUE,
    protocol-version        [8]    INTEGER {
        version-1 (1),
        version-2 (2) } DEFAULT {1},
    bilateralInformation     [9]    SEQUENCE OF
                                BilateralInformationEntry OPTIONAL }
  
```

Add the following new paragraph after paragraph **h**):

i) **protocol-version (O)**: This parameter indicates the DFR protocol version which the DFR-User requests. If the DFR-Server can honor this request, DFR Abstract-Bind continues normally. Otherwise, the DFR-Server will issue error.

1) **version-1** is defined by ISO/IEC 10166-1:1991.

2) **version-2** is defined by ISO/IEC 10166-1:1991 together with ISO/IEC 10166-1:1991/Amd 1:1995.

Note - Since a server that knows only the DFR protocol version 1 will not understand a version request, such a request will lead to an (implementation dependent) error. A server that knows the DFR protocol version 2 may accept the bind from a version 1 client, or may return an appropriate error which DFR protocol version 1 client understands. One example of such error code is the **unclassified-server-error**.

Add the following new paragraph and ASN.1 definition of "**BilateralInformationEntry**" and "**ServerName**" after the (new) paragraph **i**):

j) **bilateralInformation (O)**: This parameter includes bilateral information between the DFR-Server and the DFR-User. Format of this bilateral information is as follows.

BilateralInformationEntry ::= SEQUENCE {
serverName [0] ServerName,
information [1] EXTERNAL }

ServerName ::= DistinguishedName

Change the ASN.1 definition of "**DfrBindResult**" as follows:

DfrBindResult ::= SET {
authentication-attributes [0] SET OF AuthenticationAttribute,
constraints-supported [1] SET OF ConstraintsType
OPTIONAL,
dfr-document-types-supported [2] SET OF TypeAndAttribute
OPTIONAL,
function-set-supported [3] FunctionSetType OPTIONAL,
maximum-length-supported [4] INTEGER OPTIONAL,
dor-for-produce-operations [5] BOOLEAN DEFAULT TRUE,
dor-for-consume-operations [6] BOOLEAN DEFAULT TRUE,
rOA-protocols-accessee [7] ROAProtocols OPTIONAL,

rOA-protocols-accessor	[8]	ROAProtocols OPTIONAL,
bilateralInformation	[9]	SEQUENCE OF
		BilateralInformationEntry OPTIONAL,
server-selected-protocol-version	[10]	INTEGER {
version-1	(1),	
version-2	(2) }	OPTIONAL }

Change the ASN.1 definition of "**ConstraintsType**" in paragraph b) as follows:

```

ConstraintsType ::= SEQUENCE {
    name-constraint    [0]    NameConstraint,
    version-constraint [1]    VersionConstraint,
    profile-supported [2]    SEQUENCE OF OBJECT IDENTIFIER
                                OPTIONAL }

```

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Change the ASN.1 definition of "**VersionConstraint**" as follows:

```

VersionConstraint ::= ENUMERATED {
    no-version-constraint    (0),
    version-unambiguity      (1),
    version-not-supported    (2) }

```

Add the following paragraph at the end of the description of 2) **Version-constraint** in paragraph b):

<https://standards.iteh.ai/catalog/standards/sist/7ce74891-7d46-42c4-bf67-983fe1ab3cc8/iso-iec-10166-1-1991-amd-1-1995>

iii) **Version not supported** (conceptual document is not supported).

Add the following paragraph to the bottom of paragraph b):

3) **profile-supported** specifies the function subsets (for example, function profiles) which are supported by the DFR-Server.

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Add the following two paragraphs after paragraph i):

j) **bilateralInformation (O)**: This parameter includes bilateral information between the DFR-Server and the DFR-User.

k) **server-selected-protocol-version (O)**: This parameter indicates the DFR protocol version which the DFR-Server selected. This parameter is only present if **protocol-version** is specified in the bind argument. If the DFR-Server supports the DFR protocol version specified by the DFR-User, the DFR-Server includes the value corresponding to the specified DFR protocol version in this parameter. If the DFR-Server does not support

the DFR protocol version specified by the DFR-User, the DFR-Server includes the value corresponding to one of the DFR protocol versions supported by the DFR-Server.

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Subclause 8.1.3.2

Change the ASN.1 definition of "Reservation" as follows:

```
Reservation ::= SEQUENCE {
    reservation-duration [0] GeneralizedTime OPTIONAL,
    reservation-level [1] ReservationLevel,
    reservation-status [2] ReservationStatus DEFAULT uncommitted,
    reservation-referent [3] BOOLEAN DEFAULT FALSE }
```

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Subclause 8.1.5.6

Change the ASN.1 definition of "EntryInformationSelection" as follows:

