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**Information technology — Programming
languages, their environments
and system software interfaces —
Collection classes for programming
language COBOL**

*Technologies de l'information — Langages de programmation, leurs
environnements et interfaces du logiciel système — Classes de
collection pour le langage de programmation COBOL*

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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.

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;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

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.

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.

ISO/IEC TR 24717, 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 specifies an object-oriented class library for managing collections of object references — a collection class library.

This Technical Report extends the COBOL specification defined in ISO/IEC 1989:2002, *Information technology — Programming languages — COBOL* by providing classes to manage collections.

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

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Information technology — Programming languages, their environments and system software interfaces — Collection classes for programming language COBOL

1 Scope

This Technical Report specifies the interfaces and behavior of a common class library for managing sets of object references in COBOL. The purpose of this Technical Report is to promote a high degree of portability in implementations of the class library, 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*

3 Conformance

This Technical Report is based on ISO/IEC 1989:2002. Conformance to this Technical Report does not require a full implementation of ISO/IEC 1989:2002. The interaction of the features of this Technical Report with features that are not provided by an implementation of ISO/IEC 1989:2002 is processor dependent.

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1

collection

set of object references managed by an instance of a collection class

4.2

iterator

object that allows sequencing through all of the object references managed by an instance of a collection class

5 Description techniques

Description techniques and language fundamentals are the same as those described in ISO/IEC 1989:2002. Additionally the class diagrams in Appendix D are presented using Unified Modeling Language (UML).