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Information technology — Extensions of Office Open XML file formats —

Part 2: Character repertoire checking

Technologies de l'information — Extensions de formats de fichiers Office Open XML —

Partie 2: Vérification de répertoire de caractères

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Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Syntax ... **2**
4.1 General ... 2
4.2 Character Checking Origin part ... 3
4.3 Character Checking Condition part ... 3
4.3.1 General ... 3
4.3.2 Condition element ... 4
4.3.3 RootScript element ... 4
4.3.4 Location element ... 4
4.4 CREPDL part ... 4
5 Processing model ... **5**
Annex A (normative) **Schemas for Character Checking Constraint parts** ... **6**
Annex B (normative) **Media types and relationship types** ... **7**
Bibliography ... **8**

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

A list of all parts in the ISO/IEC 30114 series can be found on the ISO website.

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Introduction

ISO/IEC 29500 was designed to allow the addition of markup and other data to Open Office XML (OOXML) documents, and to allow OOXML applications unaware of such markup and date to provide reasonable results.

This document standardizes a set of extensions for character repertoire checking. For example, it can be used to ensure that some cells in OOXML Spreadsheet documents contain characters in ISO/IEC 8859-1[1] only.

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Information technology — Extensions of Office Open XML file formats —

Part 2: Character repertoire checking

1 Scope

This document provides an extension of OOXML for embedding CREPDL scripts within an OOXML document, and validating character contents in the OOXML document against these CREPDL scripts.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 19757-2, *Information technology — Document Schema Definition Language (DSDL) — Part 2: Regular-grammar-based validation — RELAX NG*

ISO/IEC 19757-7, *Information technology — Document Schema Definition Languages (DSDL) — Part 7: Character Repertoire Description Language (CREPDL)*

ISO/IEC 29500-1, *Information technology — Document description and processing languages — Office Open XML File Formats — Part 1: Fundamentals and Markup Language Reference*

ISO/IEC 29500-2, *Information technology — Document description and processing languages — Office Open XML File Formats — Part 2: Open Packaging Conventions*

ISO/IEC 29500-3, *Information technology — Document description and processing languages — Office Open XML File Formats — Part 3: Markup Compatibility and Extensibility*

ISO/IEC 29500-4, *Information technology — Document description and processing languages — Office Open XML File Formats — Part 4: Transitional Migration Features*

W3C XML, Extensible Markup Language (XML) 1.0, W3C Recommendation, available at http://www.w3.org/TR/xml

W3C XML Schema Part 1: Structure, W3C Recommendation, available at http://www.w3.org/TR/xmlschema-1/

3 Terms and definitions

For the purposes of this document, the terms and definitions given in W3C XML, W3C XML Schema Part 1, ISO/IEC 19757-2, ISO/IEC 19757-7, ISO/IEC 29500-1, ISO/IEC 29500-2, ISO/IEC 29500-3, and ISO/IEC 29500-4 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

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3.1
CREPDL part
OPC part containing a CREPDL script

3.2
OPC part
part

Note 1 to entry: Parts are defined in ISO/IEC 29500-2.

Note 2 to entry: Since "part" is too general, this document uses "OPC part", instead.

4 Syntax

4.1 General

This document introduces the Character Checking Origin part and Character Checking Condition parts. OOXML documents, which shall conform to ISO/IEC 29500-1 or ISO/IEC 29500-4, may contain these OPC parts for embedding CREPDL scripts. Embedded CREPDL scripts are also OPC parts. These OPC parts shall conform to ISO/IEC 29500-2, and CREPDL scripts shall conform to ISO/IEC 19757-7. Relationship names and content types relating to these OPC parts are defined in Annex B.

NOTE ISO/IEC TR 30114-1[2] lists two extensibility mechanisms, ISO/IEC 29500-3 MCE (Markup Compatibility and Extensibility) and foreign OPC parts, for adding markup and other data to OOXML documents. This document uses foreign OPC parts rather than MCE.

When a CREPDL script contains a reference to a CREPDL script in another part, both the source and the referenced parts shall be the targets of relationships from the same Character Checking Condition part.

Figure 1 shows a package with the Character Checking Origin part and two Character Checking Condition parts. The example Character Checking Origin part references two Character Checking Condition parts, each of which references a CREPDL script as well as a part whose character contents are validated against the CREPDL script.

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