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Information technology — Text Communication — Message-Oriented Text Interchange Systems (MOTIS) —

Part 7:

Interpersonal Messaging System

AMENDMENT 1: Minor enhancements: File transfer body part and auto-submission indication

*Technologies de l'information — Communication de texte — Systèmes d'échange
de texte en mode message —*

Partie 7: Système de messagerie de personne à personne

*AMENDEMENT 1: Améliorations mineures: Partie du corps de transfert de dossier
et indication d'autosoumission*



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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. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Amendment 1 to International Standard ISO/IEC 10021-7:1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee 18, *Document processing and related communication*.

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Clause 2

Add the following new subclause to the end of clause 2:

2.7 File Transfer

This part of ISO/IEC 10021 cites the following File Transfer specifications:

- ISO 8571-1 : 1988, *Information processing systems - Open Systems Interconnection - File Transfer, Access and Management - Part 1: General Introduction.*
- ISO 8571-2 : 1988, *Information processing systems - Open Systems Interconnection - File Transfer, Access and Management - Part 2: Virtual Filestore Definition.*
- ISO 8571-2 : 1988/Amd.1 : 1992, *Information processing systems - Open Systems Interconnection - File Transfer, Access and Management - Part 2: Virtual Filestore Definition - Amendment 1 : Filestore Management.*

ISO 8571-4 : 1988, *Information processing systems - Open Systems Interconnection - File Transfer, Access and Management - Part 4: File Protocol Specification.*

ISO 8571-4 : 1988/Amd.1 : 1992, *Information processing systems - Open Systems Interconnection - File Transfer, Access and Management - Part 4: File Protocol Specification - Amendment 1 : Filestore Management.*

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Annex A

Add the following new subclause to the end of Annex A:

A.3 Auto-submitted

The **Auto-submitted** heading extension indicates whether the IPM was submitted without human intervention, and if so whether the message was auto-generated, or auto-replied.

If this heading extension has the value *not-auto-submitted*, the message-submission is under direct or indirect control of a human.

```
auto-submitted IPMS-EXTENSION
    VALUE AutoSubmitted
    ::= id-hex-auto-submitted
```

```
AutoSubmitted ::= ENUMERATED {
    not-auto-submitted (0),
    auto-generated (1),
    auto-replied (2) }
```

The auto-forwarded heading field may also indicate that the message has been submitted without human intervention. The absence of both this heading extension and the auto-forwarded heading field indicates that no information is available as to whether the message-submission involved human control.

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Annex B

Add the following new subclauses to the end of Annex B:

B.3 File Transfer

A **File Transfer** body part represents an information object used to convey the contents, and optionally the attributes, of a stored file. The file transfer body part is based on the file model defined in ISO 8571-2. It has Parameters and Data components.

```
file-transfer-body-part EXTENDED-BODY-PART-TYPE
    PARAMETERS FileTransferParameters IDENTIFIED BY id-ep-file-transfer
    DATA FileTransferData
    ::= id-et-file-transfer
```

```
FileTransferParameters ::= SEQUENCE {
    related-stored-file [0] RelatedStoredFile OPTIONAL,
    contents-type [1] ContentsTypeParameter DEFAULT document-type { document-type-name
        {iso standard 8571 document-type (5) unstructured-binary (3)} },
    environment [2] EnvironmentParameter OPTIONAL,
    compression [3] CompressionParameter OPTIONAL,
    file-attributes [4] FileAttributes OPTIONAL,
    extensions [5] ExtensionsField OPTIONAL }
```

FileTransferData ::= SEQUENCE OF EXTERNAL

-- This conveys a sequence of data values representing file contents;

-- The rules for generating this sequence are implied by the value of the contents-type parameter

B.3.1 Related Stored File Parameter

The related stored file parameter indicates to the recipient any intended relationship between the file in this body part and any file(s) held by the recipient. Stored files may be identified either by pathname or by reference to previous MHS messages sent. Explicit relationships with stored files that may be indicated include:

- unspecified;
- a new file may be created using the contents in this body part;
- the contents of an existing file may be replaced by the contents in this body part;
- an existing file may be extended using the contents of this body part.