```
EntryInformationSelection ::= SEQUENCE {
    read-selector [0] ENUMERATED {
        attributes-only (0),
        attributes-and-content (1),
        content-only (2),
        dor-to-attr-only (3),
        attr-and-dor-to-content (4),
        dor-to-content-only (5),
        dor-to-entire-object (6),
        attr-and-dor-to-entire-object (7),
        attributes-and-part-of-content (8),
        part-of-content-only (9) }
        DEFAULT attributes-only,
    attribute-selection [1] AttributeSelection OPTIONAL,
    content-selection [2] SEQUENCE {
        content-server-id DistinguishedName,
        content-selection-parameter EXTERNAL } OPTIONAL }
```

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Subclause 8.1.5.6

Change the ASN.1 definition of "EntryInformation" as follows:

```
EntryInformation ::= CHOICE {
    attributes-only [0] DfrEntryAttributes,
    attributes-and-content [1] DfrObject,
```

```

content-only [2] DfrObjectContent,
dor-to-attr-only [3] DOR,
attr-and-dor-to-content [4] SEQUENCE {
    attributes [0] DfrEntryAttributes,
    dor-to-content [1] DOR },
dor-to-content-only [5] DOR,
dor-to-entire-object [6] DOR,
attr-and-dor-to-entire-object [7] SEQUENCE {
    attributes [0] DfrEntryAttributes,
    dor-to-entire-object [1] DOR },
attributes-and-part-of-content [8] DfrObject,
    -- DFR-Server extracts the part of the DFR-Content according to --
    -- the content-selection, then creates a DfrObject which contains --
    -- only selected part of the contents. --
part-of-content-only [9] DfrObjectContent
    -- DFR-Server extracts the part of the DFR-Content according to --
    -- the content-selection, then creates a DfrObjectContent which contains --
    -- only selected part of the contents. --
    }

```

Add the following text to the end of the subclause:

The **content-selection** optionally specifies that only part of the DFR-Document is requested. When content is selected by DTAM (ITU-T Recommendation T.430 series), **content-selection-parameter** is the **ManipulationObject** defined in the ITU-T Recommendation T.435.

NOTE- This function is provided for some initial applications with limited capabilities that can not support the combined use of DFR and DTAM.

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Subclause 8.2.5.3

Add the following note at the end of the subclause:

NOTE - When content selection is done by DTAM, and content selection criteria in the **ManipulationObject** are not satisfied, the DTAM defined error **CapabilityError** will be reported by using **ExternalServerError**.

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Subclause 8.2.8.1

Change the ASN.1 definition of "**SearchArgument**" as follows:

```

SearchArgument ::= SEQUENCE {
    search-mode [0] CHOICE {
        -continue [0] DfrEntryName,
        -- Continue the search which all options (search domain, --

```

```

-- search criteria and continuation context) from the--
-- search result list specified by the DfrEntryName.      --
-- The result will be added to the present content of    --
-- this search result list.                               --
update [1] DfrEntryName,
-- The present content of the search result list      --
-- is verified and possibly updated.                  --
new-search-stored [2] DfrEntryName,
-- All options are supplied by the requester in the  --
-- subsequent parameters; they are stored in the search --
-- result list specified, where the result is then     --
-- also stored.                                       --
non-stored-search [3] Null },
-- All options are supplied by the requester in the  --
-- subsequent parameters; they are not stored, also the --
-- result is not stored but only returned to the requester. --

COMPONENTS OF CommonListSearchArguments,
search-domain [5] SearchDomain OPTIONAL,
search-criteria [6] SearchCriteria OPTIONAL,
search-server [7] SEQUENCE {
    server-id DistinguishedName,
    server-parameter EXTERNAL } OPTIONAL,
search-limit [8] SEQUENCE {
    small-set-upper-limit [0] INTEGER,
    large-set-lower-limit [1] INTEGER,
    medium-set-attributes [2] SET OF
    AttributeType OPTIONAL } OPTIONAL,
COMPONENTS OF CommonArguments (
WITH COMPONENTS { ... ,
    error-handling ABSENT )}

```

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Add the following text to the end of a) Specific Search argument:

- **search-server** specifies the identifier of the search server, and the parameter supplied to the search server.

- **search-limit** specifies the behavior of the DFR-Server according to the number of the DFR-Entities which satisfy the search criteria.

1. small-set-upper-limit is the upper limit of the hits where the DFR-Server returns Search result according to the specification of the **AttributeSelection** parameter.

2. large-set-lower-limit is the upper limit of the hits where the DFR-Server returns Search result according to the specification of the **medium-set-attributes** specification. If number of hits exceeds this limit, the DFR-Server returns an error indication instead of returning Search result.

3. medium-set-attributes is the set of attributes returned by the DFR-Server when number of hits are more than **small-set-upper-limit** and less than **large-set-lower-limit**. If this parameter is not specified, the value specified by **AttributeSelection** is assumed.

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Subclause 8.2.8.2

Change the ASN.1 definition of "SearchResult" as follows:

