

Implementation of ISO/IEC 10021-5 : 1990

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

**Part 5: Message Store: Abstract Service
Definition**

National foreword

This British Standard reproduces verbatim ISO/IEC 10021-5 : 1990 and implements it as the UK national standard.

This British Standard is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/18 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Implementation of Technical Corrigendum 1
published and effective from 30 September 1991
to BS ISO/IEC 10021-5 : 1990

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

Part 5 : Message Store: Abstract Service
Definition

AMD 6849
September 1991

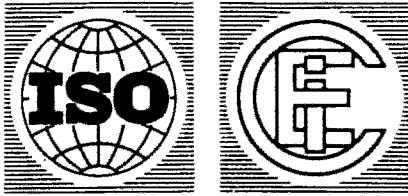
National foreword

In line 1, after 'ISO/IEC 10021-5 : 1990' insert, ',including Technical Corrigendum 1'.

AMD 6849
September 1991

ISO text

Insert the attached as appropriate.



INTERNATIONAL STANDARD ISO/IEC 10021-5 : 1990
TECHNICAL CORRIGENDUM 1

Published 1991-07-01

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
INTERNATIONAL ELECTROTECHNICAL COMMISSION • МЕЖДУНАРОДНАЯ ЭЛЕКТРОТЕХНИЧЕСКАЯ КОМИССИЯ • COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 1

*Technologies de l'information — Communication de texte — Systèmes d'échange de texte en mode message —
Partie 5: Dépôt de message: Définition de service abstrait
RECTIFICATIF TECHNIQUE 1*

Technical corrigendum 1 to International Standard ISO/IEC 10021-5 : 1990 was prepared by ISO/IEC JTC 1, *Information technology*.

Page 14

Subclause 6.2.3

Delete the second paragraph and insert:

"The Change-credentials abstract-service operates end-to-end between the MS-user and the MTS-service-provider, and is transparently passed through the MS. If the MS-user needs to update the credentials it uses when binding to the MS, then the Register-MS abstract-operation is used. See 8.6."

Page 17

Subclause 6.3.3.4

In the ATTRIBUTE MACRO, in the production for StringConstraint, delete "| empty".

UDC 681.3 : 621.39

Ref. No. ISO/IEC 10021-5 : 1990/Cor.1 : 1991 (E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, text communication, messages, definitions.

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Page 19

Subclause 6.4, point c)

In the first sentence delete:

"or the MS has performed some auto-action on it",

and insert in its place:

"or the MS has performed an auto-action on it, and the definition of that auto-action causes a change of entry-status".

Page 38

Subclause 8.6.1

Delete the abstract service definition for **change-credentials** in **Register-MSArgument** and insert:

```
change-credentials [4] SEQUENCE {  
  old-credentials   [0] Credentials,  
  new-credentials   [1] Credentials} OPTIONAL
```

In point 3) in the first sentence delete "or Alert".

Page 43

Subclause 9.5

In the ASN.1 definition of the **FetchRestrictionProblem** change "(3)" to "(3)".

Page 46

Subclause 11.1

Add at the end of this clause:

"Attribute-types defined as present in a delivered-message entry may not always be present in a child entry. The rules governing the presence of attribute-types in child-entries may be supplemented in the International Standard which defines the content-type of the child entry.

All attributes supported are available to the Fetch abstract-operation subject to subscription."

Page 50

Subclause 11.2.6

In the last sentence change the clause reference to "8.2.1.1.1.28".

Page 60

Table 2 (Part 2 of 4)

In **Delivered-EITs** change the Source parameter to:

"Converted-EITs and Original-EITs general-attributes, and converted-encoded-information-types".

Change the Generation rules to:

"Converted-EITs if converted-encoded-information-types is present, else Original-EITs".

Page 71

Subclause 14.2.4

At the end of the first paragraph delete the sentence:

"The MS reacts with the following steps:"

and insert:

"The MS checks if there is already an existing abstract-association between the MS and UA. If not, the MTA is informed by a Remote-bind-error that change of submission control cannot take place at present. If there is, the MS reacts with the following steps:".

Page 74

Subclause 15.1.3

Insert a new step 4) as follows,

"4) The fetch restrictions established by the abstract bind (unless overridden) are applied to determine whether the entry may be returned or an error results. See clause 7.1.1 point 4)."

Renumber the existing steps 4) and 5) as 5) and 6).

In the new (renumbered) step 5, in the first sentence change the two instances of "general-attributes" to "attributes". At the start of the second sentence change "If no request has been done" to "If no requested attributes are specified".

Add a new 3rd sentence as follows,

"The allowed-EITs in the fetch restrictions on the abstract-bind may limit the information returned. For details see clause 7.1.1."

Page 77

Subclause 15.2.4

In step 3), delete "and the MS waits for the SubmissionControl result to come back from the UA".

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.

International Standard ISO/IEC 10021-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 10021-5 consists of the following parts, under the general title: *Information technology — Text Communication — Message-Oriented Text Interchange Systems (MOTIS)* —

- *Part 1: System and Service Overview*
- *Part 2: Overall Architecture*
- *Part 3: Abstract Service Definition Conventions*
- *Part 4: Message Transfer System: Abstract Service Definition and Procedures*
- *Part 5: Message Store: Abstract Service Definition*
- *Part 6: Protocol Specifications*
- *Part 7: Interpersonal Messaging System*

Annexes A, B, C and D form an integral part of this part of ISO/IEC 10021. Annexes E, F and G are for information only.



