



INTERNATIONAL STANDARD ISO/IEC 8824-1:1998
TECHNICAL CORRIGENDUM 3

Published 2002-05-01

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

Information technology — Abstract Syntax Notation One (ASN.1): Specification of basic notation

TECHNICAL CORRIGENDUM 3

Technologies de l'information — Notation de syntaxe abstraite numéro un (ASN.1): Spécification de la notation de base

RECTIFICATIF TECHNIQUE 3

Technical Corrigendum 3 to International Standard ISO/IEC 8824-1:1998 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

Withdrawn

INTERNATIONAL STANDARD
ITU-T RECOMMENDATION

Information technology – Abstract Syntax Notation One (ASN.1):
Specification of basic notation

TECHNICAL CORRIGENDUM 3

1) Introduction

In the Introduction (page vi), replace the second and third paragraphs (beginning with "Although this standard notation" and "Outside the context of OSI", respectively) with the following text :

In some protocol architectures, each message is specified as the binary value of a sequence of octets. However, standards-writers need to define quite complex data types to carry their messages, without concern for their binary representation. In order to specify these data types, they require a notation that does not necessarily determine the representation of each value. ASN.1 is such a notation. This notation is supplemented by the specification of one or more algorithms called **encoding rules** that determine the value of the octets that carry the application semantics (called the **transfer syntax**). ITU-T Rec.X.690 | ISO/IEC 8825-1 and ITU-T Rec. X.691 | ISO/IEC 8825-2 specify two families of standardized encoding rules, called **Basic Encoding Rules (BER)** and **Packed Encoding Rules (PER)**. Some users wish to redefine their legacy protocols using ASN.1, but cannot use standardized encoding rules because they need to retain their existing binary representations. Other users wish to have more complete control over the exact layout of the bits on the wire (the transfer syntax). These requirements are addressed by ITU-T Rec.X.692 | ISO/IEC 8825-3 (expected to be approved late 2001) which specify an **Encoding Control Notation (ECN)** for ASN.1. ECN enables designers to formally specify the abstract syntax of a protocol using ASN.1, but to then (if they so wish) take complete or partial control of the bits on the wire by writing an accompanying ECN specification (which may reference standardized Encoding Rules for some parts of the encoding).

There is increasing recognition of the notion of an abstract value of some class (type) divorced from the details of any particular encoding. In order to correctly interpret the bit-pattern representation of the value, it is necessary to know (usually from the context), the class (type) of the value being represented, as well as the encoding mechanism being employed. Thus, the identification of a type is an important part of this Recommendation | International Standard.

2) Subclause 2.1

Add the following item at the end of subclause 2.1:

- ITU-T Recommendation X.692 (2001) | ISO/IEC 8825-3:2001, *Information technology – ASN.1 encoding rules: Specification of Encoding Control Notation (ECN)*.

3) Subclause 3.8

Add a new subclause 3.8.15 bis as follows:

3.8.15 bis contents constraint: A constraint on a bit string or octet string type that specifies either that the contents are to be an encoding of a specified ASN.1 type, or that specified procedures are to be used to produce the contents.

4) Clause 4

In clause 4 add the following line after the line that defines DNIC:

ECN Encoding Control Notation of ASN.1