```
SearchResult ::= SEQUENCE {
    COMPONENTS OF CommonListSearchResult
        (WITH COMPONENTS { ... , warnings ABSENT } ),
    removed-entries      [5]   DfrEntryList OPTIONAL,
    number-of-hits       [6]   ENUMERATED {
        within-small-set   (0),
        within-medium-set  (1) } OPTIONAL,
    additional-information [7]   SEQUENCE OF
        AdditionalInformationEntry
OPTIONAL}
```

Add the ASN.1 definition of "AdditionalInformationEntry" after the definition of "SearchResult" as follows:

```
AdditionalInformationEntry ::= SEQUENCE {
    server-name [0]   DistinguishedName,
    information [1]   EXTERNAL }
--
```

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Add the following bullets to the end of b) Specific Search result:

- **number-of-hits** indicates whether number of hits is less than **small-set-upper-limit** or between **small-set-upper-limit** and **large-set-lower-limit**. This parameter is present only if **search-limit** is present in the Search Abstract Operation.
- **additional-information** is the supplementary information provided by the search server specified by the parameter **search-server**. This parameter is present only if the parameter **search-server** is specified in the Search Abstract Operation, and the search server has supplementary information.

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Subclause 8.2.9

Delete last sentence of subclause 8.2.9, 1st paragraph, which reads "If a DFR-Reference is reserved, the Referent is not affected, that is, not reserved".

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Subclause 8.2.9.1

Add following bullet to the bottom of paragraph a).

- **reservation-referent** is applicable only when changing the parameter specified in **Reservation** argument against the DFR-Reference. If this parameter is given the value TRUE in the DFR abstract operation of the DFR-Reference, the **reservation-duration**, the **reservation-level**, and the **reservation-status** of the DFR-Referent which is pointed to by this DFR-Reference are also changed.
The DFR-User must have appropriate access rights to the DFR-Referent.

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Subclause 8.3.10

Change the ASN.1 definition of "ServiceProblem" as follows:

ServiceProblem ::= ENUMERATED {
server-busy (1), -- please wait and repeat --
server-unavailable (2), -- please unbind --
operation-too-complex (3), -- e.g. search-criteria --
resource-limit-exceeded (4), -- e.g. when creating a bulky object --
maximum-length-exceeded (5), -- in an abstract operation --
cannot-continue (6), -- e.g. search-domain altered --
unclassified-server-error (7), -- implementation specific --
function-set-violation (8), -- see 8.4 --
too-many-search-hits (9) } -- hit exceeds large-set-lower-limit --

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Subclause 8.3.10

Add the following paragraph after the paragraph h):

i) **too-many-search-hits**: The Search abstract operation finds more DFR-Entities which satisfy the search criteria than the value specified by the **large-set-lower-limit** value.

Subclause 8.3.13

Create a new subclause 8.3.13 with the following text, and resequence the current subclause 8.3.13 as 8.3.14:

8.3.13 External-Server-Error

An **ExternalServerError** reports a problem occurring in a search server or a content search server. If the problem can be mapped to one of the DFR Abstract-Errors, the DFR-Server reports the error by using one of the DFR Abstract-Errors. If the problem can not be mapped to one of the DFR Abstract-Errors, the DFR-Server reports the problem by **ExternalServerError**.

ExternalServerError ::= ABSTRACT ERROR

```

PARAMETER      SEQUENCE {
    server-id          DistinguishedName,
    server-specific-error EXTERNAL }

```

Subclause (resequenced) 8.3.14

Insert "**ExternalServerError**" (after "**ServiceError**" (standards.iteh.ai))

Table 3

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Add the following entries at the bottom of Table 3.

Attribute-type name	Single/Multi-valued	Assigned by	Modified by	Deleted by	Auto copied by Copy
Valid-User-Key	S	R	R	R	N
DFR-Document-Purge-Date-and-Time	S	U	U	U	U

In the key at the bottom of each part of Table 3, insert "**R = ROOT GROUP ONLY**" after "**O=OWNERS**".