**Implementation of Technical Corrigendum 2
published and effective from 15 July 1992
to BS ISO/IEC 10021-5 : 1990**

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

**Part 5: Message Store: Abstract Service
Definition**

AMD 7142
July 1992

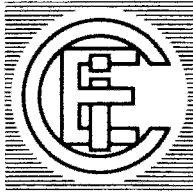
National foreword (as amended by Technical Corrigendum 1)

In line 1, after 'Technical Corrigendum 1' insert 'and Technical Corrigendum 2,'.

AMD 7142
July 1992

ISO text

Insert the attached as appropriate.



INTERNATIONAL STANDARD ISO/IEC 10021-5 : 1990
TECHNICAL CORRIGENDUM 2

Published 1991-12-15

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
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Information technology — Text Communication — Message-Oriented Text Interchange Systems (MOTIS) —

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 2

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

Part 5: Dépôt de message: Définition de service abstrait

TECHNICAL CORRIGENDUM 2

Technical corrigendum 2 to International Standard ISO/IEC 10021-5 : 1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 30

Clause 8.1.3

In point 4) replace the second paragraph by "In the absence of this component there is no limit on the number of entries selected."

Page 36

Clause 8.4.2

In point 1) replace the first sentence "This is a set of attributes..." by "This is the set of all those requested attributes that are present in the selected entry."

UDC 681.3 : 621.39

Ref. No. ISO/IEC 10021-5 : 1990/Cor.2 : 1991 (E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, text communication, messages, definitions.

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Full document details: BS ISO/IEC 10021-5:1990

Page 37

Clause 8.5.1

In the production for **DeleteArgument**, add a comma at the end of the line starting "**selector**".

Page 43

Clause 9.5

In the production for **FetchRestrictionError** replace the line starting "**content-type**" with:

```
content-type [0] OBJECT IDENTIFIER,
```

Page 47

Table 1

For the Attribute-type "**Converted-EITs**", in the column headed "**Presence in delivered report entry**" change "—" to "C".

Page 48

Table 1

For the Attribute-type "**Report-origin-authentication-check**", in the column headed "**Presence in delivered message entry**" change "C" to "—", and in the column headed "**Available for Summarize**" change "Y" to "N".

Page 51

Clause 11.2.11

Change the second sentence to read "It is generated from the **converted-encoded-information-types** from the **MessageDelivery** or **ReportDelivery** abstract-operation."

Page 51

Clause 11.2.12

Delete the third sentence.

Page 52

Clause 11.2.15

In the first paragraph delete from the start of the second sentence until the end of the paragraph and replace with the following:

"If present in a delivered-message it contains one or more distribution-list names used during the expansion process. It is absent if the MessageDelivery to this recipient did not involve any expansion of a distribution-list. If however it is present in a delivered-report it contains the originator name and one or more distribution-list names used during the expansion process. It is absent if the subject message, upon which the ReportDelivery is based, did not involve any expansion of a distribution-list. For more details see 8.3.1.1.1.7 and 8.3.1.2.1.3 of ISO/IEC 10021-4."

Page 53

Clause 11.2.17

the production for **EntryType**, change:

```
returned-content (2) (0..ub-entry-types) }
```

to:

```
returned-content (2) } (0..ub-entry-types)
```

Page 55

Clause 11.2.26

replace the first two sentences by:

This general-attribute, which is multi-valued, identifies the **encoded-information-types** in the content of the message as submitted. It is generated from the **original-encoded-information-types** from the MessageDelivery or ReportDelivery abstract-operation."

Pages 59 to 62

Table 2

Throughout Table 2 replace the generation rule "The value of the parameter is the attribute-value" by "The attribute-value is the value of the source parameter".

Page 60

Table 2

For the Attribute-type “**DL-expansion-history**”, delete the row and insert:

DL-expansion-history	M	DL-expansion-history	MD	A corresponding value is generated for each component of the SEQUENCE
		Originator-and-DL-expansion-history	RD	A corresponding value is generated for each component of the SEQUENCE

Page 61

Table 2

For the Attribute-type “**Message-delivery-envelope**”, in the column headed “**Source parameter**” change “envelope” to “MessageDeliveryEnvelope”.

Page 62

Table 2

For the Attribute-type “**Report-delivery-envelope**”, in the column headed “**Source parameter**” change “envelope” to “ReportDeliveryEnvelope”.

Page 64

Clause 12.1

In the production for **PerRecipientAutoForwardFields** change “**ExpilicitConversion**” to “**ExplicitConversion**”.

Page 65

Clause 12.2

Delete the last sentence of the first paragraph.

Pages 67 and 68

Clause 14.1.1

Insert a new point 1), before the existing point 1), and renumber existing points 1) to 3) as 2) to 4):

"1) Creates a new entry (and conditionally one or more child entries) and sets the entry-status to new."

In the fourth sentence of existing point 2) (new point 3)) change "auto-actions may result in alerts," to "an auto-action may result in changes of entry-status, alerts."

Page 68

Clause 14.1.1

In existing point 2) a) (new point 3) a)) replace the last sentence by "If the auto-forward submission is unsuccessful a copy is always retained."

Page 68

Clause 14.1.2

Insert a new point 1), before the existing point 1), and renumber existing points 1) and 2) as 2) and 3):

"1) Creates a new entry (and conditionally one or more child entries) and sets the entry-status to new."

