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# REPORT

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# Information technology — Programming languages, their environment and system software interfaces — Native COBOL Syntax for XML Support

*Technologies de l'information — Langages de programmation, leur environnement et interfaces du logiciel système — Syntaxe COBOL native pour support XML*

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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.

In exceptional circumstances, the joint technical committee may propose the publication of a Technical Report of one of the following types:

— type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;

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Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

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ISO/IEC TR 24716, which is a Technical Report of type 2, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*, in collaboration with INCITS Technical Committee J4, Programming language COBOL.

# Introduction

This Technical Report provides extensions so that COBOL can process XML documents as easily as it can read files. The new syntax to process XML documents,

— is based on the familiar approach used with COBOL I/O support,

— provides Document Object Model (DOM) style parsing,

— handles multiple input sources to handle XML in an extremely flexible manner,

— reads, updates, and writes XML documents,

— checks that XML documents are well-formed, and

— provides an optional validity check of an XML document against a schema or Document Type Definition (DTD).

Technical Report ISO/IEC 24716 extends the COBOL specification defined in ISO/IEC 1989:2002, *Information technology — Programming languages — COBOL*. It provides new syntax to read, write, and update XML documents in COBOL.

Annex A forms a normative part of this Technical Report. Annex B and Annex C and the Bibliography are for information only.

# Information technology — Programming languages, their environment and system software interfaces — Native COBOL Syntax for XML Support

## 1 Scope

This Technical Report specifies the syntax and semantics for XML support in COBOL. The purpose of this Technical Report is to promote a high degree of portability in implementations, even though some elements are subject to trial before completion of a final design suitable for standardization.

This specification builds on the syntax and semantics defined in ISO/IEC 1989:2002.

## 2 Normative references

The following referenced documents are indispensable for the application 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 1989:2002, *Information technology — Programming languages — COBOL*

*Extensible Markup Language (XML) 1.0 (Fourth Edition)*, W3C Recommendation, 16 August 2006

*Extensible Markup Language (XML) 1.1 (Second Edition)*, W3C Recommendation, 16 August 2006

*Namespaces in XML 1.1*, W3C Recommendation, 4 February 2004

*XML Schema Part 1: Structures*, W3C Recommendation, 28 October 2004

*XML Schema Part 2:  Datatypes*, W3C Recommendation, 28 October 2004