INTERNATIONAL STANDARD

ISO/IEC 9075-3

Fourth edition
2008-07-15

Information technology — Database languages — SQL —

Part 3: Call-Level Interface (SQL/CLI)

Technologies de l'information — Langages de base de données — SQL —

Partie 3: Interface de niveau d'appel (SQL/CLI)

Reference number
ISO/IEC 9075-3:2008(E)

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Published in Switzerland

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. 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.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 9075-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This fourth edition of ISO/IEC 9075-3 cancels and replaces the third edition (ISO/IEC 9075-3:2003), which has been technically revised. It also incorporates Technical Corrigendum ISO/IEC 9075-3:2003/Cor.1:2005.

ISO/IEC 9075 consists of the following parts, under the general title *Information technology — Database languages — SQL*:

— Part 1: Framework (SQL/Framework)

— Part 2: Foundation (SQL/Foundation)

— Part 3: Call-Level Interface (SQL/CLI)

— Part 4: Persistent Stored Modules (SQL/PSM)

— Part 9: Management of External Data (SQL/MED)

— Part 10: Object Language Bindings (SQL/OLB)

— Part 11: Information and Definition Schema (SQL/Schemata)

— Part 13: SQL Routines and Types Using the Java™ Programming Language (SQL/JRT)

— Part 14: XML-Related Specifications (SQL/XML)

Introduction

The organization of this part of ISO/IEC 9075 is as follows:

1) Clause 1, “Scope”, specifies the scope of this part of ISO/IEC 9075.

2) Clause 2, “Normative references”, identifies additional standards that, through reference in this part of ISO/IEC 9075, constitute provisions of this part of ISO/IEC 9075.

3) Clause 3, “Definitions, notations, and conventions”, defines the notations and conventions used in this part of ISO/IEC 9075.

4) Clause 4, “Concepts”, presents concepts used in the definition of the Call-Level Interface.

5) Clause 5, “Call-Level Interface specifications”, defines facilities for using SQL through a Call-Level Interface.

6) Clause 6, “SQL/CLI routines”, defines each of the routines that comprise the Call-Level Interface.

7) Clause 7, “Additional data manipulation rules”, defines additional rules for data manipulation.

8) Clause 8, “Dynamic SQL”, defines the SQL dynamic statements.

9) Clause 9, “Definition Schema”, specifies extensions to the Definition Schema required for support of the Call-Level Interface.

10) Clause 10, “Conformance”, defines the criteria for conformance to this part of ISO/IEC 9075.

11) Annex A, “SQL Conformance Summary”, is an informative Annex. It summarizes the conformance requirements of the SQL language.

12) Annex B, “Implementation-defined elements”, is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-defined.

13) Annex C, “Implementation-dependent elements”, is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-dependent.

14) Annex D, “Deprecated features”, is an informative Annex. It lists features that the responsible Technical Committee intend will not appear in a future revised version of this part of ISO/IEC 9075.

15) Annex E, “Incompatibilities with ISO/IEC 9075:2003”, is an informative Annex. It lists incompatibilities with the previous version of this part of ISO/IEC 9075.

16) Annex F, “SQL feature taxonomy”, is an informative Annex. It identifies features of the SQL language specified in this part of ISO/IEC 9075 by an identifier and a short descriptive name. This taxonomy is used to specify conformance and may be used to develop other profiles involving the SQL language.

17) Annex G, “Defect reports not addressed in this edition of this part of ISO/IEC 9075”, is an informative Annex. It describes the Defect Reports that were known at the time of publication of this part of this International Standard. Each of these problems is a problem carried forward from the previous edition of ISO/IEC 9075. No new problems have been created in the drafting of this edition of this International Standard.

18) Annex H, "Typical header files", is an informative Annex. It provides examples of typical definition files for application programs using the SQL Call-Level Interface.

19) Annex I, "Sample C programs", is an informative Annex. It provides examples of using the SQL Call-Level Interface in the C programming language.

In the text of this part of ISO/IEC 9075, Clauses begin a new odd-numbered page, and in Clause 5, "Call-Level Interface specifications", through Clause 10, "Conformance", Subclauses begin a new page. Any resulting blank space is not significant.

Information technology — Database languages — SQL —

Part 3:
Call-Level Interface (SQL/CLI)

1 Scope

This part of ISO/IEC 9075 defines the structures and procedures that may be used to execute statements of the database language SQL from within an application written in a programming language in such a way that procedures used are independent of the SQL statements to be executed.

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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.

2.1 ISO and IEC standards

[ISO1539-1] ISO/IEC 1539-1:2004, *Information technology — Programming languages — Fortran — Part 1: Base language*.

[ISO1539-2] ISO/IEC 1539-2:2000, *Information technology — Programming languages — Fortran — Part 2: Varying length character strings*.

[ISO1989] ISO 1989:2002, *Information technology — Programming languages — COBOL*.

[ISO6160] ISO 6160:1979, *Programming languages — PL/I*. (Endorsement of ANSI X3.53-1976).

[ISO7185] ISO/IEC 7185:1990, *Information technology — Programming languages — Pascal*.

[ISO8652] ISO/IEC 8652:1995, *Information technology — Programming languages — Ada*.

ISO/IEC 8652:1995/Cor.1:2001.

[ISO9075-1] ISO/IEC 9075-1:2008, *Information technology — Database languages — SQL — Part 1: Framework (SQL/Framework)*.

[ISO9075-2] ISO/IEC 9075-2:2008, *Information technology — Database languages — SQL — Part 2: Foundation (SQL/Foundation)*

[ISO9075-11] ISO/IEC 9075-11:2008, *Information technology — Database languages — SQL — Part 11: Information and Definition Schemas (SQL/Schemata)*.

[ISO9899] ISO/IEC 9899:1999, *Programming languages — C*.

ISO/IEC 9899:1999/Cor 1:2001, *Technical Corrigendum to ISO/IEC 9899:1999*.

ISO/IEC 9899:1999/Cor 2:2004, *Technical Corrigendum number 2 to ISO/IEC 9899:1999*.

[ISO10206] ISO/IEC 10206:1991, *Information technology — Programming languages — Extended Pascal*.

[ISO11756] ISO/IEC 11756:1999, *Information technology — Programming languages — M*.