

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

**Information technology — Programming languages, their
environments and system software interfaces —
Programming language COBOL**

(First Revision)

मसौदा भारतीय मानक

सूचना प्रौद्योगिकी - प्रोग्रामिंग भाषाएं, संबंधित परिवेशों और सिस्टम
सॉफ्टवेयर अंतरापृष्ठीय - प्रोग्रामिंग भाषा कोबोल

(पहला संशोधन)

ICS: 35.060

LITD 15: Data Management System

Last date for comments: 16 Aug 2023

NATIONAL FOREWORD

(Formal clauses will be added later)

This Draft Indian Standard which is identical with ISO/IEC 1989:2023 ‘Information technology — Programming languages, their environments and system software interfaces — Programming language COBOL’ issued by ISO ‘International Organization Standardization’ and IEC ‘International Electrotechnical Commission’ will be adopted by the BIS, on the recommendation

of the Data Management System Sectional Committee, LITD 15 and approval of the Electronics and Information Technology division.

This standard was originally published in 1983 and was identical to ISO/IEC 1989 :1978. The first revision of the Indian Standard has been taken up to align it with the latest version of ISO/IEC 1989:2023. This second edition constitutes a technical revision.

The main changes are as follows:

- The following were general enhancements:
- An asynchronous messaging facility using the SEND statement and RECEIVE statement
- Boolean exclusive or operators
- COBOL words may now be 63 characters long
- The PERFORM statement has been enhanced to specify a time period for pausing the program
- A DELETE FILE statement
- A nonfatal EC-I-O-WARNING exception condition to handle warnings for successful input/output statements
- EXTERNAL attributes checking between programs
- Infinite loop for the PERFORM statement using the UNTIL EXIT phrase
- Inline exception handling using the exception-checking format of the PERFORM statement
- An Enhanced INSPECT statement to inspect backwards
- Line Sequential file organization
- The SET statement has been enhanced to allow the setting of the length of a dynamic length elementary item
- Alternate key suppression on indexed files using the SUPPRESS WHEN phrase of the ALTERNATE RECORD KEY clause
- An optional Commit and rollback processing facility using the COMMIT statement and ROLLBACK statement
- Unsigned Packed-Decimal items defined by the NO SIGN phrase of the USAGE clause
- User-defined PICTURE clause editing using the EDITING phrase of the PICTURE clause
- VALUE clause enhancements and changes for numeric-edited items
- Type declarations may now be external items

The text of ISO/IEC Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appears referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current Practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for editions indicated. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendment:

International Standard	Corresponding Indian Standard	Degree of Equivalence
ISO/IEC 60646 : 1991 7 Bit coded character set for information interchange (First Revision)	IS 10315 : 1997 7 Bit coded character set for information interchange (First Revision)	Identical with (ISO/IEC 60646 : 1991)
ISO 1001:2012 Information technology - File structure and labelling of magnetic tapes for information interchange (Second Revision)	IS 11419 : 2018 Information technology - File structure and labelling of magnetic tapes for information interchange (Second Revision)	Identical with (ISO 1001:2012)
IS/ISO 8601-1 : 2019 Date and Time Representations For Information Interchange Part 1: Basic Rules	IS/ISO 8601-1 : 2019 Date and Time Representations For Information Interchange Part 1: Basic Rules	Identical with (8601-1)

The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendment

International Standards	Title
ISO/IEC 60559:2020	Information technology — Microprocessor systems — Floating-Point Arithmetic
ISO/IEC/IEEE 9945:2009	Information technology — Portable Operating System Interface (POSIX®) Base Specifications, Issue 7
ISO/IEC 10646	Information technology — Universal Coded Character Set (UCS)
ISO/IEC 14651:2020,	Information technology — International string ordering and comparison — Method for comparing character strings and description of the common template tailorable ordering

Scope of ISO/IEC 1989:2023 is as follows:

This document specifies the syntax and semantics of COBOL. Its purpose is to promote a high degree of machine independence to permit the use of COBOL on a variety of data processing systems.

This document specifies

- The form of a compilation group written in COBOL.
- The effect of compiling a compilation group.
- The effect of executing run units.
- The elements of the language for which a conforming implementation is required to supply a definition.
- The elements of the language for which meaning is explicitly undefined.
- The elements of the language that are dependent on the capabilities of the processor.

This document does not specify:

- The means whereby a compilation group written in COBOL is compiled into code executable by a processor.
- The time at which method, function, or program runtime modules are linked or bound to an activating statement, except that runtime binding occurs of necessity when the identification of the appropriate program or method is not known at compile time.
- The time at which parameterized classes and interfaces are expanded.
- The mechanism by which locales are defined and made available on a processor.
- The form or content of error, flagging, or warning messages.
- The form and content of listings produced during compilation, if any.

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- The form of documentation produced by an implementor of products conforming to this document.
- The sharing of objects and resources other than files among run units.

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO/IEC Standard. For details please refer to ISO/IEC 1989:2023 or kindly contact.

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