Page 82

Annex A

Delete the comma from the attribute-type definition:

```
"id-att-report-delivery-envelope ID ::= {id-att 34}"
```

Page 85

Annex B

In the production for **MSBindArgument**, add a comma at the end of the line "**initiator-name**".

Page 89

Annex B

In the production for **DeleteArgument**, add a comma at the end of the line starting "**selector**".

Page 90

Annex B

In the production for **FetchRestrictionError** replace the line starting "content-type" with:

```
content-type [0] OBJECT IDENTIFIER,
```

Page 95

Annex C

In the production for **EntryType**, change:

```
returned-content (2) (0..ub-entry-types) }
```

to:

```
returned-content (2) } (0..ub-entry-types)
```

Page 99

Annex D

In the production for **PerMessageAutoForwardFields** change "PerMessageSubmissionExtensions" to "PerMessageSubmissionExtensions".

In the production for **PerRecipientAutoForwardFields** change "ExpilicitConversion" to "ExplicitConversion".



**Implementation of Technical Corrigendum 3
published and effective from 15 August 1992
to BS ISO/IEC 10021-5 : 1990**

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

Part 5 : Message Store: Abstract Service Definition

AMD 7275
August 1992

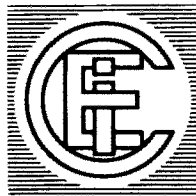
National foreword (as amended by Technical Corrigenda 1 and 2)

In line 1, delete 'including Technical Corrigendum 1 and Technical Corrigendum 2'
and substitute 'including Technical Corrigenda 1, 2 and 3'.

AMD 7275
August 1992

ISO text

Insert the attached as appropriate.



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

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 3

*Technologies de l'information — Communication de texte — Systèmes d'échange de texte en mode message —
Partie 5: Dépôt de message: Définition de service abstrait
RECTIFICATIF TECHNIQUE 3*

Technical corrigendum 3 to International Standard ISO/IEC 10021-5 : 1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 14

Subclause 6.2.3

Amend the replacement second paragraph in Technical Corrigendum 1 by replacing "and is transparently passed through the MS." with "and passes through the MS. The MS stores the new credentials for use when it subsequently binds with the MTA.".

Page 15

Subclause 6.3.3.1

In the ASN.1 definition of "Attribute" replace:

values SEQUENCE SIZE (1..ub-attribute-values) OF ANY -- *DEFINED BY type* -- }

with:

values SEQUENCE SIZE (1..ub-attribute-values) OF AttributeValue }

UDC 681.3 : 621.39

Ref. No. ISO/IEC 10021-5 : 1990/Cor.3 : 1992 (E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, text communication, messages, definitions.

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Page 16

Subclause 6.3.3.3

Add to the end of the subclause the following:

```
AttributeValue ::= ANY
```

Page 22

Subclause 7.1.1

In bullet 2) third paragraph append the following: "The **password** is defined further in 8.5.11 of ISO/IEC 10021-4."

Page 24

Subclause 7.1.2

In bullet 1) third paragraph append the following: "The **password** is defined further in 8.5.11 of ISO/IEC 10021-4."

In bullet 1) fourth paragraph, in the first sentence delete ", and, optionally, a **responder-certificate**, both of which are". In the second sentence replace "and **responder-certificate** are" with "is".

Pages 27-28

Subclause 8.1.2.1

Replace the entire text of the subclause with the following:

"A **filter** parameter applies a test to a particular entry and is either satisfied or not by the entry. The **filter** is expressed in terms of assertions about the presence or value(s) of certain attributes of the entry, and is satisfied if and only if it evaluates to **true**. A **filter** may be **true**, **false** or **undefined**.

```
Filter ::= CHOICE {  
    item      [0] FilterItem,  
    and       [1] SET OF Filter,  
    or        [2] SET OF Filter,  
    not       [3] Filter }
```

A **filter** is either a **filter-item**, or an expression involving simpler filters composed together with the logical operators **and**, **or** and **not**:

- a) A **filter** which is a **filter-item** has the value of the **filter-item** (i.e. **true**, **false** or **undefined**);
- b) A **filter** which is the **and** of a set of **filters** is **true** if the set is empty or if each **filter** is **true**; it is **false** if at least one **filter** is **false**; otherwise it is **undefined** (i.e. at least one **filter** is **undefined** and no **filters** are **false**);
- c) A **filter** which is the **or** of a set of **filters** is **false** if the set is empty or if each **filter** is **false**; it is **true** if at least one **filter** is **true**; otherwise it is **undefined** (i.e. at least one **filter** is **undefined** and no **filters** are **true**);
- d) A **filter** which is the **not** of a **filter** is **true** if the **filter** is **false**; **false** if it is **true**; and **undefined** if it is **undefined**."

Pages 28-29

Subclause 8.1.2.2

Replace the entire text of the subclause with the following:

"A **filter-item** is an assertion about the presence or value(s) of an attribute of a particular type in the entry under test. Each such assertion is **true**, **false** or **undefined**.

```

FilterItem ::= CHOICE {
    equality           [0] AttributeValueAssertion,
    substrings        [1] SEQUENCE {
        type           AttributeType,
        strings        SEQUENCE OF CHOICE {
            initial     [0] AttributeValue,
            any          [1] AttributeValue,
            final       [2] AttributeValue } },
    greater-or-equal  [2] AttributeValueAssertion,
    less-or-equal     [3] AttributeValueAssertion,
    present           [4] AttributeType,
    approximate-match [5] AttributeValueAssertion }

```

Every **filter-item** includes an attribute-type which identifies the particular attribute concerned.

