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**Information technology — Abstract  
Syntax Notation One (ASN.1): Information  
object specification**

**AMENDMENT 1: Support for  
EXTENDED-XER**

*Technologies de l'information — Notation de syntaxe abstraite numéro  
un (ASN.1): Spécification des objets informationnels*

*AMENDEMENT 1: Support pour règles de codage XML étendu*

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Published in Switzerland

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## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to International Standard ISO/IEC 8824-2:2002 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*, in collaboration with ITU-T. The identical text is published as Amendment 1 to ITU-T Rec. X.681.

INTERNATIONAL STANDARD  
ITU-T RECOMMENDATIONInformation technology – Abstract Syntax Notation One (ASN.1) –  
Information object specification

## Amendment 1

## Support for EXTENDED-XER

NOTE – All new or changed text in this amendment is underlined in the clauses being replaced. When merging all such text into the base Recommendation, the underlining is to be removed.

## 1) Subclause 14.6.1

In subclause 14.6, replace the production "XMLOpenTypeFieldValue" with the following:

```
XMLOpenTypeFieldVal ::=
    XMLTypedValue
    | xmlhstring
```

## 2) Subclause 14.9

Replace subclause 14.9 with the following three subclauses:

**14.9** For a type field or a variable-type value or value set field defined by an "ObjectClassFieldType", the "XMLOpenTypeFieldVal" shall be used in any "XMLValue".

**14.9.1** When used in an ASN.1 module, the type identified by the "XMLTypedValue" shall be any ASN.1 type (but see ITU-T Rec. X.680 | ISO/IEC 8824-1, 13.3) and the "XMLValue" in the "XMLTypedValue" shall be any value of that type.

NOTE – When the notation is used as specified in ITU-T Rec. X.693 | ISO/IEC 8825-4, 8.5, the type of the "XMLTypedValue" in an "XMLOpenTypeFieldVal" is identified by the protocol (for example, by a component relation constraint), the "NonParameterizedTypeName" in the "XMLTypedValue" is derived from this, and the "XMLValue" is a value of this type.

**14.9.2** The "xmlhstring" alternative of "XMLOpenTypeFieldVal" shall not be used in an ASN.1 module. This alternative can be used only as specified in ITU-T Rec. X.693 | ISO/IEC 8825-4, 8.5, when the type is identified by the protocol and the "xmlhstring" is the hexadecimal value for the encoding of that type, using some (unspecified) encoding rules.

## 3) Subclause 14.12

Replace subclause 14.12 with the following:

**14.12** For an "XMLOpenTypeFieldVal", if the "Type" specified in the information object (after ignoring any tags) is a "typereference" or an "ExternalTypeReference", then the "NonParameterizedTypeName" shall be that "typereference" or "ExternalTypeReference"; otherwise, it shall be the "xmlasn1typename" specified in ITU-T Rec. X.680 | ISO/IEC 8824-1, Table 4, corresponding to the built-in type specified in the information object, after application of the subclauses of ITU-T Rec. X.680 | ISO/IEC 8824-1, 25.11, if applicable.

#### 4) Subclause 15.6

*Replace subclause 15.6 with the following:*

**15.6** For a "TypeFromObject" and a "ValueSetFromObjects", the XML value notation for sequence-of and set-of (see ITU-T Rec. X.680 | ISO/IEC 8824-1, Table 5) and the "xmlasn1typename" (if required) shall be determined by the "Type" specified in the information object(s), after application of the subclauses of ITU-T Rec. X.680 | ISO/IEC 8824-1, 25.11, if applicable.

#### 5) Annex F

*In Annex F, replace the production "XMLOpenTypeFieldValue" with the following:*

```
XMLOpenTypeFieldVal ::=
    XMLTypedValue
    | xmlhstring
```

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