The syntax for this parameter is:

```
RelatedStoredFile ::= SET OF SEQUENCE {
    file-identifier      FileIdentifier,
    relationship         Relationship DEFAULT explicit-relationship unspecified }

FileIdentifier ::= CHOICE {
    pathname-and-version [0] PathnameandVersion,
    cross-reference      [1] CrossReference }

PathnameandVersion ::= SEQUENCE {
    pathname      [0] Pathname-Attribute,
    file-version  [1] GraphicString OPTIONAL}

CrossReference ::= SEQUENCE {
    application-cross-reference [0] OCTET STRING,
    message-reference          [1] MessageReference OPTIONAL,
    body-part-reference        [2] INTEGER OPTIONAL }

MessageReference ::= SET {
    user [0] ORName OPTIONAL,
    -- Defined in 8.5.5 of [Rec. X.411/ISO/IEC 10021-4]
    user-relative-identifier [1] PrintableString }

Relationship ::= CHOICE {
    explicit-relationship [0] ExplicitRelationship,
    descriptive-relationship [1] GraphicString }

ExplicitRelationship ::= ENUMERATED {
    unspecified (0),
    new-file (1),
    replacement (2),
    extension (3) }
```

The pathname option is intended for use in a manner consistent with ISO 8571-2, as amended by Amendment 1. It is a sequence of elements, each of which represents a name component. When more than one element is encoded, the first element shall be the file name and the remaining elements shall be concatenated to represent the file name prefix.

NOTE 1 - ISO 8571-2 Amendment 1 renamed the "filename" attribute in ISO 8571-2 to the "pathname" attribute.

A message reference has the following components:

- a) **User (C):** Identifies the user who originated the referenced message. One of the user's O/R names. This conditional component shall be present unless the reference is an IPM identifier which does not contain a User component.

- b) **User-relative-identifier (M):** Unambiguously identifies a message, distinguishing it from all other messages that the user who is identified by the User component originates. A Printable String of from zero to a prescribed number of characters. A length of zero is discouraged.

NOTE 2 - The MessageReference shares the same value set with the IPMIdentifier, EDIMIdentifier and VMIdentifier. Hence a file transfer body part is capable of referencing IPM, EDIM or VM messages.

A body part reference uniquely identifies a body part within a message. It is for use when referencing a message with a content type which includes body part references.

B.3.2 Contents Type Parameter

The contents type parameter indicates the abstract data types of the contents of the file and the structuring information which is necessary if the complete file structure and semantics are to be maintained during the transfer of the file.

```

ContentsTypeParameter ::= Contents-Type-Attribute

Contents-Type-Attribute ::= CHOICE {
    document-type          [0] SEQUENCE {
        document-type-name Document-Type-Name,
        parameter           [0] ANY OPTIONAL },
        -- The actual types to be used for values of the parameter field
        -- are defined in the named document type.
    constraint-set-and-abstract-syntax [1] SEQUENCE {
        constraint-set-name  Constraint-Set-Name,
        abstract-syntax-name Abstract-Syntax-Name } }

Document-Type-Name ::= OBJECT IDENTIFIER

Constraint-Set-Name ::= OBJECT IDENTIFIER

Abstract-Syntax-Name ::= OBJECT IDENTIFIER

```

The value is either a document-type name (optionally with parameters of type ANY) or a pair of abstract syntax name and constraint set name. Each of these names is an Object Identifier.

The concepts of document-type and constraint set are described fully in ISO 8571-1 and ISO 8571-2. Examples of document types which may be used in this body part are:

- a) unstructured text file (FTAM-1)
- b) unstructured binary file (FTAM-3)
- c) sequential binary file (FTAM-4)

B.3.3 Environment Parameter

The environment parameter describes the environment (e.g., machine, operating system, and application) from which the file originated. It has the following syntax:

```

EnvironmentParameter ::= SEQUENCE {
    application-reference [0] GeneralIdentifier OPTIONAL,
    machine               [1] GeneralIdentifier OPTIONAL,
    operating-system      [2] OBJECT IDENTIFIER OPTIONAL,
    user-visible-string   [3] SEQUENCE OF GraphicString OPTIONAL }

GeneralIdentifier ::= CHOICE {
    registered-identifier [0] OBJECT IDENTIFIER,
    descriptive-identifier [1] SEQUENCE OF GraphicString }

```