Any assertion about the value of such an attribute is only defined if the attribute-type is known by the evaluating mechanism, and the purported attribute-value(s) conforms to the attribute syntax defined for that attribute-type. Where the conditions are not met, the **filter-item** is undefined.

Assertions about the value of an attribute are evaluated using the matching rules associated with the attribute syntax defined for that attribute-type (see 6.3.3.4). A matching rule not defined for a particular attribute syntax cannot be used to make assertions about the attribute. Where this condition is not met, the **filter-item** is undefined.

A **filter-item** may be **undefined**, as described above. Otherwise, where the **filter-item** asserts:

- a) **equality**, it is **true** if and only if there is a value of the attribute which is equal to that asserted;
- b) **substrings**, it is **true** if and only if there is a value of the attribute in which the specified **substrings** appear in the given order. The **substrings** must be non-overlapping, and may (but need not) be separated from the ends of the attribute-value and from one another by zero or more **string** elements.

If **initial** is present, the substring shall match the initial substring of the attribute-value; if **final** is present, the substring shall match the final substring of the attribute-value; if **any** is present, the substring shall match any in the attribute-value;
- c) **greater-or-equal**, it is **true** if and only if the relative ordering (as defined by the appropriate ordering algorithm) places the supplied value before (i.e. less than) or equal to any value of the attribute;
- d) **less-or-equal**, it is **true** if and only if the relative ordering (as defined by the appropriate ordering algorithm) places the supplied value after (i.e. greater than) or equal to any value of the attribute;
- e) **present**, it is **true** if and only if such an attribute is present in the entry;
- f) **approximate-match**, it is **true** if and only if there is a value of the attribute which matches that which is asserted by some locally-defined approximate matching algorithm (e.g. spelling variations, phonetic match, etc.). There are no specific guide-lines for approximate matching in this version of the Specification. If **approximate-match** is not supported, this **filter-item** should be treated as match for **equality**.

NOTE - If no matching rules are given in the attribute definition, this means that only the presence of the attribute can be tested in a **filter-item**."

Page 29

Subclause 8.1.2.3

Replace the entire text in the subclause with the following:

"An **attribute-value-assertion (AVA)** is a proposition, which may be **true**, **false** or **undefined**, concerning the values of an entry. It is evaluated using a matching rule specified for the type and which is appropriate for the context in which the **attribute-value-assertion** is evaluated. It involves an attribute-type and an attribute-value:

```
AttributeValueAssertion ::= SEQUENCE (
    type      AttributeType,
    value     AttributeValue )
```

and is:

a) **undefined**, if any of the following holds:

- 1) the attribute-type is unknown;
- 2) the attribute syntax for the type has no matching rule;
- 3) the value does not conform to the data type of the attribute syntax;

NOTE - 2) and 3) normally indicate a faulty AVA; 1), however, may occur as a local situation (e.g. a particular MS does not support that particular attribute-type).

- b) **true**, if the entry contains an attribute of that attribute-type, one of whose attribute-values matches that attribute-value;
- c) **false**, otherwise."

Page 38

Subclause 8.6.1

In bullet 2) replace the existing definition of "AutoActionDeregistration" with:

```
AutoActionDeregistration ::= SEQUENCE{
    type                AutoActionType,
    registration-identifier [0] INTEGER (1..ub-per-auto-action) DEFAULT 1 }
```

Page 52

Subclause 11.2.15

Replace "DLExpansionHistory" in the second line of the ASN.1 for mt-dl-expansion-history with "DLExpansion".

Page 72

Subclause 14.3.2

Split the first sentence of bullet 2) into two:

"It gets a ChangeCredentials result back when the MTA has accepted the change. If successful, the MS stores the new credentials."

Page 85

Annex B

In the ASN.1 definition of "Attribute" replace:

```
values          SEQUENCE SIZE (1..ub-attribute-values) OF ANY -- DEFINED BY type -- }
```

with:

```
values          SEQUENCE SIZE (1..ub-attribute-values) OF AttributeValue }
```

Add after the definition of "AttributeType":

```
AttributeValue ::= ANY
```

Page 86

Annex B

Replace the ASN.1 definitions of "Filter", "FilterItem" and "AttributeValueAssertion" with:

```
Filter ::= CHOICE {
    item      [0] FilterItem,
    and       [1] SET OF Filter,
    or        [2] SET OF Filter,
    not       [3] Filter }

FilterItem ::= CHOICE {
    equality           [0] AttributeValueAssertion,
    substrings       [1] SEQUENCE {
        type          AttributeType,
        strings       SEQUENCE OF CHOICE {
            initial    [0] AttributeValue,
            any         [1] AttributeValue,
            final       [2] AttributeValue } },
    greater-or-equal  [2] AttributeValueAssertion,
    less-or-equal    [3] AttributeValueAssertion,
    present           [4] AttributeType,
    approximate-match [5] AttributeValueAssertion }

AttributeValueAssertion ::= SEQUENCE {
    type  AttributeType,
    value AttributeValue }
```

Page 89

Annex B

Replace the definition of "AutoActionDeregistration" with:

```
AutoActionDeregistration ::= SEQUENCE{
    type                AutoActionType,
    registration-identifier [0] INTEGER (1..ub-per-auto-action) DEFAULT 1 }
```

Page 92

Annex C

In the IMPORTS of "*-- General-attribute-type object identifiers*" replace "id-intended-recipient-name" with "id-att-intended-recipient-name". Add to the list of IMPORTS "id-att-per-recipient-report-delivery-fields," and "id-att-security-classification,".

In the IMPORTS of "*-- Authentication-service data-types*" change:

```
FROM AuthenticationFramework { joint-iso-ccitt ds(5) modules(1) authentication-framework(7) }
```

to:

```
FROM AuthenticationFramework { joint-iso-ccitt ds(5) modules(1) authenticationFramework(7) }
```

Page 94

Annex C

Replace "DLExpansionHistory" in the second line of the ASN.1 for mt-dl-expansion-history with "DLExpansion".

Page 98

Annex D

Remove "Content," from the import from MSAbstractService.

Add the following to the IMPORTS clause:

```
--MTS upper bounds
ub-recipients
FROM MTSUpperBounds
    {joint-iso-ccitt mhs-motis(6) mts(3) modules(0) upper-bounds(3)}
```

**Implementation of Technical Corrigendum 4
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**Information technology — Text Communication —
Message-Oriented Text Interchange Systems (MOTIS) —
Part 5: Message Store: Abstract Service Definition**

National foreword (as amended by Technical Corrigenda 1, 2 and 3)

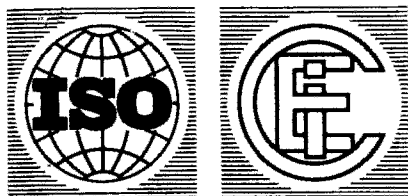
In line 1, delete 'Technical Corrigenda 1, 2 and 3' and substitute 'Technical Corrigenda 1, 2, 3 and 4'.

AMD 7543/December 1992

ISO text

Insert the attached as appropriate.

AMD 7543/December 1992



INTERNATIONAL STANDARD ISO/IEC 10021-5 : 1990 TECHNICAL CORRIGENDUM 4

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

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 4

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

Partie 5: Dépôt de message: Définition de service abstrait

RECTIFICATIF TECHNIQUE 4

Technical corrigendum 4 to International Standard ISO/IEC 10021-5 : 1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 6

Subclause 3.2.33

Remove the comma from "3.,2.33" and replace the last sentence with: "Each such assertion is either true, false or undefined".

Page 9

Clause 4

Insert after "P: present" the following line "ROS: Remote Operations".

UDC 681.3 : 621.39

Ref. No. ISO/IEC 10021-5 : 1990/Cor.4 : 1992 (E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, text communication, messages, definitions.

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Page 18

Subclause 6.3.3.4

In bullet e) iii), replace "less than equal to, or greater than a target value" with "less than or equal to, or greater than or equal to a target value".

Page 19

Subclause 6.4

In the first sentence after the Note, change "stored-messages" to "stored-messages information-base".

Add the following paragraph to the end of the subclause:

"The **entry-status** of a child-entry is maintained according to the same rules as apply to a main-entry. A change in the **entry-status** of an entry may result from operations performed on the entry's parent or child-entry. If a child-entry is logically present in an attribute of its parent-entry, the retrieval of the attribute is regarded as equivalent to retrieval of all attributes of the child-entry. If an attribute of an entry is logically present in one or more child-entries, then retrieval of all those child-entries is equivalent to retrieval of the attribute."

Page 19

Subclause 6.5.1

In the first paragraph, extend the end of the sentence as follows:

" or controlled by subscription."

In the second paragraph replace the first sentence with:

"An **auto-action** is an action that will occur automatically whenever the associated criteria have been satisfied. The criteria may be conveyed to the MS by means of registration or subscription."

Insert new paragraph at end of subclause:

"Even if an auto-action has a defined **auto-action-registration-parameter**, any criteria and other parameters needed for its performance may be conveyed to the MS by means of subscription. However, some **auto-actions** may require that the MS supports registration of its **registration-parameter** by means of the Register-MS abstract-operation (see 8.6)."

Page 22

Subclause 7.1

Add the following after the second sentence of the first paragraph:

"Information exchanged in the argument and result of MS-Bind shall apply for the duration of the abstract-association."

Page 22

Subclause 7.1.1

At the end of the second sentence replace "supported by the MS" with "to which the MS-user has subscribed"

Replace the first paragraph of bullet (5) with the following:

- "5) **MS-configuration-request (C)**: This parameter specifies whether the MS is requested to return information which identifies the auto-action-types, attribute-types, and content-types to which the MS-user has subscribed, and which consequently are available in the course of the abstract-association."

Page 24

Subclause 7.1.2

Replace bullets 2, 3 and 5 with the following:

- "2) **Available-auto-actions (C)**: This identifies the set of auto-action-types to which the MS-user has subscribed. It is present if requested in the abstract-bind-argument and at least one auto-action-type is available; it is absent otherwise."
- "3) **Available-attribute-types (C)**: This identifies the set of attribute-types to which the MS-user has subscribed. It is present if requested in the abstract-bind-argument and at least one attribute-type is available; it is absent otherwise."
- "5) **Content-types-supported (C)**: This identifies the set of content-types to which the MS-user has subscribed and for which the MS offers specific support, as defined in the relevant content-specific International Standard. A message whose content-type is absent from this set may still be submitted, or may be delivered and subsequently retrieved. In the latter case, none of the content-specific attribute-types or auto-action-types defined for that content-type will be available to the MS-user.

This parameter is present if requested in the abstract-bind-argument and at least one content-type is supported; it is absent otherwise."

Page 24

Subclause 7.1.3

Replace the first sentence with "An **MS-Bind-error** reports a problem in attempting to establish an abstract-association."

Page 30

Subclause 8.1.3

In bullet 5) a), replace both occurrences of "content-types-restriction" with "fetch-restrictions on content-types".

In bullet 5) b), replace both occurrences of "EITs-restriction" with "fetch-restrictions on encoded-information-types".

In bullet 5) c), replace both occurrences of "content-length-restriction" with "fetch-restrictions on content-length".

Page 36

Subclause 8.5

Add the following to the end of the second paragraph:

"The entry-status of any child-entry associated with a main-entry shall not be considered when performing the **Delete abstract-operation**."

Page 40

Subclause 8.7.1

In bullet 1), change "6.4" to "6.5".

Replace the last sentence in bullet 2 with "It is absent when the MS abstract-service-user did not specify **requested-attributes** in the **auto-alert-registration-parameter**".

Page 43

Subclause 9.5

In bullet b), change "Eit-problem" to "EIT-problem".

Page 44

Subclause 9.7

In the first sentence, replace "limit" with "range".

Page 47

Table 1 (Part 1 of 3)

In Table 1 (Part 1 of 3), for the Attribute-type "Converted-EITs", in the column headed "Presence in delivered-report entry" change "C" (introduced in Technical Corrigendum 2) back to "-".

Page 49

Subclause 11.2.2

After the first sentence, insert a new sentence: "In the latter case, the content general-attribute is created in the returned-content child-entry and not in the delivered-report entry itself."

Page 51

Subclause 11.2.11

In the first sentence replace "by Message Delivery or ReportDelivery" with "by Message Delivery"

Page 54

Subclause 11.2.21

In the last sentence of the note, replace "report-information" with "per-recipient-report-delivery-fields".

Page 56

Subclause 11.2.34

In the first sentence, delete "or Report Delivery".

Replace "WITH ATTRIBUTE-SYNTAX RedirectionHistory" by "WITH ATTRIBUTE-SYNTAX Redirection".

Page 59

Table 2 (Part 1 of 4)

Replace the entry for "Content" with:

"Content"	S	content	MD	The attribute-value in the delivered message entry is the value of the source parameter
		returned-content	RD	The attribute-value in the returned-content child-entry of the delivered report entry is the value of the source parameter"

Page 63

Clause 12

Append to second paragraph:

"Alternatively, registration information may be conveyed to the MS by means of subscription."

Page 64

Subclause 12.1

In the ASN.1 definition of **PerMessageAutoForwardFields** replace:

*priority Priority DEFAULT normal, *

with:

*priority Priority OPTIONAL, *

and replace:

*per-message-indicators PerMessageIndicators DEFAULT { }, *

with:

*per-message-indicators PerMessageIndicators OPTIONAL, *

In bullet 2), replace the second paragraph with the following two paragraphs:

"If **conversion-with-loss-prohibited** is registered with the value **conversion-with-loss-allowed**, either by explicit registration of the value, or if it is not registered and thus assumes this value by default, the value used for each Message-submission abstract-operation shall be the value of the corresponding Message-delivery argument. If it is registered with the value **conversion-with-loss-prohibited**, this value shall be used for each Message-submission abstract-operation.

If **implicit-conversion-prohibited** is registered with the value 'zero', indicating that implicit-conversion is allowed, or if no value is registered, the value used for each Message-submission abstract-operation shall be the value of the corresponding Message-delivery argument. If it is registered with the value 'one', indicating that implicit-conversion is prohibited, this value shall be used for each Message-submission abstract-operation."

In the third paragraph of bullet 2), replace "are either not registered, or are registered with their default values," with "are not registered".

At the end of the third paragraph of bullet 2), replace "and **message-security-label**" with "**message-security-label**, and **priority**".

In the last paragraph of bullet 2), replace "may not" with "shall not".

Add a new paragraph to the end of the subclause (after the NOTE):

"Support of the **auto-forward auto-action** by an MS, or UA accessing an MS, requires that it supports registration of the **auto-forward-registration-parameter** via the Register-MS abstract-operation."

Page 65

Subclause 12.2

Change "delivered message" to "delivered-message or delivered-report" in the second paragraph and change "delivered-message" to "delivered-message or delivered-report" in each paragraph in bullet 1).

Page 68

Subclause 14.1.1

In step 4) (as renumbered by Technical Corrigendum 2), replace "step 2)" with "step 1)" and delete the last sentence.

Page 68

Subclause 14.1.1.1

Delete subclause 14.1.1.1.

Page 68

Subclause 14.1.2

In step 3) (as renumbered by Technical Corrigendum 2), replace "content-specific and" with "either general or content-specific, the latter being".

Page 69

Subclause 14.1.2.1

Delete subclause 14.1.2.1.

Page 69

Subclause 14.1.3

After this subclause insert a new subclause as follows:

"14.1.4 Generation rules for general-attributes

Attributes shall be generated when a message or report is delivered, and may be generated when an auto-action is performed.

All mandatory attributes are generated, see Table 1. Optional attributes are generated only if implemented by the MS and subscribed to by the user. The generated attributes form a new entry, or in some cases a parent-entry and one or more child-entries, see 6.3.4. The following kinds of general-attributes may be generated:

- a) general-attributes generated by the MS itself (e.g. sequence number);
- b) general-attributes generated from components of the message-delivery-envelope and report-delivery-envelope. For components which are not present, but for which default values are defined, a general-attribute containing the default value is generated.

See Table 2 and 11.3 for the rules on how the general-attributes are generated. The generation rules for content-specific attributes are described in the respective content-specific Specifications, e.g. the IPMS-specific attributes are described in Annex C of ISO/IEC 10021-7."

Page 71

Subclause 14.2.3

Delete the last sentence in the third bullet.

**Implementation of Technical Corrigendum 5
published and effective from 15 March 1993
to BS ISO/IEC 10021-5 : 1990**

**Information technology – Text Communication – Message-Oriented
Text Interchange Systems (MOTIS) –
Part 5: Message Store: Abstract Service Definition**

National foreword (as amended by Technical Corrigenda 1, 2, 3 and 4)

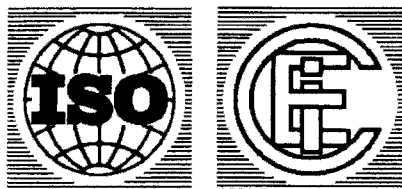
In line 1, delete '2, 3 and 4' and substitute '2, 3, 4 and 5'.

AMD 7684/March 1993

ISO text

Insert the attached as appropriate.

AMD 7684/March 1993



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

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 5

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

Partie 5: Dépôt de message: Définition de service abstrait

RECTIFICATIF TECHNIQUE 5

Technical corrigendum 5 to International Standard ISO/IEC 10021-5:1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 1

Clause 1

Replace the last sentence starting: "No requirement ..." with "The requirements for conformance to this part of ISO/IEC 10021 are stated in clause 10 of ISO/IEC 10021-6."

UDC 681.3 : 621.39

Ref. No. ISO/IEC 10021-5:1990/Cor.5:1992 (E)

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Page 10

Subclause 5.2

In the third paragraph (starting 'For the column headed "Support level by MS and access UA"') replace:

"M mandatory"

by:

"M mandatory for the MS and the access UA

M* mandatory for the MS"

Page 28

Subclause 8.1.2.2 (as replaced by Technical Corrigendum 3)

In bullet c), replace "places the supplied value before (i.e. less than) or equal to any value of the attribute" by "places a value of the attribute after (i.e. greater than) or equal to the supplied value".

In bullet d), replace "places the supplied value after (i.e. greater than) or equal to any value of the attribute" by "places a value of the attribute before (i.e. less than) or equal to the supplied value".

Page 31

Subclause 8.1.4

In the third sentence of bullet 2) replace "only be present" with "be present only". In the fourth sentence of bullet 2) replace "If it is omitted" with "If this component is omitted".

In the first sentence of bullet 3) insert "maximum" before "number". Replace the second sentence of bullet 3) with "It is not an error if count is greater than the number of values present in the entry".

In the third sentence of bullet 3) replace "only be present" with "be present only". In the fourth sentence of bullet 3) replace "If it is omitted" with "If this component is omitted".

Add a new last paragraph:

"Where an attribute of the type specified in an attribute-selection is supported by the MS, but is absent from a particular entry, or is not applicable to an entry of that entry-type, then that attribute-selection shall be regarded as absent when applying the associated abstract-operation to the entry."

Pages 47-49

Table 1

In the column "Support level by MS and access UA" replace the "M" classification by "M*" for the following attribute-types: "Child-sequence-numbers", "Creation-time", "Entry-type", "Parent-sequence-number", "Per-recipient-report-delivery-fields" and "Subject-submission-identifier".

*Page 47***Table 1**

For the attribute "Intended-recipient-name" change the Attribute-type name to be "Originally-intended-recipient-name".

*Page 49***Subclause 11.2.2**

Add a new sentence to the end of the paragraph: "The encoding of the Content contained in the Octet String that constitutes this attribute shall be identical, when retrieved, to that delivered to the MS; there is no constraint on the encoding employed for the containing Octet String itself."

*Page 53***Subclause 11.2.18**

Change the title of the subclause to read: "**Originally-intended-recipient-name**". In the first paragraph delete ", with each value representing one redirection". Change the name of the attribute from "mt-intended-recipient-name" to "mt-originally-intended-recipient-name" and change the value from "id-att-intended-recipient-name" to "id-att-originally-intended-recipient-name".

*Page 60***Table 2**

For the attribute "Intended-recipient-name" change the Attribute-type name to "Originally-intended-recipient-name" and change the source parameter to be "originally-intended-recipient-name".

*Page 73***Subclause 15.1.2**

In bullet 4) replace the last sentence with "The entry-status of each entry for which entry-information is returned is set to listed if its current value is new."

*Page 77***Subclause 15.3**

In the second sentence replace "Indirect-submission Port supplier" with "Administration Port supplier" and replace "Indirect-submission Port consumer" with "Administration Port consumer".

Page 82

Annex A

Under "-- *Attribute-types*" replace "id-att-intended-recipient-name" with "id-att-originally-intended-recipient-name".

Page 84

Annex B

In the import clause under "-- *MS abstract-service upperbound*" delete "ub-nested-filters,".

Page 92

Annex C

In the IMPORTS under "-- *General-attribute-type object identifiers*" replace "id-att-intended-recipient-name" with "id-att-originally-intended-recipient-name".

Page 95

Annex C

In the ASN.1 production for "mt-intended-recipient-name" replace "mt-intended-recipient-name" by "mt-originally-intended-recipient-name" and replace "id-att-intended-recipient-name" by "id-att-originally-intended-recipient-name".

Page 100

Annex E

Delete the line "ub-nested-filters INTEGER ::= 32".

**Implementation of Technical Corrigendum 6
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**Information technology — Text Communication —
Message-Oriented Text Interchange Systems (MOTIS) —
Part 5: Message Store: Abstract Service Definition**

National foreword (as amended by Technical Corrigenda 1, 2, 3, 4 and 5)

In line 1, delete '2, 3, 4 and 5' and substitute '2, 3, 4, 5 and 6'.

AMD 8393/January 1995

ISO text

Insert the attached as appropriate.

AMD 8393/January 1995



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

Part 5: Message Store: Abstract Service Definition

TECHNICAL CORRIGENDUM 6

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

Partie 5: Dépôt de message: Définition de service abstrait

RECTIFICATIF TECHNIQUE 6

Technical corrigendum 6 to International Standard ISO/IEC 10021-5:1990 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 18, *Document processing and related communication*.

Page 26

Subclause 8.1.1

Insert a new sentence at the end of the first paragraph:

"A range is inclusive of its upper and lower bounds."

Page 28

Subclause 8.1.2.2 (as modified by Technical Corrigendum 3)

Replace the three paragraphs before bullet a) by:

An assertion about the value of an attribute can be evaluated only if properly specified. If the MS does not support the attribute-type (or it is not subscribed to by the MS-user), or the presented attribute-value does not conform to the attribute's attribute-syntax, or the definition of the attribute-type does not include the type of match requested then the abstract-operation or auto-action which contains the assertion shall fail. The abstract-operation shall return an attribute-error.

UDC 681.3:621.39

Ref. No. ISO/IEC 10021-5:1990/Cor.6:1994(E)

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, text communication, messages, message handling systems, message stores.

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Assertions about the value of an attribute are evaluated using the generic matching-rules (**equality**, **substrings**, **greater-or-equal**, **less-or-equal**, and **approximate-match**) defined for that attribute-type. All of the matching-rules for attribute-types defined in this International Standard have an outcome of **true** or **false**. However, matching-rules defined for attribute-types defined in other content-specific Standards may also allow the outcome **undefined**.

Assertions about the presence of an attribute are implicitly defined for all attribute types. The outcome is always either **true** or **false**.

If the **filter-item** is properly specified, where it asserts:

Page 29

Subclause 8.1.2.3 (as modified by Technical Corrigendum 3)

Replace the text after the ASN.1 production by:

If the AVA is properly specified (see 8.1.2.2) its evaluation has one of the following outcomes:

true, if the entry contains an attribute of that attribute-type, one of whose attribute-values matches the presented attribute-value;

undefined, if the entry contains an attribute of that attribute-type, and the specified matching-rule declares the result of the match to be undefined;

false, otherwise.

NOTE - None of the matching-rules defined in this Specification returns **undefined**. However, matching-rules defined in other content-specific Standards may do so.

Page 31

Subclause 8.1.5

... (add to the end of bullet 2):

The parameter is also absent if none of the requested-attributes are present in the entry.

Page 37

Subclause 8.6

In the ASN.1 production for Register-MS replace "ServiceError}" by:

```
ServiceError,  
OldCredentialsIncorrectlySpecified,  
NewCredentialsUnacceptable }
```


Page 39

Subclause 8.6.3

Insert at the end of the subclause:

In addition to those abstract-errors which arise directly (e.g., from an invalid **change-credentials** parameter), the MS shall generate an abstract-error where a registration affecting the subsequent performance of List, Fetch, or an auto-action would cause that abstract-operation or auto-action to fail.

NOTE - This occurs, for example, where **list-attribute-defaults** includes an unavailable attribute-type, or where an **auto-action-registration** contains a filter which makes reference to an unavailable attribute-type.

Page 45

Subclause 9.10

Insert two new subclauses after subclause 9.10:

9.11 Old-credentials-incorrectly-specified

An Old-credentials-incorrectly-specified abstract-error reports that the **credentials** cannot be changed because the current (old-) **credentials** were incorrectly specified. This error is defined in 8.4.2.3 in ISO/IEC 10021-4.

9.12 New-credentials-unacceptable

A New-credentials-unacceptable abstract-error reports that the **credentials** cannot be changed because the **new-credentials** are unacceptable. This error is defined in 8.4.2.2 in ISO/IEC 10021-4.

Page 77

Subclause 15.3.1

Insert new sentences at the end of bullet 1): "Subject to local policy or subscription, the MS may impose additional restrictions on the registrations which may be performed by the MS-user; if these restrictions are not met, an abstract-error is returned to the MS-user and no further steps are processed."

Page 83

Annex B

Under the heading "-- MTS *abstract-service data-types*", insert "NewCredentialsUnacceptable, OldCredentialsIncorrectlySpecified, " after "InitiatorCredentials,".

Page 89

Annex B

In the ASN.1 production for Register-MS replace "ServiceError}" by:

```
ServiceError,  
OldCredentialsIncorrectlySpecified,  
NewCredentialsUnacceptable }
```

