

TECHNICAL REPORT

**ISO/IEC
TR
19755**

First edition
2003-12-01

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

Technologies de l'information — Langages de programmation, leurs environnements et interfaces logiciel système — Finalisation d'objet pour le langage de programmation COBOL

Reference number
ISO/IEC TR 19755:2003(E)



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO/IEC 2003

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Conformance to this Technical Report	1
4 Terms and definitions	1
5 Description techniques	1
6 Changes to ISO/IEC 1989:2002	2
6.1 Changes to 7, Compiler directing facility	2
6.2 Changes to 8, Language fundamentals	2
6.3 Changes to 9, I-O, objects, and user-defined functions	2
6.4 Changes to 10, Structured compilation group	4
6.5 Changes to 11, Identification division	4
6.6 Changes to 14, Procedure division	5
6.7 Changes to 16, Standard classes	7
Annex A (normative) Language element lists	8
Annex B (informative) Unresolved technical issues	9
Annex C (informative) Concepts	10
Bibliography	13

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 19755:2003, 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*.

This document is being issued in the Technical Report (type 2) series of publications (according to the Procedures for the technical work of ISO/IEC JTC 1) as a "prospective standard for provisional application" in the field of object finalization in COBOL because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an "International Standard". It is proposed for provisional application so that information and experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO Central Secretariat.

A review of this Technical Report (type 2) will be carried out not later than three years after its publication with the options of: extension for another three years; conversion into an International Standard; or withdrawal.

Introduction

This Technical Report specifies a feature for finalizing objects in COBOL. The feature is considered to be immature and not ready for standardization. The decision was made to publish the specification in a Type 2 Technical Report so that implementations can be undertaken on an experimental basis. The experience gained is expected to result in an improved specification that can progress to standardization.

In order to provide as much stability as possible to implementors and users, ISO/IEC JTC 1 Subcommittee 22 intends that the syntax and semantics be changed for purposes of standardization only as necessary to address issues arising in implementation or use of the feature for finalizing objects.

The purpose of object finalization is to free resources that will not otherwise be freed by the normal garbage collection process. Examples include files that are open, temporary work files, database connections, TCP/IP socket interfaces, and network connections.

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

1 Scope

This Technical Report specifies the syntax and semantics for object finalization in COBOL. The purpose of this Technical Report is to promote a high degree of portability in implementations of object finalization, 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*