INTERNATIONAL STANDARD ISO 10303-11:1994
TECHNICAL CORRIGENDUM 1

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Industrial automation systems and integration — Product data representation and exchange —

Part 11:
Description methods: The EXPRESS language reference manual

TECHNICAL CORRIGENDUM 1

Systèmes d'automatisation industrielle et intégration — Représentation et échange de données de produits —

Partie 11: Méthodes de description: Manuel de référence du langage EXPRESS

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to International Standard ISO 10303-11:1994 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration*, Subcommittee SC 4, *Industrial data*.

Ref. No. ISO 10303-11:1994/Cor.1:1999(E)

Introduction

This document corrects ISO 10303-11:1994; *Industrial automation systems and integration - Product data representation and exchange - Part 11: Description methods: The EXPRESS language reference manual.* The corrected document supersedes ISO 10303-11:1994.

The principal problem addressed by this corrigendum is the ambiguity concerning the inclusion of control codes (ISO/IEC 6429) in the abstract content of a STRING data type. This corrigendum resolves this ambiguity by explicitly excluding all control codes except document formatting control codes from the STRING data type.

It is not the intent of EXPRESS to prescribe how the characters of ISO/IEC 10646-1 are represented in an implementation. A real implementation of an EXPRESS STRING may contain one or more control codes following the prescriptions in ISO 2022 that serve to identify the character(s) indicated by the encoding which follows. These control codes are not part of the (abstract) STRING value, and do not get counted when one measures the size of a STRING. Other representations are also possible, including using one of the encoding methods prescribed in ISO/IEC 10646-1.

This corrigendum corrects EXPRESS by changing references to cells 00-1F and 7F to include only cells related to document formatting, and by removing any reference that may imply the method of implementation of the characters. It does this both for the contents of a STRING, and for the EXPRESS language character set itself.

The corrigendum also corrects some character references by substituting the character name used in ISO/IEC 10646-1 for the character. Thus, ' is an apostrophe, not a quote mark.

Modifications to the text of ISO 10303-11:1994

Page xi

Foreword

In the fourth paragraph
    replace 'ISO 10646-1' with 'ISO/IEC 10646-1'

Page 2

Add a new section 3.2 as follows:

3.2 Terms defined in ISO/IEC 10646-1

    - graphic character;

NOTE: This definition includes only those characters in ISOIEC 10646-1 that have a defined visual representation; this explicitly excludes any cells that are empty or crosshatched.

Page 2

Renumber clause 3.2 as 3.3, and the remaining subclauses in this clause.

Page 7

Clause 6.1

In the third item following the WSN notation, third line
    replace 'ISO 10646' with 'ISO/IEC 10646-1'

Page 8

Clause 6.2

In the first item,
    replace 'ISO 10646' with 'ISO/IEC 10646-1'

Clause 6.2

Last item, beginning \o

delete this line.
Clause 6.2

After the last item, add the following items:

- \x8, \x9, \xA, \xB, \xC, \xD represents the characters in positions 8, 9, 10, 11, 12, and 13 respectively of row 00, plane 00, group 00 of ISO 10646-1.

Page 9

Clause 7.1

First paragraph: replace this paragraph with:

A schema written in EXPRESS shall use only the characters in the following character set: characters allocated to cells 08 to 0D, the graphic characters lying in the range 20 to 7E of ISO/IEC 10646-1, and the special character \n signifying the newline. This set of characters is called the EXPRESS character set. A member of this set is referred to by the cell of the standard in which this character is allocated; these cell numbers are specified in hexadecimal. The printable characters from this set (cells 21-7E of ISO/IEC 10646-1) are combined to form the tokens for the EXPRESS language. The EXPRESS tokens are keywords, identifiers, symbols or literals. The EXPRESS character set is further classified below.

The character set thus specified is an abstract character set; it is independent of its representation in an implementation.

NOTE ISO/IEC 6429 specifies semantics for the characters in positions 08 to 0D in ISO/IEC 10646-1. This part of ISO 10303 does not require the semantics prescribed in ISO/IEC 6429; neither does it preclude them.

Page 10

Clause 7.1.4

Second line

change 'cannot' to 'shall not'.

Clause 7.1.5.1

First sentence

Delete "or within an explicit string literal".

4

Second sentence.

> Change the sentence to "The notation '\s' may be used to represent a space character in the syntax of the language."

Clause 7.1.5.3

> Change this paragraph to:

The characters in cells 08 to 0D shall be treated as whitespace, unless within a string literal. The notation \xn where n is one of the characters 8, 9, A, B, C, and D shall be used to represent these characters in the syntax of the language.

Page 12

Clause 7.1.6.2

In the syntax block, production 144

> Change '| \o' in the production to '| \x8 | \x9 | \xA | \xB | \xC | \xD'.

Clause 7.5.4, third line

> change 'quote marks' to 'apostrophes'

Page 16

Clause 7.5.4

Third and fourth line

> Change 'quote marks' to 'apostrophes'

Fourth line
> Change 'quote mark' to 'apostrophe'

Fifth line

> Replace 'ISO 10646' with 'ISO/IEC 10646-1'

Sixth line

Replace 'double quote marks' with 'quotation mark'

Each of the lines in the item list

Replace 'ISO 10646' with 'ISO/IEC 10646-1'

Immediately following the list

Add the sentence (paragraph)
The sequence of octets shall identify one of the valid characters of ISO/IEC 10646-1.

Second line following the list

Replace 'quotes' with 'apostrophes'

Page 17

Syntax box, production 141

Change '| \o' in the production to '| \x8 | \x9 | \xA | \xB | \xC | \xD'.

In the Example, under 12

Change 'quote marks' to 'apostrophes'

Add a new example under 13

"0000795E00006238"

These are the Japanese ideographs 神戸 for Kobe.

Page 20

Clause 8.1.6

Second sentence

Replace this sentence with

"The characters that are permitted as part of a string value are those characters allocated to cells 08 to 0D and the graphic characters lying in the ranges 20 to 7E and A0 to 10FFFE of ISO/IEC 